

Combining the Goals of Conservation, Tourism and Livelihoods in the Management of Protected Areas

– Case Study of the Volcanoes National Park in Northern
Rwanda

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Abstract

The liberal conservation agenda promotes the incorporation of human needs into the management of Protected Areas (PAs). Across the globe, nature-based tourism has been among the suggested tools of promoting sustainable conservation together with development of the local communities living around the PAs. This exploratory study was conducted to contribute to improved management practices of PAs by using the Volcanoes National Park (VNP) in Northern Rwanda as a case study to explore whether the tourism practices there can help to achieve the reconciliation between conservation and the local people's livelihoods goals. The study has the main objective of understanding the benefits and constraints of combining the goals of conservation, tourism and livelihoods by using the VNP as a Case Study. The study has adopted a qualitative approach and was based on interviews and literature review as methods of data collection. The study has been conducted during the global pandemic (COVID-19), therefore, phone interviews were used to interview 14 participants in relation to the VNP management, from three different categories of ecotourism stakeholders. The categories are: (1) the government and/or VNP management staff as the Director of VNP; (2) Conservation NGOs like the top management staff of the Diana Fossey Gorilla Fund International and the conservation workers like the Mountain Gorilla Trackers; (3) the local community which, in turn, is also divided into four subcategories: (a) the local institution representatives like the village leader; (b) members of different Community-Based Organisation (CBO) or cooperatives; (c) local people employed by ecotourism projects; and (d) ordinary villagers or farmers. The data collected were transcribed, translated and analysed qualitatively. The results of this study showed that the combination of the goals of conservation, tourism and livelihoods is difficult to achieve to a practice in the context of VNP. The goals of tourism and conservation have been achieved to a higher degree, in comparison to those of the local community's livelihoods. The study suggests that the mixed success of the linkage is based on the fact that the tourism attraction (VNP) is owned and run by the government which considers the tourism industry as its number one foreign currency earner. Though the major benefits of the linkage between tourism, conservation and livelihood are mostly macro-economic growth, different initiatives of conservation NGOs and the Tourism Revenue Sharing scheme have brought some positive changes in both conservation of the park and the local community's livelihood diversification. This study, however, shed more light on the challenges such as lack of capacity and power for the local community which in turn limit them from effectively participating in different ecotourism processes such as elaboration and implementation of the management and conservation policies; collection and investment of tourism revenues, etc. The current top-down approach of managing the VNP makes the future of the park conservation uncertain. The study showed that, even though the number of cases is decreasing, illegal activities in the park still exist, the community still depend on the park for basic needs, due to lack of infrastructures like water and electricity. Therefore, the study suggests a shift from a top-down approach to decentralised natural resources management. The decentralisation is believed to empower the local community so that they will be able to manage

and use the resources from the park. As a result, the existing benefit leakage among the ecotourism stakeholders could be decreased as well.

Keywords: *Protected Areas, Natural Resources Management, Conservation, Decentralization, Local Community Participation, Livelihoods, Ecotourism, Tourism Revenue Sharing.*

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Abbreviations

IUCN: International Union for Conservation of Nature

MINICOM: Ministry of Trade and Industry

VNP: Volcanoes National Park

ANP: Akagera National Park

NNP: Nyungwe National Park

RDB: Rwanda Development Board

NBSAP: National Biodiversity Strategy and Action Plan

CBNRM: Community-Based Natural Resources Management

NGOs: Non-Governmental Organizations

PACMP: Protected Areas Concessions Management Policy

NRM: Natural Resources Management

IES: International Ecotourism Society

QDE: Quebec Declaration of Ecotourism

DPA: Declaration of Protected Areas

TRS: Tourism Revenue Sharing

DRC: Democratic Republic of Congo

MGNP: Mughinga National Park

AMNH: American Museum National History

ViNP: Virunga National Park

USAID: United States Agency for International Development

TBPAs: Trans-Boundary Protected Areas

KRC: Karisoke Research Center

GVTBC: Greater Virunga Trans-Boundary Collaboration

DFGFI: Diana Fossey Gorilla Fund International

CBO: Community-Based Organizations

VVR: Virunga Volcanoes Range

MIEC: Meetings, Incentives, Conventions, Events/Exhibitions

SACOLA: Sabyinyo Community Livelihoods Association

RNTS: Rwanda National Tourism Strategy

RNTP: Rwanda National Tourism Policy

USD: U.S. Dollar

GDP: Gross Domestic Product

CEO: Chief Executive Officer

1. Introduction

The large scale tourism development in protected areas (PAs) has been, for decades, a widespread mechanism to meet the aims of conservation and the local people needs at the same time and same place (Ahebwa, 2012; Sandbrook, 2006; Givá, 2016; Arévalo Vásquez, 2010; Miller, 2016; Umuziranenge, 2019; Nyaupane & Poudel and Nielsen & Spenceley, 2011). Fundamentally, the nature-based tourism interventions aim at making use of tourism to link local people livelihoods and conservation to reduce tensions between PAs and the adjacent communities to the PAs (Ahebwa, 2012 and Sandbrook, 2006). In Africa and other parts of the developing world, this nature of tourism has been promoted by national governments, development and conservation organisations, private sector, etc. with similar or different aspirations (Ahebwa, 2012). However, the common argument of the stakeholders is that the approach can provide a win-win outcome for both the goals of conservation and livelihoods of the local communities (Ahebwa, 2012; Miller, 2016; Arévalo Vásquez, 2016 and Sandbrook, 2006). For example, in Rwanda where tourism activities are concentrated in protected areas especially national parks, the government of Rwanda sees tourism (including the mountain gorilla trekking) as a valuable conservation tool that can address the tensions between the development aspirations of the local people and the VNP conservation and preservation goals (Nielsen & Spenceley, 2011 and MINICOM, 2013)

The new approach of managing PAs has caused new conditions for the local community, policymakers, NGOs, etc. regarding biodiversity governance. The new mode governance including policies and strategies were established to the extent they can tackle the conservation problems. The changes also adopted the “people-centric positions” in both conservation and development movements with the aims of inducing the local community’s ownership in PAs (Ahebwa, 2012; Sandbrook, 2006; Givá, 2016 and Umuziranenge, 2019). In this approach, the community is suggested to be offered tangible benefits that can compensate their conservation costs while at the same time creating incentives to conserve the PAs (Ahebwa, 2012). In the Rwandan case, policies and strategies have been elaborated with objectives of promoting the sustainable conservation and use of the protected areas. The government suggests that the sustainability will be achieved through the reduction of tensions between the community adjacent to the park and the park management by allowing some legal extraction (tourism activities) of resources from the park, local participation in conservation and management of the park and sharing the park revenues from tourism (Ekise *et al.*, 2013). This is expected to contribute to livelihood diversification, local community development and the country’s economic growth in general (MINICOM, 2013).

Historically, the conservation of protected areas started with a protectionist or fortress approach which consisted of ignoring the local communities to participate in conservation activities and instead the human impacts were monitored, and the customary rights were not considered. The approach was also characterized by limiting the community from accessing the natural resources from these protected areas (Umuziranenge, 2019). For many reasons, including a high population pressure and its associated poverty and reliance of the local community on the natural resources, this state control system of managing natural resources has failed to meet its goals (Lanjouw, 2008, Mc Guinness, 2014). Therefore, there was a need for developing further

understanding about the relation between the local population needs and biodiversity conservation (Nielsen & Spenceley, 2011 and Givá, 2016). Tourism development in protected areas is one of the proposed mechanisms by the IUCN to achieve both the goals of biodiversity conservation and community development in the way that it provides an alternative to the current use of environmental resources such as agriculture, cattle farming, forestry, and mining. Thus, the protected areas are seen as sources of tourism especially nature-based tourism (Nyaupane & Poudel, 2011).

1.1. Overview on Protected Areas in Rwanda

In Rwanda, protected areas include the Game reserves and three national parks such as the Volcanoes National Park (VNP), Nyungwe National Park (NNP) and Akagera National Park (ANP). The protected areas were established for different habitats, and conservation of the endangered species like the mountain gorillas found in the VNP. The purposes of the conservation and restoration were to serve for education, tourism and research (Republic of Rwanda, 2014 and MINICOM, 2013).

The Government owns and runs the national parks (Umuziranenge, 2019 and MINICOM, 2013). Through Rwanda Development Board (RDB), the government agency, it designs and implements policies aimed at tourism development and conservation of protected areas (MINICOM, 2013). In 2003, the government of Rwanda has drafted the National Biodiversity Strategy and Action Plan (NBSAP) which was later updated in 2013. In 2005, the law determining modalities of protection, conservation and promotion of environment in Rwanda was elaborated. However, both the law and the NBSAP have the local community at the core of the conservation of the protected areas, hence, they promote the Community-Based Natural Resources Management (CBNRM) as an approach for the governance of protected areas in Rwanda (Republic of Rwanda, 2014).

In addition to the local community, other stakeholders such as private and public sectors, Non-Governmental Organizations (NGOs) and research institutions are involved in conservation and management of protected areas (Republic of Rwanda, 2014 and MINICOM, 2013). The conservation and management of protected areas always come at significant costs that a developing country like Rwanda may lack funds and capacity for. Therefore, the Rwanda Protected Areas Concessions Management Policy was elaborated to welcome the private sector as a partner in protected areas operations. The private sector does not only provide expertise and competence through concessions to improve the tourism performance in protected areas but also the sector contributes to government revenues, which either directly or indirectly increase the level of effective management of protected areas (MINICOM, 2013).

1.2. Purpose of the Study

1.2.1. Problem statement, General Objective and contribution of the study

The supporters of the large-scale tourism in PAs pave the way for Salafsky & Wollenberg's (2000) conceptual framework. The framework details the win-win inter-relationships of ecotourism stakeholders where the benefits of ecotourism are expected to be perfectly delivered to all parties (Sandbrook, 2006 and Nyaupane & Poudel, 2011). In the concept, tourism is linked with biodiversity conservation and with the local community's livelihoods. In other

words, it is considered as a strategy of combining the goals of conservation and local people's livelihoods. Previous case studies in Africa and elsewhere have evidenced the positive impacts of tourism, carried out in PAs, on human development in several dimensions; for example, it has been the source of human capital in Uganda and Ecuador (Sandbrook, 2006 and Ahebwa, 2012); a source of physical capital in South Africa; a source of financial capital in Namibia (Sandbrook, 2006) and it has been also a source of foreign currency for the government of Nepal (Nyaupane & Poudel, 2011). In terms of conservation, in most of the cases studied, the revenues generated by tourism were used to pay for park management activities and the other portion was shared with the adjacent communities to PAs to induce the ownership in those PAs. In those cases, the tourism has been used as a tool to sustain the conservation of biodiversity while at the same time integrating conservation and local people's livelihoods (Arévalo Vásquez, 2010; Miller, 2016; Ahebwa, 2012; Sandbrook, 2006 and Nyaupane & Poudel, 2011).

Besides the above-claimed benefits of ecotourism, the available literature highlighted the interesting points that might make the ecotourism a very complex process and the complexity of the process could lead to its success more questionable:

- (1) Ecotourism may involve imbalances in power relations that may cause contradictions in some of the values that are supposed to be the base for the ecotourism (Sandbrook, 2006: 33). The exercise involves the three main stakeholder groups that may have imbalanced powers to influence decisions concerning the ecotourism projects. They are the local community, biological diversity and tourism itself (Sandbrook, 2006; Miller, 2016 and Arévalo Vásquez, 2010). The experience drawn from different studies such as Inglis (2012) and Ahebwa (2012) shows that in the interplay or a game that involves different actors having imbalanced powers, mostly, lead to lack of representation of the weak actors in decision making processes and then the situation becomes win-lose or lose-lose rather than win-win solutions.
- (2) The tourism industry, which is regarded as an engine of all the ecotourism process, is dominated by the private sector whose main objective is to make a profit from their businesses (Sandbrook, 2006; Miller, 2016 and Arévalo Vásquez, 2010). It makes some controversial meanings of how benefit-making businesses might be interested to invest in biodiversity conservation and human development. The other aspect that might be interesting is to know if the priorities for the businessmen are the same as those for the other stakeholders of the ecotourism processes.
- (3) Ecotourism processes like other developmental processes are time-consuming; it takes a very long time to assess their outcomes (Sandbrook, 2006 and Ribot, 2002). In addition to that, many of the previously studied cases showed that the economic returns of ecotourism are relatively poor in comparison to illegal activities in PAs (Sandbrook, 2006 and Ahebwa, 2012).

From the highlighted aspects of the ecotourism in practice, the current study looks at the aspect of power and capacity; satisfaction and prioritisation; local participation; etc. to explore the possibilities and constraints for integrating conservation, tourism and livelihoods. Therefore, *the Volcanoes National Park in Northern Rwanda is used as a case study to understand, from*

perspectives of different stakeholders, the potentials and drawbacks of achieving the goals of conservation, tourism and livelihoods. Though the Volcanoes National Park (VNP) is characterised by its richness in biodiversity including the rare Mountain Gorillas, it is in among the poor and highly populated parts of the country. These have been the main reasons for its adjacent community to depend on it (McGuinness, 2014; MINICOM, 2015 and Republic of Rwanda, 2014). The park is the most significant, in terms of tourism revenues, among the three national parks (Umuziranenge, 2019). The Rwandan case is a globally interesting one because the country has been seeing the tourism industry as a valuable conservation tool that can combine the goals of conservation, tourism and livelihoods. Furthermore, this study contributes to on-going debates on the improved management practices of protected areas.

1.2.2. Specific Objectives

- To understand the level of satisfaction among stakeholders regarding the the achievement of conservation, tourism and livelihoods goals.
- To understand the challenges and opportunities for the local community development, VNP conservation and tourism development.
- To understand priorities for the local community, conservationists and the management of the VNP.
- To understand the level of participation of the stakeholders in decision-making processes aimed at conservation, tourism and livelihoods improvement.

1.3. Research Questions

To approach the aim and objectives of research, the following three research questions are formulated:

- What are the stakeholders' experience of tourism as a tool for achieving the goals of conservation and people's livelihoods?
- To what extent does tourism improve the local community's livelihoods and VNP conservation?
- How do the activities in relation to conservation, tourism and livelihoods interact in the VNP context?

2. Literature Review

2.1. Overview

This chapter introduces literature on conservation and management of Protected Areas, Tourism and Ecotourism and Livelihoods highlighted above in both the aim and objectives of this study. The review assists to frame and achieve the research aim “Understanding, from perspectives of different stakeholders, the potentials and drawbacks of achieving the goals of conservation, tourism and livelihoods at the same time”. The review also assists the analysis and discussion of the empirical data for this study (see the summary of this chapter at its end). Firstly, this chapter goes through the historical background for the conservation of Protected Areas (PAs) worldwide; it reviews how the practice of conservation and management of these PAs has evolved throughout time: from fortress to participatory conservation approaches. Secondly, the current chapter introduces ecotourism and the role it plays as a tool of combining the goals of conservation, tourism and livelihoods. The potential and drawbacks in its practicalities from different contexts other than our case study are also highlighted. Thirdly, theory around decentralization is introduced in the analysis of management practices of PAs. The aspects such as power, capacity, accountability, rights, etc. are elaborated in this chapter to help with an understanding of challenges faced by the practice of ecotourism processes.

2.2. Concepts and Theories

2.2.1. Theory Explanation

In this theoretical part of the thesis, I let my research be mostly guided by different work of literature of Jesse C. Ribot. He has done extensive researches about democratic decentralisation of natural resources, institutions, participation, power and capacity, etc. Ribot’s discussion of decentralization provides a frame for the exploration of the relationship between national authorities and local actors in natural resources management. Ribot criticises Community Based Natural Resource Management (CBNRM) of not strengthening both environmental and democratic objectives and not paying appropriate attention to powers and functions of different local actors. He argues that any form of local representation without power is meaningless. Therefore, he suggests democratic decentralisation of natural resources as an approach that strengthens the linkage between environment and democracy. The approach provides equity, efficiency, development and environmental benefits through a downward accountable of authorities representing the local community; discretionary power transfer from the central state to local authorities; etc which are the basis of decentralisation.

