Studying Resilience on Urban Cultural Landscape Heritage

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Abstract. Managing is a significant process on a maintenance process. In cultural landscape heritage, it must be done for conservation. Based on values, the elements of local heritage can be define accurately and can be used as a guide to elaborate with the specific or definite goals. In the recent, Toba Lake was chosen as a national tourism destination. The main effect of it, it has been create many programs to support the tourism activity. There are many sign to elaborate Toba Lake as a tourism destination for keeping its values. All of the spatial demand must be balance with the appropriate action by the accurate policy. The next process after balancing process is about creating a built environment and the local community to become a resilience environment which supported by resilience community. Discussion on resilience with cultural landscape theory will be use as a preposition to explore field data. Without thinking about spatial and cultural value, it will occur a degradation of nature and culture that can be dangerous for the local community as the main settlers.

Keywords: managing, tourism, heritage

1. Introduction
In the recent, scientific development is emphasize on balancing between human needs and nature. In architecture and planning, it is on human needs in its spatial and natural environment. Since 1960 until 1970 many experts collaborated in order to minimalize environmental degradation and more focused at the 2000s with the multidisciplinary field. Nature as a human living space must be comfortable for the present and the future is the main paradigm in government policy. UNESCO with SDGs goals describes spatial space in 9 and 11 that can to be a dialog concept as a sustainable and resilience. Resilience is a trend in management. It is a core of management changing, no exception for tourism heritage space. It is a significant aspect to keep a value of natural space with supply and demand on its tourism. Toba Lake was choose as one of ten national tourism destination that must take a resilience approach to keep the balancing between nature-human and its culture. Based on cultural landscape heritage, Toba Lake and its surrounding must be explore on its value that can be a guideline on heritage tourism policy.

2. Method
This paper is a part of small research that focus on resilience and cultural landscape in Toba Lake. The main problem and the big question is about how to create a resilience region and people (local people) to face the tourism activities. To get the goal of research, it used case study research based on qualitative description. Literature study focus on tourism area with cultural landscape heritage theory and resilience from literature review and survey, it can get an analyse about the potential and problem in Toba Lake that can connected with the urban cultural landscape resilience. In this paper, it will explore the condition of Toba Lake area as a nature system that in the recent it changed because of tourism demand.
3. Urban Cultural Landscape Heritage

Tourism was mentioned as a driver of social change, which global changes impact, shape and form contemporary tourism and the emerging tourism landscape, in turn, affects local destinations and the world [1]. In another hand, tourism is set to provide income community as economic activity [2-4], likely jobs or mass industries with a part of an integrated system between tourism and landscapes [4]. Based on mass tourism local community explore the potential for sale [2, 5]. Surely, is the problem about how to manage the value of location or region or spatial space? Sosio-culture and nature can become a chaos because of mass tourism [2].

Human and nature reflect the interactions between people and their nature over space and time as the manifestation of space, time and activity that mentioned as cultural landscape [6-9]. It is important to understand the value of space [4, 6, 10]. The social-ecological systems perspective is emphasized as a dynamic perspective with changing special tourism space [4, 11]. It is also mention that it is important to collaborate with society and nature in tourism [12]. Butler and Hall et al said that tourism should be emphasized on nature and sustainability [1, 11, 13]. Tourism can not only thing about economic aspect without thinking about nature and socio-culture value [2, 3, 11]. Nature is an inspiration to set up the built environment, including tourism [9, 14].

Actually, dialog on nature and socio-culture theories were start on 1920an by Sauer and the other that defined as a cultural landscape. The focus on cultural landscape is about balancing nature and human with culture as a media between them [9-10, 14-16]. Balancing is the main aspect of good livelihood, nature and the community. It is about continuity and change [9, 15, 17-18] that describe about social-economic [2, 4, 14, 19-21]. Cultural landscape that can say with cultural landscape heritage is not about the potential of the space, nature, and human with its culture, but also how to manage it. The main goal of cultural landscape related to sustainability in nature and culture-human activities [9].

4. Tourism - Resilience on Urban Cultural Landscape Heritage

Related with balancing nature and human activities, it was mentioned that nature is used as an inspiration to set up the built environment [6, 9, 14, 22] that more describe the management to keep [15, 23]. Cumming with its statement wrote about SESs theory which explained on resilience, vulnerability adaptation and robustness [12, 24], that stressed too with whole environmental [25]. SESs theory that focus on resilience, vulnerability, adaptation and robustness [12, 24]. In other hand, [25] focus on balancing.

