



PLANNING MALAYSIA:
Journal of the Malaysian Institute of Planners
VOLUME 22 ISSUE 5 (2024), Page 52 – 65

CHALLENGES IN IMPLEMENTING URBAN LAND READJUSTMENT (ULR) IN MALAYSIA FROM TOWN PLANNER'S PERSPECTIVES

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Abstract

Urban land readjustment (ULR) is a land management approach that aims to achieve comprehensive and sustainable urban development by reorganising land ownership patterns, improving infrastructure, and enhancing public spaces. While ULR has been successfully implemented in various countries, its adoption and implementation have been unique challenges in Malaysia. Through semi-structured interviews among planners involved explicitly in land readjustment, this paper examines the challenges of implementing ULR in Malaysia from the planners' perspectives. Data from the interviews were analysed using content analysis techniques. Findings from the analysis revealed that the key challenges of implementing land readjustment are the source of funds, public participation, and the absence of specific laws. By understanding these challenges, policymakers and urban planners can develop strategies to overcome barriers and effectively utilise ULR as a tool for sustainable urban development in Malaysia.

Keywords: Urban Development, Land Readjustment, Development Tool, Public Infrastructure

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INTRODUCTION

The rural-to-urban migration phenomenon in Malaysia has led to inevitable urbanisation issues, primarily attributed to rapid population growth. As of the first quarter of 2023, the total population of Malaysia has reached 33.2 million, with approximately 78% residing in urban areas (Department of Statistics Malaysia, 2023). This significant urbanisation process has placed immense pressure on resource availability and management, leading to increased housing and infrastructure costs due to resource scarcity, including limited land area, water and building materials (Rosni et al., 2016). The increasing demand for land creates a market disequilibrium in the urban land market, particularly in densely populated city centre areas with limited land supply (Yilmaz et al., 2015). To address these issues, a strategic approach is required to maximise the utilisation of existing land resources and rejuvenate underutilised or economically viable sites.

Land readjustment emerges as a valuable land development tool that provides avenues for tackling the complexities of rapid urbanisation. It presents a unique proposition by allowing for the comprehensive reorganisation and reallocation of land parcels, followed by land redistribution based on strategic planning objectives (Mugisha et al., 2023). This process enables the creation of more efficient and functional land configurations, which can in turn address issues of land scarcity and promote optimal land utilisation.

Despite its potential to tackle a range of urban development issues such as urban sprawl, inadequate infrastructure provision, and inequitable land distribution, the adoption of ULR in Malaysia remains limited. Its implementation in the country has encountered substantial hurdles, resulting in insufficient execution and limited achievements. Therefore, this research aims to explore the challenges of ULR implementation from the planners' perspectives.

LITERATURE REVIEW

Land Readjustment - Definition and Implementation

The definition of land readjustment varies across the. However, it can be described as an urban development or redevelopment method involving the transformation of an existing property structure, with the development costs and final property holdings distributed among the original titleholders by their initial shares (Alterman, 2007, 2012; Larsson, 1997; Sorensen, 2000; Turk, 2008; Viitanen, 2002). Land readjustment, or spatial land management, is a strategy to resolve land fragmentation issues by reconfiguring and consolidating land parcels in a bottom-up approach. This process creates more functional land units that enhance productivity and living conditions (Huang et al., 2011; Long et al., 2012; Long, 2014).

