# ECOTOURISM AS A SUSTAINABLE MEANS OF DEVELOPMENT: CASES OF THE INDIGENOUS TAO, TSOU AND ATAYAL TRIBES OF TAIWAN

by

ALISON RODEN

A THESIS

Presented to the Department of International Studies and EALL
and the Robert D. Clark Honors College
in partial fulfillment of the requirements for the degree of
Bachelor of Arts

November 2017

# An Abstract of the Thesis of

Alison Roden for the degree of Bachelor of Arts
in the Department of International Studies and EALL to be taken December 2017


Title:   Ecotourism as a Sustainable Means of Development: Cases of the Indigenous
Tao, Tsou and Atayal Tribes of Taiwan


Approved: _____

Zhuo Jing-Schmidt

Tourism has become an important livelihood option for many aboriginal communities around the world, as it not only provides an opportunity for economic development, but also cultural survival. More recently, many indigenous communities have turned to ecotourism as an alternative tourism model because of its promise to protect the environment and local culture. Indigenous tribes in Taiwan have used this model and are generally praised for adopting successful ecotourism industries. However, many ecotourism industries in Taiwan and around the world are either inefficient or not as sustainable as they claim to be. Furthermore, while there is an impressive amount of research done on the topic of indigenous ecotourism and sustainability, academic works have overlooked at least some aspect of the industry, whether it be indigenous perspectives, ecological changes, or economic development. The goal of this thesis, therefore, is to contextualize the so-called sustainability of these ecotourism industries within the objective and subjective experiences of these individual tribes, and to gain new insight into how communities can develop sustainably under the ecotourism model.

# Acknowledgements

First and foremost, I would like to thank my Primary Thesis Advisor, Professor Zhuo Jing-Schmidt for the boundless support and perspective she has offered me, and for always believing in me. Her support throughout my college career has been instrumental to my success in college and to the completion of this thesis. I would also like to thank my Second Reader, Professor Kathie Carpenter; and Honors College Representative, Professor Roxanne Prazniak - for helping me to consider various perspectives and giving me new insights into how this paper could be formed. I am extremely thankful for the privilege of having excellent professors who inspired me and helped me through this process. Additionally, this thesis could not have been completed without the generous efforts of my Chinese tutors, Meng-fan (Fiona) Zhai and Jia-ying (Krystal) Lyau. Their constant help and encouragement during the translation process have allowed me to achieve what would have otherwise been impossible. Lastly, I would like to thank my friends and family for supporting and encouraging me throughout the most uncertain moments of this strenuous process.

# Table of Contents

# Introduction

## Historical and Political Background

On August 1, 2016, president Tsai Ing-wen issued Taiwan's first apology as a head of state to aborigines for the country's treatment of their people. Along with a verbal apology on behalf of the country, Ms. Tsai also promised that the government would help to improve the livelihoods of aborigines by allowing indigenous communities more autonomy, increasing their land rights, and working to preserve native languages (Austin Ramzy, 2016). This marked an important moment in Taiwan's history, as indigenous communities were finally given the apology and political support they had been demanding for many years.

Although unknown by many, the indigenous people of Taiwan have lived on the island for thousands of years. According to anthropologists, Austronesian languages and cultural traditions are closely related those of Taiwan, thus scientists speculate that the two people groups are homologous. For over four thousand years, Taiwanese aborigines lived in relative solitude and were rarely visited by their Chinese neighbors (Munsterhjelm, 2010). However, during the 17th century, after the island was briefly occupied by the Dutch and Spanish empires, the Chinese gained control of Taiwan and forced many aborigines to flee to the mountains. This was just the beginning Taiwan's brutal history of Chinese and Japanese occupation, as an increasing number of foreigners came to impose their rule over the natives.

Like many indigenous groups around the world, the indigenous Taiwanese suffered under the oppression of the colonizer, facing cultural rejection, removal of

land, and violent struggle. After the Qing Dynasty annexed Taiwan around the late seventeenth century, despite several early laws issued to control immigration and respect aboriginal land rights, the Chinese later invaded aborigine territory. This lead to violent conflict between the Chinese and aborigines, as well as an increasing use of the term "barbarian" to refer to the indigenous people (Kuan, 2010). When the Qing Dynasty ceded Taiwan to Japan following their defeat in the first Sino-Japanese war, the Japanese nationalized land that was previously "owned" by the aborigines, and in 1910 carried out a five-year military project to conquer Taiwan aborigines (Kuan, 2010). While some aborigine groups lived in peaceful coexistence with the Japanese, in 1915 Taiwanese Han and aborigines led an unsuccessful revolt against the Japanese that became known as the Tapani incident. However, while the Han stopped fighting after this revolt, the aborigines continued to struggle against their colonizers. Even after the Chinese Kuomintang (KMT) government took over after WWII, indigenous intellectuals who continued to struggle for self-governance were imprisoned and, in some cases, executed (Kuan, 2010).

With the influx of Chinese immigrants, indigenous people today make up just less than 2% of Taiwan's total population, while the majority are Han Chinese (Munsterhjelm, 2010). A large portion of this population moved to Taiwan in 1949, when the Chinese Nationalist government lost to the Communist party. After fleeing the mainland, around 2 million Chinese people and their government, the Republic of China (ROC) settled in Taiwan. Although the People's Republic of China (PRC) currently claims Taiwan to be its sovereign territory, in fact, the ROC (Taiwan) has governed itself for over half a century. Thus, most Taiwanese residents identify as Taiwanese as

opposed to Chinese (Tseng & Chen, 2015). However, this is a claim of national rather than ethnic identity, as around 95% of the current population are ethnically Han.



Figure 1: "Distribution of Indigenous Peoples," Council of Indigenous Peoples.

Today there are approximately sixteen indigenous tribal groupings besides the ethnically Chinese Hoklo and Hakka groups which settled in Taiwan during the early 18th century. However, many tribes also contain subtribes, such as the Secolea and Tseole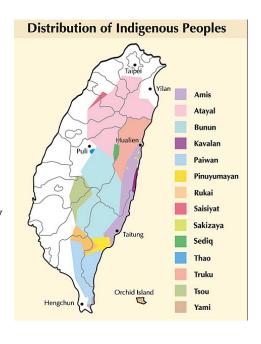 subtribes of the Atayal tribe. According to a recent survey published in October of 2017, the current populations of the three tribes which I will be discussing are as follows: [1]

| Atayal | Tsou | Tao |
|--------|------|-----|
| 89,234 | 6,628 | 4,584 |

Each of these indigenous tribes have rich cultures and unique customs that have been passed down through oral tradition. However, because of Japanese and Chinese occupation, aboriginal cultures and languages began to fall out of practice. For instance, because the Japanese regarded tattoos as 'savage', indigenous Atayal women during the

---

[1] Council of Indigenous Peoples. (n.d.). 10609 台閩縣市鄉鎮市區原住民族人口-按性別族別 （Taiwan and Fujian Township Indigenous Population by Sex). 原住民人口數統計資料 (Indigenous People Population Statistics).

Japanese occupation in the early 20<sup>th</sup> century no longer wore the face and hand tattoos distinct to their culture ("People and Languages of Taiwan," 2015). Similarly, although still spoken by many tribes across Taiwan, indigenous languages have begun to die out as an increasing number of indigenous children are educated in Mandarin.

Thus, president Tsai Ing-wen's promise to protect these traditions and give indigenous tribes more autonomy is certainly a hopeful one. In an effort to make good on her promises, Tsai created the "Indigenous Historical Justice and Transitional Justice Committee" and delineated indigenous traditional territories and lands. While this is a step forward for indigenous representation, some wonder if this was simply an empty gesture. The Indigenous Youth Front and legislators across party lines criticized the territory lines for not including privately owned land, which, they argue, would result in fragmented traditional territories (Po-wei Wu, Chiu, & Chung, 2017).  Thus, while work is certainly being done to improve the lives of indigenous people, indigenous communities still have to struggle for their rights up until today. For this reason, I want to emphasize that the purpose of this research is not to impose my views on the indigenous communities, but to bring their experiences to light in order to aid the larger ecotourism community.

**Tourism as a Promising and Problematic Solution**

Not only have indigenous tribes suffered from racial and cultural genocide as mentioned above, but since the Nationalist occupation in the mid-twentieth century, indigenous tribes of Taiwan, like many indigenous groups around the world, also

suffered from falling into the poverty trap. Under the capitalist system that was imposed on them, indigenous tribes were regarded as savage and impoverished. Furthermore, many of their own resources, such as timber and water, were taken from them without compensation. According to a 2011 documentary, in order to pursue the money that was necessary to live, many aborigines left their villages to go work in the cities (Johnson & Smith, 2011). However, there were many barriers that prevented indigenous people from working, including language barriers and physical barriers such as a lack of roads. Thus, those left behind in the tribal villages had to find new ways to develop and sustain themselves within the market economy.

Historically, development has been used by multinational aid organizations and the so-called global "North" as a term assigned solely to the global "South". For decades, the only path to achieving development was through economic growth and industrialization. Thus, the use of this term implied that some communities were "underdeveloped" and somehow inferior to so-called "Western" countries. In this paradigm, the value of economic growth and the superiority of a "Western", neoliberal worldview is assumed. Unsurprisingly, although the term 'development' has a positive connotation and signifies human progress, it has nevertheless had a problematic history and has been associated with cultural imperialism (Veltmeyer, 2005).

Today, development means different things to different people; however, since this paper is looking specifically at three indigenous communities, I turn specifically to the concept of indigenous development. During the 2016 World Indigenous Business Forum, a delegation representing indigenous communities from all over the world

gathered to write a new definition of indigenous development. The definition is as follows:

> Indigenous development is the organized effort by Indigenous Peoples to honor, enhance, and restore their well-being while retaining a distinctiveness that is consistent with their ancestral values, aspirations, ways of working, and priorities on behalf of all Future Generations. Their efforts also strive to share a holistic model of livelihood that respects the Creator, the Earth and promotes sustainability now and for the generations to come (WIBF, 2016).

From this definition, I want to emphasize three main ideas. The first is that this definition emphasizes both the enhancement and restoration of well-being. This implies that well-being is the end goal rather than change or so-called 'advancement' in and of itself. Second is the idea that development should be consistent with their own values and priorities, and not be based on outside values imposed on them. The third is the idea that their development model should be a holistic, sustainable one, in which future generations should also be considered. Thus, development in this context refers to general long-term improvement in well-being rather than the process of industrial progress.

