

# Financial Analysis of Community-Based Natural Tourism at Rinjani Barat Forest Management Unit

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**Abstract:** *The use of protected area of Sesaot forest as a natural tourism object, on the one hand can give benefits for the involved parties, but on the other hand its management needs a lot of cost. This research is aimed at assessing the feasibility of Sesaot's natural tourism business. The primary data was collected through interviews with business stakeholders as well as to visitors/tourists. The research showed that: (a) visitor were 96% coming from cities/regencies in Lombok Island; 82% of respondents interviewed were coming for the reasons of the natural potential (springs and forest panorama); and 38% of visitors spent mostly on culinary and then for tickets; (b) Sesaot's natural tourism business is in terms of finance is categorized as not feasible with the criteria of NPV calculation equals to -1,817,810,395.00; B/C is equals to 0.64; and IRR is equal to -9.67.*

**Keywords:** Sesaot Nature Tourism; Financial analysis; ecotourism

## 1. Introduction

The Forest Management Unit (FMU) is the smallest forest management unit determined by the Minister of Environment and Forestry through a proposal from the central agency of forestry for Forest Management Conservation and district heads for the production/protection of protected area of forest [1]. FMU as a site-level institution has a forest management function, including to monitor and to evaluate the forest management activities within the area, as well as to open business investment opportunities in the forestry sector. One of the business investment opportunities in the forestry sector that can be carried out by the FMU is the development of forest areas for natural tourism. The legal basis for the development of natural tourism that meets the principle of sustainability is Laws No. 5 of 1990 on the Conservation of Forest Natural Resources and their Ecosystems and Laws No. 9 of 1990 on Tourism.

The investment opportunities for the development of natural tourism must be well used as well as possible by the FMU in the Province of West Nusatenggara (NTB). This is important as it is being supported by the size of forest area of up to 1,071,723 ha or about 53% of the land area. NTB is also one of the important tourist destinations in Indonesia. The use of environmental tourism services by the Rinjani Barat FMU has been carried out by involving some parties (partners) including private companies, provincial/district governments, village governments and community groups [2]. Sesaot Natural Tourism is one of tourist objects managed by the FMU involving some partners, including the community, village government, and district government. This research is aimed at looking at the business activities carried out by the FMU from a financial perspective to see whether these activities can be benefiting for FMU.

## 2. Research Method

### Research Design and Data Collecting

This research is descriptive study [3]. The data were collected through Triangulation Method in which some

steps were conducted such as in-depth interviews (in-depth interviews) with respondents/key informants, collecting and reviewing documents/ libraries, and direct factual observations at the research location (grounded research).

### Determining Research Area and Informants

The research was conducted in the Rinjani Barat FMU area of Sesaot Natural Tourism object located in Sesaot Village, Narmada Sub-district, West Lombok District. The analysis of visitor characteristics was carried out on 50 respondents interviewed using a questionnaire. Additional data was also collected from key informants, namely tour guides and ticketing officers at the Sesaot natural tourism. In determining the informants to find out the financial condition of the business was carried out intentionally (purposive). They are all parties involved in the management and development of Sesaot Natural Tourism including Rinjani Barat FMU, District Agency of Tourism of West Lombok, NTB Provincial Agency of Tourism, Village Government and/or Village BUMDes of Sesaot.

### Variables and its Measuring

The variables to be measured in this study are:

- Characteristics of tourists visiting Sesaot Natural Tourism object including: the origin of visitors, objectives of visit, visiting patterns (trends, seasonal/monthly), length of visit, and classification of visitors based on age and gender.
- Investment and operational costs, both fixed and variable (costs) that are paid by business unit or stakeholders involved in the use and management of Sesaot natural tourism;
- Benefits valued at money (Rp) received by each business unit or stakeholders involved in the use and management of Sesaot natural tourism;

### Data Analysis

Descriptive analysis is used to determine the characteristics of tourists visiting Sesaot natural tourism. The feasibility analysis of Sesaot's natural tourism business was conducted in the perspective of FMU and partners that build tourism facilities based on the criteria of Net Present Value (NPV), Benefit/Cost (B/C) and Internal Rate of Return (IRR) [4].

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There are several assumptions in feasibility analysis on the business, including:

- 1) The length of period to be analyzed is 15 years according to the estimation of age of the tourism facilities that have been built;
- 2) The regular income of tourism businesses throughout the period. They are the portions of the local government (FMU and West Lombok District) as received from the revenue of tourist ticket sale in 2017;
- 3) Fixed costs spent by the FMU throughout the analysis period;
- 4) The discount rate on the analytical calculation using the value of 5%;
- 5) The number of months in a year is 11 months since tourism activities is not carried out during the month of Ramadan.

