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Private Developers' Viewpoint on Residential Development in the Peri-urban of Greater Bandung Area

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Abstract: Over the past 30 years, Bandung city has experienced with rapid urban land expansion. Together with nearby regencies, it has formed a conurbation urban area namely the Metropolitan Bandung Area. The growth of Greater Bandung is performed by the increasingly widespread of urban settlements in the outer surrounding region of Bandung city. Most of new residential areas are developed in the suburbs area and carried in formal land development initiated by private developers. The study aims to examine how spatial irregularities can be produced through the formal land development framework. This research was conducted with a qualitative approach. Primary data was obtained using purposive sampling interview. Interviewee came from 14 medium-large residential private developers. The data was written down in the interview transcript to be analysed with qualitative content analysis method. The result shows developers strive to develop profit-oriented land. They look for pragmatic solutions based on economic principles as long as no permit violation. Developers would not think deeply for the broader impact of the project since it is not their obligation. Developers will automatically support sustainable peri-urban development if the government provides clear, applicable and consistent rules and guidelines.

Keywords: boundary of metropolitan area; economic principle; land development; peri-urban; private developers' viewpoints; unviolated permit

Introduction

The increase of urban population and activities give a significant impact on the escalation of housing needs. The limitation area of the city to provide housing supplies for the urban population has caused the residential development expanded to suburban areas. Good accessibility network from the fringe area to the center of urban activities makes the relative distance between the two are not a problem anymore. In addition, the availability of the unbuilt area at the fringe is still very wide, so the chance to use peri-urban land for residential needs is very high.

The expansion of the urban activity and community to the fringe area has greatly changed the land use of the periphery area, especially those directly adjacents to the city. There are a lot of green areas have been changed into residential areas or any other kind of

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urban land use (Rustiati, 2005). The transformation of peri-urban land into urban residential is inseparable from the role of private developers. In contrast to informal residential provision where the development pattern of housing and infrastructure network is often unstructured and not standardized, private developers evolve housing areas within a formal framework following various applicable procedures and standards. Private developers perform planned housing developments with clearly defined terms (Hanif, 2017). Supposedly, land development executed by private developers is able to produce better spatial and regional arrangements. However, the phenomenon shows that the development of residential in peri-urban areas, which are predominantly initiated by private developers, tends to produce irregular spatial patterns and infrastructure fragmentation in the larger spatial level (Hudalah, Winarso, & Woltjer, 2007).

The problems of peri-urban development pose pro cons for the housing business. Developers as formal actors basically have to do housing development under the control of regulatory elements. Although there are some not proper implementations, the existing conditions of housing and residential infrastructure in peri-urban area can be said as a product of government approval of the developer's proposed site plans which are written in allocation permit and site plan approval. As explained by Mohamed (2006) referring to Kenney (1972), private developers have a reluctant attitude to take risks in the concept of bounded rationality where developers usually use simple decision-making rules, they are reluctant to change the rules that are already running, find solutions among a small number of choices, and use the latest choices as a benchmark for evaluating various alternatives. For developers, the most important rule is to choose a location that meets the optimal profit criteria and the rules that produce satisfaction. With this behavior, developers prefer projects in the green area because they require shorter time in development and sales, so it is not surprising that peri-urban areas, which are mostly green and one of the main targets of land ownership for private developers.

