

Planning Area Design of Agro-Tourism in Bukit Raya Village, Kutai Kartanegara Regency, East Kalimantan Province

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Abstract— The Government of Kutai Kartanegara (Kukar) Regency has decided the tourism sector as one of the mainstay sectors in increasing regional income, with indicators of the number of visits and movements of tourists and the average stay at Kukar accommodations during tourist activities. This is in line with the national program which explains that the tourism sector has played a significant role in the national economy for approximately the last five years (before the spread of Covid-19) seen from the growth in the number of foreign tourists every year. This opportunity is certainly a consideration for a group of farmers from Bukit Raya Village who see tourism potential in their agricultural area. So, after a preliminary survey by the Research Team, the results are very interesting with the potential for agricultural land that is quite large and neatly arranged, Bukit Raya has the opportunity to be developed into the largest agro-tourism Area in East Kalimantan with Mina Padi as its superior product. This research is aimed to design an agro-tourism area with marking map technique and site plan output using descriptive-qualitative research method. The result of the analysis is to produce a complete Bukit Raya Village agro-tourism area design output.

Keywords—*Tourism Village; Agrotourism; Design; Marking Map; Site Plan*

I. INTRODUCTION

In Indonesia, the tourism sector has played a significant role in the country's economy for

approximately the last five years (before the spread of Covid-19) seen from the growth in the number of foreign tourists every year [1-2]. Thus, UNWTO (United Nation of World Tourism Organization) and Law no. 25 of 2000 concerning the National Planning Program emphasizes tourism as a leading sector which is the key to regional development and improvement of community welfare, which has functions and roles, namely: Pro-job; Pro-growth; Pro-poor; and Pro-environment [3-4].

These four things initiate the emergence of a community-based tourism approach as an alternative to sustainable development by involving the community as an active subject for every tourism development activity in the region [5-6]. The concept of the Agrotourism Village is a representation of community-based tourism development which is expected to accelerate economic, social, cultural and environmental growth in the village [7]. Tourism village can be interpreted as an integrative form of several elements of tourism including attractions, accessibility, and amenities that are presented in one geographical area through a community structure that is comprehensively integrated with unique life, customs and traditions [8].

In line with the above thinking, the Government of Kutai Kartanegara Regency translates tourism as one of Kukar's mainstay sectors in increasing Regional Original Income (PAD), with indicators of the number of visits and movement of tourists in Kukar's tourist

destinations and the average stay at Kukar accommodations during tourism activities. [9].

A group of Farmers from Bukit Raya Village sent an application to the Research Team to conduct a tourism potential survey on February 2, 2021. Based on the identification results, Bukit Raya Village has tourism potential that can be developed into a tourist attraction, the details of which will be presented in the Research Results Chapter. [10]. However, the problem is that the community and the Bukit Raya Village Government do not yet have a clear picture of the design for the development of the tourism sector. So they need help from a third party to help design together the Bukit Raya Agrotourism Area Design and its derivatives.

II. LITERATURE REVIEW

2.1 State of Arts and Roadmap of research

This research will focus on the analysis of tourism potentials based on rice farming which is carried out with a community-based tourism approach through direct field surveys. This method is carried out by living together as a community in Bukit Raya Village, so that researchers are directly involved with various daily activities of the community. The development and development of an ideal tourist village must pay attention to the concept of sustainability which refers to Basic Thinking as a State of The Art based on agricultural attractions and local community. Basic thinking will provide an initial understanding of the simple procedure for developing a tourist village, but of course the framework must be described in detail because it is still general [11].

