Common Pool Resource Management and Benefit Distribution in Community Based Tourism: Two Case Studies from Smangus and Cinsbu-Xinguang, Atayal Indigenous Communities in Taiwan

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Abstract

Previous studies have discussed the importance of distribution of benefits from Community Based Tourism (CBT) in the community for its success. Scholars also agree that these distribution should be as far and as wide as possible. Many CBT enterprises are based on cultural heritage and natural environment as key tourism resources. In certain cases, the natural environment as a tourism resource is a Common Pool Resources (CPR). However, the issue of CPR in tourism has not been studied much in either the tourism or the CPR literature. This study explains the relationship between the tourism CPR management framework - when it is the key CBT tourism resource - and its relationship with benefit distribution from tourism. By conducting a mixed method approach of questionnaires (quantitative) and interviews and observation (qualitative), the research analyzes how perceived benefit distribution from CBT affects the satisfaction with the way the Tourism CPR is managed. Two key understandings emerge from the study: (1) There are different “stages” of benefit distribution from CBT result in different relationship with the CBT management. When the benefit distribution is relatively equal in the community, benefit distribution does not impact the satisfaction of the Tourism CPR management. In such case, participation in managing the CPR is important to the community; (2) When the CBT is based on multiple family or group-owned enterprises, the perception of benefit distribution from CBT positively affects the satisfaction with how the Tourism CPR is managed.

Keywords – Community Based Tourism, Common Pool Resource, Benefit Distribution, Indigenous People, Taiwan, Atayal, Sustainable Tourism.
摘要
過去已有研究討論社區旅遊的利益分配和分享其成功案例，學者們也認同這些利益應該更廣泛地、長遠地被分配及使用；另一方面，在共用資源的研究上，許多社區旅遊組織的主要觀光資源以文化遺產或自然環境為主，在某些情況下其也可被視為共用資源，然而，與利益分配相關的議題，在以旅遊為對象之共用資源文獻中卻鮮少被提及。本研究探討當共用資源為觀光主要資源時，共用資源管理與其利益分配之間的關係。透過實地訪查、參與觀察、深度訪談等質性方法，以及問卷調查與統計之量化方法的交叉比對，進而分析社區旅遊的自覺行動利益如何影響對旅遊共用資源管理的滿意度。從研究中可以瞭解：(1) 社區旅遊的利益分配有不同的“階段”，不同時期與社區旅遊管理的關係不同。當獲利分配相對平等時，其對共用資源管理的滿意度影響較小。在這種情形下，社區共同參與和管理共用資源是重要的；(2) 若社區旅遊由數個家族或不同群體共同經營，社區旅遊對獲利分配的看法則會對旅遊共用資源的管理方式產生積極影響。

關鍵字 - 社區旅遊，共享資源，利益分配，原住民，泰雅族，永續旅遊。
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This paper is dedicated to the people of Smangus and Cinsbu-Xinguang. Mhway su balay!
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1. Introduction

The distribution of benefits from Community Based Tourism (CBT) settings is an important aspect for the success of CBT, and it has been discussed by many authors researching CBT. Although there are different ways to distribute incomes and benefits from CBT among the community, scholars agree that these distribution should be as far and as wide as possible (Armstrong, 2012; Lalayan, 2014).

Many Community Based Tourism enterprises are based on the following two key tourism resources: (1) cultural heritage; and (2) natural environment and landscape. In certain cases, the natural environment as a tourism resource is a Common Pool Resources (CPR). However, the issue of CPR in tourism areas has not been studied much in either the tourism or the CPR literature (Briassoulis, 2002).

This study is aimed at understanding better the management framework of Tourism Common Pool Resource - when it is the key CBT tourism resource - and its relationship with benefit distribution from tourism. The main research question of this thesis is: *How the perception of benefit distribution from Community Based Tourism affects the satisfaction with the way the Tourism CPR is managed in Atayal communities?*
1.1. Significance of the Study

The academic resources on Common Pool Resources in tourism areas are quite limited, both in tourism literature and in CPR literature, and thus remains under-theorized (Briassoulis, 2002). With large sections of the growing tourism industry are moving to more sustainable practices of resource management, understanding the connection between the management of Tourism CPR and benefit distribution is more important than ever.

In the community based tourism and ecotourism literature, the studies can be divided into two groups: one focuses on the demand side – the tourists; while the other focuses on the supply side – evaluating the tourism enterprises from different perspectives. This paper belongs to the second group, and looks into Community Based Tourism and CPR management with case studies from two Atayal Indigenous communities of Taiwan that has such settings of CPR and CBT. These Atayal CBT case studies are unique and differ from common other most CBT cases in the literature: (1) the majority of the tourists are domestic tourists, rather than international tourists; and (2) the local people established the local tourism industry, without outside development agencies. In the ecotourism literature, it is rare to find discussions about community based ventures that are not managed, co-managed, or initiated by outsiders (Jones, 2005).

Taiwan poses as an interesting focus for researching Community Based Tourism and Common Pool Resource management. Taiwan has a unique population of Indigenous People that have resided in Taiwan for thousands of years before the Han people migrated from mainland China. The Indigenous Peoples of Taiwan have not been part of the main economic and social center for the majority of the 20th century. In the late 1970’s movement restrictions were lifted which brought electricity to some mountainous indigenous communities. In 1990 the government released the alienable rights of the reserved lands back to the some of the indigenous people. In the second half of the 1990’s paved roads were constructed to connect the mountainous Atayal communities in Hsinchu to the outside world. During that time tourism started to develop, and in past two decades, many Community Based Tourism initiatives and models were developed in the Communities of Indigenous People of Taiwan (Tang and Tang, 2010).

Community Based Tourism is a popular and suitable model for many marginalized communities to diversify their income by offering tourism services. However, it is important to note that the CBT model is not appropriate for all communities. Copying successful products is not a warranty
of success and sometimes lead to an over estimation of the benefits which misleads the community. Many CBT initiatives are not successful, and sometimes even make damage the community (Meriles, 2014)\(^1\)

The two case studies in this paper contribute to understanding these issues, and hopefully will be useful for studying other Community Based Tourism initiatives, especially by indigenous people, as well as developing and implementing Community Based Tourism models.

Besides contribution to the theoretical discussion on the ‘characteristics of Community Based Tourism’, ‘tourism resources as CPRs’, and ‘benefit distribution from tourism’, this study will help decision makers in the tourism sector to understand better what should be emphasized when designing or implementing changes to achieve better benefit distribution. This will be especially useful in Indigenous Community Based Tourism settings, where many times there are unique CPR institutions already based on traditional practices. In short, the study aims to contribute both to the theoretical literature and to the practical implementation of these issues.

\(^1\) Juan René Alcoba Meriles is one of the only ones who wrote about failures of CBT initiatives, as most researches tend to write about successful cases only. It is easier to write about successful cases.
1.2. Expected Outcome of the Research

Through desk research, field research, interviews and analysis of questionnaires in the two communities, the expected outcome of the research is as follows: (1) characteristics of Atayal Community Based Tourism will be explained, mostly the focus on the two key characteristics: cultural heritage and natural environment and landscape; (2) stakeholders involved in tourism will be detailed; (3) The example of the cypress forest area as a tourism resource will validate the possibility to look at such tourism resource as a Tourism CPR; (4) the way two Atayal communities manage the Tourism CPR will be explained; (5) the degree of community involvement in Community Based Tourism and the management the Tourism CPR will be measured and explained; (6) perceived fairness of benefit distribution from tourism will be looked at; and (7) the assumption that satisfaction of tourism benefit distribution influences the satisfaction of Tourism CPR management system (and the willingness to maintain it).
1.4. Theoretical Framework

In order to understand, first a number of definitions important for the theoretical framework of the thesis: Sustainable Tourism, Ecotourism, Community-based Tourism (CBT), and Indigenous Tourism.

1.4.1 Community Based Tourism (CBT)

For decades, tourism has experienced continued growth and deep diversification, becoming one of the most influential economic sectors on the planet. It is an extraordinarily dynamic and changing activity.

In recent years there has been a rapid growth in the number of international tourists, from 528 million in 1995, to 1.235 billion in 2016, and an expected 1.8 billion in 2030. Tourism is a huge industry and an important part of all modern economies, as it is a source for foreign and domestic investment, foreign currency circulation, entrepreneurial initiatives, service-based job creation, and local social enhancement (UNWTO, 2018).

Figure 1: International tourists
International tourism by itself has an increasingly significant role in international trade, having exceeded $1.5 trillion in operations attributable only to international tourism in 2015. Currently, tourism turnover equals or even exceeds that of oil exports, food products or automobiles. Its overall impact is particularly significant, contributing today to 9.8% of world GDP. A context in which the tourism industry has contributed with a total of 284 million direct jobs in 2015. These figures speak for themselves of the enormous impact of tourism on development policies at local, regional and global levels (UNWTO, 2018).

As such, sustainability concepts apply to the tourism industry as well. Sustainability literally means the capacity to endure over time. Sustainability associates with balance and equity, which acknowledges our dependence on the health of natural systems for our survival and well-being, the limit carrying capacity of the Earth and the detrimental impact of unchecked human activities. Thus, sustainability strives for balance among the interconnected ecological, economic and social systems. Sustainability must be integrated in all sectors. Including tourism.

1.4.1.1. Sustainable Tourism:

According to the UNWTO & UNEP, Sustainable Tourism is defined as follow: “Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities.” “Sustainability principles refer to the environmental, economic, and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability” (UNEP & UNWTO, 2005: 11-12).

Sustainable tourism takes into account issues of Energy and GHG emissions; water consumption; waste management; loss of biological diversity; and effective management of cultural heritage.

Tourism's importance for sustainable development was also recognized, recently at 'Rio+20: The Future We Want" summit: "We emphasize that well-designed and managed tourism can make a significant contribution to the three dimensions of sustainable development [...] We call for enhanced support for sustainable tourism activities and relevant capacity-building in developing countries in order to contribute to the achievement of sustainable development" (UNCSD, 2012).
Recently, the United Nations came together in 2015 to discuss how we must work together to help improve the lives of future generations. The purpose of this meeting was to implement a unique set of goals that will help ‘end poverty, protect the planet, and ensure prosperity for all’ as part of a new agenda for sustainable growth and development. These significant targets, are set to be achieved in the next 15 years. Tourism features prominently in the outcome document “Transforming our World: the 2030 Agenda for Sustainable Development” and is included as a target in three out of the 17 Goals, namely Goal 8.9, 12.b. and 14.7.2

Under these circumstances the tourism industry itself is called in the coming years to become one of the fundamental engines and priority field of application of the 17 United Nations Sustainable Development Goals (SDG), with the declaration of 2017 is the Year of Tourism for Sustainable Development. The International Year aims to: (1) raise awareness on the contribution of sustainable tourism to development; and (2) mobilize all stakeholders in making the sector a catalyst for positive change (International Finance Corporation, 2017).

Using the GSTC Criteria set by the Global Sustainable Tourism Council (GSTC)3 would be a valid way to recognize sustainability practices in tourism. “The GSTC Criteria serve as the global baseline standards for sustainability in travel and tourism. The Criteria are used for education and awareness-raising, policy-making for businesses and government agencies and other organization types, measurement and evaluation, and as a basis for certification. They are the result of a worldwide effort to develop a common language about sustainability in tourism. They are arranged in four pillars: Sustainable management; Socioeconomic impacts; Cultural impacts; and Environmental impacts (including consumption of resources, reducing pollution, and conserving biodiversity and landscapes) (GSTC, 2018).

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2 Sustainable tourism is included under Goal 8 (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all), target 8,9 (By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products); Under Goal 12 (Ensure sustainable consumption and production patterns), target 12.b (Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products) and under; Goal 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development), target 14.7 (By 2030, increase the economic benefits to Small Island Developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism) (International Finance Corporation, 2017).

3 In 2007, a coalition of 32 partners, initiated by the Rainforest Alliance, the United Nations Environment Programme (UNEP), the United Nations Foundation, and the United Nations World Tourism Organization (UNWTO), created the GSTC. The purpose was to foster increased understanding of sustainable tourism practices and the adoption of universal sustainable tourism principles (GSTC, 2018).
1.4.1.2. Ecotourism:

Ecotourism is a niche segment of tourism, which is often referred to, especially in Taiwan. The term ecotourism emerged in the late 1980s as acknowledgment of sustainable and global ecological practices. As ecotourism has grown in popularity, its definitions have been expanded to incorporate ideas about ecotourism responsibility, environmentally friendly destination management, and sustainable development of local human (Coria & Calfucura, 2012).

The International Ecotourism Society (TIES) defines ecotourism as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education" (TIES, 2015). "Education is meant to be inclusive of both staff and guests". Ecotourism represents a set of principles that were successfully implemented in various global communities, and are supported by extensive industry and academic research. Ecotourism, when properly executed based on these principles, exemplifies the benefits of socially and environmentally sound tourism development (TIES, 2015). Ecotourism has also been recognized

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4 There are many other definitions of ecotourism. For example, Fennel, a well-known scholar of ecotourism defined in 1999 ecotourism as "a sustainable form of natural resource-based tourism that focuses primarily on experiencing and learning about nature, and which is ethically managed to be low-impact, non-consumptive, and locally oriented (control, benefits, and scale). It typically occurs in natural areas, and should contribute to the conservation or preservation of such areas" (Fennel 1999, 43).

According to the UNWTO's definition, ecotourism refers to forms of tourism which have the following characteristics: (1) All nature-based forms of tourism in which the main motivation of the tourists is the observation and appreciation of nature as well as the traditional cultures prevailing in natural areas; (2) It contains educational and interpretation features; (3) It is generally, but not exclusively organised by specialised tour operators for small groups. Service provider partners at the destinations tend to be small, locally owned businesses; (4) It minimises negative impacts upon the natural and socio-cultural environment; (5) It supports the maintenance of natural areas which are used as ecotourism attractions by generating economic benefits for host communities, organisations and authorities managing natural areas with conservation purposes; (6) Providing alternative employment and income opportunities for local communities; (7) Increasing awareness towards the conservation of natural and cultural assets, both among locals and tourists (UNWTO, 2002).

5 The principles of ecotourism were also updated in 2015 by the TIES: "Ecotourism is about unifying conservation, communities, and sustainable travel. This means that those who implement, participate in and market ecotourism activities should adopt the following ecotourism principles: (1) Minimize physical, social, behavioral, and psychological impacts; (2) Build environmental and cultural awareness and respect; (3) Provide positive experiences for both visitors and hosts; (4) Provide direct financial benefits for conservation; (5) Generate financial benefits for both local people and private industry; (6) Deliver memorable interpretative experiences to visitors that help raise sensitivity to host countries' political, environmental, and social climates; (7) Design, construct and operate low-impact facilities; (8) Recognize the rights and spiritual beliefs of the Indigenous People in your community and work in partnership with them to create empowerment" (TIES, 2015).
for its significant contribution to achieving the Millennium Development Goals (MDGs) in developing countries, through generation of jobs and increased income among others (Ariel, 2012).

In different countries with different political, environmental and social climates, Ecotourism is defined and practiced in a different way. In Taiwan, the concept of ecotourism emphasizes more of the natural part and less of the livelihood of local people other than profit. This can be seen in how Taiwanese scholars define ecotourism: "The travel built on the basis of natural resources, humane history, and geographical relics while taking environment protection, environment education, and local profit as its final objective with the aim to achieve permanent development" (Shiunn, Han & Ru, 2011). This is based on integration of relevant literature on ecotourism definitions.

It is important to remember that sustainable tourism is about applying sustainability practices to all aspects and segments of tourism. In Taiwan though, many identify sustainable tourism as ecotourism.

1.4.1.3. Community Based Tourism (CBT)

“Community-based tourism (CBT) is sustainable tourism that is run and managed by the community that is being visited by tourists” (Yamashita, 2011: 11). It is a type of sustainable tourism, which many times falls also under the category of ecotourism and as such, identified by many as ecotourism. However, community based tourism is not necessarily ecotourism. Although Community Based Tourism is often identified as a market segment, or a theme of tourism, CBT is not a tourism segment, but rather a model, a framework. Communities operating CBT can engage practically in any tourism them, such ecotourism, agro-tourism, adventure tourism, etc. based on their products, attraction, and available resources. However, the majority of CBT often involve ecotourism, nature-based tourism, and cultural tourism, which might cause the confusion.

CBT is seen by many as a way to bring economic development to marginalized rural communities hand-in-hand with nature conservation, due to the location of these communities. Indeed there is a vast literature on CBT as a development model of the community, often aimed for development agencies and tourism professionals. The International Centre for Responsible Tourism (ICRT) explains community based tourism to be "... consistent with alternative development and
sustainable livelihood approaches, which focus on grassroots development and embrace participation, equity and empowerment ideas" (Lucchetti & Font, 2013). 6

CBT is a concept that means that “the local community has substantial control over, and involvement in, its development and management, and a major proportion of the benefits remain within the community" (Denman, 2001). Unique cultural heritage as well as natural environment are the main attractions for CBT tourists.

Layla summarizes the definition of CBT in a holistic way: “CBT is the form of tourism which is organized, planned, developed and marketed with high level of direct participation of the local community(ies) of the area(s), where the main tourism products are developed and consumed and where the tourism services are provided, whereas significant part of the income generated from sales of such products and services remain in the given community(ies) in form of direct income and contributions to the community budget and/or community tourism fund.” (Lalayan, 2014: 12)

Jones (2005) mentions Campbell (1999), Colvin (1996), and Loon and Polakow (2001) while stating that some scholars have questioned whether local communities indeed receive maximum benefits from the ecotourism industry. Most examples of community based tourism initiatives that are found in the tourism literature involve management and initiation by stakeholders outside the community where the CBT activities take place (Jones, 2005). In this regard, Schevyns (1999) emphasis the importance to have the local communities have some measure of control and share equitably in the benefits. When the community has a high degree of control, it will command a large, if not all, proportion of the benefits.

Therefore when Häusler & Strasdas (2003) define CBT, they emphasize the participatory role of the local community in the development and management of tourism in their community, and the distribution of the economic benefits from tourism. The main feature of CBT would be that the tourism is in the local community, by the local community, and for the local community (Lalayan, 2014).

6 WWF explains in its Guidelines for community-based ecotourism development the main components and benefits of CBT: "... the local community has substantial control over, and involvement in, its development and management, and a major proportion of the benefits remain within the community" (Denman, 2001).
Lash (2003) categorizes CBT enterprises into three possible structure types. The first, the most ideal one, is where the enterprise is community-owned and operated. In such enterprise type, “the benefits, labor, and other costs are borne equally by all members of the community” (Lash, 2003: 25). Therefore, in a community-owned and operated enterprise, the the greatest amount of revenue stays in the community, compared to the next two types of CBT enterprises. The second type is the enterprise owned by a small group or a family. The family or group members usually work together with different financial compensation but with the same goal of bringing prosperity to the group as a whole. This is the most common type of CBT structure. The third type, which is also quite common, is a partnership or joint venture between outsider investors and/or operators and the community members. The whole community, or part of it, partner with an NGO, government, or private sector representative for a specified term or project. In this type, economic benefit stays outside the community as much as (if not more than) inside the community, due to economic leakage. However, this enterprise type makes CBT development easier as it links with markets and outside capital, and usually involve structured trainings and skill developments of the community (Lash, 2003).

Most scholar agree that to be successful, CBT should result in tangible benefits to the community and improvement in quality of life of the community. For this, CBT must involve active participation by broad representation as possible of the community members. It should also result in conservation of the environment and enhance the cultural heritage of the community (Hipwell, 2007; Lalayan, 2014).

Less has been written on CBT initiated by, developed by, and managed by, the community itself. It is important to note the issue of participation in CBT. Whether it is an outside initiated or internally cultivated, in both scenarios, not all the community (i.e. 100% of the people belonging to community as it is defined) will participate. Therefore, it is important to remember that although it is called Community Based Tourism, there are non-participating community members.

1.4.2 Benefit Distribution in CBT

This paper is looking into the benefit distribution from tourism within the community. Most studies mention the importance of equitable distribution benefits, mostly financial benefits.
The distribution of benefits is an important issue which can be accounted for the success or failure of CBT initiatives development. It was identified and has been discussed by most authors researching CBT. It is important to clarify that “benefits” do not mean only direct economic benefit from sales of products and services, but also other benefits in the social, cultural, and environmental spheres. This means that the visitors have another role besides their regular role of generating income and enhancing the pride and dignity of locals that see outsiders interested in their environment and culture: “tourism is helping to protect the local culture in two ways. First, seeing tourists attracted and interested in their culture is making locals proud of their identity and more engaged in traditional folk customs. Second, money generated from these events provides reasons for the governments to protect previously neglected or even discouraged ethnic minority cultures” (Nyaupane, Morais, & Dowler, 2006: 1379).

Although there are different ways to distribute incomes and benefits from CBT though the community, scholars agree that these distribution should be as far and as wide as possible (Lalayan 2014; Armstrong, 2012). Simpson (2008) explains that the way the community sees an increase in net benefits from the CBT, is very important for the success of CBT projects. According to Hipwell (2007: 880-881), scholars agree that for a successful CBT venture, “it must provide tangible benefits for the host as a whole, [and] it must bring about an equitable and (as nearly as possible) universal improvement in the quality of life of residents.” This means that every community members should feel they benefit from the CBT venture.

Fair distribution is mostly achieved by community earnings and employment, but can also be achieved in variety of ways, for example, contributions to a community development fund which allows sharing of financial benefits among community members regardless of their level of involvement in the CBT. (Schipani, 2008; Armstrong, 2012). “Failure in this respect can generate hostility and resistance from those who feel excluded” (Armstrong, 2012: 13).

1.4.3. Common Pool Resource (CPR)

Common Pool Resources (CPR) refer to “a natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use" (Ostrom 1990, 30). Unlike pure public goods, common pool
resources face problems of congestion or overuse, because they are subtractable. A common pool resource typically consists of a core resource (e.g. water or fish), which defines the stock variable, while providing a limited quantity of extractable fringe units, which defines the flow variable. While the core resource is to be protected or entertained in order to allow for its continuous exploitation, the fringe units can be harvested or consumed (Ostrom 1990). In other words, CPR is characterized by high subtractability, meaning that one individual’s use of it detracts significantly from another person’s ability to use it, and by low excludability, meaning that it is difficult to prevent any particular individual from using it.

CPRs are different from the three other types of goods: (1) public goods (e.g. national defense services), that have low excludability but low subtractability; (2) toll goods (e.g. toll roads), that have low subtractability but high excludability; and (3) private goods (most products) that have both high subtractability and high excludability (Ostrom et al. 1994; Cronk & Steadman, 2002).

Table 1: Types of Goods and Services

<table>
<thead>
<tr>
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<th>Jointness of Use or Consumption</th>
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<tbody>
<tr>
<td></td>
<td>Alternative Use</td>
</tr>
<tr>
<td>Exclusion</td>
<td>Feasible</td>
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<td>Infeasible</td>
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The most common example of a CPR is a plot of grazing land shared by a group of farmers. When a farmer adds an additional livestock to the common land it reduces its usefulness to the rest of the farmers. However, it is difficult to exclude any particular individual farmer or its livestock from the land.

Ostrom, who reshaped the way we look at the term Common Pool Resource, has debunked Garrett Hardin’s important essay on “The Tragedy of the Commons” (Hardin, 1968). Hardin’s key take was that CPRs are inherently prone to overexploitation. This is because, according to him, each individual will eventually try to exploit the CPR to the fullest, even though the ideal thing for all involved individuals might be to restrain themselves from doing so. Hardin’s essay gave the study of CPRs a pessimistic understanding. The common solution to the tragedy of the common problem was one of the following: (1) to turn the CPR into a private good by dividing it up, which was perceived to give the individuals an incentive to conserve the resource for the future; and (2) using
the mechanism controlled by the power of the state to enforce conservation of the resource. For more than 20 years, this were the solutions that policy makers were familiar with and perceived as good solutions to the problem raised by Hardin (Cronk & Steadman, 2002).

Hardin concluded that valuable open-access common-pool resources would be overexploited, an inevitable tragedy. However, Ostrom showed that establishing effective governance arrangements on a local scale has proved as easier (Ostrom, 2008).

1.4.3.1. CPR Management

The message of Ostrom’s work was that groups are capable of avoiding the tragedy of the commons without requiring top-down regulation, at least if certain conditions are met (Ostrom 1990, 2010). In this case, it is needed to understand the importance of renewability of the resource units. When the resource units are renewable, it means that there is a way which they can be managed. This is what makes the management so important. Rosenbloom (2014: 12) writes that “the common pool resource definition attempts to capture both the dynamic ecological system and the man-made system of rules and regulations, the complexity of the ramifications that stem from the intersection of these two systems, and the proper division of rights among those seeking to use natural capital.”

Ostrom’s (1990: 90) message is that groups are capable of avoiding the tragedy of the commons without requiring top-down regulation, if certain conditions are met. Ostrom had identified and defined several characteristics or “principles” descriptive of local communities that developed successful management institutions that allow individuals to achieve long-term productive outcomes in managing common-pool resources: (1) clearly defined boundaries; (2) congruence between appropriation and provision rules and local conditions; (3) collective-choice arrangements; (4) monitoring; (5) graduated sanctions; (6) conflict-resolution mechanisms; (7) minimal recognition of rights to organize; and (8) nested enterprises.

In more details, these principles for successful CPR management are:

(1) Clearly defined boundaries: Individuals or households who have rights to withdraw resource units from the CPR must be clearly defined, as must the boundaries of the CPR itself. In short, these are rules set up by the community that uses the CPR.
(2) **Congruence between appropriation and provision rules and local conditions**: Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions and to provision rules requiring labour, material, and/or money.

(3) **Collective-choice arrangements**: Most individuals affected by the operational rules can participate in modifying the operational rules.

(4) **Monitoring**: Monitors, who actively audit CPR conditions and appropriator behavior, are accountable to the appropriators or are the appropriators.

(5) **Graduated sanctions**: Appropriators who violate operational rules are likely to be assessed graduated sanctions (depending on the seriousness and context of the offence) by other appropriators, by officials accountable to these appropriators, or by both.

(6) **Conflict-resolution mechanisms**: Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials. Provide accessible, low-cost means for dispute resolution.

(7) **Minimal recognition of rights to organize**: The rights of appropriators to devise their own institutions are not challenged by external governmental authorities.

(8) **Nested enterprises**: This is relevant for CPRs that are parts of larger systems. Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.

