# Community-based Ecotourism in Tenganan Dauh Tukad: An Indigenous Conservation Perspective

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## **Abstrak**

Ekowisata mencakup upaya pelestarian alam, bisnis pariwisata dan pengembangan masyarakat lokal. Ekowisata yang berbasis pada masyarakat adalah bagian dari jenis wisata yang berbasis alam, yang dimiliki dan dikelola oleh masyarakat setempat, dan seringkali digunakan untuk meningkatkan kesejahteraan anggota masyarakat. Penelitian ini dilakukan di Desa Adat Tenganan Dauh Tukad, Bali. Tulisan ini dimaksudkan untuk melihat hubungan antara partisipasi masyarakat dalam kegiatan ekoturisme dengan persepktif masyarakat serta upaya dan praktek konservasi yang dilakukan. Hasil penelitian menunjukkan bahwa terdapat hubungan yang positif antara partisipasi masyarakat dengan perspektif dan praktek sehari-hari terkait pelestarian alam dan lingkungan sekitar Desa Adat Tenganan Dauh Tukad. Hal ini termasuk pula konservasi lingkungan alam (biodiversity) dan juga warisan budaya yang telah ada dan tumbuh dalam masyarakat.

**Kata kunci:** berbasis masyarakat, ekowisata, konservasi, pribumi/asli, dan Tenganan Dauh Tukad

#### Abstract

Community-based ecotourism involves conservation, business, and community development. It is a subset of nature-based tourism that are owned and managed by the community and used to improve the well-being of its community members. Research conducted in Indigenous Tenganan Dauh Tukad Village, Bali. This paper examines the linkage of community participation in ecotourism with the conservation practices and perspectives. This study revealed that there is a positive linkage between

community participation to their practices and perspective of conservation. This includes conservation of biodiversity environment and cultural heritage of the local community.

**Keywords**: community-based, ecotourism, conservation, indigenous, Tenganan Dauh Tukad

## Introduction

Tourism is among the world's largest and fastest growing industries. It becomes a key driver of world trade, a leading employment sector and a main source of foreign exchange earnings in many developing and least developed countries (UNWTO, 2015). To illustrate, in the year 2014 alone, there are total 1.135 billion tourists (overnight visitors) taking an international trip. This number increased by 4,4%, which go beyond UNWTO's long term growth projection of 3,8%.

As released by 2015 World Economic Situation and Prospect Report, tourism contribute positively for world trade as being the first export earner for many emerging countries, and the fourth largest category of export in developed economies in 2013 after chemical, fuel, and automotive products, but ahead of food. Tourism also contributed as world's top employment creator (UNWTO, 2015), which account for more than 10% of total employment.

Beside positive impacts, however, the rapid development of the industries has also created many problems. Tourism is often the cause of environmental degradation (Fridgen, 1996), a condition where particular destination suffers because too many tourists use it, ranging from pollution of air, water and noise to visual, waste disposal problems to ecological disruption, land use problem and damage include the archaeological and historic site. Another issues raise around socio-cultural matter, such as loss of authenticity of the host culture, lost of cultural character, self-respect and overall social identity (Inskeep, 1991).

Therefore, today's concern of the tourism sustainability is not merely on maximizing the economic objectives, but rather on emphasizing the importance of environment and socio-cultural conservation approach, within the framework of achieving economic benefits (Inskeep, 1991). The central idea lies on protecting the environment at the same time as improving the livelihoods of the local communities. This movement is about balancing between strategies of environment protection and meeting the local needs. As environment is an important tourist attraction (Fridgen, 1996), thus biodiversity conservation and environmental protection are essential to ensure the sustainable development of any tourism destination (UNWTO, 2015).

Figure 1. Ecotourism protects the environment while contributing to socio-economic development, and thus strives



Source: Ross and Wall, 1999a

Community-based eco-tourism (CBET) is popular as a means of supporting biodiversity conservation, particularly in developing countries (Kiss, 2004). Community-based ecotourism means that community is taking care of their natural resources in order to gain income and using that income for improving the well-being of their community members. It involves conservation, business and community development.

The purpose of this paper is to overview the community-based ecotourism initiatives in Indigenous Tenganan Dauh

Tukad Village, Karangasem, Bali and sees how it contributes for conservation of environment and socio-cultural aspect of the community members. Central to this discussion is to examine the linkage between community participation in ecotourism with the conservation practices and perspectives of the local.

