

THE IMPACTS OF THE TAMAN DAYU RESIDENCE DEVELOPMENT TO SELF-HELP HOUSING SURROUND IN EFFORTS TO CREATE ECOVILLAGE

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ABSTRACT

To respond to the rapid growth of residential area needs, the sub urban area become an alternative area of housing and business developments. The Taman Dayu, as a new residential developments in the middle of rural areas, assumingly brought several impacts to the human settlements. The things to consider is the impact on the self-help housing area nearby, whether the residential housing developments can assist the developments of the self-help housing area (kampung), or in contrary it will vanish the characteristics and life of rural settlements. This research describes the positive and negative impacts of the developments of The Taman Dayu Residence to rural settlements nearby. Furthermore, the potential concept which can be created by self-help housing will be formulated to create ecovillage. Exploratory methods is utilized with qualitative data analysis and presented descriptively by the consideration of progressing research which refers to the time sequence of The Taman Dayu Residence and settlement development nearby. The results of this research may give a positive and negative representation of a changes in residential environments, so as to the concept of potential optimization which is appropriate with existing conditions can be formulated by directing to the development of rural areas.

Keywords: *ecovillage, impact, self-help housing, the Taman Dayu housing*

ABSTRAK

Untuk merespon tingginya pertumbuhan terhadap kebutuhan perumahan, daerah pinggiran kota menjadi area alternatif untuk pengembangan bisnis dan perumahan. The Taman Dayu merupakan pengembangan perumahan baru yang terletak di tengah daerah perdesaan yang diperkirakan membawa beberapa dampak terhadap permukiman. Hal-hal yang harus disadari adalah dampak terhadap permukiman mandiri di sekitar, apakah pengembangan perumahan dapat membantu perkembangan permukiman mandiri (kampung), ataukah sebaliknya hal tersebut justru akan menghilangkan karakteristik dan kehidupan di permukiman perdesaan. Penelitian ini menggambarkan dampak positif dan negatif dari pengembangan

perumahan The Taman Dayu terhadap permukiman terdekat. Lebih jauh lagi, konsep potensial yang dapat diciptakan oleh permukiman mandiri akan dirumuskan untuk menciptakan "ecovillage". Metode eksploratori digunakan dengan analisis data kualitatif dan disajikan secara deskriptif melalui perjalanan penelitian berdasarkan urutan waktu dan perkembangan permukiman sekitar. Hasil penelitian ini akan memberikan representasi positif dan negatif dari perubahan di dalam lingkungan perumahan, sehingga konsep dari optimasi potensi yang sesuai dengan kondisi eksisting dapat dirumuskan terhadap pengembangan daerah perdesaan.

Kata kunci: *ecovillage, dampak, permukiman mandiri, perumahan The Taman Dayu*

INTRODUCTION

The Taman Dayu, as an elite resort is developed with green concepts and mountain panorama. In April 2005, The Taman Dayu was developed by applying new concepts that are supported with the development of a shopping area called the CBD in Pandaan, Pasuruan. This housing is located adjacent to the self-help housing area and surrounded by the farm land and conservation forest. The characteristic of self-help housing surroundings is rural settlements.

Background Information

The high suburbs growth leads rural area to become an alternative place for the next growth, so that rural area should get attention to avoid uncontrolled growth. World Bank (Guidelines for Rural Centre Planning, 1979) revealed that rural development is a strategy to improve the social and economic life of the rural poor. Ecovillage is one of the concepts, by maximizing the potential of nature as well as the lives of the rural population.

Turner (1976) said when dwellers control the major decisions and are free to make their own contribution to the design, construction or management of their housing, both the process and the environment produced stimulate individual and social well-being. When people have no control over, or responsibility for key decisions in the housing process, on the other hand, dwelling environments may instead become a barrier to personal fulfillment and burden on the economy. This study aims are to determine the positive and negative impacts that occur in self-help housing in the surrounding especially with regard to the principles of ecovillage and to find the appropriate ecovillage concept based on the impact that occurs in self-help housing in the surrounding area in the development of potential rural areas.

Research Methods

This research is an exploratory study that focused on the impact and includes in development research, that examines for a period time from The Taman Dayu. This

research is descriptive with qualitative method. Some quantitative data are also required to support for counting the number and extent.