Today, tourism has become an attractive option for development and cultural survival of indigenous tribes in Taiwan. Not only does it require relatively few inputs, but it can also help enhance local visibility, improve public facilities, and increase employment opportunities. Furthermore, both aborigines and tourists can profit from cultural exchange, giving indigenous tribes the opportunity to not only interact with people from all around the world, but to also be heard and seen by the world.

However, the tourism industry may also come with unintended consequences. Oftentimes tourism will change a tribe's social and economic structure, as well as further perpetuate a system of servitude to rich outsiders. This may lead to increased living costs and income inequalities within the community. Mass tourism, in particular, is often directly associated with neocolonialism, as it makes host communities dependent on foreign investment, aid and imports, and concentrates power into the hands of foreigners. Large, international hospitality firms will often buy out local tourism companies, which redirects the profits to foreigners while at the same time harming the local economy and environment. If uncontrolled, tourism can have disastrous environmental impacts and drastically change local culture. Even ecotourism can be counteractive and harmful if there are no controls to keep resources and locals from being exploited. In order to be aware of these consequences and know how to avoid them, this paper will address the complex relationship between ecotourism, indigenous development, and environmental protection, as well as the conditions under which ecotourism can be used as a tool for so-called sustainable development.

Sustainable tourism is a subject that has attracted an increasing amount of attention. Beginning in the eighties and taking off around the turn of the twenty-first century, many scholars called for a more critical approach to the study of tourism, challenging the Eurocentric model for tourism research and tourism models (Ateljevic, Pritchard, & Morgan, 2007). During this time, the concept of sustainable tourism was born as more scholars began to see tourism as having the potential to shift from a relic of colonialism to a method for sustainable development. Sustainable tourism would not

only be able to create jobs, but also protect the environment, promote social justice, and maintain cultural identity.

There are many definitions of sustainable tourism, but a widely-accepted definition for sustainability is that it "meets the needs of the present without compromising the ability of future generations to meet their own needs," (United Nations, 1987). This is a broad and ambiguous definition which does not adequately define what is to be sustained or for how long, and is even more difficult to put into practice. The term itself has changed much over time and means different things to different people. It has since become a buzzword that is usually solely associated with environmental protection, even though sustainable tourism is also about social equity and economic viability. Nevertheless, there is truth to the idea that when pursuing economic development, one cannot forget that actions have consequences that may negatively or positively impact future generations.

From this idea of sustainability, several tourism models were born, including ecotourism. Ecotourism as a term was coined in the 1980's, however, ecotourism initially began as a visitor-centered approach, focused on admiring "undisturbed areas" as a reason for travel rather than a pattern of visitor behavior (Hill & Gale, 2009). Later models for visitor behavior began to surface in the 90's. Founded in 1990, the International Ecotourism Society defined ecotourism as "responsible travel to natural areas that conserves the environment and improves the well-being of local people," (TIES, 1990). Thus, the aim of ecotourism was to benefit both the visitors and hosts while also minimizing environmental impact and raising both cultural and

environmental awareness. In 1999, after reviewing many existing definitions of

ecotourism, Sirakaya concluded that there were five main expectations of ecotourism:

> It is a form of tourism that is expected to result in (1) minimal negative impacts on the host environment; (2) an increased contribution to environmental protection and dynamic conservation of resources; (3) the creation of necessary funds to promote sustained protection of ecological and sociocultural resources; (4) the enhancement of interaction, understanding, and coexistence between the visitors and locals; and (5) a contribution to the economic (monetary profits and job opportunities) and social wellbeing of the local people (Sirakaya, Sasidharan, Sönmez Sirakaya, & Sönmez, 1999).

The intention of ecotourism is thus to not only protect the environment, but to also

protect the wellbeing of the locals. However, it is also important to recognize that in the

diverse world of global tourism, a truly universal definition of ecotourism that everyone

can agree to remains a distant prospect.

Nevertheless, over the last couple of decades, ecotourism has been widely

accepted not only in the academic sphere, but also by policy-makers in both public and

private sectors such as in the United Nations Environment Program (UNEP), United

Nations World Tourism Organization (UNWTO), and the World Travel and Tourism

Council (WTTC) (Zolfani, Sedaghat, Maknoon, & Zavadskas, 2015). Ecotourism is

also praised for taking a bottom-up approach, and involving local stakeholders more

often than in traditional tourism. Broadly speaking, ecotourism is travel to a natural area,

involving local people, feeding economic profit into local environmental protection,

minimizing visitor impact on the local environment, and promoting tourist education

(Hill & Gale, 2009).

However, ecotourism itself has come under intense criticism in recent years as it will sometimes harm the environment the tourism industry intended to protect in the first place. Many tourism industries will use ecotourism as a marketing label, stretching its definition to fit their specific nature-based industry, while continuing unsustainable practices on site. Furthermore, many indigenous host communities are in danger of succumbing to visitor expectations, where they will be treated more like a product for visitor enjoyment rather than a beneficiary of ecotourism. In these cases, pseudo-cultural activities arise purely for the purposes of tourist enjoyment. Finally, it is difficult to say if ecotourism can truly help to protect the environment when tourism itself necessitates travel. Travel by vehicle is a huge source of greenhouse gasses, especially when it comes to aviation, one of the most harmful and fastest growing sources of greenhouse gasses in this world (Hill & Gale, 2009). Thus, because some impact on the environment will be unavoidable, rather than asking how tourism can be truly sustainable, we might ask how tourism can be more sustainable, and how negative impacts on the host environment can be minimized.

In the end, I intend to not only look critically at the role of ecotourism in Taiwanese indigenous villages, but to also provide insight into which aspects of ecotourism work for the community, and in what ways they fall short. Ecotourism as a model promises to help the community's environment and people, but without looking critically at the underlying conditions for success, ecotourism will fall short of its intended goals. When applied to different communities with different cultures, geographies, and histories, ecotourism must serve the community and its unique needs.

**Thesis Structure**

To best present the wide array of subjects necessary to illustrate the complex relationship between ecotourism and indigenous development, this thesis is structured in a summary analysis format. In the next section, I will introduce my methods for data collection, analysis, and limitations. In the next section, I will summarize findings from other academic scholars related to the conditions for efficient and sustainable ecotourism industries. In the following section, I will summarize the experiences of the three indigenous tribes I use as case studies. Finally, I will compare the experiences of the indigenous tribes to the work of previous scholars in summary format. This is done in order to contextualize and challenge academic assumptions of what makes ecotourism a sustainable and viable option for development.

# Data and Methods

## Data Collection

The purpose of this paper is to critically assess the success factors of the tourism industries of the Tou, Tsou and Atayal tribes, to contribute to the growing body of knowledge concerning ecotourism and indigenous development. While many researchers have studied these individual tribes and their ecotourism industries, academic works have overlooked at least some aspect of the industry, whether it be indigenous perspectives, ecological changes, or economic development. The goal of this paper, therefore, is to contextualize so-called sustainability, provide additional case studies for future ecotourism research, and gain insight into how ecotourism can be used as a sustainable means of development through holistic literature review.

Most research concerning ecotourism management and policy was collected from academic journals, theses and books. These sources were mostly written by Western authors. However, more than half of the sources concerning the indigenous tribes were written by Taiwanese authors. In order to reduce bias and ensure that the information presented takes from both a local and academic perspective, I consulted many informal and academic sources from Taiwan. These include official statistical data, a Taiwanese documentary on Smangus, surveys on indigenous attitudes, and social media pages written by the indigenous people themselves. Other sources include news articles, local experiments and formal academic papers that focus on the environmental and social impacts of tourism.

The reason for using qualitative data in this paper is to put the theory of conditions for ecotourism success to the test, and challenge our idea of what makes ecotourism successful. Because surveys can only be conducted in person, I have gathered this information through other primary research studies, interviews, surveys and documentaries conducted by other scholars. I also look to the websites of indigenous groups such as the Shanmei Community Development Association and local ecotourism websites. The reason for this is that observing both the subjective and objective measurements of success is an important aspect of holistic assessment. While subjective measurements are criticized for not being as precise and concrete as their objective counterpoints, because this is a study on communities of indigenous stakeholders, their subjective opinions do matter. To ignore the opinions of the locals is to perpetuate a very real power imbalance in sustainability discourse; that is, the preference of listening to outsider research over the opinions of the locals themselves.

**Limitations**

Although I had intended to conduct my own research, I was unable to go to these villages myself and gather primary data via surveys, interviews and other research methods. Although I attempted conducting an online survey, this was a failure largely because the net I had cast was not wide enough, and the few contacts that I had sent the survey to either did not respond or were unwilling to participate. The original purpose of these surveys was to collect up-to-date responses from all three tribes on the current conditions of their tourism industries. Because the survey would have been more controlled, I would gain more insight into how the experiences of these tribes differ. In

place of this, I have used surveys conducted by other local scholars on resident

perceptions, and gathered information from the indigenous people through sources such

as social media, documentaries, and websites.

Because much of the data I use has come from secondary sources, some

information may no longer be relevant or up to date. Additionally, because these tribes

come from specific historical, geographical, and cultural backgrounds, it may be

difficult to apply the experiences of these tribes to other communities with different

backgrounds. Lastly, I recognize that as an outsider, my evaluations may not reflect the

reality of what it is like to actually live and be a part of the tribe. In the end, while this

thesis has many limitations, it also paves the way and opens up more opportunities for

future research.

# Ecotourism Conditions

## Conditions for a Successful and Sustainable Ecotourism Industry

There are many conditions that scholars have argued are essential for ecotourism to be economically, environmentally, and culturally sustainable, however, it is important to recognize that the development of tourism alone is not easy. Generally speaking, there are three critical conditions that are foundational for indigenous communities to develop a tourism industry. In order to first attract tourists, indigenous tribes must have diverse cultural or ecological attractions that highlight their native culture or location (Welford & Ytterhus, 1998). Second, the community must provide accommodations and hospitality services. Third, they must maintain a welcoming, friendly attitude and open up channels of communication to the outside world. Without these three conditions, the tourism industry will not be successful, and cannot be a viable means for development (Chang, Chang, & Wu, 2013).

