

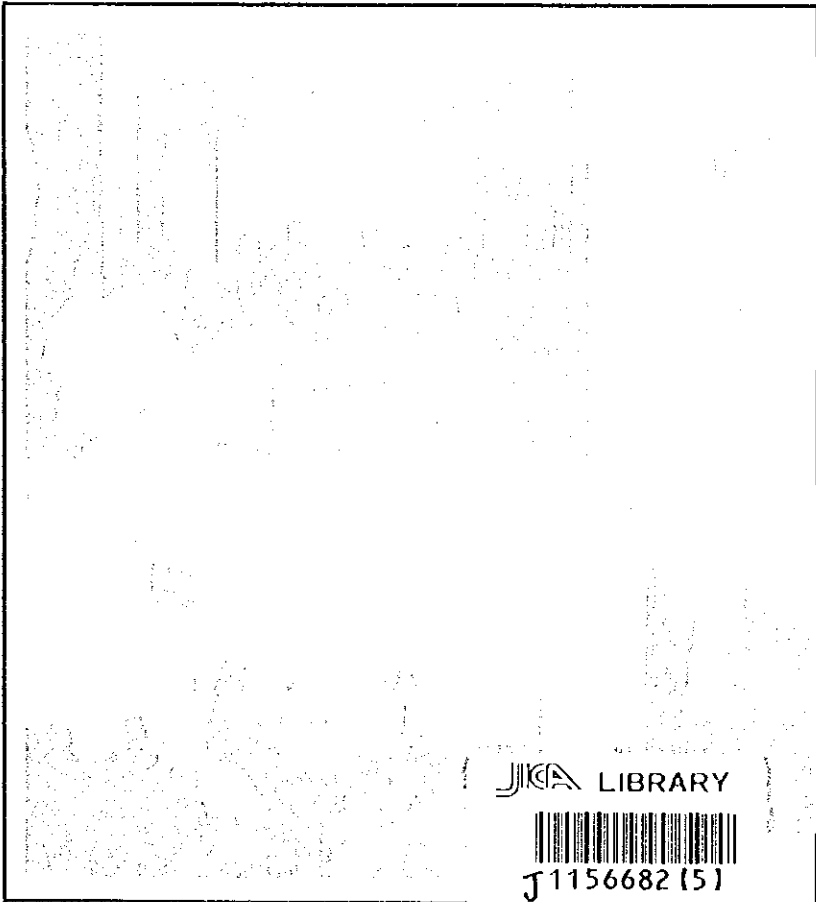
THE STUDY ON LAND PROVISION FOR HOUSING AND SETTLEMENTS DEVELOPMENT
THROUGH KASIBA AND LAND CONSOLIDATION IN JAKARTA METROPOLITAN AREA
IN THE REPUBLIC OF INDONESIA

LAND CONSOLIDATION

**Basic L/C Guidelines
&
L/C Project Implementation Manual**

*Guidelines : [What L/C project should be]
Manual : [How L/C project is prepared and implemented]*

● January 2000



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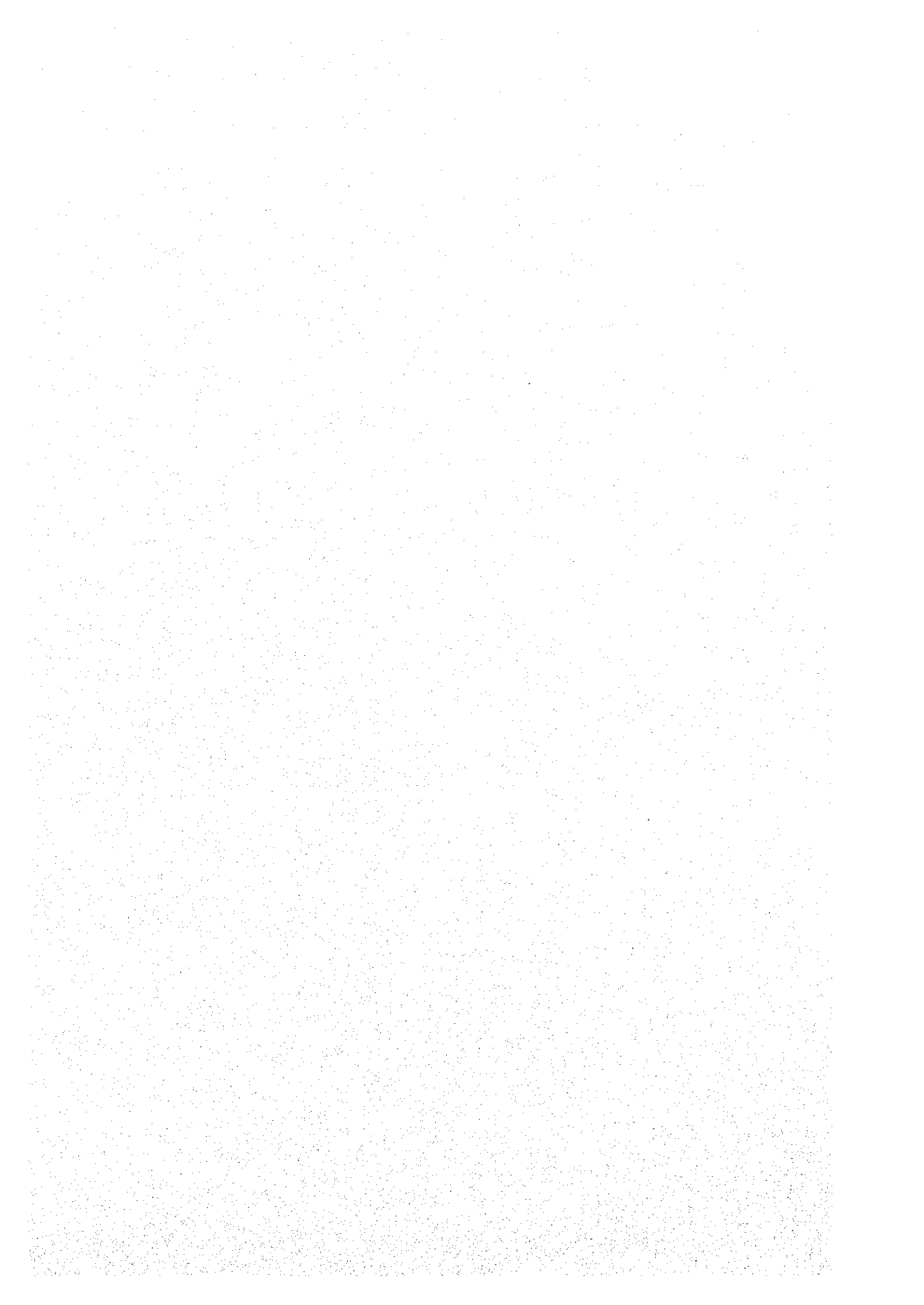


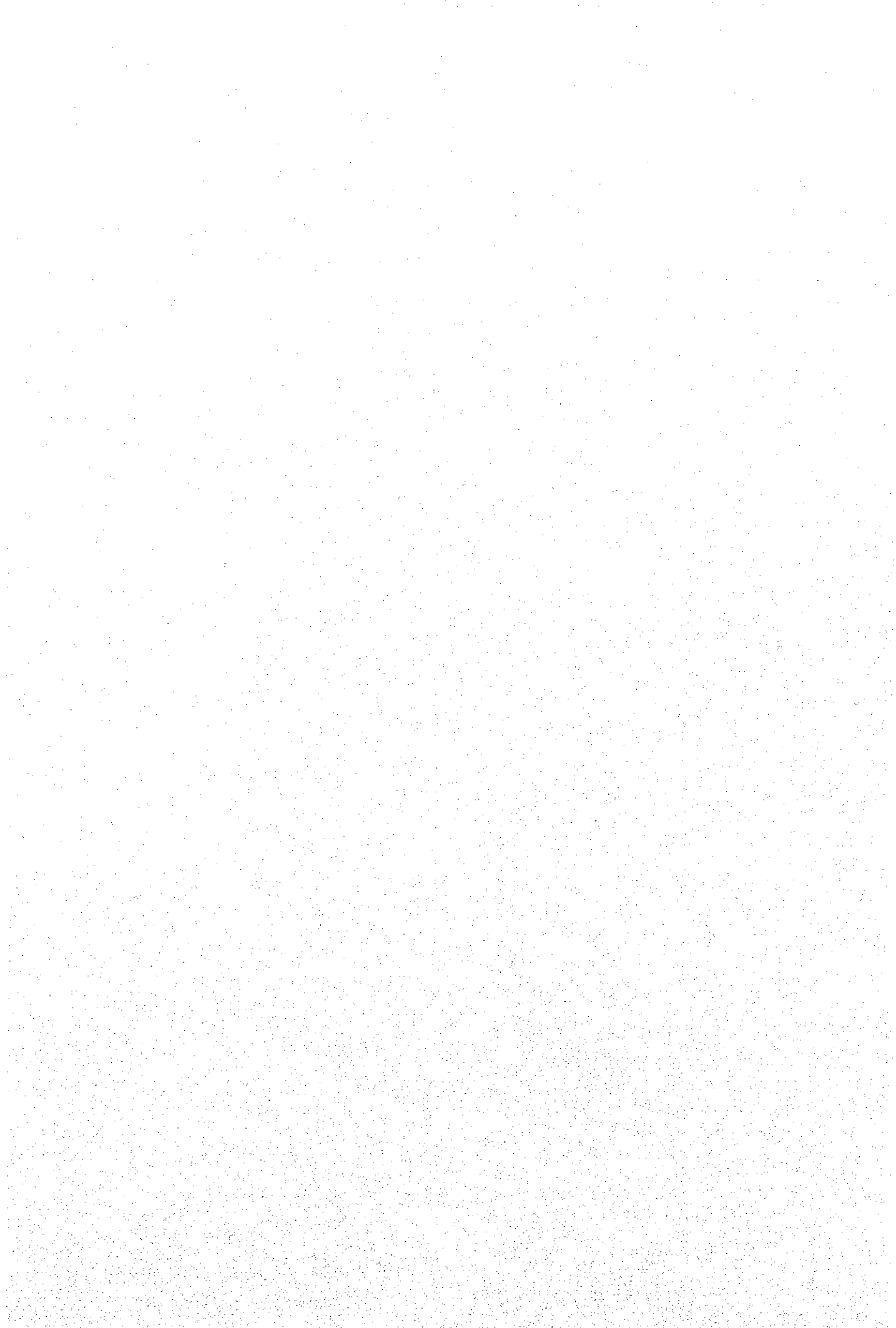
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LAND CONSOLIDATION

