Design of Savana Hills Ecotourism Tracking Route in Pulisan Village, Likupang Regency, North Minahasa

(Perancangan Jalur Ecotourism Tracking Bukit Savana di Desa Pulisan, Kecamatan Likupang, Kabupaten Minahasa Utara)

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ABSTRAK


Kata kunci: perancangan, ecotourism, tracking, bukit savana, Pulisan, Likupang

ABSTRACT

The community service program with the students focuses on Pulisan Village, which is in the Likupang KEK (Special Economic Zone) area and a super-priority tourism destination. Pulisan has many attractions, including beaches, islands, and sea. However, Pulisan also needs new tourist attractions, specifically terrestrial tourist attractions, to distribute tourist visits well. Therefore, a community service program with students is carried out in collaboration with partners, namely tourism care groups entitled Designing the Savana Hill Ecotourism Tracking Route in Pulisan Village, Likupang, North Minahasa Regency. The method used was direct assistance to the community, in this case, the Pulisan Village tourism awareness group responsible for developing the Pulisan Tourism Village. The design of the ecotourism tracking route used mapping technology to determine the direction and location points created, as well as stopping points along the Pulisan Savana Hill tracking route. With the Savana Hill tracking route, tourist visits are focused on the sea, islands, and beaches, and they are distributed to Savana Hill using the designed tracking route. The community service program with students resulted in an output, namely the design of a tracking route with three stopping points (shelters).

Keywords: design, ecotourism, tracking, savanna hills, Pulisan, Likupang

INTRODUCTION

Pulisan Village has become well-known, and it is intensively promoted by various parties, as evidenced by its profile on many social media. Pulisan Village is one of the most outstanding villages in Indonesia, proven by winning second
place in the 2021 Trisaksi Tourism Award in the tourist village category with favorite videos chosen by netizens with 3,650 likes on the Trisakti Award Instagram account (Herdiana 2022).

This award is carried out to increase village potential and encourage the acceleration of National Economic Recovery (PEN). Apart from that, it is also expected that the Trisakti Tourism Award will encourage local governments to advance the tourism sector and creative economy in Indonesia, especially the construction and development of tourist villages. This community service program with students was conducted in Pulisan Village, especially in Bukit Savana. The results of the initial survey found that the road to Savana Hill already had simple signboards. However, after tracing the tracking route, the route up to Savana Hill still needed to be better organized and without stopping points or shelters. It makes the visitors need help to enjoy the beauty of the hill properly. According to the field trip results, there is no specific tracking route that visitors and tourists can follow, so the route is irregular, and visitors cannot climb the hill irregularly (Figure 1).

Figure 2 shows that visitors or tourists can follow no specific route, so the route is irregular, and mountain climbers can climb the hill randomly. Therefore, designing a good and directed tracking route with the necessary signage towards the top of Savana Hill is necessary. The objectives of this community service program with students are to: 1) Help the community to develop Savana Hill Ecotourism Tracking in Pulisan Village; 2) Increase environmental preservation in Pulisan Village while designing Savana Hill ecotourism attractions; 3) Increase community competence in utilizing the natural environment into ecotourism-based attractions. Furthermore, for the sustainability of creative information service activities in the natural tourist attraction, the participation of other stakeholders, such as the private sector, is needed, which can facilitate tourism awareness groups in the Savana Hills area with better information service media (Putra et al. 2020). More intensive control is needed from tourism awareness groups through information service media so that their existence can be maintained and damage can be managed.

Ecotourism is environmentally friendly tourism, meaning activities responsible for nature, empowering people to increase environmental awareness (Setyaningsih, 2013).
surfing); extreme (mountain climbing and paragliding); and hunting (hunting and wild boar); 3) Cultural and historical tourism: isolated tribes (Rimba people and Kanekes people); handicrafts (batik and carving); historical remains (temples, inscribed stones, and colonial forts); and 4) Research tourism: data collection on flora and fauna species (insects, mammals and so on); data collection on natural damage (volcanoes, tsunamis, deforested land, and land pollution).

Ecotourism is also explained as a tourism management concept that prioritizes the utilization of ecosystem services without having to modify natural resources, which can reduce the role of natural objects or change the natural landscape (Yulianda 2020). Ecotourism combines various interests that grow from environmental, economic, and social concerns. Meanwhile, according to the language dictionary, ecotourism is a form of tourism that pays attention or is in line with conservation activities (Taufik 2013). Fennell (2003) explains that ecotourism is a form of sustainable tourism from natural resource-based tourism with the main focus on experiences and learning about nature that is managed by minimizing impacts, non-consumptive, and locally oriented (control, profit, and scale). According to Asmin (2018), ecotourism is a form of tourism that prioritizes learning experiences and appreciation for the environment or some of its components related to natural and cultural contexts. Additionally, increasing public knowledge through outreach (Syafikri et al. 2019) is expected to allow the community to participate in tourism development actively.

