



Reorienting Infrastructure Development in Panggang Lake Area: Towards Agritourism

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Abstract

Tourism escalates the economics in many undeveloped regions. It is more effective than others because the industry creates substantial multiplier effects and stimulates the growth of the local economy. Tourism provides many potential livelihoods to build up the local community's incomes. Global trends influence the growth of tourism. Nowadays, the worlds prefer to experience high-value production of unique commodities than massive tourism product. In Panggang Lake Area, swamp buffalo personify the locality phenomenon. The buffalos successfully adapt to live in a wet swamp, and even they are a good swimmer. Since Banjar Sultanate civilization, the community farms swamp buffalos in Panggang Lake Area. The unique ability of swamp buffalo builds a potency of tourism attraction. For those reasons, The North Upstream Regency plans Panggang Lake Area to be a tourist destination. However, as the germ-plasma sources, the tourism development in Panggang Lake Area should cooperate on some local wisdom. The local community works as a buffalo farmer so that the tourism development would make several changes in the daily life structures. This study aims to find out the most fitted concept of infrastructure development towards agritourism. The importance of socio-economic and environmental factors analyzed study participants' preferences for evaluating the appropriateness of tourism development in Panggang Lake Area. The study concludes the concept of watching tourism to be the more appropriate concept of agritourism infrastructure development in Panggang Lake Area.

Keywords: agritourism; development; infrastructure; livelihood

1. Introduction

Swamp buffalo in North Upstream Regency contributes to the growth of tourism. The population is the highest in South Borneo Province. Swamp buffalo becomes one of the national assets in North Upstream Regency and potentially rises to be the dominant economic sector. The community operates swamp buffalo for generations in seven villages of Panggang Lake Area (Bararawa Village, Sapala Village, Pal Batu Village, Ambahai Village, Tampakang Village, Paminggir Village, and Paminggir Seberang Village). The community operates the farming management through traditional ways in the area with no intense human intervention (river areas, bushes, swamps, and others). Panggang Lake area consists of a swamp area (5,646 ha), and the community utilizes it for food crop farming, fisheries, alabio duck farms, and swamp buffalo farms (Musa, 1988).

Tourist infrastructure will give the new impulse of tourist satisfaction in destination (Blazeska, Strezovski, & Klimoska, 2018), though it would provide income to the Government through tax and retribution of accommodation. In some cases, such as in Tangkoko Bitung (Indonesia), the local

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community would increase their household income since they also work onto tourism activity after they did their primary job as fishermen (Baware, Kiroh, Wungow, & Kawatu, 2017). However, the less of tourist consciousness arises ecosystem degradation and affects the sustainability of swamp buffalo, especially the buffalo's natural behavior as the tourism attraction. Furthermore, the Government should elaborately develop the area (Nurdianti, Ningsih, & Sustris, 2013), tourism, and farms to ensure the sustainability of swamp buffalo.

The Government of North Upstream Regency develops tourism in the area considering the area as a germ-plasmas source. Due to the situation, so the tourism activity should prepare the appropriate tourism development concept. Many researchers only explore the swamp buffalo or the potency of swamp buffalo as tourist attractions without considering the potency of space-use conflict after the tourism development. This study would explore and analyze the relationship of socio-economic and environmental factors to address the aim of study that would find out the most fitted concept of infrastructure development towards agritourism.

2. Research Methods

The study is located on Panggang Lake Area, North Upstream Regency; South Borneo Province. This study is arranged through an inventory of the potencies and the problems to develop the economics of swamp buffalo. The data are collected via secondary surveys and observations. Primary data is collected via direct observations and interviews, while secondary data is collected via coordination to relevant agencies, such as Government at Village, District, Regency, and Province level. Data is analysed with descriptive qualitative techniques.

3. Result and Discussion

3.1 Development Policies of Swamp Buffalo in Panggang Lake Area

Policy in tourism is designed to support traveler experiences' quality and give some profit to related stakeholders. The application is mentioned by Goeldner (McIntosh, Goeldner, & Ritchie, 1995) that tourism policy is a group of regulation, goals, and promotion strategies, and it provides a specific framework for collective and individual decision to develop tourism. Tourism policy constructs the rules of the game for the related stakeholders if they are engaged in the development. The rule defines the planning approach which the Government organizes. The Government of North Upstream Regency applies a comprehensive approach to develop tourism areas since National and Provincial tourism regulations stipulate the development.