1.4.4. Tourism Common Pool Resource

Common-pool resource theory has mostly been associated with governance arrangements of natural resource utilization, especially fisheries, forestry, and water bodies (Heenehan, H., Basurto, X., Bejder, L., Tyne, J., Higham, J. E., & Johnston, D. W. 2015). However, CPRs are not limited to natural resources. Any resource that has the key characteristics of high subtractability and low excludability is, by definition, a common-pool resource. Cronk & Steadman (2002) conclude that tourism resources, such as landscape and natural environment, can be addressed as a common pool resource (CPR). These resources are used by both tourists and locals. They clearly possess the characteristics of CPRs, as exploitation by one user reduces the

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7 As the 8th principal is relevant for CPRs that are parts of larger systems, this principal will not be addressed in the case studies.
amount available for others, but for which exclusion of additional users is difficult or impossible. Thus, the same problems arise: overuse and lack of incentive for individuals to invest in maintaining or improving the tourism CPR. However, the issue of common pool resources in tourism areas has not been studied much in either the tourism or the CPR literature (Briassoulis, 2002). The situation in tourism is quite complex because of the plurality of stakeholders that are possible contributors to resource overexploitation - tourists, the private sector, local communities and governments. Tourism often exists as one of a range of complementary or conflicting uses of natural resources and nature-based tourism activities take place in physically and socioculturally dynamic settings. (Briassoulis, 2002; Holden, 2005; Heenehan, H., Basurto, X., Bejder, L., Tyne, J., Higham, J. E., & Johnston, D. W., 2015).

Moore and Rodger (2010) use the common-pool resource theory to look into whale shark tourism in Ningaloo Reef, Western Australia. In their view, wildlife tourism can be regarded as a common-pool resource because it is “difficult to exclude tourists, their experiences are affected by others’ activities; and adverse impacts on the wildlife occur” (Moore & Rodger, 2010: 831). Both dolphin conservation and tourism related to the dolphins depend on the successful management of the bays, i.e. the CPR. Excluding potential users from the bays is difficult since they can be easily accessed by both marine animals and people (tourists and non-tourists) with a limited space in a bay. When one used a certain space in the bays, it might eliminate the space it for someone or something else.

The above case study of shark tourism shed light into an important aspect of Tourism CPR. Most resources that have been studied are resources that are used for products such as food, timber, etc. However, the bays become a common-pool resource only because of tourism, only because of the recreational activity and services provided in the bays to tourists. Without tourism, these bays would probably not be considered as CPRs. In other words, the human behavior affects the characteristics of the resource and turn it into a common-pool resource. Sama states that “redistribution of financial revenues deriving from ecotourism create economic incentives to

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8 It is important to note that unlike pure public goods, which are defined as non-excludable and non-rival, CPR, being subtractable, are affected by problems of congestion, destruction, overuse or pollution. Thus, notwithstanding its conservative and green nature, the evolution of ecotourism could dangerously aggravate and worsen the two problems underlined, by allowing to new entities, like tour operators, travel agencies and western tourists, to gain access to the common-pool, expanding as a consequence the total number of existing users.
strictly control and manage the common-pool resources for the local communities, which are the only entities that can guarantee an environmental protection in the long period.” (Sama, 2011: 6).

Uses of natural resources and nature-based tourism activities are sometimes conflicting. The complexity in managing community based tourism in such context, has brought attention to the valuable contributions of incorporating indigenous knowledge into the management structure. It is therefore important that the community members will discuss and regulate which cultural traditions and natural resources should be protected and used. To solve the CPR exclusion problem, the community needs to set clear rules on who should be entitled to access the common-pool and under what conditions, what should be the sanctions for the rule-breakers. (Sama, 2011; Heenhan, Basurto, Bejder, Tyne, Higham, & Johnston, 2015).

Tourism resources such as landscape and natural environment can be addressed as a common pool resource (CPR).
1.5. Conceptual Framework

The research questions are based on the conceptual framework, which is shown in Figure I. The three main concepts of the research are in the circles; Participation in Tourism, Benefit Distribution from Tourism, and Tourism Common Pool Resource Management.

![Conceptual framework of the thesis](image-url)
1.6. Research Questions

The purpose of this research is to examine the links between satisfaction with perceived distribution of benefits from tourism and satisfaction with how the Tourism Common Pool Resource is managed. The main research question of this thesis is therefore: How the perception of benefit distribution from Community Based Tourism affects the satisfaction with how the Tourism CPR is managed in Atayal communities? The main question is supported by six sub questions, which are discussed below:

1. What are the characteristics of the Atayal Community Based Tourism?

In this first question, the general nature of the tourism in each location is explored. This question is answered through secondary literature, observation of the author, interviews, and the questionnaire.

2. Who are the stakeholders that are involved in the local tourism industry?

The third sub-question details the actors that are involved in the local tourism industry and the management of the Cypress Forest as a tourism CPR. These actors range from local organizations as well as the government. Observation of the author, interviews, and the questionnaire will help to answer this question.

3. Can the Cypress Forest be regarded as a Tourism Common Pool Resource?

Based on Briassoulis (2002), tourism resources can be regarded as CPR. This sub-question is to briefly explore this issue. This is a theoretical question that is answered though discussing previous studies on the matter.

4. How is the Tourism CPR managed?

In order to look into the main research question, it is important to understand how the Tourism CPR is managed in each case study. Besides description of the institutional framework, it will also be looked through Ostrom’s 7 CPR design principles.

5. What is the level of community participation in tourism?

In the fourth sub question, participation of community members is studied. Communities should not be regarded as a homogeneous group, therefore household and individual participation will be studied. Results from the questionnaire will be used to answer this question.
6. How do locals perceive the distribution of benefits from tourism?

The sixth sub question relates to the perceived benefit distribution from tourism in the community. It is measured through a questionnaire. It should be noted that the *distribution of benefits* is measured as the dependent variable through attitudes questionnaire, and not necessarily portray the objective distribution. It looks into the influence of the Tourism CPR management on the benefit distribution.

![Figure 3: Conceptual framework including the associated thesis sub-questions](Image)

*Figure 3: Conceptual framework including the associated thesis sub-questions*
1.7. Research Method and Design

A comparison of two case studies from similar Atayal communities, Smangus and Cinsbu-Xinguang, is used. The similarity of the two communities, in culture, language, location, etc, will allow to control some variables. While much has been written about Smangus in the English language, more work is needed to be carried to study Cinsbu-Xinguang.

To research these two case studies, fieldwork was carried out which included interviews and questionnaires. These two research methods provide details to answer the main research question.

1.7.1. Mixed Methods Approach

To achieve greater validity and credibility, a mixed-method case study approach was applied. The mixed-method approach involves qualitative and quantitative methods with the aim of taking the strengths of the two methods while counterbalancing the weaknesses of each approach when applied separately. (Hall & Valentin, 2005). (Punch, 2005).

In this research, the methods that were used were: questionnaires (quantitative) and interviews (qualitative). These two methods will be further discussed in section 1.7.4. All data has been gathered by the researcher himself during sporadic fieldwork from December 2014 to June 2018. In Cinsbu-Xinguang, 12 days total were spent in 5 visits. In Smangus, 11 days were spent in 4 visits.

Observations were also made by staying within the two communities, including participation in their tourism activities. However, the author does not use the observations as an official method, although the observation plays a crucial role in shaping the understanding of the two communities. Documents and information from websites were also used as sources.

1.7.2. Case Selection

Case study is a detailed investigation of a single instance aiming is to create as many insights as possible about the case in order to develop theory and generalize the results. A case can be a person, a particular location, an event, an organization or a network, etc. Case study method is a common
method in social science disciplines such as sociology, political science, economy, business, and so on. As such, it is widely applied in tourism studies that encompasses social science disciplines. The approach offers a number of advantages for scholars to address their research questions, such as flexibility to present the findings and understand a holistic picture of the situation through an in-depth analysis of a part (Beeton, 2005; Ounmany, 2014).

Along with the advantages of the case study approach comes criticism of it, especially that it cannot enhance external validity. The person who conducts the research might impose his own values which lead to biased results. However, biased results may occur in most researches. Another key disadvantage of the approach is the limited ability of the cases studied to be applied in other cases, given that small samples cannot represent the whole population. Having small samples may cause bias in selection and indeterminacy (Poteete, Janssen, & Ostrom, 2010).

To tackle the mentioned criticism, comparative approach of case studies can be applied. This allows the researchers to have flexibility to describe the results. As the results are not only limited in a single case study, the comparison with other cases enable researchers to formulate further research questions. A common way to conduct comparative case studies would be to identify two cases that have common characteristics besides one aspect which is different between the two cases. That aspect is what interests the researcher. As a result, the findings and results are generalizable with other cases (Newing, 2011).

In this research, two cases were selected for comparative purposes. The first case is Smangus. The second case is Cinsbu-Xinguang. The two communities, Smangus and Cinsbu-Xinguang, were selected because of several reasons. First, both are Atayal communities in the same geographical region of in Jianshi Township, Hsinchu County, Taiwan. Although they belong to two different Atayal sub-groups (Smangus to Mrqwang and Cinsbu-Xinguang to Mknazi), they do share common modern historical memories, and similar culture (Zheng, 2006). Secondly, both communities have been involved in CBT development for more than two decades. This means that the people in the communities have had enough time to notice developments and changes in the management systems and benefit distribution. Another criteria that was essential in

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9 According to different migration and origin myths, Atayal peoples people developed local watershed based sub-groups (Zheng, 2006).
the selection of the communities, is that each community apply a different CBT model, which 
gives the opportunity to focus in this issue while controlling other variables.

1.7.3. Permission and Access to the Sites

To research Taiwan’s Indigenous Atayal communities, permission should be obtained first. Such 
permission should be given by the leading elders of the communities. In Smangus, I have spent a 
number of days in the community, befriending and casually talking with the community members, 
before presenting in front the council of elders my research proposal and request from them to 
permit me to research their community. Some of the elders have already met me in different events 
before my visit to request their permission. The permission to research Smangus was given in June 
2016, with a sincere support of the community elders. After the permission was granted, two 
members of that are involved in education were assigned to help me and support my research 
(accommodation, meals, coordinating interviews, etc).

Receiving a permission from community elders of Cinsbu-Xinguang was different. As I have 
visited there a number of times and had more personal connections with a number of community 
members and elders, the permission to research Cinsbu-Xinguang was given in July 2016. For 
studying Cinsbu-Xinguang, the contact person who supports the logistics of my research is one of 
the elders (whose wife is also an elder) and owns a guesthouse.

The identity of the writer as an Israeli national made gaining acceptance by the communities easier. 
This is because I was considered as an outsider of Taiwan and not Han Taiwanese who is an 
outsider to the community but part of the majority in the country. Also, as most of the Atayal are 
Christians, they generally hold very positive views of Israel and Jews. In each visit, the community 
members asked and “interviewed” me as much as the other way round. Also, I showed that the 
research results will be shared with them, and could be useful for their interests.

Commuting between Taipei (where the author resides) and the two communities in Jianshi 
Township posed a “time challenge”, as it would take about half a day of commuting each direction. 
Without owning a vehicle, reaching the communities would include 3 different train lines, 
hitchhiking and walking, that would take 5-6 hours.
1.7.4. Data Collection

All data has been gathered by the researcher himself during sporadic fieldwork from December 2014 to June 2018. In Cinsbu-Xinguang, 12 days total were spent in 5 visits: (1) December 19-20, 2014; (2) January 10-11, 2015; (3) July 30-31, 2016; (4) March 24-26, 2018; and (5) May 27-29, 2018. In Smangus, 11 days were spent in 4 visits: (1) June 24-26, 2016; (2) October 1-2, 2017; (3) March 22-24, 2018; and (4) May 29 - June 1, 2018.

1.7.4.1. Participant Observation

Participant observation was carried out in each visit. Observation involves the use of all senses: seeing, hearing, smelling, tasting and touching. Observation enhance the validity of the research findings, as the researcher compares the observed reality of social situation with the results of the quantitative and qualitative studies (Flick, 2009).

Spradley & McCurdy (1980), describe that participant observation is divided into three stages: descriptive observation, focus observation and selective observation. Descriptive observation is the first stage that the researcher observes a general picture of the field. This in turn helps the researcher to understand the complex of the case study and develop more specific research questions. The second stage, focus observation, narrows down the attention to specific problems that were to be investigated. The last stage, selective observation, finds additional information needed to confirm what has been observed in the second stage.

In the first fieldwork phase, I came to understand the broad picture of the tourism activities and the general characteristics of Smangus and Cinsbu-Xinguang through descriptive observation. I took part in tourism-related activities and had short stays in the community.

While taking part in the activities, I had informal discussions with tour guides and community leaders to get additional insights and to create a closer relationship between the researcher and prospect respondents. This facilitated the implantation of the subsequent fieldworks.

In the second fieldwork phase, I tried to narrow down the observation, to focus observation, by focusing on the research questions, especially the benefit distribution from tourism, as well as the
CPR management organization. I spent most of the time in Smangus and Cinsbu-Xinguang to interview community leaders and community members in parallel with the observation.

Selective observation was carried out at the final fieldwork phase. Key issues were looked at, to find additional information to confirm what has been previously observed.

1.7.4.2. Interviews

In total, ten semi-structured interviews were conducted with key stakeholders such as elders, B&B owners, and others that are involved in tourism and management in the two communities. Semi-structured interview offers researchers a flexibility to modify the order or adjust the content of the topics. Six interviews were completed in Smangus, and four in Cinsbu-Xinguang.

Most of the interviews were held before the questionnaire had been completed, this is to allow adapting the questionnaire to information gathered through the interviews. The respondents were selected because of their leadership role in the community and/or because of their role in the tourism development and administration. Most respondents of the interviews have also completed the questionnaire.

The interview guides were developed based on the main research questions starting from general to specific issues. Some respondents were reluctant to answer the questions and in many cases tried to divert the conversations from the discussed topics. Additional questions were asked to bring the interviewees back to the main topic, when respondents shared issues beyond the scope of this research. Each interview lasted between 30 to 60 minutes.

The interviews, which make the qualitative part of the mixed research method approach, were held with different important and active actors in the two communities, such as elders, chiefs, pastors, B&B owners, and others involved in the tourism sector.

In both communities English is not well known, and the interviews were conducted in Mandarin Chinese. Mandarin is not the native tongue of the researchers, thus it is possible that some descriptions made by the interviewees where not written down.
1.7.4.2. Questionnaires

The part answering the research question is formed by results from the questionnaires. The designed questionnaire was used to collect data from the people of each community. Questionnaire surveys were conducted in both communities (Smangus and Cinsbu-Xinguang) to gain deeper insight. The questionnaires, which can be found in Appendix I, were adapted to each community with different words or issues that are community-specific.

It serves to test the analytical model directly, or more specifically to test the relation between perceived benefit distribution from tourism and satisfaction with the Tourism CPR management system.

The questionnaires were designed on the results from the interviews and were consisted of five parts: (1) characteristics of the tourism in the community; (2) management of the tourism and the CPR; (3) perceived benefit distribution from tourism; (4) participation in the community based tourism and its management; and (5) general demographic information of the respondents.

First, questions about the characteristics of the community based tourism are asked, which help answer the first sub-question. The second part consists of questions regarding management of tourism and the Tourism CPR. This helps answering sub-question number five as well as the main research question. The third part of the questionnaire concerns peoples’ opinion about the benefit distribution from tourism and supports answering the sixth sub-question and the main research question. Part four serves to measure the extent to which respondents are involved in community based tourism. The final part is for background characteristics of the respondents such as age and education.

The data of the questionnaires was used to test impact on CPR satisfaction by (1) perceived benefit distribution; (2) participation in tourism; or (3) CPR management participation. It was also used to look for possible correlations between: participation in tourism and perceived benefit distribution; CPR management participation and perceived benefit distribution; CPR management participation and participation in tourism. The variables were measured as follow (see Appendix II – Codebook for full details on measured vairables):

CPR satisfaction was measured by cbt_cpr_median (35%) and cpr_satisfy (65%).
Perceived benefit distribution was measured by benefit_dist_median (20%), benefit_dist_satisfy (50%), economic_dist_satisfy (10%), social_dist_satisfy (10%), and cultural_dist_satisfy (10%).

Participation in tourism was measured by invlv_role_tourism (30%), invlv_CBT (40%), invlv_time (10%), invlv_meetings (10%), and invlv_informed (10%).

CPR management participation was measured by icpr_invlv (60%), cpr_invlv_meetings (30%), and cpr_invlv_informed (10%).
2. Background to Case Studies

2.1. Taiwan’s Indigenous Peoples

Taiwan was first inhabited by the Formosans\textsuperscript{10} roughly eight thousand years ago, but it is possible that people had actually been living there for even longer than that (Blundell, 2009). The Formosans are ethnically Austronesians, sharing linguistic and genetic similarities with the Austronesians, a group that includes the Philippines, Malaysia, Indonesia, Melanesia, and even Madagascar (Blundell 2009; Li, 2009). There are a few “theories of origin” in regard to where the Austronesians came to Taiwan from, and according to Stainton (2007), these different explanations of the Taiwan indigenous people influence current political statements of land rights, ownership and power balance.\textsuperscript{11}

Taiwan’s indigenous peoples are not one homogenous group. There are twenty-six distinct languages (though some are extinct). They do, however, share certain genetic characteristics and a similar history and lifestyle that differentiate them from Han Chinese migrants that arrived on the island in the 17\textsuperscript{th} century (Blundell 2009).

In the 17\textsuperscript{th} century, the Dutch reached the island, occupied and governed the western plains and southern Taiwan (1624–1662), while Spain controlled northern Taiwan (1626–1642). In 1661, Koxinga, a Ming Dynasty loyalist, ousted the Dutch and established a military base in Taiwan. Taiwan came under Chinese rule 20 years later, when in 1683 it was annexed into the Qing Dynasty Empire (Chen et al., 2018).

Also in the 17\textsuperscript{th} century Han Chinese from south-eastern part of China initiated waves of migration to the western plains of Taiwan, that were governed by an exiled government of the Ming Dynasty

\textsuperscript{10} Hipwell (2009) uses the term Formosans, instead of indigenous people, as the preferred term in Mandarin Chinese is Yuánzhùmín (原住民) which means the ‘original resident people’, and should be translated to English as ‘aboriginal people’. The word ‘Formosan’ is locative (from the first international name of Taiwan), while differentiating the island’s original peoples from the ‘Taiwanese’, who are Han people that migrated from Mainland China. The term ‘indigenous’ is usually used to denote the peoples that have lived in different places prior to invasion, colonization or settlement by kingdoms and states (most notably European and Chinese).

\textsuperscript{11} There are three main theories: The Southern Origin Theory - where there is no relevant connection to Mainland China; The Northern Origin Theory – the origin is in Mainland China, and thus part of the greater Chinese nation; and Taiwan as Austronesian Homeland Theory – Taiwan Indigenous People are the first to inhabit the island, and should have aboriginal land rights (Stainton, 2007).
and then by the Qing Dynasty. “Those aborigines who had not or would not be assimilated were driven deeper and deeper into the forests of the Central Mountains.” (Chiu, 1989: 146).

The eastern plains and the central mountains remained ungoverned by foreign governments until 1895, when the Qing Empire ceded Taiwan to the Empire of Japan as part of the Treaty of Shimonoseki, ending the First Sino-Japanese War. Taiwan was under Japanese rule for 50 years. After a land survey in 1898, the Japanese colonial government initiated a five-year military project in 1910 to conquer the ungoverned indigenous peoples in Taiwan. The mountainous areas were then nationalized. Until then, customary governance of land and resources by the indigenous peoples inland, was basically unaffected by colonial rule (Chiu, 1989; Lin, Lahuy, & Kuan, 2007, Chen et al., 2018).

In 1925, the indigenous peoples were confined to small and fragmented Reserved Lands in the mountains, and many communities were forced to shift from traditional hunting and gathering to agricultural production. The Japanese rulers tried to assimilate them completely into Japanese society (Lin, Lahuy, & Kuan, 2007).

In 1945, the Japanese lost World War II, and the KuoMingTang (KMT, the nationalist government of the Republic of China) became the new ruler of Taiwan, now part of the Republic of China, while the Chinese Civil War continued in mainland China. In 1949, the KMT retreated to Taiwan. It is estimated that between 1945 and 1949, one to two million Mainlanders, roughly half of them soldiers, fled to Taiwan. For Taiwan’s indigenous peoples, those transitions did not bring any positive change. Many of the indigenous intelligentsia were arrested and executed by the KMT government for asserting their right to self-determination (Brown, 2004; Lin, Lahuy, & Kuan, 2007; Chen & Howitt, 2017).

The late 1980s and early 1990s brought change as Taiwan was going through a democratization process.

![Distribution of Indigenous Peoples](image.jpg)
Many Formosans demonstrated over land rights, autonomy and self-interpretation of indigenous culture and history. In 1994, the congress incorporated the term Yuánzhùmín (原住民), or “indigenous peoples” into the constitution when referring to the Formosans, instead of Gāoshān zú (高山族), meaning “mountain people”. In 1997, the central government created the Council for Indigenous Affairs (Lin, Lahuy, & Kuan, 2007).
2.2. The Atayal People

Of the 16 recognized,12 groups of indigenous peoples, the Atayal people (Tayal/Daiyan/泰雅族) are speculated to be the oldest indigenous group to inhabit Taiwan. Currently, there are 87,000 Atayal people in Taiwan,13 making them the third largest indigenous group after the Amis and Paiwan. (Simon, 2005; Lin, Icyeh & Kuan, 2007).

Ancestrally, the Atayal migrated from Nantou in search of more room for their fast growing populations to hunt and farm. They have settled in the northern part of Taiwan, in what is now Hsinchu County, Taoyuan County, New Taipei City, and Yilan County. Several of the Atayal communities share the history of having to migrate again back to their ancestral homelands as they were forced down the mountains during the Japanese occupation (1895-1945) (Simon, 2005; Lin, Icyeh & Kuan, 2007).

Although all a part of the same group, each community has its own distinct characteristics and circumstances ranging from the way its members survive off the land, to their various strands and interpretations of their Christian faith, to their different geography, altitude, and position in relation to the main road, to the youth and middle-aged tribe members who are beginning to come back after working down the mountain or graduating college. Nowadays most follow the Christian faith,14 and to varying degrees the gaga, which is a core value of Atayal culture that is infused with and informs every aspect of Atayal life and which can also be regarded as customary law (Reid, 2010; Berg, 2013).

When referring to the Atayal People, it is important to understand that this is a general term for a complicated ethnic group. The group consists of many groups with different languages, diverse customs and multiple identities. Although these groups may share common features in some cultural categories, they may differ in other aspects and features (Digital Museum of Taiwan Indigenous People 2008).

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12 As of 2014, these are the recognized groups: Amis, Atayal, Bunun, Hla'alua, Kanakanavu, Kavalan, Paiwan, Puyuma, Rukai, Saisiyat, Tao, Thao, Tsou, Truku, Sakizaya, and Sediq. Unrecognized groups: Babuza, Basay, Hoanya, Ketagalan, Luilang, Makatao, Pazeh/Kaxabu, Papora, Quaqaut, Siraya, Taokas, Trobiawan (Jacob, Liu, & Lee, 2015).
13 In 2015, the Atayal people (泰雅族) numbered 87,041. This was approximately 16% of Taiwan’s total indigenous population, making them the third-largest tribal group, after the Amis (阿美族) 203,377 37.2% and Paiwan (排灣族) 97,649 17.9% (Taiwan Interior Ministry, 2016).
14 Both Catholic and Protestants (mostly of the Presbyterian Church).
In the past, the Atayal were easily recognized as an “ethnic group” due to their unique facial tattooing custom. Linguists divided the Atayal into two sub-groups: the Atayal and the Sedeeq, who are nowadays being recognized as a separate group. The Atayal language group is divided into the Tseole and Sekilek dialect groups. Although there is similarity between the Atayal Sekilek language and the Sedeeq language, these two sub-groups’ languages are not close enough to allow their speakers from each sub-group to communicate (Digital Museum of Taiwan Indigenous People 2008).

2.2.1. Geographical Distribution of Atayal People

The Atayal are distributed throughout a vast area. This has caused there to be a variety of languages and practices. Because of this, each tribe or group has its own concept of ethnicity, which came about because of their various origins and by topographical boundaries.

Various studies have been done, after the time of Japanese rule between 1895 and 1945, to try to classify the Atayal into groups based on language, traditions and location. It has been made difficult by the complex relationships among the various groups. This is the reason that in the past hundred years the classification of the Ayatal has changed many times. This shows that heir ethnic system is complex and ethnic borders not easily definable (Digital Museum of Taiwan Indigenous People 2008).

Shou-Chen Liao suggested in 1984 using a different classification, which he has mostly taken from Tadao Kano, Utzukawa and Hwei-Lin Wei. He emphasizes the relationships among various groups. For instance, he suggests that the Atayal sub-tribe is actually two groups - the Sekolea and Tseole, which can be further divided by their origin traditions, and then even further by clans and kinship and by where they live. According to the origin myths, three Sekolea branches, the Makanaji, the Malepa and the Malikoan, are originally from Pinsbukan, and the Tseole branches - the Maba-ala, the Mapanox, the Menebo and the Marerax, are originally from Papakawaka (Dabajian Mountain) (Digital Museum of Taiwan Indigenous People 2008).15

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15 In these research, Makanaji is spelled Mknazi and is the ancestry or lineage of Cinsbu-Xinguang. Malikoan is spelled Mrqwang and is the ancestry or lineage of Smangus.
2.2.2. Migration history

Atayal origin myths suggest both the central mountain area of Pinsbikan (currently Ruiyan village in Ren'ai Township, Nantou County) and Dabajian Mountain (Papak-Waqa) on the border of Nantou and Hsinchu counties as their ancestral homelands. The people began to move northwards and spread out from these areas around the beginning of the 18th century. The ones who moved to peripheral areas in the northwest and northeast are what became known as the Ts’ole linguistic subgroup. Those who moved to the northcentral area are what became known as the Sqoleq subgroup. (Berg, 2013).

The population divided even further as they continued to move north. Hunting and farming areas became too small to support the larger groups and alternative areas were found for each line of descent. Oral tradition of the Atayal Mrqwang lineage details a major division that occurred at quri-Sqabu, which is a mountainous region southeast of Dabajian Mountain. Three lineages split at this point - the Mnibu, went eastwards, and put down roots where Datong Township in Yilan County is today. The Mknazi went northwards, following the Takejin River (塔克金溪). They spread even further to where is today Cinsbu (鎮西堡), a village on the southern bank of the Taigang River (泰崗溪). The Mrqwang went north along the same river, but put down roots on the north bank, spreading even further towards the west near Yufeng Village and towards the north to Wulai Village (Berg 2013).

2.2.3. Characteristics of Atayal Society

Although the Atayal kinship system has a strong patrilineal basis, sometimes lineages are based on a specific dispersal account, rather than just a common ancestor. In Atayal communities, society and relationships depend on their central belief system which is known as gaga. Each separate lineage orally inherits its own gaga, so each patrilineal clan that has the same gaga is seen as a qutux gaga. The injunctions of a qutux gaga directed most of the community’s affairs, thus removing the need for hierarchical top-down rule by a chieftain. Contained in these principles of the gaga were also explicit knowledge that applied to the area of the settlement (qalang), and thus important to the tribe’s agricultural activity. Violation of gaga would not only bring misfortune upon the individual who violated it, but upon the entire community. Violations of gaga was dealt
with rituals aimed for restoring order (Simon, 2005; Lin, Lahuy, & Kuan, 2007; Lu & Lin, 2008; Reid, 2010; Berg, 2013).

