

Determination of Leisure Levels of Village Patronage UIN Sunan Kalijaga Yogyakarta: Improving Governance Patronage towards Rural Green Village and Environmentally Friendly

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Abstract

This study took place in the village of Patronage UIN Sunan Kalidjaga Yogyakarta that consist of 13 hamlets (Klidon, Banjarsari, Wonosalam, Dongkelsari, Puntuk, Tanjung Sari, Karang Lo, Purworejo, Tanjung, Banturejo, Nglengkong and Surirejo), Sukoharjo Village, District Ngaglik, DIY Sleman regency. Data are collect and analysed in order to obtain results in a level of comfort. The analysis was performed by using a formula based on the comfort level Temperature Humidity Index (THI). The results showed that Hamlet Klidon, Banjarsari, Wonosalam, and Dongkelsari shows Not Comfortable, whereas Hamlet Puntuk, Tanjung Sari, Karang Lo, Purworejo, Tanjung, Banturejo, Nglengkong, Surirejo and Mujen show Strongly Comfortable mainly on the clock 10:00 to 15:00.

Keywords: Patronage village, Comfort Level, Temperature Humidity Index (THI).

Introduction

The village is basically an ideal residential location. This is because the cool environment filled with trees as a source of oxygen and water supplies are abundant. However, there is a negative impact on rural development which cannot be avoided that include changes in environmental quality. The change of the environmental quality of course have an impact on people and life. One of the changes is a decrease in the environmental quality of air quality including the change in climate parameters, especially temperature.

The impact of a decrease in air quality influenced the quality of the rural environment. This is because the human and natural environment cannot be separated, they interact and influence each other, including influenced the surrounding neighborhoods. Therefore, one of the factors to consider in choosing a dwelling is a neighborhood that has a good quality of aspects of climate and air temperature.

Climate is one of the biophysical components are taken into account in the framework of human adaptation to the natural environment, one of them in terms of choosing a dwelling. So it can be assumed that the climatic conditions both macro and micro affect the quality of neighborhoods. Changes in the amount of rainfall, air temperature, wind speed and humidity affect the quality criteria of a good village environment. This needs to be considered in the choice of residential location in order to achieve comfort in an activity for the entire population.

So far, studies have been conducted regarding the level of comfort (humidity index) in relation to the climatological factors, but most of these studies are not spatially or research areas include a point / block large

areas. This is understandable, because the studies conducted terrestrial, which of course takes time and labor costs are great. Therefore, research in areas that are quite specific coverage is rarely done.

Actually, the development of remote sensing technology capable of overcoming the obstacles encountered by research conducted using terrestrial methods. The use of remote sensing data can be used to obtain information that is directly or indirectly related to comfort, then the information can be used to measure the comfort level of a region.

In this study, in order to determine the level of comfort in the village of Patronage Universitas Islam Negeri (UIN) Sunan Kalijaga necessary information relating to changes in the climate elements such as air temperature, relative humidity, and wind speed. Finally, this study is expected to provide information about the quality of the environment in the village of Patronage UIN Sunan Kalidjaga as a first step to designing governance of the village towards the village green and environmentally friendly.

Tools

The tools used in this study are:

1. Global Positioning System (GPS) is used to determine the location of the measurement and facilitate plotting the data on a map.
2. Thermo hygrometer used to measure air temperature and relative humidity.

Research Data

The following data is taken during this study, the Village: Sukoharjo, District: Ngaglik, District: Sleman, Yogyakarta.

Table 1. Data of air temperature and humidity.