The operational costs spent by local governments for maintaining the tourism facilities during 5 years is annually taken form 15% revenue of ticket sale. As what it says in the agreement. The value of maintenance costs is calculated based on the Decision of the Governor of West Nusatenggara Number 902-547 of 2017 on the Unit Price of the West Nustenggara Provincial Government Budget in 2018, the Regulation of the Minister of Public Works Number: 24/PRT/M/2008 on the Guidelines for Building Maintenance explaining that building maintenance means an activity of maintaining the reliability of buildings and their infrastructure in order that the buildings are always worthy of functions while maintenance means an activity of repairing and/or replacing building parts, components, building materials, and/or infrastructure and facilities in order that buildings are still worthy of function.

### 3. Discussion

#### 3.1 Tourist Visiting Sesaot Natural Tourism

Most of the visiting tourists are domestic tourists mostly coming from Mataram and West Lombok with the number of visitors subsequently 32% and 40% for of Mataram and West Lombok. During the data collection period, there were no foreign visitors (foreign tourists). In the results of in-depth interviews with key informants (tour guides/guides), however, it is identified that Sesaot natural tourism is often visited by foreign tourists who actually carry out other activities such as: outbound, tracking, camping ground, and ecotourism in Sesaot protected forest areas.

More than half (64%) of the number of tourist visiting Sesaot natural tourism are female while the rest (36%) are male. Based on the age, the average visitors is 28 years with a range of between 14-55 years. Most of visitors (54%) were in the age of 14 - 24 years, followed by the 25 - 35 years age group (22%), 36-46 years (18%), and 47-57 years (6%). Based on the occupational/professional backgrounds, tourists visiting Sesaot natural tourism are high school students and higher education students as the largest number of visitors compared to other visitors.

Tourist visiting Sesaot natural tourism generally come in groups such as school groups, youth clubs and office friends while some others come with family. The types of vehicles

that are widely used are private/official vans, tourism buses, and only a small proportion ride motorbikes.

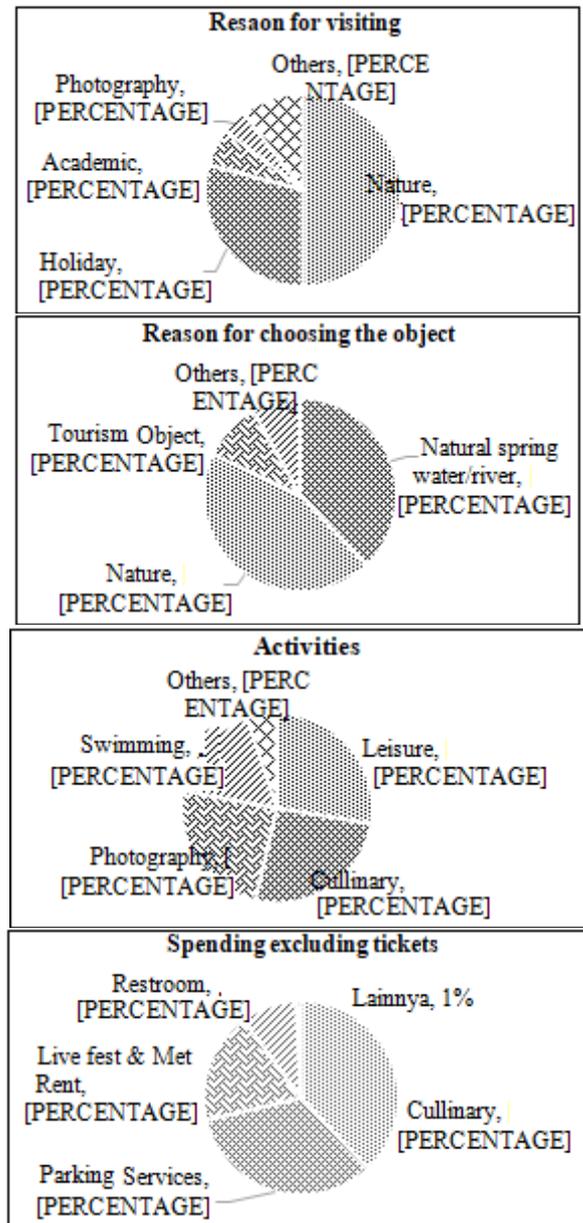


Figure 1: Characteristics of visiting tourists for some variables

In perspective of objective, visitors coming to Sesaot natural tourism were identified as that not all visitors interviewed came for traveling as the main objectives, but some also came for business as the main purpose. Even so, visitors in the first category that comes for recreation as the main objectives constituted the majority of up to 84% of the total number of visitors interviewed. While the remaining 16% of them are visitors with the main objectives for business (promotion), research, academic assignments, and counseling.

