WORK ITEMS FOR KMB CANDIDATE OR KMB

STAGE II: Implementation Stage of KASIBA and LISIBA Development

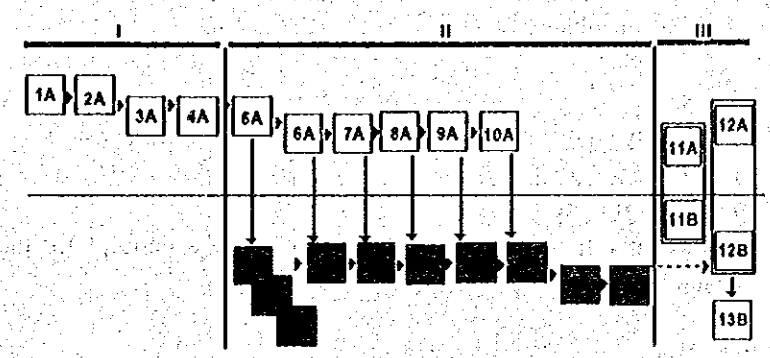
[KASIBA Development Stage]

STEP-1B : Exploration for Implementation
STEP-2B : Social/Political Acceptance and Support
STEP-3B : Environmental Consideration
STEP-4B : Formalization of Plan, Organization, Publication and Work Plan
STEP-5B : Avail of Land
STEP-6B : Primary and Secondary Infrastructure Development
STEP-7B : Formalization of the KMB and Marketing/Publicity

[LISIBA Development Stage]

STEP-8B : Tendering and Selection of LISIBA Developers
- **KMB Involvement on LISIBA**

STEP-9B : LISIBA Development Control
STEP-10B : Collection of Sales Revenues/Fees from LISIBA Developers



Flow diagram showing part of project procedure

[KASIBA Development Stage]

STEP 4B : **Exploration for Implementation**

STEP 5B : **Social Political Acceptance and Support**

STEP 6B : **Environmental Consideration**

STEP 7B : **Formalization of Plan, Organization, Publication and Work Plan**

STEP 8B : **Avail of Land**

STEP 9B : **Primary and Secondary Infrastructure Development**

STEP 10B : **Formalization of the KMB and Marketing Publicity**

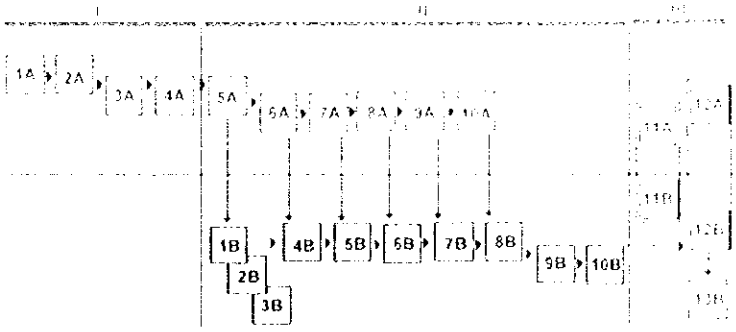
[LISIBA Development Stage]

STEP 9B : **Tendering and Selection of LISIBA Developers**

- **KMB Involvement on LISIBA**

STEP 9B : **LISIBA Development Control**

STEP 10B : **Collection of Sales Revenues/Fees from LISIBA Developers**



Flow diagram showing part of project procedure

STEP-1B: Exploration for Implementation

[How to arrange financial sources and feasibility analysis]

Exploration of Financial Sources for Promotion and Initial Implementation Costs

1B-1 Financial Preparation and Analysis

Expected Work Items

- To provide the amount of investment for land acquisition
- To have a commitment with the financial sources to finance of infrastructure development
- To hire a consultant to undertake a financial feasibility study

Targeted at:

- To mobilize funds for KASIBA development
- To have a description of the business opportunity

Required Data

- The market situation analysis of housing development
- The current market situation of interest rate, leasing markets, material costs, labor cost, and so on
- The consultants who have competency in real estate/property business
- The finance/investment sources

Task Measure

- To discuss with resource persons from the Ministry of Finance, Ministry of Public Works, Banks, REI, and foreign investors
- To hire consultants

Outputs

- Feasibility study and financial offer from the pool of investors

Supplemental Note

- At the first step, consultants have to prepare a concept for the KASIBA Spatial Plan

1B-2 Exploration of Financial Sources

<u>In the case of SOE:</u>

- Examination on the possibility for the Central Government to raise the SOE's capital to enable the implementation of KASIBA
- Identification of financial sources for the KMB
  1) Foreign soft loans on-lent by the Central Government.
  2) Bonds or commercial bank loans

In the case of LSOE:

- Examination on the possibility for the regional government to allocate sufficient capital to a new LSOE
- Identification of financial sources for the KMB
  1) Foreign soft loans on-lent by the Central Government.
  2) Commercial bank loans. The loans would have to be guaranteed by the Regional Government.
  3) Issuance of bonds by the Regional Government, which are on-lent to the SOE

Further consideration

It should be noted that when an LSOE becomes the KMB, the amount of loans guaranteed by the Regional Government should not exceed the level of the government's repayment capacity in case of default.

To be examined Law No. 25/1999 regarding the financial proportion between the Central and Local Government and cases of monetary crisis (begun in 1997)

1B-3 Exploration of Land Provision

Gaining general information on physical land characteristics, land tenure, land use, land value, land owners'/land occupants' reaction on land acquisition and estimated time on acquiring land.

Expected Work Items

Physical land characteristic data inventory:

- Location
- Boundaries on map of scale 1: 2,000~5,000
- Estimated extent of area
- Topographical condition
- Geological features

Land Tenure Condition Inventory

- Estimated amount of land parcels
- General profile of land ownership/control (by percentage): Right of ownership (Hak Milik), Right of Building (Hak Guna Bangunan), Right of Use (Hak Pakai), Right of Exploitation (Hak Guna Usaha), and Right of Traditional Ownership (Hak Milik Adat). And occupied/unoccupied state land
- Examine cadastral map which shows the extent and ownership

Land Use Condition Inventory

- General picture of existing land use on map of scale 1: 2,000~5,000
- Reconnaissance on site of the condition of the land

Land Value Estimation

- For the present and past year, how many land sales occurred:
  - -What locations
  - -What prices
- Average prices from the same zone (homogeneous locations) to have value picture of each zone
- Compare Sale Value of Tax Object (SVTO) with Average Land Price (ALP) for each zone, then determine the estimated value as follows:
  -When SVTO > ALP then SVTO should be chosen
  -When ALP > SVTO then ALP should be chosen
  The chosen one could be used as a basis for negotiation afterwards.

- Landowners' reaction
  -Estimated reaction on how land provision for KASIBA could be agreed by landowners/land occupants
  -Using stratified random sampling method through interview survey

- Estimated time on acquiring land
  -From landowners' reaction data could have estimated time duration needed in acquiring land

Example table for totalization of survey results

Land Status / Kind of Reaction	Private Land					State land	
	HM (%)	HGB (%)	HP (%)	HGU (%)	HMA (%)	Occupied (%)	Unoccupied (%)
Release							
Sale							
Exchange							
Land Consolidation							
Others							

Supplemental Considering Points

To be checked how far the effectiveness of the location merit and, how far the Local Government's commitment extends to support KASIBA development particularly in acquiring land

● STEP-2B: Social/Political Acceptance and Support

[How to get social/political acceptance and support]

Determining the degree of resident acceptance toward the project's planning/designation, problem identification and solution to gain acceptance and optimal support on the project.

Expected work items

- Assisting in conducting survey and direct approach to the community
- Identify the problems based on the survey result (reaction or objection from the residents: **Refer to STEP 1B-2)**
- Identify the problem solution (how to deal with the objections raised from the community)
- Conduct public hearing and discussion with the community

and task measure of:

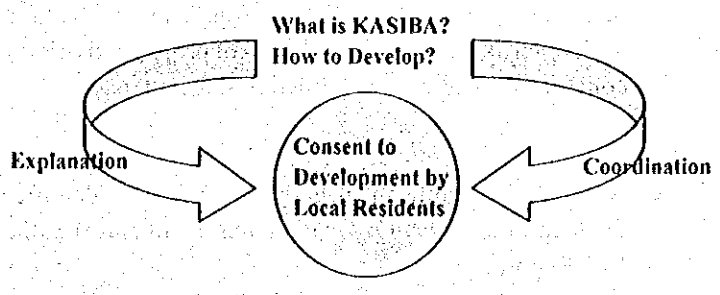
- Presentation and explanation of project planning to the community
- Conduct an opinion poll survey
- Public hearing and community discussion (group discussion with local community leaders including local residents)

Required data

- Socio-economic condition of the community (data from official statistics)
- Level of response in the form of statement, willingness, acceptance as well as commitment of the community to the project plan

Outputs

- Qualitative and quantitative information on the perceptions and attitudes of the community toward the project plan
- Strategic steps in involving local residents



Supplemental Considering Points

If necessary, the KMB Task Force can hire an NGO or a professional of public relation to coordinate with the KASIBA development in the area.

STEP-3B: Environmental Consideration

[How to mitigate environmental disasters]

The environmental Impact Assessment (EIA) is required in case of over **25 ha** in the metropolitan area, **50 ha** in large-scale cities and **100 ha** in medium and/or small-scale cities of development area for the housing and settlements.

Expected Work Items

- To understand the present condition of the environment in the project area
- To identify the particular activities of the project, which may induce a significant impact on the environment
- To predict the environmental impacts and evaluate their magnitudes

Targeted at:

- To propose countermeasures for mitigation of the envisaged negative impacts
- To formulate plans for environmental management and monitoring

Required Data

- TOR for the EIA
- Previous EIA report in the surrounding area
- Climatic/geological data and records of natural disasters

Task Measures

- The environmental elements, to be identified by the result of an initial environmental examination (IEE) conducted in the master plan (M/P) study stage and an environmental site survey carried out in the feasibility study (F/S) stage as items on which potential significant or possible negative impacts are envisaged, and to be considered for the environmental impact assessment (EIA), are shown in following table, by using an environmental examination matrix.
- The vertical axis consists of rows of environmental elements grouped in three categories: i.e. social environment and natural environment and horizontal axis consists of columns of project activities: i.e. pre-construction, construction and post-construction stage.