Data were obtained from interviews and observation. It was also assisted with the secondary data from relevant institutions, such as Podes and The Taman Dayu data. Sampling technique with a proportionate stratified random sampling are done by taking a sample population representing in village with a random and balanced according to the extent of each hamlet.

The discussion of this study divided into three distinct village areas, namely: Ketanireng (the closest village and directly adjacent to the residential area of The Taman Dayu); Durensewu (a village that located in the central region between the main gate of The Taman Dayu with residential areas); and Karangjati (a village that located in the edge (main gate) and directly adjacent to the main highway (Surabaya-Malang). In this village is also located the CBD (shophouses)).

The elements of the village that can be influenced by The Taman Dayu are:

1. Physical characteristics of the settlements in the 3 villages, such as physical condition of the home, the environment condition, land use (green area), and infrastructure conditions.
2. The characteristics of people's lives, both in individual, social life, include the daily lives and type of livelihood.

The observation of existing conditions to connect with ecovillage principles is reviewed in several following characteristics: crop planting/greening, permaculture design, local organic food; using local materials to manufacture residential; saving/energy efficiency through lighting and natural air circulation; waste management; clean water efficiency; household enterprise; and community participation

RESULTS AND DISCUSSION

Perception of Environmental Impact Analysis for Settlement

Based on the survey results overall in the 3 villages, there is a balanced perception of the changes in the kampung (Figure 1). The three villages had changes in almost equal ratio. However, the positive impact is felt more in Durensewu and Karangjati. Though administratively, Ketanireng area is the greatest part of The Taman Dayu area than others. In the aspect of development and kampung changes, it is divided into 2 periods for major factor, ie, 1995-2005 and 2005-present. In Figure 2, shows the significant differences from the changes. Karangjati shows the highest rate of the changes in the year 2005-present. It means that Karangjati quite able to adapt to the development of The Taman Dayu's gate development project as commercial areas.

1. Perceptions of Impact on Ketanireng

Ketanireng shows that the changes began when The Taman Dayu was present, ie in 1995/1996. Here are some of the positive impact felt by Ketanireng: providing employment opportunities, the atmosphere becomes more crowded, rising land prices and buildings prices, a means of recreation, improved kampung access roads and water infrastructure. While the negative impacts are closing the access path, shrinking water resources, and reduced moor lands.

2. Perceptions of Impact on Durensewu

In this village there are no different changes between The Taman Dayu at 1995 with the present. The positive impact is felt almost as same as Ketanireng, but Durensewu attracts more immigrants and it can improve HBES opportunity for local residents.

3. Perceptions of Impact on Karangjati

The strategic location along major highways is more profitable enough to lead economic activities of the residents and this situation coupled with the development of the CBD The Taman Dayu in 2005. The positive impacts are provide an opportunity to open households business.

