

Between 1958 and 1993, Taiwan implemented 10,718 ha. of LR projects through publicly initiated projects, and about a quarter of these are implemented in Kaohsiung City. Taipei City is not so popular for the LR projects. There are now 322 privately initiated LR projects covering 1,179 ha. in Taiwan. The number of projects is large, but the average project area is less than 4 ha., and the majority of these projects are implemented in small cities. There are two projects in Taipei and four projects in Kaohsiung.

3.2 Conceptualization of Land Readjustment in Malaysia

3.2.1 Needs of Land Readjustment for Urban Development in Malaysia

1) Current Urban Development Issues in Malaysia

Urbanization in Malaysia has been rapid and is expected to continue in a more dynamic manner. Yet, urban planning and development programmes have met with increasing difficulty in establishing effective urban areas. Relatively high quality urban systems have been developed by large-scale planned developments supported with high standard arterial roads. However, it is feared that these developments are normally closed with little integration with adjoining urban areas, and create problems such as excessive concentration of traffic on arterial roads, limited spill-over effects of socio-economic benefits onto the adjoining areas, and so on. In between the planned developments, there are also many areas previously developed but are now suffering from substandard, poor living environments, unstable rights on land, etc.

The Government intends to accelerate the formulation of statutory city plans to cover the entire Peninsular Malaysia by the end of the Sixth Malaysian Plan. However, implementation of the plans is expected to become increasingly difficult for various reasons such as lack of land, difficulties in land acquisition, increasing concern on environmental issues and social integrity, among others. Some major issues in relation to future urban development in Malaysia are summarized below:

- (a) how to realize statutory city plans;
- (b) how to undertake area-wise improvement in existing or once developed area;
- (c) how to effectively develop major infrastructure such as roads and parks in existing urban area;
- (d) how to respond to increasing concern on public participation in development;
- (e) how to tackle growing difficulties in acquiring lands for public facilities; and
- (f) how to handle the constraints in public funding.

In Malaysia as well as other developed and developing countries, the normal technique for urban area development has been for developers, either public or private, to build on their own land in accordance with acceptable planning standards or development guidelines. However, this model has increasingly become difficult to follow. Conventional procedures such as the buying up of land, compulsory purchase, expropriation or gradual adjustment to a new plan for the area are expensive and inefficient, and often meet with fierce resistance from landowners.

2) Potential Role of Land Readjustment

In recent years, land readjustment (LR) has been attracting growing interest worldwide as an important means of realising urbanization to address urban development issues such as those in Malaysia.

LR skillfully integrates the social and human elements into the urban development system through carefully laid out legal framework, administrative arrangement, planning technique, financial institution, and particularly through formal and informal public participation mechanisms. As urban development needs a more balanced attention on social, environmental, financial and physical aspects, the LR could provide an effective and sound model for the development of urban areas.

LR is conceptually applicable to most of the areas where existing development systems would not effectively work and would, therefore, remain untouched. Identification of LR project areas is the first important step for successful LR project implementation. Likewise, a LR project is one which can be formed by coordinating the following three basic project elements.

- Landowners interest and participation;
- Public sector interest and participation; and
- Financial viability.

In the LR project, property rights of landowners as well as those who own rights are protected and current activities being done in the community can be continued. Although infrastructure and public services are to be improved through the LR project, this does not mean that any kind of development which landowners desire is possible. The intended LR project should satisfy public interest to match existing statutory plans or to comply with the development policy of the Government. The LR project should be recognised as a development project with public consent.

Once the interests of landowners and the public are met, both are obliged to do their share of responsibilities. Landowners are obliged to participate and contribute to the projects, typically in the form of land contribution, while the public sector provides adequate legal and administrative frameworks for the smooth execution of the project and shares and subsidizes the construction cost of certain types of infrastructure. Even though the interests of landowners and the public are met, the LR project needs to be justified from a financial viewpoint. Government would not subsidize LR projects beyond a certain level, while landowners would not agree to excessive contributions.

3) Reasons and Areas for Application of Land Readjustment

LR may be applied specifically for the following situations:

(a) Provision of Planned Urban Land in Advance of Urbanization

Transformation of agrarian to urban land use normally has to be preceded by extensive adjustment of the property structure. This has been an important motive in Japan where the fringe areas of cities often consist of smallholdings or heavily parcelled agricultural land.

(b) Upgrading of Existing Urban Areas

LR is a suitable means of filling in an existing urban structure in both outlying areas and central parts. More intensive land use calls for a revision of land boundaries wherein joint development can offer the possibility without expensive land acquisition.

(c) Construction of Large Infrastructure in Existing Urban Areas

LR can provide a flexible means of creating a larger infrastructure within an already operational property structure. In such cases, only certain properties will be severely affected. This has been a major motive of LR in Japan. However, one possible effect of such an undertaking is that residual areas, which are often difficult to utilize, are formed alongside the built facility.

(d) Mitigating Financial Commitment of Implementing Body

LR provides a means of mitigating the commitment of the local authority to land acquisition and infrastructure. A heavy burden is imposed on municipal resources by means of land purchase, expropriation and the development of facilities. This self-financing mechanism will help any type of LR implementing body.

(e) Developing Existing Urban Areas Covered by Statutory City Plans

Areas of this kind are liable to be left undeveloped or possibly to be renewed at a slower rate through successive adjustments in a city plan. In such cases, LR will likely be the most practical and effective method. If the landowners are organized into a legal association, the community automatically acquires a counterpart for negotiations wherein LR can facilitate reaching economic agreements between landowners and the municipal government.

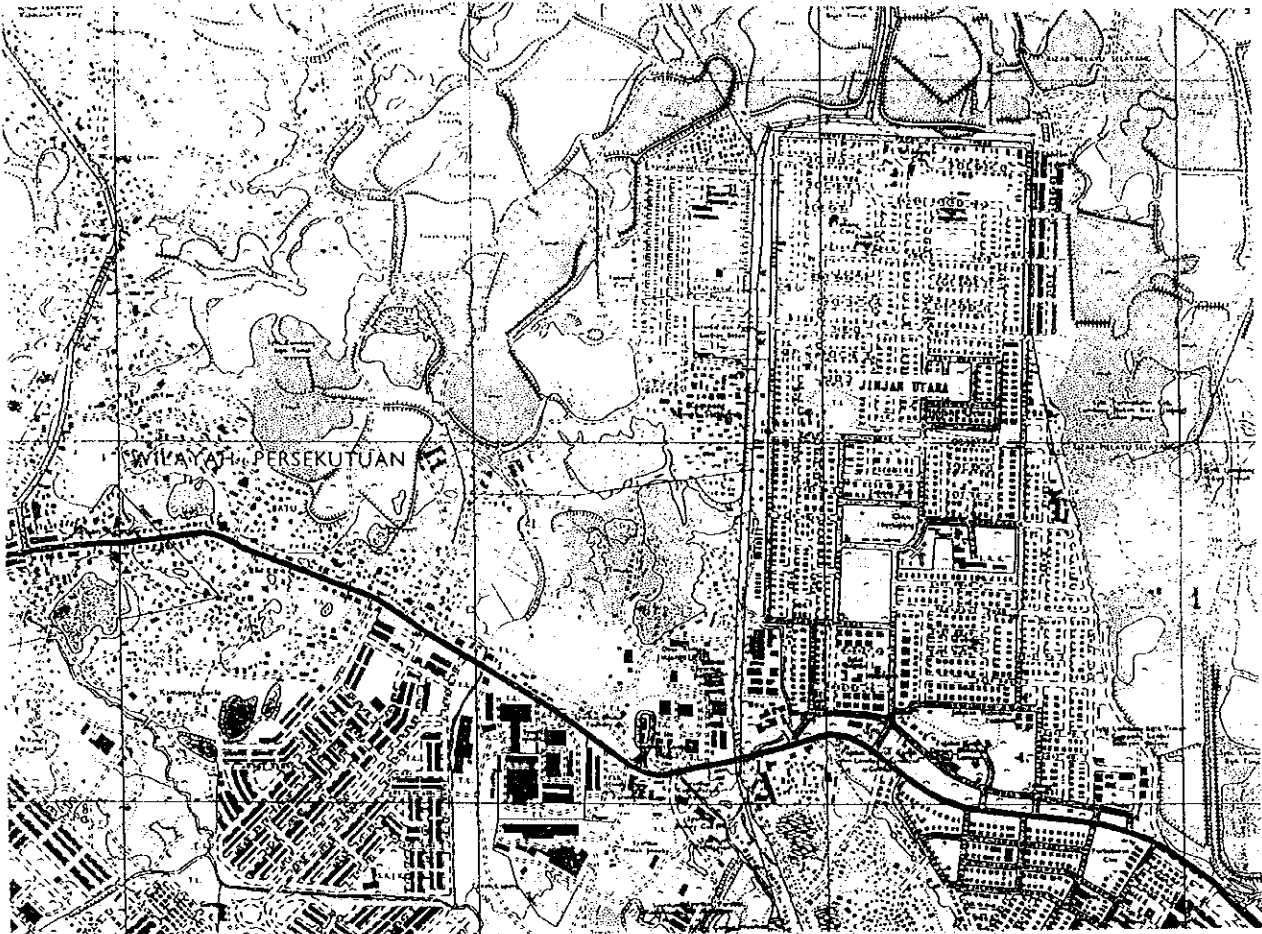
(f) Distributing Costs and Profits Equitably Among Participating Bodies Involved

LR presents an opportunity for a more equitable distribution of benefits among the actors involved. Development benefits can be distributed among landowners in accordance with appropriate criteria. It is also possible that the benefits will be secured by the community by demanding increased area contribution from the landowners. With LR, a better balance can be achieved between private and public sectors and also between the landowners themselves, while the traditional models result in uneven and relatively random distributions of benefit.

(g) Removing Constraints to More Effective Development

Existing property boundaries are in themselves a restriction in regard the optimum planning of an area. LR, in principle, eliminates this restriction through its built-in exchange procedure.

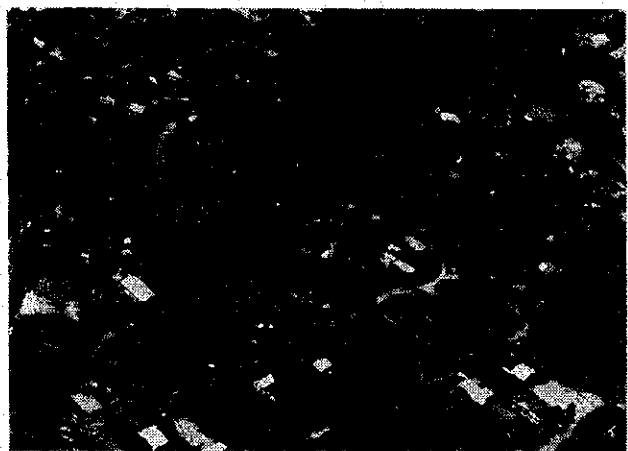
Figure 3.5
Possible Areas of LR Application



Once developed urban village which has become overpopulated area with substandard infrastructure and without regional integration



Fast growing suburban area where planned urban land needs to be provided in advance



Existing urban area with degrading environment and irregular landownership structure

(h) **Facilitating More Efficient Project Implementation**

LR implies close interaction between planning and implementation. Closer integration between the Government, Implementing Body, Infrastructural Agencies and landowners can yield obvious benefits in the form of better and more realistic planning, better total economies and a swifter procedure. It makes it easier to avoid subsequent compulsory acquisition problems.

(i) **Promoting More Intensive Public Participation**

The importance of citizens and landowners participating in the process of urban development has been increasingly emphasized in recent years. This participation, however, has for the most part been restricted to a right of information, while LR involves true participation including consultation, negotiation and a limited power of decision-making.

(j) **Consideration of Existing Social Environment**

LR makes it possible for the previous landowners to remain in the area, thus, social integrity can be maintained. Other methods often lead to the elimination of the previous ownership structure and social networks within the area. The social environment is an important asset to an area and, as much as possible, ought to be preserved.

At the same time, LR can provide the landowners with opportunities to change their lifestyle through relocation of existing land use to designated land use (say, from agriculture to industry).

(k) **LR as an Important In-Situ Development Tool**

LR plays the role as an important in-situ development tool where existing areas will be developed in the present physical setting. This would directly avoid exploration of new areas for development. This approach will contribute to better environment preservation.

3.2.2 Legal Aspects of Land Readjustment

There are three relevant provisions of existing laws to realise Land Readjustment in West Malaysia. These are the Land Acquisition Act 1960, the Sabah Town and Country Planning Ordinance 1958, and the National Land Code 1965.

- (1) Under the Land Acquisition Act (LAA) of 1960, it may be possible under S.15 for the Land Administrator to enter into any arrangement with landowners whose land is subject to compulsory acquisition. Hence, it may be possible to replot lands of affected landowners who agree to participate in the LR scheme while for those who disagree, their lands will be compulsorily acquired. This is the recommended method for realising the pilot project in the absence of comprehensive land readjustment law. The short term legal framework for LR based on the Land Acquisition Act 1960 is shown in the **Appendix 3.1**.

(2) Three possible methods of implementing LR under the National Land Code were also examined:

- (a) Surrender and Alienation (S.197 and S.79);
- (b) Simultaneous Application for Subdivision and Variation of Conditions (S.124A); and
- (c) Surrender and Realienation (S.204A to 204H).

Under the surrender and alienation method, the landowners surrender their lands to the State Authority which subsequently alienates to them new replots. This is another method that may be utilised to implement the pilot project on LR in the absence of comprehensive LR laws. The proposed legal framework under this method is shown in the **Appendix 3.2**.

