

A Study on the Trend of New Town Planning in Indonesia

인도네시아 신도시 주거단지 디자인 경향 연구

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Abstract

Recent changes in the dynamics of national economies, liberalization of markets, changes in technologies and movement of capital have had a major effect on the Asian Pacific region since the early 1990's, as there has been an increasing role for foreign housing developers in those countries that experienced economic liberalization, high urbanization rates and reforms in the housing sectors.

Recently the cosmopolitan cities of Indonesia attracted a global interest due to its rapid economic development and urbanization process based on great potential of population and natural resources. New town development emerged as one of the solutions to reduce urbanization problems in Indonesia

This study aims to explore the contemporary planning principles of new town developments in representative new town projects supplied by of major housing development companies in Indonesia. We conducted case study on the new town named Kota Baru Parahyangan, which is located in outskirts of Bandung, the third biggest city in Indonesia and supplied by PT. Belaputra Intiland. As a result of this study, we can identify unique characteristics of new town development in Indonesia

Keywords : Indonesia, New Town, New Town Planning, Housing Development, Housing Cluster

주요어: 인도네시아, 신도시, 신도시 개발, 주택개발, 주거단지

I. Introduction

1. Background and Aims of Study

Recent changes in the dynamics of national economies, economic reforms, liberalization of markets, changes in technologies and movement of capital have had a major effect on the previous economic status. This transformation was mostly evident in the Asian Pacific region (Malaysia, Singapore, Indonesia and Hong Kong) since the early 1990's, as there has been an increasing role for foreign housing developers in those countries that experienced economic liberalization, high urbanization rates and reforms in the housing sectors (Ahmed, 2007). Korean housing industry had started to show a strong interest in the global

housing markets and already launched big housing projects, especially in those of Southeast Asia and. On the other hand, our academic research and education had been limited on either domestic housing or western housing and few countries in Asia. The academic interest about Southeast Asia has been nearly vacant in Korea. This study aims to expand housing research scope by exploring South East Asia region to provide the basic data and information to Korean housing industry which plans to develop housing projects in Southeast Asian countries, especially in Indonesia in this study.

Indonesia consists of five main islands: Sumatra, Java, and Kalimantan, Sulawesi and New Guinea and sixty small archipelagoes with its population around 245 million and also is plural society consisting of diverse ethnic groups; Javanese (40.6%), Sundanese (15.0%), Madurese (3.3%), Minangkabau (2.7%), Betawi (2.4%), Bugis (2.4%), Banten (2.0%), Banjar (1.7%) and others (29.9%). Recently the cosmopolitan cities of Indonesia attracted a global interest

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due to its rapid economic development and urbanization process based on great potential of population and natural resources.

Due to the rapid population influx in cities and changes in industrial structure, new town development emerged as one of the solutions to reduce urbanization problems. New town development has been considered as an essential part of Indonesia development since the housing issue was attached to the 1973 GBHN (General State of Guidance) New Order of Soeharto's administration era (Harun, 2011). Although the government early idea was to establish public sector and private sector joint participating the housing supply together, but the golden age of private sector's participation has started since 1980's (Leaf, 1979).

The earliest established new town in Indonesia is Kebayoran Baru, constructed in 730 Ha in Jakarta for 100,000 citizens (Winarso, 2000). By the year of 1989, the private housing developer successfully supply 400,000 housing unit for Indonesia, which 50% of the total unit built in Jakarta Metropolitan Area (Sasono, 2001). The KSNPP (Kebijakan & Strategi Nasional Perumahan Permukiman, National Policy and Strategy on Housing and Human Settlement) claimed that 1.5 million houses should be produced by 2020 to solve the massive population growth (Pandelaki, 2010).

This study aims to explore the contemporary planning principles of new town developments in representative new town projects supplied by major housing development companies in Indonesia. This study is expected to identify unique characteristics of new town development in Indonesia.

2 Research Scope and Methodology of Study

We conducted case study on the new town named Kota Baru Parahyangan, which is located in outskirts of Bandung, the third biggest city in Indonesia and supplied by PT. Belaputra Intiland.

The framework of this study is based on the typical components required to develop a new town which include urban space, site plan and unit plan. Detailed elements were developed and selected according to viewpoints related to each of these components as in Table 1.

Based on this framework, the study employs literature review, interviews and field surveys for data collection. Field surveys to the sites in Indonesia have been carried during August, 2013. We also conducted interviews with some staffs of PT. Belaputra Intiland and local housing experts to confirm our understanding.

