

## **Sustainable Rural Tourism Practices in Madang Province, Papua New Guinea**

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### **Abstract**

This article explores the level of understanding of tourism operators and tourism resource owners of the concept of sustainable tourism. It examines if these operators undertake forms of sustainable tourism in their operational practices and what influences these practices. This study focused on the Madang Province in Papua New Guinea involving six tourism operators/resource owners. The research adopted a qualitative approach using semi-structured interviews and observation as the two main primary data sources. The findings suggest that although some tourism operators/resource owners have limited knowledge of sustainable tourism, they were still implementing some aspects of it in their operational practices influenced by the values of their indigenous culture.

**Keywords:** Tourism, rural areas, Madang Province, sustainable practices

### **Introduction**

Sustainability is the idea of striking a balance between the consumption of natural resources, preserving them and, at the same time, creating a positive social atmosphere for a community through economic benefits, (Lane, 1994). The notion of sustainable tourism with various definitions and a multi-dimensional character is a challenge for tourism operators to comprehend and implement, (Weaver, 2010). Tourism's contribution to sustainable development is still under-researched in terms of tourism's practical and operational practices, especially in indigenous communities.

Rainford (2007) argued that many tourism operators are not able to implement sustainable tourism because of the lack of understanding and knowledge on the notion of sustainable tourism. Hunter (2002, p. 18) claimed that 'many studies of sustainable tourism fail to provide an in-depth analysis of precisely how the term is being used or interpreted'.

This study explored current practices of tourism operators and what their understanding was of sustainable tourism and the significance of its implementation. This research on sustainable tourism practices is focused on Madang Province, Papua New Guinea (PNG) where accessibility and having an effective transport system is often an issue. Madang Province has a few small scale tourism operators operating at the local level. Six rural tourism operators/resource owners were invited to participate in this study.

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## Literature review

Hunter (1995) argued that the operationalization of sustainable tourism is undertaken and understood with difficulty because of the global nature of tourism and the complicated network of tourism operating through a rather ill-defined cluster of various actors and agencies. From a broader perspective and according to Liu (2003), tourism resources encompass more than just the natural environment. Tourism requires at least three levels of resources: natural, cultural and purpose built tourist attractions; the infrastructure and superstructure to support tourism activities and the physical and social settings including the hospitality of the host community.

The tourism industry can be defined as ‘the sum of the industrial and commercial activities that produce goods and services wholly or mainly for tourist consumption’, (Weaver & Lawton, 2002, p.47). The industry has been accused of being the destroyer of the environment, deteriorates valued lifestyles and age-old cultures and an exploiter of poor nations, (Griffin 2002). The concept of sustainability suggests that there are limits in exploiting natural capital because of its limited capacity for renewal (Hall, 2011).

The most widely acknowledged instrumental document on sustainability is the Brundtland Report. The United Nations Commission on Environment and Development published the Brundtland Report titled, ‘Our Common Future’, in 1987. The report emphasised that sustainability should be the approach taken in terms of development and defines sustainability as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs, (WCED 1987). The concept of sustainability has received much attention since the publication of *Our Common Future*, (Harding, 2006).

Hall & Lew (1998) identified the following five basic principles of sustainability from the Brundtland Report:

- the idea of holistic planning and strategy making
- the importance of preserving essential ecological processes
- the need to protect both human heritage and biodiversity
- to develop in such a way that productivity can be sustained over the long term for future generations
- achieving a better balance of fairness and opportunity between nations.

Sustainable development has become a worldwide discourse driven by international governments and international bodies alike, (Kronenberg & Bergier, 2012). Harding (2006) points out that despite the universal institutionalisation of sustainability principles through legislation and policy, progress in the implementation of sustainable development has not been actually forthcoming, even for tourism.

Tourism is seen as an industry that could stimulate economic growth as it provides employment and earns foreign exchange. Post Second World War saw tourism as a tool that would lead to the modernisation of third world countries and stimulate their economy, (Liburd & Edwards, 2010). This led to the provision of a lucrative environment for foreign investors to invest in tourism on a large scale in third world countries without questioning the negative impacts of tourism on the environment as well as the society, (Liburd & Edwards, 2010).

