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## International tourist preference of Lodok Rice Field natural elements, the cultural rice field from Manggarai – Indonesia

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# International tourist preference of Lodok Rice Field natural elements, the cultural rice field from Manggarai – Indonesia

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**Abstract.** Lodok Rice Field or usually known as spiderweb rice field is a system of land division. It cultural rice field only found on Manggarai, Province of East Nusa Tenggara, Indonesia. The landscape of Lodok Rice Field was aesthetic and it has big potential for tourism development. The aim of this study was to know the perception of natural elements of Lodok Rice Field landscape that could influence international tourist to visited Lodok Rice Field. If we know the elements that could influenced the international tourist, we could used the landscape image for tourism media promotion. The methods of this study used scenic beauty estimation (SBE) by 85 respondents from 34 countries and Kruskal Wallis H test. The countries grouped by five continents (Asia, America, Europe, Africa, and Oceania). The result showed that the Asian respondents liked the elements of sky, mountain, and the rice field. Then, the other respondent from another continent liked the elements of sunshine, mountain, and the rice field. Although the Asian had different perception about landscape elements of rice field's good view, it's not differ significantly by Kruskal Wallis H test.

## 1. The first section in your paper

Indonesia has 21 million farmers, the land area of 11.5 million hectares, and the rice become a staple food for about 95% Indonesian people [1]. Rice farming influenced by cultural conditions and also local knowledge. [2] [3]. Local knowledge is custom or habit that has become a tradition, conducted by a group of people from generation to generation which is still maintained by the customary law community in a region, and has significant value.

Lodok rice field from Manggarai, Province of East Nusa Tenggara is one of cultural rice field in Indonesia. This Rice Field has pattern look like spiderweb. Therefore this rice field also known as spiderweb rice field. Manggarai community called land sharing tradition as *lingko*. *Lingko* allegedly created since the people in Flores Island know agricultural system until they formed a village that called *beo*. Each *lingko* has a leader that called *tua golo*. *Tua golo* has power to regulate the *lingko*, *beo*, and all costum [4]. The system of regulate a land area (*lingko*) called *lodok*. This system concentrated in the big house that called *mbaru gendang* that has philosophy as a symbol of indigenous power.

Land sharing of Lodok Rice Field depending on the number of recipient, relationship with the landlord, and the social status in the *beo*. *Tua golo* usually get the biggest part because has many responsibilities. In the center of Lodok rice field, there is a *teno*, i.e. wood become the focal point to make a line. Physically, Lodok Rice Field has outstanding attraction as well as the philosophy and also



the landscape. Unfortunately the potential of Lodok Rice Field has not been optimized primarily as a tourism attraction. From the last research, Lodok Rice Field favoured by the tourists (domestic and international) and they interest to visit it [5]. The aim of this study was to know the perception of natural elements of Lodok Rice Field landscape that could influence international tourist to visited Lodok Rice Field. If we know the elements that could influenced the international tourist, we could used the landscape image for tourism media promotion.

## 2. Methods

The method that used of this study was survey to 85 respondents from outside Indonesia. The countries grouped by five continents which are Asia, America, Europe, Africa, and Oceania. The data analyzed by descriptive statistic, scenic beauty estimation (SBE), and Kruskal Wallis H test. SBE used to know where the landscape that has good view. We showed four different Lodok Rice Field's landscapes and the respondents give a score from 1 (bad view) to 10 (good view). The fourth landscapes described different situations, angle, view points, scenic routes, and also elements (Figure 1).