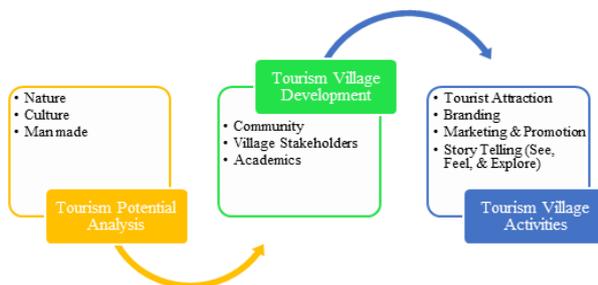


Figure 1. State of The Arts and Basic Thinking of Research

Source: *Kemenpar Tourism Village Development Guidebook*

Based on the basic thinking above, the researcher formulates a roadmap that will be a guide in a series of research processes in the field. This roadmap has also been combined with some literature including the strategic steps formulated by the Ministry of Tourism in the tourism village development guide. An explanation of the research roadmap is presented with a diagrammatic image for convenience. The roadmap below is used by researchers to see the potential of

villages from various fields (nature, culture, artificial), namely [12]:

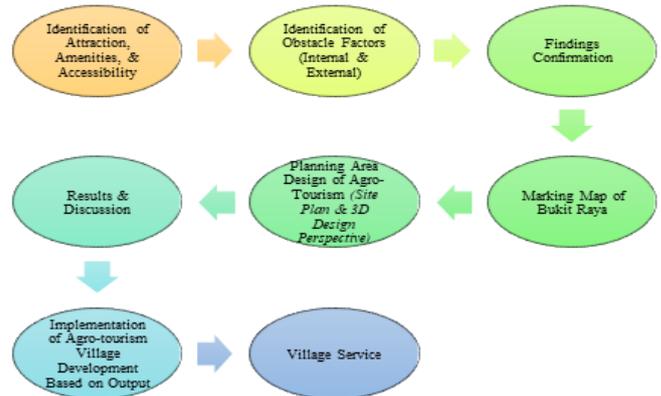


Figure 2. Research Roadmap

Source: *Journal of Edutourism*

2.2 Theoretical Basis

This study uses basic and applied theories accompanied by clear definitive concepts as an analytical tool to obtain objective and accountable research results in the process of extracting agricultural-based tourism potentials which is carried out with a direct approach to the community.

1) Agro-Tourism

Agritourism is a business model that is growing in popularity as Indonesian farmers recognize a need to diversify their operations and supplement their farm incomes. In addition, there is a growing public desire to engage in rural experiences and outdoor recreational activities. By combining agriculture and tourism, agritourism offers rural experiences to urban residents and economic diversification to farmers. Planning for agritourism requires a forward-thinking, locally-driven process. Planners must acknowledge agriculture as a land use and a business. It is generally understood to be a business model that links agricultural production/processing with tourism in order to attract visitors onto a farm, forest, or other agricultural business for the purposes of entertaining and/or educating the visitors and generating income for the farm, forest, or business owner.

2) Tourism

Naisbitt (1997) and Hermantoro (2015) explain that tourism is a development domain and not a development sector, because a domain contains the space of various sectoral support activities. Tourism is built on the synergy between sectors and their outputs so as to produce collective outputs. Thus, tourism is likened to an orchestra led by a conductor to several musicians by using scores as a sign of direction. Hermantoro (2017) illustrates that in order to produce "Wonderful Indonesia" music, the conductor (Kemenpar) must be able to direct and move his sheet music (tourism master plan) which is easily

understood by musicians (sectoral/tourist actors) in accordance with their respective expertise and duties [13] -16].

3) Tourism Potential and Attraction

Humans can be classified into the homo touristicus group, because of their nature who likes to travel to seek new knowledge and interesting and challenging things. The potential for tourism (tourism resources) is commonly referred to as tourism resources which are the superior seeds of tourism that have not been managed properly, so they cannot be visited by tourists in significant numbers. This potential will turn into a tourist attraction when it is managed properly and can be visited by tourists in significant numbers [17]. Meanwhile, tourist attractions are briefly described in Law no. 10 of 2009, that tourist attraction is based on nature, culture (tangible and intangible), and artificial which is a destination component that can be distinguished from other types of tourism destination components such as public facilities and tourism facilities, accessibility, and community [18].