Since the Nagara-Amuntai is planned as Regional Tourism Destination (RTD) by the issuance of Regional Regulation of South Borneo Provincial Number 11 of 2013 concerning the Master Plan of Tourism Development in South Borneo Province, so the North Upstream Regency has a development basis for creating the potency of swamp buffalo in Panggang Lake to be tourism area. The tourism development plan of Swamp Buffalo in Panggang Lake is supported by the establishment of the swamp buffalo farms area to be Regional Tourism Strategic Area (RTSA). It is stipulated by Regional Regulation of North Upstream Regency Number 12 of 2012 concerning the Regional Spatial Plan of North Upstream Regency 2011-2031. Because of the admitted tourism and spatial plan regulations, the Government is mandated by the regulations to develop swamp buffalo farms in Panggang Lake to be a tourism destination (Figure 1). Regional Regulation of South Borneo Provincial Number 11 of 2013 instructed the Government of North Upstream Regency to prepare the development strategies of tourism destination, tourism marketing, and tourism industry for swamp buffalo farms area in Panggang Lake as regulated on the Ministerial Regulation of Tourism Number 10 of 2016 concerning Guidelines to Preparation of Master Plan for Provincial and Regency or City Tourism Development.

Regional Regulation of North Upstream Regency Number 12 of 2012 has been prepared to accommodate the Master Plan of Tourism Development for South Borneo Province. The South Borneo Province mandates the swamp buffalo farms area to be developed as Potential Areas for Regional Economic Growth (PAREG). The mandate of Provincial Strategic Areas in Swamp Buffalo Farms Area is mentioned in Chapter V, Part Three, Paragraph 5 concerning Tourism Allocation Area, Article 28 that the tourism destination is plotted to be six hectares in Bararawa Village. The tourism concept is designed to be cultural tourism and artificial tourism attraction.

Implicitly Seyfi, Hall, & Rasoolimanesh (2020) argues tourism attractiveness development to consider the Memorable Tourism Experience (MTEs) and tourist experiences. Principally, both are interrelated, although yet different in connotation and extension (Mihalič, 2013). The significance of memorable tourism experiences provides several reasons for creating unforgettable tourism attraction, so the visitors embed the previous experiences stored in the memory. It is also argued that memorable tourism experiences would largely influence the decision-making process for revisiting the tourism destination (Seyfi et al., 2020).

