Potential Improvement of Cihideung Village Through Layout Modification of Local Housing and Settlement

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Potential Improvement of Cihideung Village Through Layout Modification of Local Housing and Settlement

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Abstract. Each residential and residential area has special potential, especially Cihideung Village, Parongpong, West Bandung. But to increase the potential in Cihideung village, the problems that happen there must be solved, such as inflation of land by private housing and lack of public facilities, landmarks, and a place to attract attention and accommodate the visitors. The purpose of this article is to discuss how to maximize the potential of the village through the modification of its layout. All data derived from the field as the data source and the literature are used as limitations of this study. Based on the results of data in the field, the majority of the population is ornamental plant farmers. Bandung is also dubbed as the City of Flowers is in harmony with the potential contained in the Cihideung Village. With the largest potential utilization in Cihideung Village and Bandung nickname, Cihideung Village has the potential to become a commercial tourist village that can improve the welfare of its people in economic and social aspects by providing zoning based on its function, providing an iconic public space which serves as a cihideung village landmark, and provides better public toilet recommendations.

1. Introduction
In the Government Regulation of the Republic of Indonesia No. 14 of 2016 concerning about the provision of housing and settlement areas, it mentions that planning and housing and settlement area is an urban residential environmental planning process, rural residential environment, place of activity support, settlement, housing, house and infrastructure and public utilities, to produce residential area planning documents. Each residential and residential area has special potential, especially Cihideung Village Area, Parongpong, West Bandung [1].

Cihideung Village is an urban periphery and the majority of its population is ornamental plant farmers that located along the Sersan Bajuri street. Sersan Bajuri Street is the main street to parompong and passable to get to Lembang. In other words, cihideung village has a chance to increase their potential in planting ornamental plants and market them to passing visitors. Despite having a great opportunity, Cihideung Village has several problems to reach its biggest potential. The inadequate knowledge of the population in taking advantage of their opportunities, therefore they just sold their land and made a conversion of land’s functions from agricultural land to private housing. In this case, the concept of Housing and Innovative settlements become solutions in residential and settlement design planning, to support the potential of this area become flower plantation [2].
2. Methods
The object used in this study is Cihideung Village which is located on Sersan Bajuri street, Parompong, Kab. Bandung Barat. In this case the authors use qualitative method to get data’s. To get the field data, authors do field survey by get into to the location and visit the local government office to see the existing situation, interviewing the head officer of local goverment and ask for Village and Population Profile, and The Potential of Village data’s.

3. Literature review

3.1 Definition of housing and settlement
Housing is a group of houses that function as a residential environment and has not been equipped with environmental facilities and local infrastructure [3].

Settlement is a part of the environment outside the protected area, both in the form of urban and rural areas that function as a residential environment and place of activities that support life and livelihoods which is equipped with facilities and infrastructure.

Settlement environment is a system that consisting of five elements:

- **Nature**, which includes natural resources such as geology, topography, hydrology, soil, climate and biological elements (vegetation and fauna).
- **Man**, with all his needs (biological, emotional, moral values, feelings and perceptions).
- **Society**, the existence of humans as a community group.
- **Shells**, where humans as individuals or community groups carry on activities or carry on their lives.
- **Network**, which is a natural or man-made system, that supports the functioning of such settlement environments such as roads, clean water, electricity.

An area or region can be developed into a tourist destination, to meet as a tourist destination which is worth to visit, at least there are 3 (three) things that must be developed:

- **There is something to see**, is something interesting to see can be a natural phenomenon, art and culture and other human creativity.
- **There is something to buy**, is a tourist area should have something interesting and unique that can be purchased by tourists.
- **There is something to do**, is something activity can be done in that place. At least there are several alternative activities in a tourist area.

4. Results and discussion

4.1 The location
Residential areas and settlements which is selected by authors is the area of Cihideung located on Sersan Bajuri Street, Cihideung Village, Parongpong, West Bandung, West Java, with the following area limits of location:

- **North**: Perkebunan Sukawan (PTPN), Kecamatan Parongpong
- **South**: Mutiara Nusantara Karyawangi Elementary School, Cigugurgirang, Kecamatan Parongpong
- **East**: Sukajaya, Gudangkahiripan, Kecamatan Lembang
- **West**: Isola, Kecamatan Sukasari
Cihideung area has about 5 km$^2$. Therefore, the authors have minimized the scope of the area to simplify the design of innovative housing and settlement design concepts and recommendations in the region. The detailed location that the authors take is along Sersan Bajuri Streets from Jendela Alam to Al-Mubarokah Mosque with an area approximately about 2.5 Ha [4].

4.2. Objective conditions
Cihideung area, Parongpong, West Bandung is an area that connects Cisarua, Lembang with Bandung city, and makes the area as the main access for motorcycles and cars. For land plots (zoning) based on the function of the building is divided into five categories: residential and settlement areas, commercial (ornamental plant salers), vegetable farm, government, and education. Based on the results of the mapping and the survey of the authors, the placement of zoning in Cihideung Village area is still nebulous - the plots are not in accordance with the function of the area, still random [5].

