

Comparative Study: Planning for the Dukuh Atas TOD Area and the OMY District TOD Area

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Abstract: *The development of Dukuh Atas TOD area is hampered or "stagnated" because it is targeted to be completed in 2022, however the progress towards the next stage—as a series of four stages of development—is still not visible. This causes the development condition of Dukuh Atas TOD area to be considered a TAD area, whereas even though it has been served by 6 modes of transportation—MRT, KRL, RaiLink, LRT, BRT and feeder—and the use of private vehicles is still high due to the lack of linkages between the mix of land use and land use. multi-mode transit system. Departing from this condition, this research then aims to examine stakeholder linkages and integration of multi-level policies in Dukuh Atas TOD Area which is compared to OMY District TOD Area as a best practice due to its success in creating an active and lively atmosphere as well as the highly use of public transportation. The analysis techniques used include stakeholder analysis, content analysis, and descriptive-comparative analysis. The results showed that there were differences, where in Dukuh Atas TOD area it was found that (1) stakeholder coordination had not been achieved, roles were overlapping, and (2) there was a synchrony between national and regional policies. Meanwhile, in the OMY District TOD Area, it was found that (1) stakeholder coordination has been achieved with clear roles, and (2) regional policies are plans for implementing national policies.*

Keywords: comparative-study, stakeholder-linkages, multi-level-policies, TOD-area

1. Introduction

Environmental problems in the form of traffic congestion and air pollution, expansion and motorization to the existence of informal settlements are issues that occur in metropolitan cities with rapid development. This issue also occurs in Indonesia, precisely in Jakarta as the capital of the province of Indonesia which is ranked 10th in the category of the most densely populated city in the world in 2019. This level of density causes an increase in traffic congestion—which comes from 3.5 million cars and 14 million cars. motorcycles in 2018—and the increase in air pollution [1]. This transportation problem can be solved by developing the Transit-Oriented Development (TOD) area as an area development concept that integrates a multi-modal system with surrounding buildings through the regulation of land use mixing, land use density or intensity and the creation of a compact area as well as non-motorized movement connectivity [2]. The idea of TOD has been explicitly stated in planning documents in Jakarta, including in the RTRW, RDTR and PZ, Ministerial Regulations and Governor Regulations [3]. One of the TOD area developments in Jakarta as the focus of this research is the Dukuh Atas TOD area which is characterized by the TOD area with the TOD urban typology, located in the CBD, a pilot project, classified as a premium transit station—which is served by 6 six modes of public transportation, such as MRT, KRL, BRT, RaiLink, LRT and feeders—and have the highest

number of commuters compared to other TOD areas. Overall, the implementation of the TOD concept in the Dukuh Atas TOD area has received a lot of criticism, where the priority of regional development has not been oriented towards integrating activity centers and transit nodes, so that development is partial which causes a lack of linkage between workers and end users and users of public transportation [4]. Dirgahayani, et al., [5], in their research, stated that the unsuccessful implementation of the TOD concept in the Dukuh Atas TOD area was due to the newly adopted concept—which, in national policy in Ministerial of ATR/BPN Regulation No.16/2017 and in regional policies in DKI Jakarta Governor Regulation No. 67 of 2019—and the overlapping stakeholder roles even though it has been regulated. This means that there are weaknesses in the integration between stakeholders and regulations in policies that cause the level of conformity of the Dukuh Atas TOD Area is still low, based on previous research conducted by Maudina, et al. [6] still ranges from 35-45 points and has not been categorized as a bronze category as the lowest category in the TOD area assessment classification.