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FINAL REPORT COMPOSITION

The Final Report is composed of the following reports:

1. **SUMMARY REPORT**
2. **MAIN REPORT**
3. **KASIBA Project Guidelines & Manual for Practical Procedure**
4. **Basic L/C Guidelines & L/C Project Implementation Manual**

This Report is the **Basic L/C Guidelines & L/C Project Implementation Manual**.

LAND CONSOLIDATION

Basic L/C Guidelines

[What L/C project should be]

● January 2000



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Basic L/C Guidelines for Transfer of Technology

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I. Introduction

(Background)

Land consolidation (L/C) projects in Indonesia have been broadly implemented all over the country since 1980. These L/C projects were implemented mainly for the purpose of land tenure arrangement and land use management rather than infrastructure improvement.

Although most of the urban L/C projects already implemented have not sufficiently contributed to the urban environment improvement through infrastructure development, it is supposed that the essential elements necessary for an advanced urban area development system are already installed. Moreover, L/C projects in Indonesia will be progressively improved toward more effective measures for urban development and strengthened by stage.

For further progress of L/C projects and their better contribution to society in the future, the nature of ordinary L/C projects is necessary to be modified into due aspects from a comprehensive city planning and an integrated urban development achievements, like land readjustment projects in Japan.

In this regard, It is indispensable for all the personnel concerned to keep the following viewpoints on L/C projects as a principle policy. They are summarized and proposed as basic guidelines for L/C projects.

(Outline)

Basic guidelines indicate the essential direction for project implementation in accordance with the basic concepts of the L/C project itself, following legal articles such as in the L/C Law and Regulations to be prepared in the coming stage.

The basic guidelines are used for improving the Indonesian L/C system, including legal systems, promoting systems and supporting ideas for local governments, as well as formulating, planning and implementing L/C projects in experimental stages.

Since this guideline can provide only a skeleton/example, it is necessary to improve this in the practical field course of the L/C project implementation.

Meanwhile, the practical procedures for L/C planning and project implementation in concrete are explained, separately from this guideline, in the 'L/C Project Implementation Manuals'.

2. Basic L/C Projects Framework for Urban Development

At first, it is necessary to confirm the common recognition that L/C (Land Consolidation) and/or L/R (Land Readjustment) are unique projects in the urban development system.

L/C projects, by nature, have the distinctive feature of efficiently realizing comprehensive urban area development in an integrated manner, different from other urban development methods, such as individual infrastructure development through the land acquisition system. Therefore, all participants concerning L/C projects should always keep these inherent characteristics in mind. They include:

- (1) Comprehensive and extensive urban development,
- (2) Replotting method without land acquisition,
- (3) Fair distribution of development benefits and costs,
- (4) Continuation and determination of land tenures,
- (5) Impartial (Equitable) procedure, and
- (6) Participation by landowners.

Since land consolidations have the above-mentioned distinctive features to realize comprehensive area developments, all the L/C projects should be planned and implemented in compliance with the principle concepts as summarized below:

(1) Comprehensive and extensive urban development

Different from the individual development of infrastructures such as roads and parks, L/C projects enable to develop public facilities and building lots in an integrated manner in accordance with the planned land use and design. Accordingly, comprehensive area development can bring about enough significant improvements in the urban environment. Moreover L/C projects can be applied not only for the development of urban residential areas but also for development of industrial complexes and goods-distribution centers, and redevelopment of built-up downtown areas. L/C projects have an extensive capability for urban area development.

(2) Replotting method without land acquisition

The replotting system is an inherent technique in L/C projects. It is a method to rearrange the original land rights before the project into a new location after the project, within the project area, in accordance with the replotting plan. Therefore, all the land tenures are preserved, without relocation to outside of the project area, throughout the project period, and the local community remains almost the same as before the project.

(3) Fair distribution of development benefits and costs

When infrastructures are developed and building lots are orderly rearranged through L/C projects, the land use value will rise, thereby boosting land prices and increasing property value for the landowners.

The L/C project is basically a self-financing project. Costs for the L/C project implementation are borne fairly by all the landowners, through land contribution, within the development benefits derived from increases in their property value. Land contributed by landowners is used both for public facilities and reserve land (cost equivalent land).

(4) Continuation/Preservation of land tenures

The landowners' land tenures are preserved and guaranteed throughout the L/C project implementation. Therefore, L/C has the significant advantages of preserving an existing community and economic/social activity unlike the usual land acquisition method. Moreover, when there are unregistered land tenures in the project area, all the land tenures are officially certified after completion of the project.

(5) Impartial (Equitable) procedures

A principle of the L/C project is to be implemented with fair and just procedures both for governments and all landowners from its preparation and through its completion. It is necessary to establish a system in which landowners have opportunities to express their opinions at every stage of the project.

(6) Participation by landowners

L/C projects are executed by implementing bodies through participation of the landowners. In case of the association type, L/C landowners can participate in the project implementation through general meeting by stage, while projects are discussed in a council by the local government.

The L/C projects that are implemented based on the above-mentioned concepts can provide various effects and advantages as follows:

Effects on landowners:

1. Comprehensive improvement in living environment,
2. Increase in land value,
3. Certification/preservation of land titles.

Effects for administrative organizations:

1. Development of public facilities,
2. Reduction in public investment,
3. Confirmation of land titles,
4. Increase in tax revenue of land and building tax.

Advantages compared with the ordinary land acquisition method:

1. The local community remains as before, without the whole land purchase.
2. Landowners can share development costs and benefits impartially.
3. Efficient land use is achieved by orderly-shaped building lots with appropriate access roads.
4. Public utilities such as roads, parks, water supply and sewerage are provided in an integrated manner.

3. Guidelines for L/C Project Implementation

Although the present execution of L/C projects in Indonesia is in a developing stage with an inadequate legal system specific to the project implementation, this guideline can be used for improving the existing L/C system, including the legal and promotion systems and supporting ideas for the local government as well as various stages of the project implementation.

3.1 Planning Guidelines (What is the basic policy of L/C projects?)

1. L/C projects are defined as an essential component of urban and environment development projects.
2. L/C projects are implemented based on the city planning system and approach, which clearly specifies the concept, purpose and plan in the context of spatial plan authorized by local governments.

(1) City planning purposes

L/C projects are formed and implemented to achieve a city-planning purpose: city planning is to prospect a future urban development image in conjunction with the existing conditions and its future progress, and to perform its plan through both control and development measures. Since L/C projects are defined as one of the most efficient measures to implement a city planning purpose in certain areas, the location of the projects should be socially justified within the future urbanization growth of municipalities under the authorized spatial plan.

(2) Development context

The L/C project areas are selected within certain potential zones in present and future urban improvement/development from the viewpoints of total city planning in municipalities: such as urbanization expansion areas, built-up areas and new urban development management areas.

The development contents of each L/C project should be elaborated and duly justified in accordance with the characteristics to realize these inherent development goals and concepts.

(3) Scope of development

L/C projects are institutionalized as one of the implementing measures of the total spatial plan authorized by local governments, and the scope of L/C projects such as location, land use, infrastructure development, time frame and stage development, will be defined and planned under the general urban area development program of municipalities. Future urban area development programs, including development purpose/concept, land use structure, infrastructure and environment improvement, social/economic framework, will be prepared based on the balance between the public interest and collective interest of the residents of municipalities.

3.2 Organization Guidelines (What organization is necessary for L/C implementation?)

1. L/C projects are implemented by public oriented and non-profit organization being controlled by the administration guidelines for protecting public interest as well as landowners' interest.
2. There are two types of L/C projects by implementing body: Government type and landowners' association type. The government type emphasizes more on the public interests for urban and infrastructure improvement as a whole, while the association type stresses more on landowners' collective interests for the environmental improvement in their localities.
3. L/C projects are implemented through coordination and cooperation among the local government and landowners based on their respective rights and responsibilities: Overall organization for implementing L/C works as a mechanism of coordination among them.
4. L/C associations are established to respond to landowners that empower them to implement L/C projects in the association type case.