Legends:

- Commercial Area
- Housing and Settlements
- Green open space
- government Area
- Education Area

Figure 1. The location of Cihideung Area, West Bandung.
(Source: Google Maps)

Figure 2. Cihideung Village Mapping.
4.3 SWOT analysis

Table 1. SWOT Analysis of Cihideung Village.

| SWOT      | OPPORTUNITY                                                                                                                                                                                                 | THREAT                                                                                                                                                                                                 |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STRENGTH  | Geographical location located on a mountainous lane located at an altitude of 800.00 mdl above sea level with an average temperature per day of 17 °C so prone to earthquakes  
Solution: Residential areas, tours, culinary and lodging because of the cool air and can see the view towards the city of Bandung and also avoid the floods because it is in mountainous lane. | Lack of initiatives of local people who are mostly farmers, such as the ownership of farm that has almost entirely belonged to outsiders Cihideung (not local people).  
Solution: Providing the concept of home and settlement design that every resident has land for work and make a participatory planning, integrity between village, university and government to help them manage it until they have been good enough to do it self  
The lack of creativity of Cihideung Village residents due to the absence of innovation from flower sellers. Residents only sell their flower to the market or sell it along the Sersan Bajuri street. Have little land (owned by local residents) and they should be able to deal with it more creatively to attract people. |
| WEAKNESS  | Lack of public facilities such as public toilets, public parking lots, pedestrian ways, and public transportation.  
Solution: Adding public facilities to support community and tourist activities coming to Cihideung Village. Then, do socialization to the village community to use and maintain the facilities. |                                                                                                                                              |

The location is perfect to be a tourist area which is away from the city center, natural, and on the highlands. And the participation of the government and educators (universities) to provide counseling on how to take care of public facilities and the importance of working land rather than being sold to outsiders.

5. Solutions and concept recommendations

5.1. Communal space concept

Figure 3. Step 1 and 2 choosing the location of communal space

The empty land which in front of the government office of Cihideung Village is considered very potential to serve as a communal space for the community, beside close to the Kampong office, this empty land is also in the middle of Cihideung Village area, and also has a potential to become a landmark of the Cihideung Village because it is in the hook land of the main road of Cihideung Village. The concept of the
The communal space is shaped like a circle aimed at maximizing the view from the communal space to the surrounding environment.

**Figure 4.** Step 3 and 4 choose a circle as the main shape of the building

Communal space is created for having two floors to maximize the space that can be used by the community. It also allows more attractive views of the communal space to the surrounding environment or vice versa. In this communal space people can also display their best ornamental plants to promote it to the visitors or people that is passing through this region. Communal space is made like an amphitheater, other than as a seat can also be used as an access point to the second floor.

**Figure 5.** Step 5 and 6 put a tree in the middle of the building for becoming the main roof.

### 5.2 Shared bathroom concept

One of the concept recommendations of innovative housing and settlement concept in Cihideung Village is the problem of some residents still using public toilet as many as 21 families. Therefore, the authors recommend the concept of public toilet for the citizens of Cihideung Village which is taken from the design product of public toilet contest in 2017 by one of the author members, namely Indra Setiawan.
5.3. Layout modification concept

Housing Layout Modification Concept is made to increase the potential of citizens by changing their Kampong into a commercial tourism Kampong of ornamental plants that is done by making zoning based on its function. This zoning is divided into 4 namely residential, pedestrian circulation, work area, vehicle circulation. Placing the work beside the circulation of vehicles, so the visitors can see the ornamental plants on display and attract attention to stop by. Pedestrian circulation is placed between work areas so that visitors can freely view and purchase ornamental plants. residential is placed in the deepest area and is not mixed with the work area or circulation of vehicles, it is believed to increase security so that can not be reached by everyone, minimizing foreigners to passing in residential areas of citizens.

Figure 6. Programing of the Shared Bathroom Concept.
6. Conclusion

Too densely population of Indonesia causes many problems to arise. From the daily activities of the Cihideung Village citizen, the authors can see a way to increase the potential that Cihideung Village currently has, despite the zoning on Cihideung Village is unplanned or random. Therefore, by making a modification of Kampung layout so the zoning can be preplanned and can increase the potential of local communities. This layout modification is made by repairing the layout of residential, work area, the circulation of vehicles and pedestrian circulation. The empty land in front of the village office was chosen to become a communal space because it is in the middle of Cihideung Village and close to the village office. In addition to being a landmark of Kampung Cihideung, it can also improve social relations between residents.

There is another problem where residents are still using a less feasible public Bathroom. Therefore, authors made a concept for public bathroom that is needed by residents. With the existence of several suggestions and design recommendations from the author, is expected to help increase the potential of Cihideung Village residents in:

- **Social**: by making a communal space and putting the residential zone in the deepest zone, the authors hope that it can make the relation of the residents become closer, and make the neighborhood become safer and more private.
- **Economic**: by putting the working zone near to the vehicle and pedestrian circulation, the authors hope it can attract the visitor to visit the shop to buy the plans, or the visitors can also join the farmer to plant or harvest the vegetable. That’s way from this case we can change Cihideung Village into Commercial Tourism Cihideung Village.
- **Infrastructure**: by making the Public Toilet concept and replanning the zoning of the Cihideung Village, the authors hope that it can make the village better and more integrated.

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