No	Village	Time	Position	Air Temperature	Humidity
1	Klidon	10.29	-7.7041547, 110.4261053	33.6	46%
2	Banjarsari	10.40	-7.6975199, 110.4247859	32.8	49%
3	Wonosalam	10.46	-7.6937960, 110.4280415	33.9	46%
4	Dongkelsari	10.58	-7.6836879, 110.4307653	33.6	45%
5	Puntuk	11.10	-7.6886566, 110.4313688	38.1	36%
6	Tanjung Sari	11.23	-7.6968149, 110.4332366	35.6	41%
7	Karang Lo	11.36	-7.7006707, 110.4361444	39.4	35%
8	Purworejo	11.52	-7.7055966, 110.4323726	40.1	32%
9	Tanjung	12.42	-7.7050605, 110.4396199	40.4	33%
10	Banturejo	12.52	-7.7089683, 110.4313996	40.8	31%
11	Nglengkong	13.00	-7.7085144, 110.4207388	40.8	31%
12	Surirejo	13.12	-7.7189814, 110.4244178	42.1	30%
13	Mujen	13.25	-7.7189814, 110.4210858	40.4	32%

Analysis

THI value of each criterion comfort level residential areas in Table 2.

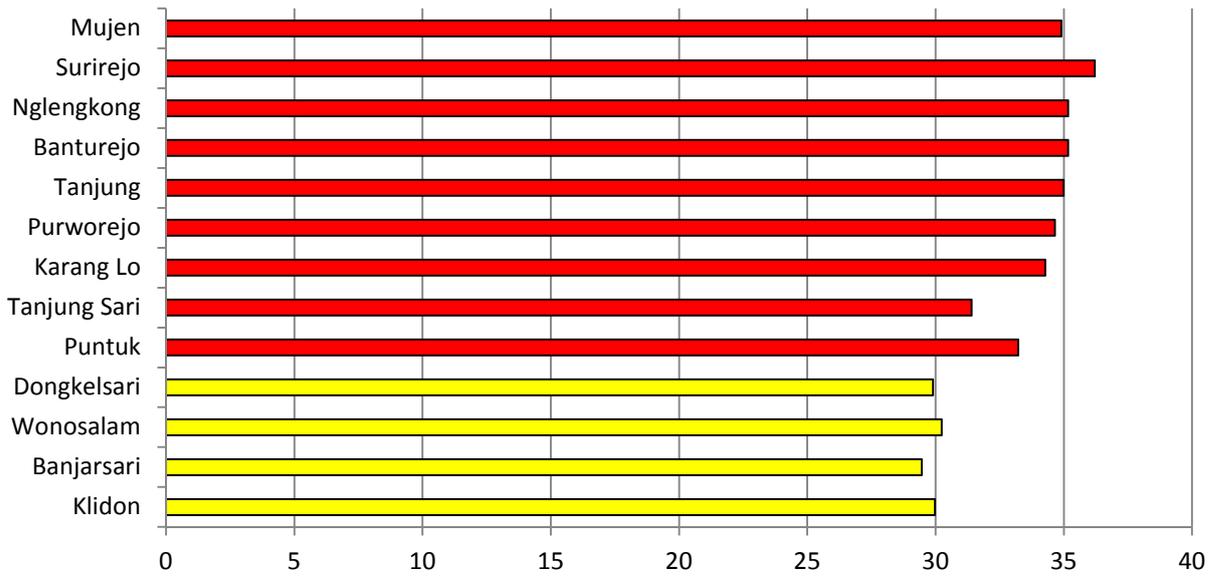
Table 2. Criteria Temperature Humidity Index (THI).

No	Criteria THI	Comfort Level
1	< 29	Comfortable
2	29 – 30.5	Uncomfortable
3	> 30.5	Very uncomfortable

From Table 2 can be classified village built which area is comfortable, uncomfortable, and very uncomfortable. To facilitate the reading can be seen in Table 3 below.

Table 3. Level of Leisure Village Patronage UIN Sunan Kalijaga.

