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## **Conservation of Sasak Traditional Settlement Model Viewed from the Perspective of Critical Thinking Skills**

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### **Abstract**

The local wisdom of the Sasak tribe in Ende Village is evident in the uniqueness of their traditional settlement model. This settlement model has been passed down from generation to generation so that their tribal culture and customs are preserved. Their cultural knowledge has enabled existing customs to survive without any shift in meaning or broken down by changes in the environment. Furthermore, their knowledge on the condition and carrying capacity of the land had ensured that land areas are used properly within their capacity. This is true to the extent that the land in Ende Village has so far been protected from destruction or placed in critical condition allowing the village to be preserved as an attractive tourist destination. The purpose of this study is to identify the critical thinking skills among Ende Villagers in terms of land usage in conserving their traditional settlement model and local wisdom as well as determining the direction of conservation efforts regarding the traditional settlement of Ende Village. This research uses the quantitative descriptive method through observations and interviews. Results indicate that the Ende Villagers had high levels of critical thinking. This was shown in interviews regarding their settlement model and hereditary customs. The Sasak's of Ende Village have managed to pass down their traditions with such great depth allowing upcoming generations to correctly interpret each and every custom that they inherit.

*Keywords:* Critical Thinking, Local Wisdom, Traditional Settlement Model, Sasak Tribe

### **Introduction**

#### **Objectives**

The character of a tribe can be seen from the traditions and cultures formed in a settlement and its ability to preserve a local wisdom. Local wisdom is the form of knowledge, belief, understanding or conception, and tradition or ethics that directs human behavior in an ecological community (Keraf, 2006). This is seen in the traditional settlements of the Sasak Tribe, Ende Village, Central Lombok, which inherit their custom houses from generation to generation. Knowledge on build this traditional settlement becomes a special characteristic for the Ende Village to preserve the culture as well as a special attraction for tourists. So that this village becomes one of the cultural tourism destinations in Lombok.

The objective of this study is to identify the critical thinking skills among the Sasak tribe in terms of land usage in conserving their traditional settlement model and local wisdom as well as determining the direction of conservation efforts regarding the traditional settlement of Ende Village.

### Research Questions

Typical settlement of Sasak tribe is a house roof made of straw or reed (long grass) and woven bamboo walls. The floor is made of clay mixed with buffalo dung and ash of hay. The house is designed in such a way because the house has a dimension of sanctity and worldliness for the Sasak tribe. In addition to being a haven and gathering of family members, the house also becomes a place of sacred rituals as a manifestation of belief in God and their ancestors.

Based on literature review and further motivated by field findings through the observations, this origin knowledge about the customary house model raises several questions. The following specific questions then crystallised to guide this research are:

1. How well does critical thinking skills of Sasak people in Ende Village?
2. How does land use in Ende Village affect conservation of Sasak traditional settlement model?
3. What are the appropriate conservation efforts to preserve traditional Sasak settlements related to their critical thinking skills?

### Theory

Ende Village is located in Central Lombok District. The majority of villagers work as farmers in the fields (Suasthawa, 1995). Some have weave and make handicrafts while waiting for the rice harvest season. The woven and handicraft products are collected in the village cooperative, which then will be equally distributed to all villagers. Some of the rest work as local tour guides that provide education to tourists related to culture and customs in Ende Village.

### Socio-cultural of The Sasak Tribe

The Sasak tribe is the ethnic group that inhabits the Lombok Island and uses the Sasak language. Most Sasak tribes are Muslim, but there is about 1% slightly different with Islam in general, Islam Wetu Telu. There are also some Sasak people who embrace pre-Islamic beliefs called "Sasak Boda".

Sasak word comes from the word sak sak, which the meaning is one. Word "sak" is also used by some Dayak tribes on the island of Borneo to say "one". The famous Sasak people make fabrics by weaving, every woman should be good in weaving as a requirement to get married. Weaving in the Sasak language is Sèsèk. Uniquely the sound that sounded when the loom already operate is sounded like a sak sak. That is the origin of the word sasak which is then taken as the name of the tribe of the Lombok Island. Sasak people who originally inhabited the Lombok Island using Sasak as daily language. Sasak language is very close to Samawa language, Bima and even Sulawesi, especially Southeast Sulawesi (Suasthawa, 1995).

