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The Role of Community-based Tourism in Sustainable Rural Development: Case Studies from Ecuador

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Abstract

Rural communities are social ecological systems, which face a significant burden on its economic, environmental and social characteristics due to the global environmental change. Community based tourism is proposed as a strategies for the adaptation to these changes. In this context, this study will investigate the factors influencing community-based tourism activities as an effective adaptation strategy of rural communities to global environmental change. For this purpose, a conceptual framework was developed using social ecological approach for investigating the effectiveness of community-based tourism as an adaptation strategy for rural communities. Furthermore, a comprehensive review of literature was undertaken to develop an in-depth understanding of the characteristics of community-based tourism, its contribution to the sustainable development of rural communities, criticisms on the community based tourism and social ecological approach to community based tourism. For this study, the rural communities of the Coast and Andes in Ecuador were chosen. The impacts of community based tourism on these rural communities will be investigated using the Q methods and will be analyzed using standard statistical software in order to extract the information about the factors influencing the effectiveness of community based tourism as an adaption strategy for rural communities against the global environmental change.

1. Introduction

Rural areas account for a significant portion of the livable area, with 47.9% of the world population (UN-DESA Population Division, 2012). The definition of rural area is contentious issue. There exist large differences among countries, for example, Australia considers an area with a population less than 1000 as rural area (Australian Bureau of Statistics, 2013), while India recognizes an area as rural if either the population is less than 5000 or more than 75% of male population are farmers or the population density is less than 400 people per square kilometers (Government of India, 2012). All in all, rural areas are generally characterized by low population density, small settlements, low built-up areas, agricultural-based economy and traditional social structure. Despite low agreement in definitions; the consensus is large in claiming that in the last decades rural area are undergoing notable transformations, comprising social, economic and ecological changes. The changing face of rural areas is a fact worldwide. This is particularly relevant if we take into account that these regions accommodate 70% of the poor people living in the developing countries (IFAD, 2010). It is estimated that about 75% of rural communities in the world are living under the poverty line (Ravallion et al., 2007).

These transformations should be understood within the general trend of global environmental change (GEC). GEC refers to the transformation of land surfaces, oceans, atmosphere, water sources and biodiversity caused by both direct and indirect human interventions (IPEC, 2003). GEC is affecting rural areas in an unprecedented way both in developed and developing countries (Beggs, 2014; O´Brien, 2011; Parmesan & Yohe, 2003).. GEC comprises both climate and non-climate transformations, such as climate change (IPCC, 2014), biodiversity loss (Millennium Ecosystem Assessment, 2005), soil degradation (reference), population changes (reference), biophysical changes as it is the case of deforestation Carr (2009), different degrees of industrialization and urbanization (Kipnis, 2013). The magnitude of the undergoing global environmental change is such that even some authors (Steffen et al., 2007, Berkhout, 2014) claim that we are at the doors of a new era, the so-called Anthropocene era. It is conceived as a new geological period, remarkably different from the previous Holocene period, and characterized by warmer climate, higher carbon dioxide

concentration in the atmosphere, lower quality of natural water sources, lack of biodiversity and lesser forest cover (Crutzen, 2006).

Rural communities suffer a disproportionate burden of the adverse impacts of global environmental change. Not only as a consequence of their larger dependence on ecosystem services for their livelihood, but also because of the lack of public services, location being far away from the economic centres, harsh geographical conditions and little capacity of influence on the politic centres (López-i-Gelats et al., 2009; 2011). Furthermore, government policies often tend to be ill-designed for rural conditions since local knowledge and expectations of rural communities tend to be if any poorly incorporated within the decision-making process. It is also essential to recognize the complexity and high location-specificity of rural communities and the GEC impacts on them

In this context, **adaptive co-managment** has been proposed as an appropriate strategy for rural communities to adapt to the current changing circumstances. Adaptive co-management provides a framework to tackle the complex and uncertain circumstances being faced by rural communities, due to climatic and non-climatic changes (Folke et al.2005, Olsson et al. 2010). In this study context, it generally explains the cycles of learning and adaptation of a community for the present and future changes in short, medium and long terms (Plummer et al., 2012). Adaptive co-management focuses on building collaborations in order to create positive and sustainable changes with the aim of enhancing the social-ecological resilience by creating an arrangement between state and local resource users to share the power and responsibility related to natural resources allocation and use (Folke, 2006; Stevenson, 2006). An example of strategy being implemented by some rural communities to adapt to the global environmental change based on the principles of the adaptive co-management is community-based tourism (CBT) (Bascomb & Taylor, 2008; McAlpin, 2008). CBT is a tourism operation that is managed by the local community (Manyara and Jones, 2007; Ruiz-Ballesteros, 2011). In CBT, the community, with its member's consensual participation, interacts with the tourists from an intercultural perspective, involving in various tourism related activities such as organizing tours, while protecting their natural sources, heritages and cultures through proper management (FEPTCE) . Despite that multiple benefits have been reported in particular cases (McAlpin, 2008; López-Guzmán et al., 2001), CBT is a complex endeavour since it requires the involvement of multiple actors with diverse needs and interests. Consequently, some CBT initiatives have also had negative consequences in the communitie, for example, Blackstock (2005).