The simultaneous application for subdivision and variation of conditions method requires the consensus of all the landowners in the project area. Under this method, the State Authority will change the conditions of landuse and issue titles to the subdivisional portions.

Under the surrender and realienation method, the National Land Code provides a guarantee that the land will be realienated to the landowners according to the approved plan with the exception of lands that need to be surrendered. This method also requires the consensus of all landowners.

(3) The Sabah Town and Country Planning Ordinance provides a distinct departure from the above models in that it promotes the implementation of LR as a planning tool. The provisions are contained in Part IV of the ordinance, particularly section 18A which details the mechanisms for implementing LR.

Under this ordinance, the Local Authority may prepare a draft scheme in either one of three ways:

- (a) Prepare a draft scheme of its own;
- (b) Adopt a draft scheme as proposed by owners of the lands; or
- (c) Require the developer of the land to prepare the draft scheme.

The approval to the scheme is given by the Governor and is gazetted. The approved scheme may provide for Land Readjustment. In the event consensus is not achieved, the Act also provides for compulsory acquisition. Where the old lot differs in size and shape from the new lots in the approved scheme, the Local Authority has to prepare a map for public inspection. Appeals are then heard after which the scheme becomes binding on all owners. The lands in the scheme are then vested in the State upon which new titles are registered.

For information reference, one can also look at the repealed Housing Trust Act of 1950. It had several features similar to Land Readjustment. The Act provided for the implementation of housing schemes by pooling and redistribution of land or readjustment of boundaries, areas, shapes and positions of any holding. So far, no housing scheme was implemented under such provisions of the Act. The Housing Trust Act 1950 was subsequently repealed on 30 December 1977 as it was regarded by some as "revolutionary and a grave inroad on private rights" of individuals. However, the Act did not provide for

financial land and was only meant for residential development. A unique feature of this Act was that when the housing scheme is confirmed by the SA, the project becomes vested in the SA which grants new titles to each person entitled thereto, with encumbrances in the former titles being carried over to the new titles. This is different from the existing development methods provided in the National Land Code where all encumbrances have to be discharged or the necessary consensus of third parties obtained before approval can be given.

The LR framework based on the provisions of existing legislations is inadequate and fraught with difficulties like getting the consensus of the registered proprietors to participate in the LR project through surrender and alienation method; making arrangements with chargees, lessees and sub-lessees in respect of existing encumbrances which cannot be carried forward to the new titles of the replots; and the stigma of implementing LR through the mechanism of land acquisition even though the LAA is used merely as a *modus operandi* for the LR project. In view of the above problems, a legal framework for LR based on a separate law has to be provided for the long term.

3.2.3 Land Readjustment and Statutory Planning Framework

While town and country planning is in the concurrent list, the essential elements of planning such as land, water and forest are in the state list. The State Authority is recognised both in the NLC and the Town and Country Planning Act as the highest authority in respect to planning and development of all land in the state. In executing this function, the SA is assisted by the State Planning Committee (SPC) which has specific powers to approve structure plans. The TCPA, however, distributes the functional responsibility for matters of strategic importance to the State, and to the Local Planning Authority for matters of local importance.

Hence, the local plan is adopted by the Local Authority and does not require the prior approval of the State Authority, in so far as it conforms to the structure plan for the area.

The TCPA also provides for a hierarchy of plans/policies starting with:

(a)	A National Policy	S.4(4)a	TCPA
(b)	State Authority Directives	S.3	TCPA
(c)	Structure Plan	S.8(1)	TCPA
(d)	Local Plan	S.12	TCPA

The general principle is that the lower plan should conform to the higher plan. The local plan cannot be adopted unless the structure plan has first been approved. This is to ensure consistency in plan making.

As LR projects are development projects, they will have to conform to the Statutory Development Plan for the area, i.e., the local plan for the area or, where there is no local plan, the structure plan for the area.

The TCPA also provides area-wide development using the provisions of action area. The action area is first identified in the structure plan. A draft local plan for the action area is then prepared. The plan is made available for public inspection following which objection may be heard by an Enquiry Panel set up by the SPC. Upon the expiry of the period for making objections, the LPA may by, resolution, adopt the local plan for the action area.

Following the adoption of the local plan the LPA may declare the area or part of the area as a development area. The LPA is then duty bound to acquire the land by way of purchase or compulsory acquisition and develop the area according to the local plan.

There are several weaknesses in these provisions:

- (a) Action areas are only identified in the structure plan. This is quite restrictive compared to the Federal Territory Planning Act (Act 267) which allows action areas to be identified in the development plan as well as enabling the Mayor with the approval of the Minister to declare any area within the development plan area not shown in the development plan to be an action area, or to revoke any action area shown in the development plan (S.12 Act 267).
- (b) There is currently no manual on the preparation of local plans for action areas although there is a manual for the city-wide local plans which are more of the land use zoning type.
- (c) The Town and Country Planning Act Development Plans (Rules) 1984 prescribe a period of 5 years to commence development after the State Authority has assented to the structure plan. This again is quite restrictive and a longer time frame of, say, 10 years may be more appropriate.
- (d) The TCPA only provides for two methods to develop the action area, i.e., through land purchase or compulsory acquisition. Both these methods require substantial capital outlay especially in municipal areas where land values are at a premium. An alternative method to development, such as land readjustment, should be provided for.

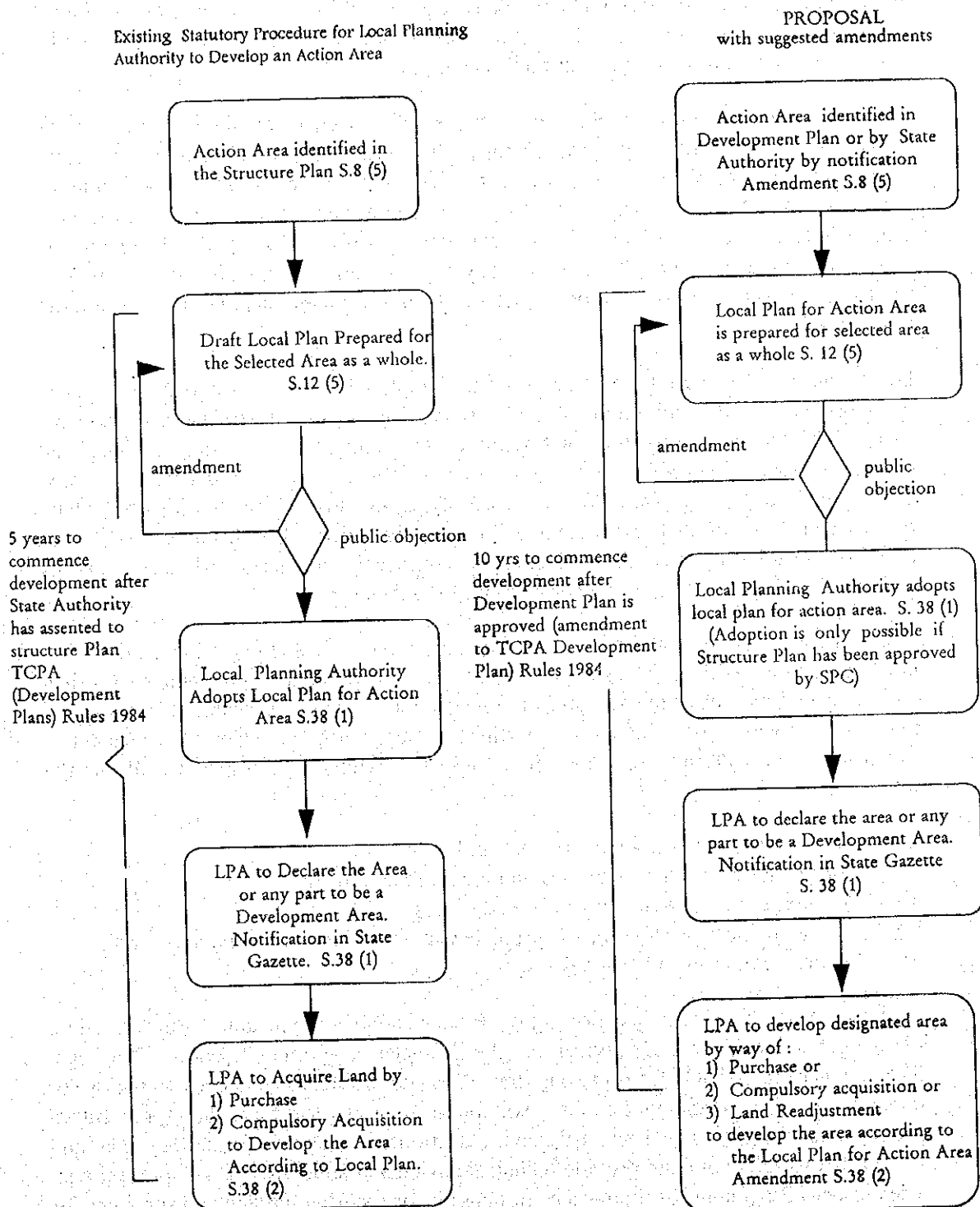
In making the necessary amendments to the TCPA to incorporate land readjustment, it is necessary to remove some of the practical difficulties of developing action areas. It is submitted that LR may be one of the most effective methods of realising local plans for action areas. The existing and proposed statutory procedure for developing action areas is shown in Figure 3.6.

3.2.4 Administrative Aspects of Land Readjustment

LR is an area development technique that can be successfully utilised to realise a better urban environment. It has been successfully used to rehabilitate depressed urban areas and regularise lot shapes and sizes. It is often used in areas where other development methods are not workable. In Japan, LR projects generally obtain financial assistance from the Central Government.

The subsidies for LR projects are also closely linked to city planning roads as LR projects also help to confirm the alignment of these roads. The allocation of subsidies on a continued basis requires a proper administration system. As LR is an area development project it also requires a great deal of lateral technical coordination on a continued basis. LR projects often take a long time and require a great deal of administrative support particularly on the part of the local authority officials.

Figure 3.6
Existing and the Proposed Statutory Procedure for Developing Action Areas



At the initial stage of the project, there is a need to obtain planning permission for the layout plan. This will require conformity with the statutory town plan for the area. The plan will also have to meet sewerage requirements, drainage, roads, water supply, electricity and telephone needs and the community facility requirement for the scheme. For small local authorities, many of these departments are not within the Local Authority and regular consultation with other government bodies is required.

Once planning permission is obtained, there is still a need to obtain clearance for the engineering plans. This includes approvals for earth works, road works, drainage, sewerage, water, electricity, telecoms, landscape, fire safety requirements, and if there are any building works involved, the building approval before construction can commence. Other clearances will include aviation approval if the development is close to flight paths, Drainage and Irrigation Department approval if there are any river systems involved, and clearance from the Department of Environment on the EIA if the development includes an area of more than 50 ha.

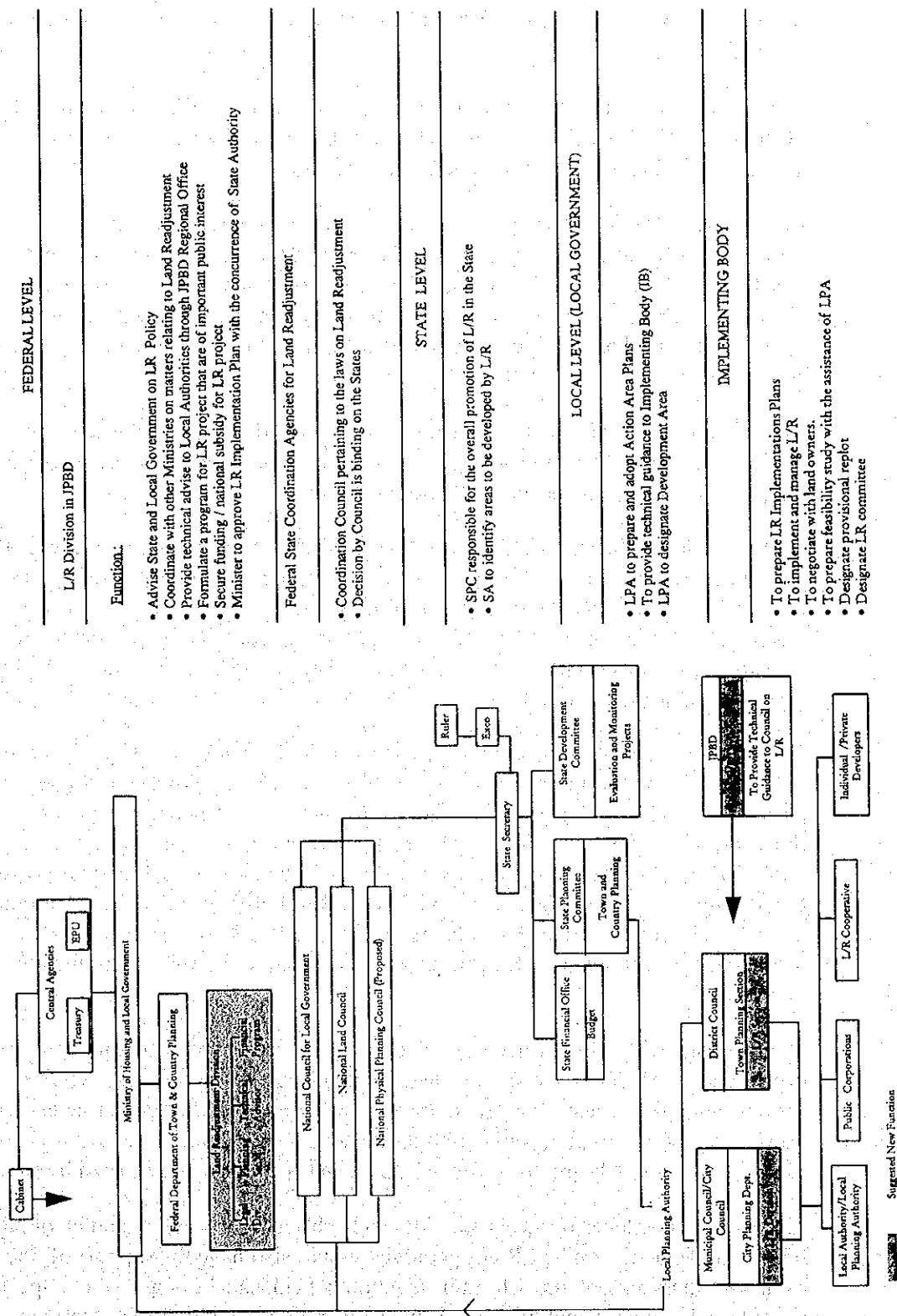
During actual construction, there is a need to comply with the environmental mitigation measures and the other conditions of the approval. The legal rights on the land also have to be resolved before construction can take place. These include the rights of chargees and other encumbrances, prohibitory order and restrictions in interest. These aspects can only be resolved through the provision of law. This will require close coordination with the land offices and chargees such as banks and financial institutions. LR schemes also require extensive negotiation with an explanatory briefing to landowners. In fact, consensus building is an important aspect of a successful LR scheme.

