

## Research Article

# A Literature Review of Conceptualization Ecotourism-based Development Strategy to Achieve Sustainable Development Goals (SDGs)

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**Abstract.**

Along with economic development and growth, the role of tourism today is increasing as a sector that contributes to considerable foreign exchange to people's welfare. Development strategies that accommodate conservation interests with the interests of residents, government, and investors are based on ecotourism. Ecotourism is then seen as one of the alternative policies that can be used as a solution to the shift in cultural, social, and environmental wisdom values. Therefore, an overview is needed to explain ecotourism-based development strategies. This research uses qualitative research methods with SWOT analysis. The results of the study describe the concept of ecotourism, its management strategy, the benefits of ecotourism, and the results of the SWOT analysis of ecotourism. It is expected to be a conceptualization consideration in developing ecotourism and development strategies for national policies in the field of sustainable tourism and supporting regional economic independence.

**Keywords:** conceptualization, development strategy, ecotourism, literature review, SDGs

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## 1. Introduction

Indonesia is a country with a geographical posture studded with islands. Until 2021, the number of islands in Indonesia reported to the United Nations through the UNGEGN (UN Group of Expert Geographical Names) session reached 16,771 islands (Batubara, 2021). The number of this island with the potential for natural and cultural beauty in it turns out to be a special attraction for foreign tourists. It was noted that the tourism sector became the second largest contributor to foreign exchange after oil and gas with a percentage of 4.1% in 2020. Furthermore, the tourism sector has a target of 4.3% in 2022 (Birokrasi, 2021). Thus, the tourism sector must be further optimized in various ways to increase

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its contribution. On the one hand, there are concerns of misuse of natural resources, commercialization of indigenous cultures, and environmental degradation.

The strategy of regional economic development through tourism that accommodates conservation interests with the interests of residents, government, and investors is based on ecotourism. This is in line with the statement of Satria (2009) that ecotourism as a concept of sustainable tourism development is inseparable from conservation efforts, local economic development so as to maximize economic benefits and minimize harm to culture or religious beliefs. Assuming that the reason why the population of the area is benefiting from its encirclement is due to the natural area, local day labor exploitation will no longer be a problem.

Traditionally, research results on ecotourism have been based on studies conducted in a single region's field. As an example, Sumarmi et al. (2022) used the Empowerment Strategy that is Environmentally Friendly and Fair to Fulfill the Tourism Agenda SDGS 2030 to analyze the Bedul Mangrove Ecotourism. Sukarnoto et al. (2020) who mentioned the Development of Ecotourism based on the Economy of Business Opportunities in the Era of Industrial Revolution 4.0, Role Model Village, Leuwimunding District, Majalengka Regency. Also, Damayanti et al. (2011) discuss the Village Government Capacity Building Strategy for Growing Local Community-Based Kampoeng Ecotourism Potential. In addition, there are a few rumors about an ecotourism that is based on academic research and is evaluated using a SWOT analysis.

From the various things above, the researcher is interested in further examining "Literature Review on the Conceptualization of Ecotourism-based Development Strategies to Achieve Sustainable Development Goals (SDGs)". Thus, it is expected to provide a comprehensive overview of the development of several new ecotourism-themed attractions to achieve sustainable development goals or answer community problems, especially economic welfare and environmental protection.

## 2. Research Methods

This research uses a qualitative approach with a SWOT analysis. The main data are obtained from the review of books, national and international journals (using Google Scholar, Semantic Scholar, ScienceDirect, Springer, and Wiley), or any other relevant publication format. In any case, the data collection process is carried out using a screening method based on the criteria that have been established by the participants in each round of interviews. These criteria include the e-waste concept, e-waste strategy

(planning-development-monitoring and evaluation), e-waste implications, and e-waste SWOT analysis.