Information for this case study was developed in 2014 and 2015. Primary information was collected through in-depth interview and focus group discussion. Another source of information includes observation aimed at learning the tourist experiences, interpretive facilities and level of interaction between tourist and local people. A survey of 40 local residents was also conducted to understand the local's perception and attitudes towards conservation and the development of nature-based tourism in their village.

## Linking Indigenous Group, Tourism and Conservation

Indigenous peoples, peoples who have lived on and from their lands for many generations and who have developed their own culture, history, ways of life, and identities grounded in these places, inhabit vast areas of Asia, Africa, the Americas, and the Pacific... In many parts of the world, these homelands of indigenous peoples are the best – and often the last – remaining places of rich wildness and biological diversity (Stevens, 1997; cited by Weaver, 2001)

With rich natural and cultural attractions, visit to Asia, Africa and elsewhere in developing countries has increased dramatically in the last 25 years (Mansty, 2011). Many developing countries welcome tourism mainly as a way to boost investments and the income of their people. But, tourism remains one of the world's least regulated industries, a situation that often has negative implications for local economies, culture and ecosystems (WTO, 1998; as cited by Mansty, 2011). These problems include issues of economic (such as revenue gain in developing countries back out to foreign countries through foreign-owned investment); socio-culture (such as, local people are end up as passive participant in their area, lost of indigenous

culture), and environment damage.

To address some of these negative impacts, many countries then embracing ecotourism. A survey conducted by Lew (1988) indicated that most North American tour companies that offer eco-tours to the Asia Pacific region found a significant increase on ecotourism to Asia, about 20% a year throughout most of the 1990s, and Indonesia was the most cited destination followed by the countries along Himalaya border in South Asian. In term of places visited, based on the 1992 study by the Pacific Asia Travel Association (PATA), tourist were interested primarily in rainforest destination (62%), islands (17%) and mountain (17%) (Yee, 1992; cited by Weaver, 2001).

The ecotourism term was firstly introduced by Ceballos-Lascurain, refers to "travelling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations, both past and present, found in these areas." In the past, this term emphasized more on marketing tactic, to show that business has green concern to be competitive in industry. But, since shifting on tourists demand to seek nature for pleasure, then the idea to develop strategy on maintaining and protecting the nature become important.

The Ecotourism Society further defines ecotourism as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education" (TIES, 2015). Meanwhile, the World Conservation Union defines it is a visitation to relatively undisturbed natural areas having low negative visitor impact, and providing for beneficially active socio-economic involvement of local populations. Ecotourism is about uniting conservation, communities and sustainable travel (TIES, 2015; Dasgupta, 2011). Ecotourism has the following key aspects (Weaver, 2001):

## 1. Nature based

Nature-based is the most obvious characteristic of ecotourism. Valentine (1992; cited by Weaver, 2001) defined nature-based tourism as tourism that "primarily concerned with the direct enjoyment of some relatively undisturbed phenomenon of nature." He further identified three main dimensions of nature-based tourism based on: 1) the experience (which include nature dependency, intensity of interaction, social context and duration); 2) styles, (associated with level of infrastructure support, group size and type, cultural interaction factor, willingness to pay and length of visit); and 3) location (include accessibility/remoteness, development contribution, ownership and fragility).

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## 2. Environmentally and culturally educative

Ecotourism is more than just sightseeing, it is an experience. The feature of ecotourism depends on two key experience characteristics, namely education which includes the aspect of interpretation, about the natural environment and cultural manifestation. Education involves 'conscious, planned, sequential and systematic process, based on defined learning objectives and using specific learning procedure (Kalinowski and Weiler, 1992; Weaver, 2001). Meanwhile, interpretation means 'an educational activity which aims to reveal meanings and relationships through the use of original objects, by first-hand experience and by illustrative media, rather than simply to communicate factual information (tilde, 1997; Moscardo, 1998: cited in Weaver, 2001).

## 3. Sustainably managed

World Commission on Environment and Development defined sustainability as "meeting the needs of the present without compromising the ability of future generation to meet their own needs". There are two sustainability principles that are used to highlight ecotourism that should: 1) support local economies, which can take in variety of action include foreign exchange

earnings, employment, infrastructure development, long-term economic stability and economic diversification (Lindberg, 1991; cited by Weaver, 2001); and 2) support conservation, which can be gained through entrance fee, donations and ancillary goods and services (accommodation, souvenirs etc) (Ziffer, 1989; cited by weaver, 2001), alternatively through participating in rehabilitation projects, participating in scientific monitoring and removing litter from site visited (Honey, 1999; cited by Weaver, 2001).