The theory around decentralisation helps with the analysing and understanding of the empirical attempts towards CBNRM in the Volcanoes National Park, and the challenges and opportunities to integrate conservation of with development of its adjacent community, through a diversified livelihood, which is one of the believed outcomes of the gorilla-based tourism conducted in the park. The theory on decentralization was also adopted to critically discuss the Natural Resource Management (NRM) concept and how to improve the approach of Community Based-Natural Resources Management. CBNRM is receiving a lot of critics,

hence, there is a need to conceptualise another approach that can bring significant positive changes in the management of natural resources including protected areas.

In this chapter I start with theory around protected areas and the relation between conservation and livelihoods in natural resource management. Then I move to theory around democratic decentralization, including theory around participation, accountability and power. Finally, I introduce theory around eco-tourism, and the role that it can, or cannot, play in facilitating the co-existence of the goals on conservation and community livelihoods.

2.2.2. Management of Protected Areas

Protected Areas (PAs) were established on grounds of policy implementation of the conservation goals. PA is defined, according to IUCN, as an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and natural and associated cultural resources, and managed through legal or other appropriate means (Arévalo Vásquez, 2010:13). The most commonly known examples of PAs include “Park”, the IUCN defines park as one land-use option, which is classified as strict conservation, with restricted access to natural resources (Givá, 2016:29). Furthermore, Givá (2016) distinguished PAs from “conservation areas”. While PAs imply a single land-use option, the conservation areas encompass multiple land use options within the same site. She argued that when the natural resources from the PAs are accessed for commercial or human being satisfaction purposes, they are no long PAs, instead they become conservation areas. According to her, natural resources from PAs might be accessed, for example, by the provision of park hunting concessions; Community-Based Natural Resource Management initiatives, etc. (ibid).

In the domain of the environmental studies, management and governance are two distinctive but interconnected concepts (Givá, 2016); while management encompasses operational or practical decisions to accomplish desired goals, governance comprises a set of processes and institutions governing such decision-making processes. The set of processes in PAs governance include aspects of social coordination, authority or exercise of power and responsibility in decision making. The two concepts are interconnected in the way they can be both seen as a process by which people make decisions and exercise power but at different levels. Therefore, the management of PAs, or natural resources management (NRM) in general, can be defined as the management of their resource uses considering the cost to nature and the limit of that uses, i.e. recognizing the limits and developing capabilities to prevent those limits from being exceeded (Arévalo Vásquez, 2010:13).

The concept of Natural Resources Management (NRM) has emerged through time and disciplines. Various approaches to managing natural resources have evolved. Arévalo Vásquez (2016:13) argues that NRM is still a concept in evolution; for example, it has evolved from farming system research in the mid-1970s to sustainable production and natural ecosystem management in the 1980s, throughout Integrated Natural Resource Management in 2000s. Arévalo Vásquez (2010) together with many other scholars such as Sandbrook (2006), McGuinness (2014), Givá (2016), Umuziranenge (2019) and Nyaupane& Poudel (2011) agreed on the fact that different conservation approaches, from fortress to participatory, have been adopted in the line of conceptualizing a sustainable approach for the management of natural resources.

2.2.2.1. Management of Natural Resources with Fortress Conservation Approach

Since the establishment of Yellowstone in 1872, many National Parks in developing countries were established on the model pioneered of protected areas (Arévalo Vásquez, 2016). Historically, the management of these protected areas was under the top-down exclusionary approach known as “fences and fines”, or “Fortress” conservation model (Sandbrook, 2006; McGuinness, 2014; Givá, 2016; Umuziranenge, 2019 and Nyaupane & Poudel, 2011). This traditional approach to protecting biodiversity had the sole aim of re-establishing dwindling ecosystems or populations of charismatic megafauna (McGuinness, 2014), human beings were considered as a problem, incompatible with the conservation goals, therefore, they were fought and excluded from PAs (Sandbrook, 2006; McGuinness, 2014 and Nyaupane & Poudel, 2011). However, the areas remained accessible and available for use by the privileged classes as safaris and hunting destinations, or research (Sandbrook, 2006).

The practice of this conservation model in the African context was characterized by the exclusion of the local people from, on one hand, the management of natural resources (Sandbrook, 2006 and Nyaupane & Poudel, 2011) and from the access of natural resources in PAs (Sandbrook, 2006; McGuinness, 2014; Umuziranenge, 2019 and Nyaupane & Poudel, 2011). Under these fortress conservations, PAs were typically managed by centralised state institutions. In addition to the exclusion, punishments were used to fight against local people who used to earn their livelihoods in the PAs. Sandbrook (2006) argued that some human livelihood activities were qualified as illegal so that people can be legally punished, for example, local hunting was re-classified as “Poaching” then poachers were widely becoming criminals to punish. The practice of stopping people from invading nature and keeping local people out of PAs has also involved the use of direct force as another tool of law enforcement. Often the central state institutions were equipped in their staff and they were militaristic, he argued (ibid)

The protectionism or exclusionary approach has heavily affected the local people in a way they become even more impoverished. Hence, high dependence of the local communities on resources from the PAs has increased and the conservation became unstable. From that, the approach has failed to meet its goals (Umuziranenge, 2019, Nyaupane & Poudel, 2011). As a result, the focus has broadened from sole fortress conservation to the inclusion and participation of the local community in decision-making; policy implementation and actions while also benefiting from income generated from nature (McGuinness, 2014; Arévalo Vásquez, 2010; Miller, 2016; Umuziranenge, 2019). However, Sandbrook (2006) argued that despite its abandonment, the “Fences and fines” approach to conservation which has dominated the early PAs management strategy, it remains at the core of much of conservation policies today. Those of today’s approaches that recognise the presence of local people in the management of PAs are more elaborated in the next section.

2.2.2.2. Management of Natural Resources with a Human Face Conservation Approach

The fortress conservation approach was neither benefiting the sustainable conservation of PAs nor the development of the adjacent community to the PAs. Instead, the future of PAs was put at risk and the local community have suffered heavy costs of conservation (Sandbrook, 2006; Givá, 2016 and McGuinness, 2014). Therefore, there was a need to develop other approaches that can mitigate the problems associated with the fortress conservation model. In this line, various approaches have been adopted to address both the goals of conservation and people’s wellbeing (Givá, 2016). The new perspective has the local people at the core management of

PAs and of natural resources in general, it recognises the presence of human beings in PAs. In other words, the concentration of people and biodiversity tend to occur in the same place (Sandbrook, 2006). Furthermore, this approach is known for its different names of conservation models depending on authors, for example, “Park with People” (Givá, 2016); “People-centred or Participatory approach” (Umuziranenge, 2019) or “Conservation with a human face” (Sandbrook, 2006).

Though the local people inclusion and participation in decision-making, policy implementation and actions are the main aspects of the concept of the participatory conservation approach, many scholars argue that this inclusion or participation is rarely practicable, or it is practised at some extent (Sandbrook, 2006; McGuinness, 2014, Givá, 2016; Umuziranenge, 2019; Murray Li, 2007; Arévalo Vásquez, 2010; Ribot, 2002 and Ribot, 2003). Some examples of why participation is often limited in practice are the following; Murray Li (2007) argued that it is wrong to refer most of the local organisations as community-based while they are externally initiated, and the local community have limited degree of participation or they do not even exercise primary decision-making authority. While Sandbrook (2006) and McGuinness (2014) argued that the participatory conservation approach is still having some aspects of the previously abandoned approach. The Ribot (2003) and Givá (2016)’s arguments justifying the slow implementation of the participatory conservation approach have in common the benefits leakage among actors as the main reason. They argue that the development and conservation objectives are mostly different in the practice of linking human needs to PAs conservation. According to Ribot (2003), some of the central governments decide not transferring power to the local people on the pretext that they cannot receive the power. While the motive for the central governments is to maximise their benefits from nature extraction at the expense of the local community. Givá (2016) and Nyaupane & Poudel (2011) agreed with Ribot (2003) that the participatory conservation approach has characteristics of privatization or other forms of free trade as consequences of neo-liberal prospects on which the approach is centred.

2.2.2.2.1. Natural Resource Management Practices

The practice of participatory conservation approach involves co-management (Miller, 2016 and Givá, 2016). Co-management is defined as a resource management practice that involves a situation where two or more actors negotiate, define and guarantee amongst themselves a fair sharing of the management functions, entitlements and responsibilities for a given territory, area or a set of natural resources (Miller, 2016: 36). From the definition, Givá (2016: 46) stressed more on the negotiations among the actors of co-management and the power each actor may have to influence the decision-making processes, then he defined co-management as “a range of arrangements, with different degrees of power-sharing for joint decision making by the state (or management authorities) and communities (or user groups) with the ultimate goal of building appropriate, effective and equitable governance”.

Despite its believed benefits including the equitable distribution of responsibilities and benefits amongst the stakeholders, etc., the management of natural resources under the co-management practice is complex. The complexity may result from melding knowledge of different actors which make the process too long and the associated costs may apply. Therefore, the knowledge held by local people or resource users is mostly ignored in favour of those held by scientists, government agency or other influential key players. (Miller, 2016). Since co-management is a site-specific and it can evolve in various forms influenced by the context (Givá, 2016), it does not need to be considered as an endpoint rather as an evolving process. Therefore, she suggests

“Adaptive co-management” which is a form of co-management that implemented while considering local contexts such as history and other socio-cultural dynamics. Adaptive co-management is defined as a specific approach to co-management of natural resources to embrace the uncertainties and complexities of social-ecological change. It acknowledges the need for continuous, collaborative and adverse learning experience towards flexible and innovative management (Givá, 2016:46).

In the line of searching for flexible management practices that can respond to uncertainties that co-management faced in its implementation, various strands of co-management have been developed. Miller (2016) has illustrated some forms co-management such as Integrated Conservation and Development, Participatory Natural Resource Management, Decentralization and Devolution, Community-Based Natural Resource Management (CBNRM), etc. It is important to distinguish community management from co-management; according to Miller (2016), community management is an aspect of co-management and implies the management of natural resources by the local community on their own. While co-management involves the cooperation of multiple actors in the resource management process. Whatever names co-management may be given does not matter, what matters is outcome instead. Givá (2016: 46) argued that the core idea underling co-management or its strands are to allow people whose livelihoods are affected by management decisions to participate and take an active role in decision-making processes.

2.2.2.2.2. Forms of Local Community Participation in the Management of Natural Resources

As it was mentioned earlier, both the approaches of conservation and management of natural resources involve the local community participation to achieve their goals. However, for many reasons like problems with the implementation of decentralization (Ribot, 2002 and Ribot, 2003) and benefits leakage (Arévalo Vásquez, 2010; Sandbrook, 2006; Miller, 2016 and Nyaupane& Poudel, 2011), the local participation is limited and varies concerning the context. The main goals of the local people participation are that they can help themselves while also being considered as a cornerstone of sustainable development. However, the local participation involving natural resources rarely achieves these goals because, either by default or intention, the participation finds itself having many components or types. And among the forms, few or certain types of participation will lead to sustainable conservation and management of the natural resources (Arévalo Vásquez, 2010).

To elaborate, Pretty *et al* (1995) has identified seven different types or forms of local participation: (1) passive participation; (2) participation in information giving; (3) participation for material incentives; (4) participation by consultation; (5) functional participation; (6) interactive participation and (7) self-mobilization. The Pretty’s categorization of different forms of local participation can, however, be grouped into three bigger categories; lower, medium and a higher level of local participation. The first three forms of participation describe the lowest level of participation for the local community in decision-making processes. In this group, the local community act as implementing agents by providing labour force; receiving the last information from superiors; etc. The medium level of local participation might include both the participation by consultation and functional participation. Though the local community is not involved in defining both problems and solutions, the external agents listen to their views and they can sometimes do modifications on their already planned activities according to the views of the local community. This medium level of participation also gives room for the local people to participate by forming groups like community cooperatives or

other kinds of social groups. However, the groups are mainly formed to meet the objectives of the externally initiated projects or organisations. Unlike the lower and medium level of local participation, the higher level of local participation describes the believed good participation of the local community in different decision-making processes. Through interactive participation and self-mobilisation, the local community can participate in joint analysis, developing or planning strategies and they can even take initiatives independent from external organisations. Therefore, the community have a stake in maintaining systems, structures or practices.

2.2.3. Decentralization

Decentralization is defined as an act of transferring power from a central government to actors and institutions at lower levels in a political-administrative hierarchy (Ribot, 2002: 4). It has been a widespread approach for decades and was suggested by many *scholars*, including Fischer (2016); Ribot (2002); Leach *et al.* (1999), Ribot *et al.* (2008) and Ribot (2003), as an effective way of governing people and resources. It improves accountability of government since its structures increases citizens voice (Fischer, 2016), local governments are strengthened; central power is consolidated and the central government are downsized (Ribot, 2002). In addition to those outcomes of decentralization, equity and efficiency are indicators of a successfully implemented decentralization. Ribot (2002) argues that equity is improved through greater retention of power and fair or democratic distribution of benefits from local activities. Efficiency, which, may be concerned either with managerial or economic aspects, is believed to increase through providing resources, increasing accountability, accounting for costs in decision making, matching services to needs, reduction of transaction costs, matching services to needs, improving coordination, mobilizing local knowledge, etc.

The effectiveness of decentralisation is viewed in lenses of:

Elections and Accountability

In decentralization, accountability relations are critical for local democratic governance (Ribot, 2002), Ribot (2003) and Fischer (2016). Accountability of the state to the people defines democracy (Ribot, 2002: 6). According to Ribot (2003), the most commonly known means of accountability are elections or democratic representation. And when elections are fair, i.e. when locally accountable bodies are chosen, democracy is strengthened (Ribot, 2002). However, both, Fischer (2016) and Ribot (2002) find the issue of democratic representation, at its core, '*principal-agent problem*', regardless of whether the local authorities are elected by local people or not, they often appear to serve and be accountable to the donors and ministries that are transferring management roles and power to them, rather than to those who voted for them. Fischer (2016) suggests accountability in the form of "*Sanction*" as a mechanism by which principals (voters) ensure that their agents (representatives) act in alignment with their interests. His proposed Sanction Model is understood as how observers punish, or reward representatives based on whether they act in their interests through a variety of formal and informal means. For him, elections can be used to punish politicians who did not meet the local people's expectations.

Discretionary Power Transfer

Regardless of the nature of local authority and the central state, decentralisation requires both power transfers and accountable representation. Ribot (2003:13) argues that the transfer of powers without accountable representation is a dangerous business and the representation without power is empty. It is, however, of great importance to know which types and to whom powers are transferred to. To identify the appropriate and sufficient powers to transfer to local authorities, governments and their key stakeholders such as donors; NGOs and research community use the environmental subsidiarity principles. The principles, once developed, help with the guidance of division of decision-making, rulemaking, implementation, enforcement, and dispute resolution powers among levels of government and institutions at each level. (Ribot, 2002). Mostly, the decentralization of natural resources management involves tax and fee revenues from natural resources as powers transferred to local authorities. Though the process of power transfer is contextual, most of the environmental powers transferred into the local arena will take on the contours of existing political and economic relations. This means, for example, that if the authorities are democratic, then the transferred powers will strengthen democratic relations (Ribot, 2003). The process of choosing local representatives to receive power is crucial, a deep sense of locality and politics is needed while transferring power. Those who receive power need to be accountable to local people they represent, and they should also have the capacity to use the power. The process of power transfer in the African context involves Chiefs, headmen and other so-called “customary authorities” as targets of central governments, NGOs, and donors considering transferring power (Ribot, 2002).