It is important to note that although gaga is considered as a strict set of rules, the fact that Atayal have migrated to new areas and adapted to the local conditions gradually allowed for new gaga to form, especially in mountainous regions where change in the planting and harvesting times, for instance, would have had to occur. This is why the relationship between gaga and qalang (clan groups) can be so different. This means that one gaga may be used in different qalangs or each qalang may have its own special gaga (Lin, Lahuy, & Kuan, 2007; Berg, 2013).

In traditional Atayal belief, utux is the soul of a person that lives eternally. They say that when a person dies, the utux departs from the body and journeys to utux’an, which is another level of existence lived together with the souls of the ancestors. To get there, the utux has to cross a rainbow bridge (hongu utux) where it is welcomed by the ancestors (utux bnkis). The ancestors require proof that the person has lived according to the gaga, which for males are the bloodstained hands of a courageous hunter and headhunter, and for females it is the dyed red hands of an expert weaver. In Atayal traditional society, the skills of hunting and weaving were extremely important and served to distinguish between the male and female roles in the society. Once the men and women became adept at these skills they were considered to be adults and could marry. To symbolize their adulthood, both men and women would receive facial tattoos (ptasan) with the approval of the community (Berg 2013).

Under the Japanese colonial rule, the indigenous people were categorized into nine separate groups based on language differences. Before this, the Atayal hadn’t thought of themselves as a separate tribe, as the name “Atayal” just means “human being”. This means that the idea of having a separate tribal identity was imposed on them by the Japanese. The Japanese categorized them racially as “Formosan” (along with other Taiwan Indigenous People) and labelled them as “the facial tattooed savages”. The Atayal were forcibly moved into village settlements by the Japanese, as the Atayal territory was rich in camphor plantations. The Japanese banned head hunting, which forced the Atayal men to farm, which had previously been Atayal women’s work (Hsieh, 1994; Berg 2013).
2.2.4. Traditional Territory and Land Ownership

Regarding land ownership, prior to colonization, land was either collectively “owned” by the whole community or was privately owned by families. For instance, hunting areas, public pathways, and undeveloped land were considered public. Private property was developed, farmed land or private pathways. If a family took over land from another family, the correct rituals had to be observed. They believed that property contained the souls of the ancestors, and so was sacred and to be protected by gaga. After Japanese colonization, new systems of property rights came into play, replacing those of the Atayal and other indigenous peoples (Chen & Howitt, 2017).

While Qalang refers to the residence of a group of individuals, similar to “settlement” in English, Qyunang\textsuperscript{16} is the term used for a “territory”. Qyunang is usually shared by a lineage group, and would usually cover an area of a watershed and be used by that group for things like hunting, farming and fishing. There was no concept of exclusive, complete ownership of a land area, but, depending on the social relations between groups, Qyunang was seen as adjustable. For instance, when people Mknazi area wanted to hunt or fish in the Qyunang of Mrqwang, they were received with hospitality and given more prey because the Mrqwang elders said that the Mknazi live further away where they find it difficult to find enough prey. It worked the other way around too when the Mrqwang were in the Mknazi territory (Simon, 2005; Lin, Lahuy, & Kuan, 2007).

2.2.5. Christianity and the Church:

After Japan’s occupation was over, Christianity began to be introduced to the indigenous people of Taiwan, including the Atayal, by missionaries. The missionaries found widespread success in Christian conversion among the indigenous people who, it is thought, saw Christianity as a viable alternative to cultural assimilation by the Chinese. Nowadays, Atayal populations are predominantly Christian with more than 80% of the Atayal consider themselves Christians. Of the Atayal Christians, about 30% are Catholics and about 70% are Protestants.\textsuperscript{17} In Taiwan, Catholic theology embraces the idea of the apostolic tradition being non-ethnic. Thus, Catholics can be “Catholic and Atayal” but not “Atayal Catholics”. Presbyterians, on the other hand, are “Atayal

\textsuperscript{16} Sometimes spelled Qyunam, Qyunan, or Qyunang

\textsuperscript{17} This numbers are mentioned by Reid (2010) who reference Stainton (2006) who refers to data from 1997.
Presbyterians” as no distinction is made between who they are as a Presbyterian and who they are as an Atayal. This difference can be seen even in the formal administration of the churches and in the way they are structured. A large Atayal Presbytery oversees the Atayal congregations separately from the Taiwanese Presbyteries in the same region. Catholics have dioceses in the different territories and there is no supra-diocesan structure uniting the Atayal across three separate dioceses. It can also be observed that all Atayal Presbyterian churches have Atayal clergy, yet Catholic parishes in Atayal areas have foreign missionaries under Chinese bishops (Reid, 2010).

Chen et al. (2018: 383) writes that “Tayal knowledge is never singular, linear, and exclusive. Knowledge is debated, generated and a common property/common knowledge is reached in a localized relational web of kinship, community and senses of place.” This statement give some explanation to the process that brought Christianity to be so important in modern Atayal society.
2.3. Location of the Two Case-study Communities

Smangus (司馬庫斯) and Cinsbu-Xinguang (鎮西堡-新光) are Atayal communities (Qalangs in Atayal language), located in the mountainous area of Jianshi Township in Hsinchu County, northern Taiwan.

The communities are located in what is considered the "inner mountain" at an altitude of 800 to 1600 meter, distinguished from communities in the "outer mountain" by their lengthier distance from the larger coastal cities. They originally subsisted off slash and burn agriculture and hunting; both practices still exist to a certain extent, even as hunting is made illegal in these areas. Jianshi Township has an estimated population of 9395 as of 2017. The main population is the Atayal people (Simon, 2005; Reid, 2010; Ariel, 2015; Chen et al., 2018).

Smangus and Cinsbu-Xinguang are located in the area that is considered as the “Behind the Mountains” or “Inner Mountain” in contrary to the “Front of the Mountains” or “Outer Mountain”. The communities in front of the mountains have been subject to much greater outside influence. They are much closer to and more easily accessible from urban areas. Hence they have been subject to much greater influence from mainstream Han society (Simon, 2005; Reid, 2010).

Communities in the inner mountain have not sold their land to outsiders. This is in contrast to many of the Atayal communities living in the outer mountain of the mountains, who, often due to economic need, sell their land. The inner mountain communities shifted away from subsistence

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18 In Chinese, they are referred to as a “Bu-Luo” (部落), which is translated as a tribe. This word is used in Chinese only to reference communities of non-Han minorities. It has become a popular term and appears in many discussions of issues related to indigenous peoples. Initially, it was by anthropologists to refer to “tribal settlement” in non-western and underdeveloped tribal societies. However, as the indigenous movement shifted its concerns, “Bu-Luo-ism” (部落主義) was utilized by indigenous activists to highlight a new movement strategy that emphasizes grass-roots power and seeks local knowledge. Nowadays the term “Bu-Luo” has become generally synonymous with the indigenous communities, regardless of how the community is organized, whether “tribal” or not. (Lin, Lahuy, & Kuan, 2007).
agriculture around 50 years ago but many still work the land, only much of what is grown is for selling down the mountain. Still, traditional crops are also grown in small quantities by some and include millet, sweet potatoes, taro, black beans, and pumpkins (Ariel, 2015).

In the late 1970’s movement restrictions were lifted which brought electricity to some mountainous indigenous communities. In 1990 the government released the alienable rights of the reserved lands back to the some of the indigenous people. In the second half of the 1990’s paved road were constructed to connect the mountainous communities in Hsinchu to the outside world, especially Smangus which did not have any paved road (Tang and Tang, 2010). During that time, tourism started to develop, and in in past two decades, many Community Based Tourism initiatives and models were developed in many communities of Indigenous People in Taiwan.

Picture 3: Hsinchu County and Jianshi Township
3. Cinsbu-Xinguang Case Study

3.1. Cinsbu-Xinguang Background

Cinsbu and Xinguang are two Atayal communities that belong to the same Mknazi lineage. Although originally these are two separate communities, they were put into the same administrative division since the Japanese begin to control their area. The two communities belong to the Mknazi lineage (Hsiao, 2008). They are very close geographically, and since families are not confined to one area only (the father might live in Xinguang but the daughter live with her husband and children in Cinsbu), they are clustered together in this research. In Atayal language, Cinsbu (鎮西堡) means 'the place where the first rays of the sun shine and land of fertile soil'. Nowadays, Cinsbu-Xinguang has around 90 families, with about 500 people are registered in Cinsbu-Xinguang. Of these 400, about 200 live out of the communities. Around 240 adults live in Cinsbu-Xinguang.

The economic development in Cinsbu-Xinguang can be traced back to the end of the 1940s. Starting then, there has been a gradual change from a subsistence economy to a cash economy. This began after the Kuomintang (KMT) government fled from mainland China to Taiwan because of the Chinese Civil War on the mainland. The economic changes began slowly as cash crops were introduced. In the 1950s, the villagers collected wild mushrooms in the forests, and also grew beans and ramie. They bartered these for things that they needed such as clothing, weapons, farm implements and salt. Later on, during the 1970s, the villagers began to grow crops with higher monetary value. They also cultivated and sold mushrooms. Together, these crops brought more money into the area, which became a large-scale agricultural area. In the late 1970s and into the 80s, some of the indigenous people realized that certain fruits were fetching high prices on the markets because of their scarcity. They began growing them, only to find that within ten years or so the prices dropped because the fruit was imported at lower prices after a time. This happened firstly with apples in the 70s, then pears in the 80s, then to peaches in the 90s. After that, the

19 Xinguang (新光) is the Chinese name of this community. The Atayal name is Qalang Smangus. Qalang means a community (部落). This community is originally from Cinsbu, but due to increase of population, some people moved out and found “Smangus”. The more famous Smangus community, of the Mrqwang lineage (which is the other case study in this research) is referred as Smangus Krahu in Atayal, which literally means the large Smangus. Since there are two “Smangus”, the Chinese name - Xinguang - is used to refer to the smaller Smangus, of Mknazi lineage.
profitable crop seemed to be temperate climate vegetables. These have been grown, along with peaches, profitably so far until the present time (Hsiao, 2008).

Since the 70’s, international trade caused internal markets to become unstable which undermined the entire agricultural sector across Taiwan. In response, the government began, in the early 1990s, to promote tourism. They focused on “leisure agriculture” which aims to provide tourists with relaxing activities combined with the local agriculture, such as visiting a bamboo plantation and learning about the uses of bamboo. The government provided funding for local communities to develop these sorts of projects, specifically those where natural and cultural resources could be promoted for tourism and bring in revenue. This trend had already begun in the mid-1990s, and influenced the development of tourism in Cinsbu-Smangus (Hsiao, 2008).

More radical economic change began in 1998, when mainstream media began reporting about the the cypress forest near Cinsbu-Xinguang, which brought a great deal of media attention, with the result being that visitors began pouring into the village to see the forest. This led to the establishment of businesses to support the tourist industry, such as lodges, restaurants, and guided hikes to the forest. Individual households set up Bed and Breakfasts. Within five 5 years, there were already thirteen B&Bs in Cinsbu-Xinguang, providing among them accommodation for over seven hundred guests. (Hsiao, 2008).

Nowadays, Cinsbu-Xinguang has strong developed knowledge about and emphasis on Atayal traditions and customary law (gaga). This can be seen in some of the education programs they have developed and their unique take on Christianity’s melding with ancestral beliefs and practices. Because of their church's Minister's deep knowledge of their own Atayal culture, they preach a take on Christianity that finds no conflicts with their traditional beliefs. The community also has a considerable number of families growing organic produce including cabbage, lettuce, garlic sprouts, chives and more. These organic products are also catered to visitors.

In Cinsbu-Xinguang, both interviews were conducted and questionnaires handed out. The questionnaires focused on a number of topics: aspects of CBT, the perceived benefit distribution of tourism, participation in tourism, CPR management participation, CPR management satisfaction. The interviews served to gain more understanding of processes and social and institutional structures that cannot be measured by questionnaires alone. Four people were interviewed.
A total of 75 questionnaires were delivered to the residents of Cinsbu-Xinguang. 45 questionnaires were filled and returned, from which 38 were used in the analysis, as the remaining questionnaire were missing answers. Table 2 shows the characteristics of Cinsbu-Xinguang respondents. 42% live in Cinsbu while 58% live in Xinguang. 46% were males, and 54% females. 75% of the respondents are in the age range of 18-47. Regarding the education level, 5% has a graduate degree or above, 28% hold an undergraduate degree, 47% finished high school, 9% hold middle school education, and 9% with elementary school education. 69% of Cinsbu-Xinguang villagers are educated with Atayal traditional knowledge. Although respondents were asked about their income, only a few answered, and of these answers it is hinted to the author that the answer is not accurate, as the respondents do not wish to share this information. For this reason, details of the level of income are not displayed. 81% of the respondents belong to the Presbyterian Church, 16% belong to the Catholic Church, with one correspondent (2%) belong to another denomination.

Table 2: General demographics of Cinsbu-Xinguang respondents

<table>
<thead>
<tr>
<th>Demographics</th>
<th>No. Res.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cinsbu</td>
<td>18</td>
<td>42%</td>
</tr>
<tr>
<td>Xinguang</td>
<td>25</td>
<td>58%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-27</td>
<td>9</td>
<td>21%</td>
</tr>
<tr>
<td>28-37</td>
<td>11</td>
<td>26%</td>
</tr>
<tr>
<td>38-47</td>
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<td>28%</td>
</tr>
<tr>
<td>48-57</td>
<td>4</td>
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<td>5%</td>
</tr>
<tr>
<td>Gender</td>
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</tr>
<tr>
<td>Male</td>
<td>19</td>
<td>46%</td>
</tr>
<tr>
<td>Female</td>
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</tr>
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<td>Middle school</td>
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</tr>
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<td>High school</td>
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<td>Traditional Atayal Knowledge</td>
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</tr>
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<td>31%</td>
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<td>19%</td>
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<td>Religious Affiliation</td>
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</tr>
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<td>Catholic Church</td>
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<td>16%</td>
</tr>
<tr>
<td>Presbyterian Church</td>
<td>35</td>
<td>81%</td>
</tr>
<tr>
<td>Other Church</td>
<td>1</td>
<td>2%</td>
</tr>
</tbody>
</table>
3.2. The Characteristics of Cinsbu-Xinguang Community-based Tourism

Cinsbu-Xinguang has been seriously involved in Community Based Tourism for the past two decades, with beautiful mountainous landscapes and hiking trails. The famous hiking trail (Cinsbu Cypress trail 鎮西堡檜木) leads to an ancient forest, where huge cypress trees remain, that survived the logging industry of the Japanese and then KMT afterwards.\(^{20}\)

Besides the natural attraction of the Cypress Forest Trail, other tourism services in Cinsbu-Xinguang include homestays and lodging, a weaving workshop, restaurants, educational spaces, organic farming, and selling of local souvenirs. The cultural aspect plays a crucial role in the Cinsbu-Xinguang tourism. Sometimes when a guided group arrives at the village, a *Sbalay* ceremony is performed. *Sbalay* is a “cleansing ceremony through the act of watering two saplings, serves as a blessing” for the visitors. Most of the visitors to Cinsbu are domestic tourists (Taiwanese), with a small number of international tourists (from Hong Kong, Mainland China, and a smaller number from other countries)\(^{21}\) (Yen & Kuan, 2004; Lin, Lahuy, & Kuan, 2007: 150; Yen & Chen, 2013).

In Cinsbu there is an educational space, called Tkyu. There are a few buildings in Tkyu, where each building is a room intended to hold a different perspective of the Atayal life and culture. One room is dedicated to traditional weaving techniques. The second room holds a model of the traditional territory mapping. In the third there are tools, baskets and models of housing. In Tkyu there is also a big dining hall with a kitchen where the guests can eat lunch or breakfast made with locally grown products, which some come from the organic farm nearby. The dining hall can also serve as workshop hall, with its long tables. Tkyu is also used by the community itself to gather and teach children as well as for sharing the culture and traditions with the tourists.

An important part of the Tkyu compound is the *Pnhwan*, a fireplace, inside a hut, where guests spend their evening around the fire. Sometimes there will be a presentation of the history of the

\(^{20}\) According to the locals, many Atayal resisted government logging activities, which helped to preserve these trees – now rare in Taiwan. Because of these activities, the large cypress trees gain more meaning.

\(^{21}\) Although visiting communities of Indigenous Peoples of Taiwan is considered domestic tourism, Han Taiwanese visiting these communities can be socially understood as an “international”, as “various indigenous or national or religious minorities often represent a domestic alien to members of the majority” (Cohen & Cohen, 2015: 17).
village, the surrounding area and the social-environmental activities. Visitors might also learn about current issues and problems of the mountainous Atayal communities in general and of Cinsbu-Xinguang in particular. Cultural activities in the evening also include making a millet cake (mocha) by pounding millet and then dipping it in local honey or sugar-peanuts mix. Other possible cultural activities will include singing and play the Atayal mouth harp. These cultural activities also take place in a number of B&Bs, not only in Tkyu (Interviews).

Cinsbu-Xinguang is clearly a case of Community Based Tourism which is a *family or group-owned enterprise*, where family or group members may work for lower wages, with the main goal of bringing prosperity to the family or group as a whole.

Besides these important characteristics, from the attraction perspective, it seems that Cinsbu is a typical example of Community Based Tourism. That is, the main attractions are natural environment and landscape, as well as cultural heritage. This can be seen in the Cypress Forest trail and the cultural activities offered by the B&Bs (in Tkyu or in different locations).

The findings from the questionnaire confirm this, with residents agree with the statement that “the Cypress Trail is one of the main attractions to tourist” and that “tourists are welcome to visit Cinsbu-Xinguang”. 98% of respondents think that a natural attraction is important for successful community based tourism, and 84% of respondents see an importance of cultural attraction for successful community based tourism.

The results support the current understanding that natural and cultural attractions are of high importance for successful Community Based Tourism. In the case of Cinsbu-Xinguang, these attractions, or resources, are the Atayal cultural heritage the natural environment, especially the Cypress Trail.

However, it should be noted that an interviewer stated that tourism in Cinsbu-Xinguang is considered not mature yet, as most residents busy with other work, especially farming (interview 6).
Table 3: Cinsbu-Xinguang tourism characteristics

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourists are welcome to visit Cinsbu-Xinguag</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Tourists come to Cinsbu-Xinguag only because of the Cypress Trail</td>
<td>3.58</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>The Cypress Trail is one of the main attractions to tourists</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Tourists come to Cinsbu-Xinguag only because of the Atayal culture</td>
<td>3.6</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>The Atayal culture is one of the main attractions to tourists</td>
<td>3.5</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure 5: Important factors for successful CBT (Cinsbu-Xinguang)
3.3. Cinsbu-Xinguang Tourism Stakeholders

Cinsbu-Xinguang began its community organization in the 1970’s. Pastor Atung led the construction of Cinsbu Presbyterian for 18 years. At that time, he successfully organized the community together for collaborative marketing system of their peach farming. Since then, the Presbyterian Church has played a crucial role in regards to the social, cultural, and economic development of the community. When tourists first started coming to Cinsbu to see the cypress trees and the unique church, most of them stayed in the church, as there were no proper accommodation to host tourists. Slowly, voices from the community requested the church not to be involved in secular-economic activities. Later, when villages established B&Bs, the tourists stayed in the new small accommodations. This means that during the early stage of tourism development in Cinsbu-Xinguang, the church was the key mechanism for fair benefit distribution of the income from tourism, with funds to support those that were less fortunate. However, when time passed and families saw the opportunities tourism development holds, it went from Church-centered to family-based, where families run their own businesses without the involvement of the church (Yen & Kuan, 2004).

To stress the importance of the Presbyterian Church in the mobilization of the community and its social, cultural, and economic development, Yen & Kuan, (2004) give the example that residents preferred to spend 18 years to build their own church by themselves rather than hire outsiders to do so. It took them 8 years to collect money for construction materials, which they later used to build the church with their own hands. It has also been the first institute to host tourist in Cinsbu. As such, the church has been acting as an agent of change. The pastor of the Presbyterian Church is one of the elders of the community. In contrast to the Presbyterian Church, the Catholic Church is not very active outside the religious sphere. The Catholics parishes in Atayal areas have foreign missionaries under Chinese bishops. The missionary would come to Cinsbu-Xinguang once in a while, for a very short time.

Another important stakeholder is the “Atayal Community Sustainable Development Association” (泰雅爾族部落永續發展協會). When tourism in Cinsbu began, community members discussed and in 1999 agreed to establish an association to support villagers wanting to work in tourism. Besides communal works, the Atayal Community Sustainable Development Association
supported educational development, communal arts, cultural business development, and tour guide nurturing. It also progressed spatial planning (Yen & Chen, 2013).

Due to different opinions in the association, a number of the Association’s members left it and in 2022 established the “Mknazi Tourism Association” (基那吉文化光觀產業協會). It was first focused on farm product marketing. Slowly, the new association increased its involvement supported development community cultural characteristics for visitors to experience Atayal culture. Mknazi Tourism Association was bringing the B&B owners to work together in some management aspects in the community. The association continued its communal farm product marketing mechanism, by using economy of scale (Yen & Chen, 2013).

In 2004-2005, another organization was established - “Maqaw Business Group” - by members of the Atayal Community Sustainable Development Association under the help and assistant from Taiwan Indigenous Community Empowerment Association. Their focus was to maintain community environment for sustainable development and strongly opposed to selling land to outsiders and corporations. The Maqaw Business Group is not registered by law but does try to bring community members to collaborate on tourism related issues. It also aimed at transform Cinsbu into an ecological education center, allowing outsiders to learn from the Atayal culture and traditional knowledge. For this, they have tried to incorporate Atayal cultural and ecological knowledge into tourism activities such as the ‘peach blossom festival’ they organized in 2006. (Hsiao, 2008; Yen & Chen, 2013).

Of course, with about 20 B&Bs in Cinsbu-Xinguang, each B&B plays an important role. In recent years, it has become common to see new camping grounds pop up in Jianshi Township. This is due to the low investment needed to establish such type of accommodation as well easier to maintain. Although there are a few new camping grounds in Cinsbu, the majority of the accommodation are guesthouses and B&Bs. There are also those that have small restaurants or offer guiding or transportation services, but most of the B&Bs offer these as well – dinning, cultural activities, guiding, and arrangement of transportation if needed. It is important to note that most of the B&Bs are owned by elders of the community.

Besides the above tourism stakeholders, there are other stakeholders that exist in the communities that do not have direct relationship with tourism but do influence the community in other ways.
This refers to one non-Atayal household that influence Cinsbu-Xinguang as a resident that does no necessarily share the same socio-cultural values as the other Atayal households.

Stakeholders of Cinsbu-Xinguang clearly have an important role in influencing and being affected by tourism development in Cinsbu-Xinguang. They are important for understanding how the Community Based Tourism is managed, and affects the community. It seems that the main stakeholders, beside the general community members and owners of B&B, is the Presbyterian Church, while the Catholic Church is not very active outside the religious sphere.

Other important stakeholders are the local organizations and that deal with tourism: “Tayal Community Sustainable Development Association” and “Mknazi Tourism Association”. All to a certain extent have an influence on decisions related to tourism management and the management of the Cypress Forest.

3.4. The Cypress Forest as Tourism Common Pool Resource

As described previously, the cypress forest trail plays a crucial role in the local tourism industry of Cinsbu-Xinguang. Any resource that has the key characteristics of high subtractability and low excludability is, by definition, a common-pool resource. The Cypress Forest clearly displays the characteristics of Common Pool Resources (CPRs), where the exclusion of users is impractical and their exploitation by one person can reduce the benefit for another.

As mentioned in the Theoretical Framework chapter, tourism resources, especially and natural environment, can be addressed as a common pool resource (CPR). These resources are used, on the one hand, by tourists in common with other tourists and, on the other, for tourist in common with other activities by tourists and locals (Briassoulis, 2002). The forest as a tourism resource is not only a material resource of a landscape, but it is also a cultural resource which is an integral part of Atayal culture, society, and dynamic society. The case study of Cinsbu shows that tourism resources can be regarded as a Common Pool Resource.
3.5. Management of the Cypress Forest as Tourism CPR

The economic changes in Cinsbu-Xinguang had brought about the need for the villagers to use land beyond the demarcated areas of the indigenous reserve land. For instance, in the 1970s and 1980s, they needed to grow mushrooms in the forest in order to earn an income. This led to clashes between the villagers and forest wardens of the Forestry Bureau. There were confrontations between the mushroom growers and the wardens, and sometimes the growers, if caught, lost their crops and were taken into custody. Some of the younger villagers took the law into their own hands and threatened the safety of the wardens. The clashes decreased once fruit growing largely replaced mushroom growing, only to recur again in the late 1990’s, when Cinsbu-Xinguang intended to manage the cypress forest, the key tourism resource, which is part of the national forest, so as to enhance the community economy through developing tourism in the late 1990’s (Hsiao, 2008).

Due to these confrontations over the years with the Forest Bureau, the villagers became sensitive to resistance issues. That’s why, in the late 1980’s and early 90’s, when many social movements were active across Taiwan, Cinsbu-Xinguang villagers sympathized with and took an active part in them. Pastor Atung, the activist pastor of Cinsbu Presbyterian Church, led the villagers in protests that called for the return of the land and the cessation of logging by the Forest Bureau, for example (Hsiao, 2008).

Today, the forest is primarily the property of the state, according to Taiwanese law. Using resources in the national forest for private use, without the approval of the forest authority, is illegal. Taiwan’s Forest Bureau is the entity that manages the national forests and its resources. Atayal people can only rely on the resource within the ‘Indigenous Reserve Land’, usually surrounded by national forest. However, the forest area surrounding Cinsbu-Xinguang is their Qyunang – the traditional territory managed by each specific Atayal community. The cypress forest is part of it (Hsiao, 2008).

“If people would like to understand Tayal people's governance view of CPRs, gaga is the basic starting point to understand them” (Yen & Chen, 2013: 57). Traditionally, agriculture work relied upon natural resources, thus Atayal people establish cooperative regulation to decrease possible conflict of resources use. Each person should constraint their own behavior, as this impacts other community members' harvest. Thus, when one would violate a gaga value or regulation, disaster would fall on all gaga members, not just on the violator. As such, the Tourism CPR is managed in
accordance to *gaga* and protection of natural resources. Following Atayal tradition rather than only modern state regulations strengthen the cooperation between villagers (Yen & Kuan, 2004; Yen & Chen, 2013). After years of tourism work, the tourism industry has influenced the *gaga* related to tourism. B&Bs tell their guests what to do and what not to do (e.g. sing loud karaoke after 10pm, not set fire in the forest, etc) (Interviews 7 & 8).

Hsiao (2008) shared insights from his interviews of the community. For several times in the 1990’s, the Forest Bureau approached the community in order to provide financial support to build a trail into the cypress forest for tourists, but the community would not accept it. That is because of the planned use of construction materials outside the *qyunang*. It was perceived to spoil Cinsbu. The villagers insisted that a trail should be built in accordance to Atayal knowledge, an ‘ecological engineering’, which would be more sustainable than the methods of the Forest Bureau (Hsiao, 2008).