(Please refer to 4-5-5 Organizational System in Main report)

(1) Types and classification of L/C projects

There will be two kinds of L/C projects by type of implementing organization.

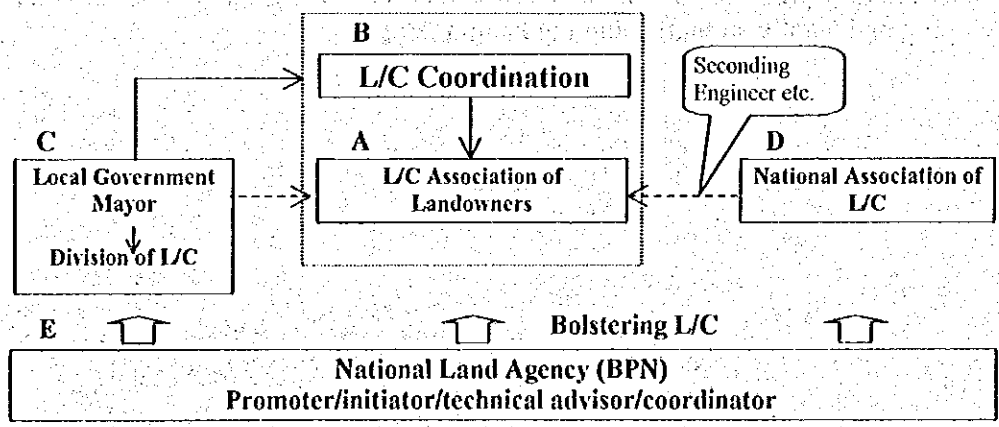
- Government type L/C: to promote public interests for urban environmental improvement of cities and towns as a whole (public interest oriented).
- Landowners' association type L/C: to promote landowners' collective interests for the improvement of local communities (collective interest oriented).

Both types of L/C projects ultimately aim at performing the prospective urbanization in compliance with the Spatial plan as a future goal of city planning.

(2) Organization for the association type L/C projects

Though it is necessary to formulate some laws/regulations in order to institutionalize this proposal, an overall organization structure for implementing an L/C project association type in the future, as an example, can be illustrated in the following diagram:

Overall Organization of Association Type L/C Implementation

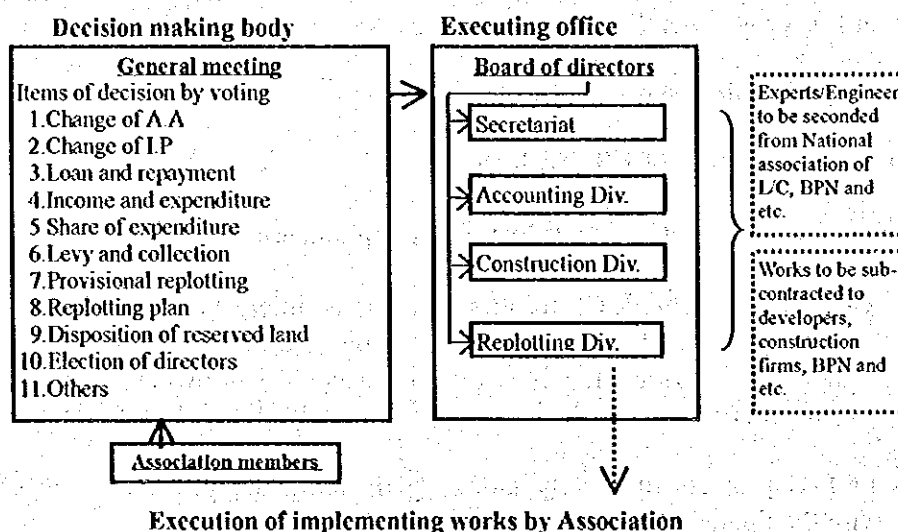


Proposed Agencies for Association Type L/C Implementation

Agency	Function
A: L/C association	Authorized L/C implementing agency
B: L/C coordination Team	Coordination and support for project implementation
C: Local government	Local administrative center (in the Division of L/C)
D: National L/C association	Disseminating information on L/C and supporting L/C associations
E: National Land Agency	Promoter, initiator, technical adviser in addition to land administrator

As a practical proposal of organization for L/C association, described in the Manual, an example of organization of L/C association is shown as follows:

Organization Example of L/C Association



(3) Volunteers for project initiation and promotion

In the motivation stage of the association type L/C, an adequate group of promoters/projectors is to be organized to initiate the project.

The current L/C practices in Indonesia depend upon the Landowners' Panitia (Committee), as a project initiator/promoter, and it is advisable that the L/C association be formulated through developing and legally strengthening the Panitia.

3.3 Land Management Guidelines (How to manage land tenures?)

1. Land is managed physically, legally and financially through the replotting system in L/C projects.
2. Replotting is to convert original land lots (before the L/C project) to new parcels of land developed after the L/C project, in accordance with three principles: continuation of land right/utility/value, fair sharing of cost and benefit among landowners, and cost recovery by development benefit.
3. Replotting is designed and executed, applying a physical and legal replotting technique established/agreed by the L/C association.

(Please refer to 4-5-3 Land Management in Main report)

(1) Confirmation of existing land titles

In the beginning stage of the L/C project implementation, all existing land rights either certified or not, should be clarified as the basic input information of the project area.

(2) Replotting systems

The replotting system is the essential system of L/C projects. Land is basically managed by landowners themselves through the L/C association, while government is to support landowners' self-help of land management.

Since the preservation and continuation of land titles, utility and value are the principle of replotting in L/C projects, the following measures are necessary to secure the fundamental purposes of replotting.

- 1) An objective technical replotting method should be developed in order to obtain all of the landowners' consent for the replotting plan based on the two principles:
 - Principle of correspondence in replotting, and
 - Replotting based on land value evaluation.
- 2) Provisional replotting during the construction period of L/C projects is an indispensable system for keeping continuation of land utilization without interruptions of daily social/economic activities for the landowners.
- 3) Legal interpretation, that the replotted land after the project is completely equal to the original land in terms of land rights, is indispensable to guarantee all property securities and creditors who have mortgages or collateral on the original land.

(3) Executing mechanism of replotting

Replotting is to be implemented in accordance with a plan objectively and fairly decided through legal administrative procedures.

3.4 Administration Guidelines (How to proceed with legal administration?)

1. L/C project implementation is controlled for protecting public interest as well as landowners' interest so as to attain a balance among them.
2. To this end, the government and L/C association respectively approve the project for legal authorization being followed by a subsequent legal execution by stage of the L/C project implementation: 1) at the initiation stage, 2) at the execution stage, 3) at the termination stage.
3. Approval is made through due administrative procedures established in response to the different conditions.

(Please refer to 4-5-2 Government Approval and Agreement of Landowners in Main report)

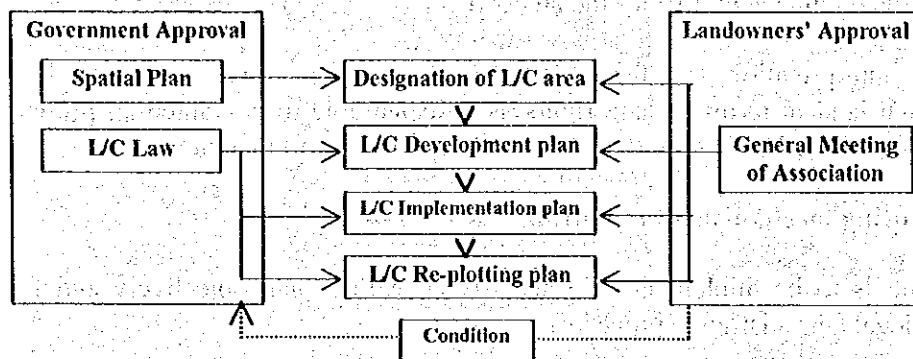
(1) Legal authorization process of association type L/C projects

L/C projects are implemented under a process of legal authorization and subsequent lawful execution by the implementing body. Therefore the association type of L/C projects are administered properly by the initiative of landowners' associations. Followings are typical items by stage of project implementation and these processes are designated to secure the public and landowners' interest/right throughout the L/C project execution.

	Initiation Sage	Execution Stage	Termination Stage
Approval for legal authorization	1. L/C implementation plan, 2. Project area, 3. Organization structure and articles of L/C association.	1. Provisional replotting, 2. Replotting plan	1. Liquidation of L/C project
Legal execution	1. Establishment of L/C association with all landowners as members, 2. L/C project execution by association in accordance with approved articles.	1. Designation of provisional replotting, 2. Disposition of replotting plan, 3. Registration of land title.	1. Dissolution of L/C association

(2) Decision making process for approval

L/C projects institutionalize the necessary decision making process as a social coordination system among landowners with government approvals based on the regulations and articles of the L/C association supported by the L/C Law.



3.5 Financial Guidelines (How to finance L/C?)

1. L/C projects are implemented basically through a self-financing system of cost recovery including cost recovery by beneficiaries among landowners as well as government's obligatory investment for public infrastructure improvement.
2. The government finances the construction cost of necessary infrastructures and public facilities, including the cost of land purchase in the project area, which is an ordinary responsibility of government pursuant to the existing laws and regulations regarding public works.
3. The L/C association finances all the cost of the L/C project except item 2 of government responsibility.
4. The government should make efforts to assist L/C association in mobilizing initial capital and to increase its financing capability.