The administrative proposal for LR is shown in Figure 3.7. At the federal level, there is a need to identify a Ministry responsible for LR. In view of the complementary urban development functions of the Ministry of Housing and Local Government, it is suggested that the LR function be assigned to the Ministry, particularly the Federal Department of Town and Country Planning. The main functions of the Ministry, in respect to LR, are the following:

- i) Advise State and Local Government on LR policy;
- ii) Coordinate with other ministries on matters related to LR;
- iii) Provide technical advice to Local Authorities;
- iv) Formulate a programme for LR projects that are of high public interest; and
- v) Secure funding/subsidy for LR projects.

In this context, the principal sections in the LR Division should include a Legal Section, Planning Section, Technical Advisor and the Financial Programme Section. The Legal Section will be responsible for preparing draft laws and providing guidelines on the use of these laws. The Planning Section will be responsible for formulating the future programmes for LR. The Technical Advice Section will make available both local and foreign LR experts who can provide technical advice and supervise the LR programme. The Financial Programme Section will be responsible for securing funding and subsidies for LR projects.

Figure 3.7
Administrative Proposals for Land Readjustment



As land readjustment essentially involves matters of federal and state interest, it may be necessary to make use of the National Council for Local Government (NCLG) and the NLC to achieve uniformity of laws on LR. If LR is construed as part of town planning, it may also be possible to take up such matters with the proposed National Physical Planning Council.

At the state level, the SPC will essentially be responsible for the overall promotion of LR in the State. The State Authority may also identify action area within the development plan area by notification in the gazette even if they are not identified in the development plans.

LR projects, being long term projects, require the continuous involvement and support of government officials. This can be viewed as part of the public-private sector cooperation which is currently advocated under the Malaysia Incorporated Policy. For larger Municipal Councils which have a Town Planning Department, it may be necessary to establish an LR Division while for District Councils a small LR Section may be necessary. Further technical support may be provided by the JPBD Regional Office.

The main function of the local authorities is to provide technical guidance to implementing bodies. The Local Planning Authorities are also empowered to prepare statutory urban plans (local plans) and designate development areas.

An LR Section in the District Council, consisting of 4 to 5 members can deal with the major aspects of LR such as replotting, compensation and engineering work. Much of the practical work can be entrusted to consultants. An LR Department in a large Municipal Council may require between 17 - 18 people although a fairly large proportion of work can be entrusted to consultants. A larger workforce may be required if the Local Authority also acts as an implementing body.

Similar to Japan, implementation bodies may include local authorities, public corporations, LR cooperatives and private developers. The IBs are responsible for implementing and managing LR projects, negotiating with landowners and preparing feasibility studies with the assistance of LPA. The involvement of these entities as IBs would require the establishment of new laws on their organisation and function. Needless to say, LR projects of high public interest will be implemented by local authorities and public corporations such as SEDC and UDA. Such projects may also attract federal subsidy. However, the disbursement of funds for LR projects on a sustained basis will require the enactment of new laws.

Conforming with the principles of equity, implementation bodies are non-profit organisations. Most of them are only allowed to charge for professional services rendered for managing the project. In Japan, the IBs play a quasi-government role and even have powers to designate replots and undertake removal of superstructure. As such, under the Japanese LR law, IBs are given official status and specifically designated by law.

LR projects undertaken by local authorities and public corporations should be of high public utility. Implementation by LR cooperatives should also have the support of the majority of landowners before the LR implementation plan can be approved. Specific rules regarding the running and function of the cooperatives should also be spelt out.

Where the LR project is implemented by a public authority such as a Local Authority or public corporation, it is common to establish a Land Readjustment Committee to protect the interest of the owners and make their opinions reflected in the decision of the replotting design. The committee consists of representatives who are selected among the landowners of the project area. The committee is empowered to make decisions on the reserve land and determine the minimum area for very small sites.

The other administrative issue that also requires some attention is the establishment of a Committee of Valuers. The valuers are generally selected by the IB with the approval of the LR Committee. Valuers are generally professionally qualified and have at least three years of experience in evaluating land and buildings. In Malaysia, government valuation is done by the Valuation Department. The advice of the Valuation Department is often accepted by the relevant public authorities. As one of principles of LR includes equitable determination of land values, perhaps it may be advisable to set up a Committee of Valuers, with the Valuation Department as a member of the committee. The organisation and function of this committee should be specified in the rules. It is suggested in the proposed new legal framework that the appointment of the Committee of Valuers be done by the Local Planning Authority.

3.2.5 Social Aspects of Land Readjustment

1) General Perceptions on Development and LR

One of the fundamental requirements for a successful Land Readjustment Programme is the participation of the landowners/residents in the programme. This participation involves inspection and approval of the project implementation period, community organisation in the form of LR Committee or LR Cooperative, replotting design and land evaluation. The extent of participation required is certainly more than merely giving opinions and comments on plans as is currently the practise, but rather an active form of participation in the project from start to end.

It is accepted that LR is a sophisticated development technique that may not be easily understood by the residents. In view of this, a number of social surveys were conducted to obtain socio-economic information on the residents. This was followed by a series of sociological surveys to obtain landowners' and residents' response to LR projects.

While it is premature to derive any particular conclusion from these surveys, it is generally observed that:

- Many of the villages in the peripheral area of the Klang Valley are fast changing in character as compared to that of urban settlements.
- There is a strong desire for more urbanised life without necessarily leaving the villages.
- The respondents are willing to cooperate and make sacrifices regarding their property if they are adequately compensated. There is some concern

that their land will become smaller after the project. People expect to be compensated for their loss, which under the present land acquisition process involves cash compensation.

- There is also a general preference for detached housing lots as opposed to other forms of housing plots in the LR. While some of the respondents prefer cash compensation for houses that need to be relocated, others prefer that the implementing body build new houses.
- Generally, there seems to be consensus that the LR project should be implemented by the Government.
- Respondents from the Kg. Subang area also saw the LR project as an opportunity to legalise the landuse status of illegal factory buildings.

The involvement of community leaders in the planning process is important to spearhead community participation in the LR project.

The sociological survey on the residents in the study area revealed that most of the residents like modern facilities and social services and are willing to change. They would like to support government programmes that can bring improvement to village life. They feel that government departments or agencies play an important role in the provision of infrastructural facilities, public amenities, recreational areas and social services. However, a few of the residents in Kg. Kuantan seem to have some reservations on the non-commitment of previous projects proposed by implementing agencies such as the change of venue for the PPD's project to another area.

The leaders in Kg. Kuantan and Kg. Seri Subang expressed satisfaction over the pace and type of development that had been taking place in their villages and the surrounding areas. These leaders had been supportive of government rural or urban development programmes in their villages. They appreciated the government's efforts in providing them basic facilities and services in their villages.

The village leaders in both study areas viewed the LR project as a good programme and can be implemented in their villages. They appreciated the benefits of participating in the LR project. On the issue of the need to contribute part of their land, the residents in Kg. Kuantan said they would accept the LR project if the government had to implement it. For them, the LR project will bring in new facilities such as new shopping centres, factories and new roads. They requested that the LR project, if implemented, should bring minimum dislocation and disruption to the traditional setting and village life. On the other hand, the Kg. Seri Subang were more interested in the amount of compensation and the size of the proposed project. Furthermore, the factory owners who built their buildings on agricultural land could foresee that this would solve the illegal status of their factories. The leaders in Kg. Seri Subang were fully aware that this project could increase their land value and in order to realise this they would have to sell their land. They saw also income generating opportunities that the land could bring in through agricultural or manufacturing activities.

A major problem for rural districts such as Ulu Selangor is the difficulty of assessing the capacity, and willingness, of rural communities to understand government policies or programmes. The main objective of the social aspect of the programme is to inculcate positive values oriented towards development and self-reliance amongst the rural and suburban population. At the state and district levels, several federal agencies such as the Community Development Division of the Ministry of Rural Development (KEMAS), Federal Land Development Authority (FELDA), Rubber Industry Smallholder Development Authority (RISDA) and Farmers Organization Authority (FOA) carried out community development activities. Inter-agency consultation and coordination at both state and district levels helped in the implementation of these programmes smoothly.

2) Some Observed Weaknesses in Public Participation

In the LR programme, for the first time, people's participation in the study area was introduced at the early stage of the planning process. However, a number of characteristic weaknesses have been identified at the planning phase of the LR project:

- (a) Existing power structures were accepted as given and very few attempts were made to change them. Villagers aligned themselves with the traditional village elites who captured such benefits as the programmes offered. Recognising this, some of the poor household or women may not be able to respond in public meetings such as the recent forum to introduce the LR project concept based on the Japanese experience. In some cases, the conflicts of political interest in stratified village social structures were not recognised in community development programme designs. In Kg. Kuantan, the absence of the Headman of Ketua Kampung has left the leadership in the hands of a few influential leaders. These leaders include the Penghulu (head of the subdistrict), the former Chairman of the JKKK and the present Chairman of the JKKK, who is residing outside the village.
- (b) Responsibility for implementation of community development was administratively placed under separate ministries or agencies. For instance, the Federal Department of Town and Country Planning is under the Ministry of Housing and Local Government while the District and Land Office is under the Selangor State Government. Confusion and misconceptions on the LR project concept may occur at the district or village levels. The misconception on the LR project is due to the fact that the previous plan to introduce the PPD programme was shelved and shifted to another area. In addition, Kg. Kuantan is among the heaviest studied areas in the country. Attempts must be made at the local level to bring these parallel agencies together in the interests of improved coordination of the affected residents.
- (c) Greater emphasis tended to be placed on the increasing values of land in the future than on increasing rural incomes. It was found that there are different value systems between the residents of the two villages studied with regard to land and its future use. Attempts must be made to explain more clearly the concept of the LR project and residents' participation especially related to their contribution in the financial land scheme.

- (d) Inadequate attention to dealing with social diversity, and especially with highly clustered and stratified social structures. This also led to insufficient integration of technical and social components of development action. The needs of tenants and relatives staying with landowners must be taken into consideration in terms of compensations and relocation. Absentee landowners must also be contacted or notified in the next phase of its implementation.
- (e) Little was done to build a local information and educational organization to be able to solve communication problems such as access to the LR project concept. The study identified that the village's surau, mosque, community hall and shops should be developed as information outlets at the local level to disseminate information on the LR project. However, with the incorporation of the JKKK committee members and other informal leaders in the local information committee of the Land Readjustment Programme at both villages, the level of social acceptance can be improved.
- (f) The question on legality of buildings is also an important issue to be considered by the implementing agency. In Kg. Seri Subang, the implementation of the LR project may solve some of the problems of illegality of buildings such as illegal factories and squatter houses.

Previous rural and urban development programmes, by their nature, tend to be top down, carrying a presumption that the rural or urban poor or residents are for one reason or another unable to meet their own needs. The reorientation required for them to become effective in truly bottom-up development is no small undertaking. This may mean that in the future the role of government or implementing agency will be diminished with the increasing role of the residents in the LR project.

3) Public Participation in LR Projects

Several strategies are suggested to guide the development, implementation and evaluation of the proposed LR project programmes. They are intended to firstly, highlight the importance this study places on proper consultation and participation of local population and, secondly, to provide a guide for the state and local authorities to enable effective community participation in formal or informal planning processes.

In undertaking LR projects, the purpose and parameters of the local participation as well as how the participation will be undertaken must be clearly indicated. This should provide an indication of the type of input that is being sought as well as those matters that are outside the scope of participation. The processes to be followed need to be made public so that all residents are clear about the nature, objectives and timing of the participation.

Responding to the issues, options and outcomes raised during consultation and participation is an important part of the process. The mechanisms through which this information will be provided to the community must also be made known so that greater participation from all residents will be achieved.

There is a need to establish an open two-way communication as soon as possible between local leaders, government officials and local communities. Involving the community at the earliest possible time is likely to encourage a cooperative, rather than competitive, relationship. The local community will also be able to provide valuable information concerning the most effective methods in planning and implementing the LR project.

The LR Programme should recognise that there is no single community and that no single technique will be appropriate to reach the different ethnic groups or social classes that make up a community. As a consequence, the programme will need to be based on an understanding of the best methods and techniques to enable different ethnic groups within the community to contribute their views and ideas. Understanding the nature of the community, working through established community structures and key people such as JKKK committee members, may encourage a broader range of people to become involved.

