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NeuroQuantology



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Editorial: A Look at the Future and an Open Call for Scientific Community

What we call science is the systematization of information obtained from nature. Nature has had its own laws from the beginning. Some of these laws are easy to express, while others stretch our understanding and even our sense of logic. Our efforts to understand nature and its workings, that is our production of scientific knowledge, will never end. We may never truly understand the workings of nature, or get close to the real truth. Therefore, it is ridiculous to behave as if we knew all of the workings of nature and to say this is not scientific, it is in conflict with the (known) laws of science). The clearest example of this is when we see the workings of quantum physics in biological structures. When nature is working, it does not know the laws of our science and doesn't even take notice of them. Nature even sometimes winks at us with anomalies. We learn from nature but we cannot impose on nature the laws we have learned from it.



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Focus and Scope

NeuroQuantology is an interdisciplinary journal that crosses the boundaries of neuroscience and physics. The rapidly accumulating empirical data in the neuroscience, cognitive science and technical domains will be made available to theorists in order to stimulate a synthesis or provoke new models. NeuroQuantology is published monthly.

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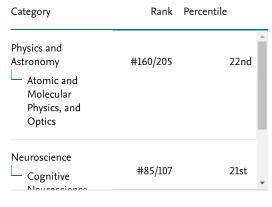
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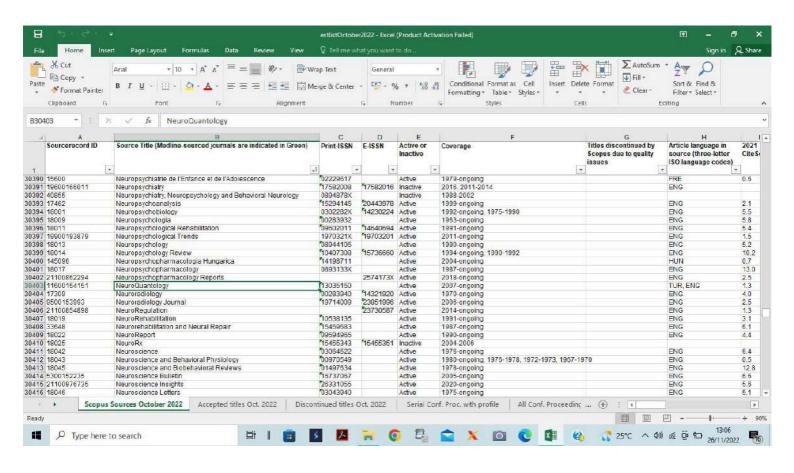
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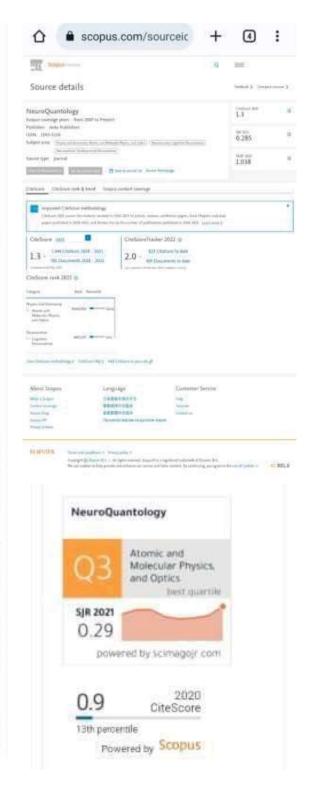
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Author Guidelines

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Types of contribution

NeuroQuantology is committed to offering readers a stimulating mixture of reviews, original articles, short communications, perspectives and tutorials. Reviews, written by leading experts, summarize the important results of recent research within the journal scope. The journal highlights joint contributions by neuroscientist and physicists and fosters interdisciplinary research.

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Articles (original research papers)

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DEVELOPMENT OF TOURISM VILLAGES IN THE LAKE TOBA REGION, NORTH SUMATRA

Posmu Sariguna Johnson Kennedy, Suzanna Josephine L. Tobing, Rutman L. Torsian

Abstract

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Keywords

Development, Tourism Village, Community Empowerment, Lake Toba.

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DEVELOPMENT OF TOURISM VILLAGES IN THE LAKE TOBA REGION, NORTH SUMATRA

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Abstract

Tourism has taken an important role in the economic development of the world's nations. This study aims to examine the development of the Lake Toba tourist area, especially in the development of tourist villages in the vicinity and community empowerment carried out. With a qualitative study, this research obtained the assessment and discussion of the problem through a literature study of documents related to the research. The tourism community must be more innovative, creative, and participatory to encourage the emergence of economic development initiatives, for example, by continuing to educate themselves to manage local potentials of global value. To realize a tourist village, the village government needs to develop human resources and utilize technological advances to improve services to the community.

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1.Introduction

Tourism, as a sector of life, has taken an important role in the economic development of nations in the world, especially in the last 2 (two) decades, which is indicated by the increasing economic welfare of the nations of the world, which are getting better and more advanced. Progress and higher prosperity have made tourism a major part of human needs or lifestyle and moved millions of people to get to know nature and culture in other parts of the world. The movement of millions of people then moves the interconnected economic chains into a service industry that makes an important contribution to the world economy, the economy of nations, to the improvement of economic

welfare at the local community level. Tourism for Indonesia significantly contributes to national economic development as an instrument for increasing foreign exchange earnings. Foreign exchange gains from the presence of foreign tourists to Indonesia in recent years have exceeded the flow of foreign exchange income from the Government's foreign debt and foreign investment. (PP-RI, 2011).