Local wisdom that occurs in this Sasak tribe can be explored by tracing the learning process from one generation to the next (Mungmachon, 2012). Another studies in Thailand show that local people with their local wisdom are able to protect the environment (Chaipar, 2003). Local wisdom is not only found in traditional literature (oral or literary literature) but also in many real life fields such as philosophy, life view, and architecture (Asry, 2010). To maintain the preservation of traditional houses, Sasak parents usually advise their children to build houses with the model and building materials that already exist. If they want to build a permanent house like in other villages in general, they are welcome to get out of the village.

### **Traditional Settlements Model of the Sasak Tribe**

The traditional settlement pattern and architectural style in Ende Village is one of rich cultural heritage in the history, philosophy, art, and culture of local people (Sabrina, 2010). House has its own philosophy for the Sasak tribe. House is the image, the reflection of the soul and the ideals, and the symbol that speaks of all humanity, clarity, and purity (Mangunwijaya, 1998). The house as a design object can also be observed as something that contains symbolic meanings, social meanings, cultural meanings, precious meanings, economic meanings, conscious meaning, and religious meanings (Sachari, 2003).

House of the Sasak tribe is also called bale. According to the Sasak people, the word bale has two meanings. The first meaning is as a shelter, protect them from danger, cold weather, heat, and wild animals. The second meaning is for the sake of salvation, and happiness (Sukandi, 1988). Therefore, bale has a primary function as a place to live and also as a place for other needs.

The local wisdom value contained in the Sasak tribe house architecture are: (a) the use of friendly environmental building materials, building materials accordance with their own resources, without looking for other materials from outside region, (b) the structure and construction of the building used is a simple wooden structure with the main column consisting of four pillars (saka) made of wood, the load of the building made light by using the sub-structure of the wood, as well as the roof cover material made of straw or rumbia (Pawitro, 2011).

The philosophical values contained in in the Sasak tribe house architecture are: (a) The roof is designed very low, equipped with a small door so that guests who come must stoop down when entering the door of a relatively short house. Stooping down is a hallmark of respecting between the guest and the host (b) house was built with the same size and direction, it is indicates that society lives in harmony. Therefore, if someone builds a house that is not the same direction as the previous house building, then it indicates that the society are not lives in harmony (Sukandi, 1988).

By establishing a traditional village as a cultural heritage, the extinction of the old cultural remains can be avoided (Soeroto, 2003). Therefore, conservation efforts as one way to anticipate cultural extinction are needed. Stimulating Ende Villagers to think critically can be one of the proper cultural conservation efforts. In this way, the future generation will understand the origins of culture. Hopefully, future generations will be able to address any problems arising from global change better.

### **Critical Thinking Skills**

Critical thinking is a process of intellectual thinking in which the thinker deliberately assesses the quality of his thinking, the thinker uses reflective, independent, clear and rational thinking. Critical thinking includes interpreting skills and assessing observations, information, and arguments (Murti, 2009). Critical thinking involves thinking and using logical reasons, including comparing skills, classifying, sequencing, connecting cause and effect, describing patterns, making analogies, composing circles, giving deductive and inductive reasons, forecasting, planning, formulating hypotheses, and criticism (Paul, 1987).

Critical thinking also includes the ability to draw conclusions and generalizations, reconstruct patterns, and make accurate considerations of the specific matters of daily life (Murti, 2009). Therefore, critical thinking is needed by the Ende villagers. As one of the traditional villages that has a unique traditional settlement that is lot of cultural values, Ende Village needs to get special attention. It is intended to keep the existence

and continuity of the culture principles. Also maintain the pattern of traditional settlement that manifested in Ende Village.

### **Land Use in Ende Village**

Land in Ende Village is mostly used as a traditional settlement. In building a traditional house, the Sasak people are very concerned about land carrying capacity. Carrying capacity is a natural capacity when nature can recover an unbalanced condition within reasonable limits without human intervention (Hardjowigeno, 2003). Another important thing to consider is the slope of the land. The best slope angle for settlements is between 2-8% (United States Department of Agriculture, 2007). Given that land also the one of non-renewable and limited resources, wise planning of land use is required in order to inherit the land to the future generations (Hardjowigeno, 2003). Therefore, an understanding of the land is needed. So that the land could be used appropriately within its capacity and still can be conserved as an inheritance to the future generation and also tourism attraction.

### **Methodology**

The critical thinking skills can be measured using instruments developed through aspects and indicators of critical thinking. Critical thinking instruments used to measure one or more aspects of critical thinking (Ennis, 1985). This research uses the quantitative descriptive method through observations and interviews. The majority of Sasak tribes use Sasak Language as their everyday language. Less than 5% of them use Indonesian since their childhood at house. It can be seen from the previous reseach, Sasak Language is still very dominant language used by most villagers (Purwo, 2010).