Output

- As a result, significant negative impacts are identified on environmental element *Resettlement/relocation and social unrest* in the project area.
- EIA Report

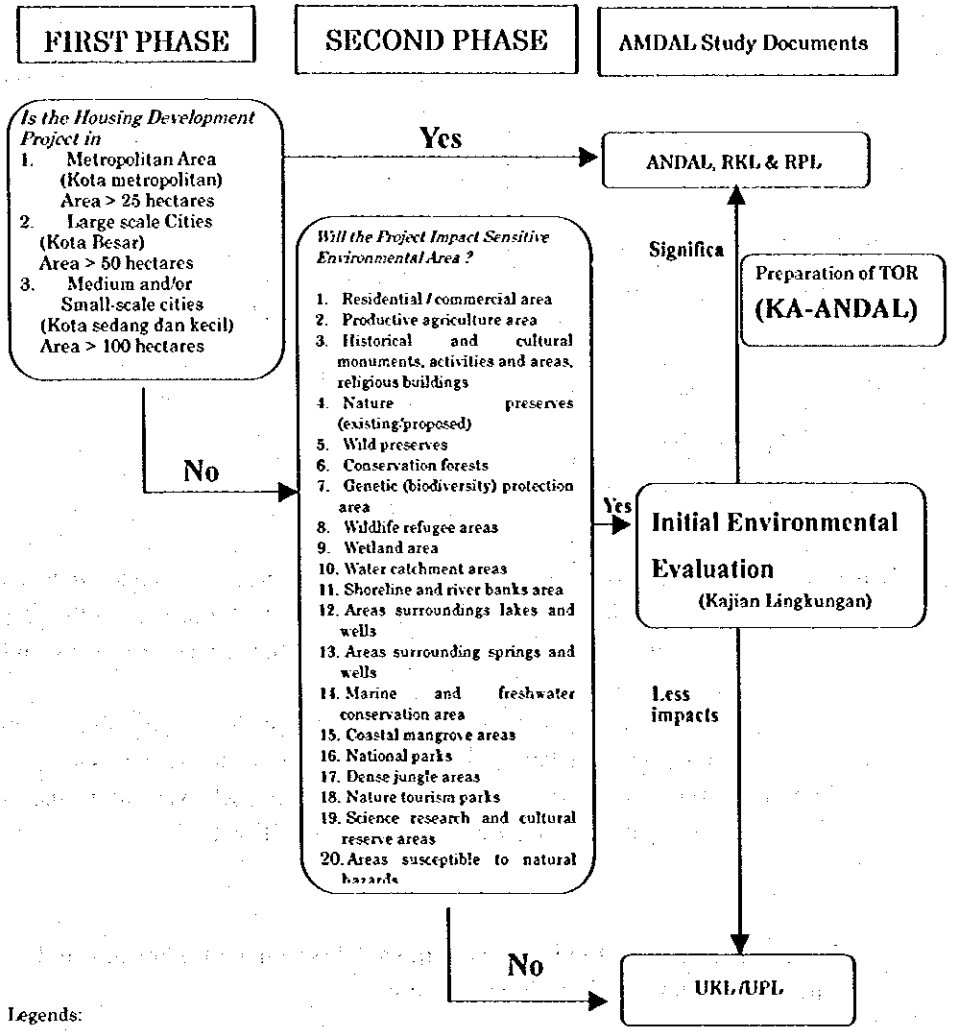
Major Facilities / Activities			Housing and Settlements Development		
Environmental Elements			Pre-construction Stage	Construction Stage	Post-construction Stage
Social Environment	1.	Resettlement/Relocation	XX		
	2.	Social unrest	X		
	3.	Traffic/Transportation			
	4.	Public Facilities	*Example*		
Natural Environment	5.	Groundwater			
	6.	Hydrological Situation			
	7.	Flood (Hazard)			
	8.	Waste water			
	9.	Solid waste			

Remarks : xx : The environmental elements to which special attention has to be paid. They might cause serious negative impacts that may affect the project formulation depending on magnitude of the impacts and the possibility of the measures.

x : The environmental elements, which may have a possible negative impact depending on the scale of the project and site conditions.

No mark : The environmental items requiring no impact assessment since the anticipated impacts are in general, not significant.

Screening process of Environmental Impact Assessment for housing and settlement is showing in following figure.



Legends:

KA = Terms of Reference

ANDAL : Environmental Impact Statement

AMDAL Environmental Impact Analysis

RKL/UKL : Environmental Management Plan

RPL/UPL : Environmental Monitoring Plan

Source Analysis from:

- State Minister of Environment Decree No.KEP-30/MENLH/8/1996
- State Minister of Environment Decree No.KEP-11/MENLH/3/1991
- State Minister of Environment Decree No.KEP-12/MENLH/3/1991

AMDAL Screening Process for Housing/Settlements Development Project

● STEP-4B: Formalization of Plan, Organization, Publication, and Work Plan

[How to formalize KASIBA plan, organization, publication and work plan]

Expected Work Items

- To formalize an organization and work plan

Targeted at:

- To Mobilize personnel and funds

Required Data

- Approved of agreement with the investor regarding medium/long-term loan for KASIBA
- Personnel stock (from recruiting)

Task Measures

- To prepare a concept of organization
- To apply to Local Government for formalization

After having formalization from Local Government,

- To make publicity and work plan

Work Plan

- Formalization of organization
- Publicity

Supplemental Note

Herewith given an example of application form, organization structure and work plan for SOE or LSOE (see following page)

Example of Articles of the KMB Organization

The documents required by the government for declaration of KMB (=SOE).

APPLICATION FORM
FOR THE KMB ORGANIZATION
(Example)

1. General Description (Definition of terminology and glossary)
2. Company Profile
   - The name
   - The address
   - Type of company
   - The data of establishment
3. Company Article
   - General
   - Goals and objectives
   - The kind of business
   - Capital structure
   - The directors board
   - Programming and budgeting
   - Accounting system
   - Monitoring system
   - Employment system
   - Responsible and right of civilization
   - Reporting
   - Profit utilization
   - Liquidation
4. Additional Considerations Regarding to the Government Regulations
5. Closing

Legal Bases

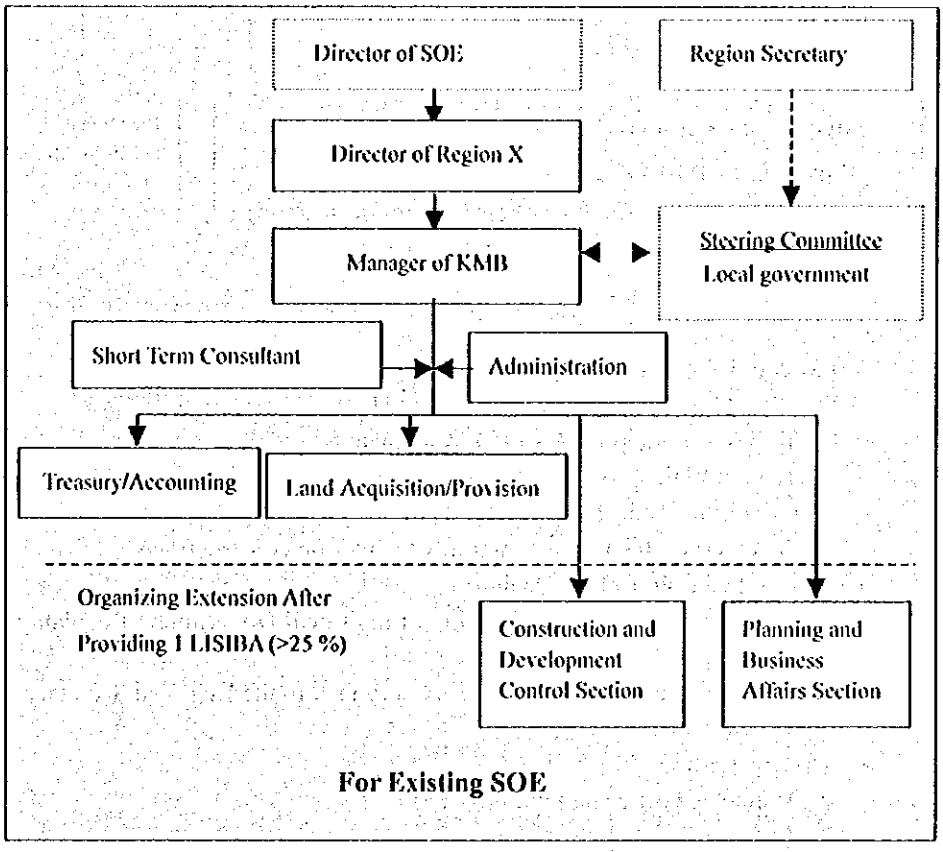
For Existing SOE;

- Government Regulation on KASIBA development
- Government Regulation on Government's capital (additional capital)
- Head of Region Decree on appointment to manage KASIBA in XXX

For New LSOE;

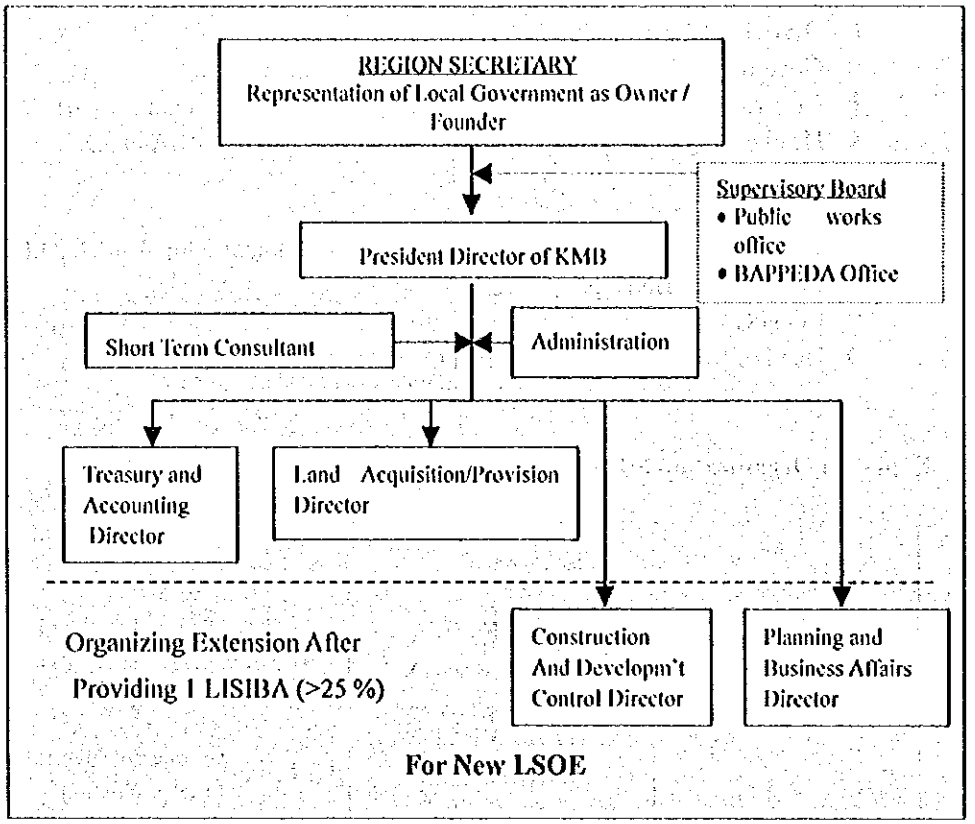
- Local Government Regulation on Local Government capital for KASIBA Management Body
- Local Government Regulation regarding KASIBA Management Body
- Head of Region Decree on appointment to manage KASIBA in XXX

Expected Organization Structure



For Existing SOE

STAGE-II IMPLEMENTATION STAGE



Expected Work Items by,

Steering Committee/Supervisory Board

- To monitor the progress of Development
- To control the progress of Development related with the Urban Plan (Spatial Urban Plan / Master Plan / RTRWK)
- To supervise the implementation of tender on construction works (including Detailed Engineering Design)
- To supervise the implementation of the Local Government Regulation and the Head of Region Decree
- To report the committee or supervisory task to the Regional Secretary

Administration

- To manage office and maintenance
- To recruit staff and personnel affairs
- Human resources development
- To contact with other agencies concerned

Short Term Consultant

- To have special jobs base on the Contract
- To give advice to the Manager/Director and its staffs according to development process

- To report regarding the consultant task to the Manager/President Director

Treasury and Accounting Section / Director

- Responsible to accounting (Balance Sheet, Profit and Loss and Cash Flow)
- Monthly cash flow projection
- Preparation of documentation for borrowing and reporting to creditors (bank)
- Reporting and suggestions to the Manager/President Director
- Treasury

Land Acquisition & Provision Section / Director

- Responsible to acquire land (including Land Consolidation)
- To set up Land Information System
- To manage Land Title
- To make solution on Land Dispute
- As acting of Manager/President Director (in case absent).