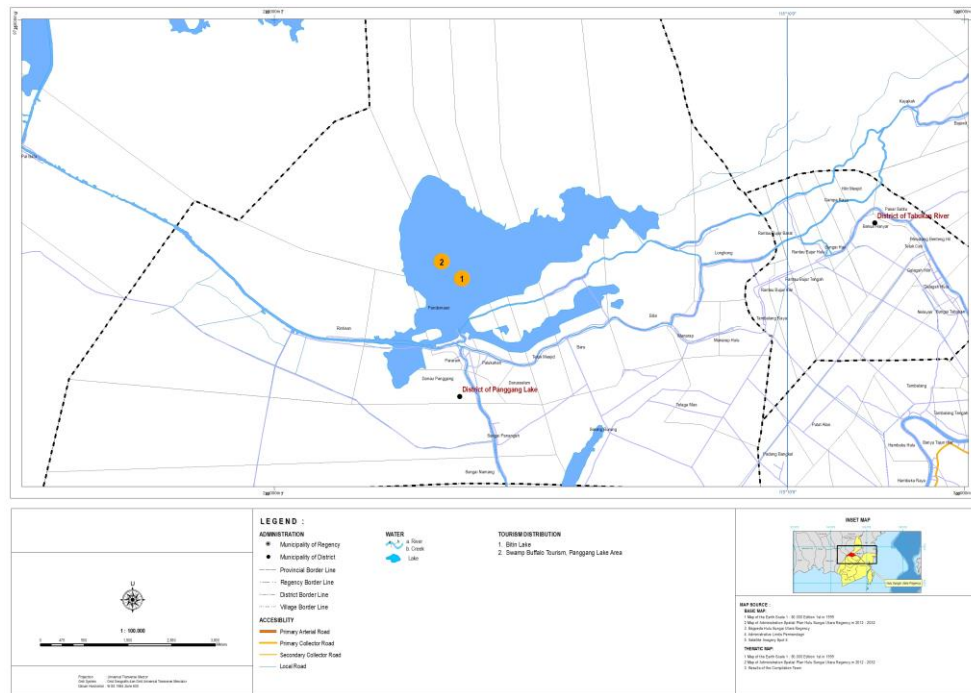


Figure 1. Tourism Destination in Panggang Lake Area

3.2 Attraction of Swamp Buffalo: Serial Times Movie

Development of attraction is aimed to give a high level of expression to a traveler, so they would come back and enjoy the attraction in futures. The importance of attraction is the authenticity and support of local communities to give traveler satisfaction which determines tourism destination competitiveness. Satisfaction is an important determinant of attractiveness as tourists travel to a destination to receive the destination experience (Baware et al., 2017).

As a unique commodity in the area of South Borneo Province, the sustainability of swamp buffalo is regulated by law. As germ-plasmas, swamp buffalo regions development needs the direction of development from the National, Provincial, and Regency Government. The direction would determine every action that is taken by the Government of North Upstream Regency in order to have a multiplier effect.

Local entrepreneurs and visitors informed that the attraction of swamp buffalo is highlighted to its behavior. The attraction is divided into four times of daily life: swamp buffalo in cote, get off the cote, grazing, and get in the cote. The uniqueness could generate tourists to come and to watch for a day. It is usually documented in pictures, videos, sketches, or documentation movies (Table 1).

Table 1: Swamp Buffalo Attraction in Panggang Lake Area

In Cote	The position of buffalo in cote always remains the place for each group. It helps farm owners to control the number of livestock easier. They control the buffalo every day at night after the buffalo rise and rest.
Get off the Cote	The buffalo has a leader in the group. The leader leads their group to exit from the cote, enter the cote, and be followed by other buffaloes. The group leader is the oldest male or the strongest male. Buffalo gets off in the morning between 7 and 9 in the morning.
Grazing	When the water is deep, buffaloes swim 1 to 2 kilometers for food, which lasts about 2 to 3 hours, and then buffaloes can rest on top of the cote or higher ground (can stand on the ground). In the dry season, buffalo graze until 9 or 10 a.m. They would find a place to wallow after 10 a.m. Besides not being able to stand in the heat, they avoid flies' attacks. The buffaloes would be back to grazing in the afternoon.
Get in the Cote	Buffalo starts to get in the cote at 4 p.m. The breastfeeding buffalo get in the cote on ± 5.30. On average, at 7.00 p.m., all buffalo are finally entered, except for the old buffaloes that saunter until 9:00 p.m.

Environmental-based tourism destinations, nowadays, become the most competitive models of tourism destinations. It could be a more effective attractor than an artificial tourism destination. However, it could be poorly developed without artificial attraction. Because of the infrastructure development in the tourism destination and climate change could be impactful for ensuring sustainability, so the regional design is growing in importance. Crouch (2011) suggests them as the most important competitiveness

determinant. It should be noted that infrastructure (roads, airports, electricity, sanitation, etc) should be purposely built for tourism use and supporting activity.

3.3 Development of Tourism Infrastructure: Does Infrastructure Matter?

Development of tourism destination in developing countries is begun since its attraction could generate many travelers because the most attractive tourism destination would give them a lot of return for its development. The development of tourism is explained by Hidayat (2011) as complex services (information, relative prices, transportation, accommodation, and attraction services) even Smith (1994) argued that service infrastructure in tourism is housed within the larger macro-environment or physical plant of the destination (Seetanah et al., 2011). The level, use, or lack of infrastructure and technology in tourism destinations (for example, transportation, water and power supply, computer technology and communications) are also visible and determining features that can enhance the traveler experience. Some authors show a similarity views with this opinion (Choy, 1992; Gunn, 1988; Smith, 1994).

Because tourism is a complex activity, so it should be looked at as a system. Aforementioned, tourism is inseparable from other subsystems (politic, economic, and cultural) that are interdependent and interconnected. The development of tourism infrastructure would positively and negatively affect tourism destinations (Buhalis, 2000). For instance, the development would raise Gross Domestic Product (GDP) and would support poverty alleviation, but on the other hand, it might be stimulating the environment degradable. The importance of infrastructure, more specifically transportation as an essential component of successful tourism connectedness in that it induces the creation of new attractions and the growth of the existing ones, is a big part of the tourist equation. Tourism connectedness could provide travelers to get to and around in tourism destinations (Brent, Ritchie, & Crouch, 2000).