Tourism is a quick trip from one place to another carried out by individuals or groups to find balance or harmony. Tourism is an activity of travelling to and living outside the daily environment supported by various facilities to have fun, spend free time, fulfil curiosity and other purposes that are not money-making.

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Currently, the advantages of the tourism sector have experienced continuous expansion and diversification compared to the manufacturing sector. Various countries are trying to improve their tourism competitiveness by developing their tourism through more modern information technology. (Trinanda, 2020)

In carrying out tourism activities, there are 4 (four) goals that tourists want to achieve/obtain: Something to see, namely in a tourist destination, there is a special attraction other than the tourist attraction of interest; Something to do, which is that apart from lots to see, there should be recreational facilities that make tourists feel at home in the object; Something to buy is that in tourist attractions there should be facilities for shopping for souvenirs or handicrafts for souvenirs; What you need to know, tourist attractions besides providing the three things above can also provide educational value for tourists. (Muawanah, 2013)

It is known that the 5A principles in tourism offerings are: (1) Attraction, which refers to the attractiveness of a tourist destination (DTW); (2) Accessibility, related to the ease of tourists in accessing DTW; (3) Amenities, related to facilities in tourist destinations to support tourism activities; (4) Ancillary, namely institutions that support tourism activities; (5) Activities, fun tourism activities with supporting facilities. (Trinanda, 2020; Kennedy et al., 2022)

Tourism is a multidimensional and multisectoral industry. And must be considered in a large system with complex activities with various components. Such as economic, ecological, political, social, cultural, and others. The tourism system, according to Leiper (2004) in Rahman (2015), states the nature of the open system in tourism. Leiper explained that in the Tourism System, the environment also has a role in interacting and influencing the elements in the system. The environment in question can be in the form of physical, cultural, social, economic, political, legal, and technological aspects that make up the elements of tourism. Still, under

certain conditions, it is also influenced by tourism.

From the Leiper tourism system, there are five elements as subsystems that are part of the overall tourism system, namely: (1) Tourists, who are human elements, namely people who travel; Tourist-producing area, which is a geographical element, namely the place where tourists start and end their journey; (3) The transportation route (transit route) is a geographical element where the main tourist trip takes place; (4) The tourist destination area as a geographical element, namely the central place visited by tourists; and (5) the tourism industry (tourist industry) as an organizational element, namely a collection of organizations engaged in the tourism business, working together in tourism marketing to provide tourism goods, services and facilities. (Trinanda, 2020; Kennedy et al., 2022)

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In the implementation of tourism in Indonesia, there are principles stipulated by the 2009 Tourism Law (UU-RI, 2009), namely: "Upholding religious norms and cultural values as the embodiment of the concept of life in a balanced relationship between God Almighty. One, the relationship between humans and fellow human beings and the relationship between humans and the environment; Upholding human rights, cultural diversity, and local wisdom; Providing benefits for people's welfare, justice, equality, and proportionality; Maintaining the preservation of nature and the environment; Empowering local communities; Ensuring the integration between sectors, between regions, between the centre and the regions which are a systemic unit within the framework of regional autonomy, as well as integration between stakeholders—and Complying with the World Tourism Code of Ethics and international agreements in the field of tourism and Strengthening the integrity of the Unitary State of the Republic of Indonesia".

Tourism development is very important in Indonesia. This study aims to research the development in the Lake Toba tourist area, which the Indonesian government has selected as one



of the priority tourist destinations. Especially in the development of tourist villages in the vicinity and community empowerment.

2. Research methods

This research was implemented with a qualitative study, where the problem assessment and discussion were obtained through a literature study of documents related to the research. One of the earliest methods used was a normative study of tourist villages, especially the regulations regarding tourism and tourist villages that apply in Indonesia. The data collection technique used is the study of various documents and discussions.

3. Literature Review

Community Empowerment

The community has an important role in the context of a smart village. The community is not only the goal of government administration and village development but is also a unit with the will and purpose to determine the direction of its life. On this basis, the community needs to have good awareness and understanding of their position and role in the Village. To be the beneficiary, the community must play an active role in the village development process. In reality, the community is faced with various limitations and problems, both from internal sources, such as low levels of education and high poverty rates, as well as externally. This condition has implications for the low awareness of the community about the role that must be carried out in the village structure so that the community, in many ways, becomes a passive party and does not receive the benefits of village development. (Herdiana, 2019)

Community empowerment should be pursued to develop community independence and welfare by increasing knowledge, attitudes, skills, behavior, abilities, and public awareness (Law, 2014). According to Hadiwijoyo in Kagungan (2019), community empowerment is a continuous process that increases the ability and independence of the community and improves the standard of living. In this process, the

community together: Identify and assess their problems and potentials; Develop an activity plan based on the study results; Execute the plan; Continuously monitors and reviews the process and results of its activities (monitoring and evaluation). The principles of empowerment, according to Cahyono (2008), are that the development carried out must be: Local; Prioritizing social activities; Using local community or social organization strategies; The existence of an equal position in the working relationship; Use a participatory strategy, all group members are subjects; Social welfare efforts for justice. (Helmita, 2021)

One of the empowerment that can be done is the development of tourist villages. Nuryati (1992) in (Jafar&Resnawaty, 2017) explains that a tourist village is a form of integration between attractions, accommodation, and supporting facilities that are presented in a structure of community life that blends with the prevailing tradition. The challenge in carrying out the concept of a modern smart village is in implementing the development of tourism villages based on traditions and the local potential of the Village.

