

# Ecological Tourism Village as a Tool for Sustainability (Case Study Nyambu Tourism Village, Bali)

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**Abstract**—The purpose of this research is to determine the community perception to the development of Nyambu village as an ecological tourism village. The data collection was conducted through observation, survey and in-depth interviews. The sampling technique used was random sampling by distributing questionnaires to find out the community perception of ecotourism principles. The data were analyzed through Confirmatory Factor Analysis. The result showed that the community perception for natural conservation principles is increasing the awareness and appreciation of actors to the natural and cultural environment (0,875); cultural conservation is involving the local community and other parties (0,889); community participation principles are inspiring local community initiatives and the aspirations to ecotourism development (0,844); economic principles suppress leakage rates as low as possible (0,895); education principles are optimizing the role of the community as a local interpreter of ecotourism products (0,889); and tourism principles is prioritizing hospitality in every service (0,882).

**Index Terms**—ecotourism, tourism village, ecological tourism, sustainable tourism

## I. INTRODUCTION

The development of tourism in Indonesia is intended to improve the welfare of the community and as an effort to preserve nature and culture. The development of Indonesian tourism is intended to make the attractions of Indonesia can be recognized by the people of Indonesia itself and the world community, and also can be utilized optimally while maintaining its integrity and authenticity. Tourism development will provide space for physical development, social interaction of tourists with local communities, as well as different cultural encounters. Concerning about the industrial impact caused by tourism activities encourage sustainable tourism development, UNWTO states that sustainable tourism development is to meet the needs of tourists and local communities today while maintaining and enhancing future generations opportunities.

Community based tourism (CBT) could be one way of creating a more *sustainable tourism* industry (Blackstock,

2005) [1]. CBT for over three decades, been promoted as a means of development whereby the social, environmental and economic needs of local communities are met through the offering of a tourism product (Goodwin and Santilli, 2009) [2].

Community-based tourism management is adopted by most tourist attractions in Bali, one of them is Nyambu Village located in Tabanan Regency. Nyambu Village, Bali was developed into an ecological tourist village under the name of "Langgeng<sup>1</sup>Ecotourism" program. The ecological tourism village development involves the Wisnu<sup>2</sup>Foundation in collaboration with "British Council" Jakarta. The integrated program is aimed at improving the community's capacity to manage tourism businesses, while increasing revenues through the introduction of village potentials, natural resources, cultural potentials and cultural arts managed by local communities. These efforts are expected to provide economic benefits and support the growth of local tourism. In addition, the community gave a good response to develop a tourist village.

## II. LITERATURE REVIEW

### A. Tourism Village

The success of sustainable tourism development through the program is determined by tourist village cooperative relationship as a fundamental element of local community participation in planning and project management of a tourist village (Garrod, 2003) [3].

Nuryanti (1993: 2-3) [4] said that that the tourism village is a form of integration between attractions, accommodation, and support facilities that are presented in a structure of a society that integrates with the procedures and traditions prevailing. According to Inskeep (1995) [5], tourism village is a tourism facility that allows visitors to live in or near the village, and generally a traditional village. Tourism activities conducted is about learning the rural life, local procedures, and participate in the activities of the population.

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<sup>1</sup>Langgeng mean sustainable

<sup>2</sup> One of local NGO in Bali that concern about sustainable development

### B. Ecological Tourism

Ecotourism or ecological tourism has a sense that tourists enjoy biodiversity without doing activities that cause changes to the nature, or simply to admire, research, enjoy and interact with local people and attractions. Ceballos-Lascurain (1996) [6], said that eco-tourism is a type of tourism to promote conservation has low visitor impact of tourism to provide the beneficially active socio-economic involvement of local populations and to promote the visitor awareness in environmental conservation.

Fennel (2002)[7] said that ecotourism is a multifaceted concept which includes a number of different forms of tourism such as nature travel, adventure travel, birding, camping, skiing, whale watching, archaeological digs, and so on, which occur in a number of environments.

The principle of ecotourism development and ecotourism criteria compiled by the Ministry of Culture and Tourism of the Republic of Indonesia in 2003 collaboration with the Indonesian Ecotourism Network (INDECON), which conceptually emphasizes five basic concepts: Conservation Principles, Principles of Community Participation, Economic Principles, Principles of Education, Tourism Principles. Ecotourism provides a purpose to increase people's awareness of the importance of conservation and environmental knowledge, whether international tourist and domestic tourist.