Rural communities and their surrounding environments are conceived as social-ecological systems, being exposed to global environmental changes. In the process of adaptation to the upcoming transformations, CBT is one of the options being implemented by some rural communities to secure their livelihoods. Social ecological system approach to CBT investigation considers the transformability, which is the inherent potential of social ecological system to create a new equilibrium state if the current status is deemed to be unsustainable (Walker et al. 2006). CBT initiatives in rural communities can be explained through the concept of transformability of the system. Many rural communities are economically disadvantaged leading to migration to urban areas, which results in reduced social capital. Furthermore, global environmental changes cause a significant damage to the rural environment. Consequently, rural social ecological system becomes unstable resulting in the system to seek for a new equilibrium position. CBT is promoted as a driver that could assist the rural social ecological system to reach their new stable equilibrium point by achieving a sustainable development through improved the economic, environmental and social aspects. It is important to note that the characteristics of each social ecological system are different because of the complex and non-

linear horizontal, vertical and cross interactions between different components of the system. As a result, their transformability, adaptability and resilience related to CBT can be different and require specific detailed studies on each community. This can provide different perspectives and facilitate the identification of factors that contribute to the success or failure of a CBT initiative.

There is the need for applying a more holistic approach in tourism initiatives design and impact assessments, taking into consideration the effects on the host community sustainability and on the natural environment that forms an essential part of the tourist product, in natural resource-reliant settings. With this aim, it is useful to adopt a social-ecological view in evaluating human-nature interactions and ecosystems, owing to the multiple ways the social and the ecological are closely intertwined. In this context, the case study will be conducted in Ecuador. It is one of the 17 countries in the world with a very high biodiversity, for example, the highest biodiversity of land vertebrates per unit area, ranks third in the world in species of amphibians, fifth in birds and sixth in butterflies. Furthermore, since late 90's, community-based tourism has become a strategy of indigenous people and nationalities in Ecuador against the tourism industry to assume control of tourism in their territories. The involvement of local rural communities in developing tourism programs and management has attracted more visitors and increased the income, while providing the local communities to control the anticipated negative environmental, social and cultural consequences (Solis, 2007; Roux, 2013). Furthermore, community-based tourism as a development strategy is recent in Ecuador and acquired legal form in 2002 in the Tourism Law.

2. Research objectives

The main focus of this research is to examine the factors influencing community-based tourism as an effective adaptation strategy of rural communities to global environmental change.

The specific objectives are:

1. Describing the state of the art of community-based tourism worldwide by means of literature review.
2. Identification of the key factors determining the success of failure in community-based tourism schemes in Ecuador in the current changing times in rural areas.
3. Exploring local perceptions on the role of community-based tourism schemes on sustainable rural development in Ecuador in view of the current transformations rural areas are undergoing.

2.1 Research questions

1. What is the state of the art of knowledge on community based tourism and the gaps in the current knowledge
2. What are the key factors that determine the success or failure of CBT in the rural areas of Ecuador?
3. What are the perceptions of local rural communities in Ecuadaor on the role of CBT on sustainable rural development?

3. State of Art

3.1 Conceptual framework: a social-ecological perspective

Several studies have investigated and developed frameworks and concepts to illustrate strategies adapted by the rural communities to mitigate the harmful impacts of global environmental change (Nelson et al., 2010). Given that the context is characterized by high location-specificity, involvement of multiple stakeholders with diverse interests and needs, high interrelation between the social and bio-physical domains, changing social and ecological environments, the frameworks are primarily based on the theory of complex systems and have been developed with the assumption that there exists a strong interdependence between social and ecological spheres. In line with this, the conceptual framework that will be used in this study (Figure 2) is based on the assumption that rural communities can be pictured as social-ecological systems (Alessa, et al., 2009; Berkes et al., 2003; Levin et al., 2013; Ostrom, 2009).

Two key properties of SES are vulnerability and resilience. Adetailed comprehension of rural communities and their environments as social-ecological systems requires a thorough understanding of the vulnerability and resilience of the system to both internal and external stressors, as well as climate and non-climate drivers (Adger, 2006; Alwang et al., 2001; Cannon & Müller-Mahn, 2010; Ekins, 2000; Fraser et al., 2010; Villa & McLeod, 2002; UNEP, 2003). This will provide critical knowledge to prevent, mitigate, and in some cases, revert the potential harm to rural communities from the exposure to stressors and shocks by means of appropriate measures.