Security

The security of power transferred also matters. The power receivers remain accountable and subject to power givers as they can give or take away the power based on the degree to which the power is transferred (Ribot, 2002). The security and sustainability of decentralization reforms strongly depend on the means used by central governments to transfer power to local entities. According to Ribot (2003), any process involving power transfer from the central state to local institutions has one of the following two forms depending on the means used; on one hand, powers are transferred as “*rights*” when they are spelt out in the constitution or through a legislative process. On the other hand, they are transferred as “*privileges*” when they are handed out through ministerial decrees, administrative orders, temporarily licences or permits. The choice of rights or privileges as a form of power transfer defines both the degree of independence that the local authorities have in exercising the powers and the seriousness of the central government about creating a domain of discretionary power which is one of the fundamentals of decentralisation (ibid). In the field of Natural Resources Management, Acheson (2011) defined five property rights such as access, extraction, management, exclusion and alienation. He argued that the owners of the rights to property or resource have an incentive to invest and conserve it. And he added that users (claimants or authorised users) can use the resource but they do not have an incentive to invest in or conserve the resource since they cannot exclude others from harvesting the resource. Similarly, Ribot (2002:6) argued that neither local authority nor local people will invest in the responsible exercise of powers if they believe they will not hold these powers for long. Therefore, he concluded that power transferred as a privilege or delegated privileges do not constitute effective decentralisation. Instead, he suggested transfer of powers as secure rights because, in addition to the role they play in

encouraging local entities to invest in new arrangements, they also enable local people to be enfranchised as a citizen rather than managed as a subject.

2.2.3.1. Decentralization in Developing World

Decentralization was adopted due to the ineffectual central governments across the globe. The governments have failed to deal with problems of economic crises, inequalities, bad governance, etc. (Fischer, 2016 and Ribot, 2002). The problems have resulted in pressures from, on one hand, the revolutionary and secessions movements which needed to bring changes, and from donor conditionalities attached to aid they give to developing countries, on the other hand (Ribot, 2002). Since the mid-1980s a big number of developing countries have been implementing a process of decentralization, the purpose is more democracy, service delivery improvement, resources management and local development in general (Ribot et al., 2008). However, Ribot (2002) argued that the decentralization reforms concerning natural resources in Africa are incomplete. The incomplete implementation of democratic decentralisation is based on many reasons. For example, some African governments and environmental institutions resist from transferring appropriate and enough powers to local authorities on grounds that local people lack the capacity of receiving and retaining the power (ibid).

However, some authors argue that there is no clear difference between power and capacity. The two terminologies have been of great interest for a huge number of scholars including Lewis (1996), Eriksen (2001), Latour (2005), Inglis (2012), Ribot (2002), Ribot (2003), Ribot et al. (2008), Hornborg (2013), Agrawal (2005). In the environmental studies, capacity and power have got different or same interpretations. Some authors consider the concepts of capacity and power to be almost the same and they use them to explain the abilities that people or a group of people possess to have control over other people or things (Lewis, 2005; Latour, 2005; Eriksen, 2001), while capacity is also considered as an aspect or a tool used to get power (Inglis, 2012) or capacity and power are considered as distinct aspects but they are also chicken and egg problem; it is not easy to decide which one should be developed before the other one (Ribot, 2003). Despite the chicken-egg problem, to strengthen democratic decentralization in developing countries, Ribot (2003: 11) suggests that risk taking in transferring powers ahead of capacity building can have an empowering.

Contrarily, Inglis (2012) uses the concepts of “the Capital”, to elaborate on why resources are pre-requisites to influence or make decisions. Capitals are possessions, such as economic capital like money; social capital; educational capital; cultural capital, etc, that an individual or group of people use to have control over things or other people (ibid). He argued that without fully reflecting on it, actors or stakeholders have a feel of the game and the feeling is constructed on what is defined as right or wrong. He concluded that actors with high capital mostly occupy higher positions and they are likely to dominate the game. While those actors with less capital become losers and, therefore, their interests are not represented.

To successfully transfer power before capacity building to local authorities, central governments may follow the five measures as suggested by Ribot (2003:1): Firstly, focus on establishing democratic local government; secondly, apply multiple accountability measures such as fair elections, supporting democratic local institutions, etc; thirdly, engage local populations by transferring discretionary powers before transferring management burdens; fourthly, transfer powers before capacity building; and lastly, shift from an oversight and

management-planning model to a minimum-standards model. However, Ribot (2002) argues that decentralization is a long-time process that actors need time to understand and invest in it. He, therefore, concluded, with some few exceptions, that weak forms of decentralization are implemented in developing countries, rather than democratic decentralization.

2.2.3.2. The Weak Forms of Decentralization

2.2.3.2.1. Deconcentration

Unlike the decentralisation reforms, deconcentration, known as “administrative decentralisation”, involves a transfer of power from the central state to its local administrative extensions such as prefects, administrators, or local technical line-ministry agents. The local branches of the central state have some downward accountability built into their function, but they are not accountable to local people, rather, they are accountable to the central government (Ribot, 2002). Though deconcentration is distinct from decentralisation on the ground that it lacks accountability to local people; discretionary power transfer to local bodies and public representation in its fundamental aspects, it can serve local interests to some extent. In Brazil, for example, local needs were better served due to a system of performance awards that have been initiated under deconcentration reforms (ibid).

2.2.3.2.2. Privatisation

Without systematic means for public representation and voice in local decisions, transfers of power to the local arena become deconcentration or privatisation (Ribot, 2013: 12). Privatisation is defined as power transfer from the central state to any non-state entities such as individuals, corporations, NGOs, etc. Though privatisation is carried out in the name of decentralisation, it is not a form of decentralisation at all (Ribot, 2002). Ribot (2003) is against the idea of taking public resources like forests, fisheries, and pastures away from democratic entities and transferring them to private bodies. He argues that the idea neither defends nor follows the logic of democratic decentralisation. Therefore, instead of implementing privatisation under the umbrella of decentralisation, appropriate terminologies should be used. Fairhead et al. (2012), uses “Appropriation” to elaborate the transfer of ownership and control over resources from the poor to the most powerful. The appropriation of natural resources is being carried out across the globe especially in developing countries under Green grabbing mechanisms that are promoted with an environmental agenda (ibid).

2.2.3.2.3. Minimum-Environmental Standards

Where democratic decentralisation cannot be strengthened, the minimum-environmental standards approach is suggested (Ribot, 2002). The approach is an alternative to management planning; under this approach minimum guidelines and requirements are set out for individuals or communities to help with the achievement of both the environmental management and the local people objectives. The guidelines or restrictions should not be strange for the local community so that they act independently; they can either plan or not, use the resource or not provided that their local needs and objectives are met (Ribot, 2003). The main argument of Ribot about this model is that it defines the domain of autonomy for local communities. That autonomy can support ecologically sound independent local decision-making. However, he suggests more research and debate aimed at identifying what can or cannot be allowed to be done without environmental service direct intervention.

2.2.3.3. Decentralized Natural Resources Management

A large number of influential decision-makers such as development agents, natural resource managers and environmentalists promote decentralisation as a sustainable approach to managing natural resources. It is promoted because where it is proceeding, both efficiency and equity is increased through different ways; local people are given rights to value, use, access, manage and even voice their claims and concerns about natural resources. (Ribot, 2002). The concept of decentralised natural resource management involves a shift from the participatory approach to representative forms of democracy under elected local authorities. Those local authorities are not acting in external initiatives, they are instead using local knowledge to respond to local needs. Thereby, both democratization and natural resource management may be simultaneously reinforced through decentralization processes (ibid).

Nature resources, as sources of wealth, can finance both the local people development and national governments. However, most of the local people's objectives are different from those of the governments, the divergence of interests can raise tensions between the two sides. For example, foreign exchange and/or conservation objectives may interfere with local livelihoods objectives (Ribot, 2003). Ribot (2002) suggested that there is no reason to expect that local people will not convert natural wealth into financial wealth, thus, he recommended decentralisation as enabling approach for them to exploit the resources effectively. The natural resources are not only sources of wealth but also sources of discretionary powers which can help with legitimizing the local authorities. The legitimate local authorities/institutions, that are accountable to local people, can help the effective management of natural resources in ways that will deeply affect who manages, uses and benefits from the resources (Ribot, 2003)

Ribot (2002) argued that in practice, however, an endpoint of decentralisation reform is never reached even at the local level because the reforms produce an ongoing struggle between local and central interests. The process of decentralisation across the globe has been characterised, for example, by elite capture everywhere to some extent, while there may also be successful local management in other areas of the same country; the creation of winners and losers that later on ended in violence in Indonesia, Mali and Cameroon; the local authorities (whether elected or hereditary) that are accountable to ministries or NGOs rather than to local people and then the empty power transfer from central governments to local institutions like in Ghana and Zambia where local management entities have been created without funds to meet their mandates (Ribot, 2002 and Ribot, 2003).

Despite its slow implementation, Ribot (2002) argued that decentralisation needs to be judged only after it has been tried. It needs enough time to stabilise and bear fruit. While stabilising, decentralisation passes through different fruitful processes. At least 60 countries are decentralizing some aspects of natural resource management. For example, in Zimbabwe, India and Mali, democratic decentralisation has been adopted as a means of institutionalising and increase the local participation in decision making processes under the Community-Based Natural Resource Management approach (CBNRM). Those experiments have shown that local people can successfully manage natural resources, local democratic processes can be strengthened and that the revenues can be generated for local public works. Nevertheless, the CBNRM experiments have been taken under monitoring and financial support from outsiders (ibid)

2.2.4. Ecotourism

The neo-liberal agenda highlights the economic value of biodiversity and use of the economic benefits as an incentive for conservation, for example, benefit sharing or wildlife utilization (Givá, 2016: 43). In this context, the conservation and development goals are defined, by Salafsky and Wollenberg's (2000) conceptual framework of the relationship between conservation and development, cited in Nyaupane & Poudel (2011:1350), as the direct linkage that focuses on developing interrelationships between conservation and surrounding communities to form mutually beneficial relationships. The framework prescribes ecotourism and buffer zone programs as strategies for developing linkages between the local community development and conservation.

Ecotourism is, in turn, defined in various ways; for example, in Sandbrook (2006) ecotourism is defined as a form of tourism used as a tool for both conservation and development. The definition is more elaborated as low impact nature tourism which contributes to the maintenance of species and habitats either directly through a contribution to conservation and/or indirectly by providing revenue to the local community sufficient for people to value, and therefore, their wildlife heritage (ibid:289). According to The International Ecotourism Society, ecotourism is defined as responsible travel to natural areas that conserves the environment and improves the well-being of local people (Miller, 2016:20) and The Quebec Declaration of Ecotourism defines ecotourism as tourism that contributes actively to the conservation of natural and cultural heritage, includes local and indigenous communities in its planning, developing, and operation, and [contributes] to its well-being; interprets the natural and cultural heritage of the destination to visitors; [and] lends itself better to independent travellers, as well as to organized tours of small group sizes (Miller, 2016:20).

All the definitions have in common the linkage between tourism (nature-based tourism), local community improvement (Livelihoods) and conservation of nature (biodiversity). In a broad sense, Miller (2016) highlighted different aspects of ecotourism as follow: minimization of the environmental impact of ecotourism endeavour; contribution to environmental and cultural awareness among residents and visitors; provision of financial benefits for conservation; provision of benefits for local communities; it is nature-based and it is practised in a way that respects local culture. The current trend of environmental sustainability promotes ecotourism as a strategy of simultaneously achieving the goals of tourism development; livelihoods improvement and nature conservation (Sandbrook, 2006; Nyaupane & Poudel, 2011; Givá, 2016; Miller, 2016; McGuinness, 2014, Arévalo Vásquez, 2010; and Umuziranenge, 2019). However, the ecotourism adoption might have a diverse kind of motivation; for example, interest groups such as private extractive industries, national governments, etc may adopt ecotourism to contest the exclusionary worldview of conservation while generating income from the natural resource extraction (McGuinness, 2014). Ecotourism also might be adopted as an alternative to the exploitative use of natural resources for local communities whose livelihoods are affected by resource management decisions (Nyaupane & Poudel, 2011 and Givá, 2016). The pressure, from both donors and tourists who are more interested in the promotion and development of sustainable practices while they travel, has created an increasing demand for ecotourism (Miller, 2016; Nyaupane & Poudel (2011). Though the conservation and livelihood improvement goals might look competitive, tourism was suggested, by both the World Parks Congress and the International Union for Conservation of Nature (IUCN), as a

tool to link conservation with human development and poverty reduction (Nyaupane& Poudel, 2011).

2.2.4.1. Tourism as a Tool for Achieving the Conservation Goals

According to Sandbrook (2006), in the field of environmental studies, the term “conservation” has got three aspects in its definition; preservation, protection and preventing. Firstly, conservation means the preservation of wilderness; areas untouched by the influence of humans. Secondly, conservation is about the protection of resources required to ensure a sustainable future for life on Earth. Lastly, conservation is about preventing the extinction of species. The practice of conservation involves a struggle of simultaneously achieving the three aspects or goals. This practice has been dominated by a single policy instrument “the Declaration of Protected Areas”. Initially, the policy focus on the preservation of species and the exclusion of people (Sandbrook, 2006; McGuinness, 2014; Nyaupane& Poudel, 2011, Arévalo Vásquez, 2016 and Umuziranenge, 2019). As it is elaborated later in this chapter, the policy, for many reasons including the high dependence of the local community on natural resources, has failed to meet its goals. Therefore, there was a need to reconcile the goals of conservation and local people’s needs.

The IUCN suggests the nature-based tourism, conducted in Protected Areas like parks, as an instrument of ensuring the reconciliation (Nyaupane& Poudel, 2011). This kind of tourism acts as an alternative to environmentally livelihood methods such as agriculture, cattle farming, forestry, mining, hunting, etc. Those local people who lost their livelihoods, due to management decisions, get paid for costs of conservation of PAs (Miller, 2016; Nyaupane& Poudel, 2011). The payment partly comes from revenue generated from nature-based tourism. From that income, a certain portion is distributed to the communities around the PAs (Sandbrook, 2006; Arévalo Vásquez, 2016; Umuziranenge, 2019 and Nyaupane& Poudel, 2011). The most commonly known tool for transferring the revenue, from the nature-based tourism to the community adjacent to PAs, is Tourism Revenue Sharing (TRS) (Sandbrook, 2006 and Umuziranenge, 2019).

On the other hand, the local community are paid for the costs of conservation by NGOs, some of the key stakeholders of ecotourism. According to MacDonald (2003), the participatory conservation approaches, for example, ecotourism, have got the sympathy for many funding institutions, mostly NGOs. Therefore, since its adoption, it has mobilised a large amount of fund from which the local people may benefit. Not only the costs of conservation are paid to the local community but also other conservations initiatives like the Social Impact Assessment of PAs are paid by tourism revenues and through different NGOs conservation programs (Nyaupane& Poudel, 2011). Both the tourism revenues and the fund’s conservation grants aim to decrease the local community dependence on natural resources and to change their attitudes toward the conservation of biodiversity. While at the same time inducing the local people ownership in PAs (ibid).

2.2.4.2. Tourism as a Tool for Achieving the Livelihoods Improvement Goals

The better rural poverty reduction policies can be formulated based on increased awareness of livelihoods and diversity than formulating them based on conventionally defined sectors and sub-sectors (Ellis, 2000). According to Ellis, a livelihood comprises the assets (natural, physical, human, social and financial capital), the activities (farm and non-farm), and the access to these (mediated by institutions, social relations and organisations) that together determine

the livelihood gained by the individual or household. To better understand the lives of poor people, however, a novel set of tools known as “Sustainable Livelihoods” framework have been developed by researchers. This framework takes a broader perspective than the traditional focus on the poor’s capitals such as land, labour and assets, considering instead the wider spectrum of activities, assets and access as defined by Ellis. (Sandbrook, 2006). Chambers and Conway (1991), cited in Nyaupane & Poudel (2011:1348) defined the sustainable livelihood as a livelihood which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation.

Though poverty reduction and biodiversity conservation are two distinct objectives, there is a strong interconnection between the two objectives. Since most of the protected areas are in poorer and densely populated areas in developing countries (Tolbert et al., 2019), biodiversity conservation will fail to attain its goals until the poverty issues are addressed (Nyaupane & Poudel, 2011). Poverty limits conservation success because it is often connected with an increase in the local people’s dependency on nature. And in addition to conflicts between parks and its surrounding local communities, commonly known as “Park-People conflicts”, tensions between resources users increase. The tensions may result from competition for access and/or control over natural resources. The competition is either in between the communities or between local communities and natural resource management authorities (McGuinness, 2014; Givá, 2016; Arévalo Vásquez, 2016 and Miller, 2016).