### C. Community Based Tourism (CBT)

Asker, et. al. (2010) [8] in APEC Tourism Working Group defines CBT is

“Generally small scale and involves interactions between visitor and host community, particularly suited to rural and regional areas. CBT understood to be managed and owned by the community and for the community.”

The Thailand Community Based Tourism Institute in Goodwin and Santilli (2009) [2] defines CBT more rigorously as:

“Tourism that takes environmental, social and cultural sustainability into account. It is managed and owned by the community, for the community, with the purpose of enabling visitors to increase their awareness and learn about the community and local ways of life.”

CBT always involves the whole society which is not individual in its management, and able to give benefit to society while maintaining the sustainability of environment, culture, social life as well as pay attention to the impact that arises in the society with the influence of tourists.

### D. Sustainable Tourism

In forecasting the future of sustainable tourism, the key consideration is that both tourism and sustainability are changing more rapidly than the tourism industry adopts sustainability improvements (Buckley, 2012)[9]

United Nation Environment Program (2002)[10] mentions “Sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunity for the future. It is envisaged

ad leading to management of all resources in such a way that economic, social, and aesthetic, needs can be fulfilled while maintaining cultural integrity, essential ecological processes, and biological diversity, and life support systems”.

## III. RESEARCH METHOD

Since the tourism is multidiscipline, this research used mix method approach that combine the quantitative and qualitative method and data. The research design focuses to explain Nyambu village as ecological tourism village qualitatively and the community perception of ecotourism principle using a combined analysis both qualitative and quantitative. The research is located in the village of Nyambu, Tabanan Regency Bali-Indonesia. The location of study is one of the villages as ecological village in Bali.

The data collection was conducted through observation, survey and in-depth interviews. The sampling technique used was random sampling by spreading questionnaires to community with 100 respondents. Respondents filled in the questionnaire, by 5 principle of ecotourism. In determining perceptions towards the principle, the respondents were asked to assign each attitude statement according to agree level by giving 5 (strongly agree), 4 (agree), 3 (fairly agree), 2 (not agree), 1 (disagree) which is expected to reveal the perception of community and analyzed using Confirmatory Factor Analysis

In-Depth interviews were conducted with community leaders, tourism village management and local communities. The data is used to support the assessment ecotourism principle and analyzed by qualitative descriptive to get reliable information and better interpretation.

## IV. RESULT AND DISCUSSION

### A. Community Profile

TABLE I. CHARACTERISTIC OF NYAMBU VILLAGE

No	Profile	Choices	Percentage (%)
1	Sex	Male	82
		Female	18
	Total		100
2	Age	≤ 20	-
		21-30	17
		31- 40	42
		41 – 50	32
		≥ 50	8
	Total		100
3	Education	Elementary	9
		Junior School	14
		High School	60
	Bachelor		17
	Total		100
4	Occupation	Civil Servant	19
		Trader	10
		Farmer	10
		Housewife	5
		Employee	26
		Entrepreneurs	11
		Labor	10
		Craftsmen	5
		Others	4
	Total		100

Source: Data Processed, 2018

Table I illustrates that Nyambu villagers involved in Ecological Tourism Village development are more of 82% male and 18% female, indicated that tourism actors mostly are men. The most community who participated in the development of the tourism village is 31 to 40 years old. Communities participating in ecological tourism village development with the highest level of education at high school (60%) and the occupation of the communities are: employees (26%). The most dominant employees of the work are mostly private employees and they have less time to engage in the development of village tourism, but they participate in meetings or activities held on holidays.

#### B. Community Perception toward of Nyambu Village as Ecological Tourism Village

The community perception of tourism village development based on the ecotourism principles can be seen on appendix 1.

##### 1) The principle of nature conservation

Community is a hindrance to progressive social change, current writings champion the role of community in bringing about decentralization, meaningful participation, and conservation (Agrawal and Gibson, 1999)[11].

Based on appendix1 the percentage of 60,015%, means that natural conservation indicator 60,015% variation of natural conservation variables. The highest indicator "increase awareness and appreciation of actors against the natural and cultural environment" (X13) with the loading factor of 0.875. It shows that the community are very concern about the natural environment.

The highest value is nature conservation which provides an opportunity to manage a healthy business (Dianasari, 2017)[12]. There is no zoning area in Nyambu Village. The activities that support this principle are to maintain and protect the biodiversity in the village by plantation and also protect the animals. Activities that can be done by the community to support nature conservation is mutual cooperation in each group and giving a sign of environmental cleanliness in every tourist attraction in the village.