Japan, on the other hand, started to fix transportation and land use problems from the 1960s to the 1980s in three big cities, namely Tokyo, Osaka and Nagoya by applying the TOD concept at transit nodes [7], [8]. The central role of urban transportation in Japan, in particular, is played by rail as a link from the suburbs to the city center and the internal

movement of the city, so that the development of the TOD area is at the center of the train station. The trend of developing the TOD area in Japan is also known as the redevelopment trend, where one of the TOD areas that have the same characteristics as the Dukuh Atas TOD Area is the OMY district TOD Area. OMY District TOD Area is a TOD area located in the CBD of Tokyo as the "gate" and "face" for the Capital of Tokyo, has the highest number of public transportation users among other TOD areas and even in the world (New York, Beijing, London and Seoul) and is the pilot project for the development of the TOD area in [8], [9], [10]. In addition, the selection of the OMY District TOD Area as the study area departed from its success in implementing the UR or Urban Redevelopment scheme which balances the distribution of benefits between property owners after reorganizing land ownership. The development of the OMY District TOD Area is considered to have succeeded in reducing dependence on the use of private vehicles which is related to the increased activity of workers and visitors as users of public transportation. This success cannot be separated from the government's participation and flexible policies that benefit the private sector [3]. Based on the description of the two TOD areas, there are three

differences found, including the role of stakeholders, the content and application of policies and the implementation of the development of the TOD area. Thus, the purpose of this study is to compare the Dukuh Atas TOD Area and the OMY District TOD Area studied based on 2 (two) variables, namely stakeholder linkages and integration of multi-level policies that affect the development of TOD area.

1.1 TOD Area Feasibility Dimensions

The right framework will ensure that urban development based on the TOD concept will be implemented in a sustainable and inclusive manner, where this framework is in the form of dimensions to measure the feasibility of developing a TOD area [11]. Research conducted by Sri Suryani, et al. (2020) classifies the dimensions of TOD feasibility into 3 dimensions, namely planning aspects, implementation aspects and "outputs" of TOD area development [3]. In addition, research conducted by Tetsuo Kidokoro (2020) also classifies the TOD feasibility dimensions into 3, namely institution, planning or design and implementation [2].

Table 1: TOD Area Feasibility Dimensions

Researcher Name	Title	Variable	Sub Variable
Sri Suryani, et al. (2020)	Re-orienting concept and implementation in Jakarta	Planning Aspect: TOD project planning process	1. Objectives: <ul style="list-style-type: none"> • Efficiency • Social justice • Economic growth • Order 2. Process: <ul style="list-style-type: none"> • Stakeholder engagement in decision making • Integrated multi-level decision making
		Implementation Aspect: The process of developing and implementing a TOD project	<ul style="list-style-type: none"> • Finance • Land provision • Construction process
		"output" of the TOD project	1. Built environment: <ul style="list-style-type: none"> • Circulation and access • Buildings and open spaces 2. Property ownership 3. Integration with surrounding regions and cities
Tetsuo Kidokoro (2020)	Transit Oriented Development (TOD) Policies and Station Area Development in Asian Cities	Institution	Station area zoning regulations
		Planning or design	Station area planning: <ul style="list-style-type: none"> • Mixed use • Connectivity with other modes of transportation • Pedestrian oriented design • Density level setting • Parking policy
		Implementation	<ul style="list-style-type: none"> • Joint development between local governments, transit agencies and private developers • Institutional mechanisms for public and private cooperation • Improvement of naturally occurring informal settlements

2. Methods

This research is a mixed type of research, which collects and analyzes quantitative and qualitative information facilitated by the CLR or Comprehensive Literature Review through a comparative approach. The data in this study were obtained from 2 (two) sources, namely the Dukuh Atas TOD Area data from previous primary research conducted by authors and the

District OMY TOD area from the results of secondary data-sourced research, such as journals, books, reports, etc. After the data was collected, the two pieces of information were then compared using a comparative approach to find differences between stakeholder linkages, and integration of multi-level policy between the Dukuh Atas TOD Area and the OMY District TOD Area.

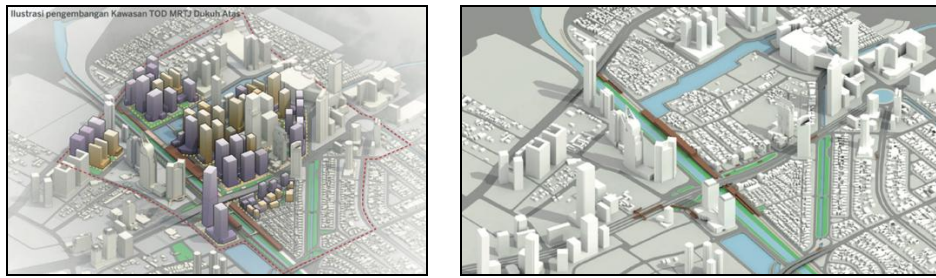


Figure 1: Comparison of the Plan and Current Development of the Dukuh Atas TOD Area