Tourism is adopted as a strategy to address both the issues of poverty and biodiversity degradation. It is a legally accepted tool of extracting natural resources from PAs (Nyaupane & Poudel, 2011; Sandbrook, 2006 and Miller, 2016). The supporters of tourism (or ecotourism), which is done in PAs, argue that it ensures sustainability for both the local people’s livelihoods and conservation of biodiversity. Developing countries, mostly, adopt tourism to generate income that, in turn, contribute to their economic growth and local development through diversified livelihoods (Miller, 2016; Umuziranenge, 2019 and Nyaupane & Poudel, 2011). Livelihood diversification as defined by Ellis (2000:15) as a process by which households construct an increasingly diverse activities and assets in to survive and to improve their standard of living. In other words, people consider doing many things as their sources of income rather than relying on one source. Though the local considerations might be oriented by both factors of pressure and opportunity. Likewise, Miller (2016) argued that ecotourism as one of the more reliable sources of income, it can allow residents to earn more than another livelihood method.

A diversified livelihood is thought to be the most cited contribution of the nature-based tourism for local people living around PAs. Because that tourism industry can create both direct and induced employments which make the people earn their livelihood from many sources other than agriculture, the predominant economic sector around areas of PAs (Miller, 2016; Sandbrook, 2006; Umuziranenge, 2019 and Nyaupane & Poudel, 2011). The direct employments include tour guide, ecolodge employees or cooks, etc. (Miller, 2016), while the induced employments include jobs in sectors impacted by ecotourism such as the market for local farm produce, the market for non-farm produce, opportunities for microenterprises. The local microenterprises help to maximize supply/demand linkages and minimize leakages due to the impact of tourism on markets for local goods and services (Nyaupane & Poudel, 2011).

2.2.4.3. *Linkage among the Goals of Tourism, Livelihoods and Conservation*

Besides the believed (mentioned above) sustainable conservation and livelihoods improvement for the local community adjacent to PAs, ecotourism may enable the development of infrastructures, empowerment and capacity building for the local people around the tourist attraction areas (Miller, 2016 and Nyaupane& Poudel, 2011).

Amenities and/ or infrastructures are one of the outcomes of ecotourism because they are either developed by or for ecotourism. Those infrastructures and amenities fall into three categories (Miller, 2016); or into two categories, according to Nyaupane& Poudel (2011), such as conservation infrastructures like trails, forest roads, fences etc., and local infrastructures such as roads, water supplies and electricity, education and health. Nyaupane& Poudel (2011) argued that most of the central governments, in developing countries, choose to invest in local infrastructures to redistribute tourism income to benefit the poor people. While the three types of infrastructure, according to Miller (2016), are technical infrastructure, social infrastructure and management standards. All the three types of infrastructures are necessary for tourism; for example, the management standards concerned with rules regarding site use, management goals, vision statements and objectives. Like the local infrastructures, the social infrastructures are concerned with the development of health care services, public administration and education. Then, technical infrastructures are all about the transport, fuels and communication facilities (ibid).

Empowerment might provide an alternative development approach (Nyaupane& Poudel, 2011). According to the authors, empowerment is a multidimensional concept that includes economic, social, political and psychological aspects. They, however, argued that empowerment is not a process, but an outcome of processes such as capacity building, access to information, inclusion and participation. Likewise, Miller (2016) argues that empowerment can be achieved through building capacities and developing local communities as it is required by sustainable development. The social empowerment is different from economic empowerment but connected. On one hand, the social empowerment concerns the ability to be cohesive and live in harmony. Through the use of, for example, ecotourism funds on social development, strong community groups can be formed (Nyaupane& Poudel, 2011 and Miller, 2016). While the economic empowerment involves the community access to consistent and equitable economic benefits that can be used for community improvement (Miller, 2016). Ecotourism is considered as the main strategy of empowering local people around PAs because the processes of achieving both the objectives of biodiversity conservation and tourism development contribute to different dimensions of empowerment (Miller, 2016 and Nyaupane& Poudel, 2011). The local community empowerment mediated, for example, by ecotourism involve the access to information, access to conservation programs, access to the forests and additional use rights, influence in planning and decision-making processes (Nyaupane& Poudel, 2011: 1354).

Capacity building, as mentioned above, may strengthen the people's socio-economic empowerment. The main goal of capacity building (Nyaupane& Poudel, 2011) is to empower those who are weak in terms of economic and political power so that their dependence on government or NGOs is gradually decreased. The process of building capacities of people involves a provision, for them, of new skills and knowledge which are related to leadership; understanding the business; solving problems; expressing their issues, needs and visions (ibid: 1347). Miller (2016) stressed on the local community's capacity building for sustainable

ecotourism development. He argued that without the capacity to grab the ecotourism opportunities like jobs or businesses, the community may lack the motivation to participate in various processes of ecotourism. Both Miller (2016) and Nyaupane & Poudel (2011) agreed that any local people's capacity building process that involves ecotourism might provide the people with skills, know-how, and financial capital. This is done by allowing them the opportunity to participate in skill development and income-generating activities or make small loans available to establish their businesses, for example.

2.2.4.3.1. Benefits Leakage

2.2.4.3.1.1. Uneven Distribution of Benefits among Stakeholders of Ecotourism

Apart from lack of capacity, skills, knowledge and financial support for the residents, benefit leakage is mentioned as a major factor that might underpin the ecotourism development and its associated conservation, livelihood and tourism goal achievements (Miller, 2016 and Nyaupane & Poudel, 2011).

The uneven distribution of benefit among stakeholders of ecotourism, like in any other strategy concerned with the use and management of the natural resources, is often obvious (Arévalo Vásquez, 2010; Sandbrook, 2006; Miller, 2016 and Nyaupane & Poudel, 2011). Li (2007) argued that the practice of assemblage and the community forest management in Indonesia involved many actors having different interests and each actor has to defend their own. For example, on one hand, official forestry departments seek to retain or recover control over forest land under their jurisdiction, but claimed by forest villagers. By limiting the villagers from accessing benefits from the forest, the officials hope to gain their compliance with forest rules. While on the other hand, the villagers also aim to secure maximum access on the benefits of the forest with minimum regulations by officials. Similarly, ecotourism involves many actors such as local community, government agencies, conservation NGOs, ecotourism industry, etc. (Miller, 2016). Where the tourist attraction is owned by the state such as a National Park, the government benefits are more likely to be achieved than those for other stakeholders (Nyaupane & Poudel, 2011). For example, in Nepal, the tourism benefits are mostly based on macro-economic growth, foreign currency earning and balance of payments. As tourism goals are promoted at the expense of the conservation and livelihood goals, there are both direct and indirect implications on conservation and livelihood. For example, conservation infrastructure, such as forest roads, fences, etc., are developed instead of local infrastructures like electricity, water, etc. Miller (2016: 26) argued that without well-developed infrastructure [local infrastructure] an ecotourism project runs the risk of leading to environmental degradation and failing to meet its sustainability goals. For example, an area without a sustainable source of energy leads to an increased demand for unsustainable fuels such as firewood. The indirect negative impacts of tourism on biodiversity conservation include an increased exploitation of nature to satisfy the needs of tourists. For example, in Nepal, the movement of tourists increases wood usage to provide fuel to make food for tourists. Likewise, in the Galapagos Islands, the fishing rate has increased to feed tourists (ibid).

2.2.4.3.1.2. Unequally Distribution of Benefits within the Community

Within the communities, the benefits of ecotourism are not distributed equally. One of the critics against "the provision of alternative livelihoods for the local people" as the main goal of ecotourism, is that the goal is set based on a false assumption that communities are homogeneous and affect environmental degradation equally (Miller, 2016). Besides that, those communities earn their livelihoods from different activities (which may harm the PAs or not)

such as agriculture, fishery, artisanal and other vocational skills, they do not have equal access to new livelihood opportunities created by ecotourism (ibid). Ellis (2000: 9) define “access” as the ability to participate in and derive benefits from, social and public services provided by the state such as education, health services, roads, water supplies, etc. In rural areas, the ability enables local people to own, control, otherwise claim or make use of resources such as land and common properties. According to Miller (2016) and Nyaupane& Poudel (2011), most of the job created by ecotourism in areas around PAs require education and other skills that most the community members do not have. Therefore, the new opportunities including jobs and businesses are grabbed by a few people in the community who can have access to different assets such as financial, human, natural, social and physical capital. As a result, most of the ecotourism benefits are taken out of the community.

2.3. Summary of Literature Review

Generally, the literature reviewed indicate that ecotourism has the theoretical potential to combine the goals of conservation of PAs, tourism development in PAs and livelihoods improvement of the people living around the PAs. Tourism revenues fund different conservations activities either directly or indirectly, and the livelihoods of the communities adjacent to PAs are diversified through different job opportunities brought by nature-based tourism. However, the literature also underlined weaknesses of the link between conservation, tourism and livelihoods goals, e.g. by benefits leakage among the stakeholders, lack of capacity and power of the local community, which result in their limited participation in various ecotourism processes. The relevant aspects from the literature are used to discuss the empirical material for this study to look for similarities, contradictions or supplements in the analysis of the relation between conservation, tourism and livelihoods in the management of Volcanoes National Park.

3. Methodology

3.1. Overview

The current chapter presents the methodology adopted in this study; the research design and approach and the methods used in collecting data are described in detail. The choice of the methods was, firstly, based on the research objectives and questions for this study. And then based on the practical conditions for collecting data from the field. On one hand, I have reviewed the relevant literature on the topic including the policies and strategies concerning the management of protected areas and tourism development in Rwanda. For example, I have reviewed the National Biodiversity Strategy and Action Plan; the Protected Areas Concessions Management Policy; the Rwanda National Tourism Strategy, etc. and other past relevant studies on other empirical cases with similar topics. On the other hand, this chapter describes the phone interview as a method adopted in this study to collect data. The method was chosen to adapt to the current global pandemic of COVID-19. The chapter highlights the advantage and limitations of the adopted method. It also, however, describes how I have adapted to the limitations. The chapter also entails my experience in collecting data like how, for example, I have dealt with ethical issues such as ethnicity.

3.2. Study Area

3.2.1. Case Study Choice

The Volcanoes National Park (VNP) has been chosen as a case study for this research because it has many different aspects to explore. The biodiversity importance (as it is detailed below under the section of Biodiversity in VNP), the density, economic status and activities of the population adjacent to the park are the main aspects which have been considered while choosing the case study. The aspects are fitting in both the research questions and objectives for the study since the high population density and poverty of the community adjacent to VNP might undermine the achievement of the conservation goals. However, the poverty issues might, in turn, be tackled if the revenues from tourism are invested in improving the wellbeing of the local community by diversifying their livelihoods. And then the integrity of the park is maintained indirectly. Therefore, the concrete case study helps with an understanding of the possibilities and the constraints to combine the goals of conservation and livelihoods by making use of the tourism conducted in the park.

The uniqueness of safe havening the rare Mountain Gorillas makes the park attractive to a significant number of high-end tourists (RDB, 2017 and TAN, 25 August 2019). VNP counts for 38% of all visitors within the three national parks and it generates over 90% of their total revenues. Though it was ranked in 2017 as the second most visited national park in Rwanda with 36 thousand visitors per year behind the Akagera National Park (ANP) with 44 thousand visitors, the VNP has registered the highest tourism revenues among the three national parks. For example, in 2017, the VNP has generated more than 17 times of the income generated by the ANP which corresponds to USD 17,1 million in comparison to USD 1 million generated by the ANP and USD 0.5 million generated by the Nyungwe National Park (RDB, 2017).

Despite its importance in terms of biodiversity and revenues from tourism activities, mainly the gorilla trekking, the park is located in one of the most poorly and highly populated regions in Rwanda (Tolbert et al, 2019; MINICOFIN, 2005; McGuinness, 2014 and Hitimana et al, 2006). The Volcanoes National Park is surrounded by the highest population density, with 590 inhabitants per km², in comparison to the other two national parks (in Uganda and D. R. Congo) in the Virunga Massif (Tolbert et al, 2019). There are some regions around the VNP where the population density is far from the national average; for example, the Musanze District has one of the highest population density in the Northern Province with 694 inhabitants per km² in comparison to 415 people per km² at the national level (MINICOM, 2015).

The case study is also characterised by the increase in population density which does not correlate with the economic development of the population living around the VNP. Their average annual income is estimated at USD 540 per household (McGuinness, 2014). The main economic activities in the region are agriculture and animal husbandry. Around 96% of households in Kinigi area (described above in the section of Administrative Divisions around VNP) is occupied by agriculture. However, the practised agriculture is dominated by subsistence farming; for example, 35.9% of the households in the Kinigi area own farm sizes of less than 0.2 hectares. As a result, most of the food crops are produced for home consumption rather than market orientation (Hitimana et al, 2006). Concerning the animal husbandry, the sector is the second economic activity for the community adjacent to the VNP after agriculture, the livestock is practised by 51% of the households in the Kinigi area. In 2004, the average number of domestic animals per household in the Kinigi area was: 0.29 cows, 0.63 sheep, 0.72 goats, 0.06 pigs and 1.03 chicken. Animal husbandry is an important source of cash as 86.8% of the value of livestock to the household is delivered from sale in comparison to 13.2% consumed at the household level (ibid).

3.2.2. Geographical Location

The VNP is in north-western Rwanda (1° 22'' and 1° 34'' South, and 29° 42'' East) (McGuinness, 2014). The geographical coordinates, however, slightly vary depending on the source (Hitimana *et al.*, 2006). The park's length is around 40 km and its width vary from 8 km to 1 km. The VNP lies in a chain of dormant volcanoes (known as "Ibirunga or Virunga") such as Muhabura, Gahinga, Sabyinyo, Bisoke and Kalisimbi (ibid), it covers high altitudes, ranging from 2400m to 4500m, towards the south of Virunga chain. Kalisimbi, one of the Virunga massifs, has the highest altitude of 4507m (McGuinness, 2014). The park is also situated in the part of Rwanda bordering Democratic Republic of Congo (DRC) and Uganda. Therefore, it is a part of the trans-boundary network of protected areas which comprise the ecosystems of Virunga Massif. The VNP is contiguous with two other national parks; Mgahinga Gorilla National Park (MGNP) in Uganda and Virunga National Park in DRC (Nielsen & Spenceley, 2011; Hitimana *et al.*, 2006; Ekise *et al.*, 2013 and McGuinness, 2014).