##### 2) Principles of cultural conservation

Sigalla and David (2005)[12] refers that the role of heritage as a carrier of historical value from the past means that it is seen as part of the cultural tradition of society. Prentice (1993) in Sigala and David (2005) 13 suggested that essentially in tourism, the term "heritage" has come to mean not only landscapes, natural history, buildings, artefacts, cultural tradition and the like which are literally or metaphorically passes on from one generation to the other.

Nowdays, many cultural activities carried out in the Nyambu Village are still maintained. The activity that supports this principle is that Nyambu Village runs many rituals which are similar to other areas in Bali, but some others are special rituals that are only conducted in Nyambu Village.

Based on appendix 1 seen that the factor analysis on the principle of cultural conservation shows that the percentage of variance amounted to 75.936%, which means that variation variables in the principle of cultural

conservation 75.936%. The highest score in this principle is "involve the local community and other parties" (X22) with the value is 0.889.

##### 3) Principles of community participation

Participation should ideally lead to the empowerment of those affected by the decisions of where they are participating. However, the terms 'participation' and 'empowerment' are inherently vague and hence capable of interpretation in a number of different ways (Garrod, 2003)[3]. Empowering communities link the benefit of ecotourism to the conservation of the natural environment.

The highest value of community perception of the principle of community participation is "inspire local community initiatives and aspirations for ecotourism development" (X33) with a value of 0.844 with a variance percentage of 62.208%. This indicates the indicators in community participation amounted to 62.208 percent variance of community participation variable.

Community participation is needed in a tourism village development, where the principle of community participation should be based on consensus and consents of the local community, sensitive and respect the social-cultural values and traditions of the diverse community around the region. Most of Nyambu villagers participate in as managers, guide, and homestay owners and as dancers and musicians who are members of art galleries.

##### 4) Principles of economic

Garrod (2003)[3] refers that economic empowerment refers to the local community's ability to make and take opportunities for economic development through the development of ecotourism. The local community can access the productive resources that are being targeted by ecotourism.

The development of a tourist village should be able to provide benefits to the community, especially local, and to be the driving force of economic development in the region to ensure that the balanced development between the needs of environmental conservation and the interests of all parties. The developments of Nyambu Village as a tourist village, managers and communities have applied economic principles to improve and prosper the local community. By the existence of a tourist village in addition to the community having the main job, the communities also get additional work. The benefits that have been received by society are economic improvement in the form of additional income either as a guide, homestay owners, food providers and managers.

The communities perception of the economic principle is "suppress leakage rates as low as possible" (X44) with a value of 0.895. The community is very active in participating in ecotourism so that it will improve the economy of the communities. Providing stakeholder information on the concept of developing a tourist village easily accepted by all levels of society so as to provide a high assessment. In addition, information is also quickly submitted to the public so as to reduce the gap in the community.

##### 5) Principles of education

Development of Nyambu Village as Ecological Tourism Village must contain elements of education to

change a person's behavior or attitude to be caring, responsibility and commitment to environmental and cultural preservation.

Based on Appendix 1, the public perception of the highest value of education is shown “the optimizing the role of the community as a local interpreter of ecotourism products” (X53) with loading factor of 0.889 and the variance percentage is 73.434%. The activities that cover the principles of education undertaken by the community are doing mutual help cleaning the surrounding environment, participating in the art studio, following the training guide, food processing training, training of village tours. In addition, the community also received training on waste management, and the formation of waste banks each group work with private parties. Every citizen collects plastic waste, paper and bottles that are collected at the village office to be paid in accordance with the waste produced.

#### 6) Tourism principles

The development of Nyambu Village as an ecotourism village should be able to provide satisfaction of the original experience to the visitors, as well as ensure the tourism village's business can be sustainable.

The several indicators in the principle of tourism, the highest public perception is shown on the indicator “prioritize hospitality in every service” (X66) with the value of 0.882 and the percentage of variance is 68.179%. The community prioritizes hospitality in giving a services to the tourists who come to their village that Nyambu Village grow and famed as tourist destination in Bali.

The activities of community are to develop the potential of both natural and cultural potential to used as a tourist attraction that “sold” to tourists who visit. Tourism activities encountered in the village are trekking, cycling,

culture, and educational activities of learning to paint, sculpt, and make some Balinese offerings.