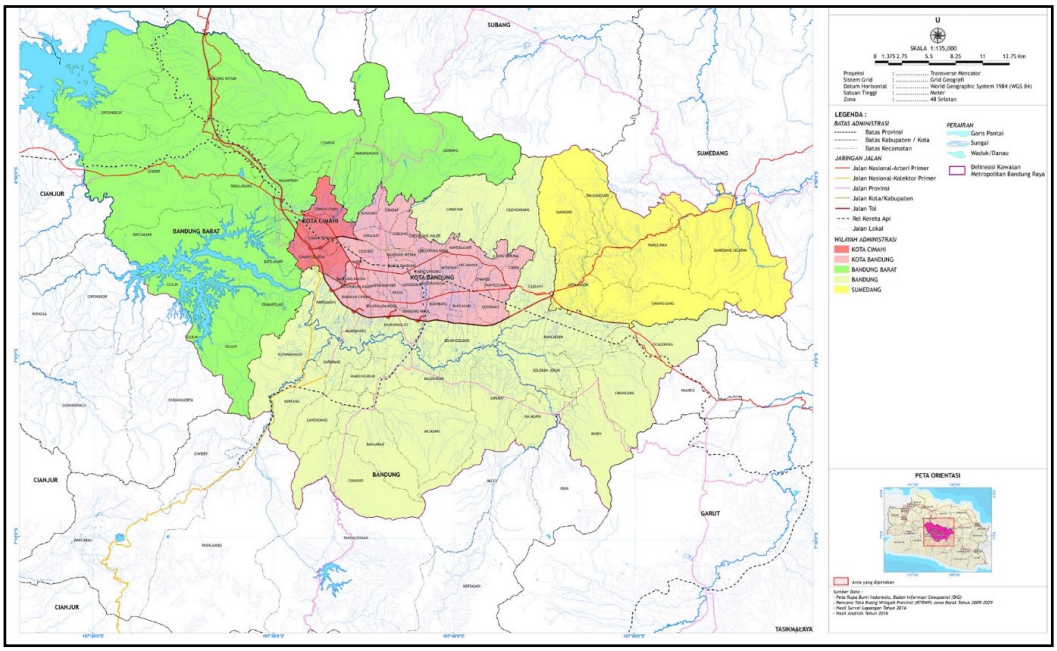
Krisnaputri et al. (2016) explained a developer as an actor who transforms peri-urban raw land into the residential area by using labor, capital investment, and entrepreneurship skill. The developers are the actor that generate land development by building houses, infrastructure, utilities, and other facilities. Developers are also builders who actually built an increased value of the real estate. Saw and Tan (2014) defined developers as the investors engaged in the property sector. Developers bought land property to get profits through rental results and capital turnover. They conducted land development in fringe areas because the land price is still inexpensive with suitable land cover (mostly vegetation) to be converted to new residential areas (Wahyudi, Liu, & Corcoran, 2015). Some developers are looking for potential raw land, some are choosing developed land that is ready to build. As a result, assembly opportunities and leap-frog housing development model occurred in the peri-urban area (Morgan & Sullivan, 2009). The tendency of developers to own land by carrying this scattered land acquisition also caused by the inability of developers to buy large parcels of land as well as government's lack of controls and regulations (Rudiawan, 2008 in Hapsariniaty, Sidi, and Nurdini 2013).

Of the various problems that arise, many people highlight the impact of developer's concentration on housing development is generally only limited to provide good housing environment with rational prices that can be accepted by their consumers. This is sought to obtain high market attractiveness, but less consideration on other aspects such as irregularities in space functions, decreasing environmental quality, social problems (Hanif, 2017). Moreover, the problem is also aggravated by the low capacity of government who held the authority in regulating, planning and monitoring of housing development (Woltjer, 2014). The polemic for peri-urban used for fulfilling urban housing needs has occurred in the Greater Bandung Area. This area is the largest urban area in West Java and also the third largest metropolitan area in Indonesia after Jakarta and Surabaya (Firman, 2000).

Greater Bandung Area was formed by the expansion of urban activities which began from Bandung city as the urban center of Bandung Metropolitan Area. The rapid growth of urban activity in Bandung city has delivered a new city known as the Cimahi city in 2001. The growth of urban activity has become increasingly widespread. Regional Regulation No. 12 of 2014 concerning The Management of West Java Metropolitan and Growth Center Development has described the scope of the Bandung Metropolitan Area consisting of 5 (five) administrative regions, which cover Bandung city, Cimahi city, Bandung Regency, West Bandung Regency, and Sumedang Regency. Bandung city and Cimahi city now has been set as the urban center of the Greater Bandung Area, whereas the adjacent areas of Bandung Regency, West Bandung Regency, and Sumedang Regency categorized as peri-urban Greater Bandung Area. Nowadays, the peri-urban area of Greater Bandung Area has been transformed into a more urban area, complete with symptoms of urban sprawl and the irregularity of spatial form. In this area, there are many new housing and settlements that are generally initiated by housing developers. The coverage of the Greater Bandung Area area can be seen in Figure 1.