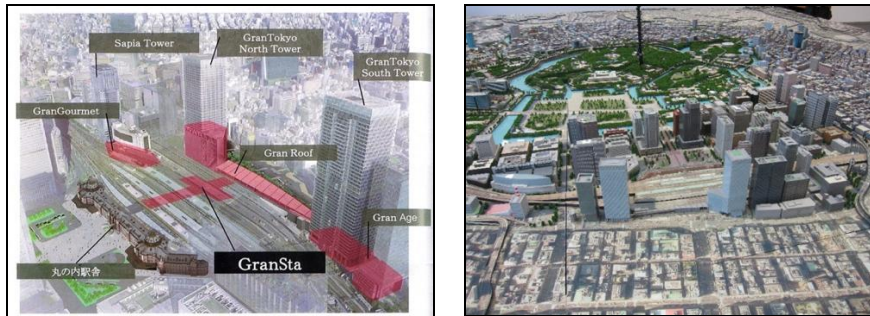


Figure 2: Comparison of the Plan and Current Development of the OMY District TOD Area

2.1 Variables and Data Collection Methods

This study collects data based on a secondary survey in the form of a literature review, where data is obtained from related documents and from the results of previous research conducted by the author. The literature review in this study is part of the primary research or mentioned by Onwuegbuzie & Frels (2019) as an "embedded study" of primary research, meaning that the data collected from the literature review is used as a comparison of the data generated from primary research and then reviewed the differences between both phenomena [11]. In this study, literature review is used as a method of collecting data through regulations, journals, books and other publications to review the development of the TOD area in Japan, especially the TOD OMY District. After being studied, the data obtained will be compared with data from previous studies that discuss the development of the TOD area in Indonesia with a case study located in Dukuh Atas TOD area.

2.2 Data Analysis Techniques

In the context of research, analysis involves the process of examining basic data to gain a better understanding of the phenomena that these data are trying to explain [11]. As for this research, it has three data analysis techniques, namely stakeholder analysis, and content analysis as research with the type of CLR (Comprehensive Literature Review) and descriptive-comparative analysis as research with comparative type (See Figure 4. Research Flowchart).

- a) Stakeholder Analysis,

Stakeholder analysis is an analysis carried out to examine the formation of relationships and information sharing among stakeholders to rebuild the TOD area. There are three things that are studied in analyzing stakeholder linkages in the TOD area, including public-private coordination, financing mechanisms and land provision mechanisms [5].
- b) Content Analysis

Content analysis in a broad sense combines policy theory, policy processes, policy analysis and policy evaluation [12] where the implementation of this analysis in research aims to determine the development scheme and content of policies that contain the development process of the TOD area.
- c) Descriptive-Comparative Analysis

Descriptive-comparative analysis is an analysis that aims to examine how developments differ in two or more countries [13]. The implementation in this study can be seen through the description of the analysis technique configuration as follows:

Concept	Variabel	Sub-Variabel	Measurements
<p>TOD Area Planning: A process consisting of various efforts to achieve the goal of rebuilding the TOD area which is realized from the efforts of stakeholder linkages and the integration of multi-level policies in the TOD area.</p>	<p>STAKEHOLDER LINKAGES: The participatory process of several actors involved in decision making and preparation of the TOD area development plan.</p>	Linkages in public and private coordination	Identification of ACTOR AND STAKEHOLDER'S ROLES
		Linkages in financing mechanisms	INTERLINKAGES among stakeholder
<p>INTEGRATION OF MULTI-LEVEL POLICY: The linkage of a policy with the policies above it hierarchically in the form of a TOD area development plan at the regional level with the TOD area policy at the national level.</p>	Linkages in land provision mechanisms	Linkages in efficiency	SOURCE OF FUNDING from certain stakeholders
	Policy integration in social justice	Policy integration in economic growth	FUNDS RETURN MECHANISM by certain stakeholders
	Policy integration in order	Policy integration in zoning regulation	LAND PROVISION MECHANISM based on property ownership
	Policy integration in development process		Policy review of planning scheme based on PROPERTY OWNERSHIP
			Policy review of the FACILITIES PROVISION policy that is enjoyed by all people
			Policy review COMMERCIAL AREA PROVISION