To be successful in managing ecotourism site, Ross and Wall (1999a) proposed an important ecotourism paradigm, which integrate three key elements include local communities, biological diversity, and tourism activities.



Figure 2. The ecotourism paradigm

Source: Ross and Wall, 1999a

The paradigm presented above implies that tourism should be considered in the contexts of both the natural environment and the aspirations of local communities. Ross and Wall (1999a) viewed ecotourism as a means of protecting natural areas through the generation of revenues, environmental education and the involvement of local people (in both decisions regarding appropriate developments and associated benefits). The major function of ecotourism are protection of natural resources,

production of revenue, education and local participation and capacity building (Pederson, 1991; as cited by Ross and Wall, 1999a). Further stated that the goals of ecotourism as a symbiotic relationship between local communities, tourism and biodiversity conservation. Ecotourism offers communities an opportunity to improve their well-being and economic livelihood, while preserving biodiversity and encouraging individuals to conserve nature and wildlife. It emphasizes the significance of fostering positive links between people, natural resources or biodiversity and tourism. The strength or weakness of any one link has implications for other links.

Having considered the benefit gained through this type of nature-based tourism, thus ecotourism is viewed in many parts of the world as the next wave of community and regional development (Hall & Boyd et al 2006:21; as cited by Kamakar, 2011). Ecotourism is seen as a potential win-win strategy, for protecting the environment while also meeting human needs (Stronza and Pegas, 2008).

Stronza and Pegas (2008) indicated that there are two different theories on evaluating relationship, how and why, ecotourism works for conservation. Some researchers stated that economic benefits are the causal mechanism between ecotourism and conservation (Gossling, 1999; Linberg, 1991; as cited by Stronza and Pegas, 2008). The more economic benefit of ecotourism would lead to more effective resource conservations, high incentive earning will motivate people to protect biodiversity, in order to protect that income (Wunder 2000 cited by Kiss, 2004). Indicator of ecotourism success can be seen from income and employment opportunities (Bookbinder *et al.*, 1998; Gossling, 1999; as cited by Stronza and Pegas, 2008).

Whereas, other theorists suggest that beyond economic benefit, there are non-economic aspects, such as social dimensions, that could affect motivation for natural resource use and conservation (Scheyvens, 1999; Stonich, 2000 as cited by Stronza and Pager, 2008). This includes participation of local

communities in ownership and management of the ecotourism.

The latter theory of ecotourism is rooted in the discussion of community-based ecotourism. Community based ecotourism is tourism which focuses on travels to areas with natural attractions and which contribute to environmental conservation and local livelihoods (Nelson, 2004). Community-based ecotourism can be defined as a form of ecotourism in which the local community has substantial control over, and involvement in, the development and management of ecotourism (Kiss 2003). In addition, efforts are made to ensure that a large proportion of the benefits remain within the community (Place 1995, Mastny 1999, Kiss 2004). Important characteristic of the community-based ecotourism is that the quality of the natural resources and the cultural heritage should be enhanced by tourism. It should encourage people to value their own cultural heritage.

## Indigenous Village of Tenganan Dauh Tukad: The Context

Bali's tourism offer more than just beach resort, it also presents a diverse natural and cultural landscapes, and ecotourism has potential in this respect to be developed as alternative tourism product.

Because of its unique culture and tropical biodiversity, Village of Tenganan Dauh Tukad is of increasing interest to nature tourist. Located in the eastern part of Bali, approximately 65 km from the airport, this village also adjacent to Candidasa and Amed, which is famous for its marine tourism such as diving and snorkeling.

Tenganan Dauh Tukad is home for ethnic Bali Aga, or the original Balinese people. They had inhabited Bali before the arrival of Hindu-Javanese. They live in isolated area surrounded by mountain and hills, lies in the longitudes 8°47′76′′LS and 115°48′86′′ BT. Up to present time, Tenganan's people retained its ancient pre-Hindu custom and traditions.



Figure 3. Site of Tenganan Dauh Tukad

The residents of Tenganan Dauh Tukad are a community of approximately 125 households (784 individuals). Most of them working in agriculture and plantation sector (50%) that produces coconut, banana and other fruits; around 20% working in the small-scale industry, 20% working in private companies and the rest 10% are those who work as government officers.