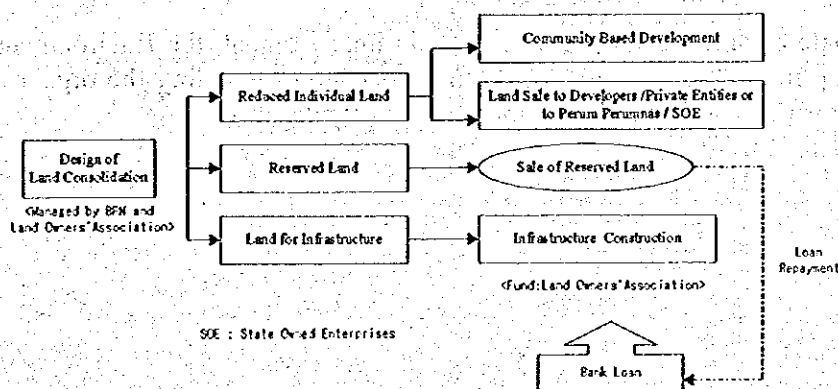
(Please refer to 4-5-4 Financial System in Main report)

(1) Self-financing system

Land consolidation projects are basically implemented under a self-financing system, in which all the development cost including infrastructure construction is financed through the sale of reserve land contributed by landowners. Landowners are compensated by an appreciation of land value resulting from the development. On the other hand, the government should financially support the L/C when the infrastructure and public facilities to be constructed will benefit or affect people beyond the L/C areas. In these circumstances, the government should provide a certain cost to L/C projects in order to achieve the main two missions: realize orderly urban development and improve the living environment of the general public.

(2) Cash flow mechanism

Various expenditures are required throughout the L/C project. At the beginning a project office must be established where administrative work will be conducted. Before the establishment of an L/C association, various surveys, including site surveys and social surveys, must be carried out. Land development, construction works of infrastructure and public facilities and replotting require a lot of capital mobilization. On the other hand, the revenue by sale of reserve land is performed only in the final stage of the project. Therefore, the financial program should be carefully examined from various aspects, and who pays what expenses must be thoroughly discussed between the task force in the government and the L/C association at the beginning of the preparation stage.



(3) Financial supporting system

Since the decentralization laws were adopted, it has become easier for the local government to borrow money from financial institutions, issue bonds, and guarantee the borrowing of local entities. Considering that the L/C association usually does not have access to long-term financing, the government should facilitate the initial capital mobilization of the L/C association: i.e. issues bonds and on-lend to the L/C association, or guarantees the borrowing of the L/C association.

(4) Increase in finance capability by the local government

When the local government does not have enough financial resources to finance the infrastructure construction requested for an L/C project, the local government could use loans or bonds under the expectation that tax revenues will increase after the realization of the L/C project. However, although more than 60% of the land registration tax and the land and building tax are retained at the local level, an expected increase in tax revenues from these sources is by no means sufficient to cover the loan or bond repayment. The local government should consider any possibility to increase the revenue levied on local economies, since major taxes (income tax, value-added tax, etc.) are currently solely captured or regulated by the central government.

3.6 Environmental Impact Assessment Guidelines

- | |
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| <ol style="list-style-type: none">1. Environmental improvement is the essential purpose of L/C projects.2. Even L/C projects should be examined in accordance with the authorized procedures of the environmental impact assessment. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Necessary EIA

Act No. 23 of 1997 prescribes that every development plan/project that is considered likely to have a significant impact on the environment should be accompanied by an environmental impact assessment (AMDAL/EIA).

Even though environmental improvement is one of the essential purposes of L/C projects, it is subject to the AMDAL/EIA procedures, and environmental mitigation measures must be incorporated in the project implementation.

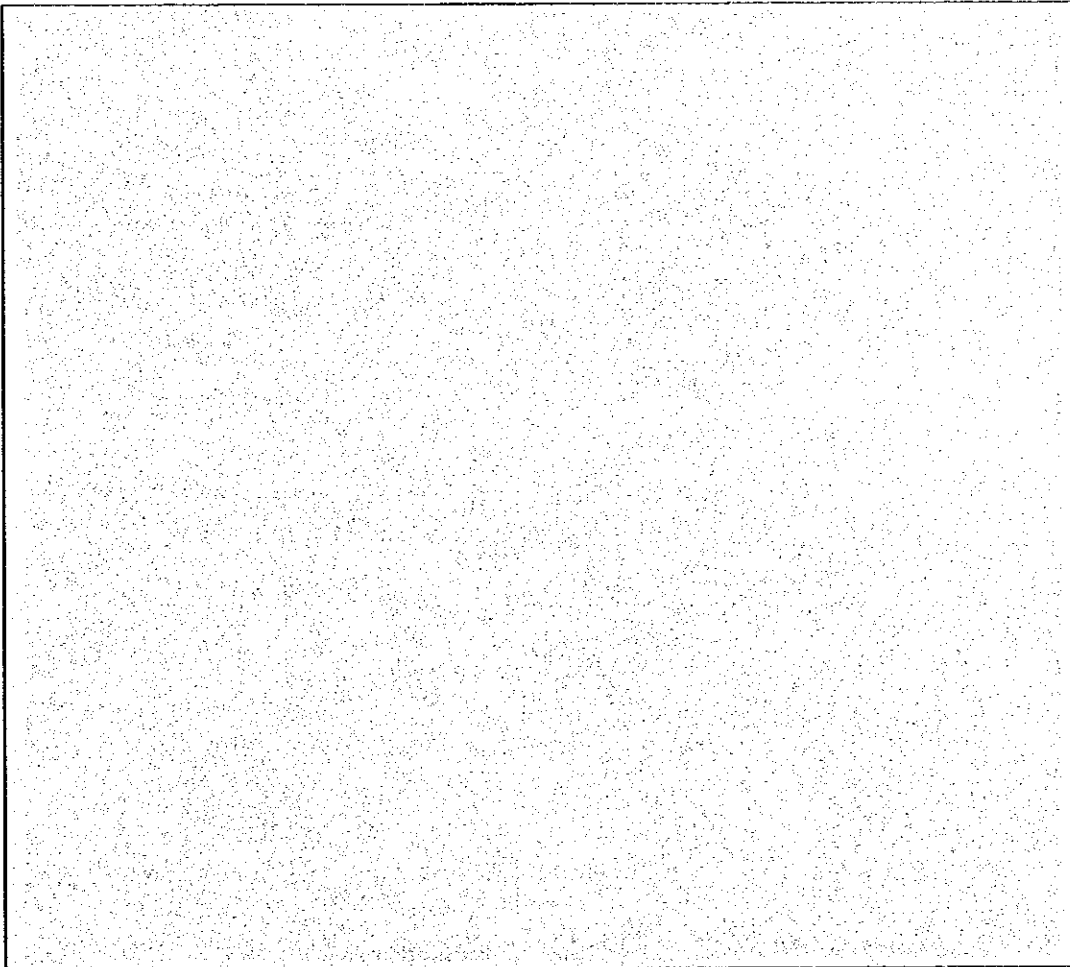
To substantiate environmental preservation and improvement, the Environment Management Plan is set up in the project implementation procedures, including the organization and staff for environment management throughout the project execution.

LAND CONSOLIDATION

L/C Project Implementation Manual

[How L/C project is prepared and implemented]

● January 2000



Prepared by JICA Study Team in cooperation with BPN

I/C Project Implementation Manual

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Appendix 1 **Environmental Consideration for Land Consolidation Project**

Appendix 2 **Methodology for Replotting Design and Land Evaluation**

Appendix 3 **L/C Project Implementation Manual for Application during Transition
Period for Administrative Reform in Indonesia**

Introduction

1. Background

Land consolidation (L/C) projects have been broadly carried out throughout Indonesia by the National Land Agency (BPN). The most significant characteristic of the L/C projects in Indonesia is that they are implemented mainly for the purpose of land tenure registration. Although the National Land Agency made every endeavor to implement L/C projects effectively and successfully, there are some difficulties in terms of infrastructure improvement, financial sources, community participation and so on. In order to better respond to the local needs, it is required to improve the existing L/C system. In addition to the system improvement, it is also required to consider the applicability to local government along with the movement of decentralization in government reformation.