Table 1. Framework of Analysis

Viewpoint of Urban Space	Viewpoint of Site Plan	Viewpoint of Unit Plan
Residential		Housing
Density	Site Layout	Typology
Land Use	Parks	Facade Style
Public	Road System	Unit Layout
Facilities	Parking	No. of Rooms
Road System		

II. The New Town Establishment

The development of new towns in Indonesia can be divided into three generations. Each of the phases has their own target and goals. The first generations of new town aimed to design the colonial administrative headquarters, plantation and mining town and spacious European residential district (Sujarto, 2002). The second generation of new town's goal is to solve the great demand of new urban housing problem. The development of the third new town generation had started since 1980s. The last phase of new town designs intended to support the national urban strategy in creating independent residential with the business center in the belt of big city. This new residential is produced in order to solve the massive urbanization issue (Sujarto, 2002). The government, through 1984 Fourth National Development Plan, supported the growth of new town by the planning and construction of large-scale housing supplied by public or private sectors around the metropolitan cities such as Jakarta, Bandung, Surabaya, Semarang and Medan.

Bandung is well known as educational and creative town, mainly due to the birth of major universities such as Institute Technology of Bandung in 1920. Bandung is stated as West Java Province capital since 1950 and also perceived as the third largest city in Indonesia. The mega urbanization which drastically inclined between 1980-1990 period fostered the transformation of Jakarta and Bandung from one centralized city into multiple core cities (Firman, 2008). In 1987, Bandung experiences municipality area increase twice bigger than the previous size and shift the name into Bandung Raya. The next transformation occurs in 2001 when Bandung Metropolitan Area (BMA) was established (Winarso, 2002; Minnery, 2013).

Bandung area is shifted into education and research center, business district, and industrial area. This dynamic economic situation is the introduction of high rate of urbanization which end with drastic incline of housing demand (Minnery, 2013). Since the economic boom in 1980s, residential private developers are the main player in the real estate industry (Raksadjaya, 2007).

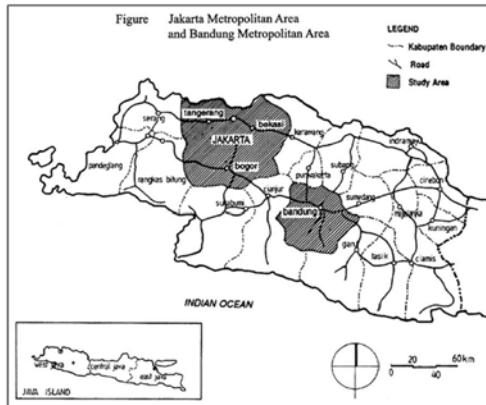


Fig 1. Location of Bandung and Jakarta
Source: Firman, 2008

III. Case Study

1. Overview of the Cases

This study will mainly discuss about the planned satellite city area named Kota Baru Parahyangan (KBP) which is built by Belaputra Intiland¹⁾. KBP is a new town located in Padalarang, which aims to be independent from Bandung as the biggest and nearest city. The target market of KBP is middle to high income group people. While initially it was developed in 1994, KBP had to postpone the first cluster launch until November 2000 in order to survive during 1998 Asian financial crisis. Upon the Indonesian economy reconstruction, KBP is ready to launch their first cluster and bring more market oriented concept. Therefore, KBP strongly reflect Bandung citizen as a potential buyer

KBP has a vision in 20 years, it will be a completely independent town with its own lively community. Furthermore, in order to reach the vision, KBP also set up several mission which are promoting good quality of education, globally competitive human resource quality, community development through creating schools, public facility and community supportive events.

1) Belaputra Intiland is one of the Lyman Group company divisions. Lyman group which initially focus in the nature resource industry, now alter to the wider sector such as building material, distribution and property. This philosophy of the company founded by Mr. Susanta Lyman in 1959 -is 'Reliability and Quality is Our Bussiness'. In 2011 KBP was awarded best Green Property in the Indonesia Property Award. Furthermore, KBP is nominated for the Best Housing Estate in the 2013 Property award. KBP which located in the Saguling lakeside has strong access to highway to Bandung and Jakarta.

Table2. Overview of The Sites

Residential Company	Kota Baru Parahyangan	
Concept	Education	
Location	Padalarang, West Java	
Main project	Bandung Corridor	
Total Area	1250 ha	
Total Population	100,000 people	
No. of Household	3100 Units	
Household Density	2.48 Unit/ha	
Population Density	80 people/ha	
Housing Typology	Semi-Detached house ²⁾ Terrace house ³⁾	
Land Use	Residential	500 ha
	Commercial	60.4 ha
	Public Facilities	80.6 ha
	Green Area	611 ha

2. Viewpoint of Urban Space

KBP is built on 1650 ha and expected to accommodate 100,000 residents. KBP is planned of 50 clusters and 13 theme park, where each clusters were named by Padjajaran kingdom⁴⁾. There are already 3500 housing units that is built and 3100 of them are sold out. The clusters can be classified into middle-middle, middle-high and frontage middle-high. Total future built area will be 1250 ha with 100.000 projected population.