The spatial irregularities emerged in peri-urban Greater Bandung Area have begun to give some impacts to such serious ecological problems, started from flood problems, lack of clean water, air and waste pollution, and also congestion that has not been decomposed yet. For this reason, it is important that the government should conduct an evaluation of housing provision system, especially in peri-urban areas. For that purpose, this research especially discusses the implementation practice of peri-urban development by referring to the perspective of the developers as the main actor of land development peri-urban residential areas.

Research that examines developer involvement in the urban land development process generally revolves around the study of developer behavior as carried out by Gillen & Fisher (2002) who discussed residential developer behavior in land price determination, Nappi-Choulet (2006) who examined the role and behavior of commercial property investor and developers in French urban regeneration, Czamanski & Roth (2011) who studied characteristic time, developers' behavior and leapfrogging dynamics of high-rise building, Winarso (2000) who investigated residential land developers' behavior in Jabodetabek, Indonesia, Leung (1987) who studied developer behavior and development control, Morgan & Sullivan (2009) who examined competition, bahaviour and the resulting urban landscape of residential developers, and Łaszek & Olszewski (2015) who examined the behavior of housing developers and aggregate housing supply. However, not many studies have been conducted specifically examining how spatial irregularities can be formed in formal land development by analyzing the preferences and strategies of developers in the housing development process. Without disregarding the role of peri-urban areas as green land reserves of urban (Yunus, 2008), this area is considered as the potential area to be developed for residential needs. This study aims to examine how spatial irregularities can be produced through the formal land development framework trough discovering the dichotomy between formal provision versus spatial irregularities generated in peri-urban areas from the developers' perspectives. The results of this study are expected to be the source of information for the evaluation of residential development policy in the periphery area of a metropolitan city.



Source: Regional Development Planning Agency of West Java Provincial Government, 2016

Figure 1. Map of Greater Bandung Area

Method

This research is a qualitative study using an explorative descriptive approach. Data collection was conducted with in-depth interviews through semi-structured questions to explore the developers' view regarding residential development in peri-urban Greater Bandung Area. The list of questions was made in advance but did not rule out the possibility of other questions raised during the interview session to further explore the answers given by the developers. Determination of samples was managed with a nonprobability sampling method through purposive and snowball techniques. Secondary data were collected through the developer's association in the Greater Bandung Area. The research interviewees consisted of 14 medium-large housing developers represented by personnel who sat on the upper managerial level. The category of interviewees refers to the classification of residential developers adapted from Winarso's model of developer's typology (Winarso, 2000) which classified as a medium-large group of foot-holder developer's typology. To keep the confidential identity of the 14 interviewees, they are named with initial P (Pengembang or Developer in Bahasa) started with P1 (for interviewee 1) through P14 (for interviewee 14).

The data processing was conducted using qualitative content analysis where the results of interviews were written in transcripts. From the data transcript, we classified similar segments so that we obtained two main groups which representing the categories of preferences and strategies. Furthermore, we made matrix coding to find out the text segments that were slices of various codes. The coding matrix between the 'preference' and 'strategy groups is intended to get a general picture of the way of the developers' viewpoints in conducting residential development in the peri-urban area of Greater Bandung. The term of analyses followed by the interpretation of information obtained from matrix coding. The last step was making data verification using triangulation techniques to

check and recheck the findings of developers' viewpoint on housing development in the peri-urban area of Greater Bandung's.

Result and Discussion

The developer's perspective on residential development in the peri-urban area of Greater Bandung basically could be divided into 2 major groups, those were land tenure preferences and land development strategies. Land tenure preferences were divided into three aspects which including aspects of land use, the physical condition of the land, and time of land purchasing. Meanwhile, the land development strategy included three major aspects, consisted of land investment, land development time, and increasing land value.