2. Objectives

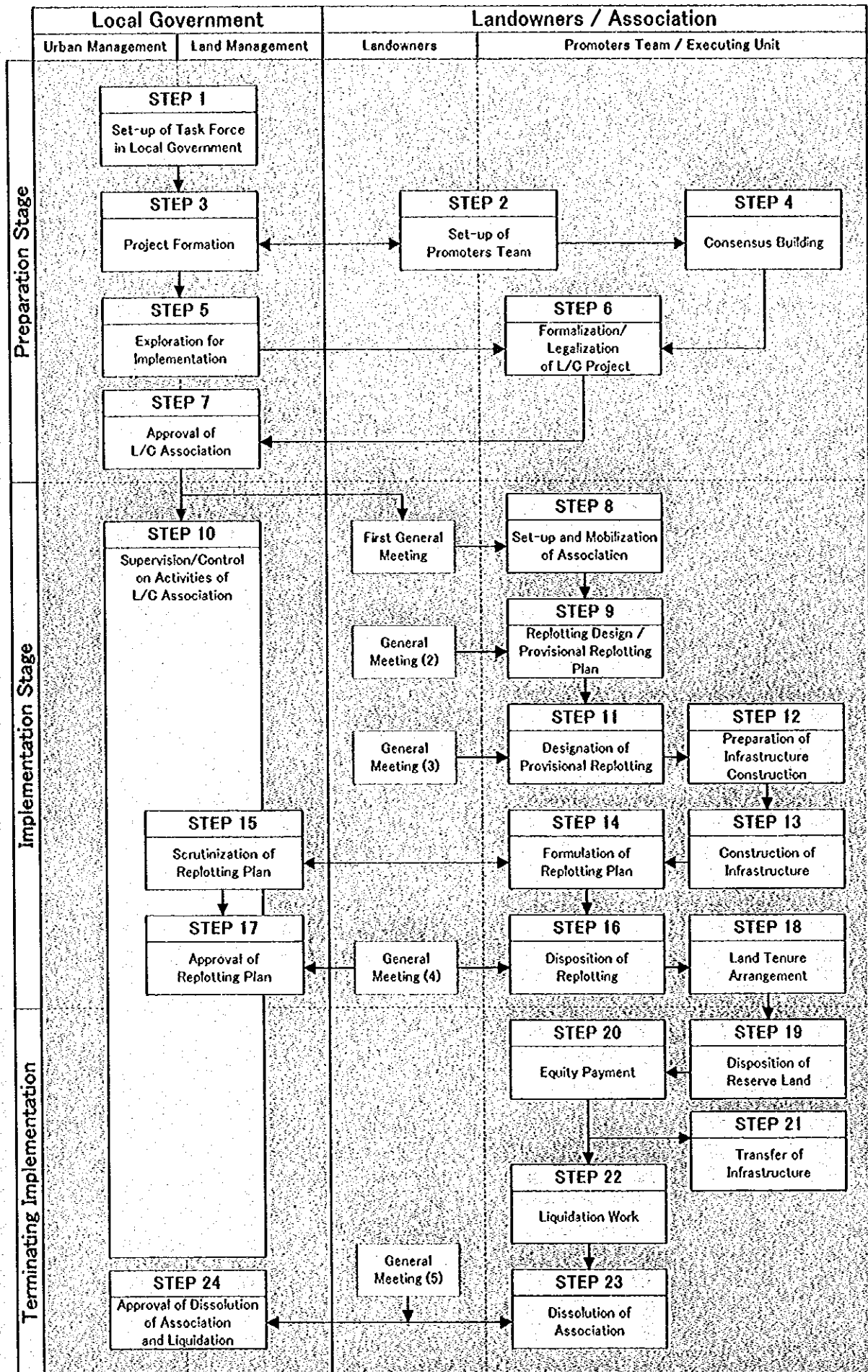
The main objective of this manual is to contribute to the legalization and systematization of future L/C projects in Indonesia, by showing L/C projects expected procedures from the viewpoints of both local government and landowners. This manual is prepared not to show the sequence of the procedures corresponding to existing L/C projects, but to give substantial materials for the understanding of future L/C's inherent features and to assist the legalization and systematization of L/C in the near future. Therefore, the procedures shown in this manual are developed on the assumption that relevant laws/regulations and administrative structures will be prepared and that a public administration takes project implementation initiatives.

3. Overall Framework

The L/C implementation procedures are roughly classified into steps based on the implementation process, and each step is defined as a task for the local government or landowners. The sequence of steps and their definition can be modified depending on the actual conditions of the project; for example, when an L/C project can be initiated by landowners.

The framework of L/C project implementation procedures is summarized in the following 24 steps. Each task is explained (by step) in this manual as a typical example of association type L/C projects.

An Example Framework of L/C Project Implementation Procedure



PREPARATION STAGE FOR IMPLEMENTATION

STEP 1 Set-up of Task Force in Local Government
[By Local Government]

In order to realize a land consolidation (L/C) project, it is essential that the local government take the initiative throughout the preparation stage. There are, generally, lots of tasks to be addressed by the related agencies, thus a task force of which the staff is engaged in L/C should be established at the local government.

1. Organization of the Task Force at the Local Government

An example of organization of the task force at the local government is outlined as follows.

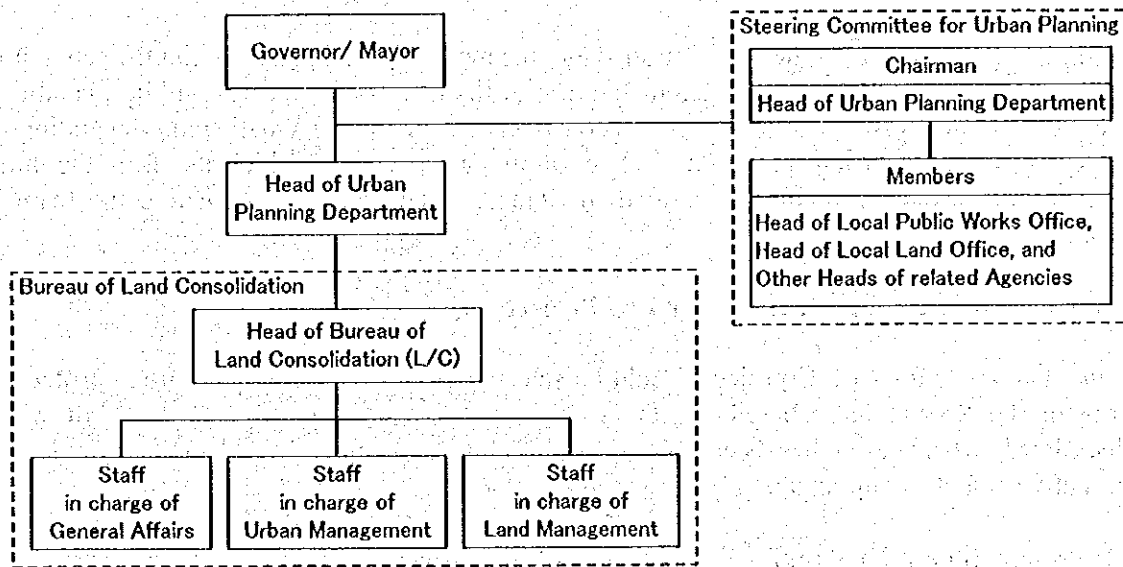


Figure 1 An Example of Organization for the Local Government Task Force

In the above example, the organization is divided into two units: the Steering Committee and the L/C Bureau. The function of the steering committee is, as an advisory body, to manage the activities on L/C projects as well as urban planning and development. On the other hand, the L/C bureau is in charge of practical tasks such as promotion of land consolidation, meeting with promoters and landowners, formation of projects, and monitoring/supervising L/C projects.

The L/C bureau consists of three (3) sections: general affairs, urban management and land management. As for the technical staff, it is desirable that the staff in charge of urban management be attached to BAPPEDA, and the staff in charge of land management be from the Local Land Office.

In order to promote L/C projects, it is essential that the staff of the Bureau keep up a relationship with residents of the administrative area, especially with certain leaders (who may be candidates or volunteers for promoting of L/C projects) in the neighborhood. Because the motivation of the community improvement accrues from the neighborhood's opinion about their life environment, and the staff of Bureau can provide appropriate

PREPARATION STAGE FOR IMPLEMENTATION

information/materials to improve the community's environment and to promote L/C projects under the condition that they maintain a favorable relationship with the neighborhood.

2. Expected Work of the Task Force at the Local Government

In the preparation stage, the expected work of the task force at the local government is tabulated as follows:

Table 1 Expected Work of the Task Force

Bureau of Land Consolidation	Steering Committee (of L/C project)
- Project formation and its promotion	- Advice on activities of L/C bureau
- Technical assistance to promoters team	- Coordination among related agencies
- Exploration for project implementation	- Examination on L/C implementation plan

To initiate L/C projects in the preparation stage, the most important task for the Bureau is how to increase the tendency toward systematization of the team of promoters within a candidate area for L/C projects. There may be several methods for the systematization depending on the characteristics of each community. The following procedures, which also form the initial work of the project formation described in Step 3, is an idea to systematize the team of promoters.

(1) Selection of Candidate Areas for L/C Project

Candidate areas for an L/C project should be selected within the designated urban promotion area in the Spatial plan, based on its urban improvement program. An area, in which disordered urbanization has been in progress and improvement of urban environment is urgently needed, is applicable to L/C projects.

(2) Preparation of Explanatory Materials on L/C Projects

Explanatory materials, which help landowners to deepen their understandings on L/C projects, can be utilized to encourage leaders to promote L/C projects in their neighborhood and to proceed with explanatory meetings smoothly. These materials are prepared by a study for project formation described in later steps.

(3) Meeting with Leaders of the Candidate Areas

Leaders are needed to systematize/run a team of promoters (pre-association). And then consensus building for L/C projects can be started through those leaders. Accordingly, the staff of the Bureau have to seek leaders in the candidate areas, and obtain their cooperation through social gathering and so on. It is deemed that heads of the RT/RW and influential persons of the neighborhood are eligible for the leaders.