From the interviews that were conducted (especially interview 9), it seems that there is no separate system to manage the walking trails in the forest. They are still discussing this issue and yet to reach an agreement on its management. Previously, Atayal Community Sustainable Development Association and Mknazi Tourism Association were developing and operating the trails, but they do not do so anymore. However, the walking trails area are part of the *qyunang* and therefore are being maintained and managed as will be detailed according to Ostrom’s essential elements for successful CPR arrangements (Ostrom, 1990: 90).

### 3.5.1. Clearly defined boundaries

The clearly defined boundaries are according to Atayal traditional territory customary law, *qyunang*, rather than the national law. The national law separates private land from public land only. In that sense, the forest area is considered as a national forest. However, the community is the de-facto manager of the area.

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22 “Ecological engineering method is to use local materials, is to stop outside construction materials from coming into the forest. We don't bend to those governmental institutions. It is not that we are arrogant. We are the ones who live here. We know well what should be done and not to be done in this place. The elders teach us all of this. The Forestry Bureau has been dominant in all indigenous communities. But we don't comply with their money. If they insisted on their way of doing things, we would rather not take their money and wait for another opportunity to build the path. We are poor but we have backbone” (AW as quoted in Hsiao, 2008).

23 As the 8th principal by Ostrom is relevant for CPRs that are parts of larger systems, this principal is not addressed in the case studies.
3.5.2. Congruence between appropriation and provision rules and local conditions

The rules governing the management of the CPR should be tailored to its characteristics. No single set of rules will work for all CPRs and not even for all CPRs of a particular type, such as forests or fisheries. In this sense, although de-jure the CPR is a national forest in the purview of the Forest Bureau, the community is the de-facto manager of the CPR and thus the rules governing the CPR are the customary rules of *gaga*.

3.5.3. Collective-choice arrangements

Ideally, most of the people involved and affected by the rules governing a CPR should be able to take part in changing them. In this case, the adaption of *gaga* plays this role. *Gaga* is asserted by a constant change of social interactions. However, this means that there is no structured instruction for collective-choice arrangements to affect the *gaga* as it develops more in a natural way, as do other customary laws.

3.5.4. Monitoring

The monitoring of the forest is done as a whole under *gaga*, without a formalized monitoring of the CPR. In Cinsbu-Xinguang, if there is a big natural event, such as typhoon, then community members will go and check the path. When community members venture into the forest area, whether guiding tourist or for other reasons, and notice any issue will either fix it immediately or inform about the issue. Also, if B&B owners hear from their customers of any issue then they will take care of it.

3.5.5. Graduated sanctions

Sanctions are part of the conflict resolution mechanism, but do not have clear details on graduated sanctions.

3.5.6. Conflict resolution mechanisms

Graduated sanctions would include the direct confrontation with the violator, by the community member who saw the violation, as well as intervene of the elders in the case. If more extreme cases, the community would call the police to intervene. From the interviews, it was understood that this had happen many times.
3.5.7. Minimal recognition of the rights to organize

Powerful organizations outside the local community, such as national governments, must not interfere with the rights of the appropriators of a CPR to organize. In that sense, much has changed over the years. Although the Taiwanese law states that the forest is primarily the property of the state, the forest area surrounding Cinsbu-Xinguang is their traditional territory (Qyunang), which the government give a de-facto autonomy they manage nowadays. This has not been the case a decade or two ago.

In May 2018, the Ministry of the Interior announced the adoption of a unique action plan for Cinsbu-Xinguang. This is Taiwan’s first specific area program which will officially incorporate the Atayal gaga in the governmental land planning program. It is set to be a pilot, and if successful, would have a huge influence on execution of similar land use programs across Taiwan (UDN, 2018).

3.5.8. Results from the questioners

87% of the questionnaire respondents are involved in managing or taking care of the Cypress Trees trail. Questions concerning their involvement in management of the Cypress Trees trail - whether community members have been involved in meetings and were informed about decisions made – show that the majority (88%, 88%, respectively) are involved and informed. In more details, 58% are frequently involved in meetings, 30% were involved once or twice, and 12% were not involved in such meetings. 51% were usually informed when major decisions concerning tourism development took place, 37% were informed once or twice, and 12% have never been informed (see figure 6 & 7).
Figure 6: Involvement in meetings discussing the Tourism CPR management (Cinsbu-Xinguang)

Figure 7: Being informed of major decisions regarding the Tourism CPR management (Cinsbu-Xinguang)
Figure 8: Satisfaction with current Tourism CPR management system (Cinsbu-Xinguang)
3.6: Cinsbu-Xinguang Community Participation in Tourism

“Most of the people of Cinsbu-Xinguang are involved in tourism. Some own B&Bs, some have restaurants, some provide cultural activities, guiding, and transportation. To a certain degree, all are involved in tourism” (interview 7).

However, the survey shows that 34% of the community is not involved in tourism (see figure 9), and that the general division of work is such that tourism only plays 15% of daily life, compared to 24% of house work, and 54% of farming. This shows that farming is still the main economic activity in Cinsbu-Xinguang.

Figure 9: Division of roles in daily life (Cinsbu-Xinguang)
Table 4: Involvement in tourism (Cinsbu-Xinguang)

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you involved in CBT?</td>
<td>No</td>
<td>15</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>Accommodation/B&amp;B</td>
<td>24</td>
<td>55%</td>
</tr>
<tr>
<td></td>
<td>Cooking/restaurant</td>
<td>18</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>Guiding services</td>
<td>17</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>Community tours</td>
<td>14</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Cultural activities</td>
<td>15</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>Shop</td>
<td>6</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>Transportation</td>
<td>13</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Other*</td>
<td>2</td>
<td>5%</td>
</tr>
</tbody>
</table>

*Farming, 文物講說

Length of involvement in tourism was also looked at. 23% were involved in tourism less than one year, 23% were involved for 1-3 years, 18% for 4-6 years, 10% were involved for 7 to 9 years, and 28% were involved in tourism for more than 9 years.

Figure 10: Length of involvement in tourism (Cinsbu-Xinguang)
Questions concerning community members’ involvement in tourism planning – whether community members have been involved in meetings and were informed about tourism development – show that the majority (82%, 86%, respectively) are involved and informed. In more details, 34% are frequently involved in meetings, 48% were involved once or twice, and 18% were not involved in such meetings. 40% were usually informed when major decisions concerning tourism development took place, 46% were informed once or twice, and 14% have never been informed (see figure 11 & 12).

Figure 11: Involvement in meetings discussing the tourism development (Cinsbu-Xinguang)
In Cinsbu-Xinguang, agricultural plays the major role in daily life, especially on weekdays, while spending more time for tourism work on weekends or national holidays. This is an important factor that will be discussed more in Chapter 5.
3.7: Cinsbu-Xinguang Perception of Benefit Distribution from Tourism

It was mentioned in the theoretical framework that most studies stress the importance of equitable distribution benefits. There are different ways to distribute incomes and benefits from CBT though the community, and this is very difficult to measure accurately. Perception of benefit distribution, or satisfaction with the benefit distribution, is something that is easier to measure. This research refers to the later, perception of distribution of benefits from tourism.

In the questionnaire, it was stressed that “benefit” refers to a range of benefits (economic benefit, social benefit, cultural benefit, etc.) and not only the economic benefit. The first part included statements regarding the distribution of benefits, of which the mean shows the villages neither agree or disagree. The statement that was closed to be agreed with, was “not everyone needs to be involved in tourism”, with a mean of 3.55 on a Likert scale (3 = Neither agree or disagree; 4 = Agree) (see table 5).

In regards to social circles of the tourism benefit, we see that most respondents (71%) agree that people in the larger family are receive benefits from tourism (see figure 13).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only some community members benefit from tourism</td>
<td>3.45</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>All community members enjoy from the benefits of tourism in Smangus</td>
<td>3.38</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Community members that do not take part in the tourism industry also get financial benefits from tourism</td>
<td>3.29</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Income from tourism does not stay only with B&amp;Bs and restaurants, but also goes to farmers</td>
<td>3.29</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Benefits from tourism are distributed as it should be</td>
<td>2.93</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Not everyone needs to be involved in tourism</td>
<td>3.55</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>
When asked directly about the satisfaction with benefits, 45% are satisfied with the economic benefits received from tourism in relation to effort, with 14% dissatisfied, and the rest (41%) neither satisfied nor dissatisfied. In regards to satisfaction with the social benefits received from tourism in relation to effort, 41% are satisfied, 7% dissatisfied, and 52% neither satisfied nor dissatisfied. As for satisfaction with cultural benefits received from tourism in relation to effort, 46% are satisfied and 14% dissatisfied, with 40% neither satisfied nor dissatisfied (see figures 14, 15, and 16, respectively).

Answering the question about satisfaction with the current distribution of tourism benefit, we see that 25% are not satisfied (with 9% strongly dissatisfied) and 40% satisfied (with 7% strongly satisfied). 35% are neither satisfied nor dissatisfied (see chart 17).
Figure 14: Satisfaction with the economic benefits received from tourism in relation effort (Cinsbu-Xinguang)

Figure 15: Satisfaction with the social benefits received from tourism in relation effort (Cinsbu-Xinguang)
Figure 16: Satisfaction with the cultural benefits received from tourism in relation effort (Cinsbu-Xinguang)

Figure 17: Satisfaction with current distribution of tourism benefits (Cinsbu-Xinguang)
3.8. Impact of Perceived Benefit Distribution on Tourism CPR Satisfaction

3.8.1. Impact of Perceived benefit distribution, Participation in tourism and CPR management participation on CPR management satisfaction

After the six sub questions have been answered, it is time to address the main research question: How the perception of benefit distribution from Community Based Tourism affects the satisfaction with the way the Tourism CPR is managed in Atayal communities?

For this, the impact of perceived benefit distribution, participation in tourism and CPR management participation on CPR satisfaction have been, the results of the questionnaires are analyzed. In order to identify the direct impact of perceived benefit distribution, participation in tourism and CPR management participation on CPR management satisfaction a multiple linear regression model was built. The model was statistically significant, $F(3, 33) = 5.92, p < .05$, indicating that there is a significant impact of perceived benefit distribution, participation in tourism and CPR management participation on CPR management satisfaction. Further, the model accounted 37.2% ($R^2 = .372$) of the variance in CPR management satisfaction.

Table 6: Regression ANOVA (Cinsbu-Xinguang)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>8.489</td>
<td>3</td>
<td>2.830</td>
<td>5.922</td>
<td>.003</td>
</tr>
<tr>
<td>Residual</td>
<td>14.336</td>
<td>30</td>
<td>.478</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22.824</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

With the aim of identifying relationship directions (positive or negative) and the individual effects, model coefficients were checked. According to the coefficients, perceived benefit distribution had a statistically significant positive impact on the CPR management satisfaction, $\beta = .40, t = 2.69, p < .05$. A unit increase in perceived benefit distribution has increased the CPR satisfaction in .40 units. Participation in tourism had a statistically significant negative relationship with CPR management satisfaction, $\beta = -.08, t = -3.16, p < .05$ and a unit increase in participation in tourism has decreased the CPR satisfaction in .08 units. Although, CPR management participation had a
positive relationship with CPR management satisfaction it was not statistically significant, $\beta = .46$, $t = 1.53$, $p > .05$.

In conclusion, perceived benefit distribution has an impact on CPR management satisfaction. The higher the sense of fairness of the distribution of benefits from tourism is, the high the satisfaction of the Tourism CPR management.

Participation in tourism has a small negative relationship with CPR management satisfaction. In other words, the more a person participates in tourism, they will slightly less be satisfied with the Tourism CPR management.

Table 7: Model coefficients (Cinsbu-Xinguang)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>Std. Error</td>
<td>$\beta$</td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.11</td>
<td>.55</td>
<td>3.81</td>
</tr>
<tr>
<td>Perceived benefit distribution</td>
<td>.40</td>
<td>.15</td>
<td>.42</td>
</tr>
<tr>
<td>Participation in tourism</td>
<td>-.08</td>
<td>.03</td>
<td>-.49</td>
</tr>
<tr>
<td>CPR management participation</td>
<td>.46</td>
<td>.30</td>
<td>.22</td>
</tr>
</tbody>
</table>

3.8.2. Correlations between CPR management satisfaction, perceived benefit distribution and CPR management participation

To understand the above impact better, a correlation between CPR management satisfaction, perceived benefit distribution, and CPR management participation, were checked. However, there was no significant correlation between following pairs of variables: participation in tourism and perceived benefit distribution, $r = .33$, $p > .05$; CPR management participation and perceived benefit distribution, $r = .075$, $p > .05$; CPR management participation and participation in tourism, $r = -.097$, $p > .05$.

To conclude, analyzing the results from the questionnaire, there were no inter-correlation between CPR satisfaction, perceived benefit distribution and CPR management participation.
Table 8: Correlations between CPR satisfaction, perceived benefit distribution and CPR management participation (Cinsbu-Xinguang)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Participation in tourism</th>
<th>Perceived benefit distribution</th>
<th>CPR management participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.330</td>
<td>-.097</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.053</td>
<td>.568</td>
</tr>
<tr>
<td>N</td>
<td>35</td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>

In Cinsbu-Xinguang case study, perceived benefit distribution has a strong positive impact on CPR satisfaction. The higher the satisfaction with the distribution of benefits from tourism is, the higher the satisfaction with the Tourism CPR management. Participation in tourism has a slight negative impact on CPR satisfaction. The more a person participates in tourism, they will slightly less be satisfied with the Tourism CPR management. Also, there were no inter-correlation between CPR satisfaction, perceived benefit distribution and CPR management participation. However, in the Smangus case study, there was a significant positive correlation between CPR management participation and perceived benefit distribution. More details and interpretation of these results are examined in Chapter 5.
4. Smangus Case Study

4.1. Smangus Background

Currently, Smangus is known as the Village of God (上帝的部落), and as a unique place to visit in Taiwan. In the past, Smangus used to be known as the “Dark Village” (黑色部落), because the people living there had no electricity until 1979. Only in 1995 the village was finally connected to the outside world with a paved road. Before 1995, villagers had to carry everything by hand from Xinguang, on the other side of the valley (Reid, 2010; Tang and Tang, 2010; Formosa News 2015). The village is home to about 180 residents, with 140 living there permanently.

In the early 90’s, many Atayal villages in the region begun planting peach trees with peach festival activities attracting tourists. During these festivals, villagers would travel to other villages to buy and sell peaches and select desired peach varieties for planting. In 1991, the Chief of Smangus experienced the lively peach festival in Baling village, Fuxing Township, Taoyuan, and started to think of revitalizing his own community through tourism. The key attraction to attract tourist to come to Smangus would be the giant cypress trees.24 It took several months for the village to identify the ideal cypress trees grove and clear a suitable walking path to it. Eventually, the successfully created and promote one specific grove as an ecotourism attraction.

This was during a time when domestic tourism in Taiwan rose along with an economic boom and five-day workweek that allowed leisure time. However, Smangus lacked a paved road to the village, and only a handful of serious hikers and mountain climbers would visit the village (Tang and Tang, 2010; Berg, 2013).

At the beginnings, these hikers would sleep in tents they brought with them, or stay in local residents’ homes. However, when more and more hikers and visitors came, so came the need for improvements in the tourism facilities, especially lodging and dinning. The first guesthouse was

24 A number of scholars mention the “discovery” of the cypress trees (e.g. Yen and Chen, 2013). However, it should be noted that this “discovery” does not mean the physical discovery of the trees, but rather the understanding that these trees have the economic value through the tourism industry. The Atayal residents were very familiar of the area, and have plenty of traditional ecological knowledge in general, and knowledge of the specific topography of their surroundings in particular.
built in 1992. As the majority of the tourists came during the weekends, the villagers worked in agriculture during the weekdays to be available to server tourists over the weekend. Production and sale of handicrafts added to the tourism business at that time. (Berg 2013).

When the road to Smangus was finally paved in 1995, reaching the village became easier and brought a sharp increase in the number of visitors, which led to a drastic change in the community. There was a very small population of only 150, consisting of just 26 family units. Some of the households had the means to give the tourists accommodation and profited accordingly. Differences in economic circumstances among the households and unequal distribution of newfound profits led to rising tensions in the community (Tang and Tang, 2010; Berg, 2013).

Other issues that arose were to do with land rights and unhappiness regarding outsider entrepreneurs. Residents and families rose up against one another and the situation became exceedingly volatile. One of the villagers described how Smangus, “nearly slipped into a bottomless black hole” (Icyeh, 2011 as quoted in Berg, 2013).

The villagers came together in late 1999 and together worked out an approach to cope with the growing hazards to unity within their community. One of the first results of these talks was that a village kitchen, managed and run by the community as a whole, was opened in 2000. After that, a community collective administration was set up in 2001. This oversaw the addition of a local general store and accommodation amenities, both run collectively by the community. The community collective administration consisted of sixteen people representing eight families. (Reid, 2010; Berg, 2013; Interview 2).

This collective administrative system was challenged in many areas over the next few years as they worked through difficulties that arose and together formulated strategies for dealing with them. They grew in experience as they asked the advice of church members and university bodies. They also learned from the way that other communities had solved their issues, which also included a study tour of Smangus elders in Israel to learn the different Kibbutz models.25 There has also been exchange with the Tsou community of Danayigu26 in Chiayi County with visits in 2000 and

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25 As the author of this paper is from Israel, the elders’ visit to Israel to learn of the Kibbutz models was brought up by the villagers many times during the author’s field study, as the like sharing their experience. Those conversations also had an impact on the social relationship and trust-building between the author and Smangus community.

26 Sometimes spelled Tanayku
2002 to learn from their experience in developing ecotourism. Friends of the Presbyterian Church and university student clubs also contributed their ideas to the development of the cooperative. The close family relations between members of Smangus, that they were all members of the Presbyterian Church and belief in the *gaga* were also important factors in the establishment of the cooperative (Reid, 2010; Berg, 2013).

In 2004, Smangus inaugurated a formalized way of operating, and the new cooperative was known as *Tnunan*. This word brings together all three areas of the new operation: (1) fellowship, agreement, and collective consciousness; (2) viability because everyone works together, like the interwoven threads of a cloth; (3) sharing and mutual affection by keeping the principles of *gaga*.

The organizational structure of *Tnunan Smangus* has three committees with combined responsibilities for all matters in the community. They are the Smangus Community Development Association, Tnunan Smangus, and the Smangus Church. There are nine departments that operate under Tnunan Smangus with each taking responsibility for management of specific matters. These are Education and Culture, Ecology and Environment, Agriculture and Land, Human Resources, Accounting and Finance, Health and Welfare, Research and Development, Accommodation and Restaurant and the last one is Engineering (Reid, 2010; Icyeh, 2011; Berg, 2013; Interviews).

At present, there are about 180 village residents, and about 85% of them have joined Tnunan. The idea behind the Tnunan cooperatives was to join modern business management ideals with Atayal traditions rooted in *gaga*, which emphasizes commonwealth and sharing. This means that, in the village, all the tourist centered amenities such as lodges, shops, restaurants are communally owned and are managed by Tnunan members. They share both the profits and the work amongst themselves. The system extends even to the tribal land that was previously individually owned by the members and even to the natural resources on that land. Any profit goes to Tnunan. All the members receive the same salary each month, as well as benefits such as medical insurance and subsidies for various necessities such as education, funerals, and building costs. They also benefit from eligibility for loans. (Tang and Tang 2010, Reid 2010; Icyeh, 2011; Berg 2013; Interviews).

After Tnunan was set up, much development that is focused on the tourism industry has taken place in Smangus. At present, they can accommodate around 400 visitors, but choose to limit it to about 200-220 overnight visitors. The lodges are often almost full during holiday season, weather permitting. Obviously, visitors are welcome in the village at any time, but special effort is made
during holiday season to provide extra activities and events such as guided walks, tours of Smangus, workshops teaching traditional crafts, and special cultural evenings with learning a few words in Atayal language, performances by youth bands and Smangus leaders giving presentations about village culture and history and sing traditional songs. The cultural and historical aspects of Smangus are presented in an educational and informative manner, not a staged singing or dancing performances that exhibit an idealized indigenous static culture, which is common in many other indigenous villages in Taiwan (Reid, 2010; Berg, 2013; Interviews).

Both the community and the environment of Smangus have benefitted from the economic and social changes that have been made. This new tourism industry that focuses on authentic ethnic experiences and on preserving the environment and traditional way of life brings in up to 80% of the total earnings for Tnunan. It is therefore the biggest factor in the village’s economy, forming the backbone of their economic independence. (Reid 2010) The most important resource that the community owns is the land itself, which includes the forest, and as such it is given due protection and consideration. Indeed, one of the goals of Tnunan is to promote careful stewardship of the tribe’s qyunang (traditional territory).

Another of Tnunan’s goals, indeed, one that is taught to the village children from primary school level, is to preserve the Atayal language and culture. Together, these two goals underwrite any projects that are discussed for the village. (Icyeh, 2011).

The changes that have been made have also brought about several social benefits and many problems have been alleviated. As previously mentioned, there was the issue of unequal income among the Tnunan members, and this has largely been solved. They now all have the same access to medical care and education opportunities. The new system has seen a reduction in alcoholism in the village, and a better work ethic. Berg (2013) refers to Icyeh (2011) that the improvements have come about because “mutual consensus leads to mutual constraint”. As everyone now has a purpose and a specific job, they feel that they are all valuable members of the community, whose ideas are worthy of consideration and whose work is appreciated.

In Smangus, both interviews were conducted and questionnaires handed out. The questionnaires focused on a number of topics: aspects of CBT, the perceived benefit distribution of tourism, participation in tourism, CPR management participation, CPR management satisfaction. The
interviews served to gain more understanding of processes and social and institutional structures that cannot be measured by questionnaires alone. Six people were interviewed.

A total of 60 questionnaires were delivered to the residents of Smangus. 32 questionnaires were filled and returned, from which 24 were used in the analysis, as the remaining questionnaire were missing answers. Table 10 shows the characteristics of Smangus respondents. 55% were males, and 45% females. 66% of the respondents are in the age range of 18-47. Regarding the education level, 15% has a graduate degree or above, 22% hold an undergraduate degree, 33% finished high school, 26% hold middle school education, and 11% with elementary school education. 89% of Smangus villagers are educated with Atayal traditional knowledge. Although respondents were asked about their income, only a few answered, and of these answers it is hinted to the author that the answer is not accurate, as the respondents do not wish to share this information. For this reason, details of the level of income are not displayed. All of the respondents belong to the Presbyterian Church.

Table 9: General demographics of Smangus respondents

<table>
<thead>
<tr>
<th>Demographics</th>
<th>No. Res.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-27</td>
<td>8</td>
<td>28%</td>
</tr>
<tr>
<td>28-37</td>
<td>7</td>
<td>4%</td>
</tr>
<tr>
<td>38-47</td>
<td>10</td>
<td>34%</td>
</tr>
<tr>
<td>48-57</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>58-67</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>68-77</td>
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<td>0%</td>
</tr>
<tr>
<td>77+</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>55%</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>45%</td>
</tr>
<tr>
<td><strong>Formal Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Elementary school</td>
<td>3</td>
<td>11%</td>
</tr>
<tr>
<td>Middle school</td>
<td>7</td>
<td>26%</td>
</tr>
<tr>
<td>High school</td>
<td>9</td>
<td>33%</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>6</td>
<td>22%</td>
</tr>
<tr>
<td>Graduate and above</td>
<td>4</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Traditional Atayal Knowledge</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>11%</td>
</tr>
<tr>
<td>Yes</td>
<td>18</td>
<td>64%</td>
</tr>
<tr>
<td>Teacher of traditional knowledge</td>
<td>7</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Religious Affiliation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic Church</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Presbyterian Church</td>
<td>29</td>
<td>100%</td>
</tr>
</tbody>
</table>
4.2. The Characteristics of Smangus Community-based Tourism

The main attraction of Smangus is the 6km (12km return) hiking trail to "Yaya Qparung," the grove of giant Formosan Cypress (紅檜). The oldest of these trees is a 2,700 year old giant red cypress. The hike’s difficulty is moderate and takes about 5 hours return, with some time to admire different parts of the forest (such as the bamboo grove) and the view of the valley.

85% of the visitors to Smangus stay overnight, 15% of the visitors to Smangus come for a day trip. An estimated 30,000 tourist visit Smangus annually (Interviews). When a guided group arrives at the village, a Sbalay ceremony is performed. Sbalay is a “cleansing ceremony through the act of watering two saplings, serves as a blessing” for the visitors. The ceremony represents that visitors are welcome in the village and should be safe as they travel to and from the village (Lin, Lahuy, & Kuan, 2007:150; Reid, 2010).

The majority of the overnight visitors would stay 2 days / 1 night. When people visit Smangus their schedule would look as follow:

**Day 1**
- 16:30 guided tour by a person from Tnunan Education and Culture Department
- 18:00 dinner

**Day 2**
- 6:30 breakfast
- 7:30 Hike to the cypress grove
- 12:00 Lunch
- 13:00 leave Smangus

On Saturday after dinner, a cultural evening takes place in the church.

More activities are offered to those that seek a more in-depth experience, either 2 days / 1 night or 3 days / 2 nights:

**Day 1**
- Sbalay ceremony
- 16:30 guided tour by a person from Tnunan Education and Culture Department
- 18:00 dinner (maybe talk during dinner about Smangus and Atayal culture)
- Maybe a guided walk at night
Day 2
- 6:30 breakfast
- 7:30 go to the Cypress Forest with one of Smangus guides. They will explain issues, tell stories, ethnobotany, climb bamboo, and other activities.
- 12:00 lunch

Day 3
- 6:30 breakfast
- 7:30 go to the Koraw eco-park for fun activities such as, like shooting a bow; as well as introduction of ethno-biological knowledge.
- 12:00 lunch
- 13:00 leave Smangus

Smangus is indeed a case of Community Based Tourism, under two categories: (1) *solely community-owned and operated enterprises*, where benefits, labor, and other costs are borne equally by all members of the community (Tnunan); and (2) *family or group-owned enterprise*, where family or group members may work (the households that are not part of Tnunan yet own B&Bs).

From the attraction perspective, it seems that Smangus is a typical example of Community Based Tourism. The key attractions are the giant cypress grove (natural environment and landscape), and the Atayal cultural activities (cultural heritage).

The findings from the questionnaire confirm the above, with residents agree with the statement that “The *yaya qparung* (giant cypress trees) is one of the main attractions to tourist” and that “tourists are welcome to visit Smangus”. 91% of respondents think that a natural attraction and cultural attraction as important for successful community based tourism.

The results support the current understanding that natural and cultural attractions are of high importance for successful Community Based Tourism. In the case of Smangus, these attractions, or resources, are the Atayal cultural heritage the natural environment, especially the giant cypress grove.
Table 10: Smangus tourism characteristics

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourists are welcome to visit Smangus</td>
<td>4.43</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Tourists come to Smangus only because of <em>yaya qparung</em></td>
<td>3.38</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>The <em>yaya qparung</em> is one of the main attractions to tourist</td>
<td>3.93</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Tourists come to Smangus only because of the Atayal culture</td>
<td>3.59</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>The Atayal culture is one of the main attractions to tourists</td>
<td>3.64</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure 18: Important factors for successful CBT (Smangus)
4.3. Smangus Tourism Stakeholders

As understood from above, the Tnunan is probably the most important tourism stakeholder, which actually encompasses in it other stakeholders, its members. Tnunan creates equality between the different households in the community.