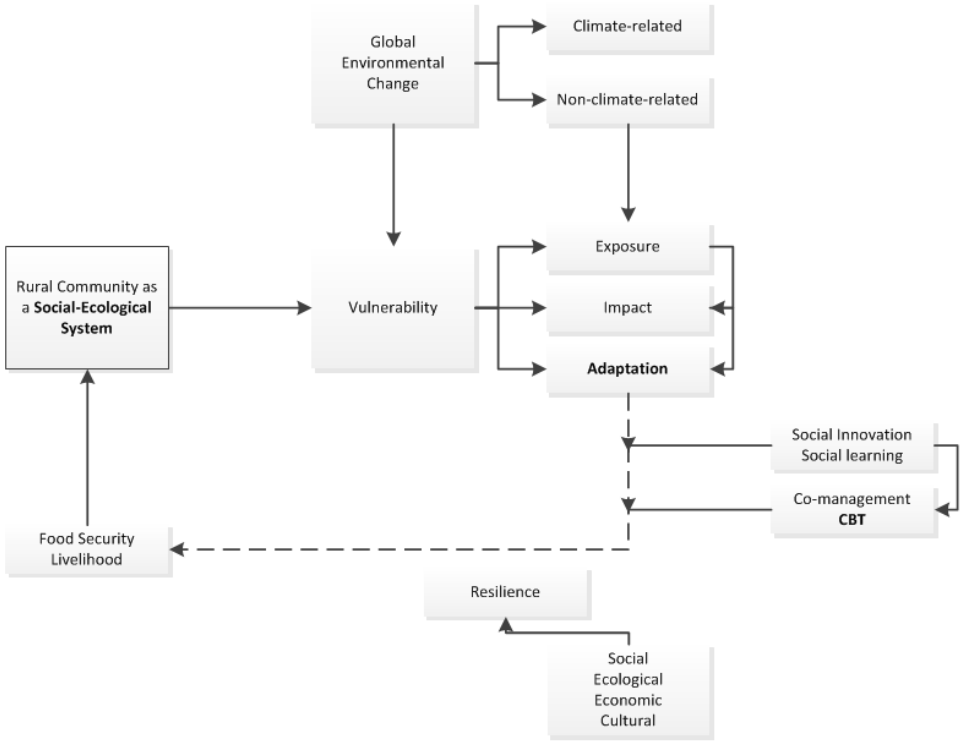

Figure 1. Conceptual Framework

Adger (2006) argues that the vulnerability of a social-ecological system depends on three factors: (a) exposure, that is, the environmental or socio-political stressors on the system; (b) sensitivity, that is, the degree to which the stressors entail detrimental or favourable impacts on the system; and (c) adaptation, that is, the ability of the system to evolve and adjust to the transformations produced by the stressors, as well as the expansion of its tolerance limit adaptive capacity. Similar views were proposed by other researchers Agrawal, (2008), Folke (2006), Gascón (2013), McCarthy et al. (2001). Reidsma et al. (2007) noted that the actual impacts on the system are the impacts that remain after allowing system for the adaptation, while exposure and sensitivity predict all the potential impacts before the adaptation. The adaptation is achieved through (1) learning and understanding the resource and dynamics of the change; (2) developing practices to interpret and respond to the system feedback, and (3) supporting flexible institutions and organizations that are involved in adaptive management processes (Olsson, 2003; Berkes, Colding & Folke, 2003). The time taken to this adaptation depends on various factors such as previous experience and the learning capacities of the system (Gooch & Warburton, 2009).

Resilience is more than a mere opposite of vulnerability. Resilience is associated with the capacity of the system to cope with external and internal shocks and stressors, and the capacity to self-renewal and regeneration after a disturbance (Adger, 2006; Clifton, 2010; Cote & Nightingale, 2012; Folke, 2006; Holladay, 2011; Levin et al., 2013). However, not always the recuperation of a system reiterates the previous equilibrium because social-ecological systems have multi-stable states and are capable of evolving and change (Olssom, 2003; Olsson et al., 2004; Ostrom, 2009). From a sustainability perspective, social-ecological systems have two main properties: vulnerability and resilience. According to Folke (2006), resilience is not limited to the capacity of a system to maintain the function, while absorbing shocks from stressors; it is rather the capacity of a system for renewal, re-organization and development. In a resilient social-ecological system, environmental stressors and disturbances can create new conditions to reconstruction, regeneration, adaptive innovation and new public policies. In contrast, in a vulnerable social-ecological system, disturbances can lead to a high risk of catastrophes and even collapse of the system highlighting the importance of the property of resilience in social-ecological systems. In this context, resilience can be defined as 'the capacity of social-ecological systems to cope with, adapt to, and shape change' (Folke, 2006, p. 254) indicating that it is important for a system to learn to manage by change instead of being reactive.

The adoption of a social-ecological systems perspective requires a shifting of emphasis from an anthropocentric view to a more socio-eco-centric view of the relationship between humans and ecosystems (Clifton, 2010). This perspective holds that a social-ecological system is a living system that is continuously evolving and developing. It is important to highlight that under environmental change factors, it is possible for the social-ecological system to deviate from the expected path and take undesirable paths (Olsson, 2003). However, this risk must bring into focus the relevance of the ability of state and non-state actors in a social-ecological system to cope with change without limiting future options (Berkes et al., 2003). According to Folke (2006) and Olsson (2003, p. 11-12), there are four critical factors in social-ecological systems resilience: (1) learning to live with change and uncertainty; (2) nurturing diversity for reorganization and renewal; (3) combining different types of knowledge for learning; and (4) creating opportunity for self-organization.

Any social-ecological systems show a certain degree of adaptive capacity to cope with the circumstances posed by the stresses such as environmental and social change (Adger, 2003; Moreno-Sánchez & Maldonado,

2013). Thus, social-ecological systems can also be seen as social learning systems, in which learning is a social process and its learning and innovation potential are determined by its configuration of strong core practices and active boundary processes (Wenger 2000). Hence, social learning systems respond to its challenges through their skills, experiences, knowledge, shared practices and mutual engagement. Social learning is thus understood as a process, through which stakeholders collaboratively learn the techniques and management practices to direct the rural development toward sustainability (Axelsson et al., 2013). Dyball et al. (2009) identified five elements in the learning process: (1) reflections about experiences, ideas and values; (2) system thinking to permit a more holistic understanding; (3) relationships of mutuality and integration of worldviews; (4) negotiation and collaboration to handle problems and conflicts; and (5) active community participation and engagement.

In this line of reasoning, collaborative social learning system also helps the people to unite together since people need to negotiate and collaborate with others because everyone does not always have the necessary competence to tackle every problem arises in a community project such community-based tourism (Wenger, 2000). Two fundamental components of social learning systems are self-consciousness, which refers to the ability of a community to identify their knowledge and skills, and self-organization, which is the creation of a certain order via the interaction between community members. These two characteristics are important, for example, if a the community becomes aware of its knowledge and ability, it can collectively intervene to strengthen the long-term sustainability of social-ecological systems. Similarly, the sustainability of lakes, forests, pastures, woodlands, coastal zones, rivers, and irrigation water systems depends on the ability of self-organization of a local community as well as the rules that govern the resource (Ostrom, 2009; Villa & McLeod, 2002). This concept is further extended by Choi and Sirakaya (2006) to socio-cultural preservation, in which they argued that the sustainability lies on community residents being able to control their lives because of the respect to their social identity, social capital, community culture, community assets, social cohesiveness and pride.