The rise in tourism brought with it concerns such as environmental degradation, and loss of societal and cultural values, (Smith, 1977& 1989). It was realised that if the negative impacts of tourism were identified and addressed, tourism could be modified in order to help sustain the earth's natural resources, preserve culture and enhance a society's economic status (Griffin, 2002; Miller & Twining-Ward, 2005).

Clark (1997) pointed out that there is now a shift from mass tourism to tourists travelling individually to their destination of choice as a way towards sustainable tourism. Sustainable tourism is a fairly new phenomena derived from the concept of sustainable development, (Sharpley, 2009). Different countries that promote tourism have adopted sustainability as part of their implementation strategy. However, some have not fully succeeded (Kwon & Vogt, 2010) despite various guiding principles that have been presented by international organisations governing sustainability.

As specified by Edgell (2006), a conceptual approach to sustainable tourism development set forth by the World Conservation Union includes four major principles ecological sustainability, cultural sustainability, economic sustainability and local sustainability. The World Tourism Organization report (1993) further stressed that sustainable tourism is designed to benefit local communities and sustain profits for local businesses.

After the Bruntland Report in 1987, the World Tourism Organisation (WTO) adopted the concept of sustainability to tourism and created the notion of sustainable tourism development and defined it as meeting the needs of the tourists and host community without compromising the needs of the future generation, (WTO 1993).

The WTO (1997) elaborated further on the definition of sustainable tourism as tourism development 'leading to the management of all resources in such a way that economic, social and aesthetic needs can be fulfilled, while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems.' The later elaboration on sustainable tourism by WTO came as a result of Agenda 21 for the Travel and Tourism Industry (World Travel and Tourism Council, World Tourism Organization and the Earth Council, 1997).

Agenda 21 recognizes tourism as an economic activity that can improve the quality of life of the host community and at the same time enhance the quality

of the tourist's experience while preserving the environment and the resources on which both the tourist and host community depend. As Butler (1993, p. 29) clarified:

sustainable tourism refers to tourism which is developed and maintained in an area (community or environment) in such a manner and at such a scale that it remains viable over an infinite period and does not degrade or alter the environment (human or physical) in which it exists to such a degree that it prohibits the successful development and well-being of other activities and processes.

The United Nations World Tourism Organization (UNWTO) further clarified that sustainable tourism is embedded in the triple bottom line of economic, environmental and socio-cultural sustainability. UNWTO (2008) emphasised that sustainable tourism should:

- Make optimal use of environmental resources maintaining essential ecological processes and helping to conserve natural heritage and biodiversity
- Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance
- Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income earning opportunities and social services to the host communities, and contributing to poverty alleviation.

Sustainable tourism cannot be really defined within the context of tourism development (Butler, 1999; Weaver, 2010). Bramwell, et al. (1996), in their review of the principles and practice of sustainable tourism management, identified seven dimensions of sustainability. These dimensions are environmental, cultural, political, economic, social, managerial and government. These different dimensions can cause varying levels of standards in sustainable tourism venture implementations. Hunter, (1997) found that such complexity has caused a series of problems for those involved and especially those who intend to seek various benefits from sustainable tourism.

Lu and Nepal (2009) found that sustainable tourism is one of the fastest growing ventures within the tourism industry. In the process of promoting sustainable tourism, different branches under the umbrella of sustainable tourism have emerged, for example, ecotourism, indigenous tourism and community based tourism. These types of sustainable tourism involve community participation. However, as Harding (2006) found, not all have actually achieved the desired outcomes of sustainable tourism. Hall (1994) further asserted that sustainable indigenous tourism done in good faith can achieve one of the aims of the WTO definition of sustainable tourism. However, as Butler & Hinch (1996) cautioned, if tourism is not managed and implemented well, it can instigate destruction of indigenous communities' cultures.

Developing countries can definitely implement the concept of sustainable tourism. However, as Mowforth and Munt (2003) found, in pursuit of economic growth, the people who are involved in the industry ignore the negative impacts of tourism, even those who promote sustainable tourism. Tosun (2002) illustrated the challenges in sustainable tourism in developing countries when examining sustainable tourism development in Turkey. He found that several factors contributed to the challenges faced when implementing sustainable tourism. These include:

- priorities of the national economic policy
- structure of the public administration
- commercialization
- structure of the international tourism system.