This Limitation in communication what makes researchers finally choose the local tour guide as a sample of research. Samples were taken using purposive sampling technique (Teddlie, 2009). Sample selection criteria are: (1) able to communicate fluently using Bahasa Indonesia (2) have depth knowledge about Ende Village and Sasak Tribe. This research was conducted in Ende Village, Central Lombok District, West Nusa Tenggara in April 2017. The population in this study was all local tour guides in Ende Village.

The selected sample is 10 respondents consisting of local tour guides who were on duty in Ende Village tourism area. The sample population was very small but purposely chosen, and it is intended to establish causality between variables. Ende village was chosen because this village is one of the villages whose the villagers still hold the local wisdom of the Sasak Tribe, seen from the traditional settlement and cultural model who are still very strong. This study used primary data obtained directly from field findings that included observations and interviews on the critical thinking skills of the Sasak Tribe in Ende Village. In addition, secondary data exist in the form of theories derived from scientific documents, such as research results, books and research reports. Then data are analyzed descriptively by describing the material obtained through the inductive thinking framework.

### **Literature Review**

The local wisdom values contained in the procedure of building a traditional Sasak tribe house are at least related to the procedure of choosing local building materials and the procedure of the process of habitation. In addition, the local wisdom values are also reflected from the rules and norms about planning settlements of buliding the traditional houses (Pawitro, 2011). The philosophical values of the Sasak

traditional house on Lombok is at least closely related to (a) custom house building procedures, (b) planning settlement procedures and (c) norms related to choosing time in establishing custom house and choose location in establishing custom house (Pawitro, 2011).

Previous research has not seen critical thinking skills as one of the aspects that should be considered as one of the effort of preserving traditional Sasak settlement model. The previous research conducted in the Sasak Tribe focused on traditional Sasak settlement pattern in terms of institutional system, kinship system, economic life, religious life, culture, land use, and settlement structure based on activity (Sabrina, 2010). Therefore, the purpose of this study is to identify the critical thinking skills among Ende Villagers in terms of land usage in conserving their traditional settlement model and local wisdom as well as determining the direction of conservation efforts regarding the traditional settlement of Ende Village.

## Findings

### Critical Thinking Skills

Based on the results of surveys and interviews shows that the Ende Villagers had high levels of critical thinking skills. This is shown by the results of interviews about traditional settlements model and culture that becomes hereditary. The Sasak tribe of Ende Village inherit its knowledge from generation to generation with a depth explanation of every culture they believe. For example, building a house used the three main materials which symbolize the unity of elements in the family, the materials are (1) rope, as a binding element, describe a father figure in a family (2) wood, as the main element or foundation, describe a mother figure who is always becomes a role model for the family and (3) bamboo, as an adhesive and warming element, describe a child figure in the family. This philosophy is one of the reasons for the sustainability of traditional houses in Ende Village. Ende villagers value every part contained in the building element of the house.