### 3. Results And Discussion

#### 3.1. Ecotourism Concepts and Characteristics

Ecotourism is defined by Satria (2009) as a tourism organization that is stable in alpine locations and/or areas that is built based on knowledge of the environment and that actively promotes the preservation of a community's sense of security. Tenriwaru et al. (2022) define ecotourism as tourism that is closely related to environmental conservation both in terms of culture and nature, preservation of life, and welfare of local communities. Furthermore, it can be concluded that ecotourism is a trend in the tourism market that utilizes natural landscapes and cultural uniqueness, characterized by a combination of diverse ecosystems, and ultimately is expected to add value economically.

Before the Covid-19 pandemic, ecotourism was one of the fastest-growing sectors in the tourism industry, growing three times as much. Uniquely, ecotourism is not just selling destinations, but also philosophy. The philosophy in this sense is the same as that conveyed by Ni et al. (2021) about elephant breeding in Tangkahan, that what is sold is not the animal itself but the experience of it or that embodies the value of the meeting. Then, the tourist understands the nature of the sharp hair and elephant skin. Alternatively, tourists may be looking for an experience that involves working with the community, learning about the local economy, and participating in efforts to preserve the area's natural resources.

In the year 2002, the United Nations declared it "International Year of Ecotourism," and the majority of tourism operators used "ecotourism" as their label identity (Rahman et al., 2021). As of now, ecotourism is still inferior to other forms of gambling such as agro-based and adventure-based gambling. Idajati & Andastry (2017) stated that the factors that influence development and help differentiate ecotourism from others are nature, conservation, sustainability, quality of local communities, education, community empowerment, management, promotion, local economy, and community income level. At the very least, according to Fennell's 85 ecotourism limitations, there are numerous parallel statements that apply to the location where the ecotourism is being used, including: benefits for the local population (48.2%); education (41.2%); sustainability (25.9%); and impact (25%) (Winarno & Harianto, 2017).

### 3.2. Management of Ecotourism Areas

There are a few positive factors that point to the presence of ecotourism, among them the belief that tourism needs a safe and healthy environment, that environmental sustainability cannot develop without effective community participation, and that if economic benefits can be derived from a thriving environment, then community participation, also known as participatory democracy, is required.

Society is given permission to address their problems through participatory action, which is a step from below to above. In their study Tenriwaru et al. (2022) state that participation by the general public in the creation of ecotourism is a necessity. This is according to Forje & Tchamba's (2022) who discuss participation as the single most significant governance indicator in the Campo Ma'an National Park (CMNP). In addition, Suwanan et al. (2023) emphasizes the importance of mass participation in reclaiming the ecotourism village in Padusan.

It is necessary to carry out a process of identifying the potential of ecotourism areas carried out by managers. Identification of the potential of ecotourism areas includes several aspects, namely the level of relationship/accessibility, management and services, visitor facilities and infrastructure, attractions and ecotourism activities, and the condition of the number of visitors (Hanum et al., 2013). Next, Schoroeder said that in realizing the relationship between demand and supply in the context of ecotourism services, it is necessary to formulate a production process design by considering four elements of service production, namely tourists, humans/operators, strategies, and systems (Hanum et al., 2013). It is also necessary to conduct a financial analysis that compares costs and benefits to determine whether the development of the ecotourism area is profitable over the life of the project. Meanwhile, the provision of infrastructure, accommodation, and other facilities in ecotourism areas is expected not to forget the elements of environmental sustainability. Managers should not necessarily only prioritize economic benefits. If environmental conditions are not maintained and lose their potential, the concept of ecotourism is no longer possible to apply.

- *Planning*

Planning is the first phase to achieve certain goals. The planning process, including all parties, is expected to be integrated and refers to regional and national development plans, thereby increasing the social, economic, and environmental benefits of each actor. The criteria developed in this planning stage are as follows.

