







# Concept of Participation Model in Community-Based Ecotourism Programs Adjacent to Conservation Forests

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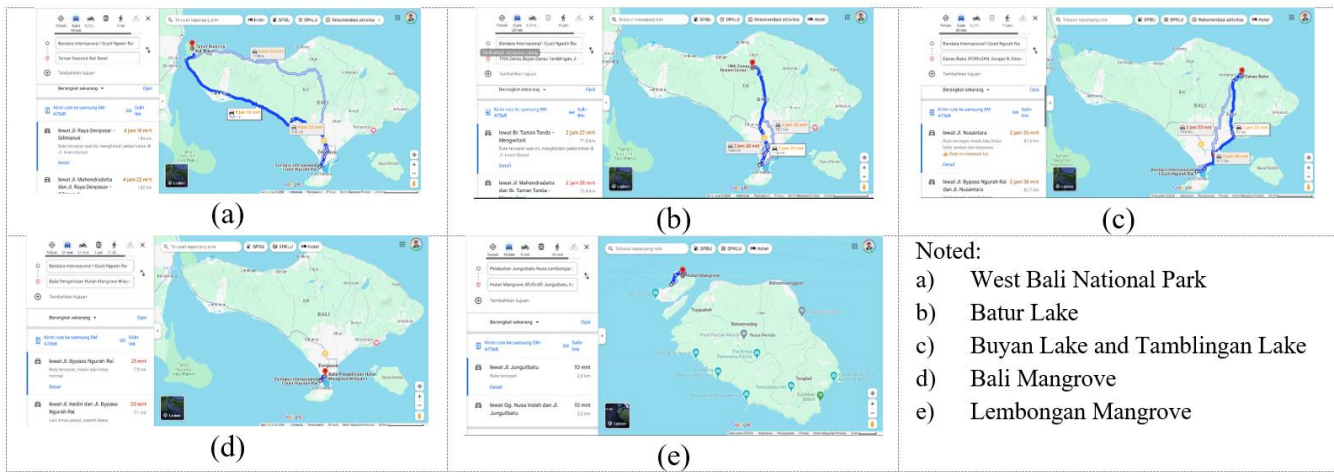
**Abstract.** The research aims to develop a community-based participation model for eco-tourism in villages near conservation forests in Bali. A survey was conducted with 250 stakeholders across five locations: Bali Mangrove, Batur Lake, Buyan Lake, Tamblingan Lake, and West Bali National Park. Data were analyzed using both quantitative methods, including descriptive statistics and regression analysis, and qualitative methods to provide deeper insights. Key findings indicate that significant factors influencing participation in environmental conservation programs include leadership roles and business opportunities, collaboration among industries, and local community training and interest. Conversely, optimism about funding and knowledge related to eco-tourism were found to be non-significant variables. Additionally, community experience regarding income and commitment negatively affected participation. This mixed-methods study contributes to theoretical models of community involvement in conservation-based eco-tourism, offering insights for policymakers and practitioners. The findings are expected to enhance sustainable eco-tourism development in Bali, ensuring economic benefits for local communities while promoting environmental conservation. Overall, the research underscores the importance of empowering local communities as active participants in eco-tourism initiatives to achieve both economic and ecological sustainability.

**Keywords:** Leaders, Business Opportunities, Industrial Cooperation, Participation, Funding.

## 1. INTRODUCCION

The introduction of this research will focus on five significant study locations in Indonesia: Bali Mangrove, Batur Lake, Buyan Lake and Tamblingan Lake, Lembongan Mangrove, and West Bali National Park (See Fig 1). Each of these sites plays a crucial role in the local ecosystem and tourism landscape, yet they face challenges due to forest degradation caused by encroachment and unsustainable forest utilization practices (Satrya et al., 2023).

Bali Mangrove is a vital coastal ecosystem that provides essential services, including coastal protection, carbon sequestration, and habitat for diverse wildlife. However, this area is increasingly threatened by development pressures and illegal logging, which compromise its ecological integrity (R. Utama, 2015a), (Rai Utama & Trimurti, 2019). Batur Lake, situated in the caldera of an active volcano, is not only a scenic tourist destination but also a critical water source for surrounding communities. The lake's ecosystem is under stress from agricultural runoff and tourism-related activities that neglect conservation principles, leading to water quality degradation (I. G. B. R. Utama et al., 2023c). These twin lakes are known for their stunning natural beauty and biodiversity. They are essential for local hydrology and serve as a habitat for various species. However, the surrounding areas have seen increased human activity, resulting in habitat destruction and pollution, which threaten the ecological balance (I. G. B. R. Utama & Trimurti, 2020). Lembongan Mangrove is a unique ecosystem that supports marine life and offers recreational opportunities for visitors. Despite its ecological importance, the area suffers from overexploitation and tourism development that do not adhere to sustainable practices, leading to habitat loss and environmental degradation (Putra & Suryawan, 2018), (Satrya et al., 2023). West Bali National Park is a protected area that harbors rich biodiversity, including endangered species. While it serves as a significant ecotourism destination, the park faces challenges from illegal logging and resource extraction, which undermine conservation efforts. The ongoing conflict between tourism development and conservation highlights the need for a balanced approach that benefits both the local economy and the environment (R. Utama, 2015b).