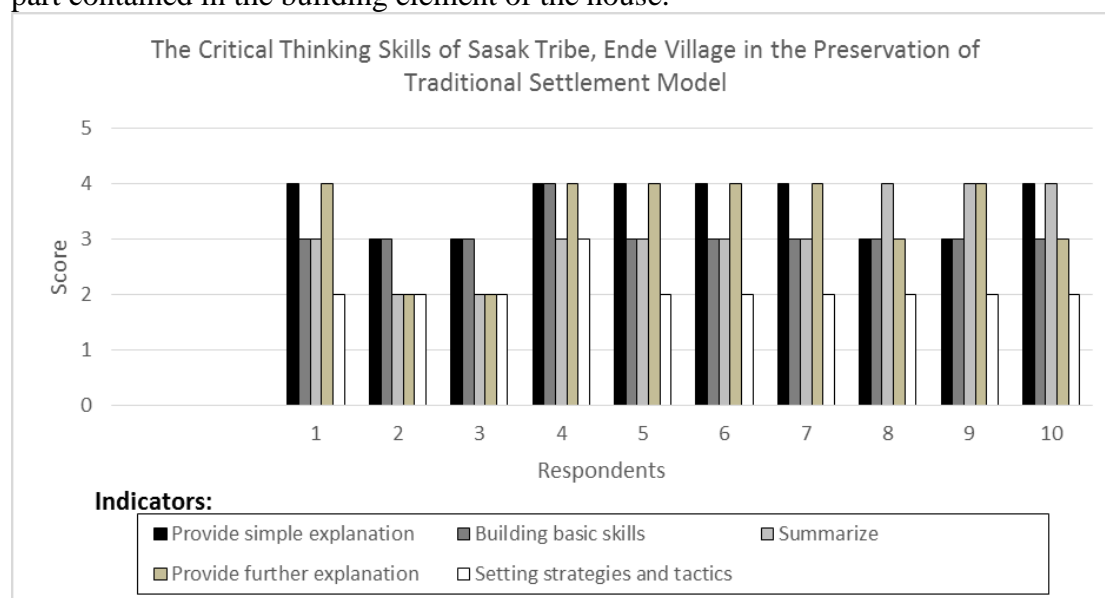


Figure 1. Critical Thinking Skills of Sasak Tribe, Ende Village in Preservation of Traditional Settlement Model

Table 2

*Individual Score Results and Total Scores for Each Indicator*

Number of Respondents	Indicators					Total Score Each Individual
	Providing a simple explanation	Building basic skills	Summarizing	Providing further explanation	Setting strategies and tactics	
1	4	3	3	4	2	16
2	3	3	2	2	2	12
3	3	3	2	2	2	12
4	4	4	3	4	3	18
5	4	3	3	4	2	16
6	4	3	3	4	2	16
7	4	3	3	4	2	16
8	3	3	4	3	2	15
9	3	3	4	4	2	16
10	4	3	4	3	2	16
Score Total Each Indicator	36	31	31	34	21	

### Land Use in Conserving Traditional Settlement Model

Based on the observations made, it is seen that the Ende Village maintains the suitability of land for settlement and land carrying capacity. It can be viewed from the number of houses and proportional distance between houses that allow good air circulation. So it can be concluded that the land use for settlements is closely related to the carrying capacity of the land. The Sasak people are very concerned about land carrying capacity.

## Discussion

### Limitations

Fluency in the language became a limitation in this study. Most Ende Villagers used sasak language as the daily language. So it is not possible to retrieved data from ende villagers who cannot speak Indonesian fluently. To avoid bias due to language disability, interview data is obtained from local tour guides who can speak Indonesian fluently.

From 20 questions of traditional settlement and cultural model, respondents can explain more than half of the questions well. Respondents' aspects of explanation meet four of the five dimensions of critical thinking: providing simple explanations, building basic skills, summing up, providing further explanations, and setting strategies and tactics (Ennis, 2011).

### Critical Thinking Skills of Sasak Tribe, Ende Village, Lombok

Based on Figure 1. It can be seen that the Ende villagers can give a simple explanation very well (indicator 1). This is seen in 6 respondents (Respondents 1, 4, 5, 6, 7, 10) who get score 4. These six respondents can explain the meaning of Sasak, the meaning of Lombok, and the uses of buffalo dung as a cleanser and a house floor adhesive. The Ende villagers have basic skills in analyzing the questions quite good (indicator 2). It can be seen that only 1 Respondent got the score 4, and the rest of

them got score 3. This respondent can analyze the questions given such as the uses of the bamboo, wood, and rope on the model of the traditional settlements they inhabit.

While in the concluding indicator (indicator 3), only 3 respondents can conclude well and correctly (Respondent 8, 9, 10). The skill to conclude in this question is to conclude various types of bale (house) contained in traditional settlements of Sasak Tribe. Not all respondents can conclude well, this is due to the many types of bale are preserved by the Sasak Tribe. Among them are bale tani, bale jajar, bale barugaq, bale sekenam, bale bonder, bale beleq, bale tajuk, and bale gunung. People have difficulty in differentiating and concluding the role of bale because in Ende Village is dominant with bale tani.

Figure 1. Also explaining that the Ende villagers can provide an excellent explanation (indicator 4). This is seen by the six respondents (Respondents 1, 4, 5, 6, 7, 9) who got the score 4. These six respondents can provide further explanation regarding the traditional settlement model that they are preserving, considering either deductively or inductively about the room division which is contained in their custom house building. Villagers can also provide further explanation of land use in the preservation of traditional settlement model including several good months to build houses, suitable land to build houses and places where houses can not be built.