These factors made decisions on sustainable tourism difficult to support and maintain because they deviated from political and economic plans for progress.

In light of these challenges, Ryan (2002) stressed that literature on sustainability should change its focus to value creation for the tourists, the tourism industry and communities. Garrod and Fyall (1998) also suggested that experts in tourism should retreat from defining sustainable tourism, and focus their discussions on implementing best practices of sustainable tourism instead. Ryan (2002) drew attention to the fact that even the international organizations regulating the tourism industry still do not have clear guidelines for implementing the principles of sustainable tourism. simply gives lip-service to the concept of sustainable tourism.

However, despite such lack of clarity, Curtin (2003) noted that a few societies have managed to implement some aspects of sustainable tourism in terms of best practices. For example, whale watching in Kaikoura, New Zealand, has been able to implement and achieve sustainable tourism through its business practices. In this particular case, the whale watching business portrays indigenous power through its Maori ownership which results in less economic leakage. This is because the business is locally owned. Also the workers are sourced from within the community. Additionally, the use of local suppliers is preferred and encouraged. As a result, economic benefits from tourism are maintained within the community. Furthermore, the culture and heritage of the area has been revitalised through trained guides and interpretation activities. Visitors are informed on the importance of the environment through interpretation. These techniques are used to enhance the environment and protect the whales.

Tip (2009) examined how a rural community in Peru benefited from tourism. As a result of tourism in the area, the traditional art of weaving and spinning wool was revived involving sixty women. Finished products were sold to tourists while the males were employed as porters and tour guides by the tour operators. Tourism also enhanced agricultural activities which strengthened sustainable tourism practices.

Soh and Omar (2012) also found similar results in their study of tourism in Malaysia. The tourism industry boosted the revival of the production of keris, a traditional Malay sword production that signified bravery. This practice was on the verge of dying out. The tourism industry reinvigorated the locals to revive their traditional knowledge through the creation of the keris.

The developing world has acknowledged the importance of sustainability in the tourism industry. For instance, the Lakshadweep Islands in the Arabian Sea situated off the south-west coast of India has a fragile environment with a high population density and physical limitations, as result tourism is organised in a controlled way. The promotion of tourism is in conjunction with environmental conservation, which emphasises the high value but low volume tourism strategy (Kokkrankal, et al., 2003). Lakshadweep Tourism (2009) noted that the drive towards sustainability had inspired the islands to adopt and implement the following sustainable practices:

- Electricity is generated by solar plants.
- Islanders are educated to adopt an eco-friendly way of life.
- Biomass plants using coconut and other waste have been set up in Kavarati to generate electricity.
- A film is shown to tourists arriving on ships to inform them about the island, its environment, the coral reefs, and their management, the ban on picking up corals and ways to keep the island clean and enjoy the beauty without destroying it.
- Islanders are trained in scuba-diving so that, they not only know about marine wealth but also contribute to maintaining the ecology of the islands and work as the eyes and ears of the administration.

Butler and Menzies (2007) emphasised that for tourism to be sustainable in indigenous communities, its relationship to and incorporation of traditional ecological knowledge is critical. Indigenous knowledge such as traditional conservation, environmental and ecological knowledge is all linked to the traditional beliefs, customs and way of life of a society (Acharya & Shrivastava, 2008). In most situations these forms of knowledge have been orally passed on from one generation to another and some are expressed through stories, legends, folklore, rituals, songs and even laws (Acharya & Shrivastava, 2008).

Since the early 1990s, South Pacific countries pledged their support by declaring their commitment in promoting sustainable tourism (Panakera, et al., 2011). Harrison (2003) in his discussions on sustainable tourism reasoned that the lack of facilities and infrastructure for large scale tourism in many Pacific Islands should prompt Pacific Islands' nations to develop tourism on a small scale which is more sustainable.