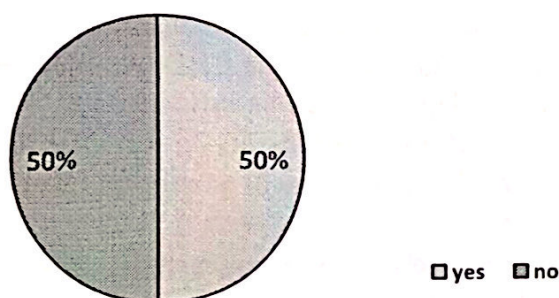


Figure 1. Diagram of Kampung Changes Perception Related to the Taman Dayu

Source: author's analysis

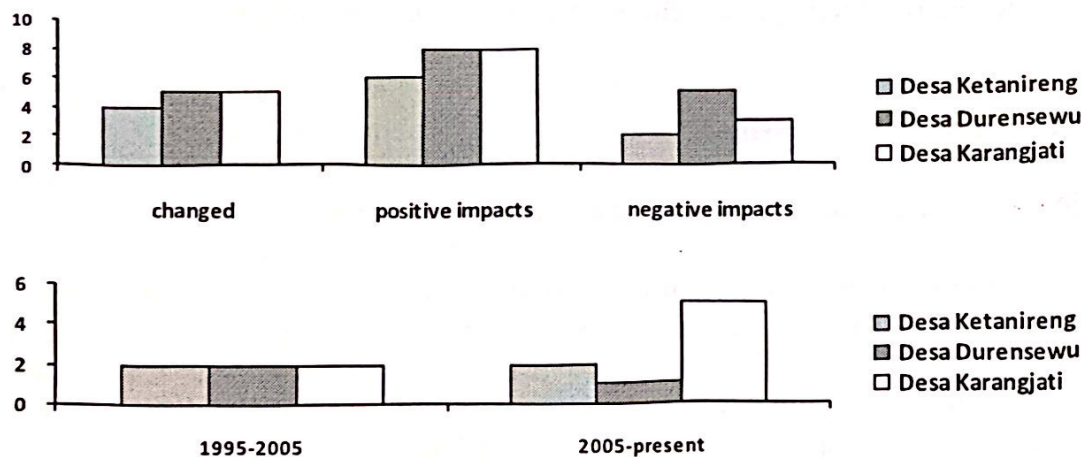


Figure 2. From Top to Bottom:

a) Diagram of the Taman Dayu Impacts Perception,

b) Diagram of the Impact Period

Source: author's analysis

Analysis of Houses and Settlement Conditions

Analysis of the condition of the house and the settlements is divided into three conditions of time, ie before 1995, 1995-2005, and 2005-present. In the analysis of the physical changes is divided into a number of indicators, that: extensive changes, home improvement, green, light, air, sanitation and household enterprises (Figure 3).