But for indicator 5, the development of strategy and tactics, still need special attention. Almost all respondents got score 2 in the test items on this fifth indicator. Ende villagers also have not understood very well how to develop strategies and tactics in preserving traditional settlement model in their areas. But one of the strategy they maintain is to preserve the traditional house and preserve the culture. One culture that is maintained is *peresean* culture. *Peresean* is a battle between two man armed with rattan and a shield (*Stick fighting*). This also should be supported by the regulatory authorities to enable the Ende villagers to continue preserve the existing culture and improve strategies and tactics in order to give benefits to the village as a tourism attraction.

Based on Table 2. It appears that the indicators providing a simple explanation has the highest score of 36 out of the total score of 50. While the indicator with the lowest total score is the indicator of strategy and tactics that only gets score 21 out of the total score 50. While the second, third, and fourth indicators (providing basic skills, summarizing, and providing further explanation) get 31, 31, and 34 sequentially.

Indicator 1 (providing a simple explanation) has the highest score because the villagers is very adept and fluent in giving a brief explanation, but to guide the villagers in answering the questions by analyzing and concluding, require special skills for the interviewer. While indicator 5 (developing strategy and tactics) has the lowest score. This is caused by the non-involvement of the villagers in the management, policy making, and implementation of local environmental policies. In this case the villagers only preserve the traditional settlement model and *peresean* culture as the tourist attraction of the village as the strategy and tactics.

### **Land Use in Conserving Traditional Settlement Model**

Currently, there are many land deviation so that land conversion happens. For example is the conversion of agricultural land into settlements or industry. It can not be denied that the rapid population growth causes high competition of land use for various purposes. Increased population growth is accompanied by development that requires a lot of land, while the amount of land is limited.

Based on the observations made, it is seen that the Ende Village maintains the suitability of land for settlement and land carrying capacity. Land carrying capacity is measured according to various criteria such as ecology, economics, aesthetics, recreation, psychology, agriculture, nature reserves, and population life (Hardjowigeno, 2003). When land use is not analyzed in advance with the concept of land suitability, it will make the land carrying capacity decreases. With the reducing of carrying capacity of the land, human life will also be disrupted. Land suitability analysis is very important to keep the land useful but not suffering significant damage due to the good carrying capacity of the land.

### **Conservation efforts to preserve traditional Sasak settlements related to their critical thinking skills**

Considering the critical thinking skills of the Sasak people in Ende village is quite high, then this is very important to be conserved. Ende villagers should convey their ancestral culture to the next generation by including depth explanation through critical thinking. So that, the next generation could understand the value behind the culture, and will later pass the culture to the next generation well.

Based on research that has been done, critical thinking indicator that still require special attention is the fifth indicator that is skills to developing strategy and tactics. Therefore, an active role of local government is required to invite and encourage communities to jointly develop strategies so that village culture can be preserved.

### **Recommendations**

The fifth indicator, skills to developing strategy and tactics, should be improved. One way to increase it is to involve the villagers in the management, policy making, and implementation of local environmental policies. This findings can be an input to the local government to work together with villagers to continue conserving Ende Tourism Village. Overall, it can be concluded that the Ende villagers had high levels of critical thinking skills.

In future studies, the survey instrument should include more questions that ask about Ende Villagers knowledge and its depth correlation to the land carrying capacity. Also further questions about critical thinking skills that may affect the future generation. There any deviation about sasak culture may happened nowadays, which is also very interesting to investigate further.

### **Conclusion**

Based on this research, it can be concluded that the critical thinking skills of Sasak Tribe in Ende Village is high. The highest score of critical thinking indicator is providing a simple explanation. While the lowest score of critical thinking indicator is setting the strategy and tactics. The skills of managing these strategies and tactics still should be improved. One way to increase is to synergize with the local government to continue preserving Ende Tourism Village.

Knowledge in conservating the culture that grows in Ende villagers is not only a hereditary culture but also accompanied by critical thinking skills. The Sasak Tribe in Ende Village passes their knowledge with a depth explanation to make the next generation correctly interpret each and every culture that they inherit. From the interviews, it was shown that the Sasak Tribe in Ende village value every local wisdom and philosophical values that they believe. In this case, the building material of the house, the concept of house usage, the carrying capacity, and the land uses.



### Acknowledgements

This research was sponsored by Indonesia Endowment Fund for Education (Lembaga Pengelola Dana Pendidikan/LPDP). We would like to thank the 8th ICLICE 2017 London secretariat to provide this opportunity for us. We are also immensely grateful to the reviewers for their comments on an earlier versions of the manuscript. Finally, We want to express our appreciation to the Ende villagers for sharing their pearls of wisdom with us during this research.

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