

## Prospects For Sustainable Tourism Development In Bima Regency (Tambora National Park Case Study)

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### Abstract

*This study aims to determine the prospects for sustainable tourism development in Mount Tambora National Park and identify factors that are obstacles in its management. Mount Tambora National Park has great tourism potential, both in terms of natural beauty and historical value. This study uses a qualitative descriptive method with data collection techniques through observation, in-depth interviews, and documentation. The results of the study show that tourism in this region has positive prospects if managed according to sustainability principles. Based on indicators from UNWTO, economic, socio-cultural, and environmental aspects have shown signs of growth, such as community involvement in tourism businesses (homestays, guides, forest honey), preservation of local culture, as well as institutional support from the National Park Office and the Tourism Office. However, several problems are still obstacles, such as the lack of supporting infrastructure, lack of digital promotion, and limited human resource capacity. Efforts to resolve the issue are carried out through training, the formation of tourism awareness groups, the provision of business support tools, and increased coordination between stakeholders. Cross-sectoral collaboration is an important key in realizing the development of tourism that is sustainable, inclusive, and has a real impact on local communities.*

**Keywords:** *prospects, development, sustainable tourism*

### Introduction

Indonesia is an archipelagic country where each region has different natural characteristics and potential. With these characteristics, Indonesia can attract a lot of attention in the tourism sector. West Nusa Tenggara Province (NTB) is one of the provinces in Indonesia that is famous for its tourist attractions. NTB Province, which has 2 main islands, namely Lombok Island and Sumbawa Island, has many tourist attractions that are no less competitive with other tourist attractions in Indonesia. Every year the number of tourists to NTB is increasing. (Al As'ary & Sundari, 2022)

Mount Tambora National Park. As one of the natural tourist destinations that offers the beauty of the mountains, biodiversity, and historical value of the great

eruption of 1815, this area has an attraction for domestic and foreign tourists. However, this great potential has not been utilized optimally. Tourism management in the Mount Tambora National Park area still faces various challenges, such as the lack of supporting infrastructure, lack of awareness of the local community on the importance of environmental conservation, extension of corn plantations, illegal logging and the imbalance between resource utilization and environmental sustainability, and poaching of deer in Mount Tambora National Park are serious problems that threaten the sustainability of the ecosystem. In addition, the involvement of local communities in tourism management is still limited, resulting in a lack of direct economic benefits for them. Overcoming these problems requires cooperation between the government, local communities, and various related parties to ensure the sustainability of Mount Tambora National Park for future generations.

According to Miller, sustainable tourism is tourism that is managed referring to qualitative growth, the intention is to improve welfare, the economy and public health. Improving the quality of life can only be achieved by minimizing the negative impact of non-renewable natural resources. Sustainable tourism development will be achievable if the utilization rate of various resources does not exceed the ability to regenerate these resources. In order for the level of utilization to be controlled, there are several requirements that must be met in every tourism development, including: the benefits of economic development must be distributed fairly, and those who suffer must be given a higher priority in utilizing the results of tourism development, including in enjoying the economic benefits of tourism (Fadisa&Koeswara, 2021).

Sustainable tourism development is very important for the long-term development of tourism. This needs to be an important concern and note for the government and the community. Related to sustainable tourism (Sustainable Tourism), there are legal rules that regulate related to the Sustainable Tourism Destination Guidelines which are regulated in the Regulation of the Minister of

Tourism of the Republic of Indonesia Number 14 of 2016 (Then Puttrawandi and al., 2022a).

According to UNWTO, sustainable tourism is a form of tourism that fully considers economic, social, and environmental impacts, both for the present and the future, while meeting the needs of tourists, industry, the environment, and local communities. Sustainable tourism aims to maximize socio-economic benefits for local communities, preserve local culture and heritage, and protect the environment by minimizing negative impacts from tourism activities. The principles of sustainable tourism according to UNWTO (United Nations World Tourism Organization) focus on managing tourism that meets current needs without sacrificing the ability of future generations to meet their own needs. This principle is based on three main pillars: economic, socio-cultural, and environmental. (Puttrawandi and al., 2022b).