The main activities carried out by visitors to Sesaot natural tourism are for relaxation/enjoying the coolness of nature (37%), for enjoying special food/culinary (20%), for photography (17%), for swimming (10%), for other activities (16%). Tourism activities are carried out for the reason to enjoy nature and to take advantage of vacation

time as shown in (Figure 1). The results of interviews with respondents also showed that the majority of tourist visitors were attracted by the natural atmosphere of the tourism objects which is still beautiful with panoramic views of the forest stands and the river flow that was still clean and cool. Only a small proportion of visitors (10%) are indeed interested in the building of tourism facilities. As a natural tourism object, natural attractions such as rivers and scenery are one of the tourism potentials that provide more value to visitors [5].

All visitors selected as the sample conducted round-trip tourism activities in one day and no one stayed overnight or carried out tourism activities in more than one day. Tourism activities carried out by visitors are mostly in for relaxing and enjoying the panoramic natural scenery, for enjoying culinary specialties and taking pictures. Aside from being an activity that is mostly aimed by visitors, culinary tourism is also a form of expenditure that is most often spent by visitors in addition to buying admission tickets.

The large number of respondents who buy food at tourist sites is one of the economic potentials that may be improved. Culinary specialties, especially those whose ingredients are locally obtained can be one factor that attracts the interest of visitors [6]. Hermawan's research [7] showed that tourism activities have an impact on increasing local culinary demand which later then contributes to the economy. The government should also take more roles in fostering the community so that the quality and variety of culinary can provide the satisfaction for visitors [8].

### Travel Business Feasibility

#### Investment and Operational Costs

West Nusstenggara provincial government through Rinjani Barat FMU in collaboration with the District Government of West Lombok has invested in the construction of several tourist facilities to support tourism activities. Construction of facilities at tourist sites includes the construction of permanent trade shacks, parking lots, tourist bridges, gazebos, toilets, children's bathing pools and the development of tourist areas. The total cost of building the facilities that have been spent reached up to Rp 2,993,797,000 (Table 1).

After construction of facilities, tourism management were carried out by Rinjani Barat FMU in collaboration with Bumdes. Through Bumdes, the community around the area is also involved in tourism management activities, especially in taking role of maintaining tourist counters, location security, and cleanliness of the area. The collaboration has several consequences, including the division of responsibilities in the operational costs of nature tourism. Daily operational costs include the cost of cleaning and maintaining tourist facilities (annual) which are the responsibility of BUMDES, while the costs of maintaining facilities (for every five years) are the responsibility of the FMU as the person in charge being responsible for the forest area. The roles and responsibilities were determined including the cost component in tourism business cooperation that can affect the acquisition of revenue for each party in the future [9].

**Table 1: Cost spent by Government**

No.	Activities	Unit	Value (x1000)	
			West Lombok	FMU
Investment				
1	Tourism facilities	Rp/year	2.993.797	
	Biaya Investasi Total	Rp/year	2.993.797	
Operational cost				
1	5 year maintenance	Rp/5 years		449.069
	Operation cost	Rp/5 years		449.069

#### Business Income

Business income in this financial feasibility analysis is the proportion of FMU and West Lombok Districts from the sale of tourist entrance tickets. The proposition is 15% for FMU and 10% for West Lombok Districts. Tourism business revenue is generated through the approach of the number of tickets sold out. The results of interviews with managers of BUMD give a picture of the total revenue of tourism businesses during the year is Rp 660,000,000 (Table 2). Of the total revenue, 25% of the revenue share is for the government or with a total value of Rp 165,000,000.