Figure 3: Research Variables and Data Measurement Methods

Table 2: Description of the Descriptive-Comparative Analysis Configuration

Descriptive-comparative Analysis Configuration	Description
Comparison model	The difference from the comparison of TOD-CBD areas across countries, namely Jakarta, Indonesia and Tokyo, Japan.

Descriptive-comparative Analysis Configuration	Description
Comparison scale	Development of a transit-oriented area in the CBD with a national-international commercial scale and a radius of 800 m centered on the train station: <ul style="list-style-type: none"> • Dukuh Atas TOD Area; • OMY District TOD Area.
Scope of comparison	The planning aspect of the TOD area is in the form of a comparison of planning documents that discuss development directions, stakeholder roles and development schemes.

3. Result and Discussion

3.1 Stakeholder Linkage

In the Dukuh Atas TOD area, the relevant local government is responsible for spatial planning or land and transit planning which synergizes both policies with the national level. In this case, private developers do not have the right and authority to take part in policy and decision making. The main developer is PT. MRT Jakarta as a company engaged in the transportation mode, namely the MRT. PT. MRTJ as the main operator in the construction of the Dukuh Atas TOD area has the following development objectives: (1) increasing the station's ability to direct visitors to local commercial roads; (2) improve pedestrian circulation to make it easier to move; (3) expand office and commercial facilities to meet the demands of public transportation users. In this case, PT. MRTJ has a role that is classified as moderate because it is only the executor of the plans that have been made by the local government. Meanwhile, PT. MRTJ does not have the resources and authority to intervene in policy making in the Dukuh Atas TOD area. Development plan decisions are made in accordance with the objectives of sole property ownership and business partners or in other words coordination is not yet participatory.

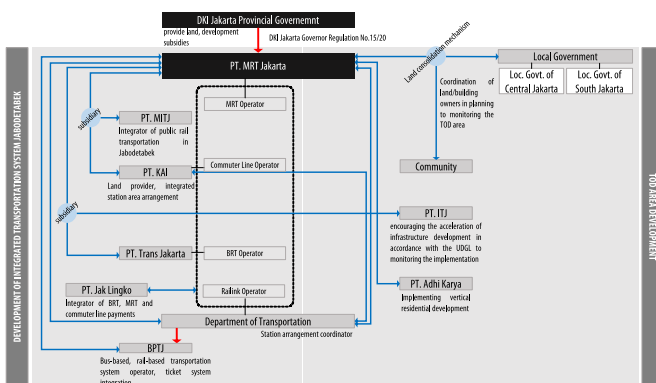


Figure 4: Stakeholder Analysis of the Dukuh Atas TOD Area

In the OMY District TOD Area, the role of the government of each district and those who are members of the "council" has a role to regulate the central business district and the core area. The development strategy used by the government is "back to the urban core" through the creation of global office and financial centers, wherein the main developer is Mitsubishi Estate as a housing-based company. Mitsubishi

Estate as a private company aims to commercialize the area so that it can be profitable and get added value from regional development. Thus, the development objective is to accommodate the urgent need to improve office facilities in order to maintain the competitiveness of the OMY District TOD Area and maintain its function as the city's financial center. In other words, Mitsubishi Estate has a relatively strong role because of its role as both planner and implementer of the plan. The local government, in this case, only has the role of regulating the initial development direction and then the ideas, plans and development mechanisms are executed by the developer. Development planning decisions are made in a participatory process, in which land and/or building owners and relevant stakeholders participate in the development process.