However, while a tribe with these conditions may succeed economically, it may also be open to the negative influences of tourism. The indigenous tribes may see an initial growth in their economy, but the industry may also be subject to market fluctuations, and some tribe members or non-members may benefit disproportionately. Furthermore, because of the increase of tourists and lack of tourism controls, the local environment may suffer from environmental damage. Thus, for ecotourism to become sustainable, it has been hypothesized that there are a few additional conditions that communities must meet.

So-called sustainable tourism, as the name suggests, is tourism that aims for the sustainable development of an area regarding its economy, culture and environment. It attempts to meet the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable tourism has become a catchphrase in the tourism industry and has gained widespread support despite its lack of a concrete meaning. In the context of this paper, however, sustainable tourism simply refers to a tourism industry that strives to minimize harmful impacts on the tribe and its environment in the process of bringing economic benefit. The goal is not to perpetuate tourism at all costs, but rather to ask how the tourism industry can best serve the community and its development for future generations.

*Economic Policy -*

It has been argued that a free-market business model has its advantages, such as encouraging entrepreneurship, introducing modern technologies, reducing free-riding tendencies, and affording greater agency to conserve and protect those ecological areas seen as having economic value (Hassan, 2000). On the other hand, free market tourism also often leads to opportunistic exploitation of both locals and the environment. Under a free market model, natural resources and local cultures are often commoditized, and the search for a competitive advantage often leads to the exploitation of such resources. Furthermore, although organizations such as the WTO, World Bank and UNEP argue that sustainable development should be coupled with free trade, an increasing amount of small tourism industries are being edged out by transnational corporations because of free trade (Honey, 2008). Thus, many ecotourism scholars argue that small-scale

ecotourism industries should be insulated and protected from competition with international markets.

*Educational and Participatory Tourism Control Measures –*

Another important condition, it has been argued, is implementing tourism control measures in order to minimize impacts on the local culture and environment. These controls can be achieved by providing tourists with the necessary information to increase the visitor's mindfulness and knowledge of the environment. For instance, using reasoned, positive, and clear explanations on how to travel mindfully (as opposed to simply telling tourists to respect the local people and environment) will help positively influence visitor behavior (Hill & Gale, 2009). Furthermore, it has been argued that tourists should have an integral part in the development and protection of the local community. Rather than simply providing opportunities for consumption, the tourism industry should provide participatory activities (Welford & Ytterhus, 1998). Education and participation, therefore, is a contributing factor for both the visitor and the host to adopt more sustainable tourism practices.

*Cultural Incentives for Conservation -*

For tourism to be sustainable, there needs to be a long-lasting link between environmental protection and tourism development. Culture is thought to have a significant role in how natives decide how to develop. It is very difficult, if not impossible for a community to protect the environment if there are neither economic nor cultural incentives to do so. Thus, value systems have a surprisingly large role in preserving the environment. If respect towards nature is ingrained in tradition, it is easier to implement tourism controls that directly contribute to maintaining these

values. For instance, it helps if respecting an animal is already embedded in the indigenous culture as it provides the locals with a long-term cultural incentive to protect threatened species. Thus, ecotourism must help convey the social and economic benefits of protecting wildlife, while also follow ethical practices on the ground (Hill & Gale, 2009).

*Democratic Participation and Autonomy* -

Additionally, it is widely agreed by ecotourism scholars that self-determination and local empowerment are one of the most critical conditions for the success of an indigenous ecotourism industry. Indigenous tribes, therefore, should play an active role in developing tourism. While many indigenous groups require support from governments or NGO's, the indigenous people themselves should determine if and how their tribe and tourism industry should be run. Through local empowerment, tribe members can decide what needs to develop, and can also prevent the government or other outsiders from exploiting their natural recourses and making unwanted changes in the name of development. Thus scholars suggest this process of local empowerment should be supported by adequate training, policies, and education, and should shift political and economic control to the village (Zeppel, 2006).

*Self-Sufficiency and Localizing Supply Chains* –

Finally, some academics suggest that in order for locals to enjoy a better standard of living and a more durable and resilient economic base, communities should work towards food self-sufficiency as well as diversifying jobs. While local production of basic commodities may be more efficiently made elsewhere, it may be in a community's better interest to develop and consume local resources. This will not only

protect the community from international trade competition and fluctuations, but it will also contribute to higher nutritional and health standards, more local jobs, more autonomy, and more interest in protecting local resources (Barkin, 1996). Similarly, the local tourism industry should work hard to put pressure on tourism operators and suppliers to improve environmental impacts and buy as locally as possible. By integrating the supply chain into the local economy, this will help to diversify jobs and benefit locals (Welford & Ytterhus, 1998).

# Chapter 1: The Tao of Orchid Island

**Background**

Just southeast of Taiwan is an island of just over 17 square miles called Lanyu, or Orchid Island. This small volcanic island is where the indigenous Tao tribe, otherwise known as Yami, take residence. These natives to Orchid Island lived in almost complete isolation for around one thousand years up until the mid-twentieth century. Due to their geographical location and relative isolation, the Tao villagers primarily lived off fishing and some crops such as potato, taro and chestnut ("Tao," n.d.). The Tao are best known for their flying fish practices and distinctive ceremonies surrounding boat making. In Tao society, a family is the most important social unit as opposed to clans or classes. Because of this, marriage is a particularly significant part of their culture, and the husband and wife bond is traditionally very strong. Unlike many other indigenous tribes in Taiwan, however, the Tao do not hunt, drink, or use bow and arrows, as these are considered taboo. Culturally and ecologically, Orchid Island is, in fact, more similar to the Philippines than to the East Asian customs and environment that are found on mainland Taiwan. Thus, the Tao are said to be descendants of Batanes people and have customs distinct from other indigenous Taiwanese groups (T.-M. Liu & Lu, 2014).

Traditionally, Tao society was regulated by a number traditional laws that were based on social taboos enforced by the evil spirits called "*Anito*" (Tang & Tang, 2010). Anito are malicious spirits said to be the cause of misfortune. The factors distinguishing Anito and humans also helped to constitute their moral dichotomy of *apiya* (good) and

*marahet* (bad) (Funk, 2014). For instance, one of the worst moral errors in Tao culture is laziness or *malma*, which is said to be one of the defining characteristics of Anito. Because of this, laziness is met with scolding and contempt and is considered a social taboo (Funk, 2014). Taboo, therefore, is a central component of Tao society, and any misfortune is usually seen as a punishment from Anito for the breaking of taboos.

**Traditions and Challenges of Environmental Protection**

These taboos not only constituted how people should treat each other, but also how they should treat the environment. Many of these taboos helped to directly protect Orchid Island's ecosystem. For example, there were several explicit taboos regarding their fishing practices. Along with celebrating multiple Flying Fish Ceremonies, the Tao also enforced taboos that restricted how they could fish, what they could fish for, and when they could eat flying fish.

Canoe making was also strictly regulated, and both the canoe and its crew had to undergo a long tribal ritual before embarking on a maiden voyage (Tang & Tang, 2010). Because of this, the Tao could not easily conduct large-scale fishing expeditions. Furthermore, if they were fishing specifically for flying fish, no one was allowed to fish for other species. When and how people could eat flying fish was also closely regulated, and other taboos limited the consumption of certain species of fish to a person's social status (Tang & Tang, 2010). Furthermore, food could not simply be discarded, and catching coconut crabs were also prohibited while one's wife was pregnant. Thus, these traditional taboos helped to preserve the local fish and wildlife populations that they relied on.

However, after Canadian missionaries were given permission to visit Orchid Island in the 1950's, many of these traditional values began to change. Not only did missionaries bring clothes, rice, and other forms of aid, but they also brought along a different belief system and stronger fishing technologies. After the Tao converted to Christianity, many aborigines no longer believed in the evil spirits or taboos that had guided their society. Eventually, the Tao adopted motorboats, and in order to compete with foreign fishers, began fishing without restraint.

While this has greatly benefitted the Lanyu economy, such unrestrained fishing practices are criticized throughout the world for destroying marine ecosystems and depleting fish populations. (Tang & Tang, 2010). However, while some scholars argue that an increased disregard for the taboos led to increased fishing, the introduction of foreign ideologies is only correlated with an overall reduction in local fish populations, not the cause. It is just as likely that an increase in foreign fishing is to blame.

On the other hand, the impact of environmental and developmental injustice from foreigners is more apparent than changes in ideology. In 1958, the ROC government had constructed prisons and farms on the island, not only leading to conflicts between the natives and Taiwan's convicts and soldiers, but also deforestation (Yorgason & Ming, 2013). Furthermore, in the 1970's Orchid Island was chosen as the site for a nuclear repository. At the time, Taiwan's Atomic Energy Commission (AEC) chose the Dragon Gate area on Orchid Island as a site to "temporarily" store nuclear waste (Marsh, Lin, & Lin, 1993). However, no motion has been made to move the nuclear waste, and as of now, nearly 100,000 containers, each weighing 50 kg, have been stored there. Furthermore, when this project first started, the indigenous Tao were

not asked for permission, but were rather deceived into believing that the nuclear waste dumping site was going to be something else entirely, and would benefit their economy (Fan, 2006). At the time, government representatives approached the Tao commissioner, who was illiterate, and told him that they were building a fish cannery, which the commissioner agreed to. For many years, the Tao people claim that they thought they were constructing a fish cannery, and had little idea of what was actually being built and what dangers it posed to them.

This has contributed to distrust among the Tao people of the government. It has also sparked concerns among the Tao that the nuclear repository not only poses an environmental hazard in the case of an accident, but that it also has negative effects on the health of the island and its people today. These "invisible" effects, the Tao claim, include the increased risk of leukemia, lung cancer, and coral bleaching (Fan, 2006). Although the ROC government promises the indigenous Tao that the repository will not cause them any harm, there remains a deep distrust between the indigenous Tao and the ROC government. Since the nuclear repository was built, many Tao natives have been active in protesting and negotiating with the government (He, 2013). However, the Tao people's demand for environmental justice has met little success.


**Development**

Most of the developments made on Orchid Island during the 20th century were made without providing adequate opportunities for indigenous participation. Along with building a nuclear repository, prisons and farmland without Tao permission, the ROC government planned many other development projects on the island. These

development projects were intended to benefit the natives, but they had little support.

For instance, in 1979 the ROC government planned to designate a national park in the

eastern portion of Orchid Island, with the promise it would promote ecotourism.