Adequate time and resources must be provided in undertaking information and educational development programmes. This will include a commitment to provide the support necessary to facilitate effective community involvement, including the provision of information, advice and in some instances financial support, as well as location of the venue, childcare, adult classes, skill training centers and transport. Sufficient time must be allowed to enable individuals and organizations to prepare responses. New communication skills will also have to be developed in the planning of the LR Programme.

Lastly, the LR Programme that involves public participation will need to be coordinated at different levels within the state administration. At the state level, this will occur in the development and revision of community participation policy, both in terms of policy formulation and periodic amendments/reviews. At the local level, the community will be involved in local strategic planning such as contribution in the financial land strategy as they relate to the local area and in the district action plan.



Briefing on Land Readjustment for community leaders of case study areas

3.3 Proposed Malaysian Land Readjustment System

3.3.1 Overall Framework

The proposed Malaysian Land Readjustment System is based on the premise of a separate law on LR with amendment to the National Land Code (NLC) and a special study on Malay Reservations Enactments (MRE). LR consists of two major components, namely land development and land registration. The land development provisions of the LR can be within a separate law or be included in the TCPA. It is not possible to have the land alienation and land registration aspects of LR together in a separate law because they are clearly part of the NLC and MREs. As such, amendments will still have to be made to the existing legislations.

A further detailed study is to be carried out on the application of LR in Malay Reserve areas. MRE has to be reviewed to enable LR to be used effectively. One possibility is the inclusion of the powers of the Ruler in Council to alienate the replotted lands to non-Malay landowners who have surrendered their lands in exchange for the replots. Such a radical move merits a further study with regard to Malay Reserve in LR area.

The separate law on the land development component of LR may be enacted through any of the following ways:

- (a) through Articles 74 and 80(2) and Concurrent List of the Federal Constitution similar to the Sewerage Services Act 1993. This can be done by regarding LR as part of town and country planning, or by including LR in the Concurrent List of the Federal Constitution;
- (b) through Article 76(4) of the Federal Constitution (for this, LR has to be included in Article 76(4) and the State List, or by regarding LR as part of town and country planning connected to local government);
- (c) through Article 76(3) of the Federal Constitution (for this, LR has to be included in the State List); and
- (d) as a State Enactment (for this, LR has to be included in the State List)

Of these four alternatives, alternative (a) is preferred. This is because, while providing a national law, it also enables effective coordination to be done as a result of the Federal Government having executive power over LR. This alternative also takes care of the States' interests in that all LR implementation plan approval will require State Authorities concurrence. The outline in the proposed separate law on LR is shown in **Appendix 3.3**.

It was also proposed in the earlier reports that the principle of LR could also be achieved through amendments on the Town and Country Planning Act 1976, National Land Code, etc. The proposed legal framework for LR using this approach is presented in **Appendix 3.4**. This may be considered as an alternative in the event the Government disagrees to a separate Act for Land Readjustment.

The advantages of the legal framework based on the amendments to the existing laws i.e., the TCPA, are:

- (a) The issue regarding which legislative authority (Parliament or State Legislature) is to make the law on LR will not stand out prominently and there may not be a need to amend the Federal Constitution; and
- (b) The existing provisions in the TCPA, particularly sections 38 and 41, relating to Development Area justify the inclusion of LR in the TCPA.

The disadvantages of the legal framework based on the existing law are:

- (a) The proposed legal framework does not provide for the involvement of other persons or bodies other than the LPA or its agent as the implementing body; and
- (b) TCPA has not been fully implemented by the States.

On the other hand, there are several advantages in having a separate law on Land Readjustment:

- (a) A separate law on LR can have several implementing bodies other than local planning authorities. These can include statutory bodies and land readjustment cooperatives.
- (b) A separate law may be able to accommodate several principles of LR such as compulsory replotting, the carrying forward of encumbrances, and the use of provisional replots, which are not adequately provided for in the existing legislation.
- (c) The Federal Government can have executive powers if LR is included in the Schedule under the Concurrent List of the Federal Constitution.

The main disadvantage of a separate law on LR is to provide a statutory interpretation to LR. This is because it is not clear whether LR is under town and country planning (which is at present under the Concurrent List) or under land (which is at present under the State List) or neither. This may entail the need to amend the Federal Constitution. **Considering the advantages and disadvantages of both the above options, it is recommended that the LR framework for West Malaysia be modelled on a separate law.**

As one of the principles of LR is to realise city plans, the proposed framework for LR will involve both statutory town planning and land readjustment (see Figure 3.8). The LR process proper is further divided into the preparatory stage, implementation (initial), middle and final stages. The proposed LR System is incorporated into the statutory town planning process and, in particular, action area planning. By so doing, the land readjustment technique could be effectively utilised to realise action area plans.

The action area is first identified in the development plan. The development plan by definition can include both the structure plan or the local plan. In order to allow greater flexibility in the identification of action areas, a provision similar to S.12 of the Federal Territory (Planning) Act 267 is recommended whereby the State Authority may declare any area as an action area not already indicated in the Development Plan or may revoke an earlier action area. This will allow greater opportunities to identify action areas to accommodate the rapidly changing political and economic priorities in the country and not be tied down by the identification in the structure plan.

As required by the TCPA, the Local Planning Authority will then prepare the draft local plan for the action area. The draft local plan will be made available for public inspection and a period of four weeks given for public objections and representation.

For the purpose of considering objections, the LPA may cause a local inquiry by a committee of three persons appointed by the State Planning Committee. After considering these objections, the LPA may by resolution adopt the plan as originally prepared or as modified. The fact of the adoption is published in the State Gazette. It should be noted that the local plan should conform generally with the approved structure plan. The LPA may then declare the area or any part of the area to be a development area by notification in the State Gazette. Under the existing provision of the TCPA, development areas can only be developed by way of purchase or compulsory acquisition. The additional method recommended to be incorporated in the TCPA is Land Readjustment ; S 38 (2) TCPA.

3.3.2 Preparatory Stage

The provisions in the subsequent stages will be contained in the new Land Readjustment Law. During the preparatory stage, the implementing body will prepare the LR implementation plan. The implementation plan should be consented by the majority of landowners according to the rule to be determined (e.g., two-thirds of all landowners and lands). The implementing body could be the Local Planning Authority, Statutory Body or the Land Readjustment Cooperative. Implementing bodies such as cooperatives have to be specifically designated to implement LR projects. This is because the IBs execute their function in a quasi- government capacity.

The normal content of an LR implementation plan will include:

- i) Name of LR project
- ii) Area of LR project
- iii) LR design usually prepared at a scale for 1: 1000 containing written statement of design and design map
- iv) Project implementation period
- v) Financial plan

The LR implementation plan is then put up for public inspection. Pertinent comments may be incorporated and the plan further amended. The LR implementation plan is approved by the Minister in concurrence with the State Authority. It should be noted that the LR implementation plan is both a physical plan and a project proposal. The approval of the Minister is felt necessary as LR projects have to be coordinated at the federal level and federal subsidy/grant for the projects need to be secured. The notice of approval will be published in the Federal Gazette. The land title within the development area will be endorsed with the provision that the land is subject to land readjustment. These provisions will be contained in both the National Land Code and the Land Readjustment Act.

Figure 3.8
Proposed Malaysian LR Framework under New LR Law

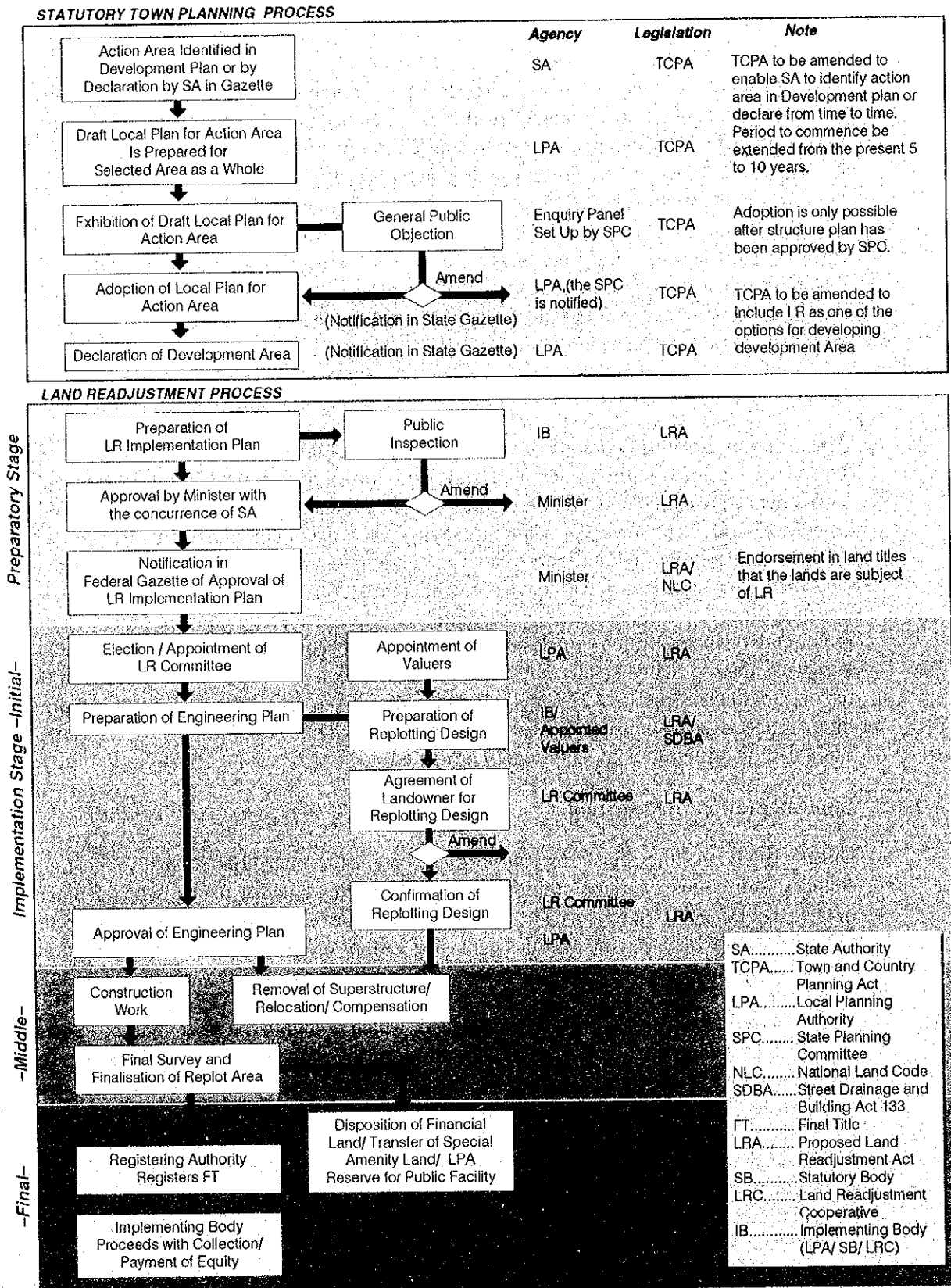
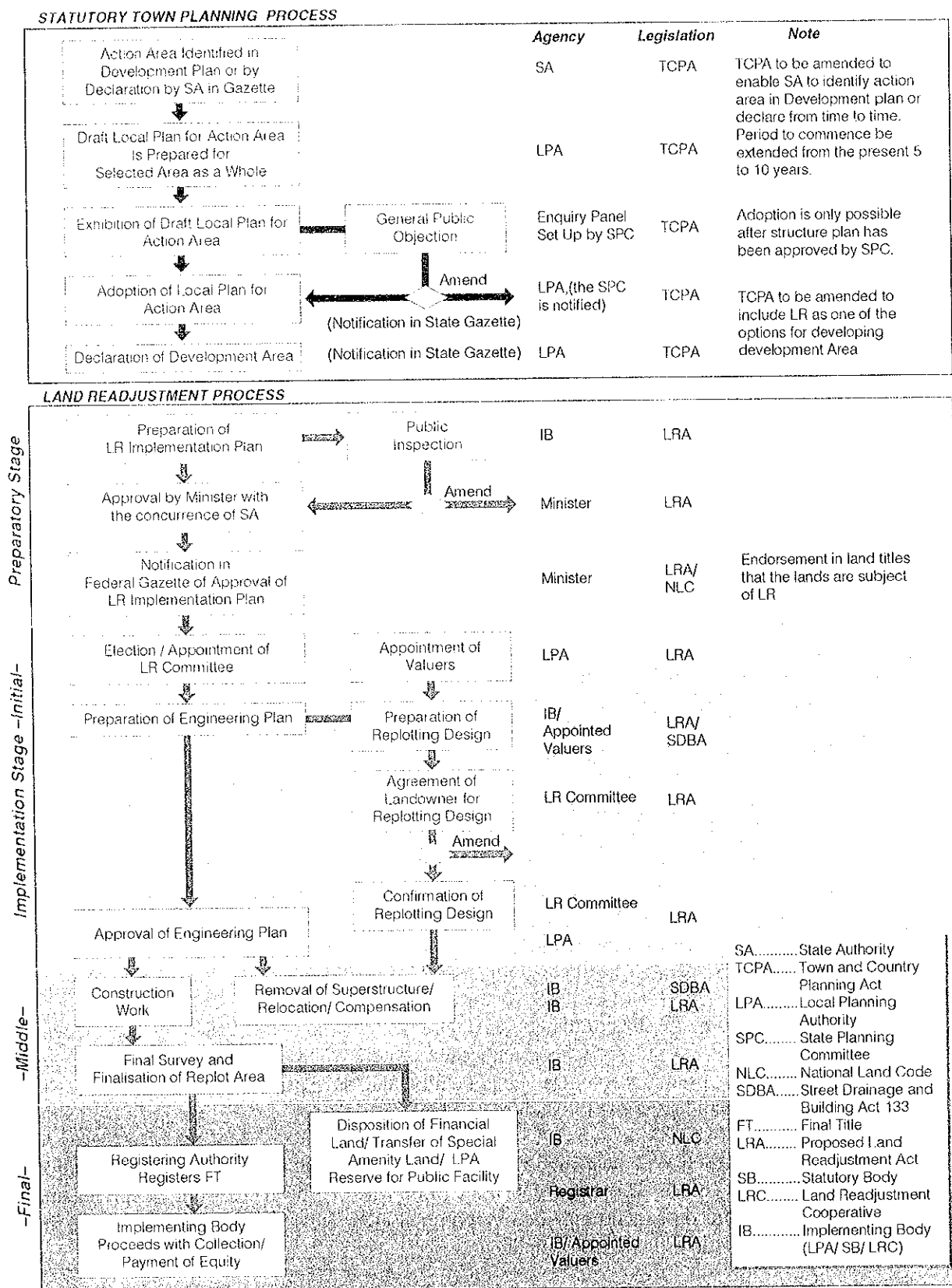


Figure 3.8
Proposed Malaysian LR Framework under New LR Law



3.3.3 Implementation Stage (Initial)

Once the LR implementation plan is approved, the LR Committee is established. This committee is elected by the existing landowners from among themselves. Rules can be established on the selection of members and frequency of meetings.