Construction & Development Control Section / Director

- To conduct the Construction Bidding/Tender
- To manage the construction works (conducted by contractor)
- To manage other administration of construction works (including some permits)
- To control LISIBA development

Planning & Business Affairs Section / Director

- To prepare a Spatial Technical Plan for LISIBA and development program
- To prepare a business plan
- To conduct marketing research and transactions based thereon
- To make and maintain a contract with other parties (marketing Agency, LISIBA Developers, Banks)

Work Plan

Month / Activities	1	2	3	4	...	...	....	Note
1. Planning & Designing								
2. Land Acquisition								
3. Construction			*Example*					
4. Marketing								
5. Monitoring & Controlling								

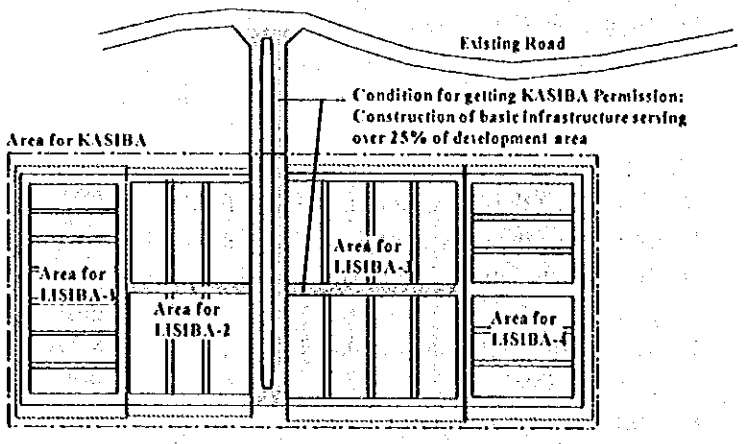
STEP-5B: Avail of Land

[How to prepare the project land for "ready to build"]

5B-1 Offer Available of Land

Generally, the available of land should be satisfied following items;

- Conformity with the District Detail Development Plan
- To prepare primary / secondary infrastructure network serving **at least 25% of development area**



KASIBA Permission System

And matter of particular importance;

- To consider the availability of utility services especially water supply
- The area is not proper for being settled as a slam
- Utilization of land that is directory controlled by the state
- Land consolidation (L/C) by land owners
- Relinquishment of right on land by land owners that is carried out in accordance with the law regulations that are in force

5B-2 Land Provision

There is four ways to acquire the land;

- Direct : Proactive and passive
- Indirect : Through mediator
- Land Exchange
- Land consolidation (* Refer to the "Manual of Land Consolidation")

Direct

Proactive :

Retail System:

- Door to door
- Collective

Whole System:

- Giving a premium price base on the number of extent

Passive (Special opportunities):

- Haj Session / Ramadhan Session
- Special Party
- New Education Year
- Waiting game

Indirect

- Make a contract with the mediator (Price, target and sanction)

Land Exchange

- Specially for the farmers (Giving more extent than before)

Land Consolidation

- Refer to "Manual of Land Consolidation"

Necessity Data and Sources

- The data of land price and land status
- The fund for land acquisition

Task Measures

- Check the legalization of land
- Negotiation process
- Transaction : 3 steps - 1. Direct contact----Pro-active way
  Passive way
  3. Indirect contact---Through mediator
  4. Exchange

Outputs

- Certificate of Land
- Survey map of development site
- Purchasing evidence or release of land status

6B-3 Land purchase/consent to release land in advance

Land acquisition by sale or exchange shall be made pursuant to the prevailing legislation

Proper compensation shall be provided for:

- Land right
- Building and/or other objectives relating to the land validity erected or available at the relevant land

Consent to land provision by proper compensation may be in terms of:

- Money
- Substituted land
- Resettlement
- Combination of two or more proper compensation method as referred above
- Others as approved by the relevant parties

• STEP-6B: Primary and Secondary Infrastructure Development

[How to develop primary and secondary infrastructure]

"Condition for getting KASIBA permission is already constructed, the basic infrastructure serving at least 25% of development area "

Expected Work Items

- To prepare Detailed Engineering Design (DED) of Infrastructure
- To appraise a construction cost
- To prepare documents of tender
- To carry out a tender for construction projects
- The availability of fund
- To control the progress of construction

Targeted at:

- To develop LISIBA
- To estimate LISIBA development cost

Required Data and Resources

- Acquired land
- DED and Cost Estimation
- Tender Document
- Proposals from construction company
- Supervisory consultants
- Funds

Task Measures

- Land-clearing
- Staking-out
- Tendering and selection
- Contract between KMB and construction company
- Hire consultants to supervise and control
- Construction works and control by Local Government
- Decision of selling price
- Marketing analysis

Output

- LISIBA real estate
- LISIBA market price

Supplemental Notes

These activities are mostly conducted by the second parties (Contractor, Consultants)

• STEP-7B: Formalization of the KMB and Marketing/Publicity

[How to formalize the KMB and how to execute marketing/publicity]

Expected Work Items

- To report to the Local Government regarding the progress of KASIBA development, which has achieved 1 LISIBA (up to 25% of the development area)
- To apply for the KMB's formalization through the stipulated Local Government Regulations on the KMB's appointment
- To prepare a marketing strategy
- To prepare marketing tools as:
  - Mock-up (miniature model in the show case)
  - Artist impression (sweet sales talk by celebrated person)
  - Audio visual (animation video)
  - Brochure/Sales pamphlet
- Publicity (news paper, property/real estate magazine)
- To hire the consultant

Targeted at:

- To start business
- To start the next stage (for KASIBA Cycle-2)

Required information

- The report of KASIBA progress
- The market analysis

Task measures

- To report the KASIBA progress (1 LISIBA) to the Head of Region and apply Local Government Regulation on the KMB
- To hire consultants to prepare the marketing strategy
- To order the artists to make promotion tools

If above 3 items have worked out,

- To order the journalists (correspondents) to publish the KASIBA project
- To invite developers and offer the LISIBA

Outputs

- Local Government regulation on the KMB
- The marketing strategy and its programs
- Start sales promotion

Supplemental note

If the KMB doesn't have the capacity to carry out marketing development, it is possible to make a contract with a marketing company (ERA, Century 21, Ray White, Procon-Wood Long, etc.)

• STEP-8B: Tendering and Selection of LISIBA Developers

[How to select LISIBA developers]

Expected Work Items

- To announce to developers regarding the LISIBA Development (only one LISIBA at the 1 (one) Project cycle)
- To offer some schemes of Business relations
- To evaluate the offering of developers
- Administration works on formalizing LISIBA Developers

Targeted at:

- To select the appropriate LISIBA developers

Required Data and Resources

- LISIBA land
- Documentation of land and its plan
- Cost structure (Development cost, which was spent)
- Legal Officer (hired)

Task Measures

- After announcing the tender, the KMB will register the interested developers
- To invite the interested developers
- Negotiation between the KMB and the interested developers

respectively and make a memorandum of understanding between the KMB and the interested developers in pursuant with the negotiations

- Evaluation of the memorandum of understanding
- To invite the interested developers to come together, for listening transparency of the evaluation and the winner decision
- If there is no objection, the KMB reports to the Head of Region to rapidly formalize the LISIBA Developers

Outputs

- Scheme of Business Relations
- To report to Head of Region
- Head of Region Decree

Schemes of Business Relation (view point of the KMB)

Business Relations	Main Criteria	Note for Developers
1. Transaction (cash and carry)	High price (High profit for KMB)	Perhaps developers do not have enough money to pay
2. Joint Venture (establish a new company)	Land as the capital is appraised higher price	Developers must share in cash
3. Joint Operation (Joint Management)	Cost of land is appraised higher value	Developer should transparence in management (do not mark up of the cost)
4. Leasing	Good plan which is increasing land leasing value	Developers are only developing infrastructure and housing

KMB INVOLVEMENT ON LISIBA

● STEP-9B: LISIBA Development Control

[How to control/supervise the LISIBA development implementation]

Expected Work Items

- To control LISIBA's development stages
- To make a report

Targeted at:

- To supervise and control the development stage pursuant with KASIBA Detailed Spatial Plan

Required Data

- The KASIBA Detailed Spatial Plan and its changes if any, and the Detail Spatial Plan should contain:
  - Land use
  - Category and number of housing units in designated locations (Guided building density and floor area ratio)
  - Road network (Regional arterial road, arterial road except local road in the residential area)
  - Major utility service network
  - Environment standards
- Field inspection

Task Measures

- Official inspection for the development process and progress together with the local government
- Consultation to the developer
- Recommendation

Outputs

- A report regarding the progress and problems that are being faced by developers

Supplemental Note

The control should be conducted routine every 2 months

● STEP-10B: Collection of Sales Revenue / Fees from LISIBA Developers

[How collect sales revenues/fees from LISIBA developers]

Expected Work Items

- To determine LISIBA prices
  - The KMB negotiates with LISIBA developers on LISIBA prices and other terms. The financial analysis conducted in **Step 1B-1** provides the basis for negotiations. The results of the negotiations will be reflected in the contract.
  - Depending on the KMB's financial structure, the KMB could accept payments by installments, or award leasing contracts with LISIBA developers.
- To determine the infrastructure operation and maintenance (O/M) fees, which are to be levied on LISIBA developers until the transfer of the infrastructure to the Local Government.
- To award purchasing / leasing contracts including O/M fee collection with LISIBA Developers.
- To receive LISIBA purchase payment and collect O/M fees from LISIBA developers.

- Results of the financial analysis conducted in **Step 1B-1**
  - Contracts on LISIBA purchase and O/M fees.
  - Revenues from LISIBA sale and O/M fee collection.

Further consideration:

In order to encourage the participation of private developers in LISIBA management, the regional government could facilitate long-term financing by 1) lending money to developers by issuing bonds or 2) guaranteeing the borrowing of developers.

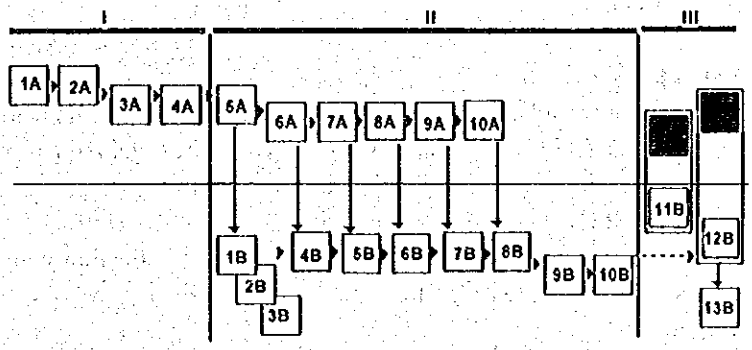
Supplemental Note

Some activities of LISIBA, which can be done jointly with relevant agencies such as: marketing, solid waste management, water supply, telecommunication, etc.