- a. Ecotourism development plans need to refer to district/regional management plans. Regional management plans are written guidelines for managing, designating, regulating, and monitoring local habitats as well as activities to ensure the conservation of local functions. Indicator: the ecotourism development plan is in line with the regional management plan.
- b. Attention to environmental conditions. Indicator: ecotourism development plan based on a preliminary survey of potential biodiversity.
- c. Attention to social, cultural, and economic conditions. Indicator: an ecotourism development plan based on a preliminary survey of the potential for culture, local traditions, and the community's economy that needs to be developed.
- d. Spatial planning. Planned activities should relate to the level of use of space, capacity to accommodate visitors, and appropriate public facilities. Indicators: a) ecotourism development plan by state/province/city spatial plans. b) analysis of potential and constraints is carried out, including analysis of the unique potential of natural resources, business analysis, environmental impact analysis, economic analysis (costs and benefits), social analysis, and analysis of space use.
- e. Prepare an action plan. Indicator: create an integrated action plan based on the analysis carried out.
- f. Listening to public opinion/consultation. Indicator: listening to public opinion on plan development.

- *Development*

The following eleven indicators can be identified in the development of sustainable tourism.

Damayanti et al. (2011) found supporting factors in the management of ecotourism areas including potential characteristics (combination of nature, social and cultural conditions) of ecotourism, local community participation, and the role of village government; for several inhibiting factors including the low quality of human resources, limited funds, and the role of district governments that have not been active.

- *Monitoring and Evaluation*

After planning and development, the next standard is monitoring and evaluation. Monitoring and evaluation regularly and continuously at each stage of activity. Evaluation is feedback on plans and further development.

TABLE 1: Eleven Indicators in Sustainable Tourism Development.

No.	Indicators	Specific Measures
1	Site Protection	According to the IUCN ( <i>International Union for Conservation of Nature</i> ), there are 3 aspects, namely carrying capacity, pressure on the area, and attractiveness
2	Pressure/stress	Number of tourists visiting per year/month/peak period
3	Intensity of use	The intensity of use at peak times (tourists/ha)
4	Social impact	The ratio between tourists and residents (at peak/average times)
5	Monitoring of development	There is a formal procedure for local development and utilization
6	Waste management	Percentage of waste to manageability. The same applies to the ratio of demand and supply of clean water.
7	Planning Process	Considering regional tourism planning
8	Critical ecosystems	Number of rare and protected species
9	Visitor satisfaction	The visitor satisfaction level is based on a questionnaire for tourists
10	Resident satisfaction	Level of local population satisfaction based on the questionnaire
11	Contribution of tourism to the local economy	The proportion of total income to income from tourist

Source: Fandeli & Nurdin (in Nafi, Mochammad; Supriadi, 2019)

- a. *Integrated monitoring*. Indicators: integrated screens across departments between local government, local stakeholders, and communities through the development of agreed control systems and procedures and modification of local conditions.
- b. *Evaluation*. Indicator: there is an evaluation monitoring schedule. Re-verify whether the ecotourism development is to the agreed work plan. Take action if there are deviations in the territory.

### 3.3. Ecotourism Impacts and Implications

Ecotourism is carried out as a step toward achieving the Sustainable Development Goals (SDGs), in which the ideal state of the environment is modified while continuing to uphold the needs of the general population. This is in line with the proposal of Angessa et al. (2022) for a promotion of the Wanchi Lake and the surrounding area that offers several opportunities for preserving biodiversity while also advancing a long-term local development strategy. In their study, Ni et al. (2021) discovered that while the majority of the men who live in Tangkahan today work as illegal loggers and occasionally cause

problems for businesses, they currently search for employment through ecotourism, work in restaurants and cafes, sell souvenirs, and serve as guides tourist. In contrast, the general public is employed by a business called Community Tour Operator (CTO), which was created specifically to carry out. In their study, Carvache-Franco et al. (2022) assert that the implications of social policy that apply to e-commerce products and services can improve local communities' small businesses and employment opportunities. Likewise, the benefits provided by WETA (Wanchi Ecotourism Association) to local residents include biodiversity conservation, employment opportunities, income from ecotourism activities, land ownership tax exemptions, and collective benefits such as improvements to infrastructure and public facilities (Angessa et al., 2022). In general, the ecotourism area has become a key factor in the effectiveness of environmental protection, education, research, and labor law implementation.