However, the Tao strongly opposed the plans, because it limited indigenous autonomy,

preventing the indigenous people themselves from using their own forestry and fishing

resources. It wasn't until 1993 that the government finally suspended park preparations

(Yorgason & Ming, 2013).

Additionally, the KMT government made it an objective to modernize the island

beginning soon after they took over Taiwan. Up until the 1980's many development

projects had taken place, including transportation infrastructure, education and housing.

These projects drastically changed many facets of Tao daily life. For instance,

traditional houses were compulsorily demolished to make way for concrete public

housing. These new concrete block houses not only looked ugly and were structurally

unsound, but because they did not have a traditional social meeting space, also changed

their traditional way of life. Mandarin also became a compulsory part of education,

which also had a large impact on local identity (Kao, 2012). Although these

developments have provided the Tao people with many beneficial modernizations, the

Tao themselves had little autonomy during the process of development.

Later, in 1994, when it became clear that the island's public housing had serious

construction problems, in order to pacify locals, the central government decided to

subsidize housing reconstruction (450,000 NT dollars per house), rather than planning

and developing the reconstruction. The Tao were then able to rebuild their homes,

completing everything from design to construction on their own. The assorted

architectural styles that can be seen today are a result of this reconstruction period (Kao, 2012).

More recently, tourism has become the major development policy of Orchid Island. Not only does tourism provide some economic benefits, but it also promotes a group identity and allows the Tao to incorporate their traditional culture into modern institutions. This is particularly evident in the number of sculptures and paintings on modern structures that celebrate traditional ethnic and cultural identity (Yorgason & Ming, 2013).

**Ecotourism**

Environmental protection is an important aspect of indigenous Tao culture. This is evident not only in their protests for environmental justice, but also in how they run their tourism industry. It wasn't until 1967 that the Kaiyuan harbor of Orchid Island was officially opened to tourists, but shortly after, in the 1970's, tourist traffic began to increase (T.-M. Liu & Lu, 2014). From the influx of tourists looking for an exotic getaway, the Tao began to build amenities for their growing tourism industry. The many activities offered for tourists were intended to help promote the education of their local customs and the natural ecosystem. These activities include nighttime ecological observation tours, and culture-related tours, as well as a museum showcasing indigenous cultures and their traditional underground housing ("Lan Se Damen," n.d.).

The Tao have also established regulations for visitor behavior, and there are many strict rules concerning how tourists may interact with the people and fauna of

Orchid Island. Hunting or collecting any of the thirty species that are either endangered, rare or protected is illegal. Taking pictures of locals without asking permission first is strongly discouraged. Furthermore, tourists are not allowed to explore the forests and other areas of the island alone, and are expected to respect local customs and traditions (Lan Se Damen, n.d.).

Nonetheless, according to some scholars, tourism has had tangible, albeit subtle negative consequences to the island's ecosystem. In order to build roads for the tourists, Pandanus trees were cut down, endangering the coconut crabs that lived in them (T.-M. Liu & Lu, 2014). In order to promote the conservation of the rare Birdwing butterfly and Elegant Scops owl native to the island, Tao aborigines began providing owl and butterfly watching tours.

Despite the remaining taboos that ban the hunting of these species, Elegant Scops and Birdwing butterfly populations are still decreasing. This is largely due to road widening, and because the searchlights tourists use to find the owls negatively impact their breeding habits (T.-M. Liu & Lu, 2014).

The effects of tourism not only impact the ecosystem, but also the tribe's economy and social structure. In total, there are three major cooperative groups on Lanyu: a fishing group, a millet group and an irrigation group. While members of these groups share burdens and profits equally, they have since become more symbolic than functional due to recent developments. For instance, because the Tao rarely use traditional canoes to catch flying fish anymore, the group has become more of a symbol for social cohesion and ceremonial purposes. Furthermore, since irrigation has been improved with more durable materials, members of this cooperation rarely need to meet

anymore (Wen/Yu, 2008). Nonetheless, cooperative management has helped the Tao people work together to fund necessary items such as fishing nets, and has contributed to greater social cohesion.

However, while Lanyu does operate under a cooperative model, as explained above, the tourism industry itself does not. Because the tourism industry has operated under a decentralized, free-market structure, outsiders are able to set up souvenir shops and compete with the natives (Wen/Yu, 2008).  Such openings in the Orchid Island tourism industry attracts a floating population which displaces job opportunities, leading to unemployment within the indigenous tribe. So, while tourism has brought jobs to Orchid Island, as well as promoted ethnic and cultural cohesion, it has also brought the competition that leads to inequality and unemployment.


**Tao Priorities and Perceptions of Tourism**

The aborigines on Orchid Island recognize that they are stakeholders in the tourism industry and as such hold opinions about its developments and effects. Understanding how they view and interact with this industry is central to how it is run and how it should be run. Ultimately, it is the indigenous people themselves who can determine how they want to develop and whether or not their tourism industry is efficiently run. Thus, it would be a severe oversight to ignore the opinions of the locals themselves.

Initially, Tao residents were hostile to foreign visitors, as their previous experience with prisoners, and the ROC government had colored how they viewed

visitors. Today, relations between the indigenous Tao and tourists are much friendlier.

Recently, tourism has helped to foster greater cultural exchange and awareness among

Tao residents. A guide who operates a bed and breakfast based on traditional Tao

housing spoke to this, saying:

> It's my honor to introduce Tao culture to visitors. It's my duty, not for
> money. I have asked my son to learn Tao traditional culture from me and
> how to introduce it to visitors. Most of the young Tao generation has
> little knowledge about traditional culture. It's a big problem. My duty
> now is to teach my son as quickly as possible (pers. comm., Chou
> Shiulang, 3 December 2011), (Yorgason & Ming, 2013).

According to a survey conducted by Cheng-hsuan Hsu, Tao aborigines generally

expressed support for developments in the tourism industry as it offered a means of

employment. However, those who were more highly educated tended to be more critical

towards the overall effects of tourism.

Similarly, those who were unemployed were more likely to perceive negative

effects of tourism (C. Hsu, 2006). Residents were able to perceive both positive and

negative effects, such as increased income, increased cultural exchange, improved

infrastructure, as well as some increase in traffic noise, litter, and contagious diseases.

Still, residents believe the benefits outweigh the costs and that tourism has made a

positive impact on their community (Backman, 2011).

However, while Tao aborigines are generally satisfied with tourism

developments, they are not necessarily happy when the government is the main actor in

facilitating developments. In a study conducted by William Hunter in 2013, Tao

residents generally expressed distrust toward the government, even if they recognized

that the government is responsible for implementing development projects. Thus, Tao

aborigines are generally thankful for developments in the tourism industry, but place a

high value on self-determination (Hunter, 2013).

In the end, while ecotourism and the environmental protection aspect of

ecotourism are important to the Tao, autonomy and local empowerment are a priority

that must be encouraged at every stage of the development process.

# Chapter 2: The Tsou of Saviki Village

**Background**

Resting in the foothills of Alishan County the indigenous northern Tsou take up residence. This inland region of Taiwan contains bountiful resources from which the indigenous villagers were able to hunt, fish and grow crops. Today, agriculture is the main livelihood of the Tsou, who plant cash crops for sale. However, the northern Tsou are known not for their crops, but rather for their fishing and knowledge of river plants and animals. Because of this, fish, crab and prawns constitute a significant part of their diet ("Tsou," n.d.).

The larger Tsou tribe is hierarchically divided into smaller Tsou societies, determined by the hunting and ethnic boundaries that formed political and economic units. The chief of the larger Tsou tribe holds the most power, while tribal elders from each smaller society form a committee for consultation in decision-making. Furthermore, no individual owned land, rather land use was allocated by tribal leaders, meaning all things were communal property (Lee, 2001). The Shanmei subtribe is just one of around five smaller Tsou subtribes and is located on a plain in the southern part of Alishan in a village often referred to as Saviki. The Tsou were warriors who had many rituals and traditions related to wartime and hunting, including a warfare ceremony (*mayasvi*) as well as taboos banning women from partaking in hunting activities (Lee, 2001).

However, since the introduction of foreign faiths, many indigenous people converted to Catholicism or Protestantism and have since disregarded many of their

traditional rituals. Furthermore, in 1946, the current administrative system replaced the traditional system of tribal chiefs and elder leadership (Tao, 2006). Lately, however, there are has been a renewed attempt to strengthen traditional ethnic identity. This has been encouraged not only by the locals, but also by the ROC government and even their local churches, but was for the most part spurred by tourism and an increased demand for traditional cultural activities ("Tsou," n.d.).

**Conservation**

Nearby the Saviki village flows a river called Danayigu, which was originally a sacred area to the Shanmei Tsou and was considered the homeland of the god of the natural environment. Traditionally, this area is home to both the rare Gu fish (*Scaphesthes alticorpus*), and *hicu* spirits (Tao, 2006). According to the northern Tsou, *Hicu* spirits are the supernatural forces that are invisible but influence life, similar to ghosts, spirits and gods. Although hunting and fishing were a way of life, because Danayigu was considered sacred, hunting and fishing were strictly outlawed in the region. In fact, Tsou folktales told of the negative consequences that would befall man should they try to hunt the god-like creatures that lived there.

Furthermore, traditional fishing techniques ensured that a young fish stock remained for future use. The technique used for collective fishing was to put a botanical poison that came from a native bush called "gua-fu-mu" into the flowing water. This poison would temporarily numb adult fish, allowing Tsou fishers to easily collect the fish downstream. The poison would not harm younger fish, as they tended to stay in shallow waters. This left a healthy stock for the fish to reproduce. The fish that were

caught would then be distributed equally among each household (Lee, 2001). Thus, the Tsou traditional culture was conservationist by nature.

However, during the Japanese occupation, not only were the indigenous people threatened by Japanese diseases, but soon the Japanese government came and heavily exploited many of their natural resources (Lee, 2001). After discovering Alishan's abundance of cypress trees and camphorwood, the Japanese government began logging extensively in the region. Japanese settlers also began hunting and fishing in the area, leading to a decrease in local animal populations. Later, because of the Gu fish's delicious meat, many Han visitors came to poison and electrocute the fish, severely damaging the local ecosystem in the process (Tsaur, et.al, 2006).