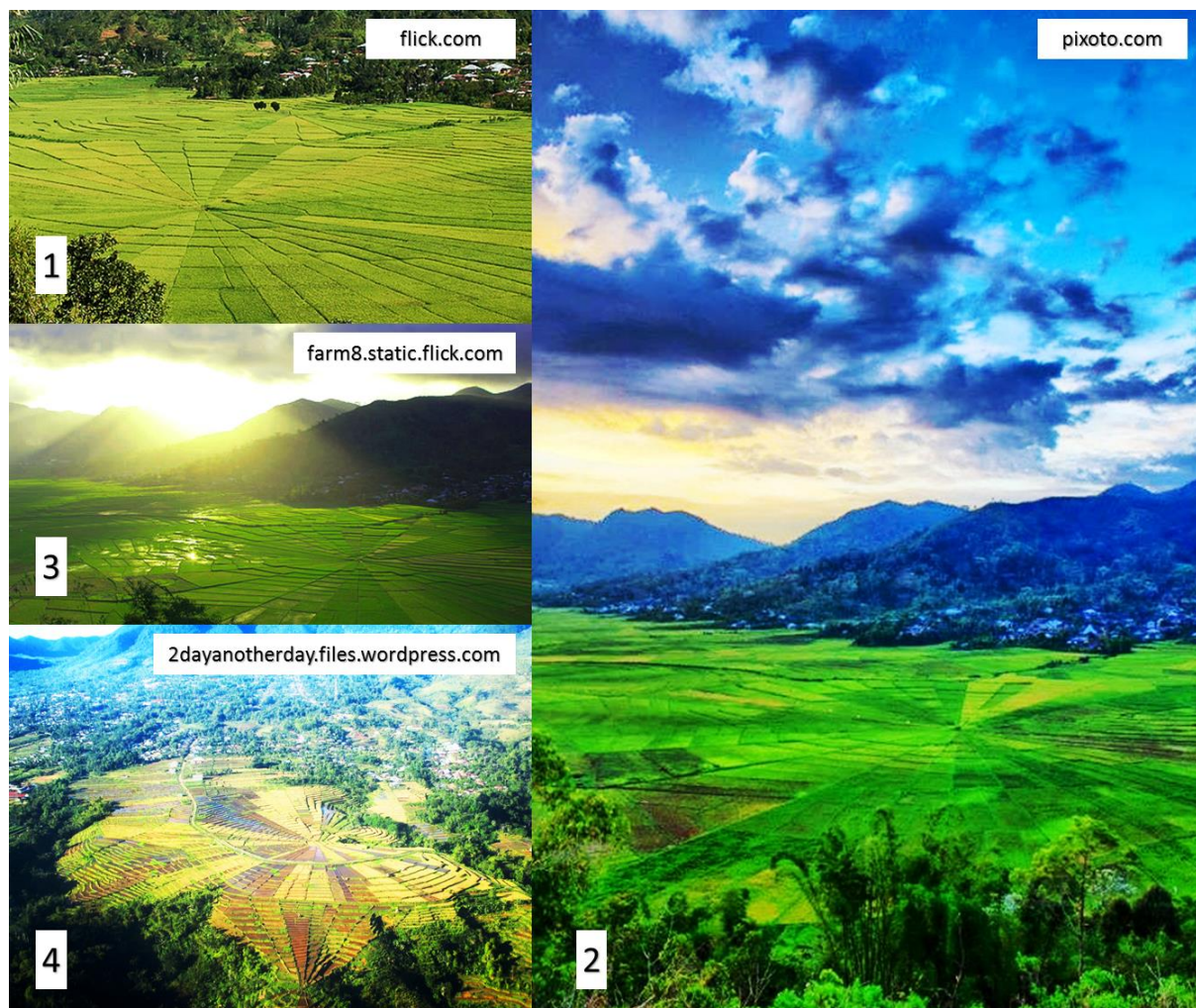


Figure 1. The fourth landscapes of Lodok Rice Field

The image of landscape 1 just focuses on the rice field as the main element. The landscape 2 has elements of sky, mountain, and rice field. Next, the image of landscape 3 has elements of sunshine, mountain, and rice field. Then, the landscape 4 has elements of forest, mountain, and rice field. All

images used landscape layout orientation except landscape 2 that used portrait layout orientation. Kruskal Wallis H test used to ensure there or not differences in SBE result by respondents in each continent.

### 3. Result and discussion

Tourism and the images of landscape have connectivity because landscape is motivating factor for tourists [6] [7] [8]. It has influence for the tourist to make decision for their destination [9] [10]. Thus, the images of landscape for the tourism promotion should choose carefully.