WORK ITEMS FOR LOCAL GOVERNMENT

STAGE-III : Termination Stage

STEP-11A : Assistance to Community Development
STEP-12A : Infrastructure Transfer from the KMB

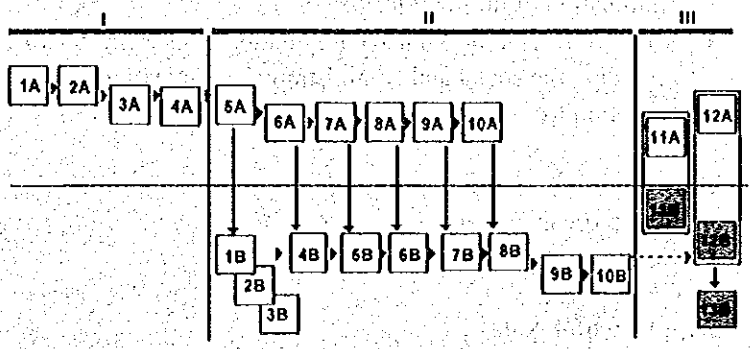


Flow diagram showing part of project procedure

WORK ITEMS FOR THE KMB

STAGE-III : Termination Stage

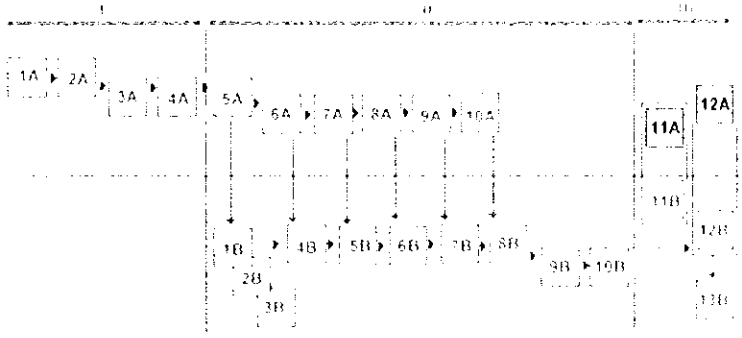
STEP-11B : Assistance to Community Development
STEP-12B : Infrastructure Transfer to the Local Government
STEP-13B : Auditing and Continuation/Expansion or Dissolution Works of the KMB



Flow diagram showing part of project procedure

WORK III MOFPUK LOCAL GOVERNMENT

STEP 11A : Assistance to Community Development
STEP 12A : Infrastructure Transfer from the KMB

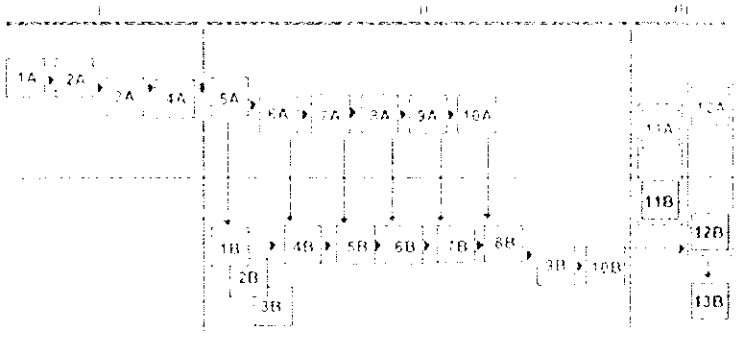


Flow diagram showing part of project procedure

WORK III MOFPUK FOR THE KMB

STAGE III: Continuation Expansion or Dissolution

STEP 11B : Assistance to Community Development
STEP 12B : Infrastructure Transfer to the Local Government
STEP 13B : Auditing and Continuation Expansion or Dissolution Works of the KMB



Flow diagram showing part of project procedure

WORK ITEMS FOR THE LOCAL GOVERNMENT

● STEP-11A: Assistance to Community Development

[How to assist community development]

This work item was started after some LISIBAs have been being settled with a significant number of inhabitants (at least one local community unit = RW / with several RT).

Expected Work Items

- To organize inhabitants consisting of neighborhood units named "Rukun Tetangga (RT)" and "Rukun Warga (RW)". The organizing process should involved/integrated local residents
- To assist local community's activities
- To develop an access road, which is connected to the new community and its surrounding existing areas

Targeted at:

- To create an harmonized residential environment based on heterogeneity
- To avoid social conflicts related to different cultures and situations
- To involve the local people in the development process

Task Measures

- To have a perspective of the population trend and its distribution in the KASIBA area including surrounding areas
- To make a plan and programs for community development and separate budget to assist community activities
- To organize local residents through guidance

Required data

- Population data: Present number, Distribution and Structure (age, education, religion, ethnic, etc.)
- Nomination of informal leader
- Minister Decree or Minister Regulation from Minister of Home Affairs regarding the social and administrative organization
- Direction from District (Kecamatan) Official

Outputs

- Set-up organization
- Community activity plan

Supplemental Note

- This task is managed under the planning and construction section/director of the KMB
- Every activity possibly should be assisted by government officials

- If possible, invite "Community development consultants" to assist in these activities

STEP-12A: Infrastructure Transfer from the KMB

[How to transfer the infrastructure from the KMB]

Expected Work Items
- To evaluate the assets to be transferred
- To ask the KMB to upgrade the infrastructures (assets) before transferring them
- To prepare Local Government Regulations on additional local government assets
- To prepare an additional budget (expenditures) of maintenance cost for the next fiscal year

Targeted at:
- Conducting of autonomy

Required Data
- An application letter from the KMB
- The description of infrastructures (Table of menu, Specification, Design criteria, Observation photos, Drawings of detailed engineering design, Maintenance records, etc.)

Task Measures
- To evaluate the KASIBA development progress
- If the LISIBAs in KASIBA have been sold out and the area is of a social living type and growing to be a new settlement, the Local Government should ask the KMB to prepare for the transferring of infrastructure to the Local Government.
- After receiving the documents regarding infrastructures, the local government evaluates its condition in the project site. If any damaged or bad condition, the Local Government asks the KMB to upgrade it.
- For a while, the local government prepares a Draft of Government Regulations on the registration of new assets and approved by the Regional House of Representative (RHOR)
- If the KMB has upgraded the infrastructure, the transferring event can be conducted between two parties.

Supplemental Notes
- The infrastructures transfer from the KMB are only the primary and secondary network, and public facilities in KASIBA
- If the infrastructures transfer from LISIBA developers will be conducted by developers respectively from Local Government, which separated from KMB system

WORK ITEMS FOR THE KMB

STEP-11A: Assistance to Community Development

[How to assist community development]

Most of activities are similar to Step-11A and work together with Local Government.

Expected Work Items

- To organize inhabitants consisting of neighborhood units as named "Rukun Tetangga (RT)" and "Rukun Warga (RW)". The organizing process should involved/integrate local residents.
- To assist local community's activities

Targeted at:

- To create an harmonized residential environment based on heterogeneity
- To avoid social conflicts related to different cultures and situations
- To involve the local people in the development process

Task Measures

- To have a perspective of the population trend and its distribution in the KASIBA area
- To organize local residents through guidance

Required data

- Population data: present number, distribution and structure (age, education, religion, ethnic, etc.)
- Nomination of informal leaders
- Minister Decree or Minister Regulation from Minister of Home Affairs regarding social and administrative organization
- Direction from District (Kecamatan) Officials

Outputs

- Set-up an organization (assistance of Local Government)
- Community activity plan (assistance of Local Government)

Supplemental Note

- This task is managed under the planning and construction section/director of the KMB
- Every activity if possible should be assisted by government officials
- If possible, invite "Community development consultants" to assist these activities

● STEP-12B: Infrastructure Transfer to the Local Government

[How to transfer the infrastructure to the Local Government]

Most of activities are similar to **Step-12A** but with opposite standpoints.

Expected Work Items

- To prepare the documents for infrastructures to be transferred
- To maintain and repair the whole infrastructures to be transferred

Required Information

- Previous condition of the existing infrastructure surrounded by the project area
- Attitude and circumstance of the Local Government to receiving infrastructure from the KMB

Task Measures

- To inspect the infrastructures on site
- And evaluate physical conditions (the conditions should be satisfactory at the municipal level)

Outputs

- An application letter to the Local Government
- Constructed primary, secondary infrastructures and public facilities
- Documents : List of infrastructure, Specifications, Design criteria, observation photos, Drawings of detail engineering design, maintenance records, etc.

Supplemental Note

- The infrastructures from LISIBA developers may be transferred to the Local government, which is separated from the KMB transferring system

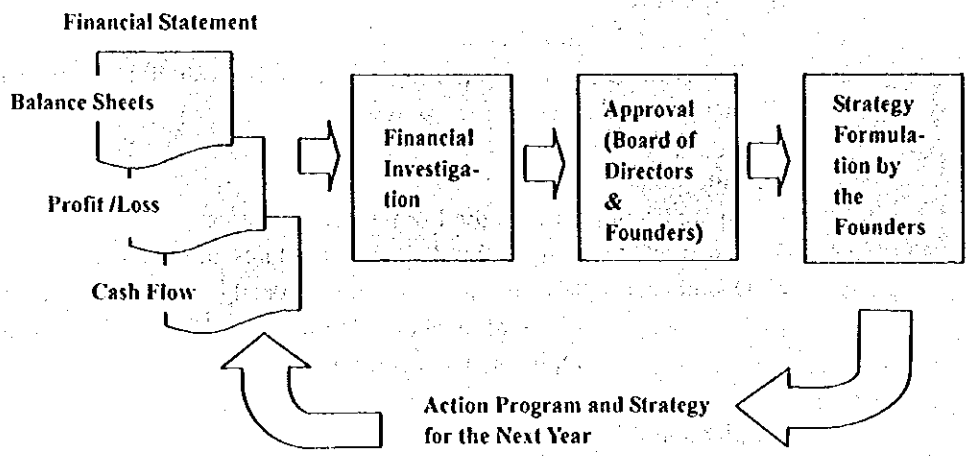
● STEP-13B: Auditing and Continuation/Expansion or Dissolution Works of the KMB

[How to audit and dissolve the KMB]

The KMB's financial report must be audited after each fiscal year, and the KMB should be dissolved when its mission is completed.

13B-1 Auditing of the KMB of KMB

- To produce and audit of the KMB's financial report occurs every year
  - The financial reports must be audited in accordance with the rules applied in the SOE or LSOE to which the KMB belongs
  - The audited reports must be presented to and approved by the KMB (SOE or LSOE) founders



13B-2 Continuation/Expansion or Dissolution of the KMB

- The decision for the continuation/expansion or dissolution of the KMB is based on the financial performance, which shall be audited above. If the performance is good and there are no objections for continuing business, then the KMB should continue/expand its function/action supported by the Local Government (required new or strengthening of Local Government Regulation on the KMB).
  If the performance is bad, the dissolution work will be done.

- To make the decision of dissolving, or closing the accounts of the KMB:
  - The KMB's organization and functions must be downsized in accordance with the progress of the LISIBA implementation.
  - When the KMB's roles are deemed insignificant, the decision to dissolve, or close the accounts of the KMB must be taken by the President Director of SOE (for SOE) or Region Secretary (for LSOE) based on the recommendation of the Steering Committee (for SOE) or Supervisory Board (for LSOE).
- To transfer the residual assets and liabilities to the SOE or the LSOE to which the KMB belongs:
  - The KMB's residual assets and liabilities will be taken over by the SOE or the LSOE to which the KMB belongs.