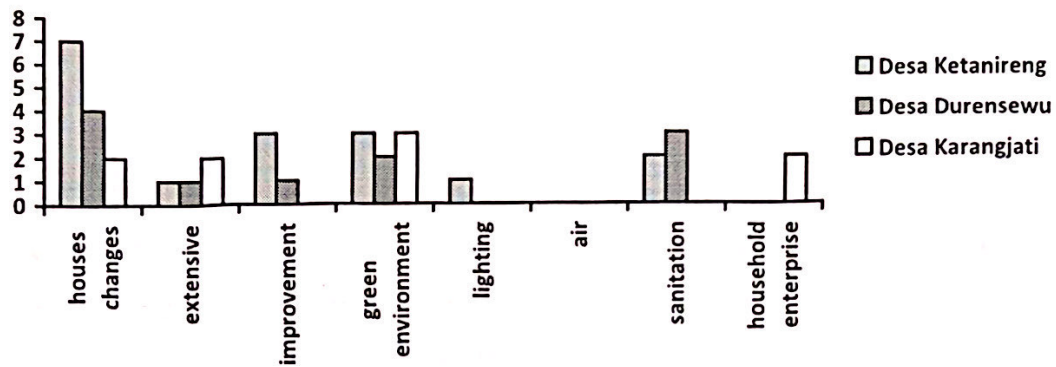


Figure 3. Diagram of the Houses Physical Changes
Source: author's analysis

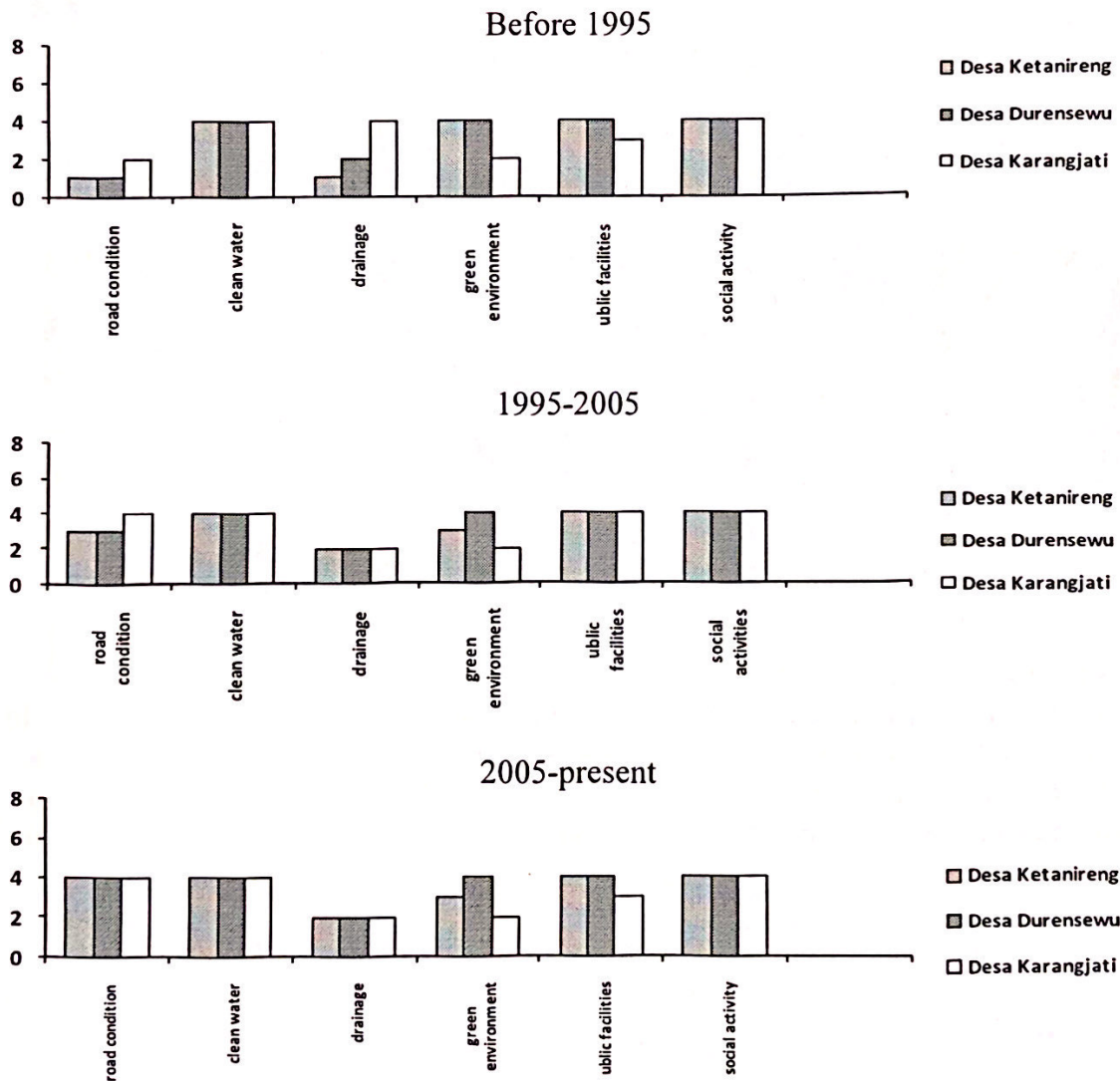


Figure 4. Diagram of the Physical Condition of Each Settlement on Time Period
Source: author's analysis

The Immigrants generally come from out of town about 1-10 years ago. 95% are their own house, but almost 50% of the home have not been certified or Petok D. Over 50% of respondents made changes to the house, but the changes is not related to The Taman Dayu. The environmental settlement conditions in 3 period times has been illustrated in the following diagram (Figure 4).

The one that has not changed much of the three period is the condition of clean water network in the three villages (Figure 5). The three villages adequate water needs from water resource that is widely available around the village. While the condition of road is the most prominent changes and get better (Figure 6).



Figure 5. From Left to Right: a. Ketanireng's Water Reservoir, b. Durensewu's Water Reservoir, c. Karangjati's Water Reservoir
Source: survey, November 7th 2012

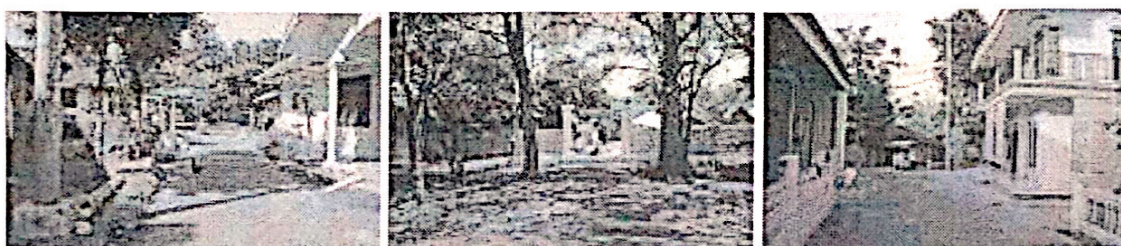


Figure 6. From Left to Right: a. Ketanireng's Road, b. Durensewu's Road, c. Karangjati's Road
Source: survey, October 2012

1. Ketanireng

A lot of homes have changed for home improvement. Most of the houses is old house that has been built over 20 years ago. The repairs were mostly done before 2000. The average size of the house and land area > 200 m² (Figure 7). Because the majority of the population livelihood as a farmer, then some of them still has a large enough yard for drying rice after harvest. However, many houses in Ketanireng does not have any bathroom/sanitary facilities. When building a house, bathroom/sanitary facilities is not a major requirement for them. Residents tend to choose to go to river (Figure 8). Thus, in terms of sanitation is also a gradual development.