This is followed by the appointment of valuers. It is recommended that the panel of valuers be appointed by the Local Planning Authority. Detailed engineering plans will then have to be prepared and cleared by the relevant authorities. At the same time, detailed replotting design will commence. Replotting plan is determined by the implementing body and is inspected by the landowners. Relevant objections could lead to further amendments of the implementation plan as well as the replotting design. Compulsory replotting could be resorted to if certain landowners persist in their objection to the allotted replots. The replotting plan is then confirmed by the LR Committee. Landowners may make use of the replots although they continue to hold legal title to their original plots. This will be provided for under the new Act.

3.3.4 Implementation Stage (Middle)

Construction work can commence once clearance is obtained for the engineering plans. This will also include the removal of superstructure, relocation and compensation for landowners whose buildings are affected by the LR project. Construction work may take anywhere from 3 to 4 years. Care is taken to see that minimum inconvenience and disruption is caused to the residents. Environmental mitigation measures will also have to be carried out in conformity with environmental regulations. A final survey is also carried out for purpose of issuing titles for the replots. In this process, a concept of provisional replot may be incorporated. Provisional replot is a concept which enables landowners to legally use the replots while all rights/encumbrances remain on the original titles until the replots are officially registered. With this, landowners can transact their property any time, interruption due to construction work is minimized, land registration process can be simplified, and the rights of landowners protected.

3.3.5 Implementation Stage (Final)

During this stage the registering authority registers the final title. Usually, the Land Administrator issues a notice to the person or body having custody of the issue document of title (IDT) to deliver it to him. The Registrar then issues new titles for the replots to the respective landowners and the old titles cancelled. All prior encumbrances and restrictions in interest are transferred to the new title.

This is followed by the sale of the financial land, which is sold in the open market. Social amenity land, such as sites for schools and health centers, will be transferred to the relevant authorities for a premium whereas public facility land, such as roads and open space, will be constructed and reserved for such particular use.

After the LR scheme is completed, the implementing body will proceed with the collection and payment of equity. This is to compensate those who may be inadvertently deprived and to demand from those who may be overcompensated under the LR scheme. Once the accounts are settled, the LR is completed.

3.4 Key Technical Aspects

3.4.1 Physical Planning in Land Readjustment

1) General

As in any other development project, LR requires a series of physical planning work to determine the engineering feasibility of the project and work out detailed plans and designs for implementation of the project. Accurate estimation of the construction cost is also an important output of the physical planning. Moreover, the physical planning relating to LR involves a number of unique features which will directly or indirectly affect the effectiveness of the proposed LR plan and eventual development of the area. LR physical planning covers three main aspects, namely, land use, layout and engineering design, which are interactive among themselves as well as with higher development plans including structure/local plans.

2) Land Use Implications

Land use to be determined in the LR plan is affected externally by effective statutory plans and development guidelines/policies of the Government, and internally by needs of landowners as well as viability of the LR project particularly in terms of allocation of financial lands. When land use zoning is firmly and specifically determined, there is no way for an implementing body or landowners to formulate a counterplan which considers the local realistic needs.

In Malaysian LR, it is intended that landowners' wishes and opinions should be surveyed and heard adequately because the current land use zoning does not basically allow mixed use. On the other hand, in many existing previously developed urban areas, mixed use is the most common feature in land use. Since one of the important principles of LR is that the landowners can stay in the project area, LR land use planning should not simply apply the interpretation of higher plans or policies but should try to find out an optimum plan which will meet both public interest and landowners' desires.

A successful LR project finances the project by itself while maximizing the benefits to the public and the landowners. The source of self-financing is the increased land value after the project. This value appreciation is partly due to improved infrastructure and living environment and as well as to conversion of land purposes, say from agriculture to residential, residential to commercial, and so on. Often, the latter contributes to the increase more significantly. Therefore, when overall land use policy does not conflict with higher plans/policies and the market situation allows it, LR land use planning should consider converting the existing land use into more effective urban use.

3) Layout Planning Implications

Layout planning aims to concretize the land use plan, establish the physical delineation of the lands, and set the provision of necessary infrastructure. In Malaysia, a set of uniform planning standards are applied to all urban development projects to achieve a relatively high standard urban system.

However, much of the potential LR project areas are already partly or wholly developed and inhabited by people and the mechanical application of the uniform planning standards might not be possible nor adequate. Contribution rates become so high that landowners would not accept them. Small landowners, especially, might not be able to maintain sufficient lands to be able to continuously stay and live in the area. Since the LR project is not only the physical improvement of the area but is also a delicate social undertaking, physical planning should also be flexible.

4) Engineering Design Implications

The engineering design of various infrastructure and facilities, especially the land development aspect, will affect the LR undertaking greatly not only in terms of project cost but also in terms of relocation of the existing buildings and people. The engineering design which closely relates with layout planning should take into account the building, structures and socio-economic activities of the residents in a way that they are not excessively affected by the physical development activities.

5) Implications on Local Plans

The preparation of structure and local plans are underway in many urban areas in Malaysia. It is logical and sound to consider that LR projects will be basically implemented under the restrictions stipulated in these statutory plans. The local plan process depicted in the manual is briefly outlined below:

Table 3.3
Process of Local Plan Formulation

Stage	Tasks
Stage 1	• Analysis of existing situation and projections
Stage 2	• Formulation of development strategy
Stage 3	• Preparation of proposals map (i) Zoning proposal (ii) Development proposals
Stage 4	• Preparation of development control guidelines
Stage 5	• Phased development implementation planning and financing
Stage 6	• Identification of action areas

Since LR is considered as an effective method of materializing local plans, the possible application of LR should be duly taken into account in identifying action areas in the local plan so that its objectives and interests can be met.

3.4.2 LR Project Implementation Planning

1) General

The implementation planning process intends to integrate all the internal and external requirements and needs for the preparation of an effective implementation plan which is basically agreeable to all parties concerned. Its main objectives are as follows:

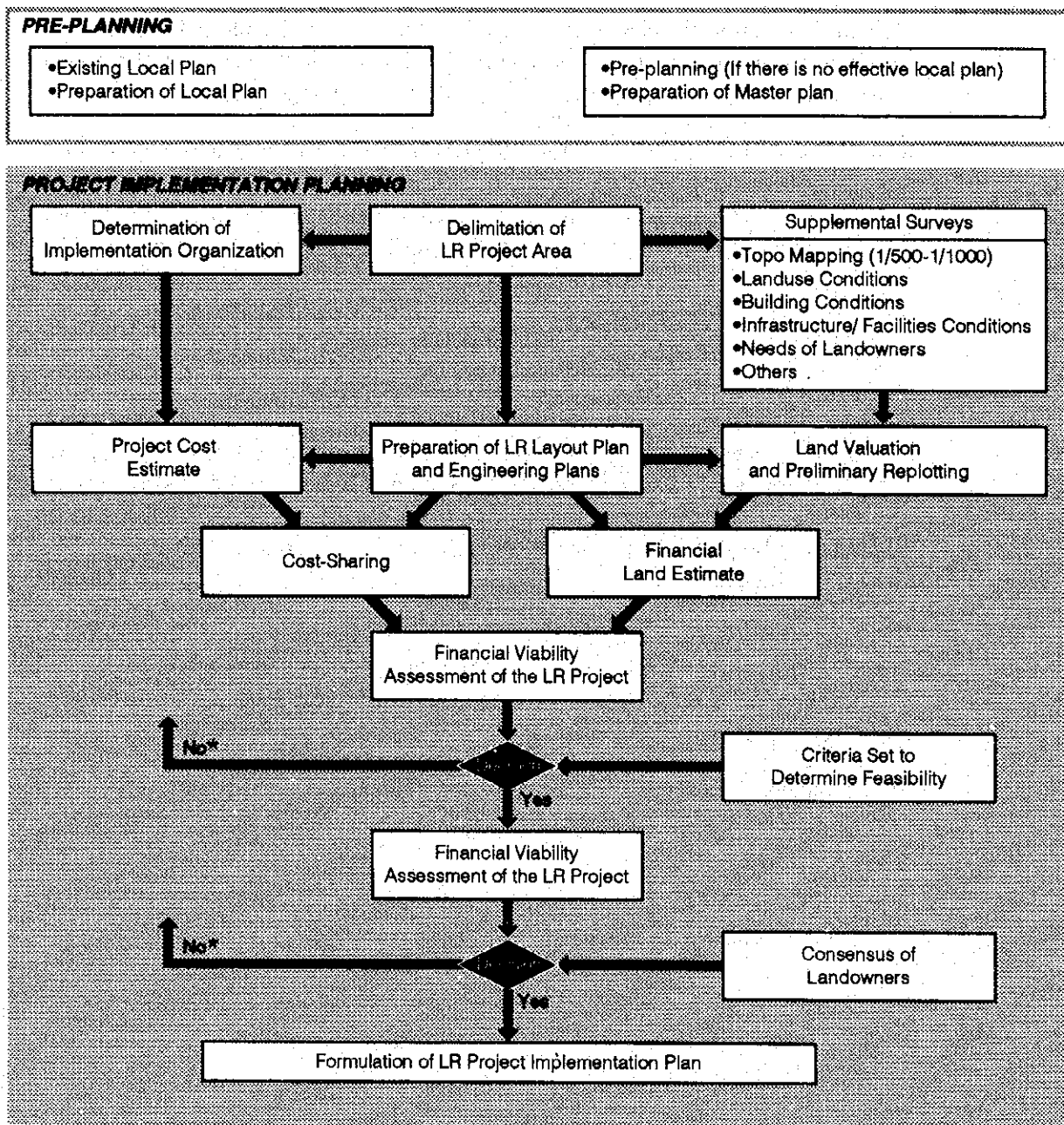
- (a) To assess the viability of the LR project and formulate a workable project implementation framework on which basis detailed LR activities can follow, such as replanning design, detailed engineering design, negotiation with landowners, financial arrangement, organisational setting, etc.; and
- (b) To prepare the necessary information which will form a legal document for public validation and subsequent approval by the authority.

2) Overall Framework of Project Implementation Planning

The overall framework of LR project implementation planning is illustrated in Figure 3.9. It is assumed that when there is a local plan, the LR project area is defined in the plan and when there is no such plan and the LR project is to be initiated, a master plan should be prepared to identify specifically the LR project in the plan. The process is outlined as follows:

- (a) **Delimitation of the Project Area:** The LR project area will be delimited in the presence of relevant landowners. The project area boundary is to be adjusted if there are strong opposers to the proposed project who are then excluded from the project area.
- (b) **Conduct of Supplemental Surveys:** Supplemental surveys will be carried out to prepare the necessary information for LR planning. The surveys cover the following:
 - Physical information needed for infrastructure planning/design and construction cost estimates;
 - Legal information needed for adjusting property rights, particularly those on lands and buildings;
 - Social information on the profile, problems and needs of landowners and others residing in the project area;
 - Policy information which will govern or affect the development or socio-economic activities in the project area; and
 - Market information with regard to adequate planning of financial lands.
- (c) **Determination of Implementing Body:** The type of implementing organisation will affect the project development framework. In the case of Japan, there are different possible bodies, each of which has unique features and resources for the implementation of LR projects.