Land Tenure Preferences

In the group of land tenure preferences, there were at least three groups of questions those were asked, namely related to the preference for land use, preference for the physical condition of the land, location preferences and preferences for the time aspect of land purchase.

Land Use

Developers had a preference for buying land that has high economic value. Land with these criteria was usually located in urban areas where it is now difficult to find. For this reason, developers began to shift their bow by looking at potential land in suburban areas both in the outer-fringe and inner-fringe circles that already had residential land functions. P5 stated that most of the land that has been pursued by developers was suburban land which was generally still active as agricultural or plantation land. Nowadays most of the peri-urban lands has not been supported with good irrigation networks which made the paddy fields and farmland in the suburban countryside often less productive. However, it was something common for developers to buy land that still functions as a rice field, as long as it did not violate the rules and permit issued.

In this case, the fourteen interviewees agreed that even though the existing condition of the lands they bought was still a productive land, the developers had to ensure that the land he bought should have the yellow land status (land use for settlement). The majority of developers said they did not want to take some risk of buying land that was still a green land status (plantation/agriculture) because it was broke the rule. Even if there were found some developers keep buying land with agricultural/farming status and intend to propose changes into residential land, the developers should be willing to administer the proposal for the spatial planning changes that would be time-consuming and costly as stated by P11.

Regarding the utilization of peri-urban land which was originally agricultural land and then transferring into residential land, P9 stated that in developers' perspectives as long as the permit allows and there was a profit opportunity, the developers would hunt for it. Regarding the price of urban land has soared, the developers are forced to look for cheaper land in the suburbs. Land in large cities nowadays was currently very expensive and has a very high impact on the prices of housing sales.

Physical Conditions of Land

The majority of the interviewees mentioned that there were at least three main factors that became the developers' preferences related to the physical condition of the land, namely the location, land infrastructure and land contours. Of the three things, the majority of the interviewees agreed that location was the main factor. As far as it was

possible, the developers would try to get a strategic place with an economic expense. In this case, the strategic position was indicated by land accessibility. The next factors were the physical condition of the land and basic infrastructure; especially the availability of clean water and drainage channels. Another factor that crucial for developers was the contoured land. Developers generally tended to choose un contour land that it did not require a complicated process of soil maturation. However, P6 stated that for some developers who had huge capital, the physical condition of the land might not always be the main consideration of choosing land because they had the flexibility on their capital to be able to create good access points, new infrastructure networks, and good land management. Their goal was looking for potential vast raw land with remain halfpenny cost.

Timing of Land Acquisition

The third aspect of land tenure preference was about the time of land acquisition. Developers have the preference to immediately bought potential land. However, a land acquisition could not be rushed without considering the aspects of the market, legal and physical conditions of the land itself. As such, developers usually have R & D teams that were either ad-hoc or separate divisions to study the business prospect of the land before it was acquitted.

P9 stated that developers had different preferences regarding land purchases. For developers with medium and small capital investments, they usually bought land just next to the ongoing project that was closed to compete. While for large capital developers, they usually had land tenure targets per year. In general, purchasing land depended on the company's vision and financial condition. Regarding the technical purchase of land, P7 stated that they were always looking for information about available land, ranging from mouth to mouth information, from banks, and also from the government. In this case, when an area changes its land-use status or was declared as yellow land (settlements), developers usually immediately purchased some land in these areas, even though sometimes there only had minim basic infrastructure. P4 stated that when the developers had found suitable land, it usually did not take long to buy. P4 and P5 stated that the length of land purchasing process could be very diverse, it could only take 2 months or might be happening up to 2 years depending on the area of land to be released.

The land bought by the developers did not always have the availability of proper infrastructure. There were times when developers must modify and made extra efforts so that their housing was serviced by prime infrastructure, even though the existing conditions initially were not possible. This might be found especially in new housing development locations where the availability of adequate infrastructure was not yet available. The strategy was to calculate the scale of financing. As long as it was still profitable and the location was considered perspective, the developer would be ready to develop the land in that location

Land Development Strategy

The land development strategy was carried out by the developer in order to increase land investment through land management and housing construction. Based on the interviews, the strategy of land development consisted of three aspects, those were land investment aspect, the timing of land development aspect, and increasing land value aspect.