However, there are 4 households that do not participate in Tnunan, despite ongoing discussions. These families had moved out of Smangus in the 1980’s for work in the cities. They came back over the next two decades, when tourism had already developed. These families, with some that were born outside of Smangus and only later moved back to Smangus, have different mindset, which is more individualistic. The influence of the life in the cities as workers prove to be very strong. Although they do belong to the same community, their economic activities are separated. These families run individual B&Bs and allow people to set tents in their yards (see photos in Appendix IV). Some offer simple dining options, but not consistently. These individual B&Bs are in direct competition with Tnunan, and can all be considered as “free-riders” in a way, since Tnunan nurture many public goods in the community, without the help of these individual households (Berg, 2013; Interviews). As free-riders, these individual B&B enjoy from the situation that Tnunan created and the atmosphere in Smangus. Thus, they do not make the same contribution to the community as Tnunan, but they do no harm the community. Their decisions not to join the majority are legit, and Tnunan accept their decision. They do cooperate on other community-related issues, and participate in the church services.

As in the case of Cinsbu-Xinguang, also in Smangus the church plays an important role. The first Presbyterian Church established in 1951, and by the 1970’s, most of the villagers had converted to Christianity (Berg 2013).27 It has an active part in promoting cooperation among members of the cooperative system (Tang and Tang, 2010). There is only one church in Smangus, and the individual households that are not Tnunan members do participate in church activities.

The Presbyterian Church has been a great supporter for Smangus’ development with advices to the community on development issues. The Presbyterian Church is the body that organized and

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27 There are two stories on how Christianity came to Smangus. Tang and Tang (2010) write that missionaries from the Presbyterian Church reached Smangus 1948. However, Icyeh (2011) writes that a local resident returned with a Bible from a church service in the Taiyao village and thus brought Christianity to Smangus (Berg, 2013).
sponsored the study tour to Israel to learn the different Kibbutz models, while visiting religious sites of importance for Christians.

4.4. The Cypress Forest as Tourism Common Pool Resource

The terms common-pool resource (CPR), alternatively termed a common property resource, is a particular type of good, and a natural or human-made resource system, whose size or characteristics of which makes it costly, but not impossible, to exclude potential beneficiaries from obtaining benefits from its use. Ostrom (2008) sees common-pool resources as “… sufficiently large that it is difficult, but not impossible, to define recognised users and exclude other users altogether. Further, each person’s use of such resources subtracts benefits that others might enjoy”.

As mentioned in the Theoretical Framework chapter, tourism resources, especially natural environment, can be addressed as a common pool resource (CPR). These resources are used, on the one hand, by tourists in common with other tourists and, on the other, for tourist in common with other activities by tourists and locals (Briassoulis, 2002). The forest as a tourism resource is not only a material resource of a landscape, but it is also a cultural resource which is an integral part of Atayal culture, society, and dynamic society. The case study of Smangus shows that tourism resources can be regarded as a Common Pool Resource. It plays a crucial role in the local tourism industry.
4.5. Management of the Cypress Forest as Tourism CPR

“If people would like to understand Tayal people's governance view of CPRs, Gaga is the basic starting point to understand them” (Yen & Chen, 2013: 57). “It's a collective memory, a major part of culture, also it's a complex network of social relations.” (Lin Yih-Ren as quotes in Reid, 2010).

The community has been adjusting institutional rules to develop CPR management strategies which draws upon traditional culture and heritage as the basic framework. Gaga is not static. New gaga is developed to adapt to emerging challenges and changing conditions (Tang and Tang, 2010; Berg, 2013).

The Atayal understanding of traditional territory is based on the responsibility to that territory rather than ownership in the modern legal sense. It might be considered as a form of stewardship or custodianship. When Atayal follow gaga, they not necessarily exclude other people from using their territory which is under their responsibility. (Reid 2010).

De-facto, Smangus is the sovereign over their traditional territory, continuing to be responsible for the land and manage it in a sustainable way. Smangus has a drafted a document called “The Smangus Tribal Covenant” to set out the rules agreed upon by community. A whole section is dedicated to issues of ownership and use of land. Land in Smangus cannot be sold, rented or leased to outsiders; any major changes to the land must be first discussed and approved by the community; the land and natural resources should be used in a sustainable manner in order to conserve them for future generations (Reid, 2010).

Smangus has stated their right to their traditional territory many times. On 7 May 2007 Smangus held a traditional ceremony to declare the autonomy of their traditional territory. Smangus also followed the “Declaration of Indigenous Land Rights” which asserts their right to their territory and rejects the intervention of the state, and the Atayal have declared “full sovereignty, control and management over our ancestral lands.” (Neqo Soqluman & Lahuy Icyeh, 2007 as quoted in Reid, 2010). Also in 2007, a statement of the Atayal Tribal Committee rejected the control and management of the Forestry Bureau, which it called “illegal and ineffective” (Tayal Tribal Committee, 2007 as quoted in Reid, 2010).

28 For example, when building a new house, the family is given one year for the construction
The community based tourism has become the most important source of revenue, bringing about 80% of Tnunan’s revenue, and thus supports Smangus economic prosperity and economic independence. With the importance of the forest for the tourism in Smangus, a careful management of the natural resources of the tribe’s qyunang (traditional territory) has been an important goal of Tnunan from its inception (Berg 2013; interview 2)

Tnunan has 9 departments. One of them is the Ecology and Environment Department (生態環境部負責). They are in charge of managing and maintaining the forest area (suru raga and the surrounding) as well at the hiking trail that leads to the cypress grove (ngasal qparung). The Ecology and Environment Department also built the trails to the cypress grove, bridges, and toilets and other facilities in the trail.

In 2005, they have set clear conservation regulations and prohibitions: no making fire, cut trees, or hunt in the tourist area of the forest (suru raga). From 2010, they have expanded the protected area (no fire, no cutting wood, no hunting) to let the ecosystem recover and become a haven for wildlife. Recently rare species of wild animals were spotted in the protected area of Smangus’ qyunang. “These measures are very important for maintaining the village’s tourism business.” (Interview 3). Tnunan now discussed the idea of defining a day in the week which the trail will be closed, to let nature (as well as Tnunan’s people) to rest and recuperate.

Ostrom (1990: 90) identified 7 elements as essential to successful CPR arrangements, which will be discussed below in the context of Smangus. 29

2.2.5.1. Clearly defined boundaries

The clearly defined boundaries are according to Atayal traditional territory customary law, qyunang, rather than the national law. The national law separates private land from public land only. In that sense, the forest area is considered as a national forest. However, the community is the de-facto manager of the area. Moreover, Tnunan’s Ecology and Environment Department has placed a gate locks at the beginning of the trail, which they can close down when needed.

29 As the 8th principal by Ostrom is relevant for CPRs that are parts of larger systems, this principal is not addressed in the case studies.
2.2.5.2. Congruence between appropriation and provision rules and local conditions

The rules governing the management of the CPR should be tailored to its characteristics. No single set of rules will work for all CPRs and not even for all CPRs of a particular type, such as forests or fisheries. In this sense, although de-jure the CPR is a national forest in the purview of the Forest Bureau, the community is the de-facto manager of the CPR and thus the rules governing the CPR are the customary rules of gaga, as well as the clearly defined regulations set by Tnunan.

2.2.5.3. Collective-choice arrangements

Ideally, most of the people involved and affected by the rules governing a CPR should be able to take part in changing them. In Smangus, the Tnunan allows an option discussion about different issues, and include the possibility to participate in stating opinion and influencing decision making. Even if not all are involved in changing the rules, knowing that is possible for them to be involved is important.

Everyone is participating in decision making. If 2/3 of Tnunan agree on a decision, then it is considered as approved. This is to make sure that anything is for the future generations, and all of the community is involved. They do not set a limitation of time to discussing important issues. Sometimes topics are discussed for many months or even years. After a decision is made, they will ask everyone, not only those that attended the meetings where the decision was agreed upon. They will also notify and ask those community members that are not part of Tnunan (Interviews 3 & 4).

2.2.5.4. Monitoring

Every 3 months, the Ecology and Environment Department go to check that the area is fine, and if anything needs fixing or other actions. They also perform an inspection the forest trail and the suru raga area once every 1-2 weeks. Recently, a Smangus villager who was born outside and recently came to live in Smangus has caused concerns. That villager is not part of Tnunan and is known as an illegal logger, who has been previously convicted. Due to this concern, Tnunan inspect the forest more frequently, and in May 2018 they have went 3 times per week (Interview 3).
2.2.5.5. Graduated sanctions

Tnunan has a mechanism to punish Tnunan members, usually through withholding a salary. However, to reach the stage of having a salary taken away one must pass through gradual sanctions and punishments.

If the person who does something against the regulations of Tnunan, then they will discuss it with him and try to solve it by explaining that actions should be for the benefit of all. It will usually be the elders and/or the village leader. Tnunan will hold an annual meeting where they will carry out decisions of withholding a month salary. Although the decision to withhold a salary might be made earlier than the annual meeting, the annual meeting gives another chance to discuss the punishment. It is possible that they community will decide not to punish the violator (interview 4).

If the violation is very severe, they will call the police if all other options have not solved the issue. For example, if one cut logs a cypress tree, they will be kicked out of Tnunan (besides calling the police).

2.2.5.6. Conflict resolution mechanisms

Tnunan as a conflict resolution mechanism. As was just explained, the punishing mechanism also acts as a conflict resolution mechanism, as all punishments and sanctions are performed after a discussion with the violator, and when more serious, with the community.

2.2.5.7. Minimal recognition of the rights to organize

Powerful organizations outside the local community, such as national governments, must not interfere with the rights of the appropriators of a CPR to organize. In that sense, much has changed over the years. Although the Taiwanese law states that the forest is primarily the property of the state, the forest area surrounding Smangus is their traditional territory (Qyunang), which the government give a de-facto autonomy the manage nowadays. This has not been the case a decade or two ago. Unlike before, the Forest Bureau must call before if they plan to pay a visit. They must first receive a confirmation to visit by the community. This way, there is a cooperation between the community and the Forest Bureau as they give respects to the autonomy of the community.
2.2.5.8. Results from the questioners

81% of the questionnaire respondents are involved in managing or taking care of suru raga (the area of the cypress grove and its trail). Questions concerning their involvement in management of the suru raga - whether community members have been involved in meetings and were informed about decisions made – show that the majority (91%, 94%, respectively) are involved and informed. In more details, 60% are frequently involved in meetings, 31% were involved once or twice, and 9% were not involved in such meetings. 71% were usually informed when major decisions concerning tourism development took place, 23% were informed once or twice, and 6% have never been informed (see figure 19 & 20).

Tourism plays a much larger role in Smangus. Almost all of Smangus villagers are involved in tourism to a certain degree and spend the majority of their day working in tourism. It seems that Smangus has shifted to mostly focus on tourism, thus spending much time to improve in the field of tourism. More of this will be discussed in Chapter 5.

Figure 19: Involvement in meetings discussing the Tourism CPR management (Smangus)
Figure 20: Being informed of major decisions regarding the Tourism CPR management (Smangus)

Figure 21: Satisfaction with current Tourism CPR management system (Smangus)
4.6. Smangus Community Participation in Tourism

Only 1 person that answered the survey does not participate in tourism (see figure 22). The division of work shows that tourism plays a crucial role with 56% of daily life, compared to 20% of housework, and 17% of farming. Tourism is clearly the main economic activity in Smangus.

Figure 22: Division of roles in daily life (Smangus)

Table 11: Involvement in tourism (Smangus)

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you involved in CBT?</td>
<td>No</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Accommodation/B&amp;B</td>
<td>19</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>Cooking/restaurant</td>
<td>17</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>Guiding services</td>
<td>9</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Community tours</td>
<td>8</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>Cultural activities</td>
<td>15</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>Shop</td>
<td>9</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Transportation</td>
<td>5</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Other*</td>
<td>5</td>
<td>11%</td>
</tr>
</tbody>
</table>

* 辦公，維修客人車子 or 民宿餐廳損壞的東西，幼兒園老師，藝術文化工作者
Length of involvement in tourism was also looked at. 18% were involved in tourism between 1 and 3 years, 11% for 4-6 years, 7% were involved for 7 to 9 years, and 64% were involved in tourism for more than 9 years.

Questions concerning community members’ involvement in tourism planning - whether community members have been involved in meetings and were informed about tourism development – show that the majority (97%, 100%, respectively) are involved and informed. In more details, 83% are frequently involved in meetings, 14% were involved once or twice, and 3% were not involved in such meetings. 86% were usually informed when major decisions concerning tourism development took place, 14% were informed once or twice (see figures 24 & 25).

The results of the survey shown above and below draw a clear message that that almost all residents of Smangus participate in tourism.
Figure 24: Involvement in meetings discussing the tourism development (Smangus)

Figure 25: Being informed of major decisions concerning tourism (Smangus)
4.7. Smangus Perception of Benefit Distribution from Tourism

It was mentioned in the theoretical framework that most studies stress the importance of equitable distribution benefits. There are different ways to distribute incomes and benefits from CBT though the community, and this is very difficult to measure accurately. Perception of benefit distribution, or satisfaction with the benefit distribution, is something that is easier to measure. This research refers to the later, perception of distribution of benefits from tourism. It is important to remember that as mentioned above, members of Tnunan receive the same salary, whether it is the chief, the community elders, or young people – the salary is distributed in the same way.

In the questionnaire, it was stressed that “benefit” refers to a range of benefits (economic benefit, social benefit, cultural benefit, etc.) and not only the economic benefit. The first part included statements regarding the distribution of benefits, of which the mean shows the villages slightly disagree with the statement that “only some community members benefit from tourism” (mean of 2.44 on a Likert scale). The villagers agree with the statements: “all community members enjoy from the benefits of tourism in Smangus” (mean of 4.25), “benefits from tourism are distributed as it should be” (mean of 4.18), and slightly agree that “community members that do not take part in the tourism industry also get financial benefits from tourism” (mean of 3.57).

In regards to social circles of the tourism benefit, we see that most respondents agree that tourism brings much benefit to each respondents (67%), people in the immediate family (69%), people in the larger family (62%), the whole community (84%), and Taiwan as a whole (68%) (See figure 26).

Table 12: Tourism benefit distribution statements (Smangus)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only some community members benefit from tourism</td>
<td>2.44</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>All community members enjoy from the benefits of tourism in Smangus</td>
<td>4.25</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Community members that do not take part in the tourism industry also get financial benefits from tourism</td>
<td>3.57</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Benefits from tourism are distributed as it should be</td>
<td>4.18</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Not everyone needs to be involved in tourism</td>
<td>2.93</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>
When asked directly about the satisfaction with benefits, 89% are satisfied with the economic benefits received from tourism in relation to effort (of which 31% are strongly satisfied), with 11% neither satisfied nor dissatisfied, and none dissatisfied. In regards to satisfaction with the social benefits received from tourism in relation to effort, 80% are satisfied (32% strongly satisfied), and 20% neither satisfied nor dissatisfied. As for satisfaction with cultural benefits received from tourism in relation to effort, 80% are satisfied (32% strongly satisfied), 16% neither satisfied nor dissatisfied, and only 4% dissatisfied (see charts 27, 28, and 29, respectively).

Answering the question about satisfaction with the current distribution of tourism benefit, we see that none are dissatisfied. 87% are satisfied (of which 39% strongly satisfied) with 13% neither satisfied nor dissatisfied (see chart 30).
Figure 27: Satisfaction with the economic benefits received from tourism in relation effort (4.19)

Figure 28: Satisfaction with the social benefits received from tourism in relation effort (4.12)
Figure 29: Satisfaction with the cultural benefits received from tourism in relation effort (Smangus)

Figure 30: Satisfaction with current distribution of tourism benefits (Smangus)
4.8. Impact of Perceived Benefit Distribution on Tourism CPR Satisfaction

4.8.1. Impact of Perceived benefit distribution, Participation in tourism and CPR management participation on CPR management satisfaction

After the six sub questions have been answered, it is time to address the main research question: *How the perception of benefit distribution from Community Based Tourism affects the satisfaction with the way the Tourism CPR is managed in Atayal communities?*

The impact of perceived benefit distribution, participation in tourism and CPR management participation on CPR satisfaction, are looked at based on the analysis of results from the questionnaires. For this, a multiple linear regression model was built, to identify the impact of perceived benefit distribution, participation in tourism and CPR. The model was statistically insignificant, $F(3, 18) = .92, p > .05$, which indicated that CPR satisfaction has no impact from the perceived benefit distribution, participation in tourism or CPR management participation.

In Smangus case study, perceived benefit distribution, participation in tourism or CPR management participation has no significant effect in decreasing or increasing the satisfaction level of the management of the Tourism CPR.

*Table 13: Regression ANOVA (Smangus)*

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.972</td>
<td>3</td>
<td>.324</td>
<td>.924</td>
<td>.453</td>
</tr>
<tr>
<td>Residual</td>
<td>5.255</td>
<td>15</td>
<td>.350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6.227</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 14: Model coefficients (Smangus)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>Std. Error</td>
<td>( \beta )</td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.33</td>
<td>1.128</td>
<td>2.064</td>
</tr>
<tr>
<td>Perceived benefit distribution</td>
<td>.52</td>
<td>.318</td>
<td>.47</td>
</tr>
<tr>
<td>Participation in tourism</td>
<td>-.01</td>
<td>.018</td>
<td>-.11</td>
</tr>
<tr>
<td>CPR management participation</td>
<td>-.22</td>
<td>.407</td>
<td>-.15</td>
</tr>
</tbody>
</table>
4.8.2. Correlations between CPR satisfaction, perceived benefit distribution and CPR management participation

Since the model was statistically insignificant, with no clear indication of CPR management satisfaction impact from perceived benefit distribution, participation in tourism or CPR management participation, it is necessary to examine correlation between CPR management satisfaction, perceived benefit distribution, and CPR management participation.

Participation in tourism and perceived benefit distribution, $r = .318$, $p > .05$, and CPR management participation and participation in tourism, $r = -.075$, $p > .05$ have no significant correlation. However, a significant positive correlation exists between CPR management participation and perceived benefit distribution, $r = .479$, $p < .05$. Although this correlation is not strong, it is statistically significant to refer to it as a correlation. In simple words, an increase in CPR management participation would result in an increase satisfaction with benefit distribution.

*Table 15: Correlations between CPR satisfaction, perceived benefit distribution and CPR management participation (Smangus)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Participation in tourism</th>
<th>Perceived benefit distribution</th>
<th>CPR management participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.318</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.172</td>
<td>.726</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>Perceived benefit distribution</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.479*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPR management participation</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. *Correlation is significant at the 0.05 level (2-tailed).*

In short, In Smangus, perceived benefit distribution, participation in tourism or CPR management participation has no significant effect in decreasing or increasing the satisfaction levels. There was a significant positive correlation between CPR management participation and perceived benefit distribution. More details and interpretation of these results are examined in the next chapter.
5. Analysis and Discussion

After the description in the previous chapter, the current chapter will discuss the results and analysis from the previous chapter. Comparing the results between the two case studies prove an interesting process from which we can learn much.

In Cinsbu-Xinguang case study, perceived benefit distribution has a strong positive impact on CPR satisfaction. The higher the satisfaction with the distribution of benefits from tourism is, the high the satisfaction with the Tourism CPR management. Participation in tourism has a slight negative impact on CPR satisfaction. The more a person participates in tourism, they will slightly less be satisfied with the Tourism CPR management.

In Smangus case study, perceived benefit distribution, participation in tourism or CPR management participation has no significant effect in decreasing or increasing the satisfaction levels. In Cinsbu-Xinguang case study, there were no inter-correlation between CPR satisfaction, perceived benefit distribution and CPR management participation. However, in the Smangus case study, there was a significant positive correlation between CPR management participation and perceived benefit distribution.

The answers to the sub-questions prove helpful in explaining the different analysis results of the main research question in the two case studied.

**Cinsbu-Xinguang**

![Figure 31: Results to the thesis research question (Cinsbu-Xinguang)](image)
5.1. The Characteristics of Community-based Tourism

Cinsbu-Xinguang and Smangus are two common cases of Community Based Tourism. The key tourism resources in both communities are very similar (cypress trees forest trail and Atayal culture). However, the two have a different tourism structure. While Cinsbu-Xinguang tourism is consisted of “family or group-owned enterprise”, Smangus is “solely community-owned and operated enterprise” case, where benefits, labor, and other costs are borne equally by all members of the community.

This might explain that no correlation was found between participation level in tourism and satisfaction with tourism benefit distribution in Smangus. That is, because the benefit is distributed equally, only the participation level varies, but also is quite high for all community members.

Another difference between the two communities is the time they began to deal with tourism. Tourism development in Cinsbu began earlier than in Smangus. This is mostly related to the different accessibility situations. In this sense, Smangus had more time to observe what is happening in the surrounding communities, and plan well ahead on how they will be developing tourism in their community. By joining the tourism world later, Smangus actually had an advantage. If Smangus had a better road earlier and tourism would have begun earlier, they might
not have come up with the cooperative model of Tnunan. Other important factors which have influenced Smangus' development were: being located at the end of the road; being a homogeneous community with shared values; and retaining most of the people of working age in the village rather than having them leave to earn money outside. In Smangus, at the beginning there were many individual B&Bs to host tourists, later on Trunan was found. The collectivity went outside of the community of kinship. In Cinsbu, the collectivity is not built within the whole community, but kinship-based.
5.2. Tourism Stakeholders

While in Cinsbu-Xinguang there are the two churches – the Catholic Church and the Presbyterian Church, in Smangus, there is only one Church, the Presbyterian Church. This situation makes it easier to collaborate and work together. However, it seems that in Cinsbu, the activity of two different churches, and therefore less coherence in the community as a whole, makes it more complicated to mobilize people, compared to Smangus where there is only one church.

As was detailed in the chapter of the case studies, the Tnunan is currently the most important tourism stakeholder, which actually encompasses in it other stakeholders, its members. Tnunan creates equality between the different households in the community.

Although the status of elders (長老) is relevant in both Smangus and Cinsbu-Xinguang, it appears that from the perspective of tourism, the elders in Cinsbu-Xinguang play a larger role. This is because most Cinsbu-Xinguang elders are more involved in tourism – most of them own B&B, they are more skillful and more business-wise successful. Of course the elders all work for the greater good of the community, but it seems that since they are more involved from the managerial perspective of the CPR as well as in the tourism business, their role is more contrasted to other community members.
5.3. Management of the Cypress Forest as Tourism CPR

Tang and Tang (2010) explain that institutional rules for defining resource boundaries, user rights, resource allocation rules, monitoring arrangements, conflict resolution mechanisms, etc., are supported by deep-rooted social values and belief systems passed down through generations, and not only by knowledge of the local environment, (Tang and Tang, 2010). This means that people and the social structure are key in contracting a CPR. It is not only the natural resource, people make a resource a common-pool resource.

As referred to in the theoretical background, the human behavior affects the characteristics of the resource and turn it into a common-pool resource. In the two case studies in this research, the traditional CPR of a “forest” becomes a Tourism CPR become a common-pool resource because of the development of tourism in the two communities and the dependency of tourism development and management on the cypress forest. The communities set the rules that create the CPR regime. In both case, gaga is part of these rules. In Smangus, the rules that were added beside gaga are more encompassing and comprehensive, which affect the management of the cypress forest as tourism CPR, as explained below.

Comparing the two cases, we can see that in communities, there is a strong reliance on Atayal customary law gaga in regards to managing the Tourism CPR. Although the CPR management is in some conflict with the government regarding ownership, in both cases, the community is the de-facto manager of the CPR. The community is also working together with the government to a certain extent and in both cases calls the police for the severe sanctions of breaking the regulations. Chen et al. (2018:388) write “as in other customary law settings, common property resource governance is not about collective ownership of particular resources; it is about sharing the responsibility and custodianship collectively under customary law.” As such, social relation are strongly embedded in the gaga and therefore in the CPR management system. This means that in modern Atayal context, managing CPRs mean sharing the responsibility over the resource. Also, the management of CPR is dynamic and not linear (Chen et al., 2018: 388-391).

What rise from the interviews and from the observation of the author, the interpretation of gaga by the residents is affected by tourism - the more the community is more involved in tourism, the more the community interpret gaga as related to tourism. As an example, in Interview #8 the author asked the interviewee if there are adaptation to gaga due to the tourism development. The
interviewee confirmed and gave the example of the rule of no loud sound/music after 10pm, especially karaoke. This is because many B&Bs have guests that wake up early in the morning to go hiking, and loud music/singing at night will have a bad affect. When asked if this is a new adaption/adding to the *gaga*, the interviewee stressed that it is actually an adaption of a tradition rule of avoiding loud music at night because community members are farmers and need to wake up very early in the morning. Thus, the *gaga* is being adapted as well as interpreted in the new situation where tourism plays a larger role in the life of the community. However, it seems that the monitoring part (Ostrom’s 4th element of successful CPR management) is different. In Cinsbu-Xinguang, the monitoring of the forest is done as a whole under *gaga*, while in Smangus, the area related to tourism is put under different monitoring.

In Cinsbu-Xinguang there is no clear and defined monitoring system. If there is a big natural event, such as typhoon, then community members will go and check the path. When community members venture into the forest area, whether guiding tourist or for other reasons, and notice any issue will either fix it immediately or inform about the issue. Also, if B&B owners hear from their customers of any issue then they will take care of it.

In contrast, in Smangus there is a clear and defined monitoring systems. Tnunan’s Ecology and Environment Department carries out inspections of the trail in a defined frequency. Of course, all other ways of monitoring like in Cinsbu-Xinguang also exist, but the defined monitoring is quite different in the two cases.

Such monitoring system might be easier to establish and execute in a solely community-owned and operated context rather than in a number of family or group-owned enterprises context, but this monitoring system can be established and executed in a separate family-owned enterprises context.

Graduated sanctions (Ostrom’s 5th element of successful CPR management) is also different in the two communities. In Smangus, the sanctions that can be and are carried out by Tnunan pose another strong mechanism. The ability to withhold a salary from a person who has breached the regulations, is a strong act. To reach this stage, the sanction must be discussed and agreed upon by all of Tnunan members, which connects the economic and social aspects to the sanction, and as such make it more efficient.
When comparing the questionnaire results from the two communities, we see that a similar percentage of the respondents have been involved in meetings and were informed about decisions made regarding the Tourism CPR (see figure 33 and figure 34). While in Cinsbu-Xinguang case study there were no inter-correlation between CPR satisfaction and CPR management participation, in the Smangus case study, there was a significant positive correlation between CPR management participation and perceived benefit distribution.

What might explain such difference is that since Smangus is in a stage\(^\text{30}\) where both the benefit distribution is distributed in a very fair way (in absolute terms, but more importantly, it is perceived as fair) and that the management of the CPR follows Ostrom’s 7 principals, those that are involved in the CPR management know its importance to tourism, and therefore are satisfied with the distribution of benefits from tourism.