Figure 3.9
Overall Framework of LR Project Implementation Planning



- (d) **Preparation of LR Layout Plan and Engineering Plans:** This activity is not only an important process for estimating project costs but more so for achieving a desired community plan in conformity with public interests and landowners' desires. This task should also take into account the relocation of affected properties.
- (e) **Land Valuation and Preliminary Replotting:** This is one of the most important matters for landowners. Their shares in terms of replots are to be adequately calculated to determine the size and location. This process is often repeatedly done to satisfy as much as possible the landowners' requirements and equity among landowners.
- (f) **Project Cost Estimate and Cost-Sharing:** The costs of a LR project consist of construction cost, compensation cost and project management cost. Since the latter two requires a considerable amount of adequate planning, cost estimate methods should be established. On the other hand, the estimation of construction cost has already been well established based on accumulated project experiences. Cost-sharing between the implementing body (landowners) and the Government as well as relevant utilities/public facilities agencies will significantly affect the contribution of landowners as well as financial viability of the project. Since there is no standard rule, discussions should be held and a guideline be formulated for the implementation of LR projects.
- (g) **Financial Lands Estimate:** Planning of financial land is an important factor which affects the financial viability of an LR project as well as the acceptance of the project among landowners. In financial land planning, the factors which have to be considered are marketability and resultant contribution rate. A popular practice is to allot financial lands under commercial, industrial, or quality residential uses that can be sold at higher value so that the contribution rate can be lessened.
- (h) **Viability Assessment of LR Project:** Assessment of a LR project from a financial viewpoint is a critical aspect not only for the implementing body but also for the landowners. Landowners' interests are more directly related to their property, such as contribution rate and location, size, shape, and use of the replot.
- (i) **Criteria to Determine Financial Feasibility:** There is no standard set of criteria on which the financial feasibility of an LR project is determined. One condition which has to be met in any LR project is that the total value of lands after the project should not be less than that before the project unless the landowners are compensated in cash. In general, it can be said that when an LR project is initiated by the landowners themselves it is required to be self-supporting, while an LR project is to be implemented more with public interest in mind. The criteria to determine the financial viability of the project should be adequately determined.
- (j) **Formulation of LR Project Implementation Plan:** After the consensus of landowners are more or less obtained and viability of the project has been determined, a set of documents will be prepared for submission and approval of the authority.

3) Contents of LR Project Implementation Plan

For dissemination and assessment of LR projects in Malaysia, the contents of the LR project implementation plan should be standardized, as practised in structure plan/local plan formulation. Tentatively proposed contents and guidelines are presented in Table 3.4.

Table 3.4
Proposed Contents of LR Project Implementation Plan

Item	Specification
1. Name of LR Project	
2. Name of Implementing Body	
3. Project Area 3.1 Location 3.2 Address 3.3 Boundary	<ul style="list-style-type: none"> Description together with map showing the locational relationship with mother town/nearby major communities Official address of the project area Coordinated map overlaid with topo-map and cadastral map on showing project area boundary(ies).
4. Objective of the Project	<ul style="list-style-type: none"> Objective and reason of selecting the project area.
5. Existing Condition of the Project Area 5.1 General Characteristics 5.2 Population 5.3 Land use 5.4 Roads 5.5 Rivers/drainage 5.6 Utilities 5.7 Buildings 5.8 Other Public Facilities 5.9 Living Environment 5.10 Topo-map	<ul style="list-style-type: none"> Overall development condition and characteristics of the area. Demographic feature including nighttime and daytime population, employment, racial and age composition etc. Registered land purpose and actual land use Geometric features and maintenance of existing roads Road traffic characteristics and problems Existing conditions and problems of water supply, sewerage, energy, telecommunication systems. Uses, structures, floor areas of existing buildings. Existing conditions of other community facilities. Assessment of existing living environment Topo-map showing the existing condition, with scale of 1/1000- 1/2000
6. LR Plan 6.1 Planning Policy 6.2 Public Facilities Plan 6.3 Land Use Transformation Plan 6.4 LR Plan	<ul style="list-style-type: none"> Description of planning policy/direction on land use, population distribution plan, public facilities plan, layout plan. Plan and description of public facilities which will be developed in the project. Land use changes due to the project Land use and layout plan drawn on topo-map with scale of 1/1000 - 1/2000.
7. Project Implementation Period	
8. Financial Plan 8.1 Expenditure Plan 8.2 Revenue Plan 8.3 Land Valuation 8.4 Financial Land Plan	<ul style="list-style-type: none"> Estimated construction cost, relocation/compensation cost, survey cost, project management cost etc. Estimated derayment of relevant agencies, subsidies, sale of financial land etc. Estimate of land value before and after the project. Estimate of financial land • Plan of financial land disposition
9. Calculation of Contribution Rate	<ul style="list-style-type: none"> Average contribution rate
10. Other References	<ul style="list-style-type: none"> Plans and drawings on layout, land development, drainage, utilities, relocation etc.

3.4.3 Replot Planning

1) Objective and Rationale of Replotting

Replotting is a method to reorganize original land parcels in such a manner that planned infrastructure and public facilities can be constructed and, at the same time, the utility of land parcels will be increased equitably by exchanging, amalgamating and/or subdividing the parcels. The land parcels after the process of reorganization are called "replots". While project implementation planning provides the framework of the project, replotting design determines specifically the rights and location of the lands in compliance with approved and consented layout plan.

Replotting has two important aspects, as follows:

<Technical Aspect of Replotting>

Replotting work is supported by a set of technical methods of calculating values of lands "before" and "after" the project, determining the entitled value, locating the replots, and adjusting the difference between the entitled value and the final value of the replots. The basic aim is to distribute the shares and contribution (or profits and costs due to the project) equitably among landowners.

<Legal Aspect of Replotting>

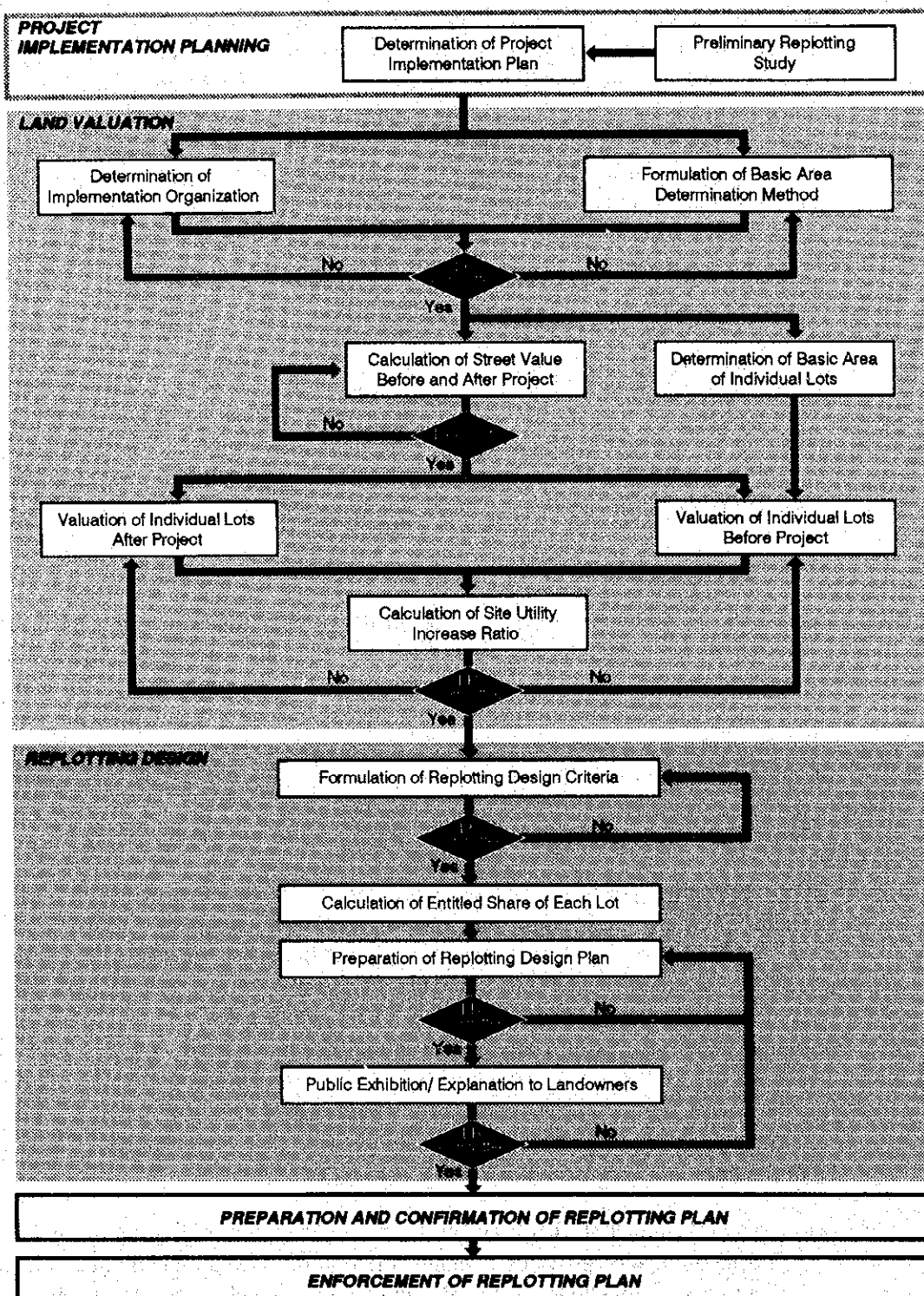
Land readjustment touches only on the physical aspects of the lands. This means that all changes and encumbrances imposed on the lands will be carried over automatically to the replots. The legal status of the lands will not change throughout the project period until the replots are finally designated and new titles are issued. With this, implementing bodies are free from cumbersome procedures and the rights of landowners are totally protected.

2) Overall Procedure of Replotting Planning

The replotting plotting process normally commences when the project implementation plan has been completed where the LR plan and preliminary design are available. However, since replotting design is the major concern of landowners and affects the layout plan, financial land plan, and, thus project implementation plan, it is desired that preliminary replotting work will be conducted before project implementation plan is officially approved and becomes a sort of legal document. The overall procedure of replotting planning is illustrated in Figure 3.10. Although the details of the procedure and work are described in the Supplemental Text separately prepared from the Main Text Report, the following major points should be noted here:

- (a) Land valuation in the LR is an important integral part of replotting design. The LR land valuation provides a detailed method of evaluating individual lots and replots objectively in terms of value index, which becomes the basis of replotting design work.
- (b) Unless the final survey is conducted, there is normally a difference between registered area and actual area. In the LR project, the difference is distributed,

Figure 3.10
Overall Process of Replotting Planning



according to an approved method to individual lots to avoid expensive and time-consuming surveys at this stage.

- (c) In the process, there are a number of stages when the LR committee will be consulted for judgement of key aspects relating to replotting design.
- (d) Replotting design is a technical area where a pool of trained personnel is needed. Since there is no effective method which can handle the planning process systematically, accumulating experiences under different situations is considered the best way of gaining the necessary skills. At present, there are a number of computer softwares which can assist in the complicated replotting process without proven performance yet.

3) Land Valuation

Land valuation in LR projects has its own purposes and methods that are different from valuation for land transaction or tax assessment. The primary purpose of LR land valuation is to distribute costs and profits of the project or calculate the contribution and shares among landowners equitably. To meet this objective, LR land valuation is equipped with the method which can handle the following situation:

- A large number of land parcels with different features in the project area can be assessed according to the rule agreeable to concerned parties.
- Those land parcels can be assessed on a comparable basis under "before" and "after" the project situations.
- The valuation method should be practical so that the work can be completed within a reasonable length of time.

Accordingly, while normal land valuation considers, social, economic and administrative factors, LR valuation puts more consideration on the physical and geographical factors such as location, area, environment, etc. The "Street Value Method" has been worked out and applied in LR projects extensively in Japan as well as other countries such as Korea, where choice of factors and the weight balance are different from each other. This particular method only gives relative values expressed in value index of all land parcels "before" and "after" the project, while actual land values in absolute monetary terms are provided by authorized valuers.

"Street value" is defined as the utility value per sq.m. of a standard residential lot²⁾ fronting a road at right angle in the middle portion of a block. Relevant streets in the project area will be selected and street values will be calculated in comparison with that of the standard residential lot. Factors taken into account in the valuation are:

- (a) Road factor: conditions of frontage roads such as type, width, character, etc.

²⁾ A standard residential lot is defined in Japanese LR as a lot with 10-15 meter frontage width, 15-25 meter depth, and about 150-400 sq.m. area with a rectangular shape which, however, can vary by area where the project is located.

- (b) Accessibility factor: accessibility to/from amenity or discomfort facilities such as distance between school, city center, transport terminal, shopping, cemetery, sewerage plant, etc.
- (c) Lot factor: utility and value of lot itself such as availability of drainage, electricity, water supply, etc.

After street values are calculated based on a specific formula, then individual lots will be evaluated where specific features of each lot are taken into account, such as category of landuse, size, shape, terrain condition, specific location, flood condition, etc. The process of land valuation is shown in Figure 3.11.

4) Replotting Design

Replotting design is of utmost concern to individual landowners. Since all their requirements are not to be fully satisfied, it is important to set out a consented replotting design criteria in addition to the consented valuation method explained in the previous section. Principal criteria is to maintain correspondence between original lots and replots in terms of function and location. The replots will be located as close as possible to the original lots and be provided the same land use and better environment as much as possible. The replotting design criteria should be consented by the LR committee.