Land Investment

The interviewees agreed to declare that they should invest in land for the continuity of their business. According to P8, land investment for developers could not be categorized as speculation because the developers' job was to seek, to buy and to carry out land development. When a developer bought land and did not directly develop the land, it did not mean that the developers left it to become vacant land, but rather waited for the right time to be built. P8 stated as follows:

> *"……. well, for developers, our principles are, you must have land deposits. Yes, so if we say we buy land for land deposits, don't say it is speculation, but for land savings. We must look forward to urban planning, the development of the city where we should be able to read."*

Land investment also depended on the financial capacity of the developer. The better the financial ability, usually the more the developer had a land deposit. Some companies had land acquisition targets, as was done by P4 which has targeted to 3 land acquisition per year. They always search for potential land to develop. The majority of developers agreed the first factor in considering a potential land was 'market demand', followed respectively with the compatibility of land-use regulation as the second factor and low price as the third factor. For some large developers, cheap land prices could be set as the primary factor because they were able to create their own markets.

Timing of Land Development

The developers basically had the preference to immediately carry out housing construction after the location was acquitted. But developers also had some marketing strategy that made them had to wait until the right time to develop the land and selling the houses. There were at least four main factors that influence developers in conducting timing of development, namely cash flow (P3 and P14), market conditions (P1, P4, P5, P7, P8), the readiness of permit (P5, P9, P13) and land acquisition processes (P6, P7). Of the four factors, only cash flow was under developers' control. The other three factors are strongly influenced by other actors. Market conditions were greatly determined by the consumers. The readiness of permit was determined by the process of the permit itself, meanwhile, the land acquisition process was depended on the willingness of landowners. Developers would take into account the four factors that could bring the most optimal profit value. Therefore, developers should be able to accurately analyse land development project so it was needed experience and good intuition.

P9 stated that land development time was one of the important factors in maintaining the stability of the company's cash flow. When a developer had an unproductive land deposit in a long time and was not developed, then the land would indirectly burden the company's finances. It was because the developers still had an obligation to pay taxes and time limit for the acquisition of the land as it stated at location permit. As explained by P7 that the Spatial and Agrarian Minister Regulation No. 5 of 2015 concerning Location Permits indicated that permits granted to companies to conduct land acquisition were limited to only within 3 years and may be extended by 1 year. If a developer was unable to collect 50% of the amount of land submitted in the location permit, then the land must be released. This regulation also indirectly limited the time of land ownership that had not been utilized. A developer was given a maximum of 4 years to develop the land since the location permit was issued. Eventually, the developer would set a strategy to obtain the most optimal economic value for the land deposit about when it had to be developed on the right time in accordance with the target market it was targeted.

The Increase of Land Value

The increase in land value was one of the strategies used by developers to run their business. Developers would try to get the optimum profit from developing land and housing. P9 stated that in developing a housing project, developers could obtain the increasing value of land ranging about 4-5 times or more. The increasing value of land depended on the availability of infrastructure support. The better the availability of accessibility, facilities, and infrastructure of the area, would automatically impact to the higher value of the land. The peri-urban area that had been penetrated by housing development projects which were equipped with good access and facilities usually had almost the same value of the urban core.

For some developers, the increased value of land could be created through the development of neighborhood environment, facilities and infrastructure facilities that could become a magnet for a certain market. P10 stated that this was usually conducted by large developers who had the ability to get a very large land and had the good financial capacity so that they were ably initiating to open the access and create urban facilities in the peri-urban area.