Pulisan Village is included in the Likupang SEZ area that is being developed into a super-priority tourist destination by the Ministry of Tourism and Creative Economy. The underwater world’s views and the beaches’ beauty are stunning. One of the most popular is Pulisan Beach, which has white sand and calm waves. However, more than the attractions currently available are needed to meet the needs of visitors and tourists. The community service program is to design a tracking route for the Savana Hill ecotourism. Design is the stage that must be carried out before creation or implementation, with the ability to create several alternatives for solving problems (Rahmasari, 2019). Design is the process of defining something that will be done using various techniques, and it involves a description of the architecture and component details as well as limitations that will be experienced in the work process (Adiguna et al., 2018).

Hill tourism is a primary part of the revenue gain of any destination compared to other forms of tourism (Hasan 2023). Tourists are attracted to hill destinations for several reason: climate, clean air, scenic beauty, heritage, history, unique landscape, wildfire, culture differentiation, and experience (Limmet et al. 2017). A hill is a form of land higher than the ground surface. One of the attractions is an existing tourist area that can be designed to be an exciting attraction. Hill tourism has natural charm in the form of a stretch of open area that can be used as a tourist spot. Savana Hill has excellent potential to be designed as an ecotourism-based hill attraction. The proposed community service program focuses on Savana Hill as an attraction for creating tracking routes, both down and up, that visitors or tourists can traverse. A tourist attraction can be natural, built, or engineered potential that is the focus of tourism development. This attraction can be displayed in various forms of tourist attractions on offer. One form of tourism with an attraction is village tourism. In a tourist village, there can be various tourist attractions. The attraction of a tourist village is a combination of its people’s social and cultural activities. This natural potential can be developed in a complete and varied package, making it attractive to visit as a superior and competitive tourism destination. All local tourism stakeholders will support all Savana Hill ecotourism development to strengthen Likupanag as a super-priority destination.

Tracking is a sports tourism activity with sporty characteristics that physically leads to a healthy lifestyle with the tourism elements. (Dewi et al. 2021). One of the tourist activities that is currently popular with foreign tourists is mountain tracking. Foreign tourists often carry out mountain tracking activities. This can be seen from the increasing number of tourists undertaking mountain trekking. The number of tourist visits carrying out mountain tracking activities has increased over the last four years. The Ecotourism tracking in the Philippines (Lucena 2018) is managed to help authorities monitor and evaluate the actual activities of resorts, recreational, and tourism sites about their friendliness to the environment and adherence to the principles of ecotourism.
METHODS OF IMPLEMENTING ACTIVITIES

Location
The community service program with the students focuses on Pulisan Village in the Likupang tourist village. The activities focused on the Savana Hill Ecotourism Tracking Route in Pulisan Village, Likupang, North Minahasa Regency. However, the planning design of Savana Hill is required to integrate tourism into the context of land use planning, which is essential within the area. Physical planning for tracking Savana Hill is seeking a vision for the spatial development of Pulisan by identifying a favored pattern of land use where the procedure is done at the local or regional level. This contrasts with market-oriented tourism planning, typically done at the regional level or above.

Instrument Used
Land use planning aims to initially manage a spatial interpretation of development challenges as a process of creating a strategic vision for a region that reflects the objectives and aspirations of a community (Dredge, 1999). Planning is then implemented by determining desirable land use patterns and suitable development designs. Planning and designing the ecotourism tracking route to Savana Hill used mapping technology to determine the direction and location points created and stopping points along the Pulisan Savana Hill tracking route. The design of the Bukit Savana map with three shelter points used the Google Map Pro application, with a drop pin feature that was then combined and exported into a KMZ file.

Delivery Method
How planners define their roles and view themselves has been dramatically impacted by issues like sustainable development and community consultation (Forrester 1989). They are gradually expanding their responsibilities beyond a narrow bureaucratic role to include a variety of additional factors previously seen to be outside of their purview, such as public opinion, business and economic interests, and environmental preservation (Dredge, 1999). Design for Savana Hill in Pulisan Village is done through a community service program involving four students as part of implementing the MBKM (Free Learning Campus Independent) program. Natural and cultural resource management, which locals and communities frequently treasure, can help develop components for fresh visitor performances (Beritellia, 2020). In this PPM-Student activity, the proposing team consists of some stages, namely:

Preparation stage: In the preparation stage, several things must be done, namely, conveying the objectives achieved after the demonstration process for designing the ecotourism tracking route. At this stage, the tools and materials used and how the work is planned were explained.