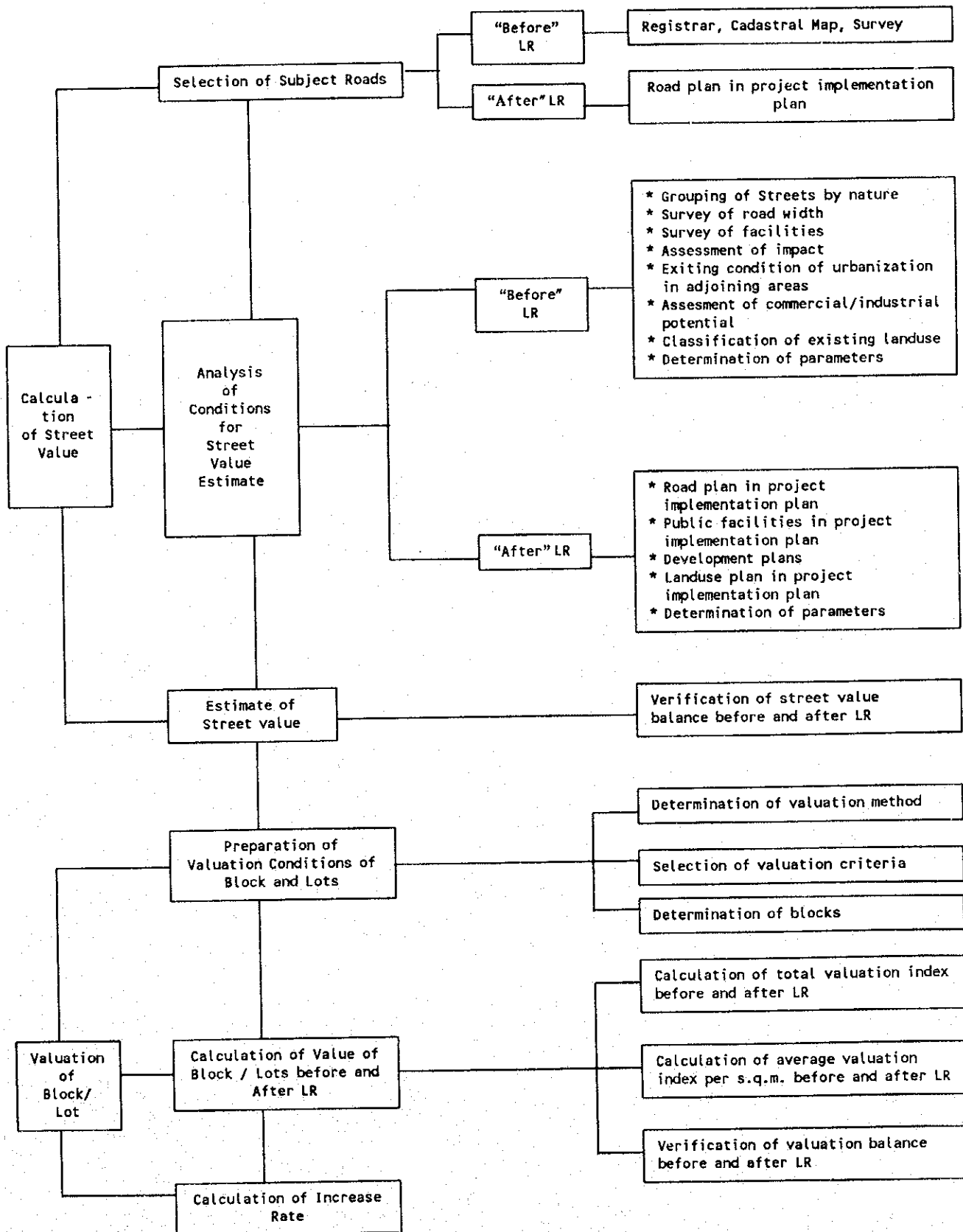
Then the entitled share of each lot is calculated in accordance with the consented valuation method to prepare a specific replotting design plan which shows the size, shape and location of the replots in relevance to the original lots. During this process, landowners are consulted by the implementing body to reflect their individual requirements as much as possible within the set replotting design criteria and rule.

The final say on the replotting design rests on the LR committee.

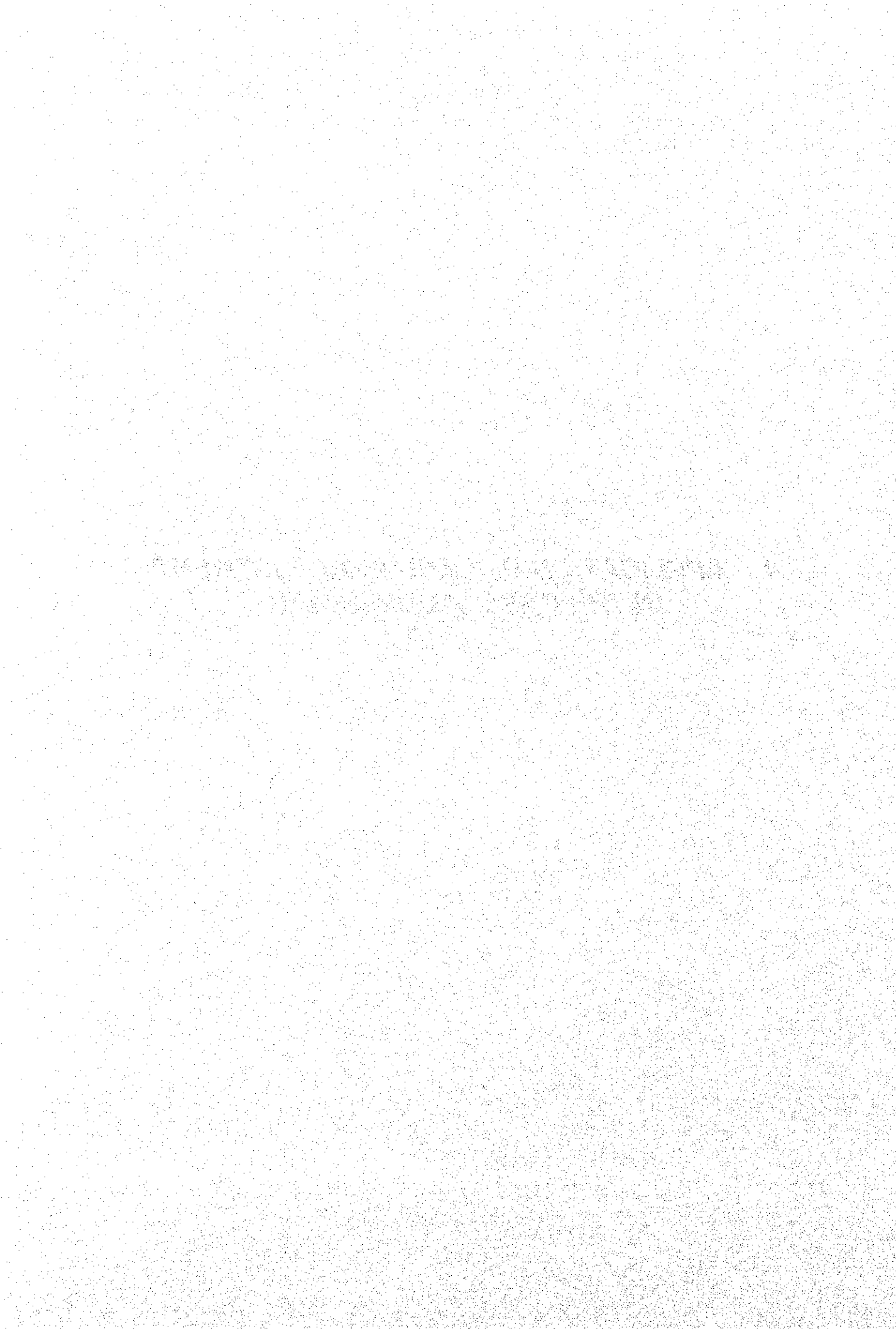
5) Preparation and Confirmation of Replotting Plan

Specifications of replotting design are documented with statement and relevant documents which are necessary for the enforcement of the replots. This includes replotting design plan, details of replots which shows the corresponding relationship between the original lots, the amount of equity money and the details of other lands which need to be treated separately such as financial lands.

Figure 3.11
Land Valuation Framework



4. APPLICATION OF LAND READJUSTMENT IN THE CASE STUDY AREAS



CHAPTER 4 APPLICATION OF LAND READJUSTMENT IN THE CASE STUDY AREAS

4.1 Kg. Seri Subang Study Area

4.1.1 Planning Framework

The Kg. Seri Subang study area is located approximately 20 km. west of Kuala Lumpur. While the area has lately been riding on a wave of rapid urbanization wave and has seen a large number of developments of different scales and objectives taking place, no effective city plan has been formulated except the Draft Structure Plan for Petaling District. Under these circumstances, three levels of planning work have been carried out for the study area: concept planning, master planning and LR implementation planning. The concept plan intends to identify the role of the study area in the regional development context and to confirm that the area is adequately integrated with the regional system. The master plan determines the physical structure, socio-economic development, land use and environmental conditions on the study area more specifically and, at the same time, confirm that the area will form an integral part of the total urban system. The LR implementation plan intends to work out a detailed layout plan which can be effectively implemented and can provide inputs not conflicting with the replotting plan and project implementation plan. The details of these planning processes are summarized in Table 4.1.

Table 4.1
Planning Framework for Kg. Seri Subang Study Area

PLANNING PHASE	STUDY AREA COVERAGE	OBJECTIVE	BASE MAP	SUPPLEMENTAL SURVEY CONDUCTED
CONCEPT PLAN PHASE	about 1,000 ha. Kg. Seri Subang Kg. Melayu Subang and adjoining areas	<ul style="list-style-type: none"> to identify development potentials and constraints from regional / local viewpoints to propose the development concept and structure 	Topographic Map (Scale 1:5,000)	<ul style="list-style-type: none"> Social and Engineering Survey (Level 1)
MASTER PLAN PHASE	332 ha. a part of Kg. Seri Subang	<ul style="list-style-type: none"> to identify existing problems and issues and areas for improvement to prepare the land use plan and public facilities layout 	Topographic Map (Scale 1:2,500)	<ul style="list-style-type: none"> Social and Engineering Survey (Level 2)
IMPLEMENTATION PLAN PHASE	319 ha. a part of Kg. Seri Subang	<ul style="list-style-type: none"> to prepare the LR design covering all necessary physical design of public facilities to formulate the project implementation plan to evaluate project viability from financial, environmental, social aspects 	Overlaid Topographic and Cadastral Map (Scale 1:2,500 and 1:1,000)	<ul style="list-style-type: none"> Social and Engineering Survey (Level 3) Environmental Impact Assessment Survey Opinion Survey on LR Acceptability
REPLOTTING PLAN PHASE	319 ha. a part of Kg. Seri Subang	<ul style="list-style-type: none"> to prepare the replotting plan based on the LR design 	Overlaid Topographic and Cadastral Map (Scale 1:2,500 and 1:1,000)	<ul style="list-style-type: none"> Supplemental Building/Lands Survey

4.1.2 Formulation of Concept Plan

1) Development Framework

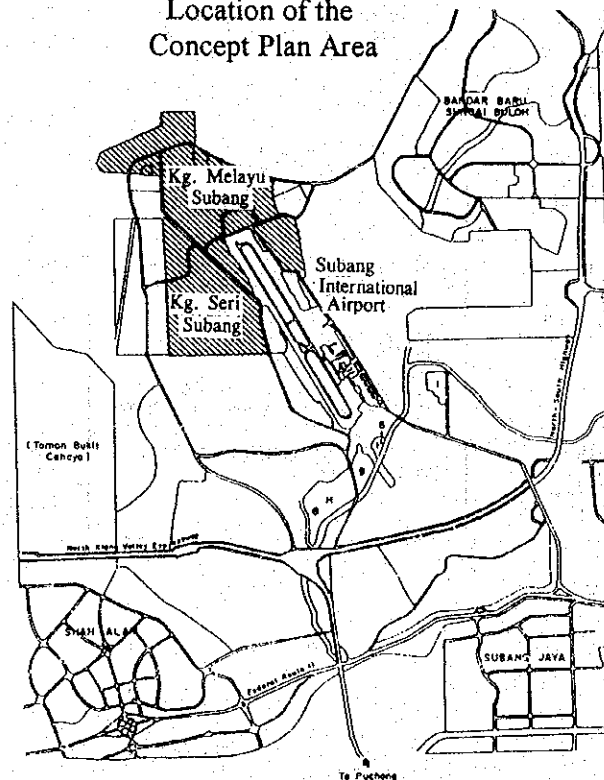
(a) The Concept Plan Area

Petaling District, including the concept plan area, is located in Klang Valley Region where the largest and most important urban and industrial functions are concentrated. Well-developed transport network consisting of expressways, international airport and seaport as well as railway encourage the investment of various different industries including automobile manufacturing, electric/electronic industries. These quality infrastructure and intensive locations of industries have induced extensive development of housing, recreation, and other urban services in the region.

The concept plan area, in spite of its advantageous location beside the Subang International Airport, has been left out from well-planned urbanization. It can be partly explained by the presence of small landholdings at a traditional kampung and a new village and the lack of city planning.

The area, comprising of 645 ha., belongs to Mukim Sungai Buloh in Petaling District and is under the Local Authority of Majlis Daerah Petaling. The smallest administrative unit in Malaysia is called a kampung. The concept plan area is divided into two kampungs, i.e. Kg. Melayu Subang in the north and Kg. Seri Subang in the southern and eastern part. Subang International Airport lies in between. In the surrounding areas are found the Rubber Research Center, forest reserves, and burgeoning housing and industrial estates (refer to Figure 4.1).

Figure 4.1
Location of the
Concept Plan Area



(b) Structure Plan of Petaling District

The concept plan area is covered by the Petaling Structure Plan, of which a report of survey and a draft structure plan were prepared in 1989 and 1990, respectively. Subsequently, revisions were made on the draft due to the modification of administrative boundaries and the draft was published in 1994 (refer to Figure 4.2). There is no concrete action for preparation of local plans and action plans.

The draft structure plan proposes the construction/upgrade of highways comprising an outer ring road network, an inner ring road network and a secondary distribution network. These networks will ensure smooth traffic flow and relieve anticipated congestion at the junctions with the existing Federal Highway and the North-South Expressway, and the proposed Shah Alam Highway.

One of the areas which will greatly benefit from the draft plan is the Batu Tiga - Kg. Seri Subang corridor, where the existing Batu Tiga - Sungai Buloh Road is upgraded into six lanes and a new six-lane road is proposed between Kg. Seri Subang and Sungai Buloh although the road alignment has not been precisely designed. At the distribution network level, the existing two-lane road between Subang International Airport and Kg. Seri Subang will become a four-lane road.