## V. CONCLUSION AND RECOMMENDATION

Nyambu village is potential to be used as ecological tourism village with it's biodiversity of flora and fauna, cultural diversity in the form of temple building, art ritual, and traditional game which still played by the communities. The community claims the development of Nyambu Village as an ecological tourism village meet the criteria of the ecotourism principle based on the principles of nature conservation, cultural conservation, community participation, economy, education and tourism. Based on factor analysis, the community perception for natural conservation principles is increase awareness and appreciation of actors against the natural and cultural environment (0,875); cultural conservation is involve the local community and other parties (0,889); community participation principles is inspire local community initiatives and aspirations for ecotourism development (0,844); economic principles is suppress leakage rates as low as possible (0,895); education principles is optimizing the role of the community as a local interpreter of ecotourism products (0,889); and tourism principles is prioritize hospitality in every service (0,882).

Based on the observation in Nyambu Village, the cooperation between local government and tourism stakeholders especially the tourism industry is needed to provide more variety of tourist attractions, also the both formal and informal training should be conducted on local guides, to broaden the local guide's knowledge and attitude.

## APPENDIX I. COMMUNITY PERCEPTION TOWARD OF ECOLOGICAL TOURISM VILLAGE

No	Indicators	Result of Factor Analysis	KMO	Significant	% of Variance
Natural Conservation Principles (X1)					
1	Protect the quality of environmental carrying capacity of the destination area trough the zoning (X11)	0,843	0,806	0,000	60,015
2	Manage the number of visitors, facilities and facilities in accordance with environmental carrying capacity of the destination area (X12)	0,681			
3	Increase awareness and appreciation of actors against the natural and cultural environment (X13)	0,875 *			
4	Utilize resources sustainably in the implementation of ecotourism activities (X14)	0,802			
5	Minimize negative impacts, and are environmentally friendly (X15)	0,625			
6	Manage business in a healthy manner (X16)	0,791			
Cultural Conservation Principles (X2)					
1	Implement ecotourism code of conduct for tourists, managers and ecotourism business actors (X21)	0,844	0,824	0,000	75,936
2	Involve the local community and other parties (multi stakeholders in preparing the code of ethics of tourists, managers and ecotourism business actors) (X22)	0,889 *			
3	Take an approach, ask for suggestions and seek input from local community leaders / leaders at the level before beginning the steps in the ecotourism development process (X23)	0,885			
4	Conducting research and introduction of socio-cultural aspects of local communities as an integral part of the ecotourism planning and management process (X24)	0,866			

Community Participation Principles (X3)					
1	Conduct integrated research and planning in ecotourism development (X31)	0,751	0,862	0,000	62,208
2	Establish partnership relationships with local communities in ecotourism planning and management processes (X32)	0,833			
3	Inspire local community initiatives and aspirations for ecotourism development (X33)	0,844 *			
4	Giving people freedom to accept or reject ecotourism development (X34)	0,714			
5	To clearly and concretely inform ecotourism development concepts and objectives (X35)	0,800			
6	Opens the opportunity to engage in dialogue with all stakeholders (multi-stakeholder) in the ecotourism planning and management process (X36)	0,798			
7	Establish cooperation with the local community to monitor and prevent against the prevailing regulations (X37)	0,773			
Economic Principles (X4)					
1	Opening opportunities to local communities to open ecotourism businesses and become economic actors ecotourism activities both actively and passively (X41)	0,854	0,899	0,000	77,328
2	Empowering the community in an effort to increase ecotourism business for the welfare of the local population (X42)	0,881			
3	Improving the skills of local communities in related fields and supporting the development of ecotourism (X43)	0,885			
4	Suppress leakage rates as low as possible (X44)	0,895 *			
5	Increase people's income (X45)	0,881			
Education Principles (X5)					
1	Optimizing the uniqueness and uniqueness of the region as a tourist attraction (X51)	0,877	0,835	0,000	73,434
2	Utilizing and optimizing traditional knowledge based on nature and culture preservation as well as the values contained in daily life as an added value (X52)	0,854			
3	Optimizing the role of the community as a local interpreter of ecotourism products (X53)	0,889 *			
4	Providing a quality and value experience for visitors (X54)	0,852			
5	Packed into a communicative and innovative delivery (X55)	0,811			
Tourism Principles (X6)					
1	Optimizing the uniqueness and uniqueness of the region as a tourist attraction (X61)	0,817	0,858	0,000	68,179
2	Make Standard Operating Procedures (SOP) for the implementation of activities in the field (X62)	0,735			
3	Provide adequate facilities in accordance with visitor needs, local conditions and optimize local material content (X63)	0,828			
4	Prioritize hygiene and health in all forms of services, facilities and services (X64)	0,852			
5	Providing ease of service and correct information (X65)	0,832			
6	Prioritize hospitality in every service (X66)	0,882 *			

Source: Data Processed, 2018

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