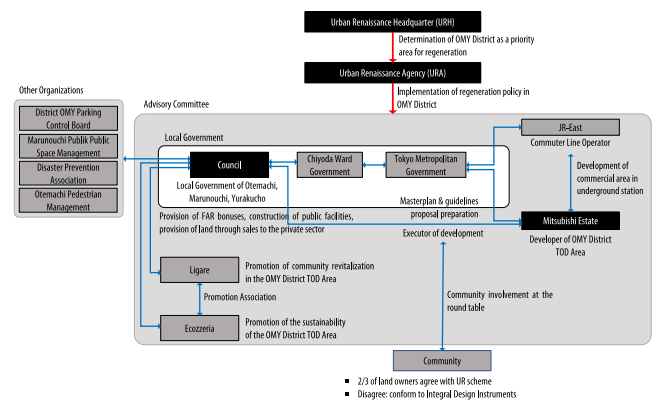


Figure 5: Stakeholder Analysis of OMY District TOD Area

3.2 Multi-Level Policy Integration

Policies on the Dukuh Atas TOD Area at the national level, there is the Ministerial of ATR/BPN Regulation which regulates the guidelines for the development of the TOD area which was revealed at the regional level in DKI Jakarta Governor Regulation No. 67 of 2019 regarding the creation of density and diversity as well as areas that are integrated with transit in accordance with the UDGL. In general, the UDGL explains planning design guidelines regarding area intensity, regional connectivity, the concept of green open space and the concept of providing affordable housing and business space within the area. The PPP scheme for rebuilding the TOD area has a development-based and fee-based form. Furthermore, Presidential Decree No. 38/2015 aims to determine the incentives/disincentives that govern the involvement of the private sector, which regulates the PPP scheme for infrastructure projects in general consisting of economic and social infrastructure. In Jakarta, one form of PPP in the context of implementing the TOD concept is the provision of bonus compensation at the KLB level through DKI Jakarta Governor Regulation No. 210 of 2016.

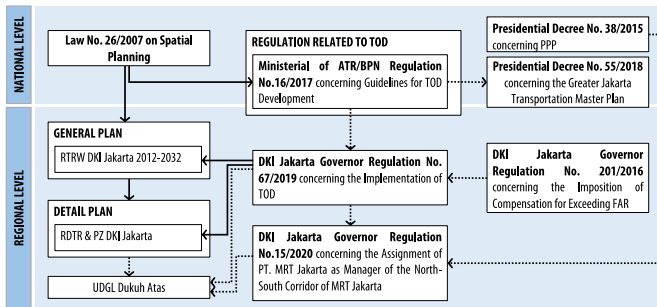


Figure 6: Content Analysis of the Dukuh Atas TOD Area

The planning strategy in Tokyo in developing the TOD area, where the Tokyo Government together with the Central Government coordinated the development and management of land by developing the City Planning Law and the Funding Mechanism in the National Capital Region Masterplan (NCRMP). The things that are regulated include plans for land classification, land use and infrastructure development as well as mechanisms and incentive systems to engage with the private sector. The NCRMP then functions as a broad umbrella, covering public sector actors at various levels of government—as a form of vertical integration—and in various prefectures and municipal governments—as a form of horizontal integration. *Urban Renaissance Measure Law* enabling more individualized and flexible District Plan interventions. These policies provide flexibility, particularly for Special Districts, due to their high-level nature before being passed on to implementation at the prefecture and city

levels. *Urban Renaissance Special Act (URSA)* was passed in 2002 to provide a framework for prioritizing development in areas that can stimulate the economy and generate urban development centers.

At the regional level, there is the Tokyo Urban Planning Plan Law which regulates FAR, building area, building height and building objectives and is revealed in the Redevelopment Guidelines, OMY Guidelines to the OMY District Design Manual and Dai Maru Yu.