The developer had a preference to continue land acquisition and housing development around the previous project location. According to P9, continuing development around the previous project location could minimize the costs and efforts that might be spent when starting the project. However, the price of land around the project usually increased rapidly when someone has started to develop a project in the same area. The developers' strategy for the land collection was primarily to acquire the land around the project site if the housing type was commercial housing. The increase in land prices could still be overcome on a project scale. As with the development of a simple landed house. When the developer has started up the project in one remote location, then the increase in land prices would occur significantly on the cost of production. As a result, it was rare for developers to continue land acquisition around the simple house project site.

The land acquired by the developers did not always have the availability of proper infrastructure. There were times when developers should modify and put extra efforts in order to make their project serviced by prime infrastructure, even though the previously existing conditions were not possible. This might be found especially in new housing development locations where the availability of adequate infrastructure was not available yet. The strategy was to calculate the scale of financing. As long as calculation was possible and the location was considered a prospective, the developer would be ready to develop the location.

Of the two large groups, each of which consists of several aspects, we made refining steps to obtain the main theme on developers' viewpoints of the land development process in peri-urban areas. From Table 1, it can be summarized that the overall preferences and strategies used by developers in developing land for housing in peri-urban areas are adhering to economic principles and compliance to the permit. It can be said that the developers are pragmatic in carrying out their project which in this case relies on both two principles.

The mission carried out by residential developers in peri-urban areas is basically as a reaction to the housing demand of urban communities. Residential development in the urban fringe offers a different atmosphere for urban communities who desire to avoid congestion, air pollution, and space constraints that occurred in the city center, where peri-urban areas are able to offer good facilities, comprehensive infrastructure and a better residential environment (Firman, 2009). Land development fulfilled by developers in peri-urban areas often offers the concept of environmentally friendly residential environments as the urban dwellers' desires. Based on this concept, the residential development in peri-urban areas can be designed by supporting the positive rural image concept (Perkins,

1989). With this concept, developers as formal housing providers can be empowered to support the development of environmentally residential peri-urban areas.

Table 1. Developers' Viewpoint on Land Development of Peri-urban Greater Bandung Area

	Segment	Category	Sub-Theme	Theme
a. Land Preference	Land Use	• Compliance with rules	• Compliance with rules	• Compliance with rules
		• Low price of suburban land	• Cost minimization	• Refer to economic principle
	Physical Condition of Land	• Strategic location	• High selling price potency	• Refer to economic principle
		• Good infrastructure	• High selling price potency	• Refer to economic principle
		• Easy contour	• Cost minimization	• Refer to economic principle
	Timing for Land Acquisition	• In accordance with the company's targets and capabilities	• Business consideration	• Refer to economic principle
		• Available market segments	• According to applicable rules	• Compliance with rules
b. Strategy on Land Development	Land Investment	• Company target	• Business consideration	• Refer to economic principle
		• Compliance with location permit	• Compliance with rules	• Compliance with rules
	Timing of Land Development	• Cashflow	• Business consideration	• Refer to economic principle
		• Market condition	• Prospects for optimal profits	• Refer to economic principle
		• Approval Permits	• Not break the rules	• Compliance with rules
	Increase of Land Value	• Creating atmosphere and build facilities	• Generating market demand	• Refer to economic principle
		• Right timing and market segment	• Optimizing profits	• Refer to economic principle

At the macro-scope, the involvement of developers has a broader role in generating regional economies. With good spatial planning, the involvement of developers can basically provide several other positive impacts besides comply the housing needs of urban communities, including infrastructure improvements, especially at the local level (Salleh & Okinono, 2016). For this reason, good cooperation is needed between the government and the private sector. The involvement of developers in developing peri-urban land would aid in the planned development growth of the region. In a broader concept, cooperation

between the government and developers in developing the peri-urban area could be a vehicle to attract some investors to contribute to the urban infrastructure development (Mittal & Kashyap, 2015). Hence, the role of the private sector in urban development projects would increase. For instance, such tenders involve property developers to take more responsibilities for development projects. Not only are they responsible to make development plans and delivering projects, but they also manage developed facilities after project completion (Hobma & Heurkens, 2015).