Implementation stage: Starting the implementation with action by all participants following the course of the activity by paying attention to everything the team members did. Participants can actively think further at this stage according to what they saw from the initial process. The program was also important to implement with the community by using activities carried out by mentoring (Tosida et al. 2015) and ongoing monitoring through discussion, field surveys, and interviews.

Observation results: After the entire team had completed the implementation of the ecotourism tracking route, then an expert acts as a resource person, the mangrove planting process ends by giving the participants time to do it themselves until the goal was achieved, namely planting their mangrove seeds using appropriate methods that the resource person has explained. Then, the proposing team and partners will monitor further results. The activities with monitoring and evaluation carried out mentoring. In this assistance process, the service team provided direction in designing the Savana Hill tracking route directly in the field, including determining stopping points for attaching shelters and mapping.

Data Collection and Analysis
The method for implementing PPM-Student program activities used primary data collection procedures through field observations and interviews with eight members of the Tourism Community Group as key informants. Meanwhile, secondary data were collected through documentation of Pulisan Village information with a direct visit to the Chair of the Pulisan Village’s tourism care group, locally called POKDARWIS. The data analysis techniques used were data reduction, presentation, and verification. Surveys and interviews were conducted to see the development of existing tourism potential that has been developed.
previously, as well as the innovation potential that the Budo tourist village management will develop. FGD (Focus Group Discussion) with 10 participants was carried out as a forum for discussion regarding tourism village problems and finding solutions to the problems of developing the Pulisan tourist village. Apart from that, triangulation was also used through the process of analyzing existing situations and conditions and partner problems as well as offering solutions based on the results of existing analysis, namely: 1) The resulting product can be used as a reference or guideline for developing ecotourism attractions tracking of Savana Hill and in other places; 2) Carry out these PPM-Student activities together after mutual approval with partners by the schedule and time specified in the plan.

RESULTS AND DISCUSSION

Partner Profiles

In carrying out community service programs with students, the partners follow directions and assistance and participate directly in designing Savana using tracking ecotourism routes. The participation contribution of partners, namely the Pokdarwis with the village government, is vital because the local community of Pulisan Village has local knowledge about their area as a tourism area that is suitable for the development of ecotourism tracking, and it is also located in the Super Priority Tourism Destination area. Pulisan Village has a community forum about tourism, namely the Pulihan Village Tourism Awareness Group (Pokdarwis). This group is very active in developing their local tourism and continues to improve the progress of their region. This community service program activity with students has been carried out with various experiences regarding mentoring and training for the community, especially in the tourism development sector.

Based on field data, the route to Savana Hill already has a signboard to guide the attraction, but a specific route to pass has yet to be created. A community forum about tourism in Pulisan Village is the Pulihan Village Tourism Awareness Group (Pokdarwis). The group is very active in developing their local tourism and continues to improve the progress of their region. All management of Pulisan Village tourist attractions is coordinated by Pokdarwis and fully supported by the village head to ensure the progress and welfare of the village community. In connection with the Ecotourism Tracking route design activities, it is also necessary to form village conservation cadres as the front guard to protect the natural, coastal, and marine environment of Pulisan. A form of community service program activity with students who have worked on designing the ecotourism tracking route for Savana Hill, Pulisan Village. With activities in this area, determine the correct route and be equipped with stopping points (shelters) along the tracking route to the peak of Savana. Once well-organized, Savana Hill has become a new attraction that is popular with nature-loving tourists. It also functions as a hill with beautiful views of a combination of sea, beach, and savanna (grass and trees). It is very beneficial for Pulisan Village and especially for the MBKM (Free Learning Campus) program. The target and output of this program is the design of the Savanah Hill tracking ecotourism route that will be developed through continuous activities so that reliable and superior ecotourism attractions will be created in the coastal area of the Likupang Super Priority Tourism Destination. Specifically, the expected output from this community service program with students is the design of the Savan Pulisan Hill Tracking Ecotourism Route in the Likupang Super Priority Destination Area. Another study (Setyabudi et al. 2017) discovered that landscape history is predicated on possible local or regional knowledge by showcasing a picturesque village view. It is anticipated that visitors will like the amenities offered in designs like the educational zone, archaeological sites, gift shops, and food. The goal of the landscape design in Savana Hills in question is to ascertain how to organize the hardscape in a way that encourages tracking traffic toward the location. The conservation of history and culture, community involvement, planning and advancement of local economic growth, and education were other prerequisites for ecotourism activities within Pulisan.