Sustainable-based tourism has become the main focus of tourism development in Indonesia. The abundance of wealth in Indonesia has become an attractive tourism destination for international tourists. However, the rapid growth of tourism can also bring negative impacts on the natural environment and people's lives, such as over-tourism, environmental damage, cultural damage, and socio-economic problems. Therefore, the Indonesian government has launched various initiatives and programs to develop sustainable-based tourism. The government and various stakeholders are involved in nature conservation efforts, wise destination management, and local community empowerment. Based on tourism potential, the researcher is interested in researching the prospects of sustainable tourism development in Mount Tambora National Park. By identifying challenges, potentials, and development opportunities, this research is expected to provide strategic recommendations to realize sustainable tourism management. (Elizabeth Sagala, 2024).

## **Methods**

This type of research uses a descriptive method with a qualitative approach. This study provides an accurate description and explanation of the circumstances or symptoms faced. According to Sugiyono (2020:9), qualitative research methods are research methods used to research on the condition of natural objects, where the researcher is the key instrument, data collection techniques are carried out in a triangulation (combined), data analysis is inductive, and qualitative research results emphasize meaning rather than generalization.. The data collected after further analysis is described nationally so that it is easy to understand by others. In this study, it is intended to provide an overview, describe and interpret the existing situation regarding the prospects of sustainable tourism development in Mount Tambora National Park.

## **Findings and Discussion**

This research was carried out in the Mount Tambora National Park area, which is in the administrative area of Bima Regency, West Nusa Tenggara Province (NTB). This area is one of the new national parks in Indonesia which was inaugurated through the Decree of the Minister of Forestry of the Republic of Indonesia Number SK.174/Menhut-II/2015 with an area of around 71,645 hectares. This national park area includes forest areas around the slopes of Mount Tambora, which is geographically located in the northwestern part of Sumbawa Island. The researcher focused on two villages that are the buffer villages of conservation areas, namely Piong Village in Sanggar District and Kawinda To'i Village in Tambora District. Both villages have direct access to Tambora's hiking trails and natural tourism areas, as well as being an important part of tourism development in the region. These villages have also been part of the community empowerment program run by the Tambora National Park Office and the Bima Regency Tourism Office in order to support the development of community-based ecotourism.

The principles of sustainable tourism according to UNWTO (United Nations World Tourism Organization) are:

### **Economic Indicators**

#### **New sources of income from tourism**

This new income comes from various types of businesses directly related to tourism services, from homestay rentals or simple inns, as well as culinary businesses and the sale of snacks for climbers and tourists. The presence of tourists coming to this area encourages residents to innovate and take advantage of local potential to create new economic opportunities. In addition, the presence of tourists also increases the demand for local products and other services related to their needs during their visit. This triggers more diverse economic activities and expands the scope of community businesses. Thus, tourism has become a trigger that encourages the emergence of new economic sectors outside of agriculture, livestock and fishermen activities which have been the main livelihoods.

**Table 1. New Sources of Income from Tourism Activities in the Tambora National Park Area**

No	New types of income	Form of activity	Location	Remarks
1	Homestay Preparation	Rent rooms, houses to stay for tourists	Kawinda axe	Simple homestays, income increases during climbing season
2	Local products and souvenirs	forest honey,	Kawinda to'I and the village of Piong	Starting to develop, bought by tourists as souvenirs
3	Guide porter services	Accompanying climbers during the Tambora climb	Kawinda to'I and the village of Piong	Filled by local youth, earning per trip

4	Food stalls and stalls	Selling food, drinks, basic necessities	Kawinda to'I and the village of Piong	Crowded during the holiday and hiking seasons
5	Vehicle transportation services	Motorcycle taxi and offroad services	Kawinda to'I and the village of Piong	Crowded during the holiday and hiking seasons

*Source : Primary data of processed products*

### Prices of goods and services increase

Tourism activities that develop in a region not only bring a positive impact in the form of additional income, but can also put pressure on the price of goods and services. One of the economic indicators in sustainable tourism development according to UNWTO is the stability of the local economy, including the stability of the prices of basic necessities and community services. If not managed properly, increased tourism activity can lead to local inflation, ultimately harming people who are not directly involved in the industry.