Developers as land development actors who actively and dominantly play a big role in the process of peri-urban residential development are not the actors who take responsibility for the irregularities that occurred in the peri-urban area. As a result, a developer as an investor of property business has a pragmatic perspective. Their main mission is conducting business based on economic principles and compliance with the rule. Developers will not think of the broad environmental impact on their project because it is indeed not their interests and authority. This reinforces the importance of government role as housing provision administrator to be able to make consistency, comprehensive, detailed, and implementable regulation, and planning. In this case, a developer is only an actor who runs his business by developing houses to gain maximum financial profit without breaking the rules, as it explained by Maruani and Amit-cohen (2011) who stated that there's no development will take place where there are no developers.

Future Peri-Urban Planning

In urban development, the use of peri-urban land as an extension of physical urban activity is indeed a necessity, but it does not mean that the preservation of the peri-urban environment can be simply destroyed. The government as the regulator and administrator of the implementation for housing and regional spatial planning has the authority to regulate the land use of the area. We should maintain the existence of peri-urban green land because of food production security reasons as well as the ecological factor to support the balance of nature for urban areas. In this case, good spatial planning will certainly support the availability of space for residential development without overriding the importance of the existence of peri-urban green land.

The phenomenon of spatial irregularities that often encountered in most peri-urban areas is caused by the lack of government capacity to produce detailed and technical peri-urban spatial planning. The local government does not have a detailed spatial plan for peri-urban area because its location is not categorized as a strategic area yet since its position located far away from the city center. Not to mention that the government has not performed the planning and oversight functions optimally so that developers can be more flexible to propose site planning for peri-urban land development. Moreover, the implementation of rules is sometimes missed, inconsistent and multiple interpretations.

In developing urban areas, local governments must not 'take their hands off' by only preparing macro-regional planning as stipulated in the Regional Spatial Plan. In the development of the metropolitan area, the development of the region does not only occur in the urban center but includes sub-urban that mostly included in regency areas. Meanwhile, not all districts have detailed regional spatial plans as instruments that regulate and anticipate regional development. In such conditions, there was a forerunner to the expansion of urban settlement areas on the outskirts of the metropolitan city center which was not well planned but encased in a formal mechanism. Housing and settlement areas that cover almost 70% of the utilization of urban areas need to be given guidance and rules, at least through the presence of an infrastructure system master plan, especially for metropolitan areas. The existence of metropolitan's infrastructure system master plan carried out by the regional government is certainly equipped with a calculation of carrying

capacity and good environmental planning so that any party who will later develop the area must be guided by the plan.

Conclusion

From the overall analysis of behavior pattern, it can be concluded that developers' viewpoint in land development for housing purposes in the Peri-urban Greater Bandung is pragmatic. They would always be following the economic principle and refer to granted permit. Private developers will do practical things to run their business in land development for housing. As long as there are no restrictions, developers will always look for practical solutions. They also will always think and act using economically since they run property businesses which are basically profit-oriented ones. When developers carried out land development, they must be performed all the applicable rules in accordance with the permits issued. From their point of view, spatial irregularities of Greater Bandung Area are formed in consequence of lack regional development plans and controls, so that developers could propose land development plans in a more flexible manner according to their interests. In this case, land development performed by developers was partial and only focusing on the development of their lands. They have no interest to think about the impact of their project broadly and sustainably because the government is the one who has the obligation and authority to formulate the spatial planning, to manage the application and to conceive the solution for the impacts that might arise. The spatial irregularities in the fringe of Greater Bandung were produced of some local government inconsistencies and different perceptions of regulation that made land development and the provision of regional infrastructure became unstandardized and not mutually integrated. This research confirms that local governments must plan the development of metropolitan areas not only focusing on the urban center area, but suburban areas that have the potential to become fast-growing areas must also have clear and detailed spatial planning. From the research, this paper recommends the following policies: (1) Government can follow the strategies used by developers in acquisition potential lands, especially those intended for public housing or other public interests; (2) Government must have a comprehensive metropolitan area development plan, at least with the master plan of infrastructure development system; and (3) Government must be firm and consistent in implementing regulations.

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