Tenganan Dauh Tukad has authentic tradition and culture, ranging from unique village layout and architecture, distinctive housing made from clay wall and hay roof, rituals of *mekare-kare* (pandanus war) which symbolizing stages of life to become part of youth community. Beside culture, Tenganan Dauh Tukad has extensive part of forestry with diverse tropical plantations, birds and honey bees.

With this in mind then ecotourism was initiated to generate revenue for improving the life of Tenganan Dauh Tukad's residents. Activities developed in Indigenous Tenganan Dauh Tukad Village incorporated elements of ecotourism,



Figure 4. *Mekare-kare* (pandanus war) – s part of the village's one month ritual procession, which serve as Bali's annual tourism event (Photo Ramaswati Purnawan)

cultural tourism and adventure tourism. Activities include some combination of short/long distance trekking, visit to the villages and its traditional lifestyle, and nature/scenery appreciation through forest and Pengilihan Hill.



Figure 5. Trekking activities which combine mountainous hiking, education of biodiversity and scenery appreciation (Photo Ramaswati Purnawan)

#### Discussion

The success of conservation and ecotourism in protected area depends on the building of harmonious relationship between natural areas and local residents, between local residents and tourism, and between tourism and protected resource, facilitated by management (Ross and Wall, 1999b). Discussion of the relationship will be presented in the following section.

# 1. Natural Areas and local people

Although tourism has developed in Tenganan Dauh Tukad Indigenous Village, however agricultural sector, in wide definition, is still considered as people's major activities. Tourism activities in the area were aimed to generate additional income to improve the well-being of the whole member of the community. This condition relevant to the statement made by Ross and Wall (1999a) that communities should *not be encouraged* to become solely dependent upon ecotourism: rather, ecotourism ideally should complement other activities and help to diversify

an economy.

Research showed that the development of ecotourism at Tenganan Dauh Tukad village has given significant impact towards local community's perspectives and attitude on conservation, as pointed out on the following results. There is a high degree of their dependence on resources, and their attitude toward conservation is good. About 95% of respondent agree that nature-based ecotourism improve their concern on maintaining and preserving the nature. From their perspective, preserving their forest and its surrounding protected area would lead toward sustainability of this industry (97,5%). This is confirmed through their commitment in land use and function on agriculture and forestry. About 80% of the respondents stated that tourism in their village will not give consequences to changing in land use into tourism facilities such as hotel and restaurants. This is a challenge for them since trend in neighboring villages demonstrate high percentage of changing with promising land selling prices and revenues. To overcome this challenges then 100% of the respondent consent that rule and regulation on environment conservation is fundamental.

High degree of dependent upon nature can be explained in the word of Hollonshead, 1993; Hinch in Weaver, 2001) that indigenous peoples have an inherent kinship with the land, who believe that they belong to the Earth, rather than the land belongs to them. The land is considered as the 'mother', that represents their self-identity and become the essence of their life. Further stated, that there are two aspects of relationship between indigenous people and their perspective on nature. First, indigenous peoples' relationship with their territories rests on the importance of resources to the continuing existence of the group. The other aspect include the territory is an area deeply associated with the identity of the people as a whole, which each generation keeps in trust for the future. Those aspects perceived as ecological and culturally reproduction and management, whereas for non-indigenous, it falls in the domain of economic and culture aspects.

Implication of those believes then resulted in their value of life that Indigenous people do not see their land as a possession, but they would rather treat it as a commodity. They would see the land as complex meaning to place, include a spiritual dimension. Indigenous people they are aspect of the same phenomenon, where time, space, resource use, management and conservation are all parts of the same complex, linking identity to production and reproduction (Gray, 1991; Hinch in Weaver, 2001).

In the context of Tenganan Dauh Tukad, people are aware that their everyday life is heavily dependent upon resources, which available in the surrounding area. Some of the resources used, include *kemiri* (aleurites moluccana), *kepundung* (Baccaurea racemosa), and *sunti* (morinda citrifolia) which is needed for natural coloring for their hand-woven textile, called *geringsing*. Besides, there is another plantation which is grow wild in the forest, usually used as raw material for the making of this village souvenirs, known as *atta*. In the past, *atta* was quite un-sustained, as the local just picked it up from the forest without any effort to cultivate. This led to scarcity of the resources at a certain time. Learned from that experience, nowadays local have learned to grow it in the forest and their plantation area.

Implications of this unique and deep attachment are relevant in the context of ecotourism.