2. Durensewu

Same with Ketanireng, Durensewu also have problems with sanitation. But this village has higher housing density with smaller size and closely packed together (Figure 9). In certain areas, there are not many people who have a yard in their home.

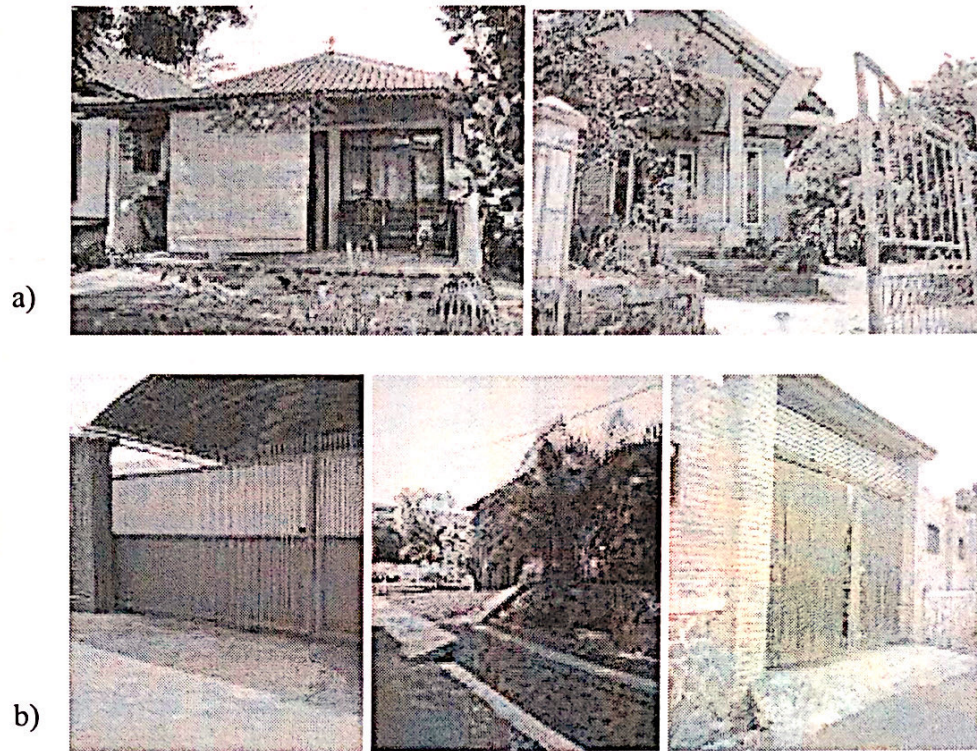


Figure 7. From Top to Bottom: a. Native Houses,
b. New Settlers House

Source: survey, October 2012



Figure 8. Sources of Clean Water and Sanitary Facilities

Source: survey, October, 2012



Figure 9. Condition of Durensewu's Settlement

Source: survey, October 2012

3. Karangjati

Karangjati has developed significantly. The progression of this village were started from the development of Taman Dayu on 2005. The residents prefer to extensive their house to open a household business (Figure 10).



Figure 10. Houses of Karangjati Residents
Source: survey, October 2012

Economic Impact on Residents

Karangjati is the most impacted area for economic aspect (**Figure 11**). This is influenced by the residents main livelihood as a trader. Karangjati trading activities is experiencing a lot of growth since the Taman Dayu began bustling with CBD, ie in the year 2005-present. Happy R. Santosa (2000) reveals that the geographical settlement will largely determine the success of the settlement area, the easier accessibility to a settlement, the more easily the settlement developed.