Swamp buffalo, as one of the tourism destinations in Panggang Lake Area is provided to multimodal transportation. The location is placed on a swampy area in Berarawa Village with no support of road transport infrastructure. Travelers have to drive about 40 minutes from the urban center to Panggang Lake District and continued by motorboat or speed boat as they arrived at the port of Panggang Lake Area. Multimodal transportation spent many budgets; consequently, the rate of visitation is competitive less than nearby destinations. Tabalong Regency and South Upstream Regency have several traveler visitations in South Borneo for 2017 show that Tabalong has 6% of South Borneo traveler visitation for a year, South Upstream Regency has 2%, and North Upstream Regency has 1%.

Successful tourism destination needs more intensive investment in sophisticated infrastructure. The major complexity of infrastructure development is in the classification (Lew, 1987). Due to the certainty degree of tourist number visitation projection, it is crucial to determine the priority of development. A higher level of tourism infrastructure development could effectively increase tourism services production and increase tourist number visitation (Blazeska et al., 2018; Jovanović & Ivana, 2016). In this regard, tourism infrastructure investment could improve competitiveness.

3.4 Social Conflict: Farm Owners Decision

Policy for tourism development contains a complexity of dimensions. The implementation involves several actors interested in the targeted group (Evita, Sirtha, & Sunartha, 2012). The potential conflict would already have arisen when the interest is unsuccessfully achieved. Scholars see conflict as the barometer in social dynamics, and it adheres to modern society. Ibnu Khaldun elaborates perspective of conflict to clustering the emphasis. Four major factors affect conflict in society: psychological, political preferences, economic situation, and regulations (Evita et al., 2012; Prideaux, 2000).

Conflict of interest between tourism and farms in Panggang Lake Area compels the farm owners to maintain a wide range of services. Producing meat for the market and making the engaging experience, particularly for a young traveler, are connected to watching the behavior of swamp buffalo. Owners earned 54,21% of their income by selling the meat of swamp buffalo (Mahrudin, 2010). Aforementioned, farms of swamp buffalo have been doing for generations and have been becoming primary income for local people, so tourism is becoming important issue for them. Owners understood that intensifying the production of swamp buffalo to earn more income is less possible because the value of primary economic sector product (farms) is lesser than a secondary or tertiary economic product generated by tourism. However, owners thought that job shifting could be the most dangerous speculation for them.

Refer to existing regulations, the Government of North Upstream Regency has been mandated to create swamp buffalo tourism as regional economic development in Panggang Lake Area. The mandate is hierarchically stated by regulation at North Upstream Regency, South Borneo Provincial, and National. It mandates the Government of North Upstream Regency to guard the sustainability of germ plasma sources and develop swamp buffalo as germ plasmas to be natural tourism attractions.

Modern tourism development prefers to create equity and justice for all groups, and none be left. Several models of tourism for justice have emerged (Barton & Leonard, 2010). Well-organized development tourism would improve individual and community benefits. For those purposes, community-based development (bridging the local) and sustainable tourism are principles of good governance. Community empowerment and capacity building shall be considered to be treated. It should be undertaken alongside supporting socio-economic and political justice (Giampiccoli & Mtapuri, 2020; Isaac, 2017). Local control is the supra-structure in community-based development because the venture is alien without

it. By the consideration of social justice, tourism development would spread the ideal context of equality, cooperation, and solidarity between hosts and visitors where no one is superior over the other.

3.5 Finding the Concept for Farm and Tourism Activity Harmonization

Tourism gives a more favorable outcome in the complexity of conservation area development. Being germ plasmas in Northern Upstream Regency, the development of swamp buffalo behaviour as a tourism attraction would positively endemic animal conservation and raise income for community and Government (Fatimah & Andora, 2014). Because the farm of swamp buffalo has been doing for generations and has been becoming primary income for local people, the tourism infrastructure development must consider the farm activity requirements. Government plays the most important role in determining the policy of development. However, the harmonization of farm and tourism activity would already have been achieved if the government encouraged local people's engagement during the planning and development process. Educate owners, local investors, and travelers about tourism in conservation areas, prioritize the quality of conservation area, and invest in alternative accessibility (Amat & Abdullah, 2004; Noor, 2007).