After the Japanese left, the indigenous Tsou were faced with having to deal with the consequences of such environmental damage and made the communal decision to protect the environment. They once again banned hunting and fishing in the Danayigu region and helped to revitalize the rare breed of Gu fish. The tribe created a conservationist team to guard the Danayigu creek so that day and night there was always at least one person to guard the creek. Today, Shanmei is largely recognized among the ecotourism community and ecotourism scholars for having successfully integrated tourism with environmental conservation. The Taiwanese public has been eager to praise this community for its accomplishments in helping to protect and conserve the local environment. This is in part due to the fact that instead of challenging the government, Shanmei focuses instead on its goal of sustainable development and environmental protection (Lee, 2001).

**Development**

Beginning in 1945, the Chinese nationalist government planned to modernize the mountains, introducing sedentary farming, forestry, and private land ownership to the Alishan area. During this time, much of the land owned by the Tsou became state-owned, and the Tsou lost their rights to use the land. In the 1960's the main source of income was from harvesting bamboo and other mountain products. At this time, more transportation developments allowed for more rapid economic developments, but there were still many access restrictions set in place (Tao, 2006).

In the late 1970's, access restrictions imposed by the KMT government were lifted and paved roads were finally open to the public. With this opening, thousands of Han people came to Saviki, exploiting its natural resources. Historically, Tsou development has been a result of resistance to this intrusion, and has focused on protecting the environment. Rather than focusing on economic development, the Tsou instead built their tourism industry based on ecological assets and the need to protect those assets (Hipwell, 2009). Soon the Shanmei community transitioned from relying primarily on agriculture and forestry to relying on tourism and migration to cities. Today, agriculture and forestry industries only account for about a tenth of the economy (Tao, 2006).

Initially, the Tsou did not have any outside support and did everything themselves, from building paths out of wood and kiosks with thatched roofs. In 1994, the Shanmei Community Development Council was launched to manage tourism and conservation projects, and after they received an award for "Excellence in Integrated Community Development" from the central government, began to receive an increasing

amount of aid from national and local governments (Lee, 2001). In the early 2000's

income from the tourism industry began to soar. However, according to Tsou leaders,

earning money was not the priority, rather it was a means to an end. To the Tsou, the

priority of community development was to expand social welfare (Lee, 2001). Thus,

profits were distributed among the whole community, with three-fourths going to the

seven wards for facility development, while the remaining fourth went to park

employee salaries (Liou, 2013).

On the other hand, while this social welfare was spread evenly among the Tsou,

increases in income were only found near the park. Mostly those who lived in the wards

closest to the park were able to create businesses and work in the park. Those who lived

further away had a harder time enjoying park benefits because the effort it took to get to

the park was simply not worth the trouble (Liou, 2013).


**Ecotourism**

Because of the ban on hunting and fishing in 1989, the Tsou residents of Saviki

were able to revitalize the endangered breed of Gu fish native to the region. This earned

the Shanmei community a Natural Ecology Preservation Exemplary Prize from the

Taiwanese government, and in 1995 the village opened the Danayigu Ecological Park to

tourists (Tsaur, et. al, 2006). The area around Saviki contains vast, undisturbed forests

and hundreds of native wildlife species, and the beautiful landscape of the Danayigu

park has become one of the main draws for tourists. For a small entrance fee that goes

towards cleaning and ecological maintenance, visitors today can partake in indigenous

singing and dancing, enjoy the natural scenery, eat traditional dishes and learn more

about the Gu fish and other wildlife ("Alishan National Scenic Area," n.d.). The proceeds are shared among the tribe in the form of welfare, allowing everyone in the cooperative community to benefit from tourism. Planned and established by locals, the Danayigu ecological park allows the Tsou tribe to achieve economic self-sufficiency as they work to conserve the environment.

However, in the early 2000's Danayigu park began to attract more tourists than their facilities could support, some months bringing in nearly 30,000 tourists (Liou, 2013). Although the Tsou generally do not like to accept government assistance, the Taiwanese government played an important role in helping solve the problem of traffic congestion, funding the Danayigu park to widen roads, build a fish-watching bridge and pathing for foot trails (Tao, 2006). However, the road widening precipitated numerous landslides, which destroyed plots of bamboo forests, buildings and farming plots (Hipwell, 2009). Furthermore, although the Gu fish have been revitalized, ecologists doubt whether current fish feeding activities are best for the fish, as the fish began to change their foraging habits (T.-Y. Chen, 2007), as well as suffer from overcrowding and skin disease (Lee, 2001).

Many in the tribe had also became somewhat dependent on the tourism industry, and in 2009 Typhoon Morakot effectively destroyed the Danayigu Ecological park, closing operation for more than a year and a half (Tsao & Ni, 2016). Because of this, the tribe suddenly lost a large portion of their income. If it were not for the strength of their welfare system and tight-knit community, the people of Shanmei would have been in deep financial trouble, and the Danayigu park would not exist today (K. Liu, 2011).

Today, the Shanmei community has developed with the help of a thriving

ecotourism industry. There is now a comprehensive, multilingual website for tourists to

visit, multiple new facilities, as well as programs that help to conserve not only the gu

fish, but other species such as butterflies, and mountain birds among others ("Ecology

and Animals," 2016). The tourism industry has not only provided more jobs for locals

to return to, it has also helped to fund developments in education and infrastructure

(TITV Yuanshi, 2017). The tourism industry has thus made an overall positive

contribution to the sustainable development of the Shanmei community.


**Tsou Priorities and Perceptions of Tourism**

Despite some criticisms, resident perceptions of the tourism industry are

generally positive. Tsou residents hold different attitudes toward the tourism industry

depending on age, education level, gender, occupation, and level of involvement in the

tourism industry. However, according to a study conducted by Wu Zhonghong et al. in

2007, approximately 95% of 190 Tsou resident respondents supported ecotourism as an

important development tool. Half of the residents had participated in the tourism

decision-making process, and just over 90% had heard of the term "ecotourism" (Z.

Wu, Wang, Li, & Qiu, 2005).

Clearly, the Tsou are highly involved in the industry, but what are Tsou

priorities for ecotourism development? This question is more subjective, and people

have prioritized different things when it came to tourism development. While most

agree that one of the main purposes of their tourism industry was to protect the

environment, in the eyes of one man, environmental protection was secondary to

36

community and tourism development. According to an interviewee called Yang in 2001, "environmental conservation is just a small, single dimension, and its development is short; we should take our cultural property as the center of tourism development" (interview by Pei-Yao Lee, 2001). On the other hand, all those who had been interviewed by Lee expressed that they held a fond nostalgia for when the river was healthy (Lee, 2001). At the same time, residents awareness of what ecotourism is varied between education levels, distance from the park and the degree of contact with tourists (Z. Wu et al., 2005).

In the end, however, Tsou residents today generally express support of ecotourism, more tourist traffic, and other tourism-related developments. They also believe ecotourism impacts are generally positive.

# Chapter 3: The Atayal of Smangus

**Background**

The Atayal are distributed throughout a vast area in the northern part of Taiwan's Central Mountain area. Similar to the Tsou tribe, the Atayal is not a tribal group with a single language, culture or even ethnicity, and has many subtribes within the larger category of Atayal. The Atayal tribe has a total population of approximately 89,200 people, the fourth largest tribe in Taiwan. However, the Atayal subtribe living in a remote village called Smangus is only composed of about 34 households, its population a mere 178 people (Pina Wu, 2015). This tribe is located deep in the mountains of the Jiashih township in Hsinchu county at 1,500 meters above sea level, making it one of the most remote tribal villages in Taiwan (Chao & Hsu, 2011).

On the whole, the Atayal are known for slash and burn crop rotation and hunting, along with cultural practices such as facial tattoos and ancestral spirit worship. The Atayal are also known for their wartime rituals and have a heavy emphasis on weaponry, specifically with rifles. In fact, the Atayal were infamous for their headhunting traditions, ceremonies, and raids (Tang & Tang, 2010). Because their tribe was historically rife with war, tribe members were organized into cohesive groups for patrolling and strategic deployment. These groups were bound together by a belief system called '*Gaga*'. Their core cultural and social structures were thus based on this concept of social cohesion (Tang & Tang, 2010). Included in the concept of *Gaga* was the belief that all things demanded respect, and that resources should be shared amongst

everyone. The Atayal also believed in benevolent spirits, or *Utux*, and that these ancestral spirit's blessings reached out to the entire community.

**Traditions of Conservation**

"Gaga" was an important guiding belief for society, and extended to almost every aspect of life. This system of beliefs and shared knowledge not only helped to perpetuate ethical regulations, social institutions and worldviews, but also environmental knowledge (P.-H. Hsu & Nilep, 2015). It promoted the idea that natural resources should be taken only to satisfy basic life needs, and that one must strike a balance between people and the environment in which they live (Zhuang, 2006). In terms of farming practices, the Atayal recognized that the land needed time to fallow, and were always very careful not to overuse the land (Zhuang, 2006). One example of this is their method of harvesting the resin of the Teqelung tree (Pinus taiwanensis Hayata). The resin is used for lighting, but the Smangus villagers knew that carving too much from the tree caused it to easily die. Thus, the villagers only carved a little and let harvested trees alone long enough for it to recover (Chao & Hsu, 2011). On the other hand, in terms of hunting, it is now illegal for outsiders to hunt in the region, and even the Atayal themselves rarely hunt for subsistence anymore. However, in order to pass down their traditions, the Atayal teach their children how to hunt, showing the younger generation the importance of respecting animals and not killing for fun, but rather for survival (Johnson & Smith, 2011).

The Atayal of Smangus also have a history of fiercely protecting their land and environment against illegal loggers and poachers. During the period of Japanese

colonial rule, the Atayal were successful at guarding their forests and hunting grounds and deterring commercial loggers (Tang & Tang, 2010). Since then, many people have come to the forests surrounding Smangus, cutting off pieces of the trees to make a profit from their valuable wood. This would then dry out the tree and kill it in the end. Although there are not enough people to patrol the forest, the Atayal teach each other how to recognize signs of illegal logging so that they can inform forest officials (Johnson & Smith, 2011).

Much like the Tao of Orchid Island, Japanese missionaries in the early 20th century came to Smangus and introduced the Atayal to Christianity. Unsurprisingly, after the locals converted to Christianity, ancestral rules were gradually replaced, and the communal spirit of *Gaga* began to fade (Wong, 1986). The fading of the *Gaga* spirit negatively impacted social cohesiveness, but otherwise had a negligible effect on the environment (Wong, 1986). In time, the spirit of Gaga was integrated with Christianity, and the community was able to continue practicing coexistence with each other and the environment through traditional forestry methods.