**Figure 1:** Five locations of Ecotourism in Bali (I. G. B. R. Utama et al., 2023a).

These five locations exemplify the delicate balance between utilizing forest resources for tourism and the imperative of conservation. The gap between the need for sustainable forest management and the pressures of tourism development poses a significant challenge. Addressing these issues requires collaborative efforts that prioritize both ecological preservation and the economic benefits derived from ecotourism. (D'Souza et al., 2019); (I. G. B. R. Utama et al., 2023b).

Based on previous research findings, several research gaps can be identified to determine the ideal model of community participation in conservation-based ecotourism programs: Research indicates that the policies for developing community-based ecotourism in Bali are still inadequate, partly due to the lack of a comprehensive urban tourism development master plan. Clearer and more integrated policies are needed to support community participation in ecotourism (Barna et al., 2011), (Ho & To, 2010); (Gutierrez et al., 2020). The level of community participation in planning and developing the tourism sector remains limited, primarily confined to merely approving policies without actively contributing to decision-making processes. A broader and more meaningful model of community participation needs to be developed. Although community-based ecotourism has the potential to enhance the local economy, its positive impact on the environment in Samalona, Makassar, is still minimal. Strategies are necessary to ensure that ecotourism contributes to environmental conservation. Most research has focused on a single location or specific area. There is a need for more comprehensive studies that encompass various ecotourism locations in Bali adjacent to conservation forests to gain a more holistic view. Previous studies have identified various factors influencing community participation but have yet to produce an ideal theoretical model for developing conservation-based ecotourism involving local communities. Efforts are required to build a robust theoretical framework based on best practices. By addressing these research gaps, future studies can yield a comprehensive, integrated, and evidence-based model of community participation to support the sustainable development of conservation-based ecotourism in Bali (Rai Utama & Trimurti, 2019), (Rogos, 2020); (Gutierrez et al., 2020).

The main objective of this research is to establish a logical and objective statement regarding the Concept of Participation Model in Community-Based Ecotourism Programs Adjacent to Conservation Forests. This study serves as a continuation of previous research, which provided preliminary insights before conducting in-depth observations and surveys on the management of ecotourism destinations. The research will focus on five specific ecotourism sites in Bali: West Bali National Park, Lake Buyan Area, Batur Geopark, Bali Mangrove Denpasar, and Lembongan Mangrove Klungkung (I. Utama et al., 2024). The aim is to analyze the concept of participation model in community-based ecotourism programs adjacent to conservation forests (I. G. B. R. Utama, Laba, et al., 2021).

## 2. LITERATURE REVIEW

### 2.1. Development of Ecotourism

The concept of ecotourism has existed since the 1980s, but the term ecotourism did not appear publicly in tourism magazines until the late 1980s. First, ecotourism has been shown to provide environmental and economic benefits to all participants in this form of tourism, but how to achieve these goals is controversial. (L. S. Stone et al., 2022).

The expression, which is clearly a product of the appreciation of equitable communities and global ecological activities in the late 1980s, is considered one of the most popular concepts of ecotourism: "travel to relatively undisturbed or unspoiled natural areas with the specific purpose of exploring the landscape and wild plants and animals as well as existing "cultural expressions (past and present) found in the area" (Lisiak et al., 2016).

As ecotourism has become more prominent, its meaning has expanded to include concepts such as ecotourism management, environmentally conscious destination management, and sustainable growth of local populations. Policymakers responsible for developing ecotourism destinations, tour operators, tourism organizations, and even

academics who wish to contribute to the development of various definitions of the term ecotourism have defined ecotourism from different perspectives (Conway & Cawley, 2016).

### **2.2. Ecotourism in Today's**

World Ecotourism has been around for several years, but the exact concept of ecotourism has only been vaguely discussed. It is difficult to describe ecotourism without considering the basic metaphysical and ethical concepts. However, the most common concept of ecotourism is the one proposed by TIES. In today's world, the term ecotourism is used in various terms such as sustainable tourism, nature tourism, cultural tourism, and heritage tourism. However, there is still debate among authors on the characteristics of alternatives to the term ecotourism ((I. Utama et al., 2022).