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According to Gumelar in Zakaria (2014), the main component of a tourist village can be seen from its uniqueness and authenticity of a tourist village. It is located side by side with extraordinary natural conditions, has a unique culture to attract visitors, and has potential that can be developed in terms of facilities and infrastructure. Meanwhile, according to Prasiasa in Zakaria (2014), the main components of a tourist village have four components, namely: 1) local community participation; 2) there is a system of norms that applies in the Village; 3) local village customs and; 4) the original village culture. A tourist village must have tourism potential, art, and local customs. environment is included in tourism development areas or travel routes sold to tourists. Managers, coaches, and artists can support the sustainable development of tourist villages. Accessibility that can support tourist villages, ensuring security,



order, and cleanliness of the tourist village environment. (Helmita, 2021)

The community must address the development and use of information technology as an opportunity to optimize their participation and contribution to village development. Information technology aims to increase public awareness and strengthen community capacities needed to contribute to village development. The implication is that the community must have an open attitude and adopt information technology as part of daily life, both in personal and social contexts and in village government. Thus, the community will benefit from the existence of information technology, and, in a wider context, the community will benefit from information technology in the social and governance contexts in the Village. (Herdiana, 2019)

Heap (2015) emphasizes raising awareness of village communities' rights and demands community involvement in the governance process and the government's responsibility to the community. The rights referred to here are the same as the explanations of other academics, which include basic rights related to health, education, food security, and other basic needs. Smart villages are expected to be able to provide a decent life for rural communities like urban communities, but the remaining villages, which "Smart security, Efficient public transportation systems, Improved sanitation conditions, Management of solid and liquid waste, Rain harvest/drainage system Rainwater, Safe drinking water facilities, Use of renewable energy Energy conservation, Handling complaints, Strengthening CBOs, Functional bank accounts, Agricultural facilities, Latest and affordable medical facilities, E-governance, Use of modern technology for locality improvement, increasing women's empowerment, facilities education" (Somwansi et al., 2016). (Subekti&Damayanti, 2019)

Tourism Village

A village is a legal community unit with territorial boundaries authorized to regulate and manage government affairs. The interests of the local community are based on community initiatives, origin rights, and traditional rights recognized and respected in the government system of the Unitary State of the Republic of Indonesia. The Village Government is the Village Head or what is called by another name assisted by the Village apparatus as an element of the Village Government organizer.

Tourism Village is an area for preserving the natural environment of the ecosystem as well as the node of the community's traditional culture by not hindering its citizens' development from improving their welfare through tourism businesses. Tourism Villages function as educational and recreational facilities, means of developing arts and culture; community-based tourism development facilities; means of developing tourism behavior and culture; and means of preserving tourism potential and resources. (Bup-Karo, 2019)

A tourist village is a tourist destination, often called a tourist destination, which is a geographical area located in one or more administrative areas in which there are tourist attractions, public facilities, tourism facilities, accessibility, and communities that are interrelated and complement the realization of tourism. A tourist attraction is everything that has uniqueness, beauty, and value in the form of a diversity of natural, cultural, and artificial wealth that is the target or destination of tourist visits.

The so-called village tourism area is a special tourism area located within the village area. This tourism area business is a development and area management business to meet tourism needs by statutory regulations. The objectives of a tourism village are: to improve the welfare of the village community; increase public awareness and pride in their customs, culture, and villages develop the potential for cultural tourism, agro-tourism, water tourism, spiritual tourism, nature tourism, and sports tourism; and preserve cultural values that have been passed down from generation to



generation. While the objectives of implementing the Village are (Bup-Karo, 2019).

This tourist village is a tourist destination, often called a Tourist Destination, a geographical area in one or more administrative areas in which there are tourist attractions, public facilities, tourism facilities, accessibility, and communities that are interrelated and complement the realization of tourism. A tourist attraction is everything that has uniqueness, beauty, and value in the form of a diversity of natural, cultural, and artificial wealth that is the target or destination of tourist visits.