The land use plan for the concept plan area consists of three types of land uses, namely industrial area (Kawasan Industri), commercial area (Perdagangan), and future development area (Kawasan Untuk Pembangunan Masa Hadapan). The industrial and commercial areas are planned in the area adjoining the Subang International Airport and existing Pekan Subang, respectively, while the remaining area is reserved for future development. In addition, there are several urban centers proposed in the draft but they are far from the concept plan area.

(c) Related Development Plans/Projects

As the economy of Klang Valley Region continues to grow, developments have started to spill over to the concept plan area and its environs. New developments adjacent to the concept plan area are mainly residential, with land areas of 7 to 40 ha. On the other hand, large scale developments such as Sungai Buloh New Township (1,800 ha) and Glenmarie Development are located along the New Klang Valley Expressway.

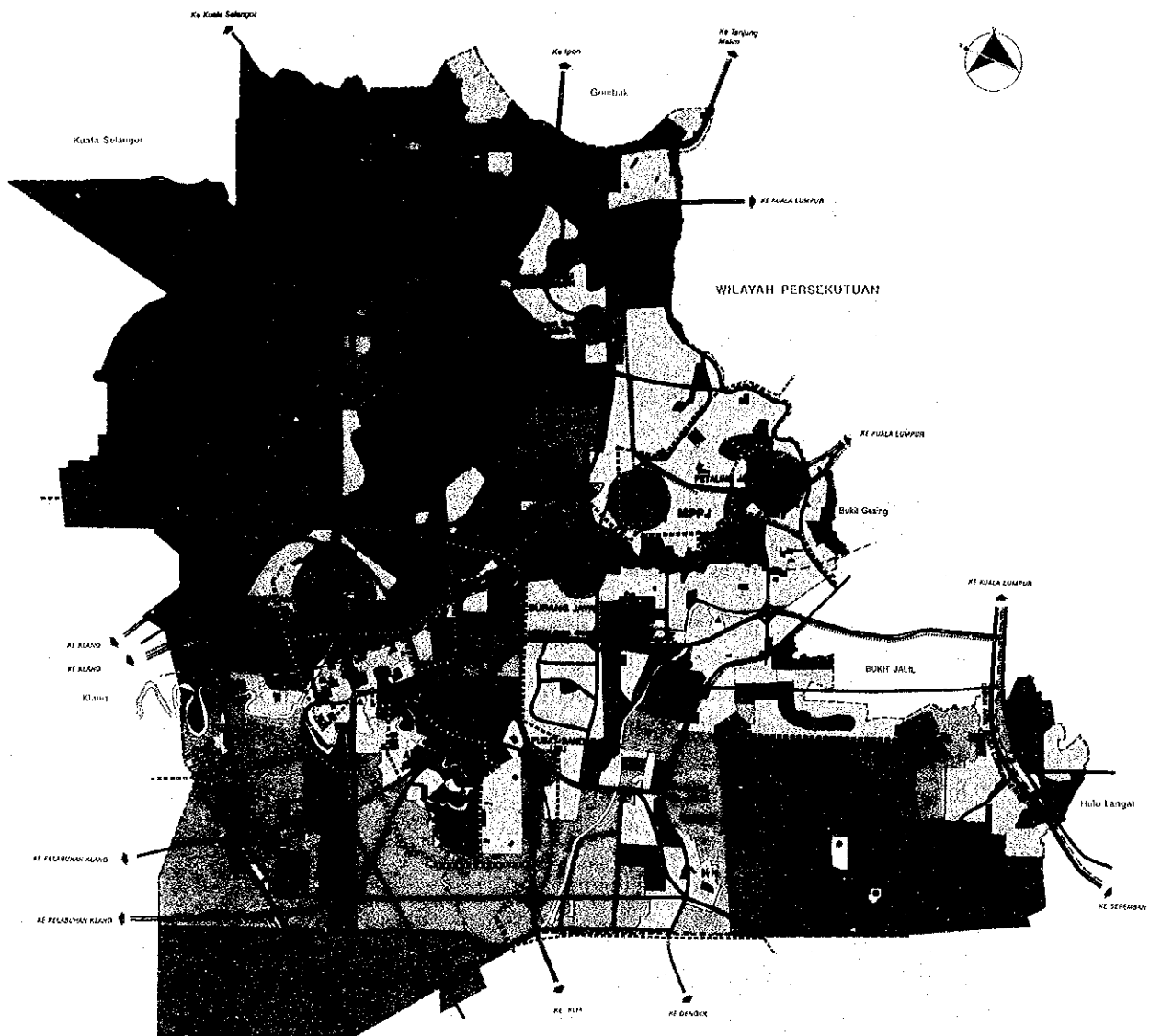
2) Development Directions

In compliance with the draft structure plan, the following development directions for the case study area have been delineated both at regional and local levels:

Regional Level

- (a) Strengthening of Road Network Configuration: Recently completed and planned regional road networks should be further strengthened by a set of adequately configured secondary and access roads to meet the expected urban development of the area.

Figure 4.2
Draft Structure Plan for Petaling District



KEY DIAGRAM
STRUCTURE PLAN FOR PETALING DISTRICT
AND PART OF KLANG DISTRICT 2010
DRAFT

LEGEND :

HIERARCHY OF URBAN AREA

- State Capital
- Sub Regional Centre
- District Centre
- Local Centre

COMMERCIAL

- Commercial
- Commercial Area After 2010

SETTLEMENT

- Housing
- Bukit Lajang Aboriginal Settlement

INDUSTRY

- Industrial Area

INSTITUTION

- International Airport
- Military Zone
- Military
- Police
- Rubber Research Centre
- Malaysian Agriculture University
- Mara Institute of Technology
- General Hospital

UTILITY

- Chemical Waste Disposal Site
- Central Sewerage System
- Gas Supply Line

TOURISM AND RECREATION

- Tourism Site
- Town Park
- Riverside Park
- Sport Complex
- Golf Course

FOREST

- Protected Forest Reserve
- Research Park
- Water Catchment Area

AGRICULTURE

- Agriculture Area

COMMUNICATION

- Highway
- State Road
- Proposed LRT Route
- Multi-Level Interchange
- Railway Line
- Main Bus Station

OTHERS

- Development Area Boundary
- Local Authority Boundary
- District Boundary
- River
- Future Development Area

- (b) Creation of New Urban Center: While significant population increase is expected in the area, no urban center is designated for the area in the draft structure plan. Accordingly, the creation of a new urban center is proposed.
- (c) Coordinated Development: A number of urban development projects currently taking place independently around the case study area should be integrated to establish an efficient urban area while minimizing adverse environmental effects.

Local Level

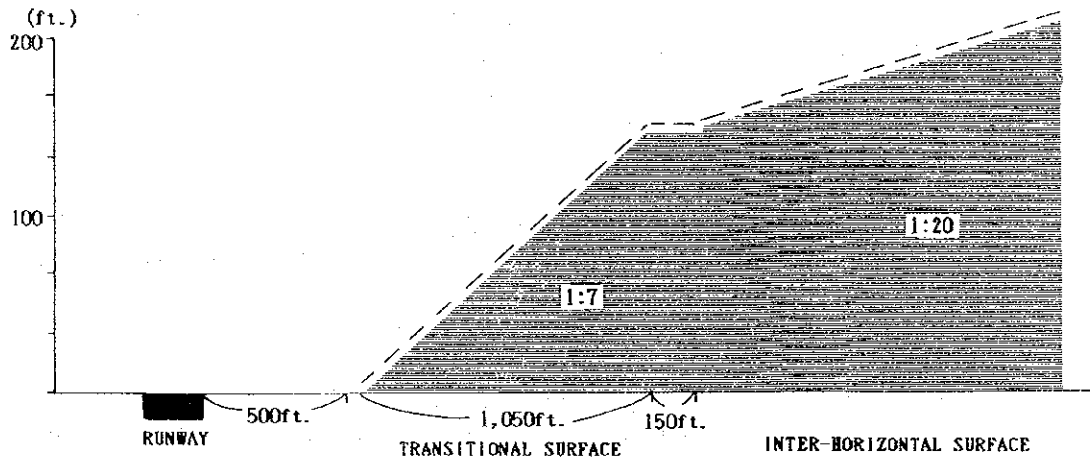
- (a) Establishment of Adequate Land Use Policy: Current inflow of population and associated location of industrial facilities have been amplifying contradicting environments. Adequate land use policy should be established, together with development of corresponding infrastructure.
- (b) Provision of Adequate Industrial Area: In 1992, there were 149 factories in the case study area, of which more than half were established in the last five years. Almost all of them are illegal in terms of land title though operation licenses have been issued. Since the concept plan area is ideally located for industries, a properly planned industrial area needs to be provided.
- (c) Development of A New Urban Center: The concept plan area has good potential to provide urban services for adjoining areas. The existing commercial area at Pekan Subang, where 69 shop building lots are located, could be upgraded with comprehensive functions.

3) Development Constraints

With its locational advantages, the area has significant development potentials for various land uses. However, at the same time, there are constraints to its development as follows:

- Building height is restrained by the operation of the Subang International Airport (refer to Figure 4.3).
- Existing industrial facilities in the area have been developed illegally, while existing infrastructure is not sufficient to sustain those activities;
- Developments currently taking place in adjoining areas have not been adequately integrated with the concept plan area;
- Kg. Seri Subang area is largely composed of hilly terrain which will constrain development of flat land; and
- Kg. Melayu Subang includes Malay reservation lands which restrict transaction of lands.

Figure 4.3
Building Height Restrictions



4) Concept Plan

A regional development structure of the area (refer to Figure 4.4) has been worked out to provide a more concrete basis for preparing the concept plan wherein strengthening of regional road network and creation of a new urban center are proposed in compliance with the draft structure plan. The proposed concept plan (refer to Figure 4.5) are characterized as follows:

- (a) **Structure:** The area is to be integrated with hierarchically configured road network and creation of a new urban center which will provide basic urban services in the area. Neighborhood service centers will also be provided for respective communities.
- (b) **Land Use:** The area is composed of major residential, industrial and commercial land uses with sufficient open space and adequate public facilities. The area along the runway is allocated for industrial use, taking into account noise and building restraint of the airport and the present considerable number of factories in operation. Residential areas will be located away from the airport, with commercial areas in the center where major roads intersect, thereby ensuring good accessibility.
- (c) **Road:** Batu Tiga - Sungai Buloh Road will provide an important external access and, therefore, should be widened from its existing two lanes to six lanes. For internal artery, a couple of roads need to be constructed and upgraded. Four internal roads will be connected with Batu Tiga-Sungai Buloh Road such as Jln. 3D, Jln. Subang, Jln. Saraf and a new road in parallel with the TUDM.
- (d) **Planning Framework:** On the basis of the above characteristics, a planning framework has been drawn up (refer to Table 4.2).

Figure 4.4
Proposed Regional Development Structure

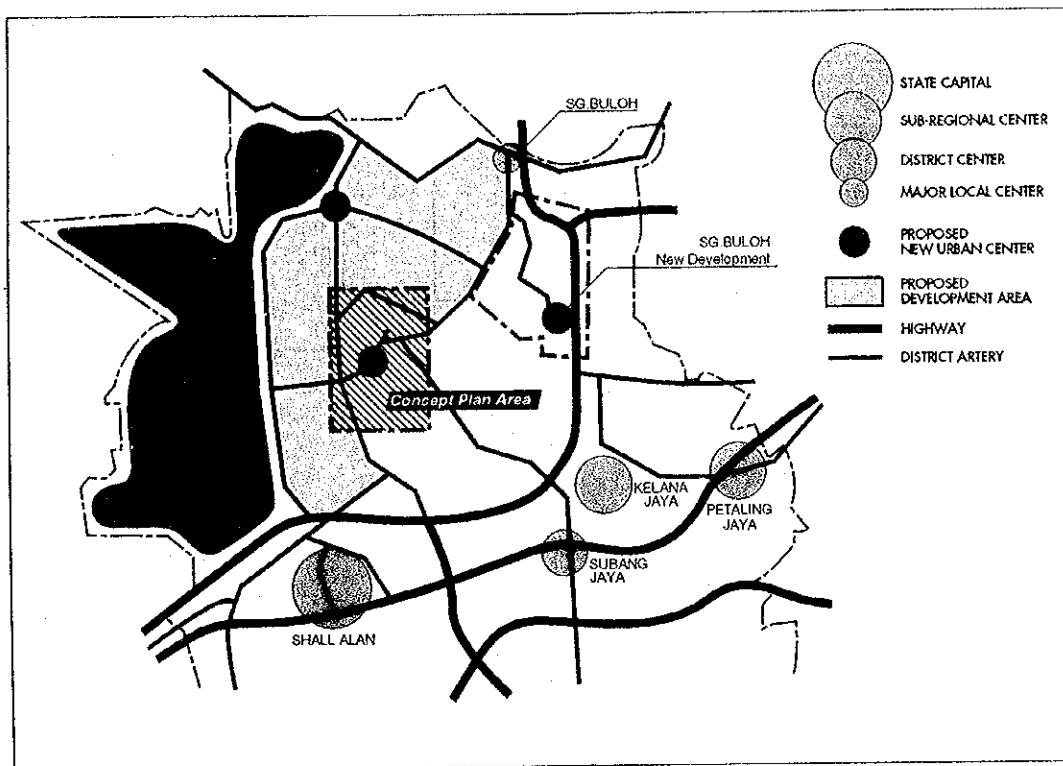


Figure 4.5
Development Structure of Concept Plan Area