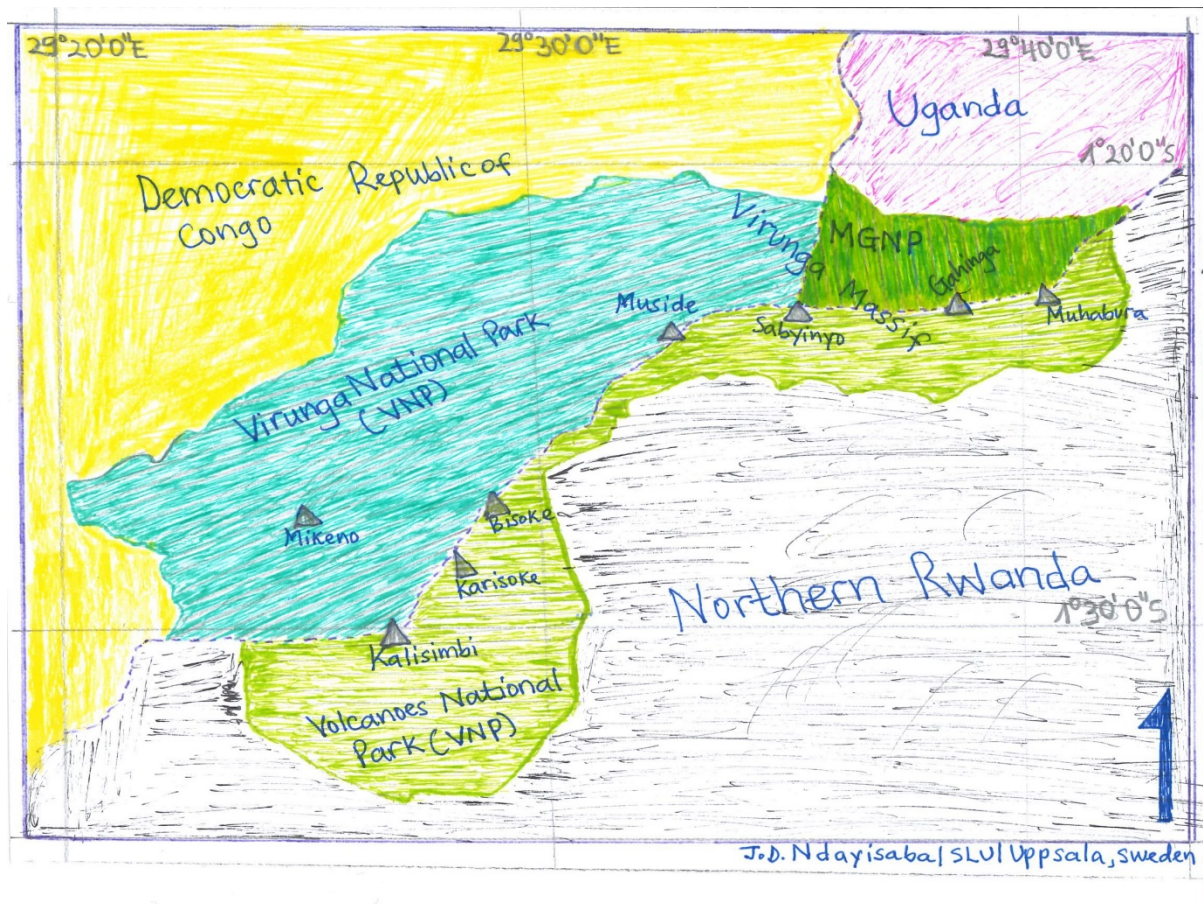


Figure 1: Location of the VNP, in relation to its bordering countries and the position in the Virunga Massif (Adapted from McGuinness, 2014)

3.2.3. Background to VNP

The VNP is the oldest national park on the African continent (Hitimana et al., 2006; McGuinness, 2014 and Ekise *et al.*, 2013). It was created in 1925, by Carl Akeley from the American Museum of Natural History, under the name of Parc National Albert (Ekise *et al.*, 2013) or as a part of the Parc National Albert in the Albertine region comprising Rwanda, Uganda and D.R. Congo (McGuinness, 2014 and Nielsen & Spenceley, 2011). The park was established to protect the remaining populations of mountain gorillas (*Gorilla beringei beringei*) and great apes (McGuinness, 2014). The size and sovereignty of the VNP park, however, has changed throughout the time (ibid). Following the Rwandan independence in 1960, the park was divided between three National Parks; the Volcanoes National Park (VNP) in Rwanda, Virunga National Park (ViNP) in DRC and Mgahinga Gorilla National Park (MGNP) in Uganda (McGuinness, 2014; Ekise *et al.*, 2013 and Nielsen & Spenceley, 2011). Originally, the VNP in Rwanda was established on a total surface of 328km². In the beginning, however, the MGNP in Uganda was not considered as a park, instead, it was established as a gorilla sanctuary with the smallest area of 33.7 km². It was declared as a national park in 1991 (McGuinness, 2014). Many factors including war and genocide (USAID, 2008; Lanjouw, 2008 and McGuinness, 2014); population pressure and its associated land use-conversions such as deforestation (Nielsen & Spenceley, 2011; Ekise *et al.*, 2013; Kalulu *et al.*, 2016; A. Lanjouw, 2008; Hitimana et al., 2006) etc. have been downsizing the VNP throughout the years. According to Lanjouw (2008), the VNP has lost about 55% of its size between 1958 and 1979.

Today, the current surface of the VNP is estimated at 160 km² (Ekise *et al.*, 2013, Nielsen & Spenceley, 2011 and Hitimana *et al.*, 2006). Regionally, the trans-boundary bloc of protected areas, forming the three national parks, covers a total area of approximately 450 km² (Hitimana *et al.*, 2016).

3.2.4. Biodiversity in the VNP

The mountain forests of the Albertine lift, of which the VNP is a part, are one of the most ecologically significant ecosystems worldwide in terms of species richness and diversity, a high proportion of endemic species and significant numbers of rare and threatened wildlife (Ekise *et al.*, 2013; McGuinness, 2014 and Nielsen & Spenceley, 2011). This has led the International Union for Conservation of Nature (IUCN) and other conservation organizations to rank the forests among the highest priority areas for conservation in Africa (Ekise *et al.*, 2013). In addition to the Mountain Gorilla, the Virunga massif is a home of 86 mammal species including African elephants, Cape buffalo, bushbuck (*Tragelaphus scriptus*), black-fronted duiker (*Cephalophus nigrifrons*), hyrax (*Dendrohyrax arboreus*), etc.; 294 birds including 20 Albertine Rift endemic and 4 IUCN Red list species; 43 species of reptile including 7 Albertine Rift endemics, 47 species of amphibians including 16 Albertine Rift endemics and 21 species of butterfly (McGuinness, 2014).

The vegetation of the Virunga massif is of central African altitude formation and East African Mountains in general (Hitimana *et al.*, 2006). The massif counts 878 plant species including 128 Albertine Rift endemics and 5 threatened species based on IUCN classification. However, new plant species are still discovered in the Trans-Boundary Protected Areas (TBPA). A recent repeat survey has discovered 107 Albertine Rift plant species that have not been recorded before. Interestingly, other 348 species entirely new to the Albertine Rift were discovered (McGuinness, 2014). Among 878 plant species in the TBPA or Virunga massif, 81 of them are trees (Ekise *et al.*, 2013). The VNP was found to support more plant species, compared to the rest of the Virunga massif national parks in DRC and Uganda. It supports 624 plant species, but their spatial distribution is highly heterogeneous; the distribution varies through a mosaic of wetlands and grasslands and the introduced species such as cypress, black wattle, eucalyptus and pine (McGuinness, 2014).

3.2.5. Administrative Divisions around VNP

The VNP has a narrow shape which enables it to share its borders with many administrative divisions. Its length is approximately 40km while the width varies from 8 to 1km and the interference of the VNP with its surrounding population is about 60km (Hitimana *et al.*, 2006). The colonial administrative system has replaced the administrative boundaries in Rwanda, which were based on community located on the tops of a hill (Commonly known as Collines), with a complex hierarchical administrative system (McGuinness, 2014). Until 2006, the VNP was surrounded by five districts, namely: Bukamba, Kinigi, Mutobo, Buhoma (in the former Ruhengeri Province) and Mutura (in the former Gisenyi Province). According to Hitimana *et al.* (2006), concerning the Community-Based Natural Resources Management (CBNRM) plan for the VNP, however, the total area surrounding the park was commonly known as “Kinigi Area”. The Kinigi Area comprised of the five districts covering a total area of 892.6 km². Following the 1994 Genocide against Tutsi, in 2006, the country administrative boundaries and nomenclature have changed. Those changes have brought new names for many places including the Kinigi Area. The new borders consist of, in descending order of size, five

provinces, 30 districts, 417 sectors, 2,148 cells and villages (McGuinness, 2014). After the new delineations, the VNP is surrounded by four districts; Burera, Musanze, Ngororero and Nyabihu. The four districts have a total of 12 sectors (and Kinigi is among them) which are adjacent to, or within 500m of, the VNP boundary. Within the sectors, 26 cells are directly adjacent to the park (ibid).

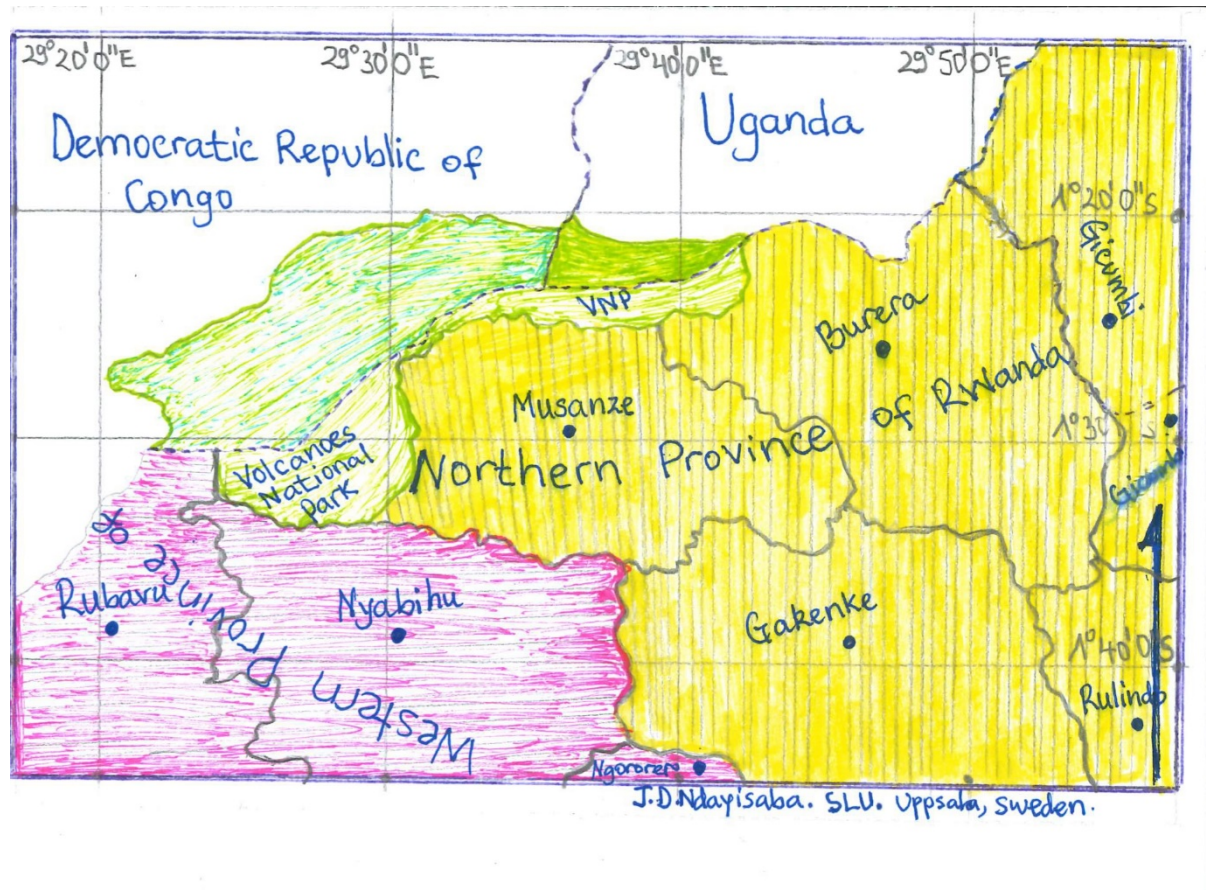


Figure 2: The map of the administrative division showing the districts sharing their borders with VNP in the northern and western provinces of Rwanda (Adapted from McGuinness, 2014).

3.3. Research Design and Research Approach

This research has a social constructivism worldview since the basic generation of meaning is social, arising in and out of interaction with a human community (Creswell and Creswell, 2018:46). The focus is the specific context [which is the VNP and its surroundings] in which people live and work so that their historical and current situation is well understood. Therefore, the study is connected to qualitative research design (Creswell and Creswell, 2018). In this study, constructive worldview is linked to the phenomenological approach because the approach helps also with understanding the stakeholders or actors in the way they understand themselves. Phenomenologically, we can understand how the world is perceived and understood by individuals or a group of people. Actors can rarely act independently, usually, contexts affect them (Inglis, 2012) there might be an umbrella or a network under which actors operate. Inglis (2012) argued that actors are always active, they are not empty vessels to be filled with structure and culture, the phenomenological approach helps to understand how actors use their agency to make best out the situation they are in. For example, for our case study, stakeholders such as conservationists, tourism defenders and the local community try to dominate each other to maximize their access to resources from the park. Therefore, the

struggle of achieving the goals of conservation, tourism and livelihoods is like an interplay between the stakeholders and the interplay is totally linked to the benefits of accessing the VNP resources. Another important aspect of the phenomenological approach is the context “*Situated-ness=place and time*”. By taking into consideration of the VNP management, the approach helps with understanding how the situation has been evolving throughout the time. This helps to understand how stakeholders perceive the transfer of management, from fortress to participatory management of the VNP and the implications it has on the local community’s livelihoods, biodiversity conservation and tourism development.

3.4. Methods and Tools

3.4.1. Literature Review

Prior to the planning of the interviews with different stakeholders, an extensive investigation was carried out into policies and strategies concerning the management of protected areas and tourism development in Rwanda. The investigation concerned also the past relevant studies on other empirical cases with similar topics, especially in the developing world. The purpose of this investigation was to look for the conformity, contradicting and supplementing in their findings. By gaining an understanding of the findings of the previous studies, the study objectives and research questions to approach them were formulated. The accessed literature or documents were sourced in the library, online journal repositories and other available resources on the internet.

3.4.2. Interviews

This study has adopted the interview as a method of data collection. Creswell and Creswell (2018) suggest interviews with open-end questions for constructive researches so that the participants can construct the meaning of a situation. For this research, 14 phone interviews were conducted with research participants from three categories such as VNP conservation, Tourism development and Community’s livelihoods improvement have been interviewed and the interviews were of the semi-structured and unstructured types. The interviews were recorded, translated and then transcribed. Each interview took an average of 34 minutes.

The key informants for this study were selected on the experience they have in their daily activities in conservation, tourism and community development. The research participants from the local community around the VNP were from Musanze and Burera Districts. The individuals interviewed at the local community level were members of cooperatives engaged in both conservation and development projects, former poachers employed in jobs connected to tourism and conservation, leaders and ordinary people mostly farmers around the VNP. Regarding the category of stakeholders ‘conservationists’, staff from NGOs like Diana Fossey Gorilla Fund International and its research institution ‘Karisoke Research Center’ were interviewed. The other category of stakeholders ‘Tourism development’ was also represented in this research where officials from Rwanda Development Board (RDB) were interviewed. However, RDB officials have also been interviewed about the VNP conservation as it is one of the missions of the institution. Both NGOs and RDB organizations were one of the key informants for this study because of many roles they play, at the same time, in the interplay between conservation, tourism and livelihoods. Therefore, research participants from these

organizations have been interviewed on the many subjects in relation to the research questions and objectives.

No	Research participants	Organization	Stakeholder category
1	DFGFI Staff 1	Diana Fossey Gorilla Fund International (DFGFI)	VNP Conservation and Community's livelihoods
2	Director of VNP	Rwanda Development Board (RDB)	Tourism, Conservation and Community's livelihoods
3	DFGFI Staff 2	Diana Fossey Gorilla Fund International (DFGFI)	Conservation and Community's Livelihoods
4	Moutain Gorillas Tracker 1	Karisoke Research Center	VNP conservation
5	Mountain Gorilla Tracker 2	Karisoke Research Center	VNP conservation
6	Village leader	Kinigi Sector	Community's livelihoods
7	Porter 1	Rwanda Development Board/VNP	Community's livelihoods
8	Porter 2	Rwanda Development Board/VNP	Community's livelihoods
9	Porter 3	Rwanda Development Board/VNP	Community's livelihoods
10	Farmer 1		Community's livelihoods
11	Community Cooperative Member 1	Cooperative "COOPAVU Mararo"	Community's livelihoods
12	Community Cooperative Member 2	Cooperative "SACOLA"	Community's livelihoods
13	Farmer 2		Community's livelihoods
14	Farmer 3		Community's livelihoods

Table 1: Repartition of key informants for the research

3.5. The validity, Ethical considerations and Experience in data collection for the study

I have adopted the phone interview as a method of data collection to adapt to the existing global pandemic situation of COVID-19. In the beginning, I was afraid that the method will not give accurate data because I will not able to have my observation; to see the body language of the interviewees; and or be able to explore the other aspects that would have been easily explored if I have done fieldwork in place. The experience from this type of interview for this research, however, has shown that the method is very successful and could be recommended (in combination with other methods like literature review and the researcher's observation, where it is possible) to other researchers who might be interested to conduct their research either in the same or similar case studies. Throughout the process of data collection, I realised that the research participants were freely and confident to answer to my questions.