There are three core concepts in developing Kota Baru Parahyangan new town; Culture, Education and History. In order to strengthen the education concept, every cluster has their-own edu-themed park such as art, transportation and research concept which are expressed in the park features.

Furthermore, there are several schools and academy in order to support the education concept. This concept physically expressed from the gate design until the cluster design development. As shown in figure 3, there are world globe and 12 different world calendars which is crafted in columns in the gate. Each cluster has name and also park design which is constructed based on West Java culture, education and history concept.

2) The semi-detached house is two houses sharing one bearing wall, with each having a part of the garden. It is generally called 'Semi-D' in a local term, and it combines the benefit of a detached house and the effectiveness of land use of a terrace house
3) The terrace houses are constructed linearly linked in rows, sharing common bearing walls and can be single or multiple stories. It is named as a 'link-house or row-house' also. It is the most prevalent housing typology in Southeast Asia for high density residential zone.
4) Padjajaran is a Hindunese kingdom which is located in Bogor, West Java. This empire is start to established in 923 by Sri Jayabhupati.



Fig. 2. Master Plan (left), Master Plan for CBD (right)

In order to be a self-contained city and economy-social-environmentally sustainable, KBP adapt the green concept named 'Hayu Hejo'⁵⁾ and applied green belt, green space and themed green park. Bike lane and pedestrian walkway also were constructed to transform the city to be more pedestrian friendly

The 58.20 ha of CBD (Centra Bussiness District) is still on-going designed process by Townland⁶⁾ which is commissioned by PT. Belaputera Intiland. The aim of CBD is to generate the future development actively.

The next development is expected to represent the KBP's image as education hub and dynamic commercial center for Bandung and nearby area. The grand design strategy is to produce a strong identity for the CBD with the theme of four main concepts: Creative Hub; Lifestyle Centre; Living and Leisure Precinct; and Creative Industry Village.



Fig. 3. Main Gate of the New Town (left), Pedestrian Walkway(right)

3. Viewpoint of the Site Plan

Based on the target market, clusters in KBP is classified into two main group: middle and middle-high. The middle and middle-high cluster can be distinguished by the

5) *Hayo Hejo* is green movement concept which apply the environmental friendly lifestyle such as provision of bike path, septic tank with Biofil, make biopori land, tree planting, zero waste garbage collection and etc.

6) Townland is urban and regional planning expertise which has headquarters in Hongkong.

unit size and their each specification. Ratnasasih cluster analyzed in this study, is classified as middle-high cluster and is surrounded by Cisudimampir river and is located near the Bandung Alliance International school and Cahaya Kaluan Hospital.



Fig 4. Site Plan of Ratnasasih cluster

Ratnasasih cluster had been built during 2003-2008. It consist of 23 units of 350m² standard type, 22 units of 242 m² standard type and 14 units of split level standard. The other different type are shop house, corner type, special and show unit⁷⁾.

The unique feature of cluster layout is the location of shop house in front of the cluster. Before entering the main gate, shop houses are arranged along the street. They provide the convenience for residents, but also privacy for residents. They block the street sounds and provide the security for the inside cluster.

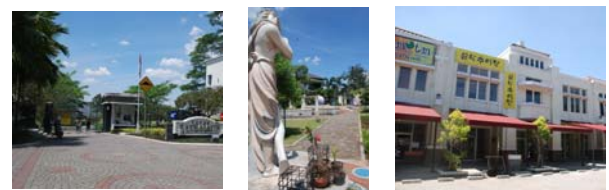


Fig. 5. Gate of the Cluster and Shop Houses

This site is expanding in the east west direction while the unit block mostly has north south orientation and heading the river at the same time. The housing block is designed in regular grid pattern with terraced house as the major unit type. The street patten is also in traditional grid form with cul-de-sac in the end of the road.

7) Special Unit is one of the house that has different land shape and size, while the show unit is housing sample for marketing purpose.

Inside the cluster there are three themed park, jogging track and several green space. The art theme of the cluster is represent by the name "Ratnasasih⁸⁾" itself and also the park design