### 3.4. Ecotourism SWOT Analysis

Ching & Choong (2020) revealed that SWOT analysis can be applied to identify internal and external factors that affect ecotourism.

On the strength side, it shows that the development of ecotourism can accelerate the potential in an area. This relates to objects that can be developed, how activities can be realized, and attractions that can be featured in the context of ecotourism-based tourism. Ecotourism becomes the commodification of nature in the context of capitalist expansion, where it accommodates nature conservation with the interests of residents, governments, and investors in a sustainable manner. This is supported by Mondino and Beery's research which states ecotourism is a responsible trip to natural areas that preserves the environment, supports the welfare of local communities, and involves interpretation and education (Arrage & Hady, 2019). Thus, broadly speaking, ecotourism presents the concept of tourism by utilizing natural landscapes and the uniqueness or nobility of culture characterized by a diverse combination of ecosystems with economic benefits. The next strength of ecotourism can be seen from sustainability that can be supported, where the concept of ecotourism aims to harmonize nature sustainability without compromising its economic benefits. Hanum et al. (2013) and Teshome, dkk (in Rahman et al., 2021) research agree that ecotourism development answers the challenges of tourism sustainability while ensuring its sustainable use. The strength of ecotourism also lies in the uniqueness that not only sells tourism destinations but also philosophies so that it will not get market saturation. This is supported by research by Hanum et al. (2013), Ni et al. (2021), and Carvache-franco et al. (2022)

where philosophy is an important point in ecotourism to support ecotourism as one of the fastest-growing sectors in the tourism industry with its motivation in social activities, sports and health, nature and culture, and educational activities full of philosophy. So, visitors will feel memorable intimacy in their experience of tourism in ecotourism objects.

In terms of weakness, several positive factors behind ecotourism can be hampered internally, especially in terms of community participation. Community participation is a milestone in the implementation of ecotourism. The research of Tseng, et al. shows the importance of community participation as an effective method in planning, developing, and managing ecotourism which in turn leads to sustainability (Rahman et al., 2021). Community participation is related to ecotourism governance, including the identification of existing potential. Low community participation and underestimation will be the most vital weakness in ecotourism development, because it directly impacts the sustainability of ecotourism, especially in terms of management and identification of potential which should be an important indicator in aligning the sustainability of nature and its economic benefits.

From the perspective of opportunity, ecotourism has a clear mission and a strong philosophical foundation. It also has clear criteria for evaluating progress that is integrated and applies to both national and regional development projects that involve international trade. Progress can be measured using 11 indicators, monitoring, and structured evaluations.. With opportunities that can be absorbed, ecotourism may be one of the fastest-growing drivers of the tourism industry.

In terms of threats, the implications and impacts of ecotourism can be threatened in a negative direction by capitalist greed that violates the philosophy of ecotourism, so that the implementation of ecotourism is not aligned as it should be. Then the perception of the community around the ecotourism area is also quite important. It would not be optimal if it only favors local communities without caring about the surrounding community as well, due to the fact that Ecotourism's success has been achieved by integration with all relevant parties, rather than by itself. So, socialization and education are also key factors in developing ecotourism. Ecotourism is now being promoted as the newest sector of the potential tourism industry in all of Indonesia.

## 4. Closing

Ecotourism-based sustainable development strategies (SDGs) are the main vision and objectives of tourism development and management patterns. One of the strengths of ecotourism lies in the uniqueness that not only sells tourism destinations but also



philosophies so that it will not get market saturation. Visitors will feel memorable intimacy in their experience of tourism in ecotourism objects. In terms of opportunities, ecotourism conceptualization has a clear vision and mission with a strong philosophy, has integrated planning criteria, and refers to regional and national development plans with international attractiveness, development can be carried out through 11 indicators and structured monitoring and evaluation. With the available opportunities, it's not likely that the tourism industry would have one single sector that consistently leads the way in growth. Fully supported by all shareholders, be it the community, visitors, managers, universities, central government, regional government, or tourism entrepreneurs as a component of the company.

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