**Table 2: Revenue sources of Sesaot Natural Tourism in Year**

No.	Source of Revenue	Unit Sold	Value (Rp) (x1000)
1.	Entrance ticket (per year)	39.600	396.000
2.	Car Parking (per year)	8.800	88.000
3.	Motorcycle parking	35.200	176.000
Total			660.000

#### Business Financial Feasibility

The financial feasibility of the business with the criteria of NPV, BCR and IRR is as in (Table 3). The calculation showed that during the analysis period the NPV is -1,294,743,556. This value is smaller than zero or has a negative value which means that the costs spent during the business period cannot be covered by the generated revenue. The BCR value in the tourism business showed that the value is 0.57 or less than one. This value showed the revenue generated during the business has not been able to return the capital, especially the majority of which is used for the construction of tourist facilities. IRR calculation showed that the value is -9.67% which is much smaller than the deposit interest rate or in other words, the capital that has been issued by the government has not been able to provide benefits (negative interest business). Financial analysis through NPV, BCR and IRR criteria showed that the development of natural tourism is not feasible.

**Table 3: Criteria of Financial Feasibility Analysis**

Criteria	Value
NPV	-1.294.743.556,00
BCR	0,57
IRR	-9,67

The development of Sesaot natural tourism is one of the investment activities carried out by the government, including the central government, provincial government and district governments in the efforts to manage community-based forest areas. Investment issued by the government is often not financially feasible, especially if it is only viewed as a profit oriented. The development of Sesaot natural tourism business showed that the value of the revenue obtained by the government is not comparable with

the investment that has been made, but it can provide greater value benefits for the community around the tourism area. The small proportion of revenue sharing obtained by the government makes one of the factors causing the costs spent cannot be covered. The government may change the management system by taking over the implementation of all tourism business activities and only involves a portion of the community compared to what is currently available. However, this policy has the potential to cause conflicts in forest areas. William & Shaw[10] argues that the involvement of various levels of government and parties in tourism management can reduce the potential of social disturbances both in tourism activities and in forest areas. The government might be able to improve the existing income generating by making a retribution on food sellers in the tourism area, considering that culinary is one of the economic transaction activities that is mostly carried out by the public.

The regional government generally acts as a facilitator in the development of tourism, by building tourist facilities and public facilities to support the tourism and to participate in collaboration with investors or third parties in developing a tourism business [11]. The development carried out by the government is expected to be a trigger for local economic growth either directly through increasing per capita income generation or increasing employment absorption. Investment by the government has a positive direct effect on the employment and the economic growth [12]. In addition, the development can also increase the retribution to district government in the future time.

#### 4. Conclusion

Almost all tourists visiting Sesaot natural tourism are domestic tourists coming from cities/regencies around Lombok Island (96%). Generally, tourists came in groups or with families. Most of the respondents (82%) came to tourist sites for the natural potential (springs and forest scenery); while 38% of visitors spent the most on culinary expenses comparing to entrance tickets. In addition to traveling, some tourists also conducted other activities in Sesaot natural tourism such as business promotion, social counseling, and carrying out academic assignment. Sesaot tourism business from the perspective of FMU is not feasible. Financial analysis showed that the NPV is -1,817,810,395.00; B/C = 0.64; and IRR = -9.67. The very small profit sharing value for the first time when compared to investment costs is a factor that is thought to greatly affect the Sesaot Natural Tourism business.

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#### Author Profile



**Amiruddin** has taught for 33 years at the Agribusiness Study Program, Faculty of Agriculture, Mataram University. Having been active for the past 10 years at UNRAM's community service and research institutes (LPPM), he now focuses on his main task of teaching and conducting research. Some of the subjects taught are introductory agribusiness, evaluation of agricultural projects and micro-economics. Research conducted over the past 5 years has focused on management of dry land and its relation to the environment. Amiruddin has also been a consultant at World Wildlife Foundation (WWF) on a program to prepare community-based forest management plans and management of non-timber forest products on Lombok Island.



**Addinul Yakin** has taught for 33 years at the Agribusiness Study Program, Faculty of Agriculture, Mataram University. Has been involved as a researcher and consultant with several NGOs, and often collaborates with local governments in agricultural development. The author has also published a book entitled *Economics of Natural Resources and the Environment: Theory, Policy, and Applications for Sustainable Development* in 2015.



**Sukardi** has taught 29 years years at the Agribusiness Study Program, Faculty of Agriculture, Mataram University. Recently he was active in researching welfare, diversification and conflict in agricultural on Lombok island. Sukardi is also active as a consultant with WWF in strengthening the capacity of forest farmer groups.



**Halimatus Sa'diyah** has taught 29 years years at the Agribusiness Study Program, Faculty of Agriculture, Mataram University. Has received research funding

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**Mudhofir MRT** start teaching on 2018 at the Forestry Study Program, Faculty of Agriculture, Mataram University. Has been as consultant researcher at Wildlife Conservation Society. Mudhofir have conducted some research about natural tourism and planted forest in Lombok Island.