(4) Implementation of Opinion Poll Survey

It is desirable that the L/C Bureau carries out an opinion poll survey to understand landowners' awareness of the present conditions concerning the neighborhood and their opinion about community improvement.

(5) Explanatory Meeting for Landowners in the Candidate Area

The L/C Bureau holds explanatory meetings for landowners in cooperation with leaders when their understanding on L/C projects is deepened. It is deemed that the meetings should be held autonomously (RT/RW) because leaders are likely selected based on such autonomous units.

(6) Request for Leaders to be Promoters

When the landowners' opinions grow toward the implementation of L/C projects through opinion poll surveys and the explanatory meeting, the L/C Bureau should work on the leaders to form a team of promoters (pre-association) in order to summarize landowners' opinions and to establish an L/C association.

**STEP 2 Set-up of the Team of Promoters
[By Landowners]**

The characteristic of L/C by association is that the project is implemented based on the landowners own judgment in order to increase the utility of their land and improve their community with a provision of efficient public utilities, and the majority of the projects are democratically implemented by themselves. To establish an L/C association (in case of L/C projects in Japan) it is necessary to have 7 or more promoters who volunteer among landowners within the expected project area, and two thirds or more of the landowners and leaseholders both in terms of acreage of owned lands and in absolute numbers. The promoters, as a team, seek to gain the landowners' understanding and approval on the L/C project in terms of voluntarism, respect for private rights and expected effects, with technical assistance and advice from the local government.

Procedure to set up a team of promoters (pre-association) and to obtain technical assistance from the local government is outlined as follows.

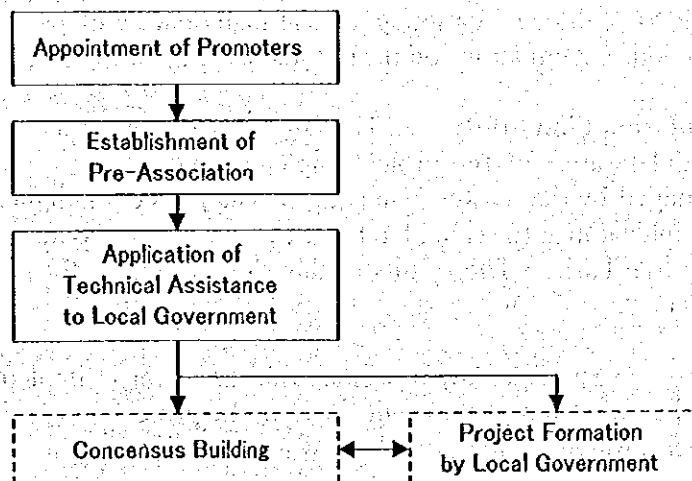


Figure 2 Establishment of a Pre-Association

1. Appointment of Promoters

It is deemed that there may be two cases where promoters are appointed by landowners. On the one hand the promoters are requested by the local government and then appointed by the landowners when the local government initiates the project, on the other hand they are necessarily appointed by landowners when it is initiated by landowners spontaneously. In any case, the outline of L/C project has to be understood and agreed by most of the landowners.

2. Establishment of a Pre-association (Team of Promoters)

The appointed promoters form a pre-association as a team of promoters. The role of the pre-association is to continue the work on landowners to increase their interest in L/C projects, and to apply to the local government for technical assistance.

3. Application of Technical Assistance to the Local Government

There are lots of tasks, which require technical know-how in order to realize L/C projects. Therefore, the pre-association should ask technical assistance to the local government except when they can afford to engage technical advisers.

STEP 3 Project Formation
[By the Local Government]

The local government is to study the project area in order to promote the implementation of L/C projects. The study is divided into three categories according to the procedure; master plan study, project implementation plan study and public relations as follows.

Master Plan Study : This study begins from the selection of a candidate area for L/C project on a topographical map (a scale of 1/25,000 to 1/10,000) in accordance with the Spatial plan and its program. The purpose of this study is to examine potential L/C projects. The concept plan is to be drawn on a topographical map (a scale of 1/5,000 to 1/2,500) based on the results of various examinations on the candidate area.

Project Implementation Plan Study : This study is carried out in order to check the details of the candidate area for the project implementation when a possibility for an L/C project has been judged by the master plan study. The project implementation plan is to be drawn on a topographical map (a scale of 1/1,000 to 1/500), and the implementation cost is to be calculated on a trial basis. The results of this study are used for the formulation of the implementation plan.

Public Relations : Since the key to a successful L/C project implementation lies on the understandings and cooperation of the landowners in the project area, it is necessary to carry out research on their awareness and attitudes toward the project at the preparation stage, and to carry out activities for public relations.

The following figure shows the overall procedures for the project formation.

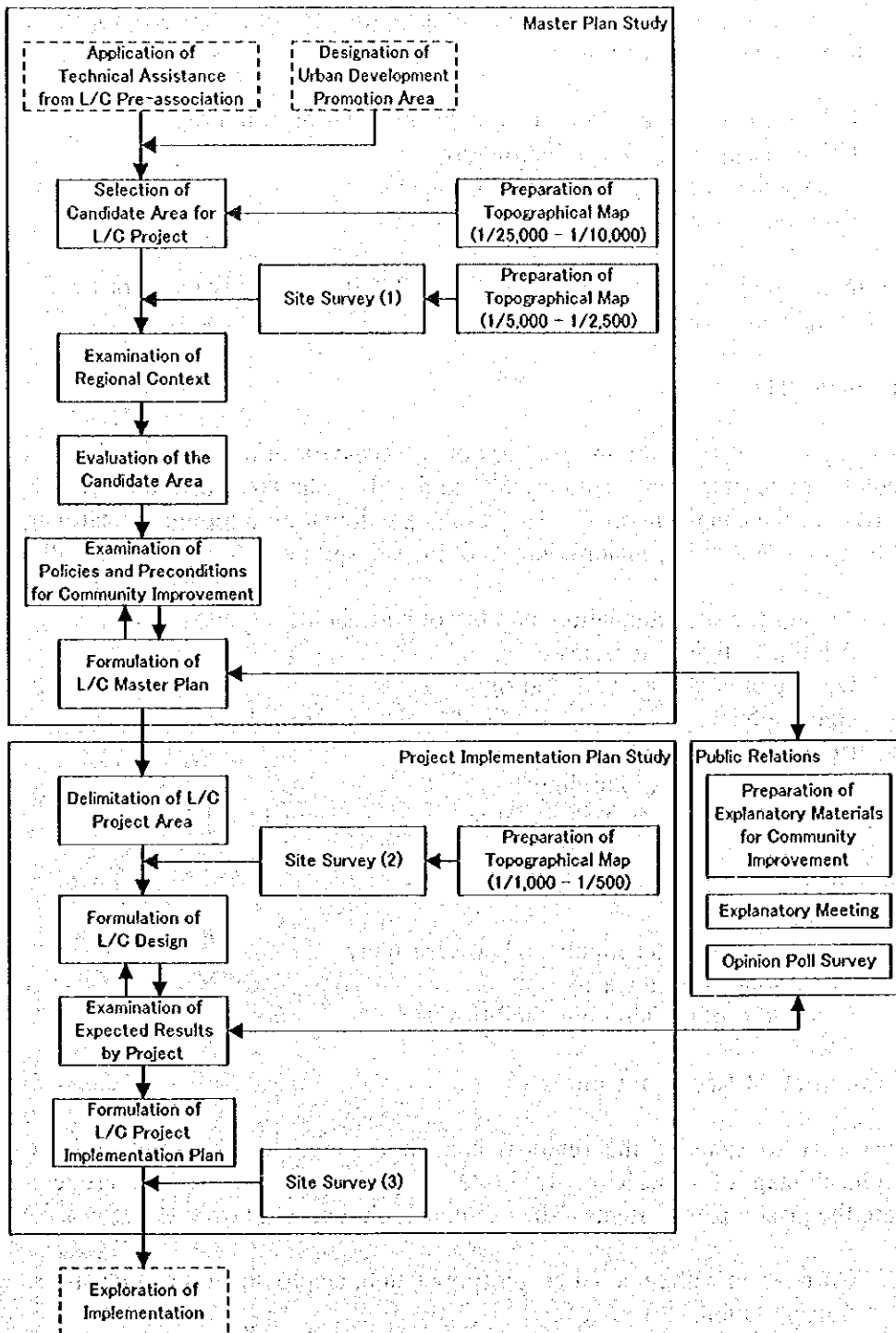


Figure 3 Procedures of Project Formation

1. Master Plan Study

(1) Selection of Candidate Area for L/C Project

In principle, the candidate area for an L/C project should be selected within the designated urban promotion area in the Spatial plan, and based on its urban improvement program. In

PREPARATION STAGE FOR IMPLEMENTATION

addition to the principle area, in which landowners' demand for the L/C project implementation is also applicable for the candidate area, the other criteria for the selection of the candidate area are found as follows:

- Urban fringe where disordered urbanization has been in progress.
- Urban fringe with poor infrastructure.
- Area adjacent to large scale development.
- Built-up area where redevelopment is needed.

A topographical map of a scale of 1/25,000 to 1/10,000 is generally used for the consideration of the L/C candidate area.