The reasons behind the high degree of freedom and confident for the interviewees might be that: (1) the purpose of the research was clearly explained, from the beginning, to the research participants and that the research is purely independent of any institution or organisation. Therefore, the trust between me and the interviewees was maintained ; (2) the research participants were in the comfort zone to answer to the questions for this study; the time of interview they were mostly at their home or somewhere they think they can talk without the interference of influence of other people. The easy recording of data during the interviews can be another advantage of the method used. Upon their permission, the interviews with the

participants were recorded on other devices other than the phone I have been using. The recording was successful and kept being adopted throughout the process because the interviewees would not lose their attention to focus on the devices used. Otherwise, the focus may have been on the devices if the face-to-face interviews were adopted. Despite the trust-building between me and the interviewees and the claimed degree of freedom of the research participant to answer questions of the study, some of the participants have preferred to remain anonymous. This was the case for one category of the research participants; I assume that the reason behind some of the senior staff have chosen to be anonymous to speak on their own behalf, rather than speaking for the organisation they represent or work for.

Besides the claimed success, the method had also some limitations; the observation of the researcher was missing. If possible, I could have explored the degree of crop damages by the animal from the park to further understand the degree of human-wildlife conflicts; the distance from one infrastructure (communal faucet, for example) to another to effectively contribute to the understanding of impacts of tourism on the local community development in the case being studied; etc. To cope to the challenges, however, I have frequently asked questions (about the issues that need to be observed) to different interviewees in various ways to assess the conformity or similarity in their answers. I have also read the previous literature about the case to further explore the aspects that might need my observation as a researcher. For example, the literature on the population and housing census was consulted to investigate the access to the basic infrastructure such as clean water, electricity, school, etc. by the local people living in districts around the Volcanoes National Park.

The process of data collection was also a good experience to hear perspectives from different categories of the research participants. I was surprised to hear a relatively big gap in the answers for one question but from different interviewees. Generally, the officials have had different views from what the ordinary people have on the same topic. The experience from this study shows that the officials were sometimes not willing to reveal mistakes and failures to me as an outsider. The other experience is that knowing, as I do, the language and culture of the case study is of great importance to overcome ethical issues of a given study. During different interviews I had with the participants of this study, some ethnic issues (in connection to trends of illegal activities in the park) were raised. There is one category of the population of Rwanda who previously lived in the park, the interviews show that these people have more tendencies to engage in different activities that harm the park than the other categories of the population. In this thesis, however, I considered to omitting this type of categorising people based on their race or ethnic groups to respect the Rwandan constitution, which avoids speaking of ethnic groups

4. Findings

4.1. Overview

The chapter presents a synthesis of findings for this study. In conformity with both the research questions and objectives of the study, and the nature of empirical data gathered from a variety of research participants, I present the data into 4 sections. The sections 4.2, 4.3 and 4.4. describe the possible outcomes of integrating tourism with conservation and the livelihoods improvements for the local community adjacent to the Volcanoes National Park (VNP). The section 4.5 highlights, mainly, the challenges and problems associated with the linkage between the goals of conservation, tourism and livelihoods improvement for the case being studied. Section 4.2. gives a picture of the relationship between the Volcanoes National Park (VNP) and the community surrounding it. The section highlights a shift in approaches to protecting the VNP and how the current collaborative approach of protecting the park has contributed to improved biodiversity integrity in the park. The engagement of the local community in conserving the park together with other factors such as Tourism Revenue Sharing (TRS) incentives, the involvement of NGOs and imposition of punishment are illustrated in the section as the main factors which have contributed to some achievements which have been made in both conserving and protecting the VNP in the last 15 years. Findings in Section. 4.3 illustrate the Mountain Gorilla-Based Tourism activities as an implementing example of the Rwanda Protected Areas Concessions Management Policy that consists of legalising the exploitation of natural resources from protected areas including national parks. In the section, the Mountain Gorilla is described as an outstanding animal that attracts tourists across the globe to come to see it at a very significant cost. Different marketing strategies such as VISIT RWANDA and KWITA IZINA used to promote the gorilla trekking in VNP are also mentioned in that section. Section 4.4 highlights the benefits and advantages of the Gorilla-Based Tourism conducted in VNP for the adjacent community to the park. The local community's livelihoods diversification, infrastructure development, capacity building and social support are illustrated as examples of the benefits of combining the goals of conservation, tourism and local community livelihoods. Findings in Section 4.5 cite the possible consequences of ecotourism benefits leakage among its stakeholders and expose the weaknesses of linking the goals of biodiversity conservation, tourism development and livelihoods improvement in the context of VNP. In the section, however, COVID-19 and its negative impacts on the ecotourism projects are cited though there is no clear relation between the pandemic and the weakness of the linkage. Among the problems associated with the weakened link include, as highlighted in that section, trends of illegal activities which are still taking place in VNP, crop-raiding by animals from the park, water scarcity, etc. In the same section under the sub-section 4.5.3., the way the community cooperatives are conceptualised in the context of VNP also weakens the linkage; the issues of imbalance of both power and capacity among the community members are reported in that sub-section.

4.2. Community Engagement in the Conservation of the Volcanoes National Park

4.2.1. From Classical Guards to Protecting the Park in Collaboration with the Local Community

The interview I had with the Director of VNP provided this study with the chronological perspective in both conservation and management of the park. He has been in this position for 12 years; before that he joined the park as the Head of Research, Monitoring, and Planning on Biodiversity. He has been also a researcher at the Karisoke Research Centre whose operations include the monitoring and protection of the mountain gorillas in VNP. The director told me that since the park has been established in 1925, it has gone through different changes in its management approaches. He told me that the major changes were concerned with the shift from using firearms to protecting the park in collaboration with the local community around the park. He added that the shift had the aim of prioritizing income making from the park and sharing tourism income with the community. However, he is familiar with many other changes, but he argued that they have arisen from the shift.

Though he emphasised the park is 100% a public property, there were various policies and programs that the government of Rwanda has elaborated to allow the community to benefit from it. However, they aim to maintain the integrity of the VNP as well. Among the policies or programs, he mentioned include the government policy of Tourism Revenue Sharing (TRS) which started in 2005, the policy of compensating damages caused by animals from the park started in 2012 and the Greater Virunga Transboundary Collaboration (GVTC), with the three countries sharing the Virunga massif, started in 30 years ago. However, a treaty regulating the collaboration was reached in 2015.

4.2.2. The Growing Attitudes of the Local Community towards Conservation

The local community has been also watching the changes in the management of VNP. A Village leader who is also a local farmer who has been living right side the Volcanoes National Park for 40 years, has experienced the changes in the management of the park. In the past, he saw people looking for lives from the forest. He thinks it was possible because the park was not secured as it today:

“People used to go hunting in there without any worries, they were collecting firewood in there, they were doing their everyday work in there as if it was their field.” (Village leader, Research Interview, 08/032020)

A Porter who was a poacher before his abandonment of poaching activities to be a porter who assists tourists to carry their luggage. Before he changed his poaching activities, poaching was his source of income earning; he could find meat for both to eat and sell:

“I used to sell the meat of buffaloes, those of animals called “Ifumberi”, and reindeer...I used to bring them home, and when I had got a lot of kilos; like 20 or 10 kg, I would sell half of the meat and eat the other half.” (Porter 1, Research interview, 29/03/2020)

Since 2005, the park management which excludes the local community in conservation was abandoned and the one which considers its participation was adopted. Most of the local community, RDB and NGOs working in the conservation of the VNP are happy with the outcome of the community conservation approach used in the conservation of the park. It has contributed to the development of the community mindset in conservation to the level of satisfaction, in comparison to the past, for most of the stakeholders I talked with. For example,

the community plays a prominent role in rehabilitating the park, and in case animals escape and get out of the park, the community, together with the park administration bring them back into the forest. There are other acts which prove that their mindsets are developed now, a lot of people have stopped from poaching, from setting traps, and they have rather joined the park to fight those who are still poaching.

The community is proud of their role in the conservation activities, and they even go far by denouncing that all forms of illegal activities in the VNP were abolished. This is the answer I got from an artisan in Nyange Sector when I asked him if there still exist some illegal activities in the park:

“Those were antique practices, ...these days, there have been reforms in the park management, and the community has changed; they have stopped old practices” and he added *“Those who clandestinely go there, we have to fight such people. Even their neighbours have to fight them, as they know those poachers more than any authorities or park employees”* (Community Cooperative Member 1, Research interview, 15/04/2020)

The community is convinced that the park is not their property, they also know the importance of having it conserved. For them, if it is vanishing, there would not be any tourists coming. Therefore, they must protect it well so that foreigners come to visit them, and then, they get incomes. They also consider the fresh air and nice weather they enjoy as an additional advantage of the park around them. Because of those benefits and conservation mentality, the local community takes a responsibility to fight poachers and others who engage in other forms of illegal activities. It seems everybody is watching everybody. In case, they catch any member of their community who invades the park, they directly report him. They may also bring him in the community, like community meetings, and they publicly blame him. Surprisingly, the people I talked with have told me that there are no conflicts in between them from these behaviours having some of the community members who are blamed or punished because of the other neighbours. They said that they cannot be angry with them because they know that it is forbidden to invade the forest:

“[When we catch them] they look ashamed because they know that by going in there, they were going to steal, and they know that it is destructive” (Community Cooperative Member 2, Research interview, 13/03/2020)

4.2.2.1. Factors Contributing to the Community Conservation Attitudes

4.2.2.1.1. The Role Played by the Community-Based Organisation

The NGO employee I talked with about the community cooperatives engaged in conservation, told me that they have been training the local community around the VNP to be in cooperatives and it is the policy of the Government of Rwanda that people should join cooperatives; gather their efforts, help each other so that the weak can be helped via cooperatives. For that NGO staff, it is better to work with cooperatives because their management is done through local institutions like Sectors, and it shows that those people are more committed than those who are not in cooperatives.

The conservation cooperatives in the areas around the VNP are formed mostly by people who previously were engaged in different illegal activities in the park. Those who were arrested because of their harmful activities from the park were subjected to different sorts of punishment including imprisonment. After being punished, they decide to look after the park rather than destroying it. People share the same problems or background; they group into the same

cooperatives whose mission is to protect and conserve the park. There are many cooperatives of former hunters, poachers, bamboo or tree cutters, and those who were used to invade the park in the search for honey, plants medicine, etc.

“...those who join the same cooperative, very often they share the same problem. For instance, those who used to set traps in the park, and hunters, have got their cooperatives, and they are well established now”. (Community Cooperative Member 2, Research interview, 13/03/2020)

The cooperatives' activities include the sensitisation or mobilisation of the community so that they cannot let anybody invade the park, digging trenches and look after them to prevent animals like buffaloes from escaping the park and graze in their farms, planting trees around at the edges of the park and in the framers' fields around the park, etc. The trees planted are mostly bamboos and other varieties which are grown by farmers to save their crops from being raid by animals from the park; in case an animal escapes from the park and gets in the village, instead of grazing the crops, it might graze those trees. Other trees are grown for manure production purpose.

There is another category of cooperatives whose missions are not entirely conservation; their missions are the promotion of agricultural productivity instead. However, those cooperatives of farmers who grow pyrethrum or potatoes they also engage in the conservation of animals of the park. For example, in addition to their farming activities, they also deal with night vigil in the park by protecting animals:

“...I do not see any circumstances under which they can kill them. However, as they escape and graze in the nearby population's farms at night, we then pass the night there; flashlights all night long, and make noise by hitting jerry cans, as a way of frightening them to push them back.” (Farmer 2, Research interview, 05/03/2020).

4.2.2.1.2. The Role Played by NGOs

The most recognized NGO engaged in the conservation of VNP is The Diana Fossey Gorilla Fund International and its research institute called “Karisoke Research Center”, their activities are divided into different programs such as Monitoring and protection, Research, Capacity building and community engagement. I was curious to know why the NGO is committed to conserving the mountain gorillas in Rwanda for about 54 years, the answer I got from one of the NGO staff was that they acknowledge and pursuing the outstanding work done by Diana Fossey, an American primatologist and conservationist:

“...First, it is research which was started by Diana Fossey; when she came, she joined mountain gorillas, she learned about them, and then she communicated to the whole world about their lives and the challenges they meet”. (Anonymous1, Research interview, 03/04/2020).

Concerning the monitoring and protection program, they deal with taking care of mountain gorillas on daily basis, they check on their health, and their protection because there are different traps in the forest and other different threats that may harm the gorillas. To monitor the gorillas and follow up them efficiently, they are split into groups and each group is assigned to a Tracker who knows their daily lives. Each group is formed of an average of 10 gorillas.

“When I meet mountain gorillas, I check on their health status in comparison with a healthy mountain gorilla, I check whether they are

not sick, injured, I check if there is anyone who has delivered, therefore, I get to know about their daily wildlife.” (Moutain Gorillas Tracker 1, 14/03/2020).

Regarding the community engagement program, the Diana Fossey Gorilla Fund works closely with the local community around the park, they mobilise them to play an active role in conservation-related activities while supporting them with basics that help to find no reasons to go back into the forest. They support mostly cooperatives, for example, they support a cooperative in Jenda Sector whose members are former poachers, and it is engaged in the spread of bamboo to solve the problems of bamboo in the area they operate:

“We supported it because it is a cooperative by the people who used to be poachers.” (DFGFI staff 2, Research interview, 27/04/2020).

The NGO conducts research not only on the mountain gorillas but also on the entire ecosystem of the Volcanoes National Park, they do their research on other animals in the forest to have an idea on the gorillas’ relationship with other animals, their living environment. Challenges they are facing. Therefore, they can understand the effect of climate change on them. Generally, they research numerous issues: other mammals, birds, plants, etc.

4.2.2.1.3. Tourism Revenue Sharing Scheme

The community around the VNP is motivated, by the Government of Rwanda through its agency “Rwanda Development Board, RDB”, to engage in different activities aimed at the protection and conservation of the VNP. Through the Tourism Revenue Sharing scheme, RDB shares 10% of the total yearly income generated from tourism with the community members who live in the Sectors which share boundaries with the park. However, not everyone who lives in those sectors receives that money. The priority is given to cooperatives whose activities are directly connected to the conservation of the park. Other amounts of TRS go to public institutions which work closely with the local community. Within those cooperatives engaged in conservation, all of them do not get money every year, different criteria are followed including rotation. For example, it can take up to six years for a cooperative which has previously received the money to receive it again. This makes people suffer from poverty while waiting for their turn.

“They give money to one cooperative this year, another one on the following year, etc.... As we are a lot of cooperatives, we have to share. [Last time] we got six million [Rwandan Francs]”. (Porter 3, Research interview, 07/03/2020).

In addition to the rotation, other criteria apply while RDB is selecting cooperatives to support, it has to assess how the cooperative to support is performing and how efficiently it has used the previous money given. Some cooperatives are, regardless of their engagement in conservation, deprived of Tourism Revenue Sharing because of their poor management and low performance:

“ they [RDB] may say “We gave you money and you went bankrupt, we are not giving you any other money” or they may say “we [RDB] we supported you, but we have not seen any improvements yet. Where have you put the money? Therefore, we are not going to give you any other money because you just ate the money”. ” (Farmer 2, Research interview, 05/03/2020).

Generally, people as individuals do not receive direct benefits from TRS because the scheme targets some cooperatives engaged in conservation. However, the community in the areas around the park can have access to infrastructures thanks to the TRS. The big portion of TRS is mostly invested in building infrastructures such as schools, health centres, rehabilitation of roads and bridges, etc:

“they have identified schools whose classrooms are not sufficient, and then they build more classrooms for them. That’s; the money goes to cooperatives and public institutions for a public benefit like schools...” (Village leader, Research interview, 08/03/2020).