Despite the disagreement among researchers on the characteristics of ecotourism, in order to establish an ecotourism business that is in harmony with the modern world, current tourism trends should not be ignored. As the world moves towards the era of modernization, most ecotourism theories and concepts in the world are considered outdated. Therefore, scholars have raised three main criticisms of the extension of modernization theory to ecotourism as a form of sustainable development. The first modernization theory supports a false distinction between "new" and "traditional". In this way, the ideals, traditions and behaviours of rural and indigenous peoples become relics of the old activities that must be discarded in order to become new and thus achieve a more progressive status (Regmi & Walter, 2016).

The second assumption involves a diffusion agenda that assumes that the direction and pace of transformation occurring in Western countries is the only path to growth and that this path will be slow at some point. Therefore, in order to be stable and democratic, non-Western countries must follow the same general development model or "production paradigm" (Buckley et al., 2016). New modernization theory has been criticised for its ethnocentric orientation. What sounds strange and bizarre in socially marginalised non-Western countries is seen as conservative and orthodox, thus focusing on the ontological values and cognitions of Western societies. However, despite these age-old critiques, the modernist approach to development continues to dominate policy and practice in the Global South (Cohen & Silva, 2010).

### **2.3. Ecotourism Business**

It is well known that ecotourism has three dimensions, namely, sustainable, environmentally friendly, and close to nature. The concept of sustainable development is based on two principles: (i) promoting nature conservation and (ii) boosting the local economy (D'Souza et al., 2019). Therefore, ecotourism and sustainable tourism are comparable; where ecotourism includes sustainable tourism. Ecotourism is a component of the sustainable tourism sector that aims to promote sustainability through preparation and management to promote its environmental and social goals. Ecotourism companies offer various types of amenities such as private accommodation, wellness, and wildlife (Munandar et al., 2022).

### **2.4. Homestays**

Although homestays are not considered a new form of tourism accommodation, they may be welcomed in the academic literature because they provide an important supplementary or alternative income to local communities, promote local self-determination, fight poverty, attract tourists and the existing local cultural and natural heritage (Bhalla et al., 2022).

International tourists also find homestays attractive because they seek local living experiences, tailored services, and authentic or real social experiences with their hosts, and prefer local hospitality styles, especially in small and sometimes remote rural communities. Homestay programs are often integrated with other community-based tourism activities such as: for example, trekking, camping, bird watching, demonstrations of traditional culture and festivals, etc., providing a decent income for local communities and a rich and rewarding interpersonal and cultural experience for tourists (Cabral & Dhar, 2020).

### **2.5. Food/Cuisine**

Food is a core part of almost all tourism experiences. However, the importance of food in the tourism experience varies depending on the needs of the individual tourist. Whether someone is traveling or not, food can often be seen as satisfying a personal need, or it can be a major driver that motivates tourists to visit certain destinations. The growing demand for new cuisines has led to a significant expansion of dining as a niche or specialty tourism. In this context, food is an attraction, and there is a lot of literature on this partnership between tourism and health (Fennell & Markwell, 2015).

Traditional cuisine is most often used as a foundation for sustainable development in communities, with a growing number of social events such as farmers' markets, green restaurants, organic food projects, and food fairs. The meaning and importance of traditional food in multicultural and intercultural cultures is very complex and highly subjective. In the social arena, food is always the theme of various important events and gatherings, and is closely linked to traditional concepts of hospitality. Food can represent possession and is a force that unites and divides (Cheng et al., 2014).

Food is used to define community identity based on interests, ethnicity, religion, place, and nationality

(Barbosa, 2020). For example, Australia is famous for its abundant fresh seafood. Therefore, tourism operators take advantage of these culinary characteristics when marketing their products, especially when most companies are located in coastal areas or close to the coast. Some hosts even offer exotic food and wine (Fennell & Markwell, 2015). Exotic animal species that are traditionally eaten in Australia include kangaroos, crocodiles, and to a lesser extent advertis (Barbosa, 2020).

### 2.6. Community-Based Ecotourism Participation

Community-based ecotourism (CBE) is a part of tourism that has been recently practiced by rural communities in developing countries (Afenyo & Amuquandoh, 2014). The criteria for community-based ecotourism are based on different perspectives of many authors. First, it is considered an effective tool to enhance community participation in tourism services. Second, community ecotourism activities are managed by the community for livelihood purposes. Third, to educate the public to appreciate and manage the surrounding natural and cultural resources. Community-based ecotourism is a type of ecotourism that aims to involve local communities and communities in the management of their natural resources to protect economic, cultural and biodiversity, and this type of ecotourism management is a model for cultivating. In the past two decades, the ecotourism tradition has shaped community-based ecotourism (Afenyo & Amuquandoh, 2014).