Adaptive co-management is a good example of social innovation for adaptation to the challenges of global environmental change. Co-management is usually defined as an arrangement between state and local resource users to share the power and responsibility related to natural resources allocation and use for a common good (Stevenson, 2006). Co-management initiatives have to be well-organized in order to be successful, and that a convergence of factors can facilitate or eventually hamper their developments, for example, local history, unequal distribution of power, cultural traditions, type of natural resource involved, political regimes, perceptions about rights, legal norms, sources of funds, entrepreneurial spirit, consensus-building ability, proneness to collective and constructive action, and disposition to get agreements on common grounds and rules (Akhtar, 2013; Natcher, Davis & Hickey, 2005; Watson, 2013; Welch-Devine, 2012).

Community-based tourism (CBT) is one of the options of response via co-management of common-pool resources. In CBT, the community reaches a new equilibrium level via co-management of resources and collaborative learning in order to stabilize the social ecological system, the equilibrium of which has been disturbed by that has been disturbed by the global environmental changes. The active capacity of community residents to participate in tourism activities is the cornerstone of community-based tourism (Adger 2003; Aref et al., 2010; Okasaki, 2008). Tourism development initiatives in local communities require the involvement of the residents, local organizations, small businesses and their leaders to engage in a social-ecological system capable of receiving tourists without damaging the environment (Berkes et al., 2003). One of the central concepts in community-based tourism is the fact that in the absence of community participation,

the development of tourism activities is hindered and, above all, cannot improve the livelihoods of the residents. Since community development encourages the active participation and collective responses to local problems (Blackstock, 2005), community-based tourism should be the preferred way to create the best conditions for sustainable tourism (Padin, 2012; Salazar, 2012). As defined by the United Nations World Tourism Organization (UNWTO), sustainable tourism is tourism that enables the management of all resources such that tourism related economic, social, and aesthetic needs can be filled, while cultural integrity, essential ecological processes, biological diversity, and life support systems are uncompromised (United Nations World Tourism Organization [UNWTO], 2002). Table 1 provides an overview of different types of tourism activities, namely ecotourism and conventional, and their advantages and disadvantages, along with how they differ from a sustainable CBT (Barrera & Munoz, 2003).

Table 1. Advantages and disadvantages of different types of tourism activities

Element	CBT	Ecotourism	Conventional tourism
Definition	Bottom-up initiative and management of communal resources	Tourism activities that attracts tourists with environmental interests	Tourism activities that focuses on profits alone
Socio-Economic benefits	• Diverse economic activity and income sources • Infrastructure development • Local product and craft development • Reduced migration	• Diverse economic activity and income sources • Infrastructure development • Local product and craft development • Reduced migration	• Diverse economic activity and income sources • Infrastructure development • Local product and craft development • Reduced migration
Cultural benefits	• Revitalization of local culture • Local identity consolidation • Exchange of cultures	• Cultural benefits are not a primary focus of ecotourism	• Cultural benefits are not a primary focus • local cultures are prioritized only if it has some economic benefits
Environmental benefits	• Protection of natural sources • Increased environmental awareness	• Protection of natural sources • Increased environmental awareness	• Environmental benefits are not a primary focus
Socio-economic costs	• Seasonality • Price inflation • Community conflicts	• Local economic benefits are not priority • Seasonality • Price inflation • Community conflicts	• Local economic benefits are not priority • Seasonality • Price inflation • Community conflicts
Cultural costs	• Social imbalance • Identity theft	• Threat to values and traditions • Changes in community rituals to accommodate tourists' interests	• Social imbalance • Identity theft • Threat to values and traditions • Changes in community rituals to accommodate tourists' interests
Environmental costs	• Environmental pollution • Waste • Alteration of local habitats	• Resource use	• Environmental pollution • Waste • Alteration of local habitats • Resource use • Biodiversity loss

3.2 Community-based tourism

Tourism is a major economic activity in the world accounting for almost 12% of the world's gross domestic product (GDP) through tax revenues and the sales of goods and services (Choi & Sirakaya, 2006). In addition, tourism generates direct and indirect employment opportunities assisting the countries, especially the developing countries, to tackle the problems associated with the unemployment (Liu et al., 2014). Therefore, tourism is considered as one of the important industries that drive the economic development of a country. However, several studies have pointed out that mass tourism activities have significant negative impacts on the communities that live in the touring destination, even though tourism brings positive changes such as improved quality of life and services to the communities (López-Guzmán and Castillo-Canalejo, 2011). These negative consequences are attributed to the lack of understanding of private tour operators, policy makers and tour planners about the environment, culture, economic and social attitudes of the destination communities (Simpson, 2008; Liu et al., 2014). As a result, the tourism activities often create problems such as damage to the environment, cultural conflicts and community protests.

Consequently, the tourism industry has been experimenting new ways to undertake the tourism activities. In this context, Murphy (1985) proposed the concept of community based tourism (CBT), which advocates the involvement of the community living in the tour destinations to take the responsibility, or at least to actively involve, in planning and maintaining the tourism activities in their regions (Hall, 1996). The rationale is that the destination community has a detailed knowledge of the environmental, cultural and social aspects of the region, which will facilitate the planning of tourism activities in a sustainable and effective manner. Because of the economic benefits of tourism activities, CBT has also been promoted as a mean of developing the communities, especially those living in rural areas, where the facilities and services are generally limited and inadequate. Furthermore, the development of CBT can generate income and alleviate the poverty in the community leading to improved family income and quality of life.

However, several other studies criticize the one sided approach of looking at CBT as a simplistic tourism activity, the benefits of which can be used for the development of the community. They argue that such superficial view undermines various underlying problems and issues associated with the complexity of a community. Furthermore, the management of tourism itself is a complex process that needs to be investigated in detail. In this context, this Chapter critically reviews various aspects of community based tourism activities such as characteristics of CBT, contribution of CBT to the sustainable development of communities, and negative consequences of CBT. In addition, this Section also discusses the approach of social ecological Systems to study the community based tourism.