**Development**

The Atayal of this small Smangus tribe lived in seclusion high up in the mountains up until the last half of the twentieth century. The tribe didn't gain electricity until 1979, and in 1995 the first paved road to the village was built (Tang & Tang, 2010). Before this time, the tribe had once been referred to as "the dark settlements" because of its relative isolation and poverty (Chao & Hsu, 2011). In the late 20th century, many villagers in Smangus began to express dissatisfaction as they compared

their livelihoods to that of other villages where roads had already been built, connecting them to the city (P.-H. Hsu & Nilep, 2015).

Up until the 21ˢᵗ century, the Smangus villagers had been millet farmers and hunter-gatherers who relied on the harvest for subsistence. In fact, much of their economic income was gained through mushroom and fruit harvests. However, this was not enough to sustain everyone in the village, and many Atayal went to the cities to earn a higher wage. Without roads, it took many hours to reach the nearest town where they could get food and other life necessities.

In the 1990's, after roads were built and Smangus was finally introduced to the outside world, the village encountered new challenges. Because Smangus was unable to support itself financially through subsistence farming, many young aborigines moved to the city to get an education and earn a better income, often to the expense of their own language and culture (Pina Wu, 2015). The chief leader of the tribe, named Ichi Sulong didn't like to see his community disappear and suffer from poverty, and he knew something had to be done. Soon, the chief had a dream in which the gods were telling him that Smangus would have many visitors, pointing to the trees near a red stream. Dream divinations are an integral part of traditional Gaga beliefs, as the Atayal believe that dreams are a form of ancestral guidance (P.-H. Hsu & Nilep, 2015), thus, Chief Ichi Sulong took this dream very seriously. Soon the tribe began to turn to tourism as a new means of development, discovering the giant red cypress trees of their forest could be used as tourist attractions (Johnson & Smith, 2011).

Initially, the tourism industry provided more jobs and more opportunities to improve their lives. However, the tourism industry also bred competition between the

villagers, specifically among lodging providers, which increased the inequality and hostility between community members. Later, the chief's decisions also made some tribe members unhappy, and these people effectively cut off ties with the tribe. Furthermore, some began to offer extra forest activities to tourists to enhance competitiveness, leading to further environmental damage and a loss of the *Gaga* spirit (P.-H. Hsu & Nilep, 2015).

In the meantime, many neighboring Atayal tribes were illegally selling their shares of land to financial conglomerates for cash, allowing outsiders to develop tourist destinations that depleted local resources and led to ecological vulnerabilities (Tang & Tang, 2010). Soon Smangus villagers were also approached by developers who were interested in buying their land. Following the threat that land could be taken away from them, the villagers decided that something had to change, and turned back to their traditional concept of *Gaga*. Largely due to the determination of the community, the chief was able to turn Smangus into a highly efficient cooperative by the early 2000's. Many Atayal who initially left for city jobs returned. Though they earned more in the city, many aborigines returned to Smangus. In fact, according to one tribe member, some of those who returned expressed that the traditional knowledge they learned from their chief was much more practical than what they learned in the city (Johnson & Smith, 2011). Since the establishment of the cooperative in 2001, inequality decreased, less pressure had been put on the environment, and livelihoods improved overall with the introduction of newer facilities and a strong welfare system. Today, everyone in the cooperative works together and is paid an equal salary, with the exception that women

are paid slightly more due to the fact that they tend to work both at home and in the tribe.

**Ecotourism**

Because the villagers no longer had to compete against each other for tourists, inequality drastically decreased. The cooperative system also positively affected the tourism industry, by making it more convenient for tourists to register and book accommodations all in the same place (Tang & Tang, 2010). Furthermore, tourism's impact on the environment had been reduced. Not only does Smangus now buy back any waste that tourists collect in the village and surrounding forests, but the villagers are now able to make the communal effort to protect their giant red cypress trees from illegal loggers. In fact, even compared to nearby villages (Cinsbu and Smagus), Smangus tends to experience fewer mudslides during typhoon seasons (Tang & Tang, 2010).

Tourists who come to the Smangus village can book a tour with one of the local aborigine tour guides who may wear traditional garb and teach tourists about their culture and beliefs as they show them around the village and surrounding forests. The village offers a number of simple bed and breakfast accommodations, a restaurant that serves traditional cuisine and a shop that serves the tourists. The main attraction, however, is the 11-kilometer hike to the giant red cypress trees, as well as waterfalls, creeks and woodland sightseeing along the way ("Sima ku si", n.d.)

Because of the ecotourism industry, the Atayal of Smangus have been able to earn more revenue as well as share their culture and traditions with both tourists and

their own children. Unlike other villages, tourism was not something pushed on the village from outsiders, rather it emerged from the tribe itself as a means to develop. The Smangus tribe is also not completely dependent on tourism, but continues to cultivate millet and peaches. These are great sources of both food and revenue that help the tribe to be more resilient and self-sustaining. Furthermore, instead of relying on the government for funding in exchange for some of their land, the Atayal have been completely self-reliant and autonomous, building their own schools and other infrastructure projects.

**Atayal Priorities and Perceptions of Tourism**

Smangus respondents of a survey conducted in 2006 expressed that they believed that the tourism industry had a positive impact in improving the local's livelihood. In general, they agreed that tourism brought an increase in job opportunities, income, and economic prosperity. Residents also agreed that, for the most part, tourism positively influenced concepts of environmental protection and has as helped the tribe to protect the local ecology. Finally, most respondents shared that they thought tourism had improved education, reduced population outflows, and increased opportunities for cultural exchange (J. Chen, 2006). Thus residents were mostly optimistic about ecotourism.

Despite the generally positive perceptions of tourism developments, some respondents had also noted that tourism came with some negative impacts. Nearly 73% of respondents noted that tourists interfered with daily life and were sometimes disruptive in the night when they were trying to rest. Additionally, a couple of

respondents noted that the tourism industry had caused a slight increase in conflict between residents (J. Chen, 2006). Similarly, although most noted that tourism had helped to increase environmental awareness, some villagers believed that tourism may also have some harmful impacts on the environment.

In terms of the future of tourism development, half of the respondents in this survey showed that they favored future expansions and development projects for greater economic benefits. At the same time, 73.68% responded that they would like to continue developing a combination of ecotourism and tribal tourism, and 94.73% expressed that they were willing to control the number of visitors and see a decrease in income in order to protect local ecological landscapes. Additionally, 84.20% agreed that tradition and local specialties should be integrated into future developments (J. Chen, 2006). The main goal of ecotourism is not to make money, rather, according to the chairman of the community, it is to improve the overall community and allow the next generation to sustainably manage the tribe (PTS Taiwan gonggong dianshi, 2012). According to Smangus residents, ecotourism is their best option to reach these goals.

# Discussion

## Conditions of Sustainable Ecotourism

While there is no single model of ecotourism, scholars have suggested ways to best manage and implement tourism to be more sustainable. The following discussion will be on whether or not each of the three indigenous tribes implemented these factors, and what their experience was like. The purpose of this is to test each of these conditions against real examples.

*Economic Policies -*

While some economists suggest that free-market economic models best facilitate economic growth, ecotourism scholars generally agree that such a model does not consider market failures and externalities such as environmental degradation. They suggest, therefore, that there need to be some market controls or a cooperative system in order to minimize negative impacts on the environment, and create more social welfare.

A. Orchid Island

The Orchid Island tourism industry operates under a free-market model. While all tourist lodgings are listed under the same organization, they are privately owned and operated. This has created a fair amount of competition between subtribes and even individual families  (Ye et.al, 2008). While such self-interest tends to create more services for tourists to enjoy and consume, competition has also had some negative effects, such as less social cohesion than in past years, and extra tourism activities that place a strain on natural resources. This also means that there are relatively few funds

going to conservation and environmental protection projects. Nevertheless, in a tribe with subtribes spread throughout the island, a centralized cooperative model may be difficult to implement. In place of a tourism cooperative, there are six development associations spread throughout the island that provide welfare and funds for community development ("Lanyu xiang gongsuo," n.d.). Additionally, locals are generally satisfied with their increased income and the way their ecotourism industry is run in general.

B.  Saviki Village

The Tsou of Shanmei operate under a cooperative model. All tourism operations are conducted by the same organization. Income is shared equally among employees and three-fourths of the proceeds go toward community development. There is very little competition, although the benefits of tourism tend to stay localized near the Danayiku park. A portion of the proceeds from the entrance fee also goes to conservation projects.

C.  Smangus Village

Due to the tightknit community, the Smangus Village is operated under a highly efficient cooperative model. All members of the Smangus village pitch in to help with the work and gain an equal amount of income. The community has a strong welfare system, so everything from early education to elderly care is covered by the community. Extra tourism activities are no longer offered, and the tourism industry is run more efficiently through a central organization. Furthermore, the development association allocates a portion of its income into facility development and forest protection. Besides those few people that broke off from the Smangus tribe, tribe members generally favor this cooperative system.

*Educational and Participatory Tourism Controls –*

Education and tourist participation have been argued to be key to the success of ecotourism industries. This is argued not only to improve the tourist's experience, but also help the community and place less strain on the environment.

A. Orchid Island

The Tao of Orchid Island have implemented some educational and participatory controls. Locals educate tourists about the environment through guided tours and museums, as well as ban tourists from hunting, catching, or destroying local wildlife. Tourists are also not allowed to roam freely in the forests, are encouraged to pack out trash (Zhonghua dianshi gongsi, 2016), and are discouraged from taking pictures of locals without permission and needlessly disrupting their lives. Tourists are also encouraged to respect Tao culture. On the other hand, tourists are offered few participatory activities, and have the freedom to choose not to partake in educational activities.

B. Saviki Village

The Tsou pair tourism regulations with education. The Tsou provide tourists with plenty of opportunities to learn about local ecology and indigenous culture through museums, festivals and guided tours ("Shan mei shequ fazhan xieyi," 2013). The Tsou also ban fishing and hunting in the Danayigu region. However, the Shanmei community offers few opportunities for tourist participation except through occasional photo contests and fish feeding activities.

C. Smangus Village

Tourists are offered many educational and participatory activities. The Atayal of Smangus not only educate tourists, but they also provide ways for the tourists to help their community, such as by cleaning up litter and trash. Tourists who visit Smangus tend to experience the indigenous village in a highly controlled context, usually with a tour guide or group. The indigenous locals play an active role in educating tourists, and the tourists help to not only consume local products, but also clean up the village.