![Graph showing involvement in meetings discussing the management of the Tourism CPR](image)

*Figure 33: Involvement in meetings discussing the Tourism CPR management (Cinsbu-Xinguang and Smangus)*

\(^{30}\) This refers to a “stage by itself” without referring to a linear development of stages. Smangus’ stage is different from Cinsbu-Xinguang. Different communities may follow the same path and reach different stages.
5.4. Community Participation in Tourism

As described in the previous chapter, tourism plays a much larger role in Smangus, compared to Cinsbu-Xinguang. While almost all of Smangus villagers are involved in tourism to a certain degree and spend the majority of their day working in tourism, the situation is different in Cinsbu-Xinguang. There, agricultural plays the major role in daily life, especially on weekdays, while spending more time for tourism work on weekends or national holidays (see figure 35).

When one spends most of the day working in agriculture, it is more challenging to maintain very high standards of lodging, dinning, guiding, and general tourism planning and developments. For Smangus, as they have shifted to mostly focus on tourism, this meant that they have become professionals in the field, as far as being a role model for many other communities that consult with them on tourism development, or being in the spotlight of academic and industry researches.
Figure 35: Division of roles in daily life (Cinsbu-Xinguang on the left; Smangus on the right)
5.5. Perception of Benefit Distribution from Tourism

The tourism industry tends to look for a panacea, a model that works everywhere. However, in community-based tourism within indigenous people’s communities, the social structure is not necessarily the same as the mainstream common social structure. This unique social structure influences the way benefit is being distributed and how things are managed. Besides the unique social structure that influences the interaction between the people, Indigenous knowledge creates a different institution to manage common pool resources that are relevant for ecotourism activities. In any future study, this understanding should be taking into account.

When looking at the results from the questionnaires we see that the satisfaction with the current management system of the Tourism CPR is different (see figure 40). It is clear that the people of Smangus are much more satisfied with the way the Tourism CPR is managed. This large difference might shed light on the reason why in Smangus, perceived benefit distribution has no significant effect on satisfaction with the CPR management system, while in Cinsbu-Xinguang perceived benefit distribution has a strong positive impact on CPR satisfaction.

The higher the satisfaction with the distribution of benefits from tourism is, the high the satisfaction with the Tourism CPR management. Participation in tourism has a slight negative impact on CPR satisfaction. The more a person participates in tourism, they will slightly less be satisfied with the Tourism CPR management.

![Figure 36: Satisfaction with the economic benefits received from tourism in relation effort (Cinsbu-Xinguang and Smangus)](image-url)
Figure 37: Satisfaction with the social benefits received from tourism in relation effort (Cinsbu-Xinguang and Smangus)

Figure 38: Satisfaction with the cultural benefits received from tourism in relation effort (Cinsbu-Xinguang and Smangus)
Figure 39: Satisfaction with current distribution of tourism benefits (Cinsbu-Xinguang and Smangus)

Figure 40: Satisfaction with current Tourism CPR management system (Cinsbu-Xinguang and Smangus)
6. Conclusion

The structure of the Community Based Tourism in both communities was already known and has been discussed to a certain extent. However, no previous discussed or analysis was made on how the community members themselves perceive benefit distribution from tourism and the management system of the Tourism CPR. Past papers described the tourism involvement, its history and structure based on secondary reports, observations, and interviews. This research builds upon past papers yet gives a new insight on this interesting subject, from the point of view of the community members using a survey questionnaire.

In this sense, a strength of this thesis lies in the use of mix methods – observations, interviews, and questionnaires. The mixed-method approach involves qualitative and quantitative methods, this taking the strengths of the two methods while counterbalancing the weaknesses of each approach when applied separately.

The conceptual framework of this research assumed correlation between tourism participation level, satisfaction with tourism benefit distribution, and participation in tourism CPR management. It also assumed that satisfaction with tourism benefit distribution has an impact on the satisfaction with the tourism CPR management.

However, the results from the statistical analysis of the questionnaires showed no correlation between tourism participation level, satisfaction with tourism benefit distribution, and participation in tourism CPR management in Cinsbu-Xinguang. In Smangus, a correlation between satisfaction with tourism benefit distribution and participation in tourism CPR management was found.

The statistical analysis did show that in Cinsbu-Xinguang case study, perceived benefit distribution has a strong positive impact on CPR satisfaction. The higher the satisfaction with the distribution of benefits from tourism is, the high the satisfaction with the Tourism CPR management. Also, participation in tourism has a slight negative impact on CPR satisfaction. The more a person participates in tourism, they will slightly less be satisfied with the Tourism CPR management. In Smangus case study, perceived benefit distribution, participation in tourism or CPR management participation has no significant effect in decreasing or increasing the satisfaction levels.
From the results and analysis of the research, two key understandings emerge: (1) The conceptual framework model works when the community based tourism is consisted of multiple family or group-owned enterprises (Cinsbu-Xinguang), and not when the community based tourism is consisted of one community-owned and operated enterprise (Smangus). This is due to a more diverse range of options and opinions of the villagers, as there is a wider range of participation in tourism (e.g. farmers that do not participate in tourism; B&B owners, etc.).

(2) There are different “stages” of benefit distribution from CBT result in different relationship with the CBT management. When the benefit distribution is equal, this poses as a different stage, where benefit distribution does not impact the satisfaction of the Tourism CPR management. In both cases the distribution of benefit may be fair, but due to the nature of the kibbutz-like cooperative of Smangus, Tnunan, the benefit is distributed almost evenly between the participating community members. This is not to say that the benefit is not distributed fairly in Cinsbu-Xinguang, as the CBT enterprises there are group or family-owned and thus bring about a different structure of benefit distribution that can also be considered as fair in that context. Once the CPR management is done well and is sustainable, the distribution of benefit does not play a crucial role, but the participation in managing the CPR does. The participation is becoming more emphasized than the issue of benefit distribution.

In Cinsbu the benefit distribution is important in influencing the CPR satisfaction, and participation in tourism has a slight negative impact on CPR satisfaction (the more a person participates in tourism, they will be slightly less with the Tourism CPR management). This is because the more one is involved with a topic, the more they know, and the more they think of a better and more desirable situation. When a person is more involved in the community based tourism of Cinsbu-Xinguang, the more they understand the importance of the Tourism CPR, and the importance of its management for the success of the tourism industry and economic prosperity of the community.

The theoretical framework proved to be more useful in the case of Cinsbu-Xinguang due to the structure of the tourism enterprises that encompasses a wider range of positions in the structure compared to Smangus. This variation in positions is assumed to be giving the opportunity to put use to statistical analysis and see the influence perceived distribution of benefits has on satisfaction with the current CPR management system. The sense of collectivity may influence benefit
distribution as well as the CPR management satisfaction. However, it was not fully observed in this research.

### 6.1. Limitation to the Study

However, there are a number of limitations to this study. First, it was difficult to collect enough questionnaires to reach statistically significant results. The adult population in Smangus is about 120, and in Cinsbu-Xinguang about 240. A number of residents did not want to answer the questionnaires, while others cannot read-write. A number of residents explained that one questionnaire per household is enough as everyone think the same in the same household. Others simply did not return the filled questionnaire. More filled questioners would surely be useful for the research. This also means that many of those that have answered the questionnaires tend to be more active and engaged in comparison to those that would not answer it. In short, in the settings of this research, the statistics are not as strong as in settings where the communities are bigger, and thus have bring stronger statistical significance.

Related to the questionnaires, the measurement of different variables can be criticized. What is the exact weight a specific question is given? Can another question be more accurate in achieving an accurate reply from the constituent? These criticism are relevant for most social science quantitative researched that include questionnaires related to a social phenomenon.

Another limitation arise from the complex *gaga*. Some rules are clear, but others are vague, just like the rules of giving gifts – a person would usually spend time thinking about which gift to give, how much to pay, recalling past gift transactions with the other person, etc. *gaga* is ever changing and includes the social sphere as well. This makes it more difficult to run a quantitative research on such issue as *gaga* or the way CPR is managed.

The difficulty to measure benefit distribution in an accurate way was addressed in this research. To overcome this difficulty, the benefit distribution was measure by how the community perceive the benefit distribution. This allowed to investigate this topic, as perception of benefit distribution is what matters in regards to how each community member relate to this topic. If the distribution is equal but it is perceived as unfair distribution – this perception of unfairness is what will prevail
and influence the community to be not-content with the current situation (which might lead to the failure of CBT enterprises as stated in the theoretical framework chapter.

6.2. Future Study

This study sets ground for further research on this topic of the dynamic CPR regimes in different tourism stages (based on the benefit distribution structure), as they manifest different priorities and interests for the local people.

The current research can be expanded and compare other similar communities. Such community would be Upper Baling Atayal village that is the gateway to Lalashan cypress forest trail, thus some variables would be similar. Another possible expansion of the study would be to compare the two communities with a community where the majority of the tourism business is through camping grounds that have become common in Jianshi Township.

It is also possible to use the same framework and apply it in other two similar communities of Taiwan’s Indigenous People – maybe Paiwan, Amis, or Bunun, to name a few. Of course, this framework is not limited to Taiwan’s Indigenous People, and can be applied with any other two similar communities.

In the CBT literature, it is rare to find discussions about community based ventures that are not managed, co-managed, or initiated by outsiders (Jones, 2005: 304). In this sense, it is recommended to find more examples of such communities that initiate and/or manage CBT, as in the current study.

Another possible study would be to focus on the role of the Church and compare two communities where there is a different church. If looking at the social influence of such a stakeholder, it is also possible to observe the influence of those community members that lived outside their communities and came back.
6.3. Operational Recommendations

Besides contribution to the theoretical discussion on the ‘characteristics of Community Based Tourism’, ‘tourism resources as CPRs’, and ‘benefit distribution from tourism’, this study helps decision makers in the tourism sector to understand the importance of incorporating indigenous traditional knowledge and indigenous traditional customary law that has evolved over many years to allow sustainable use of CPRs. Incorporation of indigenous customary law should be emphasized when designing or implementing CBT frameworks. This would help to achieve better benefit distribution together with better CPR management. Many times, there are already unique and efficient CPR institutions, based on traditional practices, but are disregarded when applying international.
7. References

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Appendix I: Questionnaires

Community-based Tourism and Management of Common Tourism Resource in Cinsbu-Xinguang, Hsinchu, Taiwan

Lokah su’

- Thank you for your willingness to answer this questionnaire, your opinion is important.
- This survey is conducted for a master thesis research to understand the relationship between the current management of Cinsbu-Xinguang’ forest, and distribution of benefits from tourism.
- Benefit refers to all types of benefits (economic benefit, social benefit, cultural benefit, etc.).
- All your answers are kept anonymous. Any information obtained in this survey will be analyzed, and will be used only for this research. It will remain confidential and not shared with anyone else.
- Filling this survey should take about 15-20 minutes of your time.
- If you have any questions regarding the survey or the research, please contact Roi Ariel 岳湖 roi.ariel@gmail.com.
- After you finish the survey, please return it to the person that handed it to you.

Mhuway su’  Thanks you  感謝
Part 1: Tourism in Cinsbu-Xinguang

1.1. Please write 3 words that describe Cinsbu-Xinguang

_______ ________ ________

1.2. How much do you agree with the following statement?
Please Circle the corresponding number.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tourists are welcome to visit Cinsbu-Xinguang</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Tourists come to Cinsbu-Xinguang only because of the 檜木步道</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The 檜木 is one of the main attractions to tourists</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Tourists come to Cinsbu-Xinguang only because of the Atayal culture</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The Atayal culture is one of the main attractions to tourists</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.3. In your opinion, what is important for successful Community Based Tourism?
Check all that apply.

□ Natural attractions
□ Cultural attractions
□ Not too Expensive
□ Good and clean accommodation
□ Good transportation options
□ Special food
□ Collaboration between the locals
□ Other __________
Part 2: Managing CBT & CPR

2.1. How much do you agree with the following statement?

Please Circle the corresponding number.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our community knows how to take care of our qyunang</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Atayal people know more than Hoklo people how to manage and protect natural resources</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Visitors harm the local environment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Too many tourists come to the 檜木步道</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>There should be a fee for tourists to enter 檜木步道</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>The number of visitors should be restricted</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2.2. In your opinion, what is the maximum tourist capacity of Cinsbu-Xinguang (what is the highest number of tourists that can visit Cinsbu-Xinguang at the same time)?

2.3. Are you involved in managing/taking care of the 檜木步道?

(1) Yes  (2) No

2.4. Have you been involved in any type of meeting where you discussed management of the 檜木步道?

(1) Yes, many times
(2) Yes, once or twice
(3) No, never
2.5. When major decisions concerning management of 檜木步道, were you informed?

(1) Yes, always or most of the times
(2) Yes, sometimes
(3) No, never

2.6. Are you aware of how other communities of Atayal or other Indigenous People manage natural resources for tourism?

(1) Yes  (2) No

2.7. If yes (2.6), do you think that your community system is better than theirs?

(1) Our system is better  (2) Their system is better  (3) Both systems are equally good

2.8. Are you satisfied with the current management system of 檜木步道?

*Please Circle the corresponding number.*

<table>
<thead>
<tr>
<th>Strongly dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Strongly satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2.9. Please explain why you are satisfied or not with the management system of 檜木步道:

__________________________________________________________________
__________________________________________________________________
Part 3: Tourism Benefit Distribution

3.1. How much do you agree with the following statement?

*Please Circle the corresponding number*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Only some community members benefit from tourism</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. All community members enjoy from the benefits of tourism in Cinsbu-Xinguang</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Community members that do not take part in the tourism industry also get financial benefits from tourists</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Income from tourism does not stay only with B&amp;B and restaurants, but also goes to farmers that don’t own B&amp;Bs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Benefits from tourism are distributed as it should be</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Not everyone needs to be involved in tourism</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. All visitors bring benefit to the community, also those that do not sleep in Cinsbu-Xinguang</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

3.2. In your opinion, what are the benefits of tourism to the community?

*Check all that apply*

- Provide jobs
- Increase in income
- Conservation of natural habitat
- The settlement is cleaner
- Strengthening Atayal culture
- Promotion of the community and Atayal culture to outsiders
- Other: ________________________________
3.3. In your opinion, what are the negative impacts of tourism in the community?

*Check all that apply*

- □ Increasing living costs
- □ Increasing waste
- □ Increased traffic
- □ Too many visitors
- □ Less privacy
- □ Noise
- □ The environment is damaged
- □ I have been excluded from using products from our qyunang
- □ Conflict among community members
- □ Other: _________________________________________________________

3.4. How much benefit does tourism bring to:

(a) You, personally

- □ Very little  □ Some  □ A lot

(b) People in your immediate family

- □ Very little  □ Some  □ A lot

(c) Your larger family

- □ Very little  □ Some  □ A lot

(d) Your whole community

- □ Very little  □ Some  □ A lot

(f) Atayal People

- □ Very little  □ Some  □ A lot

(g) Taiwan as a whole

- □ Very little  □ Some  □ A lot

3.5. Between women and men, who benefits more from tourism?

(1) Women  (2) Men  (3) Equal

3.6. Between women and men, who bears more burdens from tourism?

(1) Women  (2) Men  (3) Equal
3.7. Which stakeholder receives more benefit (economic/social/cultural) than others from the tourism in Cinsbu-Xinguang?

(a) All Cinsbu-Xinguang households □ More □ Equal □ Less
(b) B&B owners □ More □ Equal □ Less
(c) Tayal Community Sustainable Development Association □ More □ Equal □ Less
(d) Mknazi Tourism Association □ More □ Equal □ Less
(e) Maqaw Business Group □ More □ Equal □ Less
(f) Cinsbu-Xinguang Elders □ More □ Equal □ Less
(g) The Catholic Church □ More □ Equal □ Less
(h) The Presbyterian Church □ More □ Equal □ Less
(i) Outside service providers (transport/guides/tour operators) □ More □ Equal □ Less

3.8. Which stakeholder bears more burden than others from the tourism in Cinsbu-Xinguang?

(a) All Cinsbu-Xinguang households □ More □ Equal □ Less
(b) B&B owners □ More □ Equal □ Less
(c) Tayal Community Sustainable Development Association □ More □ Equal □ Less
(d) Mknazi Tourism Association □ More □ Equal □ Less
(e) Maqaw Business Group □ More □ Equal □ Less
(f) Cinsbu-Xinguang Elders □ More □ Equal □ Less
(g) The Catholic Church □ More □ Equal □ Less
(h) The Presbyterian Church □ More □ Equal □ Less
(i) Outside service providers (transport/guides/tour operators) □ More □ Equal □ Less
3.9. Are you satisfied with the current distribution of benefits from tourism?

*Please Circle the corresponding number.*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly dissatisfied</td>
<td>Dissatisfied</td>
<td>Neither satisfied nor dissatisfied</td>
<td>Satisfied</td>
<td>Strongly satisfied</td>
</tr>
</tbody>
</table>

3.10. If you could change one thing to have better distribution of benefits, what would you change (if at all)?

______________________________________________________________________________
______________________________________________________________________________

**Part 4: Your Participation in Community Based Tourism**

4.1. What is the percentage of the following roles in your daily life?

*Please mark X (for example: Farmer 60%, Tourism 20%, House work 20%)*

<table>
<thead>
<tr>
<th>Role</th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farming</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>House work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other: __________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2. Are you involved in Community Based Tourism in Cinsbu-Xinguang? *Check all that apply*

- [ ] I am not involved
- [ ] Yes I am:
  - [ ] Accommodation / B&B
  - [ ] Cooking / restaurant
  - [ ] Guiding services
- Community Tours
- Cultural Activities
- Shop
- Transportation
- Other __________

4.3. If you are involved in tourism, for how long? *Check one*
(a) Less than 1 year   (b) 1 to 3 years   (c) 4 to 6 years   (d) 7 to 9 years   (e) Above 9 years

4.4. If you are involved in tourism, do you work more/equal/less compared to others in the community?
   (1) Work more than others   (2) Work equal than others   (3) Work less than others

<table>
<thead>
<tr>
<th>4.5. Are you satisfied with the economic benefits you receive from tourism in relation to your effort?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please Circle the corresponding number.</td>
</tr>
<tr>
<td>Strongly dissatisfied</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.6. Are you satisfied with the social benefits you receive from tourism in relation to your effort?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please Circle the corresponding number.</td>
</tr>
<tr>
<td>Strongly dissatisfied</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.7. Are you satisfied with the cultural benefits you receive from tourism in relation to your effort?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please Circle the corresponding number.</td>
</tr>
<tr>
<td>Strongly dissatisfied</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>
4.8. Are you a member of one or more of the following groups?

*Check all that apply*

- □ Tayal Community Sustainable Development Association
- □ Mknazi Tourism Association
- □ Maqaw Business Group

4.9. If you are not involved in Tourism in Cinsbu-Xinguang, would you like to be?

(1) Yes  (2) No

4.10. Do others in your core family work in tourism?

(1) Yes  (2) No

4.11. Have you been involved in any type of meeting where you discussed tourism development in your community?

- □ Yes, many times
- □ Yes, once or twice
- □ No, never

4.12. When major decisions concerning tourism development in your community, were you informed?

- □ Yes, always or most of the times
- □ Yes, sometimes
- □ No, never
Part 5: Demographics

5.0. In which community do you live?

   (1) Cinsbu   (2) Xinguang

5.1. Age:

   a. 18-27
   b. 28-37
   c. 38-47
   d. 48-57
   e. 58-67
   f. 68-77
   g. 78 and above

5.2. Sex:

   (1) Male   (2) Female

5.3. Highest State Formal Education Achieved:

   a. No formal education
   b. Elementary School
   c. Middle School
   d. High School
   e. Undergraduate
   f. Graduate

5.4. Have you been educated in Traditional Atayal Knowledge?

   a. No
   b. Yes
   c. I am teaching traditional Atayal knowledge to the next generation
5.5. What is your average monthly income *(Please Circle the letter)*

a. 9,999NT and below  
b. 10,000-29,999NT  
c. 30,000-49,999NT  
d. 50,000-69,999NT  
e. 70,000-89,999NT  
f. 90,000NT and above

5.5. What is your average monthly income only from tourism *(Please Circle the letter)*

a. 9,999NT and below  
b. 10,000-29,999NT  
c. 30,000-49,999NT  
d. 50,000-69,999NT  
e. 70,000-89,999NT  
f. 90,000NT and above

5.6. Religious Affiliation *(Please check all that apply)*

□ Catholic Church □ Presbyterian Church □ Other __________

Please Feel Free to add any comment you have related to this survey:

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

You have completed the survey. Mhuway su'. Thank you for your participation!
臺灣新竹縣尖石鄉鎮西堡-新光部落「社區旅遊與共有資源管理旅遊」
調查問卷

Lokah su’！Hello！您好！

- 謝謝您同意填寫此問卷，您的寶貴意見對本研究相當重要。
- 本問卷是為了碩士論文研究所設計。這份問卷旨在了解當代司馬庫斯部落的森林資源管理與旅遊獲益兩者間之關聯。
- 在下文中所提及的「獲益」泛指所有類別的獲益（可能但不限於以下類型：經濟、社會、文化等）
- 本問卷為匿名填寫，您不需要寫上姓名。問卷回答內容將僅作為本研究使用。您的回答將以機密處理，並且不做他用。
- 本問卷將耗時 15 至 20 分鐘填寫。
- 如果您對本問卷或本研究有任何疑問，請聯絡岳湖（Roi Ariel）
  roi.ariel@gmail.com
- 在您完成本份問卷後，請將問卷交還給當初給您的人。

Mhuway su’  Thanks you    謝謝您

Roi Ariel（岳湖），國立政治大學應用經濟和社會發展研究所

碩士論文導師：官大偉老師 （Dr. Daya Dakasi）
第一部分：鎮西堡-新光部落的旅遊業

1.1. 請寫下三個字來形容鎮西堡-新光部落

__________        __________        __________

1.2. 以程度 1~5(1 為強烈不同意；5 為強烈同意) 來區分，請圈選出在何種程度下您同意/不同意以下觀點。

<table>
<thead>
<tr>
<th></th>
<th>強烈不同意</th>
<th>不同意</th>
<th>不同意亦不反對</th>
<th>同意</th>
<th>強烈同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 鎮西堡-新光部落歡迎觀光客參訪</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. 檜木步道是唯一觀光客會來鎮西堡-新光部落的原因</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. 看檜木是吸引觀光客來訪的主要原因之一</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. 泰雅文化是觀光客會來鎮西堡-新光部落的唯一原因</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. 泰雅文化是吸引觀光客來訪的主要原因之一</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1.3. 對您來說，什麼對於社區取向旅遊的成功是重要的？

請勾選您所同意的要素，可複選

- 自然景點
- 文化景點
- 花費不要太過昂貴
- 品質良好且乾淨的住宿
- 容易抵達
- 風味餐
- 在地居民的合作
- 其他(請註明)：  __________
## 第二部分: 管理社區取向旅遊與共有資源

2.1. 請問您是否同意下列觀點?

以程度 1~5 (1 為強烈不同意；5 為強烈同意) 來區分，請圈選在何種程度下您同意/不同意以下觀點。

<table>
<thead>
<tr>
<th>觀點</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 我們部落知道怎麼照顧我們自己的領域 (qyunang)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. 比起平地人、泰雅族人更知道要如何管理和保護自然資源</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. 觀光客會傷害當地環境</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. 太多遊客來爬/參訪檜木步道</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. 應該要收取檜木步道的出入費用</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. 應該限制遊客人數</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2. 對您來說，您認為鎮西堡-新光部落的最高觀光客承載數為何（最多可以同時有多少觀光客參訪鎮西堡-新光部落）？________

2.3. 您是否參與檜木步道的管理或維護？

(1) 是 (2) 否

2.4. 您是否曾經參與過任何討論檜木步道管理的會議？

(4) 是，參與過很多次
(5) 是，偶爾一次或兩次
(6) 不，從未參加
2.5. 當有關檜木步道的重要決策決定時，您是否被通知?

(4) 是，幾乎每次都會被通知到
(5) 是，偶爾會被通知
(6) 不，沒有被通知過

2.6. 請問您是否知道其他泰雅部落或是別的原住民部落是如何管理觀光旅遊所需的自然資源?

(1) 是  (2) 否

2.7. 如果您在上題（2.6）回答是，請問您是否認為您部落的管理系統比別的部落更好?

(1) 我們部落的管理方式比較好  (2) 別的部落的管理方式比較好  (3) 我們跟別的部落的管理方式一樣好

2.8. 請問您是否滿意現在的檜木步道的管理系統

以程度 1~5 (1 為強烈不滿意；5 為強烈滿意) 來區分，請圈選出在何種程度下您滿意/不滿意以下觀點。

<table>
<thead>
<tr>
<th></th>
<th>強烈不滿意</th>
<th>不滿意</th>
<th>滿意</th>
<th>無不滿亦未滿意</th>
<th>強烈滿意</th>
</tr>
</thead>
<tbody>
<tr>
<td>程度</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2.9. 請解釋您為何滿意/不滿意現在的檜木步道的管理系統：
### 第三部分: 旅遊業獲益分配

#### 3.1. 請問您是否同意下列觀點?

以程度 1~5 (1 為強烈不同意; 5 為強烈同意) 來區分, 請圈選出在何種程度下您同意/不同意以下觀點。

<table>
<thead>
<tr>
<th>序號</th>
<th>視點描述</th>
<th>強烈不同意</th>
<th>不同意</th>
<th>不同意亦不反對</th>
<th>同意</th>
<th>強烈同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>只有部分部落成員從旅遊業中獲益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>所有鎮西堡-新光部落的成員都享受到旅遊業的獲益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>沒有參與在旅遊業中的部落成員也從觀光客中獲得經濟收益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>觀光收入不僅限於民宿或餐廳, 沒有開民宿的農夫也有從旅遊業中獲益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>旅遊業的獲益分配有被恰當分配</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>並不是所有人都需要參與在旅遊業中</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>儘管有些遊客沒有在鎮西堡-新光部落留宿, 但所有的觀光客都會為部落帶來獲益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

#### 3.2. 對您來說，什麼是旅遊業對部落的益處?

請勾選您所同意的選項，可複選

- [ ] 提供就業機會
- [ ] 增加收入
- [ ] 保育自然棲地
- [ ] 部落環境變得更整潔
- [ ] 推廣泰雅文化
- [ ] 向外推廣部落文化或泰雅族文化
- [ ] 其他 (請說明): ________________________________
3.3. 對您來說，什麼是旅遊業對部落的壞處？

請勾選您所同意的選項，可複選

- □ 增加生活成本
- □ 廢棄物、垃圾變多
- □ 交通雍塞
- □ 觀光人數過多
- □ 隱私減少
- □ 噪音
- □ 損害環境
- □ 我被限制從我們部落傳統領域（qyunang）中採集自然資源
- □ 部落成員間的衝突增加
- □ 其他（請說明）：__________________________________________

3.4. 請在以下勾選在何種層次上旅遊業帶來獲益多寡的程度：

(a) 在我的個人層次上 □ 非常少 □ 一點 □ 很多
(b) 在我核心家庭的層次上 □ 非常少 □ 一點 □ 很多
(c) 在我家族的層次上 □ 非常少 □ 一點 □ 很多
(d) 在我們部落整體的層次上 □ 非常少 □ 一點 □ 很多
(e) 在泰雅族的層次上 □ 非常少 □ 一點 □ 很多
(f) 在整體臺灣的層次上 □ 非常少 □ 一點 □ 很多
3.5. 在男性與女性中，何者從旅遊業中獲益較多？

(1) 女性   (2) 男性   (3) 兩性皆同等獲益

3.6. 在男性與女性中，何者在旅遊業中承受較多的負擔？

(1) 女性   (2) 男性   (3) 兩性相同

3.7. 請勾選下列何者從鎮西堡-新光部落旅遊業中獲益較多（例如但不限於：經濟/社會/文化方面的獲益）？

(a) 全體鎮西堡-新光部落家戶 □ 較多獲益 □ 平等獲益 □ 較少獲益
(b) 民宿業者 □ 較多獲益 □ 平等獲益 □ 較少獲益
(c) 泰雅爾族部落永續發展協會 □ 較多獲益 □ 平等獲益 □ 較少獲益
(d) 基那吉文化光觀產業協會 □ 較多獲益 □ 平等獲益 □ 較少獲益
(e) 鎮西堡-新光部落耆老 □ 較多獲益 □ 平等獲益 □ 較少獲益
(f) 天主教堂 □ 較多獲益 □ 平等獲益 □ 較少獲益
(g) 長老教會 □ 較多獲益 □ 平等獲益 □ 較少獲益
(h) 外部服務提供者（例如但不限於：交通業者、導遊、旅行社等） □ 較多獲益 □ 平等獲益 □ 較少獲益
3.8. 請勾選下列何者從鎮西堡-新光部落旅遊業中承受較多的負擔?