(2) Site Survey (1)

A site survey (1) is carried out in order to obtain necessary information of the candidate area to formulate the master plan accurately and in detail. The area for the survey shall include the environs of the candidate area. The results are drawn on a topographical map of a scale of 1/5,000 to 1/2,500. The major contents of the site survey (1) are shown as follows:

- Area of the site, population, number of households
- Administrative boundaries
- Outline of land price and land right
- Geographic features, soil conditions, water system
- Environmental conditions
- Land use, outline of buildings
- Road network, traffic volume of major road, planned road
- Conditions of parks and green
- Conditions of rivers and drainage
- Sanitary system
- Conditions of water supply and power supply
- Conditions of solid waste
- Conditions of social/public facilities

(3) Examination of Regional Context

It is necessary to examine the regional context required for the candidate area, using a topographical map of a scale of 1/25,000 to 1/10,000. The results are considered to formulate the master plan. Items to be examine is shown as follows:

- Correlation with regional center (population, employment, key industries, transportation, etc).
- Trend of urbanization in surroundings (numbers of households, large scale development, major social/public facilities, major road network, etc).
- Regional development plan, spatial plan, major development project, etc.

(4) Evaluation of the Candidate Area

The evaluation of the candidate area is to clarify the necessity of L/C projects concretely and directly on the topographical map (scale of 1/5,000 to 1/2,500). The results of this evaluation are to be preconditions for the formulation of the master plan and project

implementation plan, and to be helpful for discussions between local government and landowners. The items for the evaluation are shown as follows:

a. Evaluation on present conditions of urban environment

This evaluation is to clarify the present conditions of urban environment based on the results of site survey (1). Generally the following elements are clarified by the evaluation.

- Elements to be preserved
- Elements to be eliminated
- Elements to be improved

b. Forecast on future conditions of urban environment

This forecast is to find the future problems, which may occur if the present conditions continue as they are. Conditions of urban environment in the surroundings and/or in an area similar to the candidate area may be helpful for the forecast.

c. Summarization of evaluation results

In accordance with the evaluation on present and future conditions of urban environment, it is better to show those evaluation results and the necessity of urban improvement on a topographical map. This map can be used as one of the explanatory materials to promote L/C projects.

(5) Examination of Policies and Preconditions for Community Improvement

Based on the examination of the regional context and the evaluation of the urban environment, it is necessary to elaborate policies and preconditions for the community improvement of the candidate area. The policies may consist of such items for planning as population, land use, transportation, infrastructure and so on. And the preconditions may consist of such items as allocation of social/public facilities, organization in the candidate area, basin of river, geographic features, and so on.

(6) Formulation of the Master Plan

The concept plan is a guide plan, which shows the direction of development/improvement of the candidate area. The functions of the master plan for L/C projects are as follows:

- To judge the applicability of L/C system
- To make it easier to take an overall view of the project area.
- To optimize for understandings and cooperation of landowners in the candidate area.

The concept plan consists of the following elements:

Basic structure : The basic structure of the concept plan can be examined on the topographical map of a scale of 1/5,000 to 1/2,500 in accordance with the above-mentioned policies and preconditions. The basic structure is outlined by the major road network, land use and allocation of parks.

Population plan : The population of the candidate area at the time of completion of the project is estimated. This estimation is used for the design of social/public facilities of which

magnitudes depend on the planned population.

Neighborhood plan : A neighborhood is a basic unit of the urban area, and facilities, which are necessary for everyday life, and planned/allocated by this unit. An autonomous area (RT/RW), catchment of school and residential environment are some examples of a neighborhood as a unit.

Land use plan : The candidate area is divided by the land use plan in accordance to the development policies and basic structure. In order to realize the land use plan, there are several methods such as regulation by zoning, administrative guidance, inducement.

Transportation plan : Transportation facilities such as roads and railways form a frame of the candidate area and give an enormous effect on the residential environment, therefore it is important to be carefully planned taking into consideration the neighborhood plan and land use plan. As for road network, it should be hierarchically planned in order to maximize the road utility.

Parks and greens plan : Function, size and overall arrangement of parks and greens are to be examined for those allocation in the candidate area.

Drainage plan : An essential part of the drainage plan is to determine the way to which rainwater is discharged from the candidate area. Generally, urbanization decreases the natural function of detaining rainwater on land, and jeopardizes the area along the downstream if there are no overall countermeasures to protect the whole of catchment area from floods. Therefore, in the drainage plan, it is needed to examine the development effects onto the downstream area.

Plans for water supply, sanitation, power supply and telecommunications : These facilities are absolutely necessary for residents in order to have a comfortable urban life, and they should be planned in accordance with those improvement programs of the related agencies. Capacities of those facilities are planned by the population objective and areas.

Social/public facilities plan : Social/public facilities such as educational and administrative services are to be planned taking into consideration the population plan and land use plan as well as the existence of similar facilities in the surrounding areas of the candidate area.

Consideration of the project area: In the master plan, the candidate area may be divided into several parts in accordance with the results of the site survey (1) as well as the results from examinations in the process of the formulation of the master plan. In general, it is difficult from a financial and technical viewpoint to carry out the L/C project in all these divided areas at same time. Therefore, it is necessary to examine which area is the most applicable for the L/C project.

2. Project Implementation Plan Study

(1) Delimitation of the L/C Project Area

Based on the master plan, an area for the L/C project implementation is to be selected through the overall examination of the following items:

- Necessity of infrastructure improvement
- Necessity of community improvement from viewpoint of urbanization trend
- Opinion of landowners
- Feasibility of implementation

Of the delimitation of the L/C project area, the L/C project area boundaries should be selected along immovable objects, such as roads and rivers.

(2) Site Survey (2)

The site survey (2) is carried out in order to obtain necessary information on the selected area for the L/C project to formulate the project implementation plan accurately and in detail. The results are drawn on a topographical map of a scale of 1/1,000 to 1/500. The major contents of the site survey (2) are shown as follows:

- Area of the project site, population, number of households
- land prices and number of landowners
- Geographic features in detail
- Land use in detail
- Numbers of buildings classified by purpose of use and structure

(3) Formulation of the L/C Design

Based on the master plan and site survey (2), the land consolidation (L/C) design is to be carried out. In advance to the formulation of L/C design, basic structure and design standards should be prepared. The construction cost is estimated based on the formulated L/C design.

a. Basic structure

The basic structure is a guide for L/C design, it consists of zoning for land use, diagram of traffic circulation, network of parks and greens, allocation of public facilities, countermeasures of flood run-off.

b. Design standards

Design standards of infrastructures and public facilities should be established by each L/C project to carry out the L/C design. Most of those design standards may be prepared by related agencies. As for the application of those standards to the L/C project is examined through discussion among the local government and the related agencies.

(4) Examination of Expected Results by Project

It is necessary to examine the expected results by the L/C design. The examination is carried out by comparison between conditions before and after the project in terms of urban environment and sufficiency of urban facilities. If needed, the L/C design may be modified.

a. Comparison of urban environment

The urban environment before and after the project can be compared with three items clarified by the evaluation in the master plan; elements to be preserved, elements to be eliminated and elements to be improved.

b. Comparison of urban facilities' sufficiency

The sufficiency of urban facilities, before and after project, can be compared with the occupancy ratio of each infrastructure and facility, from the land use resulted by site survey (2) and the L/C design.

(5) Formulation of the L/C Project Implementation Plan

The above-mentioned works are put together as an L/C project implementation plan. The L/C project implementation plan is a basis for the exploration of the implementation and the formulation of the implementation plan described in the later step.

(6) Site Survey (3)

Site survey (3) is carried out in order to obtain necessary information of the L/C project area to formulate the implementation plan accurately and in detail. The results are drawn on a topographical map of a scale of 1/1,000 to 1/500. The main contents of the site survey (2) are shown as follows:

- Identification of lots and those landowners
- Identification of land rights
- Identification of building rights
- Identification of infrastructures and public facilities

These results are used for the replotting design as well.

3. Public Relations

(1) Preparation of Explanatory Materials

In accordance to the master plan and/or project implementation plan, explanatory materials should be prepared focusing on the necessity of the L/C project and the overall procedure. These materials will be very useful in order to increase the landowners' interests toward the implementation of L/C projects.

(2) Explanatory Meeting

In order to deepen the landowners' understandings and cooperation with the L/C project, explanatory meetings should be held.

(3) Opinion Poll Survey

As the basis to formulate the master plan and project implementation plan, an opinion poll survey should be carried out. The content of the survey reflects the people's awareness on the neighborhood environment, life planning, land utilization, administrative conditions, and so on.

STEP 4 **Consensus Building**
 [By Landowners]

Consensus building is one of the most important tasks to operate an L/C project smoothly, and may be attained by the landowners' understanding and approval of the community improvement policy, contribution ratio, planned road network, etc. through explanatory meetings and so on.

As for L/C projects by association, the team of promoters proceeds with the consensus building among the landowners, in cooperation with the local government. Most of the needed materials and information for the team of promoters shall be provided by the local government's task force.

STEP 5 **Exploration for Implementation**
 [By Local Government]

Based on the project implementation plan, the local government (bureau of L/C) operates to realize the implementation in cooperation with the team of promoters. The works are directed from the possible organization's viewpoint, consensus of landowners, financial procurement, and infrastructure development with other projects. And the results of the works are collected in a draft of implementation plan, which consists of documents of basic policies for the project submitted by the team of promoters.