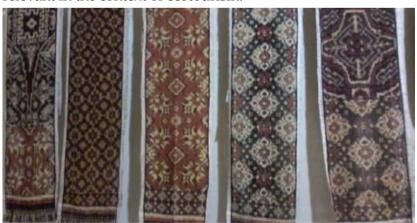


Figure 6. *Geringsing* hand-woven textile (Photo: Ramaswati Purnawan)

Table 1. Summary of Relationship Between Local Resident and Protected Area

	Indicators	Relationship
1	Degree of dependence on resources	High
2	Resources used in protected area	Kayusunti, Kepundung, Kemiri, Atta
3	Sustainability of livelihoods	Some unsustainable (Atta)
4	Activities of the greatest threat to protected area ecosystem	Atta
5	Staff/local relations	Good
6	Attitude towards protective area conservation	Good
7	Evidence of local benefits from protection	Forest biodiversity

<sup>\*</sup>Based on field experience between August 2014-March 2015

High attitude toward conservation can also be explained from the socio-cultural aspect. One of their prominent beliefs is living in harmonious relations with three important elements of human life - known as *Tri Hita Karana* – namely, relation between human to the Almighty God, human to other human and human to surrounding nature.

Besides, this high community awareness cannot be separated from the obedience of Tenganan Dauh Tukad community towards their traditional customs regulations (called *Awig-awig Desa Adat*). *Awig-awig Desa Adat*/traditional customs regulation as an important key in preserving the natural environment. It contains restriction and sanction of community-related issues, include conservation of natural resource. For example, Article 37 of *Awig-awig Desa Adat* Tenganan Dauh Tukad, states that it is prohibited to sell land owned by the member of the community within Tenganan Dauh Tukad territory to the non-community member of the village. Article 73 reinforces reference to traditional housing

architecture and layout (called *Asta Bumi* and *Asta Kosala Kosali*), Meanwhile, Article 77 contains restriction to cut a tree without prior permit from *prajuru*/customs officer, and obligation of the community to plant in order to replace tree being cut. It is believed that this regulation would contribute to achievement of ecotourism objectives, that provides solution for the conflict between resource exploitation and resource conservation, and make sure that their natural resource will continue be enjoyed for their next generation. Non-consumptive and non-extractive use of resources for and by tourists and minimized impact to the environment and people are major characteristics of authentic ecotourism (TIES, 2015).

## 2. Local Resident and Tourism

The socio-cultural impacts of tourism can be defined as the ways in which tourism contributes to changes in value systems, individual behavior, family relationships, collective lifestyles, moral conduct, traditional ceremonies and community organizations' (Fox 1977: 34 cited by Juska and Koenig, 2006).

While ecotourism has had positive impacts on communities through cultural exchange and economic benefits, the majority of the research indicates that ecotourism, in practice, tends to have greater negative social and cultural effects (Honey 1994, Place 1995, Mastny 1999, Ross and Wall 1999b, Juarez 2003, Kiss 2003, Medina 2003, Stem et al. 2003, Kirtsoglou & Theodossopoulos 2004; cited by Juska and Koenig, 2006). As stated by Mastny (2001).

"Although eco-tourists are a viable source of revenue, their introduction into local (and especially indigenous) societies frequently results in the alteration, or even collapse, of traditional customs and behavior. The intrusion of foreign visitors all too often commodifies the culture and environment of the host society" (Medina 2003, Stem et al. 2003; cited Kirtsoglou and Theodossopoulos, 2004).

The result may be a dramatic shift in the relationship between the local people and their environment, from one of working with the land to one of working for the visitors (King & Stewart, 1992; as Juska and Koenig, 2006). Local populations may be forced to alter their own traditions or borrow customs from another culture in order to meet the expectations of foreign visitors and their preconceived notions concerning authenticity (Place 1995; as cited by Juska and Koenig, 2006).

However this study revealed otherwise. Research indicated that tourism activities encourage local people to value the importance of preserving their cultural heritage. In their perspectives, tourism improve their level of awareness to preserve their own custom and culture (97,5). Having in-depth knowledge and understanding give confident on sharing the information to the tourists when they make a visit and want to learn about their culture and the nature.

But, local community also notice some negative impacts of the activities, especially related to their ritual life, such as tourism also encourages commercialization of their custom and culture (75%). However, since they have a strong commitment to preserve the tradition, they stated that tourism do not reduce the sense of kinship and social relationship (100%) and would living on their tradition above all activities, including tourism. For example, during temple festival, local guide focus to their responsibilities as member of *desa adat* and not allowed to handle tourism-related activities.