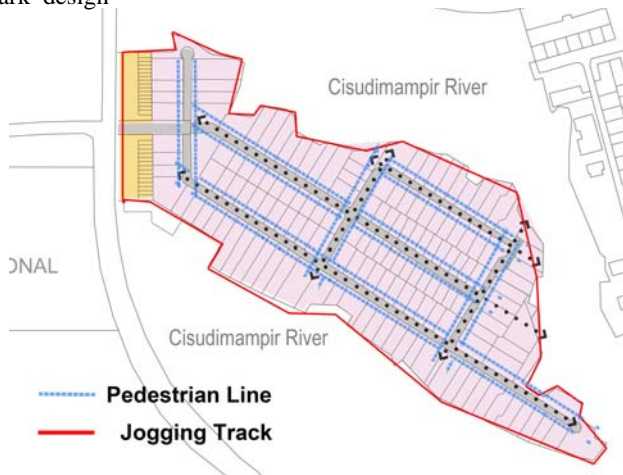


Fig. 6. Road System of Ratnasasih Cluster

4. Viewpoint of the Cluster Unit

The classification of organised urban housing⁹⁾ in Indonesia after the Dutch occupancy period mainly is based on the housing size (Belgawan, 2011). Unit houses in Ratnasasih Cluster are mainly grouped into three classifications which are standard type, corner type and split level type. Those standard types are classified again into type 242 m², type 350 m², and split level type while the corner type are divided into 343 m² and 369 m² type.

Table 4. Overview of Housing Unit in Ratnasasih Cluster

Housing Types		Unit Size (m ²)	Tyoplogy	Lot Size (m ²)	No of Units
Std	A	242.00	Terrace	300.00	22
	B	350.00	Terrace	510.00	23
	Sample	242.00	Terrace	300.00	1
C	A	343.00	Semi-D	312.50	4
	B	369.00	Semi-D	435.00	5
	Sample	350.00	Semi-D	510.00	1
SL	Std	280.00	Terrace	490.00	15
	C	300.00	Semi-D	507.50	4
	Sp	797.58	Terrace	1163.35	1
Open Lot ¹⁰⁾	Std B	350.00	Terrace	510.00	9
	CB	369.00	Semi-D	435.00	2
	R	383.00	Terrace	590.00	64
Total					151

A: Type 242 m², B: Type 350 m², C: Corner, R: Riverside, Std: Standard, SL: Split Level

8) Ratnasasih is originated from Sri Baduga Maharaja's wife name. Sri Baduga Maharaja is the most victorious King in Padjajaran history.

9) Kuswartojo classified Indonesia formal housing into organised and individual. Belgawan then in 2011 classified this formal organised housing into basic types, small types, and luxury types.

10) Open Lot is an empty land in cluster that ready to sold, which

In this paper, we analyze the 242 m² standard type unit, a smallest type of Ratnasasih, which is a two story house and unit lot is 12 meter x 25 meter.

The first floor is used for both public and private area and also service area. The core of the house is the area of family, dining room and kitchen where each space are open to each other. There are outdoor space;the courtyard in the back and garage, terrace in the front. The second level of a house is more private space comprised of two bedroom, two bathrooms and family room.

One of the unique aspects of space organization is the guest space in front of the entrance. There is guest space where small sitting place is arranged. Normally, in bigger unit, guest space is arrange more formally and can be divided from living room and in smaller unit, it can be omitted.

Another unique aspect is a service area consisted with kitchen, house keeper bedroom, bathroom, laundry room and terrace. The house keeper space is separated from the main house and there is a terrace between the kitchen in main house. The terrace is used as wet kitchen and kitchen in main house is used as a dry kitchen.

We can guess that this uniqueness is caused by cultural aspect and climatic condition. In further study, it should be analyzed in more detail.



Fig. 7. Unit Plans of Ratnasasih Cluster

IV. Conclusion

It is hard to generalize the findings of this study to account for all the recent new town development in Indonesia. However by analyzing recent projects of representative development companies in Indonesia, this study can

future unit design will be managed by the Kota Bary Parahyangan developer.

summarize the trend of new town development as follows. Although housing development in Indonesia has progressed on the basis of the master plan of urban planning, But marketing and selling were actually processed step by step in small groups of 100-200 houses. KBP has been developed since 2000 but only 8% of planned housing have been supplied. This can be understood as a strategy to reduce groups of housing for successful sales.

One of the most distinctive features in recent town planning is sustainable design. For instance, the green open space reach into 50% of the total house lot. This expresses the strong desire and need for a sustainable and natural environment. Besides the environmental sustainability, the developer tried to increase the social sustainability as well. For instance, the KBP employs the local kampong residences who live in the periphery of KBP area.

One of the most important considerations to develop a new housing community is security. This is not only applicable in Indonesia, but also in the rest of the world. Moreover, the security issue is an inevitable marketing element to the high class. Each cluster of the town is gated community and the unique feature is locating shop houses in front of the gate for both of security and privacy.

The typical housing typologies of the new town are semi-D and terrace houses to use the land efficiently. If compared with unit design in other Southeast Asia, each unit is designed more defensive to public separating by high wall between units.

As this study investigates trends in recent Indonesian town planning through case studies rather than quantitative data, it has some limitations on the generalization of its findings. By dealing with hot issues in recent projects however, the study can help us to understand the key characteristic of unique identity of Indonesian new town planning.

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