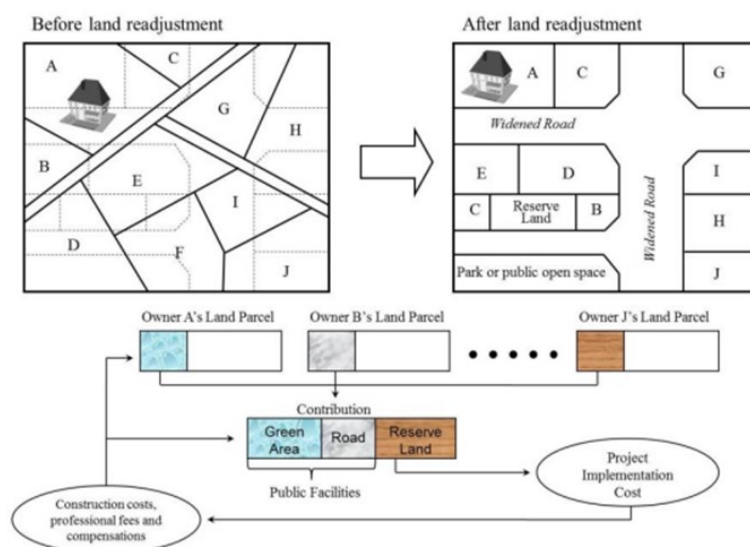


Figure 1: Land Readjustment: Before and After Scenarios
 Source: Adapted from (Montandon & Souza, 2007)

In simple terms, land readjustment can be defined as a process of reforming land by changing its original land parcel location and land use within a specific project area. Land readjustment aims to transform rural or unplanned urban land, often characterised by irregular subdivision, into a balanced allocation of land for public and private use per town planning principles. This approach is known by various terms such as land reform (King & Burton, 1982), urban land readjustment (Schnidman, 1988), land re-grouping (Kuppers, 1982), land re-ordering (Davies, 1976), and land pooling (Archer, 1989). Some scholars consider it a technique for reallocating fragmented land areas (Vitikainen, 2004). Land readjustment has proven to be an effective and efficient urban development and management tool in many developed and developing countries, including Japan (Muñoz Gielen, 2016; Sorensen, 2000), Germany (LAI et al., 2022), Australia (Archer, 1992), Thailand (Archer, 1981), and India (Mathur, 2013).

The implementation and success of land readjustment as a land management strategy vary among countries due to differing institutional arrangements (Li & Li, 2007; UN-Habitat, 2018). In Germany, land readjustment has been extensively employed in the postwar reconstruction of damaged cities and in accommodating recent urbanisation trends. Similarly, land readjustment has played a crucial role in Japan's urban planning system since the enactment of the Land Readjustment Act in 1954. It has been utilised to develop new cities, manage orderly growth, and facilitate urban renewal and reconstruction (De

Souza, 2018; Ochi, 1996). In contrast, France considers land readjustment a cumbersome and time-consuming process with relatively low significance compared to other development procedures. It accounts for less than 5% of new development activities (Viitanen, 2002; Renard, 2003). Likewise, in Turkey, although land readjustment has been legally addressed in numerous laws and regulations since the late 19th century, its utilisation in development plans remains limited compared to other land assembling methods, with only about one-third of urban parcels produced through land readjustment projects (Turk & Korthals Altes, 2011).

While land readjustment holds promise as a superior land management approach in theory, its successful implementation remains limited to only a few countries. In many other nations, land readjustment procedures have either yet to be introduced or have fallen short of expected usage and success, mirroring the situation in Malaysia.

Land Readjustment in Malaysia

The Land Readjustment System (LRS) was introduced in Malaysia in 1987 through a series of studies and research conducted by the PLAN Malaysia (formerly known as the Department of Town and Country Planning of Peninsular Malaysia) in collaboration with experts from the Japan International Corporation Agency (JICA). However, the services of JICA experts ended at the end of 2003.

In 1995, a feasibility study on the introduction of LRS in Malaysia was conducted by JICA and PLAN Malaysia, which concluded that the LRS could be implemented in Malaysia. On June 23, 1999, a Cabinet Meeting decided that the LRS would be one of Malaysia's land development methods. The Steering Committee for the Implementation Plan Study, chaired by the Secretary General of the Ministry of Housing and Local Government (KPKT) on August 25, 2006, agreed to expand the planning and implementation of projects using the LRS to other areas throughout the country.