The term that discusses balancing nature and human needs is about not only how to describe a nature with its belief but also how to manage and how to keep it. Firstly, they discussed in the 1960s and wrote in some journal by Holling. They talk about it started in engineering and ecology. In the 2000s, it was continued again based on nature degradation – global warming – global disaster [12, 24-25, 27]. Cumming said that it is important to look at the interactions between society and nature [12, 24].

Especially, tourism must be viewed in the context of resilience [3, 5, 11]. Resilience is not a static concept with its scope from ecology to the social science [4]. Butler creates a table that mention each concentration by the author. The table of resilience’s definition is about engineering, ecological, social, social-ecological, development, socio-economic, organizational, community, disaster, and climate change resilience [11].

Some definition related to resilience can be define below:

a. Resilience determines the persistence of relationships within a system and is a measure of the ability of these systems to absorb change of state variables, driving variables and parameters and persist; resilience is the property of system and persistence probability of extinction is the result [25].

b. Resilience is the buffer capacity of a system, the ability of the system to absorb perturbations [26].

c. Resilience is the capacity to adjust to threats and mitigate or avoid harm.
d. Resilience is a concept that has advanced in relation to the dynamic development of complex adaptive systems with interactions across temporal and spatial scales.

e. Resilience refers to the deal with disturbances or change without altering the essential characteristic of the system in question [28].

f. Resilience is the capability of systems and individuals to cope with significant adversity or risk.

g. Resilience is the ability of communities to survive in difficult circumstances, small remote or insular communities [12].

Resilience is a part of cultural landscape theory. The main product of resilience is a balanced nature and human activity to get a good space, like cultural landscape with any changing process, can reach a level for balancing between nature and people activity that based on the value of nature.

Figure 1. The concept of Resilience [12].

Tourism can destroy the nature because the amount of tourism demand must be supported by the area without cultural landscape thinking [1, 3-4, 11]. So, further information from its sentence, that tourism area should be managed as a balancing area, thinking not only an economic aspect with a big amount of tourist but also think about how nature and the place, included the local people can be managing in one system with balancing each other. Economic is a dominant aspect for heritage area but must be managed without destroying the value of the space [1-2, 10, 29].

5. Tourism Heritage in Toba Lake

Van Bemmelen wrote in his book about super volcano and Batak Tumor that formed an axial culmination, 270 km long and 150 km broad. On figure 2, mount Sibuatan in North West of Toba Lake, Mount Pangulubao to the East, Mount Surungan to the South East and Mount Uludarat to the West are the four mountains mentioned on Batak Tumor [30]. Long years ago, super volcano occurred several times and a fourth eruption at 74.000 years ago formed Toba Lake like this period.
Figure 2. Three schematic sections across the Batak Tumor that showing the consecution stages of formation of the Toba cauldron by Bemmelen.

On colonial period, Toba Lake is famous with its beautiful scenery and landscape. They create some vacation place, likely resort or modern houses. The main goals of it are about enjoyable places.

Figure 3. Haranggaol dan Toba lake in 1905, 1912 and 1934.

History is always in process and space is always form. Todays, many communities have lived in Toba regions that is famous with Batak ethnic group. Furthermore, Toba Lake and its territory become a tourism destination based on beautiful landscape and cultural communities. Actually a caldera with it. The long period for the formation of Batak Tumor and the history of subsequent developments and the changing landscape for space, need to be understand as a system of Toba Lake region that cannot be separate. History has shown that Batak Land has a specific community with its tradition.
Activities are using the landscape and nature as the inspiration. However, today, the problem of Toba Lake regions is about how to manage space for local communities who can collaborate with the tourism needed. Many tourism destinations have been created as a good place for tourists but it is dangerous if local community and government have no knowledge about the value of Toba Lake Spatial.

6. Conclusion

Today, there are many activities in Toba Lake and surrounding it to support National Tourism Destination. Not only creating a building likely hotels, resort, resto, etc, but also many infrastructures to support it. To balance the nature because of many activities and to create as a resilience region and
resilience people because of changing process, it is important to explore the value of Toba Lake spatial and culture, especially the local belief. All of them can be use as a guide or inspiration to set up the built environment without destroying the nature and culture.

7. References

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