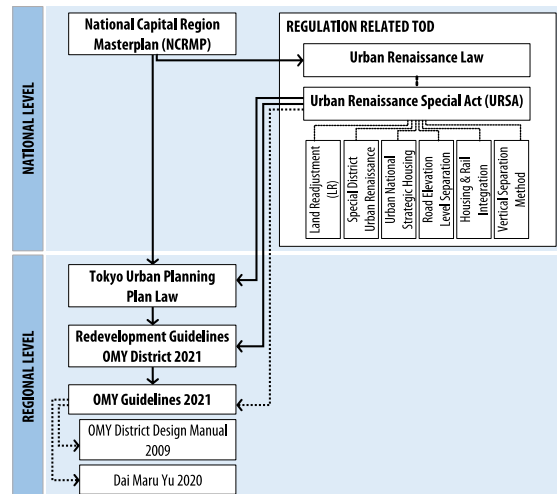


Figure 7: Content Analysis of the OMY District TOD Area

Table 3: Descriptive Comparative Analysis of Stakeholder Analysis dan Content Analysis

Variable	Sub Variable	Dukuh Atas TOD Area	OMY Distrik TOD Area
Stakeholder Linkage	Public and private coordination	<ul style="list-style-type: none"> The role of local government: spatial planning, land and transit as policy and decision makers Role of developer: PT. MRTJ as the executor, does not have the resources Form of coordination: not yet participatory 	<ul style="list-style-type: none"> Role of local government: setting up business centers & core areas and controlling Developer role: Mitsubishi Estate as planner and implementer Form of coordination: land owners participate
	Financing Mechanism	<ul style="list-style-type: none"> Loans, equity and/or financing from business partners No fund turnover 	<ul style="list-style-type: none"> Land value capture Turnover of funds through land purchases in sequential urban redevelopment Government subsidies: public facilities
	Land Provision Mechanism	The local government provides land to be given building rights to developers	<ul style="list-style-type: none"> Provided by the community or land and/or building owners (2/3 agree) Government sells land in sequential urban redevelopment
Multi-Level Policy Integration	Efficiency	Not yet efficient: development planning has not been approved by land owners	Not partial development: 2/3 land owners agree & 60% land owned by Mitsubishi Estate
	Social justice	Policies have not been able to control organic growth in commercialization & residential stratification	Policies adjust target consumers publicly and privately
	Economic growth	Policy is partial: growth. economy depends on commercial housing and developer-specific commercial functions	Policy to accommodate commercial areas along pedestrian spaces to attract economic activity
	Order	Policies are difficult to fit into plans: plans are based on business objectives of individual property rights	Policies are successfully adapted to the plan: physical plans and designs are based on property ownership conditions
	Zoning regulation	Zoning regulation refers to the above policy as a reference	Zoning regulation as a form of implementation plan
Development Process	Implemented with conventional sole proprietorship because land consolidation has not yet been achieved	Implemented through multi-track method due to successful land consolidation	

4. Conclusion

The results of the study show that there are differences between stakeholder linkages and multi-level policy integration that cause differences in the implementation of TOD area development based on the same scheme, namely the UR scheme. The differences are concluded through the following points:

1) Stakeholder Linkage

There are different roles, rights and responsibilities of each stakeholder, where in the Dukuh Atas TOD Area, (1) the government has a more dominant role in planning and providing land, (2) the private sector has a more dominant role as the implementer of development that has been implemented. planned by the government and providing funds, and (3) the community was only involved during the FGD to collect ideas, but what was realized was only providing information about the UDGL for the Dukuh Atas TOD area. Meanwhile, in the OMY District TOD Area, (1) the government's role is in the form of providing keywords for planning, controlling land prices, subsidizing public facilities development, (2) the private sector has an overall dominant role, starting from planning proposals, implementation to management, and (3) the community is involved from the beginning of development in the form of ideas and willingness to change property ownership so that the UR scheme can be implemented. This difference occurs due to differences in developer focus, where PT. MRTJ, which is a company based on the MRT transportation mode, is the developer of the Dukuh Atas TOD Area, while Mitsubishi Estate, which is a real estate-based company, is the developer of the OMY District TOD Area.

2) Multi-Level Policy Integration

The difference from the same type of policy lies in its content, where the policy in the form of a zoning regulation in the Dukuh Atas TOD Area only refers to the above policies, while the zoning regulation in the District OMY TOD Area is a form of development implementation plan. This causes differences in the rules of the development process, where the Dukuh Atas TOD area policy regulates partially, meaning that property ownership (from the regional side) is not integrated with the planning scheme of the national plan. Meanwhile, in the District OMY TOD Area, redevelopment with a scheme from the national plan is carried out based on the property ownership pattern in accordance with the respective TOD area.

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