In Malaysia, two sites were identified as the locations for two pilot projects: Kampung Pulau Meranti, Sepang, and Kampung Skudai Kiri, Johor. Nevertheless, no land readjustment projects have been successfully completed yet. This is due to the various challenges encountered during the implementation phase, including disagreement among landowners regarding the projects and lack of government funding (JPBD, 2014).

The aspects considered related to land readjustment in Malaysia can be categorised into technical aspects, financial aspects, the implementation body, and landowner participation (JPBD, 2008).

Technical aspects

The technical aspects of land readjustment are location, valuation, land reduction, and replotting.

Location

Land readjustment can be applied in both urban and rural areas but is more suitable for areas under pressure for development. These include the urban fringe and the redevelopment of existing built-up areas where public facilities and infrastructure are inadequate.

Valuation

Several valuation methods are applied in this country. These include the comparison method, cost method, investment method, residual method, and profits method. However, the most common is the comparison method. This method entails valuing the property under consideration by directly comparing it with similar recently sold properties. Although this method is adequate for feasibility studies, it may not be effective for replotting.

Land Reduction

The contribution of both public and financial land affects the reduction ratio. Public land, which includes roads and open spaces, may account for 20 to 30 percent of the area, depending on the planning standards applied to the project.

Replotting

The objective of replotting is to regularise the shape and provide access to individual lots. This process involves allocations for the provision of community facilities and financial land. The final replotting should correspond to the original lots as far as possible. Individual plot reductions can range from 20 to 50 percent of the original plot size. Although there should be some principles on which replotting should be based, it should not be seen merely as a technical exercise.

Implementation body

The successful implementation of land readjustment will require the cooperation of various government agencies and the affected landowners. Four forms of implementation bodies can be established. This could be in the form of: -

- i. An association of individuals, residents, landowners, and leases.
- ii. Local authorities.
- iii. Public development corporations such as Urban Development Authority.
- iv. Property developers or local authorities in association with property developers.

Residents' Participation

Residents' participation is vital to the success of any land readjustment project. While it is generally true that residents would enjoy a better quality of life and

environment after the project implementation, some may object to the proposal. Other associated problems could include multiple ownership of land, absentee landlords, and the difficulty of tracing landowners. In some countries, there are laws on land readjustment which prescribe that the project can be implemented if most residents subscribe to the proposal. Given that no specific land readjustment legislation has been introduced in Malaysia to date, it is imperative to persuade any dissenting parties to change their minds otherwise, their property would have to be forcibly acquired.

Furthermore, the land readjustment project allows affected landowners and occupants to participate in its planning and implementation. This will help to promote cooperation between the implementing agency and the residents.

Financial Aspects

The viability of the land readjustment projects also depends on the effective demand for the financial land. Theoretically, the financial land will be sold in the open market to recover infrastructure costs. Without grants, the financial land may be used as collateral to obtain financing to commence infrastructure works.

RESEARCH METHODOLOGY

This study employed qualitative content analysis to comprehensively explore the perspectives and experiences of planners regarding the challenges of implementing land readjustment in Malaysia. In-depth semi-structured interviews were conducted among 10 planners who have deep technical knowledge of ULR and were once involved as a ULR team of the pilot study in Kg Pulau Meranti, to gather data, as they offer valuable means of engaging experts and gaining profound insights on the subject under investigation (Berner-Rodoreda et al., 2018). The semi-structured interview format was specifically selected as it focuses on the respondents' experiences related to the research topic and involves individuals who possess first-hand knowledge of specific experiences (Mansor & Sheau-Ting, 2021).

Semi-structured Interviews

The semi-structured interviews were conducted virtually, and the recorded sessions were securely stored in Google Drive. Each session lasted 20 to 40 minutes. Employing a semi-structured interview approach, an interview guide was utilised to support the researcher in attaining the research objectives (Brinkmann & Kvale, 2015). The interview questions incorporated in the guide were explicitly designed to investigate the challenges encountered in implementing land readjustment in Malaysia.