Back-up Data of Manual

<Following Stage / Step Number is showing reference number in Manual>

[Stage-I / Step 4A]

Candidate of KMB

Alternative I : Establishment of New LSOE as KMB

Expected Work Items

- To mobilize a pioneer team to be KMB (Local Government Regulation)

afterward,

- To compile local entity,
- To propose capital to the Head of Region

targeted to,

- To boost the project implementation

and task measure of,

- To issue 2 local government regulations and 1 Decree of Heads of Region such as;

- Regulation 1: for approval from Representative of Regional House of Representative regarding the establishment of the KMB and capital separated from local budget
- Regulation 2: for the establishment of new LSOE
- Decree: for formalize/legalize the KASIBA development in XXX (location)

Necessity Inputs

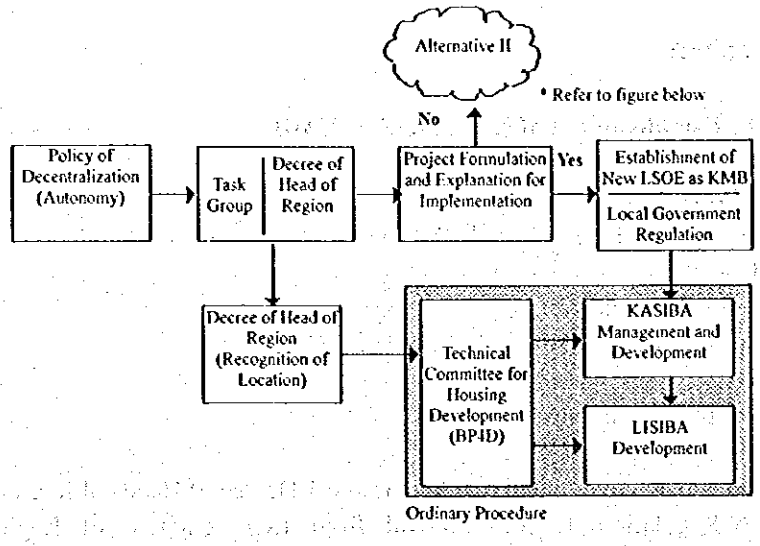
- The draft or concept of the Local Government Regulation (KMB and capital) and Decree of the Head of Region
- Exploration for implementation (has been carried out by the previous task force)

Outputs

- Local Government Regulation on capital separation from local budget
- Local Government Regulation on KMB
- Decree of the Head of Region on KASIBA development in XXXX (location) and the KMB
- Budget allocation separated from local budget (According to Local Government Regulation on separation of local budget for the capital)

Staff Allocation

- The KMB's key person is: President Director, Financial Director, Land Provision Director, Planning and Construction Director and Business Affairs Director



Alternative I : Establishment of New LSOE as KMB

Alternative II : Appointment of SOE/LSOE as KMB (Assumed Perum Perumnas)

Expected Work Items

- Apply to Ministry of Finance regarding Government Regulations for the Appointment of the KMB
- To mobilize personnel, capital and logistics on the project site
- To develop an accounting system between the central office (SOE) and the KMB

targeted to:

- To set up the organization of the KMB
- To up date the work plan
- To start working on KASIBA

Task measures

- Confirmation of the winner from the Local Government (Head of Region Decree)
- Financial proposal
- Government Regulation regarding appointment of the KMB

if above items have been approved:

- To recruit personnel
- To mobilize capital, personnel and logistics
- To up date work plan
- To discuss with Local Government regarding preparation
- To develop a relation between the Local Government and KMB (SOE)

Necessity Inputs

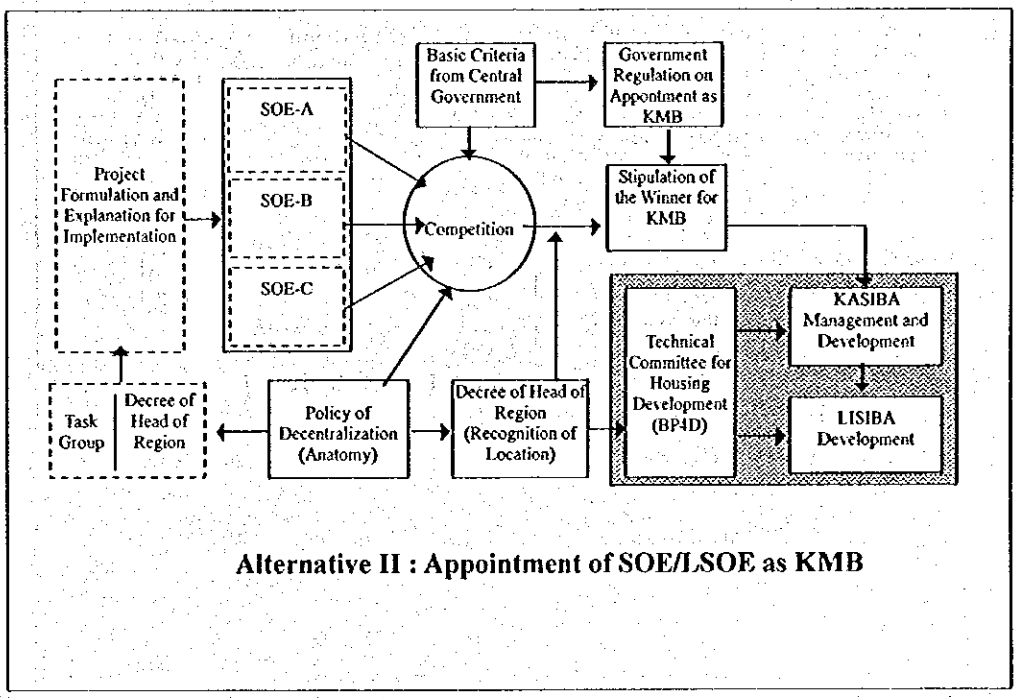
- Pre-financial feasibility study from local government (task force)
- Decree of the Head of Region on evaluation of candidate of the KMB (as competition)
- Government regulation on the appointment of the KMB

Outputs

- Promotion/appointment letter from the president director of Perumnas
- Project fund/capital allocation (separated from the profit) as working capital

Supplemental Note

This step is made after getting a confirmation from local government for the winner of competition

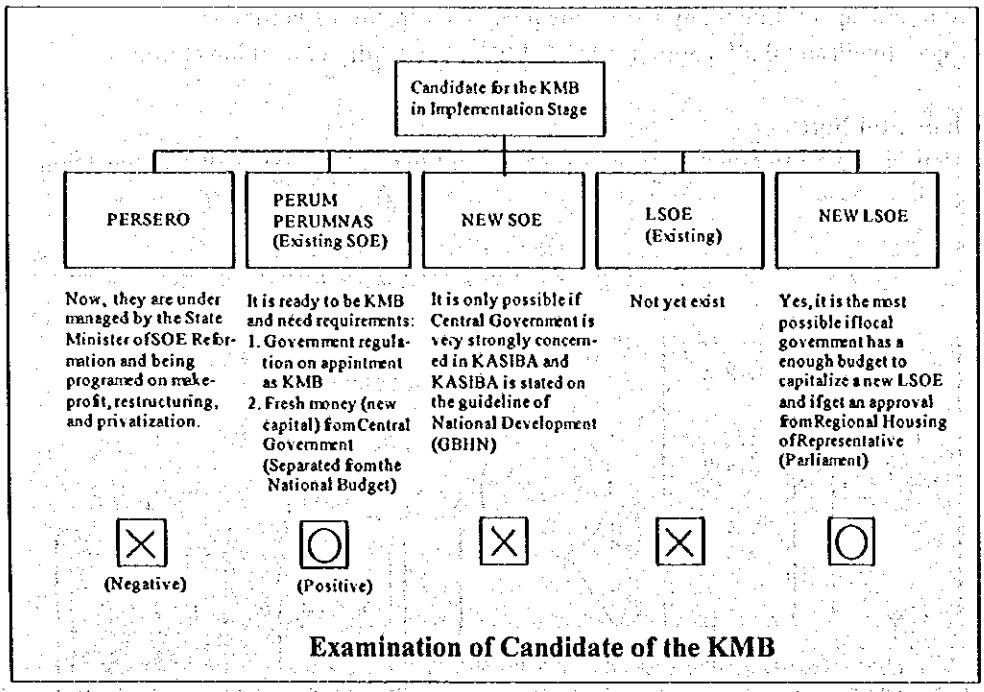


Alternative II : Appointment of SOE/LSOE as KMB

Examination of Candidate of the KMB

Law No. 4 of 1992 on KASIBA stipulates that the KASIBA Management Body is the State Owned Enterprise-SOE (Badan Usaha Milik Negara) or the Local State Owned Enterprise-LSOE (Badan Usaha Milik Daerah).

Candidate of KMB organization are examined below;



Examination of Candidate of the KMB

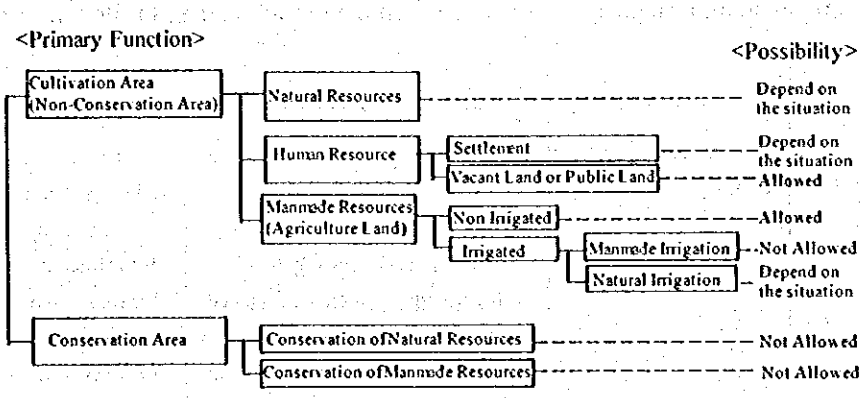
Comparison Measures between Existing SOE (assumed Perum Perumnas) and New LSOE on Implementation Stage

The comparison measure between the existing SOE (e.g. Perum Perumnas) and the New LSOE on the implementation stage by the Local Government is summarized following Table.

No.	Subject	SOE (e.g. Perum Perumnas)	New Local SOE
1	Assistance / Support to KMB	To support or make easier (Deregulate) the Administration works To support or subsidy main infrastructures which are financed by Central Government (through the Special Allocation mechanism, see Act. No. 22/1999 and Act No. 25/1999	To reduce the administration cost To subsidy main Infrastructures which are financed by Central Government or by Local Government itself
2	Land title/Registration of LISIBA	It will be conducted by the Local Land Agency (BPN local) and coordinated with the National Land Agency (BPN) To be a facilitator on Land Consolidation Land Information	- same as left- - same as left- - same as left-
3	Control /Supervision on KASIBA Development Implementation	To set up the Steering Committee	Through the Supervisory Board of LSOE
4	Progress report to Minister	KMB submits to Local Government and then Local Government Reports to Minister (Base on Act. No. 22 1999, Minister initiate to call Bupati/Mayor to report it. The travelling cost should be financed by Minister	-same as left-

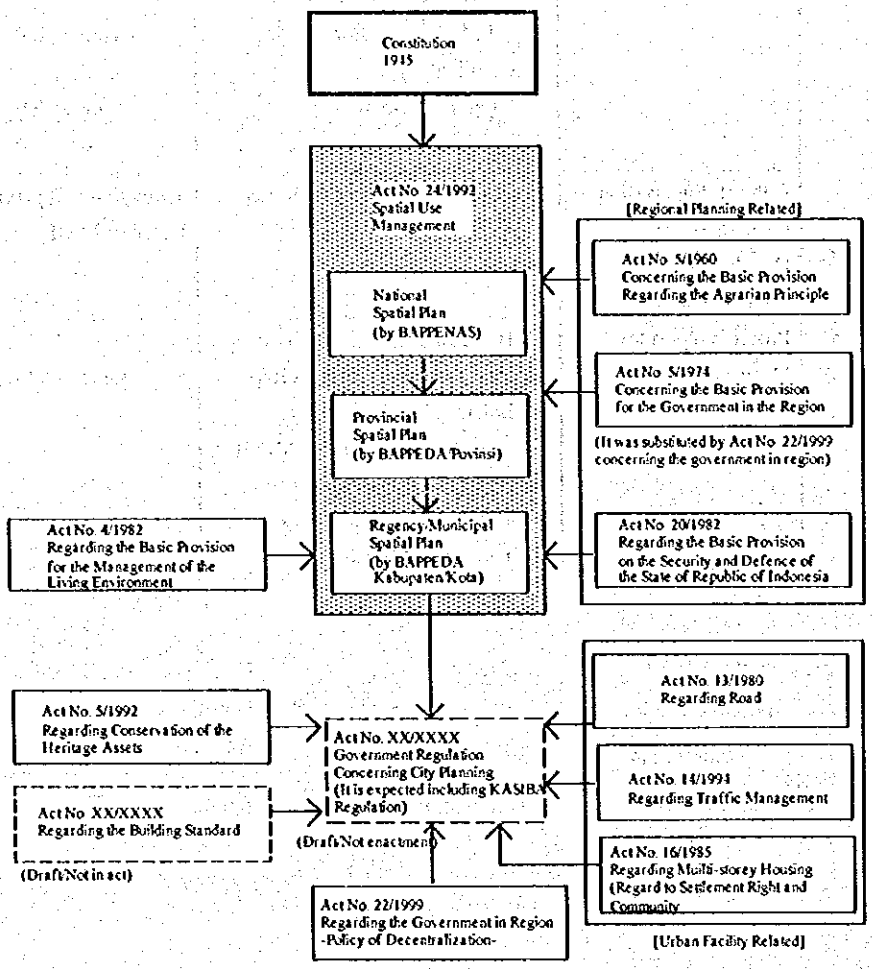
[Stage-II / Step-1B-2]

- Available Land for the KASIBA Development : Based on Spatial Plan



[Stage-II / Step-4B]

- City Planning Laws and Related Legislation



[Stage II / Step-1B]

Formulation of Housing Demand

The housing demand has three aspects. One is the demand for necessity of securing space of living of individual household, and the others are desire for better physical and social environment and building for living speculation.