The level of participation for the local community is relatively low when it comes with deciding which areas to invest in the money got from TRS. Some would like to get money in their hands, while others agree with local institutions that recommend them to use the money in the infrastructure development in the areas they live. However, in most cases, they cannot influence the choice of infrastructures to prioritise. The members of cooperatives or their representatives and community members or their representatives are used to holding a meeting with RDB and local government on the use of the TRS money. Though, the decisions are dominated by local authorities who prioritise their already planned activities in the performance contract they signed with the Ministry of Local Government:

“...no, they do not decide like that. They sit, and then the Sector decides which infrastructures are needed in the line with what is included in the performance contract of the sector....For instance, s/he [the executive secretary of Sector] says “in my sector, we need to build a bridge so that this Village or Cell gets in touch with others:” (Community Cooperative Member 1, Research interview, 15/04/2020).

Besides having limited abilities to decide what to do with the TRS money, the community also does not have enough information about the total amount of money earned from the tourism of which they get 10%. RDB is not used to tell the local people how much they have earned from tourism; it is not one of the things discussed during the meetings they have with the local community. However, some people think that such information might be available on the website of RDB.

There are circumstances where some local people can benefit from TRS individually. Cooperatives can support some of their members and their neighbours who are not members, they may pay for health insurance, build houses for them, others are given cows in “Girinka” program from the money thanks to the TRS. Not only the cooperatives who support people as an individual but also the local government do that. However, to get such kind of support, you need to prove that you are the poorest of the poor in the area you live:

“You need to go to the In-charge of social affairs so that they can put you on the list of those who will get help. However, they have to check your physical status; if you have got an amputee arm, eyes, ears, legs, arms, or if you are not able to work, otherwise, there is no way...”. (Community Cooperative Member 1, Research interview, 15/04/2020).

4.2.2.1.4. Imposition of Punishments as a Strategy to Protect VNP

The director of VNP mentioned punishments as one of the strategies used to protect the park. He mentioned that they have an effective collaboration with other institutions in charge of investigating and prosecuting crimes to punish those who commit illegal acts in the park.

Though he added that punishing people is not their priority, instead, teaching them about the importance of conserving the biodiversity in the park is their top priority:

“Regarding punishments, of course, there are punishments. We apply them, and they help us. They are different. There are those for people who go to illegally harvest of trees or other plants in the park, and there are particular punishments for those who poach protected animals. There are all those sorts of punishments. I would say they are not very severe, but our priority is teaching and prevention”. (Director of VNP, Research interview, 28/04/2020).

The employee from Diana Fossey Gorilla Fund International I talked with thinks that the priority in dealing with illegal activities in the park should be teaching the local people on the importance of having the park conserved. Generally, he put much emphasis on trying to bring people, who harm the park, on the right track rather than punishing them. However, he also added that for those people who never change, they need to be punished, even though, the punishments should not be severe:

“There are people who never change; they are caught once, twice, three times, in that case, as they do not want to change, they have got to be punished.” (DFGFI staff 1, Research interview, 27/04/2020).

That employee also believes that teaching the community about behaviour change together with the imposition of punishments for those who do not want to change can not work alone, unless, other alternatives are provided for them especially for those who are hunters. By trying to put the problem of poaching and the associated punishments, he knows that some people go into the forest because they are poor; looking for reindeer or other animals to sell in order to get school fees for their kids or satisfy other needs. From this analysis, their NGO think about how to help them to satisfy their needs:

“...again, they are also given alternatives, right? If for instance, somebody was cutting bamboo, how could we work with them and plant bamboo outside the park so that they get them whenever they need? If somebody was hunting to get animals to feed their children, how could we work them so that they can get...” (DFGFI staff 1, Research interview, 27/04/2020).

The ordinary people including the former poachers, they all know that punishments for those who invade the park are very heavy. Some of them may think that going into the park, is like risking life. For example, today, when someone is caught in there, they arrest him and send him to RIB (Rwanda Investigation Bureau) to be prosecuted. The punishments are, however, varied depending on the offence he has committed. If somebody has collected firewood, he cannot be given the same punishment as somebody who killed an animal. Some are required to pay fine of RWF 100,000 and beyond, while others can be imprisoned up to two years:

“He got imprisoned ... he spent two years in prison before he was released. He is among those indigenous people [Batwa], but he cannot go back in there anymore.” (Farmer 1, Research interview, 06/03/2020).

The punishments given to those who are caught invading the park seem working at some extent. Some of the poachers have decided to quit their practices of poaching even before they were

arrested, granted alternatives or aware of the benefits of conserving the park. Instead, they have feared the punishments they might face once they were caught. After seeing what happened to their neighbours, they gave up their illegal activities from the park:

“The reason why I quit, they had run after me like more than four times, then as you cannot go into the forest forever without being caught, considering all those times they had run after me without being caught, I realised that there would come some consequences. One day, I hardly escaped them, and from that time I decided to stop going there”. (Porter 1, Research interview, 29/03/2020)

4.3. Mountain Gorilla-Based Tourism Activities in VNP

The gorilla trackers, the DGFI employee and the local people I talked with have mentioned that the park is very rich in biodiversity, it has a variety of plants and animals like mountain gorillas, elephants, reindeer, buffaloes, etc. Though, the park is commonly known for the mountain gorilla it safe heavens. The last census in 2015 has shown that there are 604 mountain gorillas in the Virunga Massif comprising Rwanda, DRC and Uganda. The Chief Park Warden, is thankful for the collaboration with international organizations, conservation policies engaging the local community, and income-making tourism, etc. which have contributed to the increase of the mountain gorillas from 380 in 2003 and 480 in 2010 to 604 in 2015.

“Gorillas were about...the number of gorillas decreased from about 500 to 200 ...only for 20 years. Between the 1960s and 1980s, the number of gorillas was drastically decreasing to the extent that they were about to disappear.... almost half of them perished during that short period of 20 years”. (Director of VNP, Research interview, 28/04/2020).

All most all the tourism activities in the VNP are directly connected to the gorillas. Tourists across the globe come to the park to visit those animals which look almost like humans. The fact that gorillas are almost like human beings makes people curious, and they are not satisfied until when they come to see them. When someone sees them, he has got a story to tell others. For example; this is how one farmer, living in the vicinity of the park, saw the mountain gorillas:

“Gorillas, what I realized from them, is that they are almost as intelligent as people. When they see you doing something, they imitate you and do it, Again, they grab their babies with their front arms, put them on their back, and they carry them on their backs. Something else very surprising, a male gorilla never walks on front of others, and let them behind. Rather, he lets them in front., and he walks behind them....it is very smart; they are almost as smart as people. He has to protect his family by walking behind them, he has to fight for them to the extent that he may even die for them to save them from danger”. (Farmer 1, Research interview, 06/03/2020).

However, the local people and Rwandans, in general, can rarely afford the price to visit those mountain gorillas. Most tourists who visit the parks are foreigners mostly the western “Abazungu”. The only place you can find many Rwandan tourists in the Birunga (Volcanoes massif) is at the mountain called Bisoke, they often visit the mountain but not the gorillas. This is how a Porter who daily works with tourist has assessed the citizen participation in gorilla tourism:

“No, Rwandan are very few. For instance, in two months, I may meet one Rwandan... While in those two months I may have met like 20 foreigners. So, Rwandans rarely come”. (Porter1, Research interview, 29/03/2020)

The Director of VNP mentioned different tourism strategies elaborated to attract foreign tourists. Among them, he emphasised on the benefits of “VISIT RWANDA”, the program which has got a bigger target of attracting foreigners to come to visit Rwanda, to invest in Rwanda, especially in different activities connected to another program called MICE (Meetings, Incentives, Conventions, Events/Exhibitions) organized in Rwanda. With some examples, he has started to experience the impacts of the partnership between the government of Rwanda and its partners in the promotion of the tourism industry. The partners include Arsenal Football Club and Paris Saint-Germain, the English and French football giants respectively:

“Some of them are involved in VISIT RWANDA programs, like those from Arsenal, Paris Saint-Germain, and others come because they are involved ... they are brought by that program. We receive tourists from those both categories. The good thing is, as the Park Director, something positive I found, is that, first they come as tourists, but there is another particular program of mobilising people to know about mountain gorillas; to get to know about our biodiversity. Therefore, this VISIT RWANDA program has got an investment role; tourism and at the same time it plays a very crucial role in mobilising the whole world about the conservation of gorillas”. (Director of VNP, Research interview, 28/04/2020)

The Director has also mentioned another strategy “KWITA IZINA” program they use to promote gorilla-based tourism. The program concerns the annual event of Gorillas’ Naming Ceremony for baby gorillas born in the previous year. He told me that the program aims at the special mobilisation, the people know about the conservation of gorillas, the reason why Rwanda has decided to protect gorillas to the extent there is a naming ceremony for them, during which they give names from Rwandan culture. Besides the mobilisation about the conservation, the Director of VNP added some other advantages that the local community may benefit from the program. Among the advantages, the community make money through the event organisation, preparation of the venue, organising different entertaining activities for the guests, selling commodities that are consumed by guests, etc:

“For example, if we are planning to host 50,000 people in total; if we buy corn on the cobs, banana and sorghum beer for around 50,000 and 100,000 people who have come to attend the event, if we buy them water, if we buy milk and doughnuts for children, as you see, financially speaking...”. (Director of VNP, Research interview, 28/04/2020).

The trackers I talked with about interactions of tourists and the mountain gorillas have mentioned the rules and regulations that tourists must respect before they the mountain gorillas. Besides affording the price, they need to follow the instructions including those of cleanness for the health safety of the mountain gorillas they want to visit in the park. No tourist is allowed to eat or drink something when he is close to the gorillas, there is also a define distance the tourists have to keep between them and the gorillas, it is forbidden for tourists to visit the gorillas when they are sick or have symptoms of sickness like coughing, the same thing applies to the park employees such as guards, trackers, etc. However, in practice, it is hard to keep the required distance between tourists and the gorillas is not easily possible:

“...but for the gorillas, it is not possible to respect that distance. You might be at a seven-meter distance, and one gorilla may suddenly pass by you, and even grab your clothes. Therefore, saying that you can control them 100% that they

will not go beyond one-meter distance, or they will not get close to them, it is very hard". (Mountain Gorillas Tracker 2, Research interview, 07/03/2020).

The gorillas may expose themselves at risk of being infected with diseases when they escape and go out of the park where they can meet people. The park trackers I talked with are afraid that the contacts of people with the gorillas are not good for both the health of the animals and people because it is easier to infectious diseases each other since they belong to the same species:

"Or, they may even...we cannot just worry about their life, but they can also infect us. We never know". (Mountain Gorillas Tracker 2, Research interview, 07/03/2020).

The other instruction the tourists have to follow is that they might not be more than eight if they want to visit the gorillas as a group. Eight is the maximum number of people who can visit one group of gorillas in the Volcanoes National Park. In the park, there are 15 groups of habituated mountain gorillas, i.e. those which can be visited. However, those groups can freely move to DRC and Uganda but wherever they go, there is no problem about tourism or their conservation thanks to the collaboration "Greater Virunga Transboundary Collaboration" among those three countries, they take care of them. But for Rwanda, the only time it might be a problem is when a big number of tourists come to visit the gorillas at the same time and the park found itself in a situation of where it got few groups.

4.4. Impacts of the Gorilla-Based Tourism on the Community Adjacent to VNP

4.4.1. Local Community's Livelihoods Diversification

4.4.1.1. Employment Opportunities

The new park conservation approach, from 2005, together with tourism activities have been sources of employment for the community around the park. Today, the community earn their living from sources other than agriculture that predominate all the economic sectors in the area, some they work in different conservation activities as trackers, park guards, etc. Others are employed by tourism activities like those who work in hotels or those work as porters who assist tourists in currying their luggage. The local government with partners in conservation and tourism have agreed to prioritise the people living in the proximity of the park while hiring their staff. The people I talked with are happy that when there are job offers, they start with those living around the park:

"Those guards belong to our community, those porters belong to our community, they come from our families, they cater for their children, and they have a good life". (Village leader, Research interview, 08/03/2020)

Though, some jobs require skills and knowledge that most of the community do not have; their low education level limits them to meet criteria for some job positions in hotels, conservation NGOs, etc. But still, they can occupy lower positions such as security agents, gardeners, porters, park guards, etc. Those who are educated their chance to get a job is a bit higher, they can work with hotels, RDB or NGO. A tracker who works with the Karisoke Research Center in Kinigi, in Musanze district. He came from Nyabihu district, one of the four districts sharing borders with VNP; this is how he got his job:

"I sat for a recruitment test. I might say I was chosen from the annexe; the first ones...they wanted six people, and I was the seventh, they, later

on, called me because there was one person who did not show up”.
(Mountain Gorilla Tracker 2, Research interview, 07/03/2020).

Other criteria to get a job is to belong to one of the community cooperatives, and those who previously were engaged in different illegal activities are favourably considered. I talked to one porter who, together with other former poachers, is grouped in a cooperative called “Kabeho Ngagi Sabyinyo”. The cooperative is formed of 339 members and all the members were given jobs in the park where they work as porters. Like other porters, he assists tourists in carrying their luggage and helping them when they are tired. The porters may lift tourists when it is needed, they have got traditional stretchers. However, the job is not a full-time one, they do rotation so that each member can have a chance of working. Another Porter who is also a member of the cooperative of porters, he explained to me how they do staff:

“When we have got such work, we follow a given order by numbers; among 10 groups, we are like 40. Therefore, we start from number one to number 40, and when we finish, we go back to number one”. (Porter 1, Research interview, 29/03/2020).

Some of the people including the porters I talked with are happy because of the additional source of income they have got thanks to tourism and conservation activities in the Volcanoes National Park. For example; every time a porter takes a tourist from the parking to the mountain gorillas and then brings him back to the parking, he is paid a fixed amount of \$200.

But some other people who work either in tourism or conservation think that the compensation for their activities is very low. Besides that the salary does correlate to the responsibilities they fulfil, they find difficulties to afford prices on local markets:

“When I compare my salary with prices on the market, and how the salary should help a worker today, the salary is low.... for an employee, it is hard to get means to buy a plot or build a house. Or, simply be able to improve their living conditions; live a better life. When I look at today’s situation, the salary is low”. (Mountain Gorillas Tracker 1, Research interview, 14/03/2020).

Another employee told me that his job is just for survival, it is difficult to live on it or improve his living conditions. He said that what the job helps him is just appearing in the public as someone who is employed somewhere so that in case he needs something, he may ask for it on credit and get it easily as they already know that he got a job. However, he added that the salaries issue is not a particular problem for the organization he works for rather a common problem even in other sectors of the economy:

“When I consider the value of my work, I would say it is not fair. However, there are other people, um... it is better to look out of the box. There are other people, like those working in the education sector, they have got the same problem; there is no difference”. (Mountain Gorillas Tracker 2, Research interview, 07/03/2020).

4.4.1.2. Investment Opportunities

All the categories of people I talked with have told me that there are new businesses opened in the areas around the VNP thanks to tourism conducted in the park. The local community told me that those businesses are mostly dominated by big foreign investors who invest in luxury hotels. They told me that those hotels are very close to the park entrance where tourists pass usually. Contrarily to the local community, the investors can meet the requirements to establish businesses closer to the park. The community said that the more you come closer to the park,

the more you earn much money from the businesses. From what the community told me, the hotels established there are very expensive, not many Rwandans can afford their prices. The Sabyinyo Silverback Lodge is among the hotels, but they said that others are found near the VNP today:

“White people come, spend nights there, and it is expensive.... Other luxurious hotels are coming”. (Farmer 1, Research interview, 06/03/2020).