Program Continuity

Program sustainability is carried out through regular monitoring and assistance. In the long term, village conservation cadres can be formed as a follow-up to the PPM-Student Program. The Tourism Department at Manado State Polytechnic fully supports the sustainability program through Community Service Practice Courses in implementing the MBKM (Free Learning Independent Campus) program. It is
noted that the design of Savana Hills, Pulisan will be made up of newly arrived visitors and villages with various needs. Visitors may be adults or children, and the facility is open from 8:00‒17:00 WIB. The circulation from the entrance to the uphill only allows foot traffic via the main entrance on the north side. There is an open space with a parking lot about 20 automobiles wide. As a result, specific design interventions will be added, such as adding new services such as visitor guidance measures, i.e., posting information boards, using signage, and restricting access to the most popular attractions.

Savana Hill Tracking Route, Pulisan

The tracking route to Savana Hills in Likupang has yet to exist. Visitors climb up the Hills without direction and signage (Figure 3), and they choose their route. Through this community-student program, the ecotourism tracking route created for the Pulisan tourist village has a new tourist attraction with beautiful views facilitated by a specific route and the stopping points along the tracking route up to the top of Savana Hill. The design of the Savana Hill map with three shelter points used the Google Map Pro application (Figure 4), with a drop pin feature that was then combined and exported into a KMZ file. The ecotourism tracking route was created for the Pulisan tourist village, which has a new tourist attraction with beautiful views facilitated by a specific route, and three stopping points along the tracking route up to the top of Savana Hill. The three stops or shelter points created have their respective spots of interest depicted in Table 1 and Figure 5).

Planning and Design Needed

A region's expansion and development contribute to the rapid changes in landscape development, including in Savana Hill and Pulisan. Human activity has resulted in several detrimental effects on landscape development, including eliminating potential landscape services, reducing the quality of the comfort-related microclimate, and losing greenery open

![Figure 3](image1.png) a and b) Savana Hill tracking route, Pulisan.

![Figure 4](image2.png) a and b) Map of the Savana Hill area with shelter points.
space (Setyabudi et al. 2017). This also existed in the Pulisan area, which included communities in implementing and accomplishing the development as a method to guarantee the locals' full realization. The Pulisan defines the guiding principles of ecotourism tracking development as a tourist village, such as 1) The conservation principle, 2) The community involvement principle, 3) The essential economic benefits, and the educational principles.

**Monitoring and Evaluation for future study**

For the evaluation and assessment process for Savana Hill ecotourism tracking, future study is required by adopting the one score, one criterion scoring system method (Avenzora 2008) to monitor the implementation of tracking design and planning of Savana Hills. The scoring refers to 7 criteria 1 to 7 (1=lowest score) and 7 = highest score. Seven criteria represent 1 (very unfit), 2 (not worthy), 3 (somewhat unfit), 4 (medium/average), 5 (somewhat decent), 6 (decent), and 7 (very decent). The post-activity evaluation process can also be conducted using the triangle experts method (Pérez-Rodriguez, 2017) with the most well-known and widely applied Multi-Criteria Decision-Making called the Analytic Hierarchy Process (AHP), especially when the process of making decisions involves intangible criteria such as environmental (Saaty, 2015). Stakeholder evaluation of Savana Hill's development can be identified and carried out in the future with the help of the above assessment methods.

**CONCLUSION AND SUGGESTION**

The tracking route has been created through a community service program with students on Savana Hill, a new choice for tourists visiting Pulisan Village, one of the district's tourist villages. North Minahasa. Pulisan Village has extensive and numerous tourism potential.
Tracking Savana Hill is a prominent tourist attraction separate from beach, sea, and island tourism. The tracking route makes it easier for tourists and visitors to enjoy the natural beauty of Pulisa Village. Tracking Savana Hill is a new attraction created to meet the needs of tourists who need help carrying out water tourism activities. The partners involved in the Community Service Program - Student (PPM-M) activities are the government and the Pulisan Village tourism community, especially the Pulisan Village Tourism Awareness Group, locally called Pokdarwis. The contribution that can be made to the partnership is providing solutions and alternatives for new ecotourism attractions, especially terrestrial ones (Savanna Hill), to serve the needs of tourists who visit and want to do terrestrial tourism. Apart from that, to create an even distribution of tourist visits and not focus on specific points only. In this way, tourism development in Pulisan Village will develop to meet the needs of visiting tourists.

Moreover, partner problems as well as offering solutions based on the results of existing analysis, namely: 1) there is still a lack of strengthening tourist attractions in the Pulisan coastal area to be tourist attractions with selling power; 2) With point No.1 mentioned above, community service with student activities may help the Pulisan Village community group simultaneously with students from the Tourism Department, Manado State Polytechnic to design the tracking to Savana Hills. By involving local communities, the formation of a conservation cadre group can be developed that will continue to be accompanied by the proposing team so they can develop Savana Hill ecotourism attractions in a sustainable maintenance program. Partner contributions are needed to strengthen the sustainability process of the Savana Hill ecotourism attraction that will be developed because local people will know more about their area and have a high sense of belonging.

REFERENCES