4) Tourist Village

The tourist village is an embodiment of the concept of Community Based Tourism (Community Based Tourism). In this concept, local communities have an important role in tourism activities so that local people can enjoy the benefits of tourism, not just being tourist objects or spectators. The 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 applicable procedures and traditions. This is one of the solutions taken to improve the welfare of rural communities through the development of tourist villages [19]. Tourism village as a tourism product that involves members of the village community with all the devices they have. Tourism villages not only affect the economy, but also can preserve the natural environment and social culture of the community, especially with regard to the values of togetherness, kinship, and mutual cooperation. Thus, the preservation of nature and the socio-cultural community will be an attraction for tourists who travel [20].

5) Community-Based Tourism

In general, community-based tourism is referred to as community-based tourism. Community-based tourism is a concept of developing a tourist destination through the empowerment of local communities. Where the community takes part in planning, managing, and conveying opinions. This type of tourism is an alternative to mainstream tourism that already exists today. CBT must take into account aspects of environmental, social, and cultural sustainability because in its application it functions as a tool for community development and environmental conservation or in other words CBT is a tool for sustainable tourism development. Communities

involved in tourism activities with the CBT approach have great control in their involvement to develop and manage tourism activities that are able to provide economic benefits not only for the people who are directly involved, but also benefit the people who are not directly involved because it causes a multiplier effect. multiplier (21).

III. RESEARCH METHODS

1) Research Stages

The stages of the research that will be carried out adopt the 9 strategic steps that have been formulated by the Ministry of Tourism, namely:

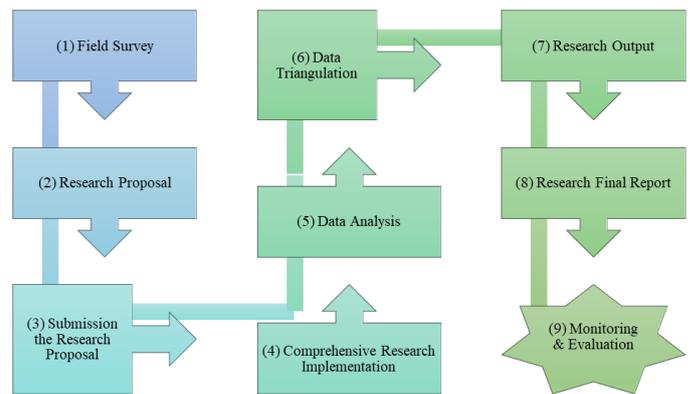


Figure 3. Flowchart of Research Stages [11]

Source: Ministry of Tourism

2) Research Subjects and Objects

The subjects in this study include people who are directly involved and private parties with an interest in the development of tourist villages as informants, including: Village Heads, Traditional Leaders, Community Leaders, Youth Leaders, Bukit Raya Community, Kukar Regency Government, Kukar Tourism Office, Private Parties (PT. BBE), and previous researchers who can be reached.

The object studied in this study is the structure of the life of the people of Bukit Raya Village as a whole which is identified based on the concept of dividing tourist attractions, namely natural, cultural, and artificial to then be converted based on the criteria for developing a tourist village with the formula 4A + 1C, namely attraction, amenities, accessibility, ancillary, and community involvement.

3) Data Collection Techniques

a. Deep interview

The interview technique used in this research is an in-depth interview which will be conducted on the subjects and research samples that have been determined above. However, in-depth interviews will also be carried out flexibly if in field research the

researcher finds new research subjects/samples that are considered relevant and related to the research topic [23].

b. Observation

In this study, observations were used to find data on the potentials of agriculture-based tourism in Bukit Raya Village as an initial study of the development of the Agrotourism Area. Researchers observe the phenomena that occur in the object to be studied and the narrowing of the problems that will be used as research [24-25].

c. Literature Study

Researchers will use several kinds of documents related and relevant to this research, namely: books (printed or online), scientific journals, related articles (online and offline), Indonesian & English dictionaries, credible blogs, newspapers, previous theses, and some of the author's personal notes.