No	Village	THI	Comfort Level
1	Klidon	29.9712	Uncomfortable
2	Banjarsari	29.4544	Uncomfortable
3	Wonosalam	30.2388	Uncomfortable
4	Dongkelsari	29.904	Uncomfortable
5	Puntuk	33.2232	Very uncomfortable
6	Tanjung Sari	31.3992	Very uncomfortable
7	Karang Lo	34.278	Very uncomfortable
8	Purworejo	34.6464	Very uncomfortable
9	Tanjung	34.9864	Very uncomfortable
10	Banturejo	35.1696	Very uncomfortable
11	Nglengkong	35.1696	Very uncomfortable
12	Surirejo	36.206	Very uncomfortable
13	Mujen	34.9056	Very uncomfortable



Description:

Horizontal axis : Temperature Humidity Index (THI)

- : Uncomfortable
- : Very uncomfortable

Figure 1. Level of Leisure Village Patronage UIN Sunan Kalijaga.

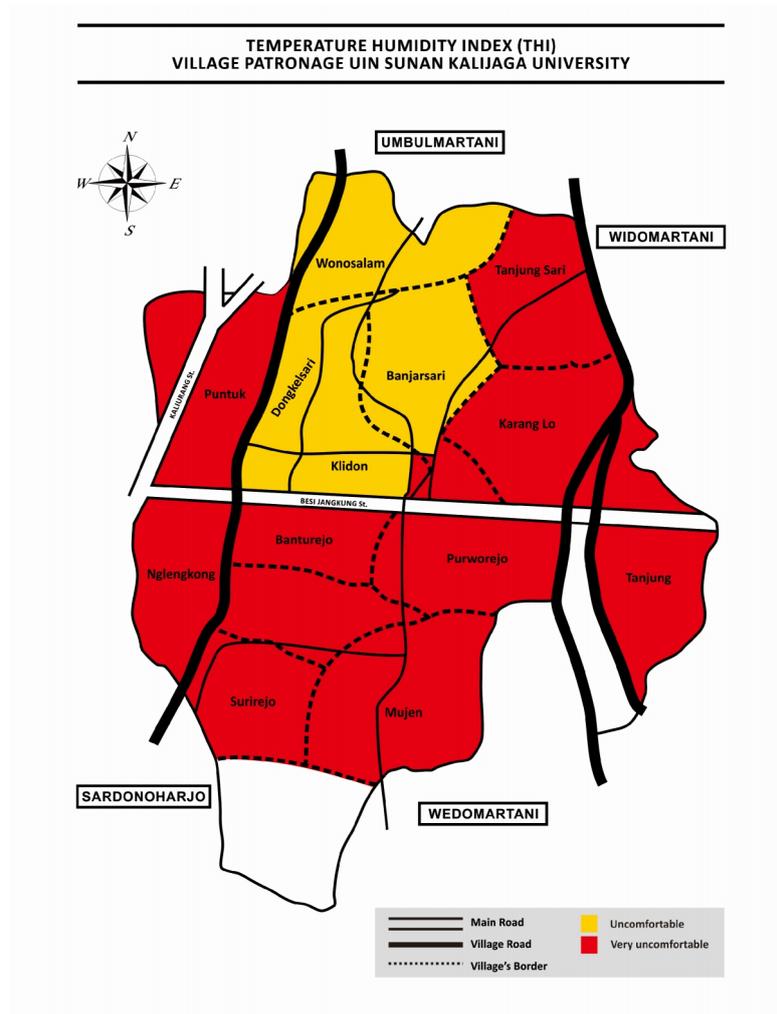


Figure 2. Temperature Humidity Index (THI) Village Patronage UIN Sunan Kalijaga.

In Hamlet Klidon, Banjarasri, Wonosalam, and Dongkelsari the hours shown in Table 3 shows Not Comfortable, whereas Hamlet Puntuk, Tanjung Sari, Karang Lo, Purworejo, Tanjung, Banturejo, Nglengkong, Surirejo and Mujen the hours shown in Table 3 shows Strongly Comfortable. This is because the vegetation is not considered ole surrounding population.

Conclusion

Assuming that the Temperature humidity index (THI) is a real comfort level, it is necessary to increase the Patronage of vegetation in the village in an effort to increase the level of comfort in residential areas. This is seen in the results of the analysis. So the local community can feel comfort and also can improve the welfare of residents of the results of such vegetation.

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