**Table 2. Price Conditions of Goods and Services**

No	Type of Goods/ Services	Price changes	Location	Remarks
1	Basic necessities (rice, oil, etc.)	Unchanged / Stable	Kawinda to'I and the village of Piong	Prices remain as usual, unaffected by tourist arrivals
2	Food/beverage stall	Stable	Kawinda to'I and the village of Piong	Prices do not differentiate between residents and tourists
3	Mineral water, instant noodles	Stable	Kawinda to'I and the village of Piong	This need is bought by many tourists, but it does not affect the price

4	Homestay (room rental)	Varies (still affordable)	Kawinda axe	Prices are agreed directly with guests, not yet extensive commercial
5	Local products (honey)	Stable/as good quality	Kawinda to'I and the village of Piong	Prices depend on type and packaging, not showing a significant increase pattern

*Source : Primary data of processed products*

### Training and empowerment support

In the Tambora National Park area, forms of training support and economic empowerment for the community have begun to be carried out, both by the Tambora National Park Office and the Bima Regency Tourism Office. These programs are generally focused on strengthening community capacity in the field of tourism, environmental management, and the development of micro, small, and medium enterprises (MSMEs).

**Table 3. Types of Community Economic Training and Empowerment by the Tambora National Park and Dispar Centers**

No	Types of Activities	Organizer	Location	Remarks
1	Tour Guide Training	National Park Authority	Kawinda To'I and Piong	Tour guide training and how to welcome guests
2	Local Product Packaging Training	National Park Authority	To me, Shawn and Shawn	Honey, coffee, as well as packaging and sales techniques
3	Digital Promotion Training	Bima Regency Dispar and national park hall	To me, Shawn and Shawn	Product promotion through social media (Facebook, WA, Instagram)

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*Source : Primary data of processed products*

### **Economic independence of the community**

From the results of interviews and observations in the field, it can be seen that some people have begun to take the initiative to open small businesses related to tourism. These businesses include providing homestays, selling processed products such as forest honey, and guiding services for climbers. This initiative arose from the awareness that the tourism sector can be a sustainable source of income, especially if it is well managed and harnesses the potential that exists in their villages.

Some residents also showed an effort not only to wait for help from the government or outside parties, but to start using their own capital to develop their businesses. For example, by utilizing yard land to build a homestay, or by collecting honey traditionally and selling it directly to visitors or through social media. However, challenges remain, the lack of wider market access, and the lack of follow-up assistance in business management. Therefore, even though the community has shown steps towards independence, the role of local governments, educational institutions, and the private sector is still needed in providing advanced training and opening market access.

**Table 4. Tourism-Based Independent Business by Local Communities**

No	Type of Business	Business Actors	Location	Initial capital	Remarks
1	Homestay	Mother and Jacob	Tin Kawnda to'i	Personal funds	Rented for hikers or local guests
2	Tambora Forest Honey Sale	Sustainable honey group	Squirrels and Squirrels	Capital of the national park	Marketed directly and through social media

3	Food and beverage vendors in the National Park area	Mother Mira and Mother Neneng	Dear Friends,	Capital of the national park	Sold to tourists
4	Tour guide and porter	Algura group	Squirrels and Squirrels	Capital of Tambora National Park	Rental of climbing equipment and porter services to tourists

*Source : Primary data of processed products*

### The availability of local products for tourism

One of the potential forms of community economic independence in the development of sustainable tourism around Tambora National Park is a leading local product, namely Tambora forest honey. This product not only becomes an alternative source of income for the community, but also strengthens local identity as part of nature- and cultural-based tourist attractions.