Table 1: Interview Guide

Procedures	Question Guide
Introductory question	Would you provide your professional background and area of expertise?
Focus question	From your perspective, what would you consider the primary challenges in implementing urban land readjustment in Malaysia? Does the current regulatory framework in Malaysia provide adequate support for the implementation of land readjustment?
Concluding question	Are there any other aspects that should have been addressed in our discussion, but have not?

Source: Authors' research, 2023

The primary aim of this interview guide was to fulfil the research objective by capturing planners' perspectives regarding the challenges associated with implementing ULR in Malaysia.

Sampling Method

A purposive sampling method was used, as expertise in land readjustment is limited and difficult to find. Therefore, it was appropriate to adopt it, as justified by Pandey and Pandey (2015). Respondents have more than 10 years of experience in the related field to provide adequate and justifiable insights. Table 2 displays the characteristics of respondents.

Table 2: Characteristics of Respondents

No.	Years of Experience	Main Area
1	More than 10 years	PLANMalaysia, Selangor
2	More than 10 years	PLANMalaysia, Selangor
3	More than 10 years	PLANMalaysia, Selangor
4	More than 10 years	PLANMalaysia, Selangor
5	More than 10 years	PLANMalaysia, Selangor
6	More than 10 years	PLANMalaysia, Putrajaya
7	More than 10 years	PLANMalaysia, Putrajaya
8	More than 10 years	PLANMalaysia, Putrajaya
9	More than 10 years	PLANMalaysia, Putrajaya
10	More than 10 years	PLANMalaysia, Putrajaya

Source: Authors' research, 2023

DATA ANALYSIS

In analysing the interview data, Brinkmann and Kvale (2015) identified five qualitative content analysis processes: extending invitations, obtaining consent, setting up the virtual meeting space, conducting interviews, and recording. Next is the information generation process, followed by transcribing the generated

information electronically. Then, during the data transcription process, the responses received were coded by determining keywords and phrases commonly used among participants. This involved indexing, highlighting, sorting out quotes, and rearranging them to develop thematic content (Creswell, 2018).

During the transcription process, the phrases and keywords were analysed and encoded with suitable category labels, and afterwards, the concerns or impediments were formed (Saraf et al., 2019). Finally, the interpretation of the findings was carried out. These new emergent findings were narrated to relate to the implications of the research. As it builds directly from the raw data, the process ensures the work's validity (Bryman, 2012). Figure 1 displays the interview procedures and analysis.

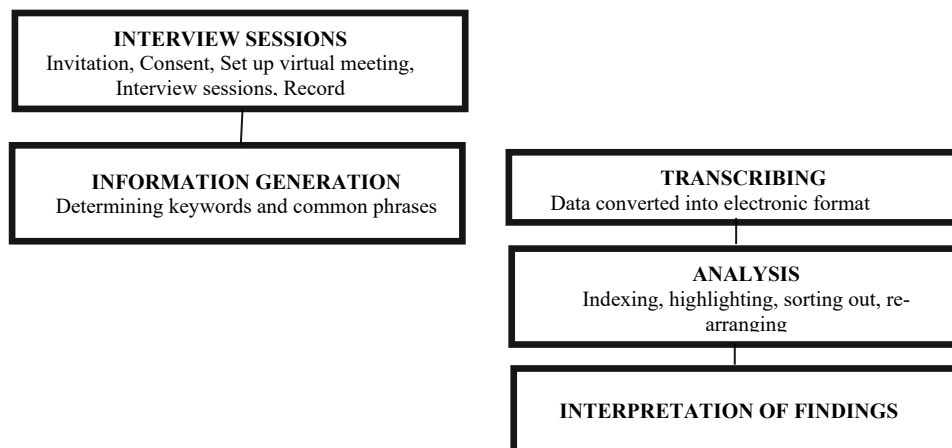


Figure 2: Interview Procedures
Source: Brinkman & Kvale, 2015

Rigour and Reliability in Qualitative Data Analysis

To ensure the rigour of data analysis during the qualitative data analysis stage, Othman et al. (2020) employed three strategies: credibility, confirmability, and accuracy. The qualitative content analysis was made reliable by cross-checking the transcribed data with the transcripts. Additionally, the data was carefully indexed, highlighted, sorted, and rearranged multiple times to ensure accuracy.