The so-called village tourism area is a special tourism area located within the village area. This tourism area business is a development and area management business to meet tourism needs by statutory regulations. The objectives of a tourism village are: to improve the welfare of the village community; increase public awareness and pride in their customs, culture, and villages develop the potential for cultural tourism, agro-tourism, water tourism, spiritual tourism, nature tourism, and sports tourism; and preserve cultural values that have been passed down from generation to generation. While the objectives of implementing the Village are (Bup-Karo, 2019):

- Utilizing and empowering the potential of the environment for the benefit of historical tourism, nature tourism, agro-tourism, cultural tourism, artificial tourism, culinary tourism, handicraft tourism, and earth park tourism or geoparks in the context of improving and empowering the people's economy;
- Maintain and develop the way of life, arts, and culture of the local community continuously;
- Develop the environmental quality of the village community as well as the cultural and tourism potential contained in each Tourism Village;
- Improving the welfare of rural communities;
- Increasing public awareness in developing natural potential and conserving/preserving existing customs, culture, and architecture from generation to generation;

- Increase public awareness of the conservation of unique animals and plants as well as the natural environment;
- Encouraging the community to create a clean, tidy and healthy environment;
- Accelerate the cultivation of attitudes and skills in accordance with the SaptaPesona of Indonesian tourism;
- Foster pride in their customs, culture, and Village; and encourage the growth of the creative economy.

Tourism villages are organized with the following principles: empowering local wisdom, improving the community's economy, increasing community empowerment and participation, and using digital technology. The development of tourist villages is based on the principles of: benefit and sustainability; creative participatory; efficient and effective; and social justice and environmentally sound. The tourism development scope includes arranging and managing tourist areas in the village area. The arrangement and management are carried out not contrary to the community's interests, social, cultural, religious, and environmental values. They are developed and utilized as much as possible to improve the welfare of the community, especially the village community and around the tourist village area. Structuring and managing tourist areas can be done through inventory, documentation. registration, legalization, revitalization. and tourism development. The arrangement and management of the tourist area is carried out functionally by the Village community organization in the Tourism Sector and is accountable to the Village Head and regulated by the Village Head Regulation. This Tourism Sector Community Organization is a community organization with a national vision with the aim of preserving and developing village tourist destinations. (Desa-Nita, 2014)

The purpose of developing a tourist village is to organize and manage the potential and resources of the Village in the tourism sector. It increases the economic community income and

Village as much as possible for the welfare of the people. The objectives of developing a tourism village include: maintaining, protecting, and preserving cultural traditions and local wisdom to strengthen national culture; utilizing the potential local wisdom for the of culture and empowerment of the creative economy of the community; organizing and managing village potential and resources to support tourism development; provide encouragement, motivation and create opportunities for the community as the main actors of village tourism development; realize the utilization of the results of tourism development in the context of increasing the welfare and prosperity of the community; and raise the image of the Village. Meanwhile, the function of developing a tourist village is as a means of art and culture community-based preservation, tourism development, and education and recreation. (Desa-Nita, 2014)

4. Discussion

Smart Tourism Village Development in the Lake Toba Region

Simanungkalit (Coordinator the for Preparation of the Smart City Master Plan) Kemenkominfo (2021) explains that development of smart villages aims to attract domestic and international tourists by attracting investors in infrastructure development and opening new businesses. With the smart village movement, city/district governments innovate to develop every tourism potential in terms of infrastructure development and smart branding in promoting tourist destinations. Can promote promotions in the form of tour packages in the Lake Toba area (North Sumatra Tourism), including the eight surrounding districts. So, through this tour package, tourists can visit eight cities/districts in the area. (Kemenkominfo, 2021)

However, in practice, regional parties certainly need to think of interesting innovations for tourism promotion that are also adapted to the 3A concept (attractions, accessibility, and amenities), one of the principles of tourism management. Each region certainly knows what

tourists can offer when visiting the area. Not only promoted but also accompanied by the improvement of every facility in tourist attractions for the better. For example, if there is already such a tour package, each city/district must also plan. For this reason, it is necessary to plan a tourist city that must be able and feasible to visit. Telling stories rich in culture and history can be a way of rebranding the region in the region. (Kemenkominfo, 2021)

The feasibility of facilities, such as the availability of lodging, clean toilets, worship facilities, and health facilities in the Lake Toba area, do not meet international standards. Even the availability of these facilities is still far from the national standard. So a decent place to stay for international tourists should have met international standards. However, the current condition is still far below the national standard. Targeting foreign and national tourists, of course, the weakness of the feasibility of the facility needs to be a common concern for both the local government and the central government. The government has standardized the feasibility of facilities that must be met by cities/districts that support National Priority Tourism Areas (KPPN). Can use the focus of the government's budget for development of tourist destination infrastructure, including the feasibility of facilities from the city/district ministry at KPPN. (Kemenkominfo, 2021)

The government and the people of Lake Toba have started to improve themselves by implementing a smart city/village under the Ministry of Communication and Information guidance to ensure that the smart city master plan can be well structured. Barry (ministerial expert) in Journalis (2021) stated that the joint commitment to the Lake Toba super-priority area translates the smart city/village program into a regional program. Given the many tourist attractions in the Lake Toba area, it is necessary have cooperation between governments to encourage and facilitate licensing for small businesses. Moreover, almost every district in the Lake Toba area has a tourism economic area. Cooperation and mutually



beneficial cooperation are needed between eight districts in the Lake Toba area. It is necessary to create a program with eight districts to provide new hope for the progress of the community.