However sustainable tourism can only be achieved through awareness of the issues surrounding sustainable tourism and through an effective partnership between the government, private sector and the local businesses (Panakera, et al, 2011). Moscardo (2011) argued that many of the barriers to sustainable

tourism development can be understood by exploring indigenous knowledge on sustainable, conservation and regeneration practices and how this can be used to influence decision making on sustainable tourism.

The promotion of awareness and knowledge sharing especially at the local level can facilitate positive attitudes towards sustainable tourism. Miller and Twining-Ward (2005) stated that the small scale sustainable tourism approach would benefit the local community and preserve the environment. It would also handle traditional cultures with sensitivity and contribute to the stimulation of the local economy. Small scale tourism is acknowledged for gradual growth, which allows time for regeneration of environmental life and regulates the development expansion of tourism ventures.

However in order to make decisions that are in the best interest of sustainable tourism development, tourism managers must be knowledgeable in the subject area (Ruhanen, 2008). The implementation of sustainable tourism practices within the tourism industry presents many challenges, (La Lopa & Day, 2011). Rainford (2007) states there are growing concerns on environmental management, waste management and energy conservation. Economic benefits must reach the locals while preserving traditions and cultural knowledge (Acharya & Shrivastava, 2008; Butler & Menzies, 2007; Tip (2009). Table 1 identifies specific sustainable tourism practices drawn from the literature.

**Table 1: Literature sources of sustainable tourism practices**

**Environmental**

Rainford (2007), Recycling, energy efficiency, using biodegradable products, minimise water usage, fuel efficiency, composting and waste management systems

**Socio-cultural**

Butler & Menzies (2007), Integrating traditional ecological knowledge  
Soh & Omar (2012), Encouraging arts and crafts, reviving traditional knowledge

Acharya & Shrivastava (2008), Revival of traditional stories, legends, folklore, song & dance, traditional architecture

**Economical**

Soh & Omar (2012), Selling traditional crafts for cash to earn extra income for the families

Tip (2009), Wages for locals employed in tourism

Rainford (2007) claimed that many tourism operators are not able to implement sustainable tourism practices because of lack of knowledge. This research seeks to identify if cultural values and practices have an influence on sustainable tourism practices and will investigate:

- What is the level of knowledge of tourism operators of sustainable tourism?
- How do tourism operators perceive the importance of implementing sustainable tourism?

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- What elements of sustainable tourism are present in the practices/operations of tourism operators?

The objectives of this research are to gain an insight on the level of knowledge of tourism operators on sustainable tourism and its importance to society and to gain an insight on the current sustainable tourism practices of tourism operators.

### **Research methodology**

Six small tourism operators were the focus of the study. Their names have not been disclosed in this writing in order to protect their identity. Semi-structured interviews were conducted and observations were recorded during the collection data. Individual interviews were employed. This method of data collection was informed by Jennings (2004) who stated that interviews are used to gain an understanding and make sense of a people's way of life and the reasons for their actions and behaviour. The interviews were recorded then transcribed using the thematic analysis.

This study was small and the results captured sustainable tourism practices of only those who participated in the study. Therefore the findings cannot be generalised about other tourism operators and their tourism ventures.

### **Findings**

Table 2 presents information about the six tourism operator participants in the study. Approximately 67% of the sustainable tourist ventures were clan owned, while 16.5% were family owned, and a further 16.5% were individually owned. The data also shows that only 33% of the participants had modern or introduced knowledge about sustainable tourism practices. This knowledge was gained through their involvement with non-government organisations such as the World Wildlife Fund and The Nature Conservancy. Seventeen percent had only partial knowledge, while 50% had no knowledge about modern sustainable tourism practices at all.

However, the other sets of data in Table 2 shows that 100% of the participants were of the view that sustainable tourism practices were important and were actually engaged in sustainable tourism practices. This shows that all the operators had knowledge about sustainable practices which they applied in their tourism venture operations. This also shows that the participants were applying their indigenous sustainable knowledge practices in their tourism venture operations as shown by the qualitative data in the study.