1. Exploration of Possible Organization

The local government should examine the possible organization to operate/implement the L/C project, in cooperation with the team of promoters. The examination is carried out on the following items.

Overall organization : The overall organization is to systematize the cooperation among the local government, L/C association and private sector. In principle, the L/C project is implemented by an association, however, it is impossible to operate the project without the cooperation between administration and L/C association and the private sector's participation. Therefore, it is necessary to prepare the systematization of an appropriate overall organization.

Organization of association : The organization of the L/C association should be considered from the viewpoint of its operation because the L/C project requires some specialists and its needed work varies in accordance with the implementation process. The operation is substantially performed by an executing unit established within the L/C association. Generally, the executing unit consists of a board of executives and an executive office; the former of which members are representatives of the landowners, (approved by a first general meeting), is an organ to decide the activities of L/C association, and the latter is an organ to manage the substantial work. Accordingly, the executive office has to be organized by some specialists of such fields as accounting, civil engineering, law and so on. It is deemed that those staffs may be dispatched from the local government as a part of technical assistance, or from the private sector on contract.

Roles of the local government : During the implementation stage of an L/C project, the role of the local government is mainly to monitor and approve the activities of the L/C association. In addition, it is better to dispatch appropriate technical staffs to the executive office when the L/C association asks for technical assistance.

Participation of the private sector : There is an additional way for the private sector, especially for private developers, to participate in an L/C project. Under a condition of purchase reserve land and/or as one of the landowners, private developers may be entrusted by the L/C association for undertaking most of the tasks on the L/C project operation. This method may have the following characteristics:

- Expectation of commercial efforts to promote the implementation
- Smooth/prompt operation by private sector know-how
- Utilization/employ of private funds, especially for initial cost of project
- Promotion of ordered urban improvement by private sector using its owned land

2. Exploration of Social/Political Acceptance

The L/C project is one of the methods used to realize city planning, and its purposes are summarized as infrastructure development and increase of land utility. Its mechanism is summarized as follows: to improve infrastructures on certain land (contribution) produced by landowners in an area and to increase the area's land utility by improving the infrastructure, accordingly, if the contribution is less than the increased land utility the landowners are theoretically/economically to gain. In order to realize the city planning through L/C projects, therefore, the local government has to explore a prospect of acceptance by landowners in terms of the administrative policy and the L/C mechanism. The contribution ratio is one of the materials used to examine the prospect.

3. Exploration of Financial Resources

(1) Cash Flow Analysis

a. Forecast of land value after L/C

The price of reserve land must be estimated by predicting the land price appreciation after the land consolidation.

b. Development of a cash flow schedule and estimation of the size of reserve land

A cash flow schedule that balances, throughout the project period, the expenses including interests and the revenues must be developed. The size of the reserve land is estimated based on this cash flow schedule and the land value forecast.

The local government's subsidies must be incorporated into the cash flow when they are introduced. Cost for the construction, and its accompanying land acquisition, of the infrastructure and public facilities, which are deemed to benefit the general public must be borne by the central or local government. Also from the perspective of facilitating urban development, the government should provide subsidies to the L/C association if the proceeds from the sale of reserve land are not large enough to cover all the infrastructure construction.

Based on the cash flow schedule, the amount and timing of capital requirement are identified.

c. Sensitivity analysis

A sensitivity analysis is conducted by changing parameters that are affected by external conditions, such as inflation or the interest rate.

(2) Identification of Financial Sources for L/C

It is envisaged that L/C projects request a significant amount of capital expenses prior to the sale of reserve land. The following are the possible financial sources for L/C:

- Commercial bank loans. The loans would have to be guaranteed by the local government. A grace period must be given until the start of the reserve land sale.
- Issuance of bonds by the local government, which are on-lent to the L/C association. The terms of the bonds should coincide with the capital needs of the L/C project.

4. Exploration of Regional Infrastructure Development

If there is a project as a regional infrastructure development adjacent to the L/C project area, it is rational to carry out both projects at the same time. The local government, therefore, has to consider the possibility of this case in accordance with spatial plan and its program. Possible regional infrastructures are the toll road interchange, regional arterial road, flood protection, water supply and so on.

STEP 6 Formalization/Legalization of the L/C Project
[By the Team of Promoters]

The team of promoters prepares legal documents stipulated by the Land Consolidation Law/Regulation and its prescriptions, which shall be legislated in the near future, to apply the establishment of the L/C association succeeding to the project implementation plan and the results of its exploration prepared by the local government. The procedure of formalization/legalization of L/C projects is outlined as follows.

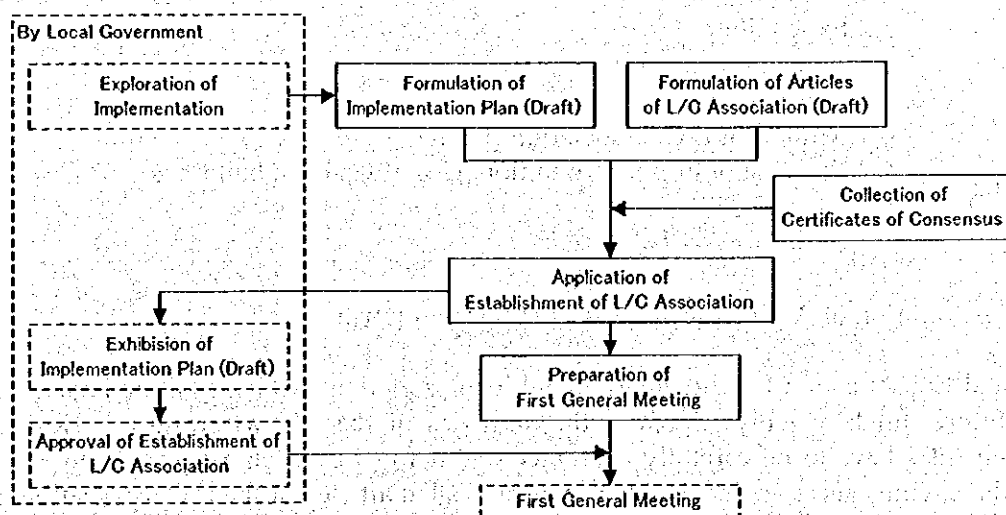


Figure 4 Procedure of Formalization/Legalization of L/C Projects

1. Formulation of the Implementation Plan (Draft)

The implementation plan is a legal document that indicates the plan on the fundamental items of the L/C project, based on the planning works already conducted in the previous steps. The contents of the implementation plan consists of four major items:

- Location and boundary of the project area
- Outline of the L/C design
- Implementation schedule
- Financial plan

An example of detailed contents of the implementation plan is shown as follows:

1. Project and Implementation Body
 - 1.1 Project Name
 - 1.2 Implementation Body
2. Project Area
 - 2.1 Location of Project Area
 - 2.2 Map of Area Boundary
 - 2.3 Project Area Zoning
3. Outline of the L/C Design
 - 3.1 Objectives of Project
 - 3.2 Present Condition of Project Area
 - 3.3 Design Policies
 - 3.4 Comparison of Land Use before and after Project
 - 3.5 Calculation of Reserve Land
 - 3.6 Development and Improvement Plan of Public Facilities
 - 3.7 L/C Plan
4. Project Implementation Schedule
5. Financial Plan
 - 5.1 Revenue
 - 5.2 Expenditure
 - 5.3 Annual Financial Plan
6. Reference Materials
 - 6.1 Articles of L/C Association (Draft)
 - 6.2 Drawing of Present Condition: Use of land and buildings
 - 6.3 Land Use Plan

2. Formulation of Articles of the L/C Association (Draft)

The land Consolidation Law/Regulation and its prescriptions, which shall be legislated in the near future, fundamentally stipulates the activities of the L/C association. However, the detailed rules have to be carefully examined and defined by each association in accordance with the circumstances. The detailed rules are called articles of the L/C association, and the draft is attached to the implementation plan as one of the reference materials. The following items have to be specified in the articles:

- Name of L/C association
- Location of project
- Contents of project
- Location of office
- Method of cost sharing
- Number of executives and auditors, their terms, responsibilities, and method of their electing
- Items concerning general meeting
- Project period
- Method of public announcement
- Method of disposing reserve land
- Items concerning decision of datum area before project
- Items concerning accounting
- Items concerning land evaluation
- Items concerning equity payment

3. Collection of Certificates of Consensus

The team of promoters have to collect certificates of consent on the L/C project from landowners in order to apply for the association's establishment at the local government. It is desirable to collect 100% (or nearly 100%) of the certificates from landowners within the project area. (In Japan, 2/3 or more of agreements of landowners are legally needed to implement an L/C project).

4. Application of Establishment of the L/C Association

In order to establish the L/C association, the team of promoters has to submit an application with the related documents to the governor. The needed documents are:

- Draft of implementation plan including articles of L/C association
- Certificates of consensus with a list of both numbers of approval and disapproval
- Duplications of applicants' identifications

5. Preparation of the First General Meeting

The team of promoters has to proceed with the preparations for the first general meeting in advance. The preparations consists of the following items:

- Place and date
- Agenda
- Assignment for proceedings
- Notification on election of executives and auditors
- Notification on convocation