4) Data Analysis Techniques

The researcher uses qualitative data analysis techniques with the Miles and Huberman model, which is described as follows:

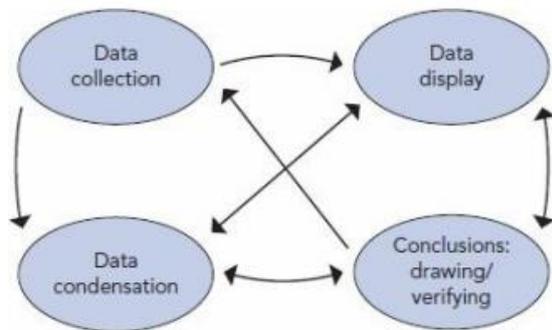


Figure 4 Miles & Huberman Data Analysis Techniques [26-27]

Source: *Qualitative Data Analysis Book*

5) Research Aids

a. UTM Geo Map App

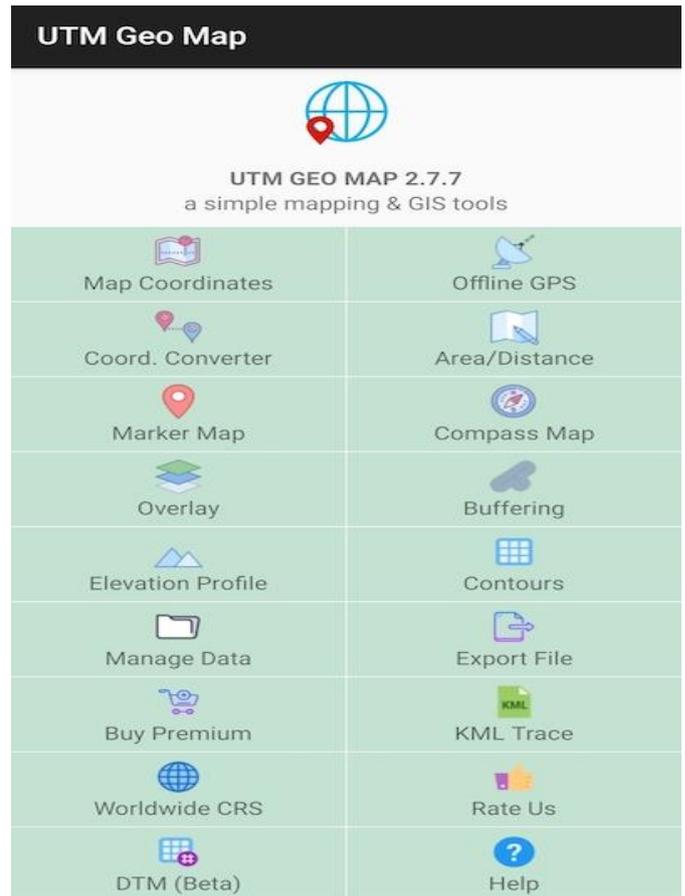


Figure 5 Main Page UTM Geo Map

Source: <http://www.yogantara.com/>

UTM Geo Map is an android application that can help work to determine Coordinates, Maps, GIS, and Spatial Analysis. So, this application can be the initial data to determine the location of the coordinates and mark / name tourist objects in Bukit Raya Village with the help of satellite data. So that this process can make it easier to make an Interactive Map of Agrotourism Destinations in Bukit Raya which is equipped with information needed by visitors [28].

b. Realtime Landscaping Architecture Software

A computer-based software used to design houses, decks, fences, gardens, and others with complete additional features and tools. This software can also design irrigation systems, naming details, and CAD drawings with accurate sizes and scales [29].

IV. RESULT AND DISCUSSIONS

1) Site Description (Bukit Raya)

Bukit Raya Village is the village with the smallest area of 10.10 km² or only 2.28% of the area of Tenggara Seberang District.

2) The Planning Process

Communities that have an interest in diversifying their native merchandise and economy, acknowledge the necessity to support agricultural operations and arrange for agritourism. This agritourism coming up with ought to be a part of a community's comprehensive planning method between stakeholders and communities in Bukit Raya, which might offer a foundation for agritourism efforts, with associated goals for the future. If a community already has an adopted comprehensive plan, it might be amended to incorporate agritourism. Due to the distinct characteristics, attitudes, and values between communities a comprehensive plan that works for one won't essentially work for another. An honest comprehensive plan reflects the local culture in agriculture and helps accomplish a singular community identity as a farmer whereas making certain that the wants and wishes of all residents are thought of to be priority programs [30].