Tourism based on swamp buffalo watching would already have developed as an important funding source for the project and economic benefits for local communities. However, not all sites have the same potential for tourism. For balancing, a system has been developed in which sites with low tourism potential provide products for sale at those with more significant tourism potential, and the revenues from sales of these products are returned to the sites that produced them (Figure 2).

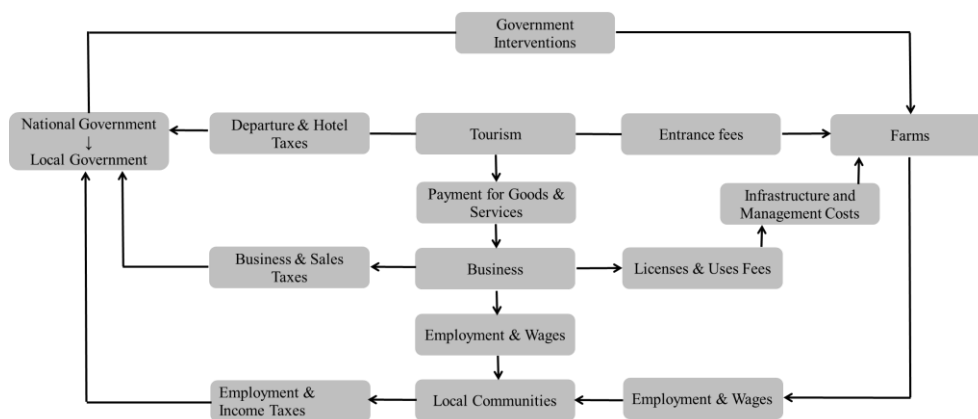


Figure 2. Financial Model of Infrastructure Development Associated with Tourism and Farms

The economic value of swamp buffalo watching tourism is based on tourists' direct expenditure on their swamp buffalo watching trips, which is relatively simple to measure, and do not include the value of other important economic benefits generated as a result of direct expenditures on swamp buffalo watching tourism. These benefits include the stimulation of supporting economic activities, promotion of tourism to a country or region, and the value of environmental services that are protected due to the incentives that swamp buffalo watching tourism supports the farm activities.

To ensure the tourism concept in Berarawa Village (North Upstream Regency) could support farm activities and reach equity and political justice purposes, local control is required. The importance of local people in watching tourism concept development are as follows: (1) the natural and cultural resources are utilized as a tourism area, traditionally controlled and managed by the local community (local resource); (2) local people have local responsibility (local accountability) because their activities will directly affect their lives; (3) local people feel ownership for the natural resources, so it will be a growing awareness within the community to participate in preserving the environment; and (4) with the growing awareness of the community in the development, it will help the local people in the provision of employment and improve their standard of living so there will be no dependencies.

4. Conclusion

Policy in tourism is designed to support the quality of traveler experiences and give some profit to related stakeholders. In North Upstream Regency, farms of swamp buffalo have been doing for generations and have been becoming a pearl for local people. Because the morphology of the Regency is a swamp (42%), swamp buffalo is important for the local family economy. Nowadays, intensifying the production of swamp buffalo to earn more income is less possible because the value of primary economic sector product (farms) is lesser than a secondary or tertiary financial product generated by tourism. The tourism development of swamp buffalo has highlighted its behavior as an attraction. The development is becoming important for owners because they thought that job shifting could be the most dangerous speculation for them. As an attraction, the unique swamp buffalo behavior is formed by their adaptation process to live in the swampy area of Panggang Lake Area, so the Government of Northern Upstream Regency has to develop tourism infrastructure thoroughly. Although the Government plays the most

important role in determining the policy of development, the harmonization of farm and tourism activity would already have achieved if the Government encouraged local people's engagement during the planning and development process. Educate owners, local investors, and travelers about tourism in conservation areas, prioritize the quality of conservation area, and invest in alternative accessibility. Tourism based on swamp buffalo watching would already have developed as an important source of funding for the project and economic benefits for local communities to harmonize infrastructure development for both activities.

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