(a) 全體鎮西堡-新光部落家戶  □ 較多獲益  □ 平等獲益  □ 較少獲益
(b) 民宿業者  □ 較多獲益  □ 平等獲益  □ 較少獲益
(c) 泰雅族部落永續發展協會  □ 較多獲益  □ 平等獲益  □ 較少獲益
(d) 基那吉文化觀光產業協會  □ 較多獲益  □ 平等獲益  □ 較少獲益
(e) 鎮西堡-新光部落耆老  □ 較多獲益  □ 平等獲益  □ 較少獲益
(f) 天主教堂  □ 較多獲益  □ 平等獲益  □ 較少獲益
(g) 長老教會  □ 較多獲益  □ 平等獲益  □ 較少獲益
(h) 外部服務提供者（例如但不限於：交通業者、導遊、旅行社等）  □ 較多獲益  □ 平等獲益  □ 較少獲益

3.9. 請問您是否滿意目前旅遊獲益的分配現況

以程度 1~5 (1 為強烈不滿意；5 為強烈滿意) 來區分，請圈選出在何種程度下您滿意/不滿意。

<table>
<thead>
<tr>
<th>強烈不滿意</th>
<th>不滿意</th>
<th>無需感謝</th>
<th>滿意</th>
<th>為強烈滿意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

3.10. 如果有一件事，能讓現在的旅遊獲益分配變得更好，請問您覺得那會是什麼？
### 第四部份: 您在社區取向旅遊的參與 – 答覆問題四與六

4.1. 請問以下活動約佔您一天日常生活中的多少比例?

請在相對應的比例下劃 X (例如: 務農 60%, 從事旅遊業 20%, 家務 20%)

<table>
<thead>
<tr>
<th>活動</th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>務農</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>從事旅遊業</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>家務</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>其他(請說明):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>__________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2. 請問您是否參與在鎮西堡-新光部落的社區取向旅遊業中?

請選擇適用的選項，可複選

- □ 不，我並未參與在其中
- □ 是，我有參與在以下面向中:
  - □ 住宿/民宿
  - □ 提供餐飲/餐館
  - □ 導覽服務
  - □ 部落巡禮
  - □ 文化活動
  - □ 經營商店
  - □ 提供接駁交通服務
  - □ 其他(請說明) __________
4.3. 請問您參與在鎮西堡-新光部落的社區取向旅遊業中多久了？ 請擇一

(a) 不到一年   (b) 一至三年   (c) 四至六年   (d) 七至九年   (e) 超過九年

4.4. 如果您有參與在鎮西堡-新光部落的社區取向旅遊業中，請問您覺得您的工作負擔
跟部落中其他人相比？

(1) 我比其他人工作來的多   (2) 我跟其他人工作一樣多   (3) 我比其他人工作來的少

4.5. 請問您是否滿意在您的投入後、現在您所從旅遊業中所獲得的經濟獲益？

以程度 1~5(1 為強烈不滿意；5 為強烈滿意) 來區分，
請圈選出在何種程度下您滿意/不滿意。

<table>
<thead>
<tr>
<th>強烈不滿意</th>
<th>不滿意</th>
<th>滿意</th>
<th>無不滿亦未</th>
<th>滿意</th>
<th>強烈滿意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

4.6. 請問您是否滿意在您的投入後、現在您所從旅遊業中所獲得的社會獲益？

以程度 1~5(1 為強烈不滿意；5 為強烈滿意) 來區分，
請圈選出在何種程度下您滿意/不滿意。

<table>
<thead>
<tr>
<th>強烈不滿足</th>
<th>不滿意</th>
<th>滿意</th>
<th>無不滿亦未</th>
<th>滿意</th>
<th>強烈滿意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

4.7. 請問您是否滿意在您的投入後、現在您所從旅遊業中所獲得的文化獲益？

以程度 1~5(1 為強烈不滿意；5 為強烈滿意) 來區分，
請圈選出在何種程度下您滿意/不滿意。

<table>
<thead>
<tr>
<th>強烈不滿意</th>
<th>不滿意</th>
<th>滿意</th>
<th>無不滿亦未</th>
<th>滿意</th>
<th>強烈滿意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
4.8. 請問您是否是以下組織的成員？
請選擇適用的選項，可複選

- 泰雅爾族部落永續發展協會
- 基那吉文化光觀產業協會

4.9. 如果您目前尚未參與在鎮西堡-新光部落的社區取向旅遊中，請問您未來會想要參加嗎？

(1) 是 (2) 否

4.10. 請問您有任何核心家庭的成員在旅遊業中工作嗎？

(1) 有 (2) 沒有

4.11. 請問您是否有參與過任何討論旅遊業發展狀況的會議嗎？

- 有，常常參加
- 有，偶爾參加
- 沒有，從未參加

4.12. 當有關部落旅遊業發展的重要決策決定時，您是否被通知？

- 有，常常被通知
- 有，偶爾被通知
- 沒有，從未被通知過
第五部分：填寫者個人資料

5.0. 您住在：
(1) 鎮西堡   (2) 新光

5.1. 請選您的年齡落在以下何組中：
h. 18-27
i. 28-37
j. 38-47
k. 48-57
l. 58-67
m. 68-77
n. 78 以上

5.2. 請問您的性別為：
(1) 男性   (2) 女性

5.3. 請問您在國民教育中的最高學歷為：
g. 未曾受過國民教育
h. 國小
i. 國中
j. 高中
k. 大學
l. 研究所/碩博士

5.4. 請問您是否受過泰雅族傳統文化教育？
d. 沒有
e. 有
f. 我正在教授泰雅族傳統知識給下一代
5.5. 請問您的平均月收入落在以下哪個區間？（請圈選）

   g. 低於新台幣 9,999
   h. 新台幣 10,000–29,999
   i. 新台幣 30,000–49,999
   j. 新台幣 50,000–69,999
   k. 新台幣 70,000–89,999
   l. 高於新台幣 90,000

5.6. 請問您的平均旅遊業月收入落在以下哪個區間？（請圈選）

   g. 低於新台幣 9,999
   h. 新台幣 10,000–29,999
   i. 新台幣 30,000–49,999
   j. 新台幣 50,000–69,999
   k. 新台幣 70,000–89,999
   l. 高於新台幣 90,000

5.7. 請問您的信仰是？（請選擇適用的選項，可複選）

   □ 天主教   □ 長老教會   □ 其他__________

請留下任何您對本研究或問卷的意見與回饋：

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

您已經完成此份問卷，非常感謝您的參與！Mhuway su’！

XXV
Community-based Tourism and Management of Common Tourism Resource in Smangus, Hsinchu, Taiwan

Lokah su’

- Thank you for your willingness to answer this questionnaire, your opinion is important.
- This survey is conducted for a master thesis research to understand the relationship between the current management of Smangus’ forest, and distribution of benefits from tourism.
- Benefit refers to all types of benefits (economic benefit, social benefit, cultural benefit, etc.).
- All your answers are kept anonymous. Any information obtained in this survey will be analyzed, and will be used only for this research. It will remain confidential and not shared with anyone else.
- Filling this survey should take about 15-20 minutes of your time.
- If you have any questions regarding the survey or the research, please contact Roi Ariel 岳湖 roi.ariel@gmail.com.
- After you finish the survey, please return it to the person that handed it to you.

Mhuway su’ Thanks you 感謝
Part 1: Tourism in Smangus

1.1. Please write 3 words that describe Smangus

__________        __________        __________

1.2. How much do you agree with the following statement?
Please Circle the corresponding number.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tourists are welcome to visit Smangus</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Tourists come to Smangus only because of yaya qbarung</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. The yaya qbarung is one of the main attractions to tourists</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Tourists come to Smangus only because of the Atayal culture</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. The Atayal culture is one of the main attractions to tourists</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1.3. In your opinion, what is important for successful Community Based Tourism?
Check all that apply.

- [ ] Natural attractions
- [ ] Cultural attractions
- [ ] Not too Expensive
- [ ] Good and clean accommodation
- [ ] Good transportation options
- [ ] Special food
- [ ] Collaboration between the locals
- [ ] Other __________
Part 2: Managing CBT & CPR

2.1. How much do you agree with the following statement?

*Please Circle the corresponding number.*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Our community knows how to take care of our qyunang</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Atayal people know more than Hoklo people how to manage and protect natural resources</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Visitors harm the local environment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Too many tourists come to the yaya qbarung</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. There should be a fee for tourists to enter suru raga</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. The number of visitors should be restricted</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2.2. In your opinion, what is the maximum tourist capacity of Smangus (what is the highest number of tourists that can visit Smangus at the same time)?

2.3. Are you involved in managing/taking care of *suru raga*?

   (1) Yes    (2) No

2.4. Have you been involved in any type of meeting where you discussed management of *suru raga*?

   (7) Yes, many times  
   (8) Yes, once or twice  
   (9) No, never
2.5. When major decisions concerning management of *suru raga*, were you informed?

(7) Yes, always or most of the times
(8) Yes, sometimes
(9) No, never

2.6. Are you aware of how other communities of Atayal or other Indigenous People manage natural resources for tourism?

(1) Yes    (2) No

2.7. If yes (2.6), do you think that your community system is better than theirs?

(1) Our system is better    (2) Their system is better    (3) Both systems are equally good

2.8. Are you satisfied with the current management system of *suru raga*?

*Please Circle the corresponding number.*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly dissatisfied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissatisfied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly satisfied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.9. Please explain why you are satisfied or not with the management system of *suru raga*:

__________________________________________________________________
__________________________________________________________________
Part 3: Tourism Benefit Distribution

3.1. How much do you agree with the following statement?  
Please Circle the corresponding number

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Only some community members benefit from tourism</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. All community members enjoy from the benefits of tourism in Smangus</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Community members that do not take part in the tourism industry also get financial benefits from tourists</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Income from tourism does not stay only with B&amp;B and restaurants, but also goes to farmers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Benefits from tourism are distributed as it should be</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Not everyone needs to be involved in tourism</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. All visitors bring benefit to the community, also those that do not sleep in Smangus</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

3.2. In your opinion, what are the benefits of tourism to the community?  
Check all that apply

- [ ] Provide jobs
- [ ] Increase in income
- [ ] Conservation of natural habitat
- [ ] The settlement is cleaner
- [ ] Strengthening Atayal culture
- [ ] Promotion of the community and Atayal culture to outsiders
- [ ] Other: ________________________________
3.3. In your opinion, what are the negative impacts of tourism in the community?

*Check all that apply*

- □ Increasing living costs
- □ Increasing waste
- □ Increased traffic
- □ Too many visitors
- □ Less privacy
- □ Noise
- □ The environment is damaged
- □ I have been excluded from using products from our *qyunang*
- □ Conflict among community members
- □ Other: _________________________________________________________

3.4. How much benefit does tourism bring to:

(a) You, personally  □ Very little □ Some □ A lot

(b) People in your immediate family 家庭 □ Very little □ Some □ A lot

(c) Your larger family □ Very little □ Some □ A lot

(d) Your whole community □ Very little □ Some □ A lot

(f) Atayal People □ Very little □ Some □ A lot

(g) Taiwan as a whole □ Very little □ Some □ A lot

3.5. Between women and men, who benefits more from tourism?

(1) Women  (2) Men  (3) Equal

3.6. Between women and men, who bears more burdens from tourism?

(1) Women  (2) Men  (3) Equal
3.7. Which stakeholder receives more benefit (economic/social/cultural) than others from the tourism in Smangus?

(a) All Smangus households □ More □ Equal □ Less
(b) Trnunan □ More □ Equal □ Less
(c) Smangus people not participating in Trnunan □ More □ Equal □ Less
(d) Smangus Elders □ More □ Equal □ Less
(e) The Church □ More □ Equal □ Less
(f) Outside service providers (transport/guides/tour operators) □ More □ Equal □ Less

3.8. Which stakeholder bears more burden than others from the tourism in Smangus?

(a) All Smangus households □ More □ Equal □ Less
(b) Trnunan □ More □ Equal □ Less
(c) Smangus people not participating in Trnunan □ More □ Equal □ Less
(d) Smangus Elders □ More □ Equal □ Less
(e) The Church □ More □ Equal □ Less
(f) Outside service providers (transport/guides/tour operators) □ More □ Equal □ Less

3.9. Are you satisfied with the current distribution of benefits from tourism?

Please Circle the corresponding number.

<table>
<thead>
<tr>
<th>Strongly dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Strongly satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

3.10. If you could change one thing to have better distribution of benefits, what would you change (if at all)?

______________________________________________________________________________
______________________________________________________________________________
Part 4: Your Participation in Community Based Tourism

4.1. What is the percentage of the following roles in your daily life?

*Please mark X (for example: Farmer 60%, Tourism 20%, House work 20%)*

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farming</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourism</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>House work</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other: _______________</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

4.2. Are you involved in Community Based Tourism in Smangus? *Check all that apply*

- ☐ I am not involved
- ☐ Yes I am:
  - ☐ Accommodation / B&B
  - ☐ Cooking / restaurant
  - ☐ Guiding services
  - ☐ Community Tours
  - ☐ Cultural Activities
  - ☐ Shop
  - ☐ Transportation
  - ☐ Other __________

4.3. If you are involved in tourism, for how long? *Check one*

- (a) Less than 1 year
- (b) 1 to 3 years
- (c) 4 to 6 years
- (d) 7 to 9 years
- (e) Above 9 years
4.4. If you are involved in tourism, do you work more/equal/less compared to others in the community?

(1) Work more than others (2) Work equal than others (3) Work less than others

4.5. Are you satisfied with the economic benefits you receive from tourism in relation to your effort?

*Please Circle the corresponding number.*

<table>
<thead>
<tr>
<th>Strongly dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Strongly satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

4.6. Are you satisfied with the social benefits you receive from tourism in relation to your effort?

*Please Circle the corresponding number.*

<table>
<thead>
<tr>
<th>Strongly dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Strongly satisfied</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

4.7. Are you satisfied with the cultural benefits you receive from tourism in relation to your effort?

*Please Circle the corresponding number.*

<table>
<thead>
<tr>
<th>Strongly dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Strongly satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

4.8. Are you a member of one or more of the following groups?

*Check all that apply*

- □ Trununan
- □ Trununan 的生態環境部

4.9. If you are not involved in Tourism in Smangus, would you like to be?

(1) Yes (2) No
4.10. Do others in your core family 工作 in tourism?

(1) Yes  (2) No

4.11. Have you been involved in any type of meeting where you discussed tourism development in your community?

☐ Yes, many times
☐ Yes, once or twice
☐ No, never

4.12. When major decisions concerning tourism development in your community, were you informed?

☐ Yes, always or most of the times
☐ Yes, sometimes
☐ No, never
Part 5: Demographics

6.1. Age:

   o. 18-27
   p. 28-37
   q. 38-47
   r. 48-57
   s. 58-67
   t. 68-77
   u. 78 and above

6.2. Sex:

   (1) Male  (2) Female

6.3. Highest State Formal Education Achieved:

   m. No formal education
   n. Elementary School
   o. Middle School
   p. High School
   q. Undergraduate
   r. Graduate

6.4. Have you been educated in Traditional Atayal Knowledge?

   g. No
   h. Yes
   i. I am teaching traditional Atayal knowledge to the next generation
6.5. What is your average monthly income (Please Circle the letter)

   m. 9,999NT and below
   n. 10,000-29,999NT
   o. 30,000-49,999NT
   p. 50,000-69,999NT
   q. 70,000-89,999NT
   r. 90,000NT and above

6.5. What is your average monthly income only from tourism (Please Circle the letter)

   m. 9,999NT and below
   n. 10,000-29,999NT
   o. 30,000-49,999NT
   p. 50,000-69,999NT
   q. 70,000-89,999NT
   r. 90,000NT and above

6.6. Religious Affiliation (Please check all that apply)

□ Catholic Church □ Presbyterian Church □ Other ________

Please Feel Free to add any comment you have related to this survey:

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

You have completed the survey. Mhuway su'. Thank you for your participation!
臺灣新竹縣尖石鄉司馬庫斯部落「社區旅遊與共有資源管理旅遊」調查問卷

Lokah su’！Hello！您好！

- 謝謝您同意填寫此問卷，您的寶貴意見對本研究相當重要。
- 本問卷是為了碩士論文研究所設計。這份問卷旨在了解當代司馬庫斯部落的森林資源管理與旅遊獲益兩者間之關聯。
- 在下文中所提及的「獲益」泛指所有類別的獲益(可能但不限於以下類型：經濟、社會、文化等)
- 本問卷為匿名填寫，您不需要寫上姓名。問卷回答內容將僅作為本研究使用。您的答案將以機密處理、並且不做他用。
- 本問卷將耗時 15 至 20 分鐘填寫。
- 如果您對本問卷或本研究有任何疑問，請聯絡岳湖(Roi Ariel)
  roi.ariel@gmail.com
- 在您完成本份問卷後，請將問卷交還給當初給您的人。

Mhuway su’  Thanks you  謝謝您

Roi Ariel（岳湖）, 國立政治大學應用經濟和社會發展研究所

碩士論文導師: 官大偉老師 (Dr. Daya Dakasi)
第一部分: 司馬庫斯部落的旅遊業

1.1. 請寫下三個字來形司馬庫斯部落

__________        __________        __________

1.2. 以程度 1~5 (1 為強烈不同意；5 為強烈同意) 來區分，請圈選出在何種程度下您同意/不同意以下觀點。

<table>
<thead>
<tr>
<th>觀點</th>
<th>強烈不同意</th>
<th>不同意</th>
<th>不同意亦不反對</th>
<th>同意</th>
<th>強烈同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 司馬庫斯部落歡迎觀光客參訪</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Yaya qbarung (巨木)是唯一觀光客會來司馬庫斯部落的原因</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Yaya qbarung (巨木)是吸引觀光客來訪的主要原因之一</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. 泰雅文化是觀光客會來司馬庫斯的唯一原因</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. 泰雅文化是吸引觀光客來訪的主要原因之一</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1.3. 對您來說，什麼對於社區取向旅遊的成功是重要的？

請勾選您所同意的要素，可複選

- 自然景點
- 文化景點
- 花費不要太過昂貴
- 品質良好且乾淨的住宿
- 容易抵達
- 風味餐
- 在地居民的合作
- 其他（請註明）： __________
第二部分: 管理社區取向旅遊與共有資源

2.1. 請問您是否同意下列觀點?

以程度 1~5 (1 為強烈不同意；5 為強烈同意) 來區分，請圈選出在何種程度下您同意/不同意以下觀點。

<table>
<thead>
<tr>
<th></th>
<th>強烈不同意</th>
<th>不同意</th>
<th>不同意亦不反對</th>
<th>同意</th>
<th>強烈同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 我們部落知道怎麼照顧我們自己的領域 (qyunang)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. 比起平地人、泰雅族人更知道要如何管理和保護自然資源</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. 觀光客會傷害當地環境</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. 太多觀光客來看 Yaya qbarung (巨木)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. 應該要收取 Suru raga (巨木森林)的出入費用</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. 應該限制遊客人數</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2.2. 對您來說，您認為司馬庫斯部落的最高觀光客承載數為何(最多可以同時有多少觀光客參訪司馬庫斯部落)？

2.3. 您是否參與 Suru raga (巨木森林)的管理或維護?

(1) 是 (2) 否

2.4. 您是否曾經參與過任何討論 Suru raga (巨木森林)管理的會議?

(1) 是，參與過很多次
(2) 是，偶爾一次或兩次
(3) 不，從未參加
2.5. 當有關 Suru raga（巨木森林）的重要決策決定時，您是否被通知？

(1) 是，幾乎每次都會被通知到
(2) 是，偶爾會被通知
(3) 不，沒有被通知過

2.6. 請問您是否知道其他泰雅部落或是別的原住民部落是如何管理觀光旅遊所需的自然資源？

(1) 是　(2) 否

2.7. 如果您在上題(2.6)回答是，請問您是否認為您部落的管理系統比別的部落更好？

(1) 我們部落的管理方式比較好　(2) 別的部落的管理方式比較好　(3) 我們跟別的部落的管理方式一樣好

<table>
<thead>
<tr>
<th></th>
<th>強烈不滿意</th>
<th>不滿意</th>
<th>無不滿亦未滿意</th>
<th>滿意</th>
<th>強烈滿意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

2.8. 請問您是否滿意現在的 Suru raga（巨木森林）的管理系統

請圈選在何種程度下您滿意/不滿意以下觀點。

2.9. 請解釋您為何滿意/不滿意現在的 Suru raga（巨木森林）的管理系統：

__________________________________________________________________
__________________________________________________________________
第三部分：旅遊業獲益分配

3.1. 請問您是否同意下列觀點?
以程度 1~5 (1 為強烈不同意；5 為強烈同意) 來區分，請圈選出在何種程度下您同意/不同意以下觀點。

<table>
<thead>
<tr>
<th></th>
<th>強烈不同意</th>
<th>不同意</th>
<th>不同意亦不反對</th>
<th>同意</th>
<th>強烈同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 只有部分部落成員從旅遊業中獲益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. 所有司馬庫斯部落的成員都享受到旅遊業的獲益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. 沒有參與在旅遊業中的部落成員也從觀光客中獲得經濟收益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. 旅遊業的獲益分配有被恰當分配</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. 並不是所有人都需要參與在旅遊業中</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. 儘管有些遊客沒有在司馬庫斯部落留宿，但所有的觀光客都會為部落帶來獲益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

3.2. 對您來說，什麼是旅遊業對部落的益處?
請勾選您所同意的選項，可複選

- [ ] 提供就業機會
- [ ] 增加收入
- [ ] 保育自然棲地
- [ ] 部落環境變得更整潔
- [ ] 推廣泰雅文化
- [ ] 向外推廣部落文化或泰雅族文化
- [ ] 其他（請說明）： ________________________________

xliii
3.3. 對您來說，什麼是旅遊業對部落的壞處?
請勾選您所同意的選項，可複選

- 增加生活成本
- 廢棄物、垃圾變多
- 交通雍塞
- 觀光人數過多
- 隱私減少
- 噪音
- 損害環境
- 我被限制從我們部落傳統領域(qyunang)中採集自然資源
- 部落成員間的衝突增加
- 其他(請說明)：_____________________________________________________

3.4. 請在以下勾選在何種層次上旅遊業帶來獲益多寡的程度：

(a) 在我的個人層次上  □ 非常少  □ 一點  □ 很多
(b) 在我核心家庭的層次上  □ 非常少  □ 一點  □ 很多
(c) 在我家族的層次上  □ 非常少  □ 一點  □ 很多
(d) 在我們部落整體的層次上  □ 非常少  □ 一點  □ 很多
(e) 在泰雅族的層次上  □ 非常少  □ 一點  □ 很多
(f) 在整體臺灣的層次上  □ 非常少  □ 一點  □ 很多
3.5. 在男性與女性中，何者從旅遊業中獲益較多？
（1）女性 （2）男性 （3）兩性皆同等獲益

3.6. 在男性與女性中，何者從旅遊業中獲益較多？
（1）女性 （2）男性 （3）兩性皆同等獲益

3.7. 請勾選下列何者從司馬庫斯部落旅遊業中獲益較多（例如但不限於：經濟/社會/文化方面的獲益）？
(a) 全體司馬庫斯部落家戶 □ 較多獲益 □ 平等獲益 □ 較少獲益
(b) Trnunan □ 較多獲益 □ 平等獲益 □ 較少獲益
(c) 參與 Trnunan 的司馬庫斯部落族人 □ 較多獲益 □ 平等獲益 □ 較少獲益
(d) 司馬庫斯耆老 □ 較多獲益 □ 平等獲益 □ 較少獲益
(e) 教會 □ 較多獲益 □ 平等獲益 □ 較少獲益
(f) 外部服務提供者（例如但不限於：交通業者、導遊、旅行社等） □ 較多獲益 □ 平等獲益 □ 較少獲益

3.8. 請勾選下列何者從司馬庫斯部落旅遊業中承受較多的負擔？
(a) 全體司馬庫斯部落家戶 □ 較多獲益 □ 平等獲益 □ 較少獲益
(b) Trnunan □ 較多獲益 □ 平等獲益 □ 較少獲益
(c) 參與 Trnunan 的司馬庫斯部落族人 □ 較多獲益 □ 平等獲益 □ 較少獲益
(d) 司馬庫斯耆老 □ 較多獲益 □ 平等獲益 □ 較少獲益
(e) 教會 □ 較多獲益 □ 平等獲益 □ 較少獲益
(f) 外部服務提供者（例如但不限於：交通業者、導遊、旅行社等） □ 較多獲益 □ 平等獲益 □ 較少獲益
### 3.9. 請問您是否滿意目前旅遊獲益的分配現況

以程度 1~5（1 為強烈不滿意；5 為強烈滿意）來區分，請圈選出何種程度下您滿意/不滿意。

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>強烈不滿意</td>
<td>不滿意</td>
<td>滿意</td>
<td>無不滿亦未滿意</td>
<td>強烈滿意</td>
</tr>
</tbody>
</table>

### 3.10. 如果有一件事，能讓現在的旅遊獲益分配變得更好，請問您覺得那會是什麼？

______________________________________________________________________________
______________________________________________________________________________
第四部份：您在社區取向旅遊的參與 – 答覆問題四與六

4.1. 請問以下活動約占您一天日常生活中的多少比例？
請在相對應的比例下劃 X (例如：務農 60%，從事旅遊業 20%，家務 20%)

<table>
<thead>
<tr>
<th>活動</th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>務農</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>從事旅遊業</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>家務</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>其他(請說明)：</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>____________</td>
<td></td>
<td>-----</td>
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<td>-----</td>
<td>-----</td>
<td>------</td>
</tr>
</tbody>
</table>

4.2. 請問您是否參與在司馬庫斯的社區取向旅遊業中？
請選擇適用的選項，可複選

- □ 不，我並未參與在其中
- □ 是，我有參與在以下面向中：
  - □ 住宿/民宿
  - □ 提供餐飲/餐廳
  - □ 導覽服務
  - □ 部落巡禮
  - □ 文化活動
  - □ 經營商店
  - □ 提供接駁交通服務
  - □ 其他 (請說明) __________

4.3. 如果您有參與司馬庫斯社區取向旅遊業的話，請問您參與中多久了？請擇一
(a) 不到一年  (b) 一至三年  (c) 四至六年  (d) 七至九年  (e) 超過九年

4.4. 如果您有參與在旅遊業中的話，請問您覺得您的工作負擔跟部落中其他人相比？

(1) 我比其他人工作來的多  (2) 我跟其他人工作一樣多  (3) 我比其他人工作來的少

4.5. 請問您是否滿意在您的投入後、現在您所從旅遊業中所獲得的經濟獲益？
以程度 1~5(1 為強烈不滿意；5 為強烈滿意) 來區分，
請圈選出在何種程度下您滿意/不滿意。

<table>
<thead>
<tr>
<th>強烈不滿意</th>
<th>不滿意</th>
<th>負面</th>
<th>滿意</th>
<th>強烈滿意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6. 請問您是否滿意在您的投入後、現在您所從旅遊業中所獲得的社會獲益？
以程度 1~5(1 為強烈不滿意；5 為強烈滿意) 來區分，
請圈選出在何種程度下您滿意/不滿意。

<table>
<thead>
<tr>
<th>強烈不滿意</th>
<th>不滿意</th>
<th>負面</th>
<th>滿意</th>
<th>強烈滿意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.7. 請問您是否滿意在您的投入後、現在您所從旅遊業中所獲得的文化獲益？
以程度 1~5(1 為強烈不滿意；5 為強烈滿意) 來區分，
請圈選出在何種程度下您滿意/不滿意。

<table>
<thead>
<tr>
<th>強烈不滿意</th>
<th>不滿意</th>
<th>負面</th>
<th>滿意</th>
<th>強烈滿意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.8. 請問您是否是以下組織的成員?