The development of community-based ecotourism has the potential to positively change people's perceptions of the use of natural and cultural resources. Community-based ecotourism leads people to appreciate and use natural and cultural resources more when they understand the benefits they bring (De Urioste-Stone et al., 2018).

### 2.7. Improving Community Participation

Community participation is an important component of community ecotourism (CBE), especially for sustainable tourism development (Mustaffa, 2015). Stone argues that sustainable tourism is defined as tourism that can maintain its viability over unpredictable periods of time and does not disrupt people and their natural environment (M. T. Stone, 2015).

The driving force for sustainable tourism development highlighted is community participation, ownership, and empowerment through community-based natural resource management. As Stone points out, ownership is important for the sustainable development of community ecotourism. Chirenje, et al that community participation is less successful when local people feel that they lack a sense of ownership. In his study, local communities were excluded from key decision-making processes, namely project planning and budgeting, and therefore community participation was less because they felt that they did not own the project. As mentioned earlier, community participation is key to sustainable tourism development and an important component for the successful implementation of community ecotourism (Kiss, 2004).

Homestay activities involve the participation of all villagers who contribute explicitly and indirectly to the ecotourism project by providing land for homestay construction and manual labor. To provide food to tourists, farmers provide locally grown crops and dairy products from livestock. They can also host music events, storytelling, and showcase local traditions to cater to tourists. Lastly, the local community also takes care of maintenance and security aspects (Chaudhary et al., 2022). The profits from the program are evenly distributed among the villagers, motivating them to work more. Ultimately, community cohesion is strengthened and community participation increases. Job Creation Another benefit that is considered to be a community-based ecotourism product is based on employment (Kiss, 2004). Agriculture was the main source of income for the community before the development of a tourist destination in Tafi Atome. Once the monkey sanctuary became a tourist attraction, an important alternative source of employment was created for local residents (Chaudhary et al., 2022).

## 3. METHODOLOGY

This research employs a mixed-methods approach, integrating quantitative and qualitative data collection and analysis techniques to explore the Concept of Participation Model in Community-Based Ecotourism Programs adjacent to Conservation Forests. The study focuses on five ecotourism destinations in Bali: Bali Mangrove, Batur Lake, Buyan Lake and Tamblingan Lake, Lembongan Mangrove, and West Bali National Park (UTAMA et al., 2021). A survey will be conducted involving 250 stakeholders, including local community members, tourism operators, government representatives, and conservationists. The survey will utilize structured questionnaires designed to gather data on: Stakeholder perceptions of ecotourism, Levels of participation in ecotourism activities, Economic and environmental impacts of ecotourism, Awareness and attitudes toward conservation efforts (UTAMA et al., 2021).

The quantitative data collected from the surveys will be analysed using descriptive statistics to summarize the characteristics of the respondents and their responses. Additionally, regression analysis will be employed to identify relationships between different variables, which will help in developing a theoretical model of community participation in ecotourism (Hair et al., 2007). To complement the quantitative findings, qualitative data will be gathered through in-depth interviews and focus group discussions with selected stakeholders. This qualitative analysis will aim to: Provide deeper insights into the motivations and challenges faced by local communities in participating in ecotourism, explain findings that cannot be captured through statistical methods, such as

community dynamics, cultural factors, and personal experiences (Hair et al., 2007), (Plano Clark et al., 2008). The results from both quantitative and qualitative analyses will be integrated to create a comprehensive understanding of the participation model. This combined approach will allow for a more nuanced interpretation of the data, ensuring that both statistical trends and individual narratives are considered in the final analysis (Ferdinand, 2014).

This mixed-methods approach, the research aims to develop a robust theoretical model of community participation in conservation-based ecotourism, providing valuable insights for policymakers and practitioners in the field. The findings will contribute to the sustainable development of ecotourism in Bali, ensuring that local communities benefit economically while also promoting environmental conservation (Andrew & Halcomb, 2009).

## 4. RESULTS AND DISCUSSION

### 4.1. Location and Profile of Informants

The research was conducted across five key locations, each with a set number of informants contributing to the study. These locations include Bali Mangrove in Denpasar, which had 50 informants; Batur Lake in Kintamani, also with 50 informants; Buyan Lake and Tamblingan Lake, each contributing 50 informants; Lembongan Mangrove in Nusa Penida, again with 50 informants; and finally, West Bali National Park, which included another 50 informants. In total, the study gathered data from 250 stakeholders across these diverse ecological sites, allowing for a comprehensive analysis of community-based participation in eco-tourism programs (Prasiasa et al., 2019), (Atahena & Utama, 2015), (TAMAN, 2004).