#### 3. Protected Area and Tourism

Tenganan Dauh Tukad has been developed as tourism village which offer its natural diversity and unique cultural life. Located in between hills in the east and western part of its territory, its large part of forestry is home for many tropical plantations, birds and honey bee, which is believed as one of the best honey producer in Bali.

Study showed that there are a clear separation of duties between tour operator who take the tourists to this destination, and local guide who will guide them throughout the village to learn about the cultural and natural resources. Once tourist

registered in the information centre and provide voluntarily donation, then local will guide them to show some places of interests. Quality of the local guide are vary, some of them posses good English proficiency, include mastering more than one language other than English, such as Italian, Russian and French. Meanwhile, the others have medium English language skills.

Facilities available include restroom in the parking area, before entering the village main gate, and one in the centre of the village near Bale Agung/the village's hall. One food stalls that sell drink and snack available opposite the information centre.

There are some alternative revenue option that can be applied for a destination, but only on-site donation applied. There is no entrance fee to get in the site, as well as contribution to the protected area and for environmental education applied. Local guide are free, but tips are welcome.

Table 2. Summary of infrastructure

	Presence of infrastructure	
1	Information Centre	Yes
2	Active Interpretation In form of	Local guide to ecotourism area
3	Quality	Vary
4	Facilities	Rest-room (available in front of the village main gate and near Bale Agung)
5	Permit/sign-in required	Yes
6	Entrance fee	None
7	Contribution to protected area	in form of on-site donation
8	Contribution to environmental education	None

<sup>\*</sup>Based on field experience between August 2014 – March 2015

## 4. Management

Ecotourism will not be successful without effective management (Boo, 1993; Ross and Wall, 1999a). This study found that in order to ensure the entire community has some level of involvement and benefit, thus ecotourism in Tenganan Dauh Tukad is owned and managed by *desa adat* (traditional custom village).

With an aim to give maximum benefit stay in the village, hence management made use of local services and employment of local people. The management then form a group of local guide consists of 24 persons, who run the daily operation in guiding and sharing information about their resources. This group also has the responsibility for networking, making contact, and marketing. Besides, there are about 24 art shops available within the village that sell their *geringsing* double ikat textile and various forms of product made of atta; 9 atta handicraft artist and about 7 persons working as weaver.

From option of revenue collection, management of Tenganan Dauh Tukad depend on tourist on-site donation only, the amount of money donated is voluntarily to the tourists. From the total amount of revenue, 80% of it managed by the village administrator for the whole member's wealth, including infrastructure (40%), rituals and ceremonies (40%), education, social, art, including youth group (20%). Since the local guide earn no salary from the management, thus the rest 20% of the total donation managed by the group for their communal well-being.

#### Conclusion

Ecotourism should be viewed as more than just leisure activities to natural area; it should be regarded as a means to synergize conservation and local development through tourism. Research showed that tourism activities within Tenganan Dauh Tukad Indigenous village had performed principles of community-based ecotourism where it support the economies and conservation of the local qualities; quality of natural

resources and cultural heritage were enhanced through the activities of tourism and encourage people to value their own cultural assets. Moreover, the practice in the area provides room for local community involvement and control over the development and management of the industry.

Study also indicated that there are positive linkage between community participation and conservation practices and perspective. The community of Tenganan Dauh Tukad had carry out the authentic ecotourism as it is characterized by the idea of non-consumptive and non-extractive use of resources for and by tourists, and minimized impact to the environment and people.

Ensuring the success of nature-based tourism depend heavily on creating local incentive to conserve and protect environmental services. The incentive could be something beyond the economic benefits. As study revealed that non-economic factors, such as socio-cultural dimension, local participation in ownership and management, ensuring the same level of benefit can be the incentive in protecting indigenous territory of Tenganan Dauh Tukad Village.

Above all, cultural value and obedience of the community toward their traditional custom regulation (*Awig-Awig*) plays a fundamental role in encouraging participation for conservation. This is resulted from the role undertaken by local institution (*desa adat*) in Tenganan Dauh Tukad Indigenous Village, which has performed as an effective control mechanism toward sustainability. Integration of participation, conservation of natural and socio-cultural aspect as well as support economies of the local communities, could be considered as a model for any ethnic group wish to develop community-based ecotourism.

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