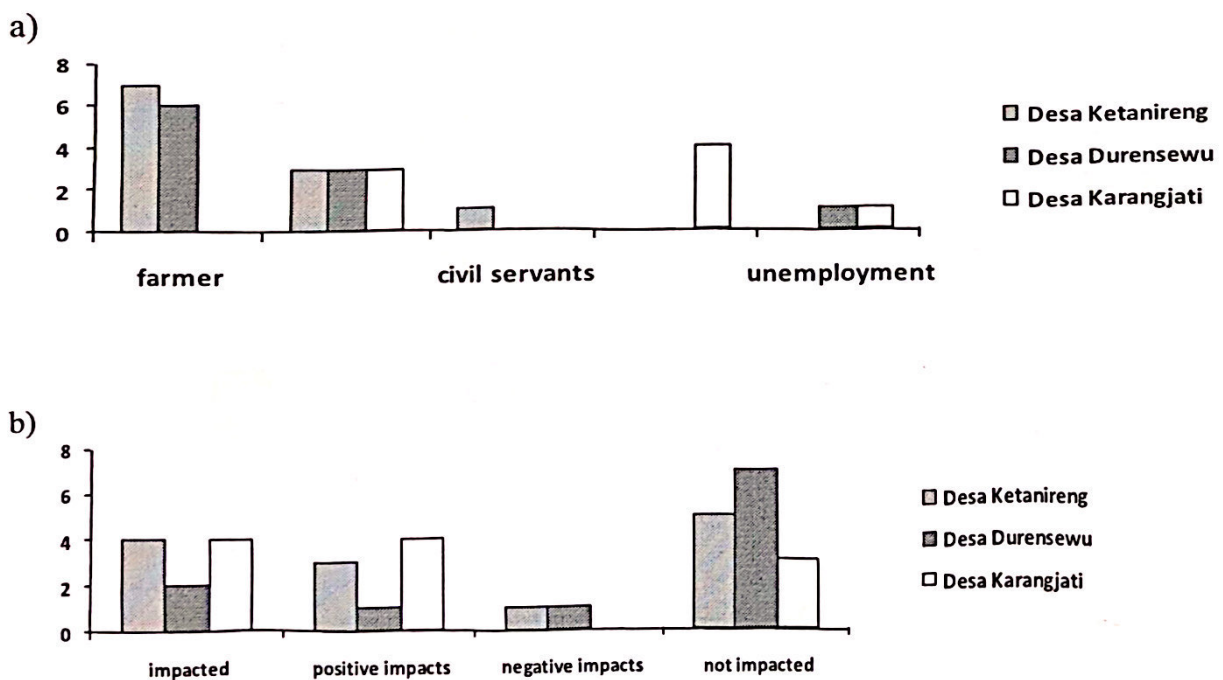


Figure 11. The Residents's Economic Diagrams
Source: author's analysis

CONCLUSIONS

Here are 4 subtitles to determine the impact. Ordering the scale is as follows (Table 1).

Table 1. The Scale of the Impacts on the Village

No	Impacts	Ketanireng	Durensewu	Karangjati
1	Perception of the impact to housing environment	++	+	++
2	Housing conditions	+	+	++
3	Settlement conditions	+++	+	++
4	Economic of residents	+	+	+++

Source: author's analysis

Note : + : less impacted, ++ impacted, +++ severely impacted

Whereas in time period scale assessments are as follows (Table 2).

Table 2. The Impacts Based on Time Period

No	Period	Desa Ketanireng	Desa Durensewu	Desa Karangjati
1	1995 - 2005	++	++	++
2	2005 - present	+	+	+++

Source: author's analysis

Note : + : less impacted, ++ impacted, +++ severely impacted

Table 3. The Development of Potential Impacts Concepts Based on Ecovillage

Positif Impacts	Negative Impacts	Ecovillage Principles
Means for household enterprise Giving jobs Recreation and shopping area	Make people too dependent with <i>The Taman Dayu</i>	→ Household enterprise
Attract more migrants	→ Reducing green land/farm	→ Crop planting and greenery/ permaculture activity
Increased population density	→ Dense settlements	→ Community participation
Ease to access of clean water	→ Water volume decreases	→ Clean water efficiency
Creating green planting	→ -	→ Planting crops and greenery
Improving road condition	→ Increased noise	→ Energy efficiency

Source: author's analysis

Table 3 shows the general ecovillage concepts that appropriate for each village. No.1 shows that household enterprise here more properly used for Karang-jati. It's like food booths and home industries. No. 2 and 5 are for Katanireng and Durensewu since the green areas are quite large. In this case, the optimization can be agricultural fields and farms, such as the mutually beneficial relationship between animal waste for fertilizer and the rest of farm for livestock. While for the no 1,3,4, and 6 can be applied to the three villages.

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