*Cultural Incentives for Conservation -*

If respect towards nature is ingrained in tradition, it is easier to implement tourism controls that directly contribute to maintaining these values.

A. Orchid Island

While taboo is a central component of Tao culture, and has helped to maintain and protect the local ecology, the traditional taboo system has slowly faded. Thus, the ethical rules constituting how one can fish and what animals one can hunt have generally been replaced by law-based rules, such as bans on hunting endangered creatures. The impacts of such an ideological transition are uncertain, but some scholars have argued that by no longer observing traditional sustainable fishing practices, current fishing practices are inherently less sustainable.

B. Saviki Village

The Tsou of the Saviki tribe have a long history when it comes to protecting the local environment. Not only were their traditional fishing practices sustainable, but they considered the Danayigu valley so sacred that no one would be allowed to fish or hunt in the region. In response to the threat that foreign fishers and poachers posed to local

wildlife, the Tsou began to work together with the common goal of protecting their sacred land. Their ecotourism industry was subsequently built from this common goal and was promoted for the purpose of environmental protection. This cultural incentive is echoed by the Tsou in terms of their priorities for ecotourism development.

C. Smangus Village

The Atayal in Smangus have also had a cultural history of fiercely protecting their land from foreigners and illegal loggers. The Gaga belief system also reinforced the idea that people should not overconsume natural resources. These beliefs persist to this day, even after Christianity was adopted by the locals, and continues to be a central aspect of their tourism industry. Nevertheless, the community did not discover the giant cypress trees as their main tourism attraction until after the community decided to try to develop tourism. This means that although culture can be an important incentive for practicing sustainable tourism, ecological attractions don't necessarily need to be culturally significant.

*Democratic Participation and Autonomy -*

It is widely agreed by ecotourism scholars that self-determination and local empowerment are one of the most critical conditions for the success of an indigenous ecotourism industry.

A. Orchid Island

Autonomy is a right that the Tao of Orchid Island have fought for since the island was discovered by foreigners. This struggle for self-determination is understandable, as many of the developments the government had made did not benefit

the locals, and in some cases harmed them (He, 2013). Rather, when the government simply funded Tao projects, rather than making developmental decisions for the Tao, the locals were able to use the money according to their needs. Today local development associations are largely responsible for development projects and community programs.

B. Saviki Village

The central Taiwanese government had an influential role in helping fund Shanmei development projects. Nevertheless, tourism developments were largely determined by the locals themselves. Furthermore, local conservation efforts turned out to be highly effective, even without the support of government patrolling units, scholars or even development experts. Thus, although the locals may have lacked technical expertise, they still made the necessary choices to help their community.

C. Smangus Village

The Atayal of Smangus deliberately refused help from the central government in order to maintain their autonomy. By refusing government aid, the community did not have to give up any of their land. Consequently, the community built their own schools and facilities and had to rely on the efforts of their own community to fund development projects. This was a tradeoff that the community seemed willing and happy to make (Johnson & Smith, 2011).

*Self-Sufficiency and Job Diversity –*

Communities should work towards self-sufficiency as well as spending and investing in the local economy in order to keep profits within the community, and help it to be more autonomous and resilient in the face of adversity.

A. Orchid Island

Orchid Island is self-sufficient to a degree. Because transportation costs from the mainland are high, the locals produce a lot of their own food. While food is not mass produced, aside from the fishing industry, there are also a number of plant crops, as well as goats, chickens and pigs that roam the island. Most other industries, however, are related to the tourism industry, such as hospitality, transportation, and shops. However, some necessary goods and services are imported, such as for healthcare (Lanyu weisheng suo, 2016), and many young Tao still go to the mainland to get a higher education and find higher paying jobs.

B. Saviki Village

The Tsou of Saviki are primarily reliant on their tourism industry. This added to economic instability during times of adversity such as in the aftermath of typhoon Morakot. Although they had few other industries to fall back on, the tribe has a strong welfare system. Additionally, while some families in the region profit from bamboo, tea, taro, persimmon and ginger harvests, not enough is produced to allow the community to be food secure or economically self-sufficient on these products alone. Fortunately, transportation to the village has greatly improved, allowing the tribe to have better access to imported goods and services. Aside from tourism, there are few other industries to support the community.

C. Smangus Village

The Atayal of Smangus not only rely on tourism for subsistence, but also grow millet and peaches as a secondary source of income. Such income diversity is good for the overall health of the tribe's short-term economy. In terms of self-sufficiency, however, the tribe was technically self-sufficient for many years up until the late 20th century. Hover it became clear that the tribe would no longer be able to subsist on their crops alone, and their quality of life was poor compared to neighboring villages who had better access to the cities (Johnson & Smith, 2011). Ever since the village has had better access to outside goods, livelihoods have improved significantly. Thus, self-sufficiency is less important than production diversity, as small communities cannot afford to only rely on themselves for subsistence.

# Conclusion

While each of the tribes described in this thesis has had different experiences with their growing ecotourism industries, most indigenous members of each tribe express satisfaction towards ecotourism and its effects on their communities. For the Tao, ecotourism was implemented due to a combination of pressure for economic development, but also a push for local autonomy and resistance to foreign imposition. For the Tsou, their ecotourism industry was created to protect their environment and restore it to the way it was before outside influence, while at the same time improving welfare and maintaining their culture. For the people of Smangus, ecotourism was initially adopted by the community simply to improve local livelihoods. In the end, the tribes were able to achieve these goals, as well as develop tourism industries that are more culturally, economically and environmentally sustainable than mass tourism industries.

To say that the ecotourism industries are truly sustainable, however, is an overstatement, as such a consumption-based industry is difficult to make completely sustainable. While each of these tribes expressed satisfaction with ecotourism, some members within each community also recognized that tourism has had subtle negative impacts as well. Nevertheless, the positives seem to outweigh the negatives, and while they exist, negative impacts are generally minimized through the use of tourism controls.

In the end, these three tribes are used as examples, not to be compared to each other, but to illustrate the ways in which different communities can develop ecotourism. From these case studies, we can see how sociocultural tools such as tourist education

and participation, cooperative management, and autonomy indeed help to minimize the negative impacts of tourism industries. On the other hand, achieving economic and food self-sufficiency, while possibly adding to short-term economic stability and sustainability, should not be promoted at the cost of the community having access to cheaper goods or daily necessities, as this may hinder communities from improving their wellbeing. Furthermore, while some scholars argue that an ecological attraction's cultural relevance should be emphasized, I argue that although culture can act as an important incentive for protecting the environment, ecological attractions don't necessarily need to be culturally significant to be valued and protected. Lastly, while cooperative economic models seem to foster more social cohesion and provide more funds towards conservation, not all communities may be able to achieve such economic models due to varying social structures or demographic distributions.

In the end, there is no single right way to implement ecotourism, as it is a way for indigenous communities develop at their own pace and in their own terms. However, if there is anything that can be learned from the experiences of these tribes, it is that there are ways for tourism industries to become more sustainable. Future ecotourism developers and scholars can thus learn from these tribes, and promote autonomy, tourist education and participation, and an economic system that provides both social welfare and social cohesion. In this way, they can ensure that future generations can live in and visit indigenous communities and natural environments that are better off than they were before.

# Bibliography

Ateljevic, Irena, et al. "The Critical Turn in Tourism Studies: Innovative Research Methodologies." *The Critical Turn in Tourism Studies Innovative Research Methodologies*, vol. 1, no. 5, 2007,

Austin Ramzy. "Taiwan's President Apologizes to Aborigines for Centuries of Injustice." *New York Times*, 1 Aug. 2016.

Backman, Kenneth F. "Tao Residents' Perceptions of Social and Cultural Impacts of Tourism in Lan-Yu, Taiwan." *Event Management*, vol. 15, no. 2, 2011, pp. 121–136.

Barkin, David. "Ecotourism : A Tool for Sustainable Development in an Era of International Integration ?" *Yale F&ES Bulletin*, vol. 99, no. March, 1996, pp. 263–272.

Chang, Hsiao-Ming, et al. "Aboriginal Tribal Tourism Development Critical Success Factors – Case by Smangus in Taiwan." *World Academy of Science, Engineering and Technology*, vol. 77, 2013, pp. 1361–1367.

Chao, Chih-Lian Chich-Liang, and Pei-Hsin Hsu. "Learning about the Development of Ecotourism in the Context of the Smangus Tribe's Traditional Ecological Knowledge." *GeoJournal of Tourism and Geosites*, vol. 7, no. 1, 2011, pp. 7–21.

Chen, Jihong. "Sīmǎ Kù Sī Bùluò Jūmíng Duì Mínsù Yè Fāzhǎn de Huánjìng Shi Jué Zhī Yánjiū (Environment Perception on the Impact of the Development of Homestay Industry in the Smangus Tribes)." *Journal of the Agricultural Association of China*, vol. 7, no. 2, 2006, pp. 203–221.

Chen, Tu-Yao. "Jiàngòu Shēngtài Lǔyóu Yuánqū Yǐ Shān Měi Dá Nà Yīgǔ Wéi Lì (Constructing Ecotourism Parks: A Case Study of Saviki Tanayiku)." *The 4th Taiwan Local Township Tourism Industry Development and Prospect Seminar*, 2007.

Council of Indigenous Peoples. "10609Tái Mǐn Xiàn Shì Xiāngzhèn Shì Qū Yuán Zhù Mínzú Rénkǒu-Àn Xìngbié Zú Bié （Taiwan and Fujian Township Indigenous Population by Sex)." *Yuán Zhù Mín Rénkǒu Shù Tǒngjì Zīliào (Indigenous People Population Statistics Data)*. October, 2017.

Fan, Mei-Fang. "Nuclear Waste Facilities on Tribal Land: The Yami's Struggles for Environmental Justice." *Local Environment*, vol. 11, no. 4, 2006, pp. 433–444.

Funk, Leberecht. "Entanglements Between Tao People and Anito on Lanyu Island, Taiwan." *Monster Anthropology in Australasia and Beyond*, edited by Yasmine Musharbash and Geir-Henning Presterudstuen, Palgrave Macmillan, 2014, pp. 143–157.