**Table 5. Local Tourism Product: Tambora Forest Honey**

Aspects	Remarks
Product type	Natural forest honey from the Tambora area
Production	Seasonal, traditionally carried out by residents
Markets	Local (tourists, out-of-village traders)
Challenge	Packaging and promotion

*Source : Primary data of processed products*

## Socio-cultural Indicators

### Community involvement in tourism activities

The involvement of the community in tourism activities is reflected in the various roles they run, such as being a local guide for climbers, porters who help bring logistics during the climb, owners or managers of homestays for guests, and unofficial officers who help maintain entrance ticket posts and parking areas. These activities not only provide additional economic benefits for the community, but also encourage the emergence of a sense of belonging to tourist areas in their area. The community becomes more concerned about the cleanliness, safety, and comfort of visitors because they are directly involved in the service.

**Table 6. Forms of Community Involvement in Tourism Activities in Tambora National Park**

No	Community activities	Location	Remarks
1	Local guide	Squirrels and Squirrels	Accompanying climbers to the main climbing trails
2	Guide to wear	Squirrels and Squirrels	Assist in carrying the climber's logistics and luggage
3	Homestay manager	Yours truly.i	Provide a modest accommodation for visitors
4	Entrance and parking attendants	Yours truly.i	Guarding the entrance and assisting with vehicle arrangement
5	Food & beverage vendors	Kawinda axe	Selling coffee, noodles, and snacks near the post

6 Motorcycle taxi transportation services Kawinda to' and piong village services Transportation services to climbing

*Source : Primary data of processed products*

### There are fostered groups and pokdarwis

In sustainable tourism development, community participation through local institutions such as fostered groups and Tourism Awareness Groups (Pokdarwis) is an important element. In the buffer area of Tambora National Park, especially in Piong and Kawinda To'i Villages, several groups have been formed that are drivers of community participation in tourism, conservation, and tourism support services.

Table 7. Fostered Groups and Pokdarwis in the Tambora National Park Buffer Area

No	Group Name	Location	Focus of the activity	Support received
1	Sustainable honey and honey groups	To me, Shawn and Shawn	Forest honey production	Training in harvesting techniques and production tools
2	Algura MMP and MPA	Kawinda to'I	Guarding the area, managing the area, being a guide, guide porter for the northern route	15 Hiking Equipment Packages, Guide Training
3	River Tubing and flying fox	Yours truly, I	Water Games	15 sets of river tubing and river boot equipment and training in North Llobok
4	Offroad Studio	Fiddle	Offroad transportation of tourists	4-wheeled vehicle, offroad driving training
5	Pokdarwis	"Come on, I'm going to take	Village tourism	Tourism & Pokdarwis

care of you,  
I'm going to

Management  
Training

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*Source : Primary data of processed products*

### **Public perception of tourism**

Based on the results of field observations and interviews, the community considers that tourism is not just an economic activity, but also opens up new opportunities to introduce the potential of their village to the outside public. The community feels that the presence of tourists brings a new positive atmosphere. Even so, public perception of tourism is also not completely without worries. There are several residents who voice the need for neater regulation, especially in terms of tourist waste management. However, this concern does not lead to rejection, but rather as a form of concern so that tourism development remains in accordance with local values and environmental sustainability.

### **Environmental Indicators Cleanliness conditions of tourist sites**

The condition of environmental cleanliness in the buffer area of Tambora National Park is one of the important aspects that are considered in tourism development. Based on the results of direct observations conducted by researchers in the two main buffer villages, namely Piong and Kawinda To'i Villages, in general, it can be concluded that the environment in the tourist area is maintained in a clean state.

**Table 8. Environmental Cleanliness Conditions of Tambora Tourist Area**

No	Observation location	Hygiene conditions	Supporting facilities	Additional details
1	Kawinda To'I hiking trail and piong climbing	Clean, no garbage scattered	Trash can from sacks	Regularly cleaned by the manager

2	Vehicle parking location	Clean, piles of garbage found	no	Common of plastic bins	Cleaned by parking attendants
3	Oi marai and piong savanna attractions	Clean, garbage scattered	no	Common plastic bins	Regularly cleaned by the manager

*Source : Primary data of processed products*

### Availability of bins and environmental facilities

The availability of bins and environmental support facilities is an important part of supporting the principles of sustainable tourism, especially in conservation areas such as Tambora National Park. Based on the results of observations carried out in two main buffer villages, namely Piong Village and Kawinda To'i, it is known that garbage cans have been available at several points, although in a simple form.