請選擇適用的選項，可複選

- Trnunan
- Trnunan 的生態環境部

4.9. 如果您目前尚未參與在司馬庫斯的旅遊業中，請問您未來會想要參加嗎?

  (1) 是   (2) 否

4.10. 請問您有任何核心家庭的成員在旅遊業中工作嗎?

  (1) 有   (2) 沒有

4.11. 請問您是否有參與過任何討論旅遊業發展狀況的會議嗎?

- 有，常常參加
- 有，偶爾參加
- 沒有，從未參加

4.12. 當有關部落旅遊業發展的重要決策決定時，您是否被通知?

- 有，常常被通知
- 有，偶爾被通知
- 沒有，從未被通知過
第五部分：填寫者個人資料

6.1. 請圈選您的年齡落在以下何組中：

a. 18-27  
b. 28-37  
c. 38-47  
d. 48-57  
e. 58-67  
f. 68-77  
g. 78 以上

6.2. 請問您的性別為：

（1）男性  （2）女性

6.3. 請問您在國民教育中的最高學歷為：

a. 未曾受過國民教育  
b. 國小  
c. 國中  
d. 高中  
e. 大學  
f. 研究所/碩博士

6.4. 請問您是否受過泰雅族傳統文化教育？

a. 沒有  
b. 有  
c. 我正在教授泰雅族傳統知識給下一代

xlix
6.5. 請問您的平均月收入落在以下哪個區間？(請圈選)

a. 低於新臺幣 9,999
b. 新臺幣 10,000-29,999
c. 新臺幣 30,000-49,999
d. 新臺幣 50,000-69,999
e. 新臺幣 70,000-89,999
f. 高於新臺幣 90,000

6.6. 請問您的平均旅遊業月收入落在以下哪個區間？(請圈選)

a. 低於新臺幣 9,999
b. 新臺幣 10,000-29,999
c. 新臺幣 30,000-49,999
d. 新臺幣 50,000-69,999
e. 新臺幣 70,000-89,999
f. 高於新臺幣 90,000

6.7. 請問您的信仰是？(請選擇適用的選項，可複選)

□ 天主教   □ 長老教會   □ 其他

請留下任何您對本研究或問卷的意見與回饋：

____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

您已經完成此份問卷，非常感謝您的參與！Mhuway su’！
### Appendix II: Codebook

#### II.1. Codebook – Cinsbu-Xinguang

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question</th>
<th>Variable Type</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>The unique ID code for each respondent</td>
<td>Numeric</td>
<td>##</td>
</tr>
<tr>
<td>cbt_sttmnt_1</td>
<td>Visitors are welcome to visit the community</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_sttmnt_2</td>
<td>Tourists come to Atayal communities only because of the Cypress Trees</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_sttmnt_3</td>
<td>The Cypress Trees are one of the main attractions to tourists</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_sttmnt_4</td>
<td>Tourists come to the Atayal Community only because of the Atayal culture</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_sttmnt_5</td>
<td>The Atayal culture is one of the main attractions to tourists</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_important_nature</td>
<td>Natural attractions are important for successful CBT</td>
<td>Dummy</td>
<td>1=Natural attractions are important</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
<td>Scale</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>cbt_important_culture</td>
<td>Cultural attractions are important for successful CBT</td>
<td>Dummy</td>
<td></td>
</tr>
<tr>
<td>cbt_important_cheap</td>
<td>Not too expensive is important for successful CBT</td>
<td>Dummy</td>
<td></td>
</tr>
<tr>
<td>cbt_important_accomm</td>
<td>Good accommodation is important for successful CBT</td>
<td>Dummy</td>
<td></td>
</tr>
<tr>
<td>cbt_important_food</td>
<td>Special food is important for successful CBT</td>
<td>Dummy</td>
<td></td>
</tr>
<tr>
<td>cbt_important_trans</td>
<td>Good transportation is important for successful CBT</td>
<td>Dummy</td>
<td></td>
</tr>
<tr>
<td>cbt_important_collab</td>
<td>Collaboration between the locals is important for successful CBT</td>
<td>Dummy</td>
<td></td>
</tr>
<tr>
<td>cpr_invlv</td>
<td>Involvement in tourism CPR management</td>
<td>Dummy</td>
<td></td>
</tr>
<tr>
<td>cpr_invlv_meetings</td>
<td>Involvement in meetings where tourism development was discussed</td>
<td>Nominal</td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
<td>Scale Type</td>
<td>Measurement</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>cpr_invlv_informed</td>
<td>Informed when major decisions concerning tourism development took place</td>
<td>Nominal</td>
<td>0=No, never; 1=Yes, once or twice; 2= Yes, many times</td>
</tr>
<tr>
<td>cbt_cpr_1</td>
<td>Our community knows how to take care of our <em>qyunang</em> (traditional community territory)</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_cpr_2</td>
<td>Atayal people know more than Hoklo people how to manage and protect natural resources</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_cpr_4</td>
<td>Too many tourists come to the cypress trail</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_cpr_5</td>
<td>There should be a fee for tourists to enter the forest</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_cpr_6</td>
<td>The number of tourists should be restricted</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_cpr_median</td>
<td>Median of (cbt_cpr_1, cbt_cpr_2, cbt_cpr_4, cbt_cpr_5, cbt_cpr_6): Perception of Community Based Tourism and Common Pool Resource Management</td>
<td>Likert Scale</td>
<td>5=Tend to Strongly agree; 4= Tend to Agree; 3= Tend to Neither agree nor disagree; 2= Tend to Disagree; 1= Tend to Strongly disagree</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
<td>Likert Scale</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>cbt_cpr_mean</td>
<td>Mean of (cbt_cpr_1, cbt_cpr_2, cbt_cpr_4, cbt_cpr_5, cbt_cpr_6): Perception of Community Based Tourism and Common Pool Resource Management</td>
<td>5=Tend to Strongly agree; 4=Tend to Agree; 3=Tend to Neither agree nor disagree; 2=Tend to Disagree; 1=Tend to Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>cpr_satisfy (2.8)</td>
<td>Are you satisfied with the current management system of the cypress trail?</td>
<td>5=Strongly satisfied; 4=Satisfied; 3=Neither satisfied nor dissatisfied; 2=Dissatisfied; 1=Strongly dissatisfied</td>
<td></td>
</tr>
<tr>
<td>benefit_dist_1 (FLIPPED VALUE) (3.1.1)</td>
<td>Only some community members benefit from tourism</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>benefit_dist_2 (3.1.2)</td>
<td>All community members enjoy from the benefits of tourism in Cinsbu-Xinguang</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>benefit_dist_3 (3.1.3)</td>
<td>Community members that do not take part in the tourism industry also get financial benefits from tourists</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>benefit_dist_4 (3.1.4)</td>
<td>Income from tourism does not stay only with B&amp;B and restaurants owners, but also goes to farmers</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>benefit_dist_5 (3.1.5)</td>
<td>Benefits from tourism are distributed as it should be</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>Benefit Measure</td>
<td>Description</td>
<td>Scale Type</td>
<td>Likert Scale</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>benefit_dist_median</td>
<td>Median of (benefit_dist_1, benefit_dist_2, benefit_dist_3, benefit_dist_4, benefit_dist_5): Perceived fair distribution of benefits from tourism</td>
<td>Nominal</td>
<td>5=Tend to Strongly agree; 4=Tend to Agree; 3=Tend to Neither agree nor disagree; 2=Tend to Disagree; 1=Tend to Strongly disagree</td>
</tr>
<tr>
<td>benefit_you</td>
<td>How much benefit does tourism bring you, personally?</td>
<td>Nominal</td>
<td>0=Very little; 1=Some; 2=A lot</td>
</tr>
<tr>
<td>benefit_family</td>
<td>How much benefit does tourism bring your immediate family?</td>
<td>Nominal</td>
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</tr>
<tr>
<td>benefit_lrgfamily</td>
<td>How much benefit does tourism bring your larger family?</td>
<td>Nominal</td>
<td>0=Very little; 1=Some; 2=A lot</td>
</tr>
<tr>
<td>benefit_community</td>
<td>How much benefit does tourism bring your whole community?</td>
<td>Nominal</td>
<td>0=Very little; 1=Some; 2=A lot</td>
</tr>
<tr>
<td>benefit_atayal</td>
<td>How much benefit does tourism bring Atayal people?</td>
<td>Nominal</td>
<td>0=Very little; 1=Some; 2=A lot</td>
</tr>
<tr>
<td>benefit_taiwan</td>
<td>How much benefit does tourism bring Taiwan as a whole?</td>
<td>Nominal</td>
<td>0=Very little; 1=Some; 2=A lot</td>
</tr>
<tr>
<td>benefit_dist_satisfy</td>
<td>Satisfaction with the current distribution of benefits from tourism</td>
<td>Likert Scale</td>
<td>5=Strongly satisfied; 4=Satisfied; 3=Neither satisfied nor dissatisfied; 2=Dissatisfied; 1=Strongly dissatisfied</td>
</tr>
<tr>
<td>economic_dist_satisfy</td>
<td>Satisfaction with the economic benefits personally receive from tourism in relation to effort</td>
<td>Likert Scale</td>
<td>5=Strongly satisfied; 4=Satisfied; 3=Neither satisfied nor dissatisfied; 2=Dissatisfied; 1=Strongly dissatisfied</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
<td>Scale</td>
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</tr>
<tr>
<td>social_dist_satisfy</td>
<td>Satisfaction with the social benefits personally receive from tourism in relation to effort</td>
<td>Likert Scale</td>
<td></td>
</tr>
<tr>
<td>cultural_dist_satisfy</td>
<td>Satisfaction with the cultural benefits personally receive from tourism in relation to effort</td>
<td>Likert Scale</td>
<td></td>
</tr>
<tr>
<td>invlv_role_farming</td>
<td>The role of farming work in daily life</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>invlv_role_tourism</td>
<td>The role of tourism work in daily life</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>invlv_role_house</td>
<td>The role of house work in daily life</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>invlv_role_other</td>
<td>The role of other work in daily life</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>invlv_CBT</td>
<td>Involvement in CBT in Cinsbu-Xinguang</td>
<td>Dummy</td>
<td></td>
</tr>
<tr>
<td>invlv_time</td>
<td>How many years involved in tourism</td>
<td>Ordinal</td>
<td></td>
</tr>
<tr>
<td>invlv_meetings</td>
<td>Involvement in meetings where tourism development was discussed</td>
<td>Nominal</td>
<td></td>
</tr>
</tbody>
</table>

2= Dissatisfied; 1=Strongly dissatisfied
5=Strongly satisfied; 4= Satisfied; 3=Neither satisfied nor dissatisfied; 2= Dissatisfied; 1=Strongly dissatisfied
0=No; 1=Yes
0=Less than 1 year; 1=From 1 to 3 years; 2=From 4 to 6 years; 3=From 7 to 9 years; 4=Above 9 years
0=No, never; 1=Yes, once or twice; 2= Yes, many times
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Scale</th>
</tr>
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<tr>
<td>invlv_informed</td>
<td>Informed when major decisions concerning tourism development took place</td>
<td>Nominal</td>
</tr>
<tr>
<td>(4.12)</td>
<td></td>
<td>0=No, never;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1=Yes, once or twice;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2= Yes, many times</td>
</tr>
<tr>
<td>dem_live</td>
<td>Living in which community</td>
<td>Dummy</td>
</tr>
<tr>
<td>(5.0)</td>
<td></td>
<td>0=Csinsbu</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1=Xinguang</td>
</tr>
<tr>
<td>dem_age</td>
<td>Age</td>
<td>Interval</td>
</tr>
<tr>
<td>(5.1)</td>
<td></td>
<td>0=age 18-27</td>
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<tr>
<td></td>
<td></td>
<td>1=age 28-37</td>
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<tr>
<td></td>
<td></td>
<td>2=age 38-47</td>
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<tr>
<td></td>
<td></td>
<td>3=age 48-57</td>
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<tr>
<td></td>
<td></td>
<td>4=age 58-67</td>
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<tr>
<td></td>
<td></td>
<td>5=age 68 and above</td>
</tr>
<tr>
<td>dem_male</td>
<td>Sex</td>
<td>Dummy</td>
</tr>
<tr>
<td>(5.2)</td>
<td></td>
<td>0= Female</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1= Male</td>
</tr>
<tr>
<td>dem_education</td>
<td>Highest Formal Education Achieved</td>
<td>Ordinal</td>
</tr>
<tr>
<td>(5.3)</td>
<td></td>
<td>0=No formal education;</td>
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<tr>
<td></td>
<td></td>
<td>1=Elementary school;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2=Middle school;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3=High school;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4=Undergraduate;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5=Graduate</td>
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<tr>
<td>dem_atayal_education</td>
<td>Education of traditional Atayal knowledge</td>
<td>Ordinal</td>
</tr>
<tr>
<td>(5.4)</td>
<td></td>
<td>0=None; 1=Yes;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2=Teaching traditional knowledge</td>
</tr>
<tr>
<td>dem_religion</td>
<td>Religious affiliation</td>
<td>Ordinal</td>
</tr>
<tr>
<td>(5.6)</td>
<td></td>
<td>0=Catholic Church;</td>
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<tr>
<td></td>
<td></td>
<td>1=Presbyterian Church;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2=Other</td>
</tr>
</tbody>
</table>
### II.2. Codebook – Smangus

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question</th>
<th>Variable Type</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>The unique ID code for each respondent</td>
<td>Numeric</td>
<td>##</td>
</tr>
<tr>
<td>cbt_sttmnt_1 (1.2.1)</td>
<td>Visitors are welcome to visit the community</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_sttmnt_2 (1.2.2)</td>
<td>Tourists come to Atayal communities only because of the Cypress Trees (<em>yaya qbarung</em>)</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_sttmnt_3 (1.2.3)</td>
<td>The Cypress Trees (<em>yaya qbarung</em>) are one of the main attractions to tourists</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_sttmnt_4 (1.2.4)</td>
<td>Tourists come to the Atayal Community only because of the Atayal culture</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_sttmnt_5 (1.2.5)</td>
<td>The Atayal culture is one of the main attractions to tourists</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_important_nature (1.3)</td>
<td>Natural attractions are important for successful CBT</td>
<td>Dummy</td>
<td>1=Natural attractions are important 0=Natural attractions are not important</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
<td>Type</td>
<td>Code</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>--------</td>
</tr>
<tr>
<td>cbt_important_culture</td>
<td>Cultural attractions are important for successful CBT</td>
<td>Dummy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0= Cultural attractions are not important</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>cbt_important_cheap</td>
<td>Not too expensive is important for successful CBT</td>
<td>Dummy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0= Not too expensive is not important</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>cbt_important_accomm</td>
<td>Good accommodation is important for successful CBT</td>
<td>Dummy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0= Good accommodation is not important</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>cbt_important_food</td>
<td>Special food is important for successful CBT</td>
<td>Dummy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0= Good food is not important</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>cbt_important_trans</td>
<td>Good transportation is important for successful CBT</td>
<td>Dummy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0= Good transportation is not important</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>cbt_important_collab</td>
<td>Collaboration between the locals is important for successful CBT</td>
<td>Dummy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0= Collaboration between the locals is not important</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>cpr_invlv</td>
<td>Involvement in tourism CPR management</td>
<td>Dummy</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1= Yes</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>cpr_invlv_meetings</td>
<td>Involvement in meetings where tourism development was discussed</td>
<td>Nominal</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1= Yes, once or twice;</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2= Yes, many times</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>cpr_invlv_informed</td>
<td>Informed when major decisions concerning tourism development took place</td>
<td>Nominal</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1= Yes, once or twice;</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2= Yes, many times</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>cbt_cpr_1 (2.1.1)</td>
<td>Our community knows how to take care of our <em>qyunang</em> (traditional community territory)</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>--------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>cbt_cpr_2 (2.1.2)</td>
<td>Atayal people know more than Hoklo people how to manage and protect natural resources</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_cpr_4 (2.1.4)</td>
<td>Too many tourists come to the cypress trail (<em>yaya qbarung</em>)</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_cpr_5 (2.1.5)</td>
<td>There should be a fee for tourists to enter the forest</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_cpr_6 (2.1.6)</td>
<td>The number of tourists should be restricted</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
</tr>
<tr>
<td>cbt_cpr_median</td>
<td>Median of (cbt_cpr_1, cbt_cpr_2, cbt_cpr_4, cbt_cpr_5, cbt_cpr_6): Perception of Community Based Tourism and Common Pool Resource Management</td>
<td>Likert Scale</td>
<td>5=Tend to Strongly agree; 4= Tend to Agree; 3= Tend to Neither agree nor disagree; 2= Tend to Disagree; 1= Tend to Strongly disagree</td>
</tr>
<tr>
<td>cbt_cpr_mean</td>
<td>Mean of (cbt_cpr_1, cbt_cpr_2, cbt_cpr_4, cbt_cpr_5, cbt_cpr_6): Perception of Community</td>
<td>Likert Scale</td>
<td>5=Tend to Strongly agree; 4= Tend to Agree; 3= Tend to Neither agree nor disagree; 2= Tend to Disagree; 1= Tend to Strongly disagree</td>
</tr>
<tr>
<td>Question</td>
<td>Likert Scale</td>
<td>Response</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Based Tourism and Common Pool Resource Management</td>
<td>Likert Scale</td>
<td>5=Strongly satisfied; 4= Satisfied; 3=Neither satisfied nor dissatisfied; 2= Dissatisfied; 1=Strongly dissatisfied</td>
<td></td>
</tr>
<tr>
<td>Are you satisfied with the current management system of the cypress trail (suru raga)?</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>Only some community members benefit from tourism</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>All community members enjoy from the benefits of tourism in Smangus</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>Community members that do not take part in the tourism industry also get financial benefits from tourists</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>Income from tourism does not stay only with B&amp;B and restaurants owners, but also goes to farmers</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>Benefits from tourism are distributed as it should be</td>
<td>Likert Scale</td>
<td>5=Strongly agree; 4= Agree; 3=Neither agree nor disagree; 2=Disagree; 1=Strongly disagree</td>
<td></td>
</tr>
<tr>
<td>Median of (benefit_dist_1, benefit_dist_2, benefit_dist_3, benefit_dist_4, benefit_dist_5):</td>
<td>Likert Scale</td>
<td>5=Tend to Strongly agree; 4=Tend to Agree; 3= Tend to Neither agree nor disagree;</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Description</td>
<td>Scale</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>benefit_you</td>
<td>How much benefit does tourism bring you, personally?</td>
<td>Nominal 0=Very little; 1=Some; 2=A lot</td>
<td></td>
</tr>
<tr>
<td>benefit_family</td>
<td>How much benefit does tourism bring your immediate family?</td>
<td>Nominal 0=Very little; 1=Some; 2=A lot</td>
<td></td>
</tr>
<tr>
<td>benefit_lrgfamily</td>
<td>How much benefit does tourism bring your larger family?</td>
<td>Nominal 0=Very little; 1=Some; 2=A lot</td>
<td></td>
</tr>
<tr>
<td>benefit_community</td>
<td>How much benefit does tourism bring your whole community?</td>
<td>Nominal 0=Very little; 1=Some; 2=A lot</td>
<td></td>
</tr>
<tr>
<td>benefit_atayal</td>
<td>How much benefit does tourism bring Atayal people?</td>
<td>Nominal 0=Very little; 1=Some; 2=A lot</td>
<td></td>
</tr>
<tr>
<td>benefit_taiwan</td>
<td>How much benefit does tourism bring Taiwan as a whole?</td>
<td>Nominal 0=Very little; 1=Some; 2=A lot</td>
<td></td>
</tr>
<tr>
<td>benefit_dist_satisfy</td>
<td>Satisfaction with the current distribution of benefits from tourism</td>
<td>Likert Scale 5=Strongly satisfied; 4=Satisfied; 3=Neither satisfied nor dissatisfied; 2=Dissatisfied; 1=Strongly dissatisfied</td>
<td></td>
</tr>
<tr>
<td>economic_dist_satisfy</td>
<td>Satisfaction with the economic benefits personally receive from tourism in relation to effort</td>
<td>Likert Scale 5=Strongly satisfied; 4=Satisfied; 3=Neither satisfied nor dissatisfied; 2=Dissatisfied; 1=Strongly dissatisfied</td>
<td></td>
</tr>
</tbody>
</table>
| social_dist_satisfy | Satisfaction with the social benefits personally receive | Likert Scale 5=Strongly satisfied; 4=Satisfied; 3=Neither satisfied nor dissatisfied; 2=
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Scale or Dummy Type</th>
<th>Notes</th>
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<tbody>
<tr>
<td>cultural_dist_satisfy</td>
<td>Satisfaction with the cultural benefits personally receive from tourism in relation to effort</td>
<td>Likert Scale</td>
<td>5=Strongly satisfied; 4= Satisfied; 3=Neither satisfied nor dissatisfied; 2=Dissatisfied; 1=Strongly dissatisfied</td>
</tr>
<tr>
<td>invlv_role_farming</td>
<td>The role of farming work in daily life</td>
<td>%</td>
<td>% of daily life</td>
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<td>The role of tourism work in daily life</td>
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<td>The role of house work in daily life</td>
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<td>invlv_CBT</td>
<td>Involvement in CBT in Smangus</td>
<td>Dummy</td>
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<td>invlv_time</td>
<td>How many years involved in tourism</td>
<td>Ordinal</td>
<td>0=Less than 1 year; 1=From 1 to 3 years; 2=From 4 to 6 years; 3=From 7 to 9 years; 4=Above 9 years</td>
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<td>invlv_meetings</td>
<td>Involvement in meetings where tourism development was discussed</td>
<td>Nominal</td>
<td>0=No, never; 1=Yes, once or twice; 2= Yes, many times</td>
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<td>invlv_informed</td>
<td>Informed when major decisions concerning tourism development took place</td>
<td>Nominal</td>
<td>0=No, never; 1=Yes, once or twice; 2= Yes, many times</td>
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<td>dem_live</td>
<td>Living in which community</td>
<td>Dummy</td>
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xiii
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Appendix III: Interviews

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<td>W.</td>
<td>Smangus</td>
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Appendix IV: Pictures from the Communities

IV.1. Cinsbu-Xinguang

Picture 1: Cinsbu - mountains, fields, and B&Bs

Picture 2: Cinsbu Cypress Trail, crossing a dry river
Picture 3: Cinsbu Cypress Trail: local materials used to construct the trail

Picture 4: Cinsbu Cypress Trail: Elder Ataw explains the educational system of learning the forest
Picture 5: Cinsbu Cypress Trail: marveling the cypress trees

Picture 6: Cinsbu Cypress Trail: removing a sign that was put by the Forest Bureau without the consent of the community
Picture 7: Tkyu: a room is dedicated to traditional weaving techniques.

Picture 8: Tkyu: Elder Tali and Yuri Tali explain about Atayal traditional weaving techniques.
Picture 9: Tkyu: Traditional tools and models of houses

Picture 10: Tkyu: Elder Ataw introduces the model of Cinsbu-Xinguang's traditional territory (ayunang)
Picture 11: Pnhwan: evening bonfire with a discussion

Picture 12: Pnhwan: evening bonfire with a discussion
Picture 15: Cinsbu Presbyterian Church

Picture 16: The New Testament in Mandarin place on an Atyal embroidery
Picture 17: Villagers of Cinsbu answer the questionnaire

Picture 18: Villagers of Cinsbu answer the questionnaire
IV.2. Smangus

Picture 19: Smangus: visitors take photos of the sunset

Picture 20: Smangus: sunset
Picture 21: Smangus: bamboo grove on the way to the giant cypress trees

Picture 22: Smangus: giant cypress (yaya aparung); Slibu waterfall (Tgliq Slibu)
Picture 23: Restroom facilities in the trail to the giant cypress grove

Picture 24: Smangus: the shop
Picture 25: Postcards and handicrafts sold at Smangus shop

Picture 26: Smangus: Restaurant for groups
Picture 27: Smangus: new lodging

Picture 28: Smangus cultural night: Cumu Masay (Tinnan Education & Culture Department) teaches basic words in Atayal language to visitors
Picture 29: Smangus cultural night: Chief Masay and Elder Yuraw introduce the Atayal migration teaches story (Innawahan na Tayal) in Atayal language and Mandarin.

Picture 30: Tnunan dining hall where all meet in the morning before the beginning of the workday; as well as for lunch.
Picture 31: Tnunan morning meeting to discuss tasks and issues

Picture 32: Smangus Church Choir
Picture 33: Non-Tun nan individual B&B (incorporates Chinese esthetic elements not used by Tun nan)

Picture 34: Non-Tun nan individual B&B, allows tents on premise