RESULTS AND DISCUSSION

This section presents the results of a qualitative research study that aimed to explore planners' perspectives regarding the challenges encountered in implementing land readjustment in Malaysia. Interviews were conducted with ten planners directly involved in land readjustment projects. The data obtained from these interviews was analysed, and the findings were organised into three main

categories: source of funds (challenge 1), public participation (challenge 2), and absence in specific law (challenge 3). Each category is described below, accompanied by relevant quotes from the participants.

Challenge 1: Source of Funds

Based on the content analysis of the initial interview question, all ten interviewees acknowledged the availability of funding as a significant challenge in implementing the land readjustment method.

'In the context of land readjustment projects, the implementation is typically expected to involve self-financing through cost-sharing mechanisms. However, in the case of Malaysia, particularly in the context of the Kg Pulau Meranti project, the construction costs depend solely on the allocation provided by the Federal Government. As a result, the full implementation of land readjustment in Kg Pulau Meranti becomes challenging and may not be realised to its full potential.' **N1**

'A considerable amount of financial resources is required to initiate the land readjustment method, which includes conducting research activities and undertaking construction on the potential site, to cover development costs.' **N2**

'Insufficient funds will limit the progress of the land readjustment project, as it will be a struggle to finance the high infrastructure costs associated with the project.' **N3**

'For instance, in implementing the land readjustment system in Kg Pulau Meranti, the element of cost-sharing does not exist at all.' **N4**

'Developers were found unable to share costs because they believed the project would not be profitable.' **N5, N8**

'In the long term, there is a need to establish a revolving fund for the land readjustment project.' **N6**

'Securing initial funding is important, but there are often overlooked costs related to managing the land readjustment process. These hidden expenses can strain the project's budget and slow progress.' **N7**

'I would say that in many international projects, private developers are looking for funding. However, the absence of incentives and mechanisms

to share risks in Malaysia has discouraged private companies from participating in land readjustment initiatives. **N9**

'Public-private partnerships (PPPs) could provide a more sustainable solution. This would involve both government and private developers contributing to a collective fund, which may ease the financial burden on any one party.' **N10**

The literature outlines several financial conditions that can impede the success of urban land readjustment (ULR) initiatives. The main concern is the absence of accessible low-interest loans for ULR (Soliman, 2017) and other financial sources (financial mechanisms) (van der Krabben & Lenferink, 2018). It seems that both the literature and findings have common concerns about the source of funding for ULR development.

Challenge 2: Public Participation

All ten interviewees agreed that public participation challenges arise in the context of urban land readjustment. This challenge aligns with the findings from the research conducted by UN-Habitat 2018, which states that ULR has been criticised for facing difficulties getting landowners' consent to participate in the project.

'...it is tough to obtain the agreement of all landowners to join the urban land readjustment project. This hindered its (urban land readjustment) smooth execution.' **N1**

'There is limited awareness and understanding among the public about the urban land readjustment process, its benefits and the potential impact on their properties or communities.' **N2**

'They (landowners) often display scepticism, resistance, or reluctance to participate due to potential negative impact on landownership and uncertainty about the outcomes of the urban land readjustment process.' **N4**

'There have also been issues related to deceased landowners, inheritance matters, tracing heirs and other related complexities.' **N6**

'There will always be those who do not wish to participate. Various options to buy or exclude their land from the project could be considered.' **N5**

Another highlight was the landowners' misinterpretation of the distinction between the land acquisition method and urban land readjustment.