Hashemkhani Zolfani, Sarfaraz, et al. "Economic Research-Ekonomska Istraživanja Sustainable Tourism: A Comprehensive Literature Review on Frameworks and Applications Sustainable Tourism: A Comprehensive Literature Review on Frameworks and Applications." *Reza Maknoon & Edmundas Kazimieras Zavadskas Economic Research-Ekonomska Istraživanja*, vol. 28, no. 1, 2015, pp.

Hassan, Salah S. "Determinants of Market Competitiveness in an Environmentally Sustainable Tourism Industry." *Journal of Travel Research*, vol. 38, no. 3, 2000, pp. 239–245.

He, Zongxun. "Lán yǔ 3 wèi fǎnhé fèiliào mínzú yīngxióng (Three Lanyu Anti-nuclear Waste National Heroes)" *YouTube*. March 14, 2013. Web.

Hill, Jennifer, and Tim Gale. "Ecotourism and Environmental Sustainability Principles and Practice." *Farnham: Ashgate Publishing*, 2009.

Hipwell, William T. "An Asset-Based Approach to Indigenous Development in Taiwan." *Asia Pacific Viewpoint*, vol. 50, no. 3, 2009, pp. 289–306.

Honey, Martha. "Ecotourism and Sustainable Development." *Professional Geographer*, vol. 52, no. 3, 2008, p. 551.

Hsu, Cheng-hsuan. "Tao Residents' Perceptions Of Social And Cultural Impacts Of Tourism In Lan-Yu, Taiwan. *All Thesis*. 47. 2006.

Hsu, Pei-Hsin, and Chad Nilep. "Authenticity in Indigenous Tourism: The Provider's Perspective." *International Journal of Critical Indigenous Studies*, vol. 8, no. 2, 2015, pp. 16–28.

Hunter, William Cannon. "Understanding Resident Subjectivities toward Tourism Using Q Method: Orchid Island, Taiwan." *Journal of Sustainable Tourism*, vol. 21, no. 2, 2013, pp. 331–354.

Johnson, Dean, and Frank Smith. "A Year in the Clouds: 司马库斯." 2011.

Kao, Hsin-Chieh. *Labour, Life, and Language: Personhood and Relations among the Yami of Lanyu*. University of St Andrews, 2012.

57

Kuan, Da-Wei. "Transitional Justice and Indigenous Land Rights: The Experience of Indigenous People's Struggle in Taiwan." *Bilateral Conference (Taiwan and Austria) for Justice and Injustice Problems in Transitional Societies*, 2010.

Lee, Pei-Yao. "Ecotourism, Community Development, and Local Autonomy: The Experience of Shan-Mei Aboriginal Community in Taiwan." Oregon State University, 2001.

Liou, Gwo-Bao. "Ecotourism Cultural Impact Analysis." *ProQuest Dissertations and Theses*, Michigan State University, 2013.

Liu, Kwangyin. "Hope Springs Eternal for Tanayiku Ecology Park." *Taiwan Today*, 18 Mar. 2011.

Liu, Tzu-Ming, and Dau-Jye Lu. "The Cultural and Ecological Impacts of Aboriginal Tourism: A Case Study on Taiwan's Tao Tribe." *SpringerPlus*, vol. 3, no. 1, 2014, p. 347.

Marsh, Duncan R., et al. "Orchid Island: Taiwan's Nuclear Dumpsite." *Nuclear Monitor*, 28 Mar. 1993.

Munsterhjelm, Mark. "'The First Nations of Taiwan: A Special Report on Taiwan's Indigenous Peoples.'" *Cultural Survival*, 5 May 2010.

PTS táiwān gōnggòng diànshì. "Gōnggòng diànshì wǒmen de dǎo 一sīmǎ kù sī de yuànwàng (Public television, Our Island - Smangus' Hopes.)" *Youtube*. April 15, 2012.

Sirakaya, Ercan, et al. "Redefining Ecotourism: The Need for a Supply-Side View." *Journal of Travel Research*, vol. 38, no. 2, 1999, pp. 168–172.

Tang, Ching-Ping, and Shui-Yan Tang. "Institutional Adaptation and Community-Based Conservation of Natural Resources: The Cases of the Tao and Atayal in Taiwan." *Human Ecology*, vol. 38, no. 1, 2010.

Tao, Teresa Chang-Hung. *Tourism as a Livelihood Strategy in Indigenous Communities:. Case Studies from Taiwan*. University of Waterloo, 2006.

TIES. "Ecotourism Definition." *The International Ecotourism Society*, 1990.

TITV Yuán shì. "Néng gāo yuè lǐng shēngtài lǚyóu ālǐ shān zōu zúrén qǔjīng 2017-03-15 TITV yuán shì xīnwén (Ecotourism beyond the ridge, learning from the Alishan Tsou tribe, 2017-03-15 TITV Streaming News.)" *Youtube*. March 15, 2017. Web.

Tsao, Chien-yu, and Chin-cheng Ni. "Vulnerability, Resilience, and the Adaptive Cycle in a Crisis-Prone Tourism Community." *Tourism Geographies*, vol. 18, no. 1, 2016, pp. 80–105.

Tsaur, Sheng Hshiung, et al. "Evaluating Ecotourism Sustainability from the Integrated Perspective of Resource, Community and Tourism." *Tourism Management*, vol. 27, no. 4, 2006, pp. 640–653.

Tseng, Wei-chen, and Wei-han Chen. "Taiwanese' Identity Hits Record Level." *Taipei Times*, 26 Jan. 2015.

United Nations. "Our Common Future, Chapter 2: Towards Sustainable Development - A/42/427 Annex, Chapter 2 - UN Documents: Gathering a Body of Global Agreements." *UN Documents*, 1987.

Veltmeyer, Henry. "Development and Globalization as Imperialism." *Canadian Journal of Development Studies*, vol. 26, no. 1, 2005, pp. 89–106.

Welford, Richard, and Bjarne Ytterhus. "Conditions for the Transformation of Eco-Tourism into Sustainable Tourism." *European Environment*, vol. 8, 1998, pp. 193–201.

Wen / Yu, Guanghong. "Yamei Zu Renwen Shehui Jianjie (A Brief Introduction to Yami Humanities and Social Sciences)." *Travel Lanyu Info*, 2008.

WIBF. "Press Release – WIBF Resolution: CHANGE OF THE DEFINITION OF INDIGENOUS DEVELOPMENT." *The Delegation of the World Indigenous Business Forum*, 2016.

Wong, S. H. "Fei Danxi Shehui Zhi Yanjiu: Yi Taiwan Taiyazu Yu Yameizu Wei Li (On Non-Unilineal Society: The Cases of Atayal and Yami in Taiwan)." *Taiwan Tuzhu Shehui Wenhua Yanjiu Lunwenji (Symposium on the Socio-Culture of Taiwan's Aborigines)*, edited by Y.-K. Huang, Linkingbooks, Taipei, 1986.

Wu, Pina. "Taiwan's Smangus, an Indigenous Village with an Ecotourism Cooperative." *ECOCLUB*, 2015.

Wu, Po-wei, et al. "Aboriginal Land Boundary Draft Rules Meet Criticism." *Taipei Times*, 16 Feb. 2017.

Wu, Zhong-hong, et al. "Shān Měi Zōu Zú Yuán Zhùmíng Duì Shēngtài Lǚyóu Yǒng Xù fāzhǎn:`Rènzhī'yǔ `tàidù'zhī Yánjiū (The Zou Aborigines of Saviki and Sustainable Development of Ecotourism:A Study on 'Cognition' and 'Attitude')." *Journal of Nan Kai*, vol. 3, no. 2, 2005, pp. 67–82.

Yeh, Chuan-Rong, Zhong Weiqi, and Hong Qiuwei. "Lán Yǔ Wánquán Zhōngxué de Jiàoyù Xiànkuàng Yǔ Kùnjìng Chūtàn (A Preliminary Study on the Status Quo and Difficulties of the Secondary Education in Lanyu Island)." *Education Practice and Research*, vol. 21, no. 2, 2008, pp. 127–160.

Yorgason, Ethan, and Hsia Li Ming. "Reading Lanyu's Tourism Landscape: Hybridity and Identity on Orchid Island, Taiwan." *Singapore Journal Of Tropical Geography*, vol. 34, no. 2, 2013, pp. 261–278.

Zeppel, H. "Indigenous Ecotourism: Sustainable Development and Management." *Indigenous Ecotourism: Sustainable Development and Management*, 2006, p. xiv-272.

Zhuang, Qingxin. "Táiwān Yuán Zhùmín de Shēngtài Zhìhuì Yǔ Huánjìng Zhèngyì--Huánjìng Zhéxué de Xǐng Sī. (Taiwan Aborigines' Ecological Wisdom and Environmental Justice - Reflections on Environmental Philosophy)." 2006.

Zhōnghuá diànshì gōngsī. "0930 Huá shì xīnwén zázhì-lèsè wéijī hànwèi lán yǔ jìngtǔ (CTS News Magazine - Litter Crisis, Defend the pure land of Lanyu.)" *YouTube*. October 2, 2016.

"Alishan National Scenic Area." https://www.ali-nsa.net/.

"Ecology and Animals." 2016. *Alishan National Scenic Area*.

"Lán Sè Dàmén | Lán Yǔ Mínsù Lǚyóu Lián Xiàn （Blue Door | Orchid Island B & B Tourism Connection）." https://travel.lanyu.info/.

Lán yǔ xiāng gōngsuǒ. "Tái dōng xiàn lán yǔ xiāng gōngsuǒ-mínjiān tuántǐ-shèqū fāzhǎn xiéhuì (Taitung County, Lanyu Township Office – Civil Society, Community Development Association.)" www.Lanyu.Gov.Tw/content_edit.Php?Menu=1775&typeid=2483

Lán yǔ wèishēng suǒ. "Tái dōng yīliáo zīyuán chángqí xiāngduì kuìfá (The relative lack of long-term medical resources in Taitung.)" Facebook. September 2, 2016.

"People and Languages of Taiwan." *Life of Taiwan.* 2015.

"Sīmǎ kù sī- Qalang Smangus." www.smangus.org/.

"Shān měi shèqū fāzhǎn xiéhuì (Shanmei Community Development Association)." Facebook. February 9, 2013.

"Tao." n.d. *Digital Museum of Taiwan Indigenous Peoples*.

"Tsou." n.d. *Digital Museum of Taiwan Indigenous Peoples*.