### 4.2. Involvement in Environmental Conservation Programs in Bali

Survey results on Involvement in Environmental Conservation Programs in Bali can be seen as in Table 1 below:

**Table 1:** Descriptive Statistics of Involvement in Environmental Conservation Programs in Bali

Factors and Indicators	N	Mean	Std. Deviation	Remark
Leadership	250	3.65	.590	Very Good
Natural tourism	250	3.82	.455	Very Good
Forest Products	250	3.86	.430	Very Good
Agricultural product	250	3.77	.501	Very Good
Handicrafts	250	3.78	.511	Very Good
<b>1) The role of leaders and business opportunities in promoting participation in eco-tourism programs</b>				
Idealism about the importance of preserving nature	250	3.72	.594	Very Good
The arrival of tourists as an opportunity for ecotourism management	250	3.57	.632	Very Good
Availability of local HR support	250	3.74	.532	Very Good
There is support for youth and women	250	3.21	.909	Very Good
There is collaboration with tourism service providers such as travel agents who bring tourists to Ecotourism.	250	3.55	.646	Very Good
<b>2) The mentalities and collaboration of industries play a crucial role in the participation of eco-tourism programs.</b>				
Local communities are motivated by the government and community leaders	250	3.14	.849	Very Good
Promising income for the community	250	3.08	.858	Very Good
There is commitment from the local community	250	3.09	1.083	Very Good
<b>3) The experience of local communities regarding income, socialization, and commitment to eco-tourism programs</b>				
Growing awareness among the public	250	3.76	.574	Very Good
Natural beauty is available	250	3.48	.788	Very Good
Availability of infrastructure	250	2.52	.818	Good
<b>4) The awareness and protective attitudes of local communities towards eco-tourism programs</b>				
Motivation to make money	250	3.68	.608	Very Good
Motivation to gain knowledge about nature conservation	250	3.60	.711	Very Good
Motivation for optimism towards ecotourism programs is useful for society	250	3.84	.409	Very Good
<b>5) Optimism towards funding and knowledge regarding participation in eco-tourism programs</b>				
The local community is concerned about interference from outside parties.	250	3.79	.522	Very Good
Facilities available	250	3.23	.646	Very Good
<b>6) The facilities and independence of local communities regarding participation in eco-tourism programs</b>				
Interest from local communities independently	250	3.62	.696	Very Good
Received ecotourism training	250	3.68	.672	Very Good
There is commitment from the local community.	250	3.87	.394	Very Good
<b>7) The training, interest, and participation of local communities in eco-tourism programs</b>				
Funding	250	2.41	.629	Good
Skills Budget available	250	2.65	.584	Good
<b>8) The skills and financial capabilities of local communities regarding participation in eco-tourism programs</b>				
Involvement in Environmental Conservation Programs	250	3.85	.428	Very Good
Valid N (listwise)	250			

Based on Table 1 above, it can be explained that: (1) Leadership Role and Business Opportunities: The island of Bali, often called the Island of the Gods, has undergone a transformation in its tourism industry with a focus on ecotourism. The government and business players play an important role in developing sustainable ecotourism programs. (2) Industry Mentality and Cooperation: Industry mentality and cooperation are crucial in the participation of ecotourism programs in Bali. The government has encouraged travel to less visited areas to reduce pressure on popular destinations. (3) Citizen Experience on Income, Socialization, and Commitment: The experience of local residents greatly influences their participation in ecotourism programs. Many businesses in Bali incorporate sustainable practices into their operations, such as using renewable energy and reducing plastic waste. (4) Awareness and Protective Attitude of Local Citizens: Awareness and protective attitudes of local citizens are essential for ensuring the sustainability of ecotourism programs. (5) Empowering local communities, such as training local employees and supporting artisans and farmers, helps improve the welfare of local communities. (6) Optimism Towards Funding and Knowledge: Optimism towards funding and knowledge is crucial in the participation of ecotourism programs. The government has implemented effective promotional strategies to promote sustainable tourism products and services in Bali. (7) Facilities and Independence of Local Citizens: Facilities and independence of local citizens are necessary to increase participation in ecotourism programs. The government has improved infrastructure in Bali, including new airports and highways, to facilitate the growth of various economic sectors. Empowering local communities also increases the independence of citizens in managing natural and cultural resources. (8) Training, Interest, and Involvement of Local Citizens: Training, interest, and involvement of local citizens are essential in the participation of ecotourism programs. Many businesses in Bali provide training for local employees and support artisans and farmers. Skills and Finances of Local Citizens: Skills and finances of local citizens are necessary to increase participation in ecotourism programs (I. Utama et al., 2024), (I. G. B. R. Utama, Trimurti, et al., 2021).