The factors are also classified into inner ones mainly by residents themselves and outer ones like economic conditions and financial systems.

Factors for Housing Demand

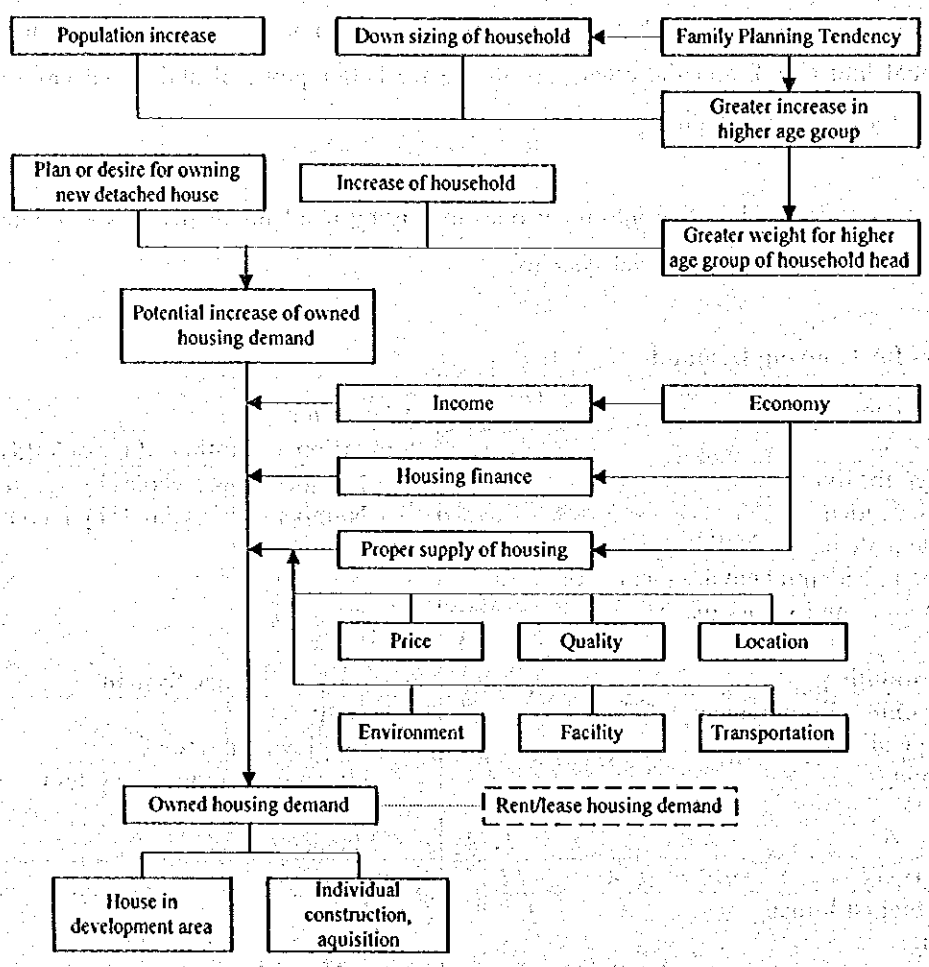
Inner factor	Outer factor
Needs	**Population – Number of households**
- Space for living Independence Adequate house for life style Good residential environment Commuting to work place	- Number of households by age group - Number of households by income group
Affordability	**Economy – Finance System**
Income – Employment Expenditure Savings	- GDP - Employment rate - **Housing finance system, resource** Interest rate Finance period
Preference	**Supply of housing**
Detached house Safety Convenience – Location, Facility Comfort – environment Boom, Speculation	- **Pricing** - Housing development - Infrastructure development

Source: Study Team

Flow of Housing Demand

The flow of owned housing demand from the increase number of households, preference of owning detached houses and other factors is showed in the figure below. The potential demand exists by the increase in households, preference of owning detached houses, however, the implementation or actual demand depends on the affordability and chances to find desired houses, which comes from economic conditions, housing loans and supply of proper housing, etc.

Detail information on the housing demand to be referred in the "Housing Demand Forecast in Main Report".



Flow of Owned Housing Demand

Source: Study Team

[Stage-II / Step-3B]

Environmental Legislation

The objectives of the environmental impact assessment (EIA/AMDAL), stated in Government Regulation No. 27 of 1999, are as follows:

- to understand the present condition of the environment in the project area
- to identify the particular activities of the projects, which may induce significant impact on the environment
- to predict the environmental impacts and evaluate their magnitudes
- to propose countermeasures for mitigation of the envisaged negative impacts
- to formulate plans for environmental management and monitoring

For a project which requires the full scaled AMDAL, in accordance with the Indonesian Guidelines summarized in the following Figure, a terms of reference of the environmental impact statement (KA-ANDAL) is prepared and submitted for approval as a first step of the AMDAL study. The output of the AMDAL includes an environmental impact statement (ANDAL: analisis dampak linkungan), environmental management plan (RKL) and environmental monitoring plan (RPL). On the other hand, regarding a project for which ANDAL, RKL and RPL are not necessary, some effort for environmental management (UKL) and environmental monitoring (UPL) may still be required in accordance with the project contents and its scale.

Environmental Regulations Related to the Housing Development

Number	Content/Description
(1) Government Act	
No. 5 of 1960	Principles for the Agrarian
No. 5 of 1990	Principles for the Conservation of Ecosystem and Natural Resources
No. 4 of 1992	Housing and Settlement
No. 14 of 1992	Traffic and Transportation
No. 24 of 1992	Spatial Arrangement
No. 23 of 1997	Principles for the Management of Living Environment (amendment of No.4 of 1982)
(2) Government Regulation	
No. 12 of 1988	Perum Perumnas
No. 20 of 1990	Water Pollution Control
No. 27 of 1999	Environment Impact Analysis (AMDAL)
(3) Presidential Decree	
No. 32 of 1990	Conservation Area Management
No. 55 of 1993	Acquisition of Land for Development in the Public Interest
No. 34 of 1994	Institution of Policy and National Housing and Settlement Development Control

(4) State Minister of Environment Decree	
No. KEP-49/MENKLH/1/1987	Guidelines for the Determination of Significant Quality
No. KEP-50/MENKLH/1/1987	Guidelines for the Analysis of Environmental Impacts of Proposed Projects
No. KEP-02/MENKLH/1/1988	Manual on Determining Standard Environmental Quality
No. KEP-12/MENLH/3/1994	General Guidelines on UKL and UPL
No. KEP-14/MENLH/3/1994	General Guidelines on AMDAL
No. KEP-57/MENLH/12/1995	AMDAL for Integrated or Multi-sector Activities
No. KEP-14/MENLH/8/1996	AMDAL Screening
No. KEP-39/MENLH/8/1996	Types of Businesses or Activities Required for AMDAL
No. KEP-55/MENLH/11/1996	Regional AMDAL
No. KEP-299/MENLH/11/1996	Technical Guidelines on Social Aspect Assessment of AMDAL
(5) Head of the Environmental Impact Management Agency Decree	
No. KEP-056/1994	Guidelines for the Determination of Significant Impact
(6) Ministry of Public Works Regulation	
No. 46/PRT/1990	Technical Manual on Environmental Impact Assessment
No. 69/PRT/1995	Technical Guidelines of AMDAL for Public Works Projects
(7) Ministry of Public Works Decree	
No. 531/KPTS/1989	Criteria for Settlement Project where AMDAL is necessary
No. 126/KPTS/1990	Determination of Projects in Public Work Department where AMDAL is necessary
No. 506/KPTS/1992	Guidelines of AMDAL, Department of Public Works (DPU)
No. 211/KPTS/1994	Organization and Working Procedures of DPU
No. 04/KPTS/1995	Formation of AMDAL Central Committee in DPU
No. 58/KPTS/1995	AMDAL Approval Guidelines
No. 69/KPTS/1995	Technical Guidelines of AMDAL for Public Works Projects
No. 147/KPTS/1995	Technical Guidelines of KA-ANDAL for Public Works Projects
No. 148/KPTS/1995	Technical Guidelines of RKL and RPL
No. 296/KPTS/1996	Technical Guidelines of UKL and UPL
No. 39/KPTS/1997	Technical Guidelines of AMDAL for Irrigation Project (related to Groundwater and Surface-water)
No. 41/KPTS/1997	Technical Guidelines of AMDAL for Water Supply Project
No. /KPTS/1997	Technical Guidelines of AMDAL for Housing and Settlement Project
(8) Minister of Agriculture / Head of National Land Agency Regulation	
No. 4 of 1991	Concerning Land Consolidation
No. 2 of 1993	Guidelines for Land Concession
No. 1 of 1994	Land Acquisition
(9) Environmental Management Agency Decree	
No. KEP-56 of 1994	Guidelines for Determination of Important Impact
(10) Perum Perumnas Guideline	
1997	Technical Guideline for AMDAL
(11) Local Regulations/Rules (if any)	

Potential Environmental Impacts and Mitigation Measures

The basic understanding of the potential environmental issues/impacts and their proposed mitigation measures, which might be considered/predicted/evaluated/mitigated in the environmental impact assessment (EIA/ANDAL), in general, due to the housing/settlements development activities through KASIBA are shown in following table. It should be carefully verified in the stage of an initial environmental evaluation (*Kajian Lingkungan*) and/or on preparation of a terms of reference of ANDAL (which is KA-ANDAL) of the housing/settlements development project, in accordance with the contents of a column of "potential environmental impacts" described in said Table. Further, in the stage of the ANDAL process, the environmental items, which have been predicted to have potential negative impacts shall be carefully evaluated and mitigated taking into account the contents of a column of "mitigation measures" described in the same Table.

Among the environmental items, the major environmental factors where potential significant and/or possible negative impacts commonly envisaged due to the housing/settlements development are as follows:

- Social unrest due to unwilling/involuntary **resettlement**
- **Groundwater contamination** due to a densely usage of *cubluk* (traditional digging toilet) and an outflow of septic tanks, and **surface water pollution** due to a free discharge of untreated waste-waters and illegal waste dumping to the ditches and rivers
- **Flood/inundation** caused by an increased runoff and flood peak occurrence due to pavement and vegetation removal in large-scale, and **soil erosion** during the construction stage

[Resettlement] : A social unrest might occur as a result of the land occupation during the project and the infliction of living and economic losses on the people. Consequently, this may also trigger people's anxiety by fear of not being entitled to receiving proper land, building and prime-agricultural land compensations, which is their source of living/economic activities.