Cahyono (assistant deputy to the ministry) in Journalis (2021) said that one aspect of a smart city/village is related to smart governance. Smart governance in the context of setting up an electronic-based government system. ΑII government agencies, both central and regional, can collaborate to realize smart governance, ensuring that they can achieve good public services. With the government's commitment, this smart city/village can run in the Lake Toba area. It is necessary to ensure that the electronicbased government system as part of the smart city planned by the Ministry of Communication and Information, in this case, is smart governance.

The Need for Smart Government for Tourism Village Development in Indonesia

Associated with the village context in Indonesia, institutions must be understood as formal state institutions that are part of the government structure. In this case, the village government is the lowest government structure (Kushandajani, 2015; Sajangbati, Institutions are attached to the authority to formulate smart village development policy instruments. The government, the community, and the rural environment are the elements that make up a smart village that have different roles and functions. However, the three elements become a single unit that influences each other, so the application of the smart village concept must be based on the accommodation of the three elements, including each element's character, role, and function.

There are two stakeholders in the context of villages in Indonesia, the village government as a state institution and the village community. In building a smart village, these two stakeholders are the main dimensions that form the basis for implementing a smart village. Other resources in

the Village are partly used to support the life of the village community and village government (Agusta, 2007; Angkasawati, 2015; Haryanto, 2013). In this context, these resources are integrated into the rural environment. Information technology in the context of a smart village is used as an element that encourages the relationship between the village government, the community, and the rural environment to realize the goal of implementing information technology-based rural life.

The village government has a position as a combined form of government between the selfgoverning community and local self-government (Law, 2014; Eko, 2015). This fact implies that in the village structure, the administration of government affairs cannot be separated from the main elements of society, and the orientation of village government policies that are carried out is fully aimed at the interests of the community. In a practical context, this is manifested in 4 (four) functions of village government: governance, implementation of development, community development, and empowerment (Kushanayani, 2015). These four functions aim to improve rural communities' welfare and quality of life. (Herdiana, 2019)

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Government administration is a form of implementing village government functions as the lowest government organizational structure authorized administer government independently, including public services to the community (Sulismadi, Wahyudi, &Muslimin, 2016). In the context of smart villages, the use of information technology can provide improved services to the community. The village government will be able to carry out government functions effectively and transparently to the community. In addition, the use of information technology, in general, can improve the performance and productivity of the village government.

The utilization of information technology makes the process of coaching and empowerment a process that is no longer done traditionally. Information technology has become



a common medium between the village government and the community to identify each other's problems, demands, and desires. On the other hand, information technology can be used as a development plan in coaching and empowerment as part of community productivity to create community empowerment. (Herdiana, 2019)

One of the Marketing Developments for Tourism Villages: Storytelling

The target number of tourist visits needs to be increased every year. However, several obstacles are faced in its development, including one related to the promotion. Therefore, it is necessary to apply story-driven marketing to promote tourism through the dissemination of stories and impressions by applying storytelling (Huang et al., 2019; Yuliarti et al., 2021). Thus, this study aims to explore the storytelling of tourist destinations that fall into the category of super priority tourism, namely the Lake Toba area, precisely from the Samosir Regency area in North Sumatra. This tourist area has the opportunity to be developed because it has historical value and unique history and folklore. Therefore, a study of storytelling will be carried out, namely an explanation of the history, origin, and development of the area from time to time as well as the possibility of folklore legends from the Batak tribe, especially for one of the folklores from Samosir Regency in the Lake Toba Tourism Area, North Sumatra, Indonesia.

One manifestation of the concept of community-based tourism is the development of tourist villages, where rural communities in tourist areas develop their potential, both in terms of natural, cultural, and human resources potential. "The existence of tourist villages in Indonesia is currently growing rapidly. The development of this tourist village can have a positive impact on the village community itself, including the existence of new jobs for the community so that it can reduce the unemployment rate in the Village. In addition, a tourist village that carries the concept of

Ecotourism will make the Village able to preserve the nature and culture of the Village. Another thing is that tourist villages can turn villages into independent villages because they can provide alternative jobs that local people can enter" (Putra et al., 2020). (Susianti et al., 2022)

Indigenous peoples live for generations in a certain geographical area and are bound by cultural identity and ties to ancestral origins. The strong connection with the lands, territories, and natural resources in their traditional territories and the value systems determine the economic, political, social, and legal. Culture, historical sites, and the stories behind them are assets that can drive the development of tourist villages. (Samosir, 2021)

Heritage tourism is a travel package for visiting places that are considered to have an important history as tourist attractions. Cultural tourism is currently in great demand by tourists. The United Nations World Tourism Organization (UNWTO) 2005 noted that visits to historical and cultural heritage objects had become one of the fastest growing tourism activities. Georgia (2010) in Kartika et al. (2017) stated, "Most travelers (65%) say they seek travel experiences where destinations, buildings, and surroundings retain their historic character". Tourists prefer to have a travel experience that retains its historical character. Heritage tourism is one of the potentials of each region because each region has a unique cultural history, so it becomes a different characteristic from other regions. (Kartika et al., 2017)

World Tourism Organization in Cahyadi and Gunawijaya (2009) defines heritage tourism as enjoying history, nature, human cultural heritage, art, philosophy, and institutions from other regions. The National Trust for Historic Preservation in Cahyadi and Gunawijaya (2009) Heritage tourism is a journey to enjoy places, artifacts, and activities that authentically represent the stories/history of ancient and contemporary people. Heritage tourism can also be described as a "personal encounter with tradition, history, and culture. Heritage tourism is



based on the concept that every community has a story to tell (Burns &Grene, 2010).