'They (landowners) may perceive urban land readjustment as a form of land acquisition, resulting in concerns about losing ownership or receiving inadequate compensation for their land.' N3

In the case of small landowners, they might choose not to accept or cooperate with ULR because they may fear being the first ones forced to vacate:

'Some landowners with smaller plots might have to leave the area.' N7

'.....people would not contribute their lands easily to the project.... even we show how their land would be changed after LR, they may still resist against LR.' N9, N10

Challenge 3: Absence of Specific Law

Based on the content analysis of the second interview question, all interviewees agreed that the current regulatory framework in Malaysia does not adequately support the implementation of land readjustment.

'Amendments made to legislation such as the Town and Country Planning Act and the National Land Code do not grant any authority to the Implementing Body to compel landowners to provide a Power of Attorney for the development of their land without their consent.' N1

'In the absence of a dedicated legislative provision or Land Readjustment Act, and if we are compelled to develop the land under existing laws, the execution of land readjustment will face obstacles unless all landowners agree to participate.' N2, N4

'Currently, there is no legal tool exists in this country to help with ULR implementation.' N5, N10

'.... I should note that ULR cases vary globally in their legal contexts, so we must create our own model that addresses all aspects of ULR.' N8

'Without a formal Land Readjustment Act, current laws don't properly cover compensation or reallocation during ULR, which is essential for gaining landowner trust.' N7

'...I think no specific ULR law creates uncertainty about how public and private interests should be balanced thus create hesitation from both sides.

N6, N9

In addition, the literature confirms this challenge, mentioning four legal conditions, including a lack of legislation, legal backup, or regulatory framework (Mittal, 2014), a complicated legal system (Turk, 2005), land ownership structure (Turk 2005, 2008), and enhanced protection of property rights (Alterman, 2007), as among the most challenging regulatory issues in the Urban Land Readjustment literature.

CONCLUSION AND RECOMMENDATION

Based on this study's findings, planners' perspectives on the challenges of implementing ULR in Malaysia have been examined. The critical hurdles identified include the lack of a reliable funding source, difficulties securing public participation, and the absence of specific legislation addressing the issue of ULR. Based on the findings, looking into ways ULR could be improved is essential. Firstly, innovative financial mechanisms that encourage private sector participation and cost-sharing should be introduced. This could involve public-private partnerships, tax incentives, or land value capture mechanisms to generate funding for ULR projects.

Secondly, awareness campaigns should be conducted to inform the public about the benefits and processes of ULR. This could help provide clear and accessible information to dispel misconceptions and build trust. Furthermore, being flexible regarding the ULR project design, such as accommodating the landowners' feedback and suggestions, would also be helpful. Incorporating landowners' inputs ensures the final plan aligns with the community's needs and aspirations.

Last, a specific legal framework dedicated to ULR should be developed. The enactment of a new law (whether named the Land Readjustment Act, *Akta Pembangunan Tanah Bersepakat*, or any other agreed-upon name) to govern the implementation of ULR projects would also go a long way toward providing a comprehensive legal framework specifically designed to address the challenges associated with this approach. It would outline the roles, responsibilities, and powers of the State Authorities and all parties involved in the ULR projects.

In conclusion, while ULR has proven to be a viable alternative for land development, some enhancements are required to ensure its successful implementation. This system can be effectively applied in various regions by making necessary improvements tailored to their specific characteristics and based on all stakeholders' agreement in the development process.

The research is based on some limitations, specifically the respondent selection and semi-structured interview. Therefore, some recommendations for

future research could improve the outcomes of this study. First, another interview session with different stakeholders, professionals, or owners related to the ULR could help better understand the issue. Second, other research methods and analyses, such as a quantitative approach, could be adopted.

ACKNOWLEDGEMENT

The authors wish to acknowledge and thank the respective reviewers for their valuable comments on this paper.

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Received: 30th June 2024. Accepted: 10th September 2024