CBT refers to the tourism activities that are initiated, owned, managed and controlled by the communities in the tour destinations (Simpsons, 2008). In CBT, community sets the standards and regulations and heavily involves in designing and planning the tourism activities. Lopez-Guzman et al., (2011) stated that it is critical for the community to be involved in the planning and management of tourism in their region because tourism significantly changes the established social and cultural norms and economic and environmental structure exist in the community. Consequently, the society has to adapt to the changes and face any adverse consequences that may result. Therefore, the involvement of community members can help to negotiate the proposed changes to mitigate any potential impacts on community and thereby can assist in preparing the community for adaptation. In addition to the community involvement is being a major characteristic of CBT projects, the primary aim of CBT is to improve the social and economic development of the society, rather than solely focusing on the profits. As discussed before, the hosting communities have to manage with the significant changes to their life style and environment. Hence, it is important that the community receives the full benefits of CBT initiatives. Furthermore, CBT initiative should aim to protect the natural sources in the region instead of exploiting and depleting them. In summary, the primary aim of CBT is to empower, socially and economically develop the hosting communities by means of income generation, community participation, power redistribution and social capital creation (Hiwasaki, 2006; Okazaki, 2008). Consequently, CBT initiatives are expected to direct the community development in a sustainable manner.

CBT has several economic, environmental and social advantages that can facilitate the sustainable development of a community (Manyara and Jones, 2007). Sustainable CBT that focuses on improving the quality of residents' life by providing direct and indirect economic benefits, conserving the local environment and natural sources can have a chain effect since it will attract more responsible tourists, who specifically visit the destinations due to these characteristics, and will provide a quality experience to the visitors (Bramwell & Lane 1993; Stabler, 1997). Such improvements have profound impacts on rural communities, who are generally marginalized in terms of facilities and services such as hospitals and roads and have limited income generating activities, compared to their urban counter parts. Economic advantages include direct and indirect employment at various capacities such as constructing and maintaining the tourism infrastructure and tour guides, improving their affordability to goods and services that have not been in their reach previously (Manyara and Jones, 2007). In addition, the community has new markets for their products such as arts and crafts and can establish businesses such as restaurants. Furthermore, their economic development and quality of life are further facilitated by the government initiatives to improve the infrastructure such as roads, electricity and water supply (Ahmad, 2001). CBT also improves the economic resilience of the community since their economic activities are diversified. For example, the fundamentally agrarian community of Agua Blanca in Ecuador faced economic hardships as a consequence of several droughts and El Nino Southern Oscillation (*ENSO*) phenomenon. The introduction of CBT significantly reduced their sole economic dependence on agriculture, as shown in figure 3. Furthermore, in Agua Blanca, the economic activities of locals involved with tourism have been more diverse compared to the ones, who do not involve, by a ratio of 6.8 to 4.6 different activities per year (Ruiz-Ballesteros, 2011).This has improved their economic resilience compared to the sole dependency on agriculture as it diversified the economic activities.

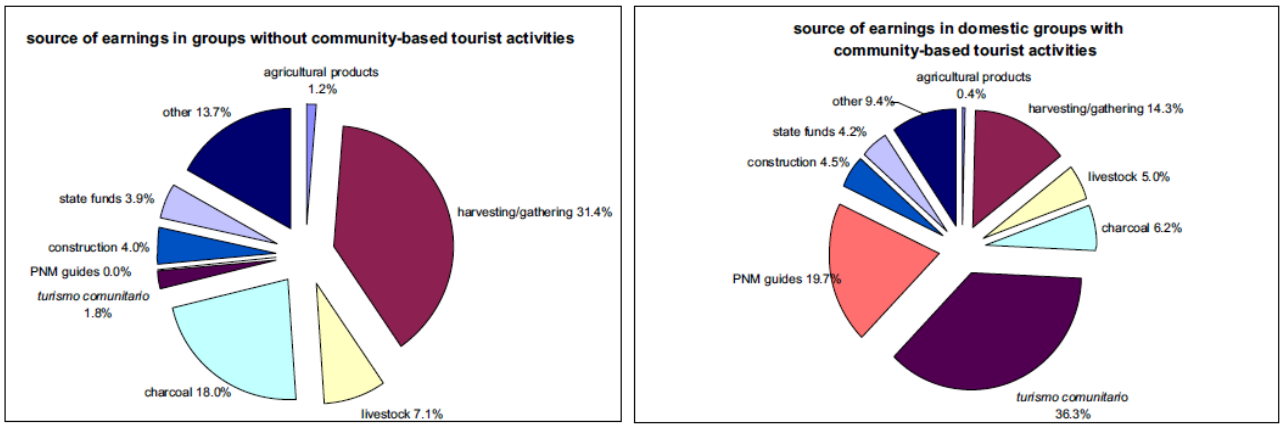

Figure 2. Economic activities in the community of Agua Blanca in Ecuador (Adapted from Ruiz-Ballesteros, 2011)

Furthermore, CBT facilitates the protection of environment, biodiversity and natural resources since the community sees them as critical to attract the tourists. This in turn creates a greater awareness among the community members leading to appreciation to the natural environment and protection of fauna and flora including the endangered species (Ahmad, 2001). For example, Ruiz-Ballesteros (2011) noted that the activities that damage the environment such as cutting trees for charcoal manufacturing have significantly reduced due to the introduction of CBT since the latter complements any economic loss caused by abandoning the former. This has reduced the pressure on the environment and natural resources leading to improved ecosystem health and recovery in the region.