**Table 2: Profiles of tourism operators**

Operator	Attraction	Ownership	Years	ST knowledge	ST practices	ST important
1	Traditional pottery	Clan	50	No	Yes	Yes
2	Traditional singsings	Clan	48	No	Yes	Yes
3	Wildlife Bird watching Sulphur creek	Clan	38	Some	Yes	Yes
4	Wildlife Marine conservation	Family	15	Yes	Yes	Yes
5	Home stay Village accommodation	Clan	3	No	Yes	Yes
6	Butterflies	Individual	20	Yes	Yes	Yes

ST = Sustainable Tourism

The tourism operators were asked to provide examples of sustainable tourism practices. Table 3 presents information on the various forms of sustainable practices used by the sustainable tourism operators.

**Table 3: Examples of sustainable tourism practices by the operators**

- Food debris and ash used as fertilizer: Operators 3, 4, 5 & 6
- Well and tank for drinking water: Operator 5
- Creeks for laundry and bathing: Operators 5 & 6
- Use of traditional fire for cooking: Operators 5 & 6
- Traditional housing: Operators 1, 2, 3, 4, 5 & 6
- Pit toilet: Operators 1, 2, 3, 4, 5 & 6
- Rubbish pit: Operators 3, 4, 5 & 6

This data shows that the rural sustainable tourism venture operators commonly used traditional houses for accommodation, pit toilets, while drinking water were stored in water tanks or obtained from wells in. Creeks, rivers and fresh waterholes were used for bathing and laundry purposes and food debris and ashes were used for garden fertilizer while rubbish pits were used for indecomposable rubbish. Income was generated from gate fees for singsing activities, rented accommodation, sale of various arts and crafts products and sing-sing groups hire. In most parts of Madang, rural areas do not have council waste management systems operators, or have access to piped water supply and electricity. This can be viewed as an advantage for the rural people because they are not burdened with various government taxes for the provision of such services. Rural dwellers do not rely on piped water supply and electricity for their daily needs. This is of advantage to sustainable tourism ventures in rural areas because low operation costs are maintained and therefore the people can

make good profits from their ventures and expand further if the income is managed well.

All the participants in the study were indigenous. As shown in Tables 1 and 2 they were able to incorporate aspects of their indigenous knowledge into their tourism venture operations as shown in the traditional architectural designs, use of open fires for cooking, food gardening, waste disposal methods and preservation of the natural environment. This shows sustainable tourism practices.

Given this information, it can be suggested that rural areas within Madang Province have the potential to promote sustainable tourism ventures because the rural people's way of life already supports the concept of sustainable tourism. It can also be suggested that other rural communities who practice similar sustainable living and conservation of their environments can use sustainable tourism ventures as a form of income and still maintain their traditional values, practices and customs, as well as conserve their environments.

## **Conclusion**

This study found that sustainable tourism ventures was successfully implemented in the rural areas of Madang Province primarily because operational costs were low. Furthermore, sustainable tourism was integrated into the people's daily lives in the local communities. This is because the people in rural areas still apply traditional environmental conservation and management practices in their everyday lives. This ensures the ecosystems are kept in balance which allows for natural preservation of lands, rivers and seas which allows for natural regeneration of plants, animals, fish and birds which can be sustained for future generations. Furthermore because accessibility to rural tourism sites is difficult due to the lack of transport infrastructure, it minimises the influxes of tourists into the rural communities. This promotes only individual or smaller group tourists travel to rural tourist destinations, which minimised mass tourism. Studies have shown that mass tourism influxes have contributed to destruction of environments and traditional values and customs when tourist activities are not managed well.

It can be suggested that the creation of awareness on sustainable tourism will equip rural tourism operators to strengthen further sustainable tourism practices in their operations. Awareness on other sustainable tourism practices can assist rural tourism operators to enrich their sustainability and conservation knowledge which may assist them to progress further in their ventures.

As Ritchie and Crouch (2003) emphasised sustainable tourism should not just be viewed as a strategy to only control development but also as a platform to encourage other forms of tourism that will enhance the environment, social and cultural well-being of peoples in tourist destinations that can increase their economic prosperity. Therefore, it can be suggested that other forms of tourism can be created under the banner of sustainable tourism in Madang such as bird

watching, ecotourism, cultural and indigenous tourism. These can be operated at small scale levels as a form income generating activity for the rural people.

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