### 4.3. Analysis of Regression for Concept of Participation Model in Community-Based Ecotourism Programs Adjacent to Conservation Forests

#### 4.3.1. Coefficients Regression

**Table 2:** Coefficients Regression of Involvement in Environmental Conservation Programs in Bali

Factors/Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Remark
	B	Std. Error	Beta			
1 (Constant)	1.273	0.338		3.770	0.000	
X1. The role of leaders and business opportunities in promoting participation in eco-tourism programs	0.082	0.016	0.367	5.259	0.000	Substantial
X2. The mentalities and collaboration of industries play a crucial role in the participation of eco-tourism programs.	0.030	0.014	0.152	2.189	0.030	Substantial
X3. The experience of local communities regarding income, socialization, and commitment to eco-tourism programs	-0.024	0.012	-0.120	-2.019	0.045	Reverse Substantial
X4. The awareness and protective attitudes of local communities towards eco-tourism programs	-0.039	0.017	-0.142	-2.265	0.024	Reverse Substantial
X5. Optimism towards funding and knowledge regarding participation in eco-tourism programs	0.012	0.019	0.040	.657	0.512	Not Substantial
X6. The facilities and independence of local communities regarding participation in eco-tourism programs	0.027	0.027	0.061	1.027	0.306	Not Substantial
X7. The training, interest, and participation of local communities in eco-tourism programs	.053	.021	.159	2.475	.014	Substantial
X8. The skills and financial capabilities of local communities regarding participation in eco-tourism programs	.033	.025	.074	1.333	.184	Not Substantial

a. Dependent Variable: Involvement in Environmental Conservation Programs

Regression model:

$$Y = 1.273 + .082X1 + .030X2 - .024X3 - .039X4 + .012X5 + .027X6 + .053X7 + .033X8$$

This appears to be a multiple linear regression model where Y is the dependent variable and X1, X2, X3, X4, X5, X6, X7, and X8 are independent variables or predictors.

The interpretation of this model is:

- 1) For every unit increase in X1 (The role of leaders and business opportunities in promoting participation in eco-tourism programs), Y (Involvement in Environmental Conservation Programs) is predicted to increase by 0.082 units, holding all other variables constant.
- 2) For every unit increase in X2 (The mentalities and collaboration of industries play a crucial role in the participation of eco-tourism programs), Y (Involvement in Environmental Conservation Programs) is predicted to increase by 0.030 units, holding all other variables constant.
- 3) For every unit increase in X3 (The experience of local communities regarding income, socialization, and commitment to eco-tourism programs), Y (Involvement in Environmental Conservation Programs) is predicted to decrease by 0.024 units, holding all other variables constant.
- 4) For every unit increase in X4 (The awareness and protective attitudes of local communities towards eco-tourism programs), Y (Involvement in Environmental Conservation Programs) is predicted to decrease by 0.039 units, holding all other variables constant.
- 5) For every unit increase in X5 (Optimism towards funding and knowledge regarding participation in eco-tourism programs), Y is predicted to increase by 0.012 units, holding all other variables constant.
- 6) For every unit increase in X6 (The facilities and independence of local communities regarding participation in eco-tourism programs), Y (Involvement in Environmental Conservation Programs) is predicted to increase by 0.027 units, holding all other variables constant.
- 7) For every unit increase in X7 (The training, interest, and participation of local communities in eco-tourism programs), Y (Involvement in Environmental Conservation Programs) is predicted to increase by 0.053 units, holding all other variables constant.
- 8) For every unit increase in X8 (The skills and financial capabilities of local communities regarding participation in eco-tourism programs), Y (Involvement in Environmental Conservation Programs) is predicted to increase by 0.033 units, holding all other variables constant.

The constant term 1.273 represents the predicted value of Y when all independent variables are equal to zero. This model can be used to predict the value of Y based on the values of the independent variables. However, it's important to note that this interpretation assumes that the model meets the assumptions of linear regression.

**Noted-1:** The negative coefficients for X3 (the experience of local communities regarding income, socialization, and commitment to eco-tourism programs) and X4 (the awareness and protective attitudes of local communities towards eco-tourism programs) in the regression model suggest that increases in these factors are associated with a decrease in involvement in environmental conservation programs. Here are some potential reasons for these unexpected relationships:

- 1) **Economic Prioritization Over Conservation:** As local communities gain experience related to income from eco-tourism, they may prioritize immediate economic benefits over long-term environmental conservation. This focus on short-term financial gain can lead to reduced participation in conservation efforts if community members perceive these activities as less profitable or beneficial compared to tourism-related opportunities.
- 2) **Social Dynamics and Community Engagement:** Increased socialization and commitment to eco-tourism programs could create a sense of competition among community members for tourism-related roles, potentially diminishing collective efforts towards environmental conservation. If individuals feel that their involvement in eco-tourism is more valuable than participating in conservation initiatives, they may choose to disengage from the latter.
- 3) **Awareness vs. Action:** While awareness and protective attitudes towards eco-tourism may increase, this does not necessarily translate into active participation in conservation programs. Communities might be aware of the importance of conservation but lack the motivation or resources to engage actively, leading to a decrease in involvement despite heightened awareness.
- 4) **Cultural and Structural Barriers:** Cultural barriers, such as apathy or a historical lack of involvement in decision-making processes, can hinder active participation in conservation efforts. If community members feel disconnected from the management of conservation programs or believe their contributions are undervalued, they may withdraw from participation even if they express positive attitudes toward conservation.
- 5) **Resource Allocation Conflicts:** As communities become more involved in eco-tourism, there may be conflicts over resource allocation between tourism development and conservation efforts. The focus on maximizing tourism profits might divert attention and resources away from environmental initiatives, resulting in decreased involvement in conservation activities.

These factors highlight the complexity of community dynamics in relation to eco-tourism and environmental conservation. Understanding these relationships is crucial for developing effective strategies that encourage local communities to balance economic interests with active participation in conservation efforts. Future research should explore these dynamics further to identify ways to foster greater synergy between eco-tourism development and environmental stewardship.

**Noted-2:** The lack of significant influence of the three variables—X5 (Optimism towards funding and

knowledge regarding participation in eco-tourism programs), X6 (The facilities and independence of local communities regarding participation in eco-tourism programs), and X8 (The skills and financial capabilities of local communities regarding participation in eco-tourism programs)—on Y (Involvement in Environmental Conservation Programs) can be attributed to several factors:

- 1) **Limited Awareness of Funding Opportunities:** While optimism towards funding (X5) might suggest a positive outlook, it does not guarantee that local communities have access to or are aware of available funding opportunities. If communities lack knowledge about how to secure funding or if the funding is insufficient, their involvement in conservation programs may not increase significantly.
- 2) **Insufficient Infrastructure and Facilities:** Although X6 indicates that facilities and independence are present, the actual quality and accessibility of these facilities may not be adequate to support meaningful participation in conservation efforts. If the infrastructure is lacking or poorly maintained, it can hinder community engagement in environmental conservation activities despite their independence.
- 3) **Skills Gap:** X8 suggests that while there may be skills present within the community, these skills might not be directly applicable or sufficient for effective involvement in environmental conservation programs. If the skills do not align with the specific needs of conservation initiatives, their impact on participation will be minimal.
- 4) **Competing Priorities:** Communities may prioritize immediate economic benefits from eco-tourism over long-term environmental goals. Even with optimism about funding and adequate skills, if community members perceive that engaging in conservation efforts does not yield immediate financial returns, they may choose to focus their efforts elsewhere.
- 5) **Cultural and Social Dynamics:** Cultural factors might influence how communities view environmental conservation compared to eco-tourism. If local traditions or social norms favor tourism-related activities over conservation efforts, this could lead to a disconnect between optimism about resources and actual involvement in conservation.
- 6) **Lack of Incentives:** There may be insufficient incentives for communities to engage actively in environmental conservation programs. Even with optimism, facilities, and skills, if there are no tangible benefits or rewards for participating in conservation efforts, community involvement is likely to remain low.

The insignificant influence of these variables on community involvement in environmental conservation programs highlights the complexity of community dynamics in eco-tourism contexts. It suggests the need for targeted interventions that not only enhance optimism and provide resources but also align community priorities with conservation goals to foster greater engagement. Addressing these underlying issues can help bridge the gap between potential participation and actual involvement in environmental conservation initiatives.

#### 4.4. Anova

**Table 3:** Anova of Involvement in Environmental Conservation Programs in Bali

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.286	8	1.536	11.136	.000 <sup>b</sup>
	Residual	33.238	241	.138		
	Total	45.524	249			

a. Dependent Variable: Involvement in Environmental Conservation Programs

b. Predictors: (Constant), X1...X8

The predictors identified in this study, including the skills and financial capabilities of local communities, optimism towards funding and knowledge regarding participation in eco-tourism programs, mentalities and collaboration within industries, facilities and independence of local communities, as well as the experience of local communities related to income, socialization, and commitment to eco-tourism, collectively play a significant role in influencing involvement in environmental conservation programs. Additionally, the awareness and protective attitudes of local communities towards eco-tourism programs, along with the training, interest, and active participation of community members in these programs, further enhance their engagement in conservation efforts. The role of leaders and business opportunities is also critical, as they promote participation in eco-tourism initiatives that can ultimately lead to greater involvement in environmental conservation. Together, these variables create a multifaceted framework that underscores the interconnectedness of community attributes and industry dynamics in fostering a robust participation model for environmental conservation.