CBT requires the members of the community to collaborate and work together towards achieving a common goal, i.e. sustainable tourism activities that would bring economic prosperity, while protecting the environment and culture. Such communal activities can enhance the social capital immensely through the development of community network (Dasgupta, 1999). Furthermore, involvement in safeguarding the local environment and natural resources compounded with the improvement of local economy provide the members of the community with the sense of duty and pride and enhance community value, emotional commitment, positive attitudes and educational practices (Liu et al., 2014). In addition, local job creation prevents the migration of local people to urban areas for employment as noted by Ruiz-Ballesteros (2011). Not only does it ease the burden on urban areas for water and sanitation, but it also greatly increases the social capital and family bonding, which are vital for a healthy community. Furthermore, working as a team in CBT management facilitates the understanding between the community members creating mutual trust and bonding. In addition, it facilitates a consensus building instance to foster convergence, managing eventual conflicts and promote collective action (Frey & Berkes, 2014). Another important social benefit of CBT is the revival of local culture and knowledge that are generally ignored in modern times. The locals involving in tourism activities have the responsibility of instructing the tourists about their local culture and customs. Consequently, tourism activities act as an exercise for the community to revive their memory (Ruiz-Ballesteros, 2011). CBT also instills the self-organization skills in the community, which is a key characteristic of a resilient community during a shock such as disaster. For example, the Agua Blanca community organizes the tourism activities by providing clear rules and regulations and manages their

financial transactions independently indicating that CBT can facilitate the self-organization skills in the community members (Ruiz Ballesteros, 2009).

Even though CBT is considered to be a better and sustainable alternative approach to mass tourism activities, it has been constantly criticized. CBT initiatives have capital costs in terms of establishing the infrastructure such as bedding and furbishing rooms. The local community, especially in rural areas, may not have adequate financial resources to undertake such activities. Consequently, they have to depend on donors and loans, which may put additional stress on their lives, in particular if the tourism activities have not flourished as predicted (Goodwin & Santilli, 2009). Another major impact of CBT is the conflicts between members of the society over financial and power issues (Schellhorn, 2010; Tucker, 2010). CBT initiatives often treat the community as a homogenous block of people, which is not true in reality. In addition, there is a potential for CBT being monopolized by a certain group as in the case of Amantani, where only a few tourists arrived in contrast to the prediction (Gascon, 2013). Consequently, a group of boat operators, who transport the tourists to the island, controlled the tourism activities leading to unequal distribution of the economic benefits in the community.

In general, CBT is a new experience to most of the rural communities. Hence, their knowledge of tourism related activities such as creating markets and maintaining the customer satisfaction of services is poor. This leads to limited contribution and involvement of the community in the design and management of tourism activities in their region. Since strong local community involvement is important to the success of CBT initiatives (Brass, 1996; WTO, 2003), it is argued whether CBT can ever be successful in rural communities, who have very limited knowledge of tourism management activities. In addition, there is a legitimate concern as to how the introduction of a non-traditional tourism sector can affect the local community in short and long terms (Sogge, 2002) in the context of the existence of well-established community management mechanisms, power distribution systems and cultural traditions in the community. It is reasonable to think that adaptation to such a drastically different sector would take a long time even with proper educational and training programs and the damages to the landscape of the community may be irreversible by the time that the community is educated.

The introduction of CBT and the involvement of the local community in the design of tourism activities can lead to conflicts with local government and private sectors (Nyaupane et al., 2006). Furthermore, there is a significant change in the working time, which may lead to the extinction of traditional employment and economic activities such as agriculture in the region (Stronza & Gordillo, 2008). In rural communities, women play an important role in housekeeping and hosting tourists in their houses can increase their workload and reduce their free time. Furthermore, local communities tend to imitate the tourists resulting in loss of local identity, customs and traditions (MacLeod, 2004).

4. Methodology

4.1 Q methodology

Q methodology was created by a William Stephenson, a doctor in physics and psychology, in 1935. Q methodology provides a foundation for the systematic study of subjectivity, a person's viewpoints, opinions, beliefs, preferences, attitudes, and the like in relation to different themes or subject matters in various disciplines, including the social sciences (Shinebourne, 2009). The method facilitates the identification of similarities, the construction of broad categories of the phenomenon being investigated and the exploration of patterns and relationships within and between these categories. In Q methodology participants are asked to sort a set of statements representing a broad diversity of opinions and perspectives on the phenomenon under investigation. Items for the Q set can be gathered from a variety of sources; for example, direct quotes and themes from interviews with participants and statements originating from academic literature and popular media in addition to interviews. A complete set of scale items can be used to create a Q set. A set of between 40 and 80 statements is considered satisfactory. Between 40 and 60 participants are recommended, but effective studies with far fewer participants have been carried out. Pilot studies require a small number, perhaps selected strategically to include participants who can provide a wide range of viewpoints, helpful comments, and additional statements from a variety of perspectives. In preparation for the sorting task, each item is numbered and written on a separate card (Müller & Kals, 2004; Stergiou & Airey, 2011; Watts & Stenner, 2005).

The participants have to sort the cards with the statements into, for example, three piles of cards, representing: 1) I agree, 2) I disagree, and 3) I neither agree nor disagree (neutral). In this way, the method allows to gather information about the subjective opinion of each person in relation to the set of statements under consideration. Today, a general statistical package such as SPSS or a dedicated Q software package is often used to process the data and to give statistical treatment to the responses (Shinebourne, 2009; Simons, 2013). Q uses factor analysis to identify groups of participants who make sense of pools of items in comparable ways. Thereby, it combines the qualitative and quantitative aspects of a research with a focus on subjectivity. A defining principle of Q is its assumption that subjective viewpoints are communicable and amenable to systematic analysis. The categories or themes that emerge from the data are arrived at statistically and are therefore not a result of researcher identification or analysis. Q methodology enables to know aspects of a subjective phenomenon to emerge from the data in a manner that reflects the perspective intrinsic to the individuals under study.