The result showed that almost all images of landscape had good view because it score there are in interval -20 to 20 (Figure 2). Asian respondents liked the elements of sky, mountain, and the rice field (Landscape 2). They like the portrait layout orientation. We assumed it because the Asian culture. Most of Asian people lived in East Asia and as we know, the East Asian people have culture to written down (vertically). Much old paint in Asia also used the same orientation which is portrait layout orientation.

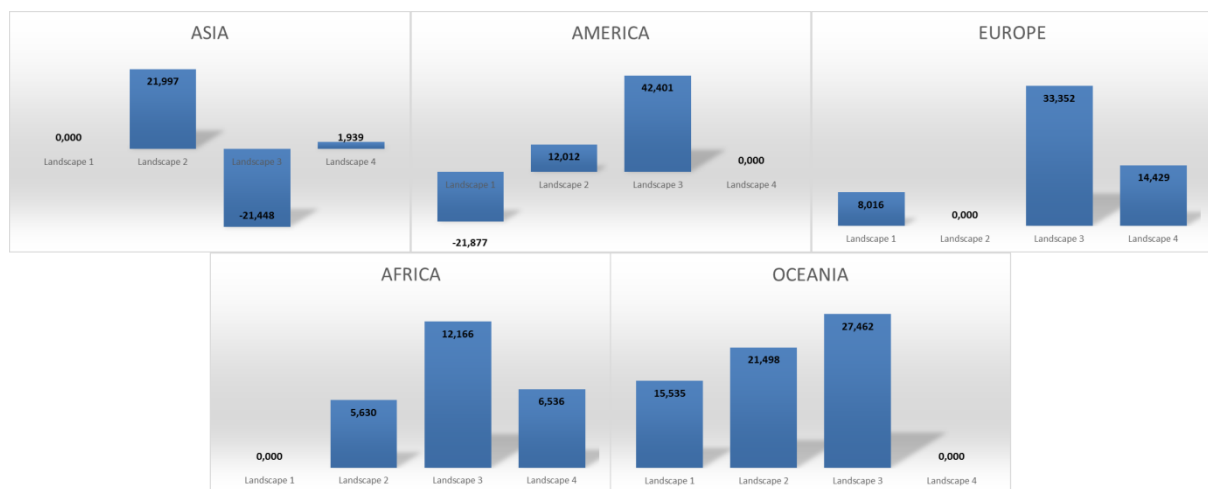


Figure 2. SBE result

The respondent from the other continents had different perception with Asian respondents. They liked the elements of sunshine, mountain, and the rice field (Landscape 3). The American respondents had contrast perception with Asian respondent. They think the portrait image is worst image of all. Most of respondent think the landscape image with landscape layout orientation had good view than portrait layout orientation. Bodnár ever reported the differences perception influenced by viewpoints and scenic routes [11]. Our research proved it, the different angle and layout orientation affected the result of SBE.

Because of the variety result, we used Kruskal Wallis H test to ensure it. The result showed that although the Asian had different perception about landscape elements of rice field's good view, it's did not differ significantly by Kruskal Wallis H test (Table 1). It means the landscape that had good view and could be used for tourism media promotion of Lodok Rice Field by people around the world is landscape 3 with elements of sunshine, mountain, and the rice field.

Table 1. Kruskal Wallis H test result

	SBE
Chi-Square	4,224
df	3,000
Asymp. Sig.	0,238



But, if the government want to promote the Lodok Rice Field to specific continent for example Asia, they can be used the landscape 2 with elements of sky, mountain, and the rice field with portrait layout orientation. This result also informs us although the main element for the tourism object is the rice field, the surrounding natural elements can be considered to increase aesthetic value of the object.

#### 4. Conclusion

The Asian respondents liked the elements of sky, mountain, and the rice field. Then, the other respondent from another continent liked the elements of sunshine, mountain, and the rice field. Although the Asian had different perception about landscape elements of rice field's good view, it's did not differ significantly by Kruskal Wallis H test. It means the landscape that had good view and could be used for tourism media promotion of Lodok Rice Field by people around the world is landscape with elements of sunshine, mountain, and the rice field

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