#### 4.5. Determinant Model

**Table 4:** Determinant of Involvement in Environmental Conservation Programs in Bali.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.520 <sup>a</sup>	0.270	0.246	0.371

a. Predictors: (Constant), X1...X8

In conclusion, the analysis reveals that the independent variables—namely, the skills and financial capabilities of

local communities, optimism towards funding and knowledge regarding participation in eco-tourism programs, mentalities and collaboration within industries, facilities and independence of local communities, experience related to income, socialization, and commitment to eco-tourism, awareness and protective attitudes towards eco-tourism programs, training, interest, and active participation of local communities, as well as the role of leaders and business opportunities—collectively account for 27 percent of the variance in the dependent variable, which is the involvement in environmental conservation programs. This indicates that while these factors significantly influence community engagement in conservation efforts, there remains a substantial portion of variance that may be explained by other variables not included in this study. Therefore, further research is necessary to explore additional determinants that could enhance community involvement in environmental conservation initiatives and to develop strategies that effectively leverage the identified predictors for sustainable eco-tourism development.

## **5. CONCLUSION AND SUGGESTIONS FOR FURTHER RESEARCH**

### **5.1. Conclusion**

The analysis of community involvement in environmental conservation programs reveals several critical insights regarding the factors that enhance or hinder participation.

### **5.2. Positive Influences**

- 1) Leadership and Business Opportunities (X1): Effective leadership is pivotal in mobilizing community engagement. Leaders who advocate for sustainable practices can create business opportunities that enhance local economic benefits, encouraging deeper involvement in eco-tourism and conservation efforts.
- 2) Industry Mentalities and Collaboration (X2): When industries prioritize sustainability and collaborate with local communities, they foster synergies that promote eco-tourism while ensuring environmental protection. This collective approach cultivates a shared vision for sustainability, increasing community participation.
- 3) Community Training and Participation (X7): Training enhances local communities' skills and knowledge about eco-tourism, fostering a sense of ownership towards environmental resources. Increased training leads to greater community engagement in conservation initiatives.

### **5.3. Negative Influences**

- 1) Experience Related to Income (X3): As communities gain experience with income from eco-tourism, they may prioritize short-term economic gains over long-term conservation efforts. This trend suggests a need for strategies that align economic incentives with conservation goals.
- 2) Awareness and Protective Attitudes (X4): Despite increased awareness of eco-tourism's importance, this does not always translate into active participation in conservation programs. Communities may recognize the value of conservation but lack the motivation or resources to engage actively.

### **5.4. Non-Significant Variables**

Variables such as optimism about funding (X5), facilities and independence (X6), and skills and financial capabilities (X8) do not significantly influence community involvement. This indicates that even with positive outlooks or available skills, meaningful participation may still be limited by competing priorities or inadequate infrastructure.

### **5.5. Suggestions for Further Research**

- 1) Enhance Leadership Training: Develop programs focused on cultivating environmental leaders within communities who can effectively advocate for sustainable practices and create business opportunities.
- 2) Promote Industry Collaboration: Encourage partnerships between industries and local communities to align their goals towards sustainability, fostering a collaborative environment that benefits both parties.
- 3) Implement Targeted Training Programs: Design training initiatives tailored to the specific needs of communities regarding eco-tourism practices, enhancing their skills and fostering a sense of responsibility towards environmental stewardship.
- 4) Align Economic Incentives with Conservation Goals: Create frameworks that link economic benefits from eco-tourism directly to conservation outcomes, ensuring that communities see tangible rewards for their participation in environmental initiatives.
- 5) Address Infrastructure Gaps: Invest in improving facilities and infrastructure to support community engagement in eco-tourism and conservation efforts, ensuring accessibility and quality for effective participation.

Stakeholders can develop more effective strategies that not only support eco-tourism but also contribute

significantly to environmental sustainability and community empowerment. Further research is essential to explore additional factors influencing community involvement in conservation initiatives, aiming for a holistic approach to sustainable eco-tourism development.

## Abbreviations

CBE: Community-based ecotourism

X1: The role of leaders and business opportunities in promoting participation in eco-tourism programs

X2: The mentalities and collaboration of industries play a crucial role in the participation of eco-tourism programs.

X3: The experience of local communities regarding income, socialization, and commitment to eco-tourism programs

X4: The awareness and protective attitudes of local communities towards eco-tourism programs

X5: Optimism towards funding and knowledge regarding participation in eco-tourism programs

X6: The facilities and independence of local communities regarding participation in eco-tourism programs

X7: The training, interest, and participation of local communities in eco-tourism programs

X8: The skills and financial capabilities of local communities regarding participation in eco-tourism programs

Y: Involvement in Environmental Conservation Programs

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