Farmers, planners, interested citizens, and electoral officers should work along to make a vision for the community and develop plans and implementation tools. throughout the design process, it's necessary to confirm that monetary and restrictive edges and burdens are allotted equitably. every community can get to strike its own balance in accordance with its characteristics, attitudes, and values. With a shared vision of protective agricultural lands and promoting agritourism, farmers, planners, citizens, and native officers may be robust partners in planning.

Public-private partnerships can even offer support for the design process. Federal, state, and local laws and different choices can directly impact local agricultural uses. For example, Bukit Raya village provides agricultural operations protections that come after local ordinances. Furthermore, expenditures by federal and state programs for roads, water, sewer, and different kinds of development can have vital impacts on agriculture in a very community. To the extent possible, integration of local, state, and federal policies is essential. every community should verify the suitable balance of planning laws and incentives. The balance should be supported the general price of the varied tools in respect to the on the market resources. The cost-effectiveness of assorted approaches ought to be analyzed over the future to work out that ways be for agritourism in a very given community.

3) Zoning

In promoting agritourism, the community of Bukit Raya Village should not lose balance between legitimate concerns for public health, safety and the welfare of local authorities; preservation of the rural character of the county; and provide opportunities for the growth of sustainable tourism in rural areas [30]. Planning ordinances are the main tool for implementing the overarching plan and an important

tool in maintaining this balance. Planning can help achieve community goals by regulating land use, use intensity, and development standards (eg, parking, security, and signage). Household rules or local control are the backbone of land use planning in Bukit Raya. Specifically denied or reserved by Bukit Raya Communities. A high-impact use should require a public review of the proposed agritourism activity. For example, Hancock County passed a zoning ordinance that differentiates between types of agribusinesses based on the intensity of their use.

4) Design Approach & Methods

In order to create a concrete and definite result in the process of architectural design of the center of pink agritourism in Bukit Raya, a combination of design methods was used with the popularization of the concept based on ideas. Design can be used and performed in all subsequent stages. The idea of growing rice and other plantations (fruits and vegetables) as a tourist attraction and cross-cultural exchange is new to East Kalimantan, with a few exceptions. Foreign farming plantations in the province mainly grow vegetables and fruits, and flower cultivation is more or less neglected. For this reason, a concept-based approach to design provides an opportunity to transform an idea into an exotic design, while a pattern-based approach can be used as a cost planning tool. The method uses the key characteristics of the rice and other plantations, such as: the shape, color and outline [31].

The sample-based method is used as a finishing tool and identifies possible characteristics used directly from previous design experience, such as room standards and programmable design style features.

The "Marker Map" function in the main menu of UTM maps can be used to mark potential objects in the development of agritourism in the village of Bukit Raya [28]. On February 2, 2021, the team conducted an initial survey for field research, and the results of possible object markers in Bukit Raya village are as follows:



Figure 6 Initial Marking Results for the Potential of Bukit Raya Tourism Objects

Source: Data processed

After conducting a field survey, the researcher has made an initial design (site plan) for the Bukit Raya Agrotourism Area but it is still in a trial version, [29] so it can still be developed into a premium version, as follows:

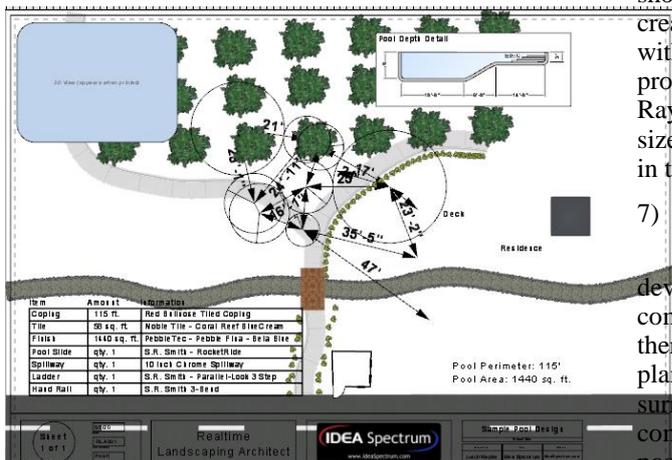


Figure 7. Initial Design of the Bukit Raya Agrotourism Site Plan

Source: Data processed

5) Agro-Tourism Design Ideals

This type of land use is designed to facilitate the continued use of the property for agricultural purposes and in open areas. If we want non-agricultural development to be desirable, its impact on natural areas and neighboring agricultural and agricultural

activities must be minimized [32]. Suitable for all agritourism developments outside the urban service area:

- Minimize logging, backfilling and road leveling.
- Grows directly on geological features such as rocky outcrops or slopes.
- Take advantage of significant failures and concentrated non-agricultural uses and structures.
- A large area of land with a minimum of acres is required, with a small percentage of the site likely to be set aside for non-agricultural purposes.
- Non-agricultural uses should be located far from each other so that their concentration does not affect the agricultural character of the area.
- High quality architectural design and site planning using design themes that incorporate structures consistent with the characteristics of open rural space in the area.

6) Agro-Tourism Category

Suitable uses primary uses agriculture and other agricultural uses including livestock raising, equestrianism, barns and housing [32]. Combined reuse rural and agricultural development residential area over large areas. Desired location and characteristics business, tourism and agricultural development should minimize its impact on natural areas, open spaces and agricultural activities in Bukit Raya. Uses should not be concentrated in parallel, but should be concentrated in one area of the county to create a symbiotic relationship between these uses and with sufficient concentration to continue creating and promoting activities. On figure 7 of this plan in Bukit Raya Village. It should be noted that an acceptable size for this land use does not mean that all properties in the area are suitable for this use.

7) Potential Obstacles

While it is highly likely that agritourism development can be successfully integrated into local communities of Bukit Raya without major disruption, there are some potential challenges. Agritourism planning requires attention to potential impacts on the surroundings and the competing interests of farming communities. Residents are often worried about possible noise, traffic and offenders, because these impacts can change the general nature of the community [30].

There are also a number of tools that can be used to reduce potential obstacles. Noise levels can reduce the quality of life of neighboring landowners. In general, the noise level in rural and agricultural areas is lower than in urban areas, this quiet environment is a characteristic part of rural areas, however, agricultural activities can also be very noisy. Cars, equipment, trucks and animals make different sounds.

When considering whether to approve an agritourism, local planners should determine if the noise from agritourism is similar or different from the noise commonly found in rural and agricultural areas of Bukit Raya. If the noise is not typical of the surrounding area, local planners should consider whether the activity will be daily, seasonal or eventful. For other companies, increased traffic can also be a problem for neighboring landowners.

Local governments can use a traffic management plan to determine expected vehicle volumes and any expected public road use to identify potential traffic impacts. To minimize additional road traffic hazards, agritourism activities at Bukit Raya Village should provide adequate off-street parking. The pedestrian crossing is of concern to both agritourism service providers and neighboring landowners. Operators should regularly check areas where access is prohibited. In order to restrict illegal entry of neighboring landowners, agritourism providers may post no-intrusion signs at parcel boundaries. The placement of such marks constitutes a reasonable and reasonable attempt to protect neighboring property owners from greater liability.

The future of the community, others felt anger and uncertainty in the planning process. In addition, farmers in Bukit Raya have several interests in their property that may conflict with each other. The concerns of farmers who are concurrently employed landowners, business owners, taxpayers, and community members may vary by subject. For example, a farmer actively outsourcing his activities to the younger generation may support policies that restrict off-farm development. On the other hand, farmers who plan to leave the industry in the near future are likely to emphasize their interests as landowners in order to maximize the value of their property. Different types of farms can also have different priorities. Communities must take into account local diversity in agriculture to ensure that all benefits are accounted for.

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