Storytelling is a storytelling activity, either done manually or using technology and the internet. According to Serrat (2008), storytelling is an art that depicts real events in the form of fiction and can be conveyed using images or sound. Besides being useful as a tourism promotion medium, storytelling is an effective method to explore the unique and attractive values of a tourist destination or even a creative economy product. With good storytelling, tourists will get a different experience in traveling. An interesting story will make a tourist destination not only a place but a more livelyspace to find various information. Indirectly, the experience of traveling with storytelling will bring meaning to each destination. Storytelling can make a tourist attraction more interesting and make tourists curious. However, storytelling that is too long will saturate tourists. The story is quite short but deep. (Susianti et al., 2022)

For a tourist destination, storytelling is part of product marketing. Storytelling combines facts and stories tourists want to tell, so they are more interested in what they see. Can use guiding techniques and storytelling skills to promote the uniqueness of tourist attractions. Growing the soul or spirit in a tourism destination must be carefully planned and carried out through proper research and not seem artificial. The stories behind these tourist attractions will provide one of the attractions for visiting tourists so that when visiting tourist attractions, we see beautiful places not only in front of our eyes but also gain knowledge values about the conveyed. (Widiyanto, 2022)

Storytelling is a story told to tourists to understand a place's history or features better. Storytelling is meant to entertain or teach tourists something. Besides being presented with natural beauty, tourists also gain new knowledge about the historical value or legend of the place. Through storytelling, a tourist destination will have a learning meaning for tourists. Destination strengthening can be connected with local

community legends that contain the values of community life so that what tourists get is not only spectacle but also guidance. (Widiyanto, 2022)

Storytelling in tourist destinations has an important function: understanding the values of local people to tourists. Second, tourists will learn about the history of the place (legend) visited. Third, the legend conveyed will provide suggestions for tourists who believe in the story. Fourth, psychologically memorable stories will strengthen the destination's presence in the community, especially for tourists. In making storytelling, it is necessary to pay attention to, first, the history and general description of the place of the area. Second, pay attention to geography/tourism objects that are worthy and beautiful to be conveyed to tourists. Third, a story is made that connects the place with the legend of the local community so that it creates confidence in tourists that the story happened in that place. (Widiyanto, 2022)

Many well-known destinations in Indonesia already have strong storytelling, but how they are delivered to tourists is not good and less attractive. It could be due to unprofessional delivery techniques or language factors that are not fluent. In addition, the lack of brochures that can be read by tourists, so tourists do not understand the story told. An example is a tour of Borobudur temple, which already has a strong story, but the delivery of the guide is not good. The disadvantage is that it cannot compete with similar destinations abroad, such as Angkor Wat in Cambodia. (Widiyanto, 2022)

Visitors must understand the storytelling that has been made both through guides and brochures. Understanding the values created can be understood and make them excited to carry out the various activities outlined in the story. Professional guide training is needed so that what is told is conveyed well. For this reason, it is necessary to support the government's program to periodically conduct training for tour guides and human resources so that the storytelling that has been prepared can successfully raise the



image of tourism destinations in Indonesia. (Widiyanto, 2022)

One example of storytelling on Samosir Island in the Lake Toba area is the History of the BoruNaibaho Site and Jabi-Jabi Trees (Samosir, 2021; North Sumatra Tourism, 2014; Batak Toba Media, 2014; Nasution&Umry, 2012)

It is said that once upon a time, two twins (one boy and one girl) were born for a reason and then fell in love. This forbidden love then shocked the whole Village. This incestuous love is contrary to the traditional values of the Toba Batak. The parents of this pair of twins found a husband for their daughter. Long story short, this beautiful BoruNaibaho later married the Sinaga clan of his parent's choice. However, this marriage ended tragically because BoruNaibaho killed her husband, surnamed Sinaga, and chose to return to his twin brother. Local tradition says, before getting married, this beautiful BoruNaibaho had sex with her twin sister and had two bodies. For having the heart to kill her husband, the Sinaga clan punished the descendants of the Naibaho clan in two forms of customary sanctions: expelled from the Village or drowning in Lake Toba. BoruNaibaho prefers to be drowned in a lake, complete with his loom. However, it is said that BoruNaibaho emerged to the lake's surface after a few weeks and pulled over to the shoreline. He then took his loom and weaved the ulos under the jabi-jabi tree. Since then, this tree has been considered sacred because it is a place to weave boruNaibaho, which is still alive even though it has been sunk into the lake. Over time, this magical and mystical story spread mainly among the Naibaho clan and became sacred. Finally, the generals of Naibaho and the Toba Batak clan often visited this sacred place. This holy tomb is often called the tomb of "namborutta" (boru/ our daughter). This legend also tells of a husband who is also his twin brother and has a son named Sitindaon, who later became known as the Sitindaon clan in the current Toba Batak clan lineage. Therefore, the mention of the name of this site became a cross dispute. The descendants of Naibaho mention the BoruNaibaho site, while the descendants of eISSN1303-5150

Sitindaon, who claim to be direct descendants of the BoruNaibaho, mention the BoruNaitang site.