The resettle action plan (RAP) shall be properly organized /established /executed in the implementation stage of the project as a mitigation measure to minimize the impact on the people that will have to be resettled, considering the adopted standards/legislation, regional planning policies, peoples' livelihood, proper alternate sites for resettlement, sufficient compensation, etc. Furthermore, post resettlement surveys shall also be conducted periodically in order to understand the situation of resettled people, and if necessary corrective measures shall be taken.

[Groundwater Contamination and Surface Water Pollution]: Further groundwater contamination, caused by the usage of *cubluk* and/or outflow of septic tanks as for toilets in large numbers, may be occurring. In addition, a degradation of the surface water quality may also be occurring due to the free discharge of untreated waste-water, which may contain chemicals and bacteria, and illegal waste dumping to ditches and rivers. People in the local regions are fairly much relying on shallow-well water for drinking and commonly use river water for living activities. Therefore, as a basic human need, special attention should be paid on these potential environmental impacts in order to retain the quality of domestic water that is sine qua non to public heath and the safety human lives.

As mitigation measures on this issue, technical options, such as, deep wells with a water piping distribution network, sewerage treatment system, periodical discharging/emptying of septic tanks, proper settlement/location of septic tanks, etc., are proposed.

[Flood/Inundation and Soil Erosion] : An increased runoff coefficient and hastening of the flood peak occurrence, due to the large-scale pavement and vegetation removal, an improved storm-water collection/removal and a disruption of natural drainage patterns, may have the potency to cause floods at the surroundings of the project site and down stream of the region, especially in the rainy season. As a mitigation to prevent this occurrence, flood control measures, such as retention-pond facilities and water-flow retention devises, shall be taken into account for the project plan.

During the construction period, it will be problematic that large exposed parcels of land will remain without any construction activities for a long time. In the rainy season, a disturbance of the present natural hydrology/drainage system may happen, (i.e. change of river-bed and/or river-flow conditions due to the washing out of the sites' top-soil and turbid water and/or demolished waste flowing into rivers), and may cause the project sites' soil erosion and floods in the down stream area of the region. Therefore, it is necessary to plan for and organize the proper construction plan/process to mitigate this issue such as: to keep the construction area minimum and/or divided into phases, considering the rainfall pattern of the region, compaction or turfed/re-vegetation of exposed land sooner, etc.

Environmental Management and Monitoring

Environmental management and monitoring are indispensable in each stage of the project, i.e. pre-construction, construction and post-construction stage. This includes not only the management/monitoring of environmental issues related to the project, but also those related to environmental improvement in the surrounding region. The items, which shall be taken into consideration for the environmental management/monitoring plan, are shown as follows:

a. Environmental management plan	b. Environmental monitoring plan
Organization for environmental management	Traffic volume monitoring
Management of resettlement and land acquisition	Groundwater level and quality monitoring
Environmental surveillance of construction work	Hydrological situation related to flood/ soil erosion
Environmental education	Post resettlement survey
Others (if any)	Others (if any)

Settlements Development through KASIBA

No	Environmental Item	Potential Environmental Impacts	Mitigation Measures
A. Social Environment			
A-1	Urbanization	• Social friction/unrest between the rural and urban communities in the transitional period of urbanization due to *project-led urbanization* (The rural area/communities neighboring to the project site will socially and/or economically influenced by the adjacent urbanized housing estates.)	• In the surroundings of large-scale cities, how to smoothen the rural communities neighboring to the housing/settlements project site to convert them from rural to urban shall be taken into considered, in connection with the regional planning policies
A-2	Resettlement	• Social unrest due to land occupancy/acquisition by the KASIBA housing development and inflicting loss of living foundations of the inhabitants • Causing inhabitants anxiety for not receiving proper compensation for the land, building and prime-agricultural land owned by them • Generally, poor resettlement operation may cause the impoverishment, resulting in the production of jobless and land-less/homeless people	• Any involuntary resettlement shall be carried out in accordance with the proper standards/legislation • Selection of the proper alternate sites for resettlement • Sufficient compensation for the affected people shall be provided, and it should be performed in fair and in mutual agreement base in accordance with NJOP (the sales value of taxable properties) • Consultation/education how to use the compensated money practically is inevitable for the local people who received compensation as money • Resettlement action plan (RAP) shall be established and properly operated • Extension of the project benefit which brings about the regional development; i.e. increasing of goods flow, public services, working opportunities, etc. shall be taken into account for the positive impact (plus factors) caused by the project
A-3	Economic Activities	• Social unrest due to loss of bases of economic activities caused by resettlement/relocation and/or loss of prime-agricultural land • Social/economic structure in the region may be changed due to activation of large number of in-flow population • Social jealous/ friction/ gap/ conflict between the new comers and local residents	• Giving extension to local people/communities/societies concerning the planned activities of housing/settlements development in connection with a regional planning policies **(i.e. proper trade-off between land values for housing and those of current other uses, such as agricultural land, forest, or other land uses or natural valuable habitats to the society/community, as a whole.)** • Job opportunities shall be given to the relocated people • Improvement of the living, social and economic situations of the relocated people (or resettlement area) • Examine the practical use of existing economic activities in the region

No	Environmental Item	Potential Environmental Impacts	Mitigation Measures
			• Guarantee for the resettlement and/or loss of bases of economic activities
A-4	Public Facilities and Traffic	• Gap of service level of public infrastructures/services such as electricity supply, water supply, telephone line, road/traffic condition, waste collection/transport/disposal, waste-water treatment, storm-water drainage, etc. between the housing/settlements development area and surrounding existing community/residents, which may have potential social and economic unrest and/or jealousy of the surrounding communities/residents • Impact on the life-style of surrounding residents due to shortage of public facilities caused by population inflow; such as schools, hospitals, mosques, public services, etc. • Worsening of local traffic congestion and increase of traffic accident caused by an increase of the load on the existing transportation system/facilities due to a drastic increase of population by the project	• Distribution of public infrastructure/services to the surrounding residential area/communities shall be taken into considered to prevent the potential social unrest due to gap of its service level between housing development area and surroundings • Upgrade the existing public facilities/services and infrastructure of surroundings with the close corporation of the local government concerned, in connection with a regional planing policies • Coordination with other planning goals and objectives for the region • Improvement of the existing traffic system/facilities (including traffic signs and road marks) and services with the close corporation of the local government concerned, in connection with a regional planing policies **(a traffic demand forecast based on the traffic census is recommended to be carried out in the planning stage of the project, including its surroundings and connected residential/commercial/industrial area)**
A-5	Split of Communities	• Large-scale housing/settlements development introduces community split, change of living patterns and people's relationship to the land, and negative effects on the economic activities • Change of the existing community life by the loss of places for group work or religious ceremonies due to the large-scale housing development • Isolation of certain villages may happened • Social unrest/friction between inhabitants of new housing area (new communities) and surrounding people (existing communities) due to the split of area by the project	• Secure alternate crossing/access route in the region • Provide the new community center or proper compensation • Formation of new institutions such as RT/RW in new housing area, so that it can be recognized as a new community by existing communities • In case the Perum Perumnas housing projects, they never bounded/separated the new housing area by fence, and some of public facilities introduced for the new housing area can be opened/used for surrounding people also. Therefore, communication between inhabitants and people surroundings are usually kept friendly. **[This concept shall be taken into account for the new housing/settlements development, in order to keep friendly exchange of communities, even its introduction style is different.]**

No	Environmental Item	Potential Environmental Impacts	Mitigation Measures
A-6	Cultural Property	• Damage to or loss of the value of mosque, archaeological remains or other cultural assets	• Examination of siting of the project • Preservation or relocation of the archaeological, cultural or religious assets
A-7	Public Health Condition	• Deterioration of public health and sanitary conditions affect to the surroundings, such as the outbreak of epidemics caused by the increase of vermin and the usage of contaminated water, due to the concentration of population by the housing/settlements development which surpasses the capacity of waste collection/disposal and sewerage treatment	• Improvement of the capacity of waste collection, transport and disposal • Improvement of water supply and sewerage systems • Improvement of health education for the residents to prevent diseases
A-8	Waste (Solid waste)	• Should the generated waste volume exceed the capacity of waste collection, transport and disposal services provided by the local government, the uncollected waste might be illegally dumped into ditches, rivers, etc. The illegally dumped waste which contains high BOD load and bacteria as *leachate* form may cause water contamination, offensive odor, vector generation, etc. and create a negative impact on the health and sanitation conditions in the region • Generation of surplus soil, construction/demolition wastes due to the construction activities **[Excavated soil (surplus soil) should not be dumped or left as it is, to prevent it flow into surrounding rivers which may cause interruption of its flow and flood]** (Regarding to "wastewater", refer to the following article of C-2 Water pollution)	Proper solid waste management (SWM) shall be introduced and carried out by the responsible local government (*Dinas Kebersihan*) in the project area or other agencies, including its surroundings, taking into account the following aspects: • Primary waste collection system from households • Setting of temporary storage site of waste (TPS: *tempat pembuangan sementara*), if necessary • Waste transport and discharge to final disposal site (TPA: *tempat pembuangan akhir*) • Institutional/organizational and financial strength of local authorities which response to serve SWM in the project area and surroundings • Publicity and promotional activities in order to reduce/recycle the waste • Social education on the environmental awareness • Dump sites of the surplus soil and demolished waste shall be properly settled in the construction plan and properly discharged
A-9	Hazards (Risk)	• In case the project site is located at hilly area, landslides or failure of cut or filled slopes which may cause damage to residents' land and houses (Regarding to "flood/inundation", refer to the following article of B-3 Hydrological situation)	• Examination of construction plan, such as construction period, method, etc. • Slope protection measures, such as retaining wall, concrete frame work with vegetation, etc. shall be introduced at the filled and/or cut slopes
B. Natural Environment			

No	Environmental Item	Potential Environmental Impacts	Mitigation Measures
B-1	Soil Erosion	• Large-scale exposure of topsoil due to the land reclamation and vegetation removal may cause river pollution resulting in soil erosion and siltration by heavy-rain	• Soil erosion control, such as reforestation, slope protection work, etc. in both temporary (construction stage) and permanent base • Examination of construction plan, such as construction period, method, etc.
B-2	Groundwater	• Depletion of groundwater resources and drying up of wells may happen due to the over-drafting of groundwater resources in accordance with population increase and commercial/industrial development at the region and surroundings by the housing/settlements development • Large-scale pavement of ground surface causes less rain water seepage, resulting in the lowering of the groundwater table	• Planning of groundwater usage by the regional level with a regional planning policies • Ensure that projected usage of groundwater is within capacity of natural groundwater system to replenish itself • Improvement of water supply system based on alternative water sources (Hydro-geological survey and water quality survey are recommended to be carried out in the planning stage of the project.)
B-3	Hydrological Situation	• Increase of runoff coefficient and shortening of the flood peak reaching time due to the increased impervious area by pavement, removal of trees/vegetation, improved storm-water collection/removal and disruption of natural hydrology/drainage patterns may have the potency to cause the flood and/or inundation at the objected region and down stream of the region, especially in rainy season • Change of river-bed condition due to inflow of large amount of soil following the landfill work of housing development may cause the flood and/or inundation in the region [Planning stage] In case, 1st : the river receiving the outflow from the development area does not have enough capacity to absorb the increased run-off discharge, or 2nd : the river has potential impacts on flood of downstream area, flood control measures shall be taken into account for the project plan. [Construction stage] In general, housing/settlements projects are to be developed for the period of several years or more. During this period, it will be feared that the exposed land will be kept remained for a long time, which may cause the soil erosion. Therefore, it is necessary to plan for and organize a proper implementation plan.	[Planning stage] • Preserve existing stable drainage patterns on site • Proper storm-water management plan shall be instituted in the region including surrounding area • Improvement of existing drainage system • Retention pond facilities at the outlet point of storm-water collected from the project area to rivers • Water-flow retention devices along with the storm-water drainage [Construction stage] • The working area for construction shall be kept to a minimum and/or divided in phases to avoid excessive soil erosion and sedimentation • The timing of construction activities has to take into account the rainfall pattern so as to reduce exposed land to erosion consequences • During construction, compaction of exposed land shall be carried out sooner after land clearance • Exposed cleared lands should be worked and/or recommended to be turfed/re-vegetated within the shortest practical time • Sediment traps are recommended to be constructed to prevent sediments getting into surrounding river or drain