Even though the local community cannot manage to invest in hotels, but both the community and the VNP management have told me that there is a part of the community that has direct access to income generated by the Sabyinyo Silverback Lodge thanks to the public-private partnership between the government of Rwanda and the private sector. The Chief Warden Park told me that the hotel was built for the community by the government of Rwanda and other stakeholders, but it is managed by the private sector. He mentioned that the community do not have shares in the hotel but to benefit from it, the community formed an Association called “SACOLA” through which they receive the benefits:

“SACOLA is a program which was started as a particular approach, um...it is what they call public-private partnership in terms of conservation because SACOLA is based on the hotel which was built for the community and managed by the private sector.....The community does not have any shares in the hotel. Rather, the community started an association that I may call...which is a kind of channel through which they will get benefits”. (Director of VNP, Research interview, 28/04/2020).

The Director of VNP told me that the hotel is a profit-making business that means it generates profits, from the last information he had, a tourist who passes the night there pays \$80 and the hotel can make more than RWF 350 million per year. After deducting the cost of the hotel management, the profit is shared with the community. He said that SACOLA get about 8% of the net profit made by the hotel and the money is distributed monthly:

“From the last information I had, it was \$ 80 per night. And then, there was 7.5 or 8% of monthly profits”. (Director of VNP, Research interview, 28/04/2020).

The cooperative member of the SACOLA members who also speaks for women in the association, has told me that they receive money, from the hotel, on the account of their association. However, she does not know exactly which the percentage they receive. But she also told me that the SACOLA representatives used to hold meetings with the hotel management. Here is the answer she gave me when I asked her if the money comes to their account on a monthly or yearly basis:

“No. when they have made a profit, all the incomes if they judge it important, they immediately share it....our accountant goes there, presidents go there, they hold a meeting, and then from the incomes, they put our share one SACOLA’s account, and the rest of the money is theirs”. (Community Cooperative Member 2, Research interview, 13/03/2020).

There is another category of the local people doing business related to tourism done in the VNP, those are the members of cooperatives which make handcraft products. The artisan who has been in the domain of handcraft for 17 years, he told me that he moved to Nyange sector to target tourists. Together with his fellows, they are grouped in a cooperative called

“COOPAVU Mararo” that make different kinds of handcraft such as baskets and wooden handcraft products like curved gorillas, carving canes, Inanga (a kind of traditional guitar), and other different statues that they sell to tourists. Their cooperative is formed of 71 members of which 55 are females and 16 males. Ndayambaje told me that they have got a building closer to the park entrance where tourists do their dressing. As a result, they could have more sells through exhibitions they had inside the building.

Recently, they were forced by the authorities to leave the place to a new place which is far from the park entrance, he said that it is like between eight and ten kilometres.

“We have got a building there, but they chased us. That is the way it is.... they said: ‘leave the place’. When you have got a building, and somebody comes and tells you to leave it, while you do not even have the means to...I have got no answer to give you, and I hope you understand the situation”. (Community Cooperative Member 1, Research interview, 15/04/2020).

Even though they were not explained why they had to move to another place, those artisans think they were chased because they are not significantly important compared to the big investors who invest in hotels:

“If we had a lot of money, we would not have joined the craft sector; we would have started hotels. We do craft because it is within our means”. (Community Cooperative Member 1, Research interview, 15/04/2020).

The handcraft makers told me that their livelihoods have been heavily affected because their products are less exposed to clients. As a result, the cooperative members are affected with the decisions and some of them got discouraged:

“Our wish is to get closer to clients. Getting closer to clients would be our wish because when you are close to the clients, you sell your products. ... It affects us in the sense that members got discouraged. In fact, um... it is like they lost interest in their work, and when we approach them, we realize that they are like... they are not interested”. (Community Cooperative Member 1, Research interview, 15/04/2020).

They told me that they tried to go back where they were used to get tourists, but it did not work due to lack of advocacy. For them, if it was legally acceptable to protest, they would go with that because they think that there is no one cares about them:

“It is advocacy, we have tried for long, but we have failed.... From what I believe, there is no right to protest for Rwandans, right? You try to peacefully resolve the problem, and if you fail, or um... they may tell you ‘we are watching you’. How come would you wait for somebody to tell you to go feed a child while you see they are starving? And yet, you are aware that they have not eaten anything since morning, while you have got the responsibility to feed them as they did not have lunch; you see they are starving. Likewise, we as citizens, they know about where we get our living, and where we used to get our living; there is no more complaining. We have got to stay calm and God will help us”. (Community Cooperative Member 1, Research interview, 15/04/2020).

Chief Warden Park has told me that there are a lot of business opportunities thanks to tourism activities in and around VNP. In addition to handcraft and SACOLA, he added also the intercommunity tourism activities and cultural tourism business activities. Among the intercommunity tourism businesses, he mentioned a project called Gorilla Guardian run by the

former poachers. He also emphasised on the development of agricultural activities for the farmers who are in the program of Tourism Revenue Sharing; he said that:

“They have got particular farming activities like producing eggs, pig farming, other activities, um... through our program, we provide financial means to people, and they use those means. Um... they improve their living standards by supplying the hotels around the park. Again, I would like to explain to you that they do such business activities as any citizens...”. (Director of VNP, Research interview, 28/04/2020).

4.4.2. Infrastructure Development

Both the community and the park management I talked with have mentioned that there is a significant growth of infrastructure in the areas around VNP. And they attribute the development to the gorilla tourism done in the park. The Director of VNP told me that the Tourism Revenue Sharing program focuses mostly on the infrastructure development where the community is provided with the necessities in terms of infrastructures such as electricity, roads, schools, clinics, water tanks, faucets, etc:

“The money is mostly spent on what we call infrastructures like schools, health facilities, um...or supplying electricity; spreading electricity in different areas”. (Director of VNP, Research interview, 28/04/2020).

According to what the community say, among the infrastructures built, there are those which are directly built from the money of TRS and decisions for that are taken by RDB together with the local government institutions and the community. Though, in some cases, the power imbalance among those stakeholders might influence the decisions. Another way the infrastructures are built is through the community’s commitment to supporting the government in the development of infrastructures in their village. They sometimes engage in the construction of the offices of the local government institutions. For example, one member of SACOLA told me that they used the association means to build the headquarter of Nyange Sector.

One Porter that I have interviewed enjoys the infrastructures developed in his village and got them thanks to the park. I asked him if he has got electricity in his household and replied:

“Sure, we have got it. There is even a road leading to my house, um...there is no problem”. (Porter 3, Research interview, 07/03/2020).

However, that Porter like other local people I talked with have problem of energy for cooking. Many of them have no electricity and the few who have electricity cannot use it for cooking, instead, they use wood, firewood and charcoal. From what they told me, there is a spillover effect of the existing park management approach; the current illegal activities in the park do not include firewood collection because people shifted firewood collection from the park to forests owned by individuals. They cut trees from their fields or their neighbours, they also buy charcoals from the market to cook food. I also asked that Porter what he uses for fuels and he replied as:

“Wood, firewood, charcoal.... I buy wood from the community members, or from those who have got a forest, and then I cut trees from it, and if need be, I buy charcoal from the market”. (Porter 3, Research interview, 07/03/2020).

4.4.3. Capacity Building

The Diana Fossey Gorilla Fund International, the NGO operating in the VNP and its surroundings, has capacity building as one of their four programs of implementation. For about 16 years, each year they receive about 400 students. The students are from schools which have got a partnership with the NGO in teaching environmental studies, most of them are biologist students from the University of Rwanda at Butare. Though, it not a mandatory that the students originated in the areas around the park but they end up working at the NGO, others are found in different institutions working in the domain of environment in Rwanda or some other may continue their studies at Master's, PhD levels.

The community also acquire, from their neighbours, skills in doing artisanal activities. The tourism industry in the VNP area has induced other economic activities like handcraft. Through their cooperatives, some members teach others how to make for example; curved gorillas, carving canes, baskets, etc that later on are sold to tourists. Though, those members who may need the skills are responsible for the costs related to their training:

“Those willing to learn can also request it. They write their request, and then pay the money for it; tuition fees. Some in-charges can help them”. (Community Cooperative Member 1, Research interview, 15/04/2020).

4.4.4. Social Support

The people living in the Sectors sharing borders with the VNP get support from the government of Rwanda through the TRS scheme. Many cooperative members have been benefiting from TRS in various ways; some have been provided with houses, cows, she eps, hens, health insurance etc. Others, their children are paid school fees. For example, The VNP Chief Warden Park told me that in 2019, they give more than 700 cows to cooperative members through the Girinka program (One cow per family). Though the cows can produce calves that later will be given to other members, still, some people told me that the cows are not enough:

“... While we are 50 members, they gave cows to 10 people, others got nothing”. (Farmer 2, Research interview, 05/03/2020).

There are some community cooperatives or associations like SACOLA (Sabyinyo Community Livelihoods Association) which are were established because of the partners they work with like Sabyinyo Silver Lodge, RDB, etc. Those cooperatives assist the community members even those who do not belong to any cooperative. SACOLA has supported different vulnerable groups such as the genocide survivors and the indigenous people (formerly Batwa group) by providing them with houses or small ruminants. One member of SAKOLA told me about some of their activities:

“We are building houses for five Genocide survivors; they had left when we built houses for others. We are about to finish. Again, they are long-lasting houses in bricks, we furnish them, we give them water tanks; when they build a house, it has to have all those things”. (Community Cooperative Member 2, Research interview, 13/03/2020).

The SACOLA support is not limited to the provision of houses and small ruminants, together with its partners, it has paid school fees for students from poor families. A Village leader is among the beneficiaries of the support from SACOLA:

“They paid school fees for 80 children from Senior One Secondary school to Senior Six...And my child is among them. They will pay school fees for them for six years without any parents’ contribution”. (Village leader, Research interview, 08/03/2020).

The Diana Fossey Gorilla Fund International also provides support to both cooperatives and individuals or families. However, they work hand in hand with RDB to avoid interference or duplication in their actions. While planning for their activities, RDB should know their areas of operations to have other projects in those areas but different from what the NGO does. There might be also another NGO operating in other areas, even if they might be doing the same activities as it does. While identifying people to support, the NGO prioritise those who used to be hunters and got difficulties in earning their livelihoods. Their support seems to be lasting compare to that from RDB. Those who are identified to get the support of the NGO, they work with them for about three, four or five years so that they give the beneficiaries time to learn everything. By doing that so, beneficiaries get the opportunity to lesson; they can fail and try again until they succeed.

“if we give them an animal, a cow, for example, we do the follow-up, we avail treatment services, assist them in feeding that cow for two or three years, you see? We keep on providing such support” (DFGFI staff 1, Research interview, 27/04/2020).

4.5. Challenges for VNP Conservation, Local Community’s Livelihoods and Tourism Development

4.5.1. Trends of Illegal Activities in VNP

One of the senior staff of the Diana Fossey Gorilla Fund International, the NGO whose mission include the monitoring of the VNP, told me that poaching in the park is not a big problem for today compared to how the problem was presented in past. However, it does not mean that poaching activities do not exist in the VNP. The number of poaching cases such as traps, animals caught in traps or where poachers have passed, etc is decreasing year after year:

“I remember, during the last ten years we could find more than 1000 traps in the forest. Those were traps by poachers who wanted to trap buffaloes or antelopes. Therefore, those traps have decreased to a lower number to the extent that they are about 300 these days”. (DFGFI staff 1, Research interview, 27/04/2020).

A Porter who is currently working with tourists and he assists them to carry their luggage. Before he got the job, he lived on poaching animals from the park. He also sees a significant decrease in activities harming the park based on the current number of hunters and cases of poaching in the forest:

“I had like 100 or 80 traps. Again, the area where we were operating, we were like 15 hunters in a village. Contrary, these days, there is like only one hunter in that same area. They used to defuse like 500 traps per month, but these days, they are defusing not more than 10 traps in the Sector”. (Porter 1, Research interview, 29/03/2020).

There are still people who earn their living on poaching in the park. Though it is not easy for them because of the current measures put in place to eradicate poaching from the park, they use different techniques of hiding and kill animals. They may set traps in the edges of the park and wait for the animals to come out of the park. By doing so, they believe that in case they

kill the animal, the In-charges do not know where they were killed, and then, they slaughter them into pieces of meat. For example:

“Two buffaloes were found dead in this week [in march 2020],....they said [RDB] ‘they are being killed by those who are usually involved in illegal activities’...they [poachers] say ‘if we are lucky, Park workers will not know where they got killed, we will come at night and slaughter it into pieces of meat’ ”. (Village leader, Research interview, 08/03/2020).

Other poachers keep going into the park to set traps and kill animals in the park. They are familiar with the forest and they know every corner of it. They can hide and escape the park guards who regularly do patrols. However, with the collaboration of the guards, porters and the local community, those poachers are caught one by one:

“...we were going to carry luggage for tourists, and we came across a hunter who was washing a bag in the river, from which he had put meat, we asked him where he had had that meat, and told him; ‘if you show us where you have set your traps, we will let you go.’ Then, he took us where he had been slaughtering an animal into meat in the forest, and we defused the traps he has set”. (Porter 1, Research interview, 29/03/2020).

The people doing illegal activities in the VNP are among the community surrounding the park, and most of them do it because they are poor. However, some of them are sought to poach not because they look for living, instead, they are never satisfied, or it became like a routine for them. The community also says that old people between 40 and 50 years old, they take part in harmful activities against the park more than young ones. Those old people who grew up in such practices find difficulties to abandon them.

4.5.2. Crop-Raiding by Animals from VNP

The local people living in the vicinity of VNP, have told me that crop-raiding by animals from the park is one of the main challenges they face today. They desperately need advocacy for their crops raid by animals such as buffaloes, hippopotamus, mountain gorillas, etc coming from the park:

“We need your advocacy about buffaloes. Even if they prevent them from escaping, it does not work. They do come. They even came last night. ...they graze everything; potatoes, wheat, corn, they graze everything”. (Farmer 2, Research interview, 05/03/2020).

However, Director of VNP told me that since 2012, RDB has a policy of compensating damages by animals. And the program supports farmers whose crops are raided by the animal from the park. The local people told me that they are aware of the program, and even some of them have, at least once, sought for compensation of their crops damaged by animal coming from the park. Unfortunately, most of them have bad experiences of how the program works. They criticise it of having unnecessary bureaucracy in its procedures; which consists of heavy costs for the community in terms of time and money. This is how one farmer described the process from the time the farmer’s crops are damaged to their compensation:

“When they have grazed your plants... you go to the village Leader, they give you a letter, then you go to the nearby in-charge of accounts... to sign it for you. Then, the Executive Secretary of the Cell signs for you. You go to the Agronomist who comes to

see what they have destroyed. After that, s/he goes back. The police have to sign for you as well. Meanwhile, I think you understand that long process you have got to go through. Then, you go to get a photocopy of the map of your plantation they destroyed, you have got also to buy a piece of paper they write on, as you see, you are spending money. Later on, you go at Kinigi to get your complaint registered, after that, you come back to the Sector, then from the Sector, they send your file to Kigali. Therefore, as you see, it's a long process. They sometimes reject some complaints, and for some cases, when they come, they find that there is no more evidence. It is a very long process, and very often the population does not get compensation. And it is hard to get ticket fees". (Farmer 2, Research interview, 05/03/2020).

Another farmer growing his crops around VNP, told me that the process of claiming compensation for crops damaged can take up to a year. And some people, especially weak people, may leave it because of the long process. He also assumed that even though a farmer could be compensated for his crop damaged after three months, for example, the compensation will be too late because within the three months he would be harvesting his potatoes for instance. There is another farmer who also criticised the way the farmers' crops are undervalued while the in-charge of accounts is assessing the degree of crop damages. By estimation, he said that animals may destroy a plantation of potatoes from which you would get a tonne or two tonnes of potatoes, and then they give you RWF 20,000. Or again, you might get that money, but then you realise you have used more money to get it.

Because of the challenges associated with the compensation policy, the local farmer came to argue that they do not pay the compensation or there is no clear program for that. They told me that for that reason, they decide to protect their crops by themselves. They guarantee their security for their crop either by passing the night in the forest to prevent animals from coming in their plantations. Or they dug trenches in the boundaries to serve as a fence. Unfortunately, the two measures seem not working:

"Unfortunately, when they [farmers] come back home, buffaloes sometimes come and graze their plants. ...