4.2 Case study

For this study, two rural communities in Ecuador have been chosen, in the regions of the Coast and Andes. On the Coast, Playa de Oro is a small Afro-Ecuadorian community on the banks of the Santiago River. This place is located in Esmeraldas, which is a province of Ecuador with older forest remnants and higher average annual deforestation (1990-2000 17,282 ha / year) (2000-2008 12,485 ha / year). The community of Playa de

Oro has deeds on 10,000 hectares, of which at least 4,400 acres are protected as part of a community reserve. This area is one of the best examples of conservation established by an ethnic community with the support of several NGOs and the Ecuadorian government. Although the community of Playa de Oro has a great conservationist vocation and they are determined to protect their land and their forests, the community still faces serious threats that could affect the conservation status of the reservation. In the Andes, Zuleta community is located in the south eastern part of the province of Imbabura, in the Parish of Angochagua. The Zuleta was founded in 1943, possibly the first inhabitants of this area were the Caranquis, who inhabited the area from AD 800 to about 1470 AD, when the Incas arrived. Zuleta has around 1037 inhabitants distributed in 329 families. It has an area of 4770 hectares. This territory was declared as "Forest and Vegetation Protection" in 1995. Zuleta is a community that has preserved its culture and traditions. The Zuleta seeks environmental conservation and rescue their ancestral roots to improve the socio economic status of families in the commune.

Table 2. Characteristics of communities

Community	Playa de Oro	Zuleta
Location	Province: Esmeraldas Canton: Eloy Alfaro Parish: Luis Vargas Torres Bioregion: coast	Province: Imbabura Canton: Ibarra Parish: Angochagua Bioregion: Andes
Ethnic group	Afroecuatoriano	Kichwa de la Sierra/Karanki
Start date of tourist activities	1993	
Tourist attractions	Forest. It is located in the Ecological Reserve Cotacachi-Cayapas.	It has an area of 4770 hectares. In 1995 they were declared as "Protective Forest and Vegetation"
Complementary activities	Music and dance (marimba and arrullos), experiential tourism, rivers, gastronomy, waterfalls, religious holidays.	Crafts (Embroidery, leather, wood) adventure tourism, walks,family life, gastronomy, trekking, horseback riding, bird watching, excursions, traditional games.
Inhabitants	62 families 400 inhabitantes	329 families 1037 inhhabitantes
Community organization	Organized. Participate whole community.	Organized. Participate whole community
Benefit sharing	Whole community	Whole community
Relations between actors (Supports and synergies)	Ministry of Environment Ecuador Altropico	Ministry of Environment Ecuador Provincial Government of Imbabura Red de Turismo Comunitario de Imbabura
Products or Services	Community has services in accommodation, meals, tours and entertainment. Lodging: 6 cabins with capacity for 18 people Food and beverage: Dining room for 30 people. Entertainment: Visit the Reserve Cotacachi Cayapas, waterfalls, Tigrillos Reserve, trails, marimba group.	Community has services in lodging, food, tours, visits to nearby communities and entertainment. Lodging: Homes community members, with capacity for 3, 4, 5 people Food and beverage: Hostelry of the community house (groups over 10 people). Entertainment: Cultural programs, traditional games, family life, traditional dance.
Total Income per year	Not defined	Not defined

5. Organization of the thesis

The structure of the thesis is organized in 3 parts, as shown in figure 1. In Chapter 3, by means of literature review, an overview of the state of the art on community-based tourism worldwide will be provided, as a particular example of co-management. Much of work in this section aims to provide a fundamental understanding to delimit the research scope of this thesis. In Chapter 4, the implications of the adoption of community-based tourism by rural communities will be examined by means of conducting semi-structured interviews to local stakeholders. This chapter will offer empirical inputs and theoretical reflections on the implications of the involvement of Ecuadorian local households in community-based tourism schemes and the effects of this on their vulnerability to global change. . The purpose here is to explore the CBT impacts on social, institutional, economic and ecological domains and their role in rural development. Additionally, this chapter will compare the impacts of CBT on the Andes and the Coast of Ecuador and relate these impacts to the specific characteristics of the communities. In Chapter 5 the existing diverse perceptions among local stakeholders on the implications of community-based tourism for the community as a strategy to deal with the undergoing global change will be examined and compared in two different communities living in the Andes and the Coast of Ecuador. In so doing, a Q-methodology discourse analysis will be conducted in both communities. Q methodology provides a subjective analysis of the perspectives of individuals by allowing the individuals themselves to create categories to measure their views rather than measuring them based on categories developed by a researcher (López-i-Gelats et al., 2009). Chapter 5 examines the identified discourses and its impact in the role of community-based tourism in achieving sustainable rural development in Ecuador. The aim of this section is discusses the emerging issues from these findings, also it suggests their potential implications for future policy formulation and it shows the benefits of the proposal. Finally, Chapter 6 will summarize the most relevant contributions of this work, the main findings, lessons learned, discussion of the limitations of this research and provides suggestions for further study.