No	Environmental Item	Potential Environmental Impacts	Mitigation Measures
B-4	Fauna and Flora	• Obstruction of breeding and extinction of species due to change of habitat conditions caused by housing/settlements development; such as inflow of people, generation of noise, vibration, and water/air pollution (Careful consideration should be given in case the endemic species designated by PHPA are found and/or vulnerable ecological system, such as forest, wet-lands, mangroves, etc. are exist in the project site or surroundings.)	• Ensure that regional critical natural environment sites such as major forested area, water bodies and wet-land habitats containing endemic fauna and flora, etc., are identified and not threatened by housing/settlements development • Protection measures for endemic fauna and flora • Careful attention for the construction plan and management of the housing/settlements development • Adequate regional planning policies, mentioned in No. A-3 of this table, shall be taking into considered (Special attention should be paid to the valuable aquatic life in the area or in the downstream region.)
B-5	Landscape	• Change of topography and vegetation due to reclamation, cut and fill for the housing/settlements development. • Deterioration of aesthetic harmony by structures. (Special attention should be paid in case the landscape has special values for the religion, tourism, etc.)	• Examination of planning contents of housing/settlements development
C. Environmental Pollution			
C-1	Air Pollution	• Traffic increase due to activation of the living/economic activities in the region may cause the negative effects on the public health of inhabitants, and on fauna and flora in the region and surroundings by the exhaust gas and dust from vehicles • Exhaust gas and dust produced by construction equipment and vehicles used for land reclamation and facility construction may cause the negative effects mentioned above (The impact may be greater in the dry season.)	• Restriction for the exhaust gas from vehicles • Restriction of the speed of transportation vehicles/trucks in order to prevent and minimize the dust production during the construction • Transportation trucks to carry soil and/or demolished waste shall be covered by canvas, etc. • Dust control by spring water during the construction • Examination of construction method and schedule
C-2	Water Pollution (Human waste and Wastewater)	• Groundwater contamination caused by the usage of *cubluk* (traditional digging toilet) and/or outflow of septic tanks which used for toilets in large numbers. In a densely populated area where inhabitants are fairly much reliant on shallow-wells for drinking, the usage of *cubluk* may have the potency to lead a generalized contamination of soil and groundwater and further to negative	[Treatment of human waste/ night soil] • *Cubluk* shall not be installed anymore • Distance between shallow well and septic tank shall be more than 10m and depth of the well shall be more than 12m (recommended by World Bank report) • Septic tank needed to be de-sludged/emptied once every two years to prevent the outflow

No	Environmental Item	Potential Environmental Impacts	Mitigation Measures
		impact on public health of local/surrounding inhabitants ● Groundwater and/or river water pollution due to free discharge of untreated waste-water/gray water mainly produced at MCK (bathing, laundry, kitchen, etc.) which may contain chemicals and bacteria ● River water pollution due to illegal dumping of the solid waste to the river may cause the negative effects on the public health and/or water usage of the region/inhabitants **(Special attention shall be paid on this issue, in case people in the region are using shallow well water and/or river water for living activities, especially for drinking.)** ● Washing out of top-soil by rain following the cut down of trees and earth cut/filling work will create turbid water flow into river and lakes, which cause the negative impacts on growth of aquatic lives [Taking into account the securing of safety domestic water, especially for drinking purpose, and to keep the safety life and human health, the treatment of human waste and wastewater shall be properly handled/planned/treated.]	● Proper type of septic tank shall be selected : i.e. equipped with out-flow filter, two-compartment tank, etc. for its introduction for the project ● Water distribution system shall be introduced in corporation with PDAM or PDM (drinking water company/ *perusahan daerah air minum*), if any. ● Installation of deep well with piping distribution network/system is recommended [Treatment of wastewater/ gray water] ● Usage of septic tank (on-site system) in each dwelling and/or communal level, for the combined treatment of both night soil and gray water ● Usage of sewage collection pipe network and/or covered ditches conveying the wastewater into sewage treatment plant before releasing it into the river (off-site system/separate sewer system) ● Usage of sewage collection pipe network and/or covered ditches conveying both wastewater and storm-water into a sewage treatment plant (off-site system/combined sewage system) (Special attention should be paid to the water-usage or water basin-usage of residents/communities in the surrounding area or in the downstream region.)
C-3	Noise and Vibration	● Noise and vibration due to operation of heavy equipment and vehicles for land reclamation work may cause the negative effects on the living environment of residents and/or valuable wildlife habitats ● In accordance with the housing/settlements development following the road improvement, noise and vibration issues may cause and negative effects on the living environment of residents and/or valuable wildlife habitats	● Examination of construction schedule and working hours, and careful construction planning and management ● Construction work shall not be carried out at night time ● Provide buffer zones with trees between residential area/public facilities (such as school, hospital, etc.) and sources of noise and vibration (i.e. along the main road)
C-4	Land Subsidence	● Land subsidence/ sedimentation may sometimes be occurred at the alluvial and clay soil areas due to the lowering of the groundwater table, and/or former swamp/lower-land areas ● Flood/inundation may sometimes occurred due to land subsidence/sedimentation	● Planning of groundwater usage by the regional level with a regional planning policies and ensure that projected usage of groundwater is within capacity of natural groundwater system ● Improvement of water supply system based on alternative water sources ● Proper storm-water management plan, i.e. to prevent the storm-water flow

No	Environmental Item	Potential Environmental Impacts	Mitigation Measures
		(Special attention should be paid in case the lowering of the groundwater table and land subsidence has already progressed in the objected region.)	into the project site, shall be introduced in case the site is located at low-land or former flood area ● Embankment shall be introduced in order to high-up the ground-level of the project site taking into account the predicted natural sedimentation
C-5	Offensive Odor	● Operation of waste depot, waste transfer station, disposal site, sewage treatment plant, etc. may cause offensive odor, and negative effects on the living environment of residents may happened	● Location of public facilities and/or resident distribution shall be taking into considered for the facility plan which create offensive odor

List of Represented Past Housing Developments with ANDAL in Indonesia

In order to fide/identify the environmental issues/impacts due to the housing/settlements development, verification of environmental issues for the selected eleven (11) housing development experiences in Indonesia, which AMDAL had been performed, have been carried out in the study.

No	Project Name & Implementation Agency	Year	Location	Project Description	Data Source
A	Bukit Semarang Baru Housing Estate - PT. Karyadeka Alam Lestari	1998	Semarang, Central Java	• Area: 1000 ha, covering 6 villages housing, commercial, recreation, techno-park, public & social facilities. • Housing type : - Modest : 8,959 units - Medium : 4,111 units - Luxurious : 1,568 units	Study EIA, RKL/RPL on New City Development new Semarang still on Semarang Municipal Central Java 1998.
B	Kapuk Housing Estate - PT. Bumi Serpong Damai	1995	Kapuk village, North Jakarta	• Total area : 906 ha - Housing : 457 ha - Recreation and sport : 243 ha Commerce, environment centre facilities: 131 ha - Own houses : 10,000 units - Shop Office : 29 ha - Hotel, cottage, apartment : 23 ha - Warehouse : 23 ha	Study EIA, RKL, RPL on Development Phase I & II for tourism estate and housing Kapuk, Northern Jakarta, April 1995.
C	Bumi Serpong Damai Housing Estate - PT. Bumi Serpong Damai	1992	Kabupaten Tangerang, Serpong village, West Java Province	• Area : 6,000 ha - Housing : 137,900 units - House, office, shops, public & Social facilities.	Summary Study EIA, RKL & RPL, technical guidance for AMDAL on housing / settlement Perum Perumnas 1997.
D	Perumnas Cengkareng housing - PT. Perumnas	1992	Cengkareng Village, West Jakarta	• Area : 96 ha - Four stories housing	Summary Study EIA, RKL & RPL, technical guidance for AMDAL on housing / settlement Perum Perumnas 1997.
E	Kota Wisata Housing Estate - PT. Mekanusa Cipta	1998	Gunung Putri village, Kabupaten Bogor, West Java Province	• Area : 493 ha - Housing Type : - Small - Medium - Large - Public facilities & Social facilities	Study EIA, RKL, RPL on Kota Wisata housing estate development Desa Ciangsana & Nagrek, Gunung Putri village, Kabupaten Bogor West Java Province 1998.
F	Arga Bajapura Housing Estate - PT. Cipta Sarana Usaha	1998	Pulo Merak village, Kabupaten Serang, West Java Province	• Area : 300 ha - Housing Type : - Small : 1,932 units - Medium : 2,220 units - Large : 235 units	Study EIA, RKL, RPL Housing Estate Arga Bajapura, Desa Grogol, Kotasari, Rawa Arum, Pulo Merak village, Kabupaten Serang West Java Province
G	Perumnas Klender Housing - PT. Perumnas	1990	Klender village, East Jakarta	• Area : 201 ha - House type : simple, flats, middle - Facilities: Schools, mosque, church, market, clinic.	Evaluation study on housing project in Jabotabek, 1990.
H	The Ciledug Indah Housing Estate	1990	Ciledug village, Kabupaten Tangerang, West Java Province	Area : 22.3 ha • Housing type : - 21/60 : 4.2 ha - 36/81 : 7.8 ha - 36/102 : 2.5 ha • Road & infrastructure: 7.8 ha •	Evaluation study on housing project in Jabotabek, 1990.

I	Antilop Maju Legok housing Estate - PT. Antilop Maju	1998	Legok village, Kabupaten Tangerang, West Java Province	▪ Area : 210 ha ▪ Housing type : - Luxury : 881 units - Medium : 2532 units - Simple : 1720 units ▪ Commercial & Facilities	Study EIA, RKL, RPL Legok housing estate, 1998.
J	Bukit Sentorsa Housing Estate - PT. Duta Mas Graha Nusantara	1998	Ciwandan village, Kabupaten Serang, West Java Province	▪ Area : 200 ha ▪ Housing type : - Very simple housing (RSS): - 4,765 units / 38 ha - Simple housing : - 5,987 units / 50 ha - Medium & Luxury: - 368 units / 12 ha - Commercial, public facilities	Study EIA, RKL, RPL Bukit Sentosa Housing Development Kecamatan Ciwandan Kabupaten Serang.
K	Alam Indah Kencana Agung Housing - PT. Alam Indah Kencana Agung	1995	Cidadap village, Bandung Municipal and Kecamatan Lembang, Kabupaten Bandung, West Java Province	▪ Area : 281 ha ▪ Housing : 165 units / 18 ha ▪ Facilities: garden, road, drainage, sport center / 15 ha	Study EIA, RKL, RPL, Alam Indah Kencana Agung Housing Plan, 1995.

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