Example of a Tourism Village Development Case Study: Tano Ponggol

'Tano Ponggol' is an area in the Pangururan sub-district of the island of Samosir, which is located in the tourist area of the Lake Toba Geopark. "Tano Ponggol is an area rich in natural resources and historical value. Its strategic location, in Siogungogung Village, Pangururan District, is the only access to Samosir Island by land, allowing this area to be developed into an ecotourism area. The value of new natural resources and high cultural and historical values in this area make Ecotourism an ideal selling point and an effort to preserve cultural and environmental heritage.

In the Detailed Spatial Plan for the Pangururan Urban Area (RDTR) 2007-2017 (RDTR-Pangururan, 2017), the Tano Ponggol area is given the policy to be converted and revitalized with the following strategy: Tano Ponggol area as a historical area and tourist attraction; Developed as a Leading Area in the Pangururan Urban Area; Conversion and revitalization of residential areas in the Tano Ponggol area into the Main Entrance of the Pangururan Urban Area and the Entrance of Samosir Island (the border between Sumatra Island and Samosir Island); Improving the function of the waters of Lake Toba in the Tano Ponggol area by dredging so that it can be passed by ships carrying goods and passengers, both regional and local shipping lanes. Tano Ponggol has become an ecotourism area with a seaside spatial arrangement along canals and bridges. This seaside spatial arrangement is carried out by revitalizing the area by incorporating several new functions that will be conceptualized through an analysis of the area's character, potential, and problems in Tano Ponggol (Yudha&Aulia, 2019). In waterfront spatial planning, two important aspects underlie decision-making to produce solutions (Wood, 2002; Wrenn, 1983), namely: Geographical location, including geographical and climatic conditions; and the context of the area,



including users related to a sense of attachment to the area, history, and culture, access, and circulation, as well as visual characters related to the physical characteristics of the waterfront area in the form of distinctive shapes, materials, vegetation, or activities." (Yudha&Aulia, 2019)



Figure 1. Map of Tano Ponggol (Google Maps)

Yudha&Aulia (2019) explained that the land of Tano Ponggol was cut into a canal with both ends leading to Lake Toba and then separating Samosir Island from the surrounding area. "In this Canal, a bridge was built to connect back to Samosir Island. Samosir. This area has conditions, not a regional tourism development master plan which plans to develop this area into an ecotourism area. The government's program in developing Tano Ponggol into an ecotourism area is by structuring waterfront spaces along canals and bridges. This waterfront spatial arrangement is carried out by revitalizing the area by incorporating several new functions that will be conceptualized through an analysis of the area's character, potential, and problems in Tano Ponggol." (Yudha&Aulia, 2019)

The Tano Ponggol Canal is one of the natural potentials of Samosir Regency, which has not been managed as a tourist area because of its natural beauty and history. "Novpriandi and Aulia (2019) learned that the Tano Ponggol Canal is the only Canal in Samosir Regency that has played an important role from the past until now. This Canal separates the island of Sumatra and the island of Samosir, which was excavated during the Dutch colonial period. The Tano Ponggol Canal was deliberately excavated to facilitate the activities elssni303-5150

of fishermen who, before the Canal, pulled their canoes in the lowlands from end to end to catch fish. Unfortunately, the current condition of the Tano Ponggol canal is not maintained and cared for properly and is left unattended, so it does not have the slightest attraction for visitors as tourists."

The Tano Ponggol Canal is one of the potentials that exist in Samosir as a tourist destination, the planning of this Canal has the concept of Ecotourism, where the utilization of natural potential is prioritized over artificial buildings. With the planning of the Canal as one of the ecotourism-based tourism destinations in Samosir, it is expected to increase regional income, especially for the welfare of residents in the planning area or around the Canal. The planning policy for the Tano Ponggol canal area has also been regulated in the RDTR-Panggururan (RDTR-Panggururan, 2017).

The Tano Ponggol area, according to the Regional Spatial Plan (RTRW) of Samosir Regency 2011-2030 (RTRW-Samosir, 2011), is an area designated as a natural and cultural tourism area. "The Tano Ponggol area has great potential for local and foreign tourism. The tourism potential in the Tano Ponggol area is explained in the RDTR-Pangururan policy, such as the Tano Ponggol canal, conservation and revitalization of historic areas, cultural preservation, traditional Batak village areas, and floating net cages.