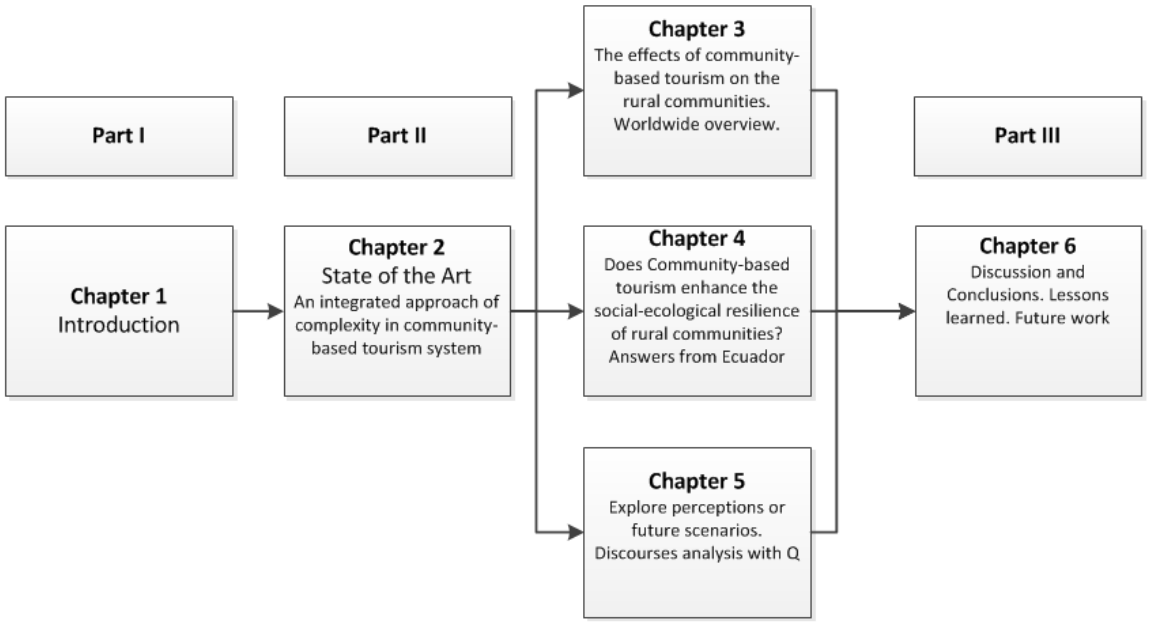

Figure 3. Organization of the thesis

6. Expected Outcomes

It is expected that this investigation on the contribution of community-based tourism to sustainable rural development will inform the process taking place in Ecuador will provide important knowledge (a) to improve and enhance the existing strategies and (b) to establish new policies and strategies to assist in the development of rural communities, while maintaining the strong social-ecological relationships between the community and the rural environment.

7. Work Plan & Schedule

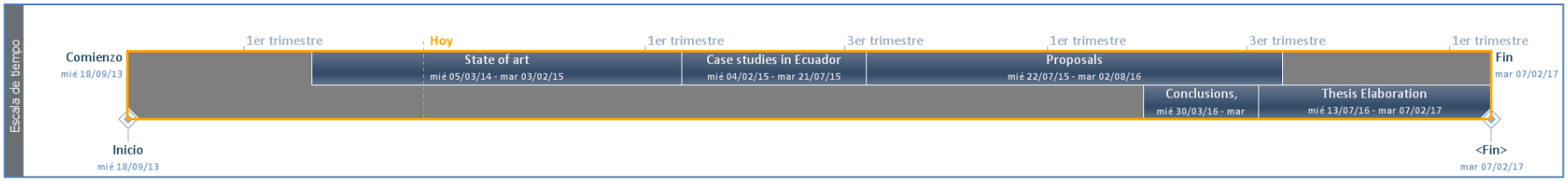

Figure 4. Project Timeline

Modo de tarea	Nombre de tarea	Duración	Comienzo	Fin	Predeces
	SCHEDULE OF ACTIVITIES	885 días	mié 18/09/13	mar 07/02/17	2
	Inicio	0 días	mié 18/09/13	mié 18/09/13	
	Bibliography of Community-based Tourism CBT	**120 días**	**mié 18/09/13**	**mar 04/03/14**	**2**
	Review state of art	120 días	mié 18/09/13	mar 04/03/14	
	State of art	**240 días**	**mié 05/03/14**	**mar 03/02/15**	**3**
	An integrated approach of complexity in community-based	60 días	mié 05/03/14	mar 27/05/14	
	Examine the effects of community-based tourism in rural a	30 días	mié 28/05/14	mar 08/07/14	6
	Study rural communities as a SESs	60 días	mié 09/07/14	mar 30/09/14	7
	Study of Q-Methodology and PQmethod software	45 días	mié 01/10/14	mar 02/12/14	8
	Development of semi-structured interviews (Q-M)	45 días	mié 03/12/14	mar 03/02/15	9
	Case studies in Ecuador	**120 días**	**mié 04/02/15**	**mar 21/07/15**	**5**
	Case Playa de Oro - Esmeraldas - Ecuador	60 días	mié 04/02/15	mar 28/04/15	
	Case Zuleta - Imbabura - Ecuador	60 días	mié 29/04/15	mar 21/07/15	12
	Proposals	**270 días**	**mié 22/07/15**	**mar 02/08/16**	**11**
	Does CBT enhance the social-ecological resilience of ruralc	180 días	mié 22/07/15	mar 29/03/16	
	Explore perceptions or future scenarios. Discourses analysi	60 días	mié 30/03/16	mar 21/06/16	15
	Validation results	30 días	mié 22/06/16	mar 02/08/16	16
	Conclusions, Lessons Learned and Future Work	**75 días**	**mié 30/03/16**	**mar 12/07/16**	**14**
	Conclusions	30 días	mié 30/03/16	mar 10/05/16	
	Lessons Learned	30 días	mié 11/05/16	mar 21/06/16	19
	Future Work	15 días	mié 22/06/16	mar 12/07/16	20
	Thesis Elaboration	**150 días**	**mié 13/07/16**	**mar 07/02/17**	**18**
	Redaction	30 días	mié 13/07/16	mar 23/08/16	
	Control criteria for appropriateness, relevance and cohesic	30 días	mié 24/08/16	mar 04/10/16	23
	Accuracy in the technical terms used	30 días	mié 05/10/16	mar 15/11/16	24
	Correcting spellin, grammatical document	60 días	mié 16/11/16	mar 07/02/17	25
	<Fin>	0 días	mar 07/02/17	mar 07/02/17	22

Figure 5. Project Gantt Chart

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