**Table 9. Availability of Bins and Environmental Facilities**

No	Location	Types of bins	Additional environmental facilities	Additional details
1.	Kawinda To'I hiking trail and piong hiking trail	Plastic sacks	Natural water sources, prohibition boards	Managed by porter, used during the climbing season
2.	Climbing parking area	Plastic sacks and permanent bins	Toilets, boards	information Prepared by the parking attendant independently

- |    |                      |   |  |  |
|----|----------------------|---|--|--|
| 3. | Oi marai attractions | Plastic sacks and there are also permanent trash cans | Clean toilets, natural water sources, prohibition boards, information boards | Managed by the National Park Office and the Tourism Office |
|----|----------------------|---|--|--|

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*Source : Primary data of processed products*

### **Damage caused by tourism activities**

In the development of sustainable tourism, it is important to pay attention to the environmental impact caused by tourist activities. Based on the results of the researchers' observations in the Piong and Kawinda To'i Villages areas as the main entrance to the Tambora National Park area, the damage due to tourism activities is minimal, but there are still some important notes that need to be considered.

One of the most obvious impacts is the garbage that is still sometimes found at certain points, especially during the peak tourist season, such as from April to August. The most common garbage found is food wrappers, plastic bottles, and tissues. Although porter groups and the local community have carried out regular cleaning efforts, there are still tourists who are less responsible for the cleanliness of the environment.

Based on the results of research conducted in the Tambora National Park area, namely Piong Village and Kawinda To'i Village, it can be concluded that the prospect of sustainable tourism development in this region is quite promising, but still faces a number of challenges that need to be seriously addressed. From the economic dimension, the community shows high enthusiasm and expectations for tourism. They realize that this sector can be an additional source of income, create jobs, and reduce dependence on the agricultural sector or forest products. Meanwhile, from the socio-cultural aspect, the public has a fairly positive perception of the presence of tourists and tourism activities. They consider that tourism can be a means to introduce local culture to outsiders while strengthening their own cultural identity. In terms of

the environment, the natural condition of Tambora National Park is still relatively maintained. The area has incredible biodiversity, beautiful landscapes, and unique ecosystems and is a major attraction for tourists.

Overall, Tambora National Park has not fully become a sustainable tourism area, but it has led to the achievement of its basic principles. Several indicators have been met, especially in terms of environmental conservation and potential local economic benefits. However, sustainable development requires an integrated approach that actively involves various stakeholders, including local communities, local governments, national park managers, academics, and business actors. By improving aspects of management, training, promotion, and community assistance, this region can become a real example of sustainable tourism development in Indonesia, especially in conservation areas that have biodiversity and culture such as Tambora.

### **Conclusion**

Based on the results of research conducted on the prospects of sustainable tourism development in the Tambora National Park area, Bima Regency, it can be concluded that tourism development in this region has great potential to be developed sustainably, but still faces various challenges and limitations in its implementation. Through the analysis of three main aspects, namely economic, socio-cultural, and environmental aspects. This study illustrates that tourism in the region has been moving in a positive direction, but has not fully met the principles of sustainable tourism as formulated by UNWTO. From the three aspects that have been analyzed, it can be concluded that Tambora National Park has excellent prospects as a sustainable tourism destination, but it still needs to be improved and strengthened in many aspects. The community has high enthusiasm, the potential for natural and cultural resources is very rich, and support from related institutions is starting to take shape. However, there are still challenges in the form of limited infrastructure, lack of training, weak institutional coordination, and not optimal management of the negative impacts of tourism activities. Therefore, the direction of tourism

development in Tambora National Park is on the right track, but to realize ideal sustainable tourism, there needs to be cross-sector cooperation, community capacity building, and management based on participation and local wisdom.

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