The Tano Ponggol area's land use condition has not been optimally organized and planned. Land use planning in the Tano Ponggol area is divided into zones with different planning concentrations in each zone, including the arrangement of settlements and traditional Batak villages, rice fields as tourist destinations, maintenance of historic sites, preservation of existing colonial buildings, and efforts to cultivate cages. Floating net. The need for planning so that land use in the Tano Ponggol area becomes organized and can be utilized optimally to explore the existing natural potential and improve the economy of the community in the Tano Ponggol area. Land use in Tano Ponggol Ecotourism



currently consists of the functions of settlement activities, trade and services, agriculture, worship, education, and offices. The Tano Ponggol area is planned to be the main land route for access to Samosir Island with an attractive entrance design to create the image of the Pangururan Urban Area as a modern city based on local culture." (Astari&Aulia, 2019)

The Tano Ponggol ecotourism area is an area that has potential for beauty. In addition to beautiful natural conditions, there are also some relics of traditional Batak settlement buildings. This traditional residential building, if developed properly, can become a special destination and tourist icon in the Tano Ponggol area. Settlements are part of the city, consisting of houses and social facilities that support these activities. This type of settlement, which is approximately 250 years old, retains its form and function as a tourist area. However, the physical condition of these traditional buildings has not been noticed by various parties, both the government and the people who occupy the traditional settlements. "Batak traditional houses can still be seen in the Tano Ponggol area, namely houses on stilts, with the main building material being wood with a roof covering made of palm fiber. The construction of the building does not use nails and is tied with rattan. The walls are made of carvings. The ornaments of this building are equipped with carvings (gorga) typical of Batak, whose patterns contain a certain philosophy. This traditional building needs to be preserved because it has an attractive and well-managed cultural and natural tourism potential, which can benefit the owner/manager of the tourist site and revenue from local government revenues." (Fadli&Aulia, 2019)

The role of conservation for cities is physical and includes social and cultural prevention efforts. The direction of preservation of an area with an environmental or building scale needs to be based on social motivation, culture, aesthetic aspects, and economic considerations. Following up on the RDTR-Pangururan (RDTR-Pangururan, 2017), the real action is needed, for example, in the effort to preserve the HutaNaibaho eISSN1303-5150

traditional house area, not only written in regulations but also ensuring that these activities are realized in the field. "Suggestions for the Preservation of the HutaNaibaho Customary Settlement Traditional House related to Non-Physical Aspects are: Making a Government Regulation on the Designation of Land Use for the Naibaho Traditional Settlement as a Conservation Area; Establishing one of the buildings as a homestay for the development of local and non-Coordinate local tourism: with owner/customer of the traditional house to get a cooperation agreement; Establishing Customary Stakeholders as Executors of Preservation; Reviving long-lost Batak customs, both traditional ceremonies and formal events, so that they are expected to attract tourists; Creative economy socialization for traditional house owners so that they can become a source of community income, in the form of selling souvenirs or ulos (Sudarwani et al., 2022) which is very popular in the Batak area." (Fadli&Aulia, 2019)

One of the problems of Ecotourism in the Tano Ponggol area is the condition and existence of a reforestation system both in the area and the environment, which is still lacking and less organized. For this reason, it is necessary to arrange reforestation in the Tano Ponggol area because it is very important both as a visual area and adding value to the area and Ecotourism, especially in traditional settlement areas and conservation site areas. The direction of ecologically sustainable green arrangement is a planning concept that unites collaboration between buildings and the (natural) environment and is directed to create plans that have sustainable principles and create a unique and interesting travel atmosphere. "The presence of shade trees or vegetation is minimal. For example, in the traditional villages HutaNaibaho and HutaNainggolan and the SitanggangBau Cultural Heritage Site. absence of a planned reforestation arrangement results in tree species whose variations and dimensions are irregular and harmonious, thereby reducing the visual aesthetics of the area. It is necessary to plan an ecologically sustainable



reforestation system to support the planning of the Tano Ponggol ecotourism area. It is a planning concept that brings together the collaboration between the building and the (natural) environment. Making traditional village areas and cultural heritage sites a unique and interesting tourist atmosphere while maintaining local cultural wisdom." (Yulisma&Aulia, 2019).

5. Conclusion

The community must be more innovative, creative, and participatory to encourage the emergence of economic development initiatives, for example, by continuing to educate themselves to manage local potentials of global value. To realize a tourist village, the village government needs to develop and utilize technological advances to improve services to the community. Initiatives from the government need to be carried out to encourage the development of smart villages. The private sector is also advised to work with the government to build community environments and help build tourist villages. Therefore, serious action is needed to build a comprehensive and integrated smart tourism village to solve problems in rural areas.

One of the creativity that needs to be developed in the marketing of tourist villages is through storytelling. Many famous destinations in Indonesia already have strong storytelling. For a tourist destination, storytelling is part of product marketing. Storytelling combines facts and stories to convey to tourists so that they are more interested in what they see. One of the interesting stories is about the origin of the Batak tribe. According to a legend believed by some Batak people, the Batak tribe comes from the PusukBuhit, SianjurMulaMula area, west of Pangururan, on the outskirts of Lake Toba. From this place, his descendants spread, first to the surrounding area and gradually to all corners of the Batak Land. The Batak people, especially the Toba Bataks, consider them from the same lineage, namely the Batak King.

In developing Lake Toba Priority Tourism Areas, the central government needs to

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cooperate with local governments. An example of developing a tourist village is Ecotourism. "Ecotourism is a natural tourism activity that pays attention elements of education, understanding, and support for efforts to conserve natural resources and increase local people's income. In addition, Ecotourism aims to protect natural resources and develop all the potential that an area already has. Tano Ponggol Village, Samosir Regency, North Sumatra, is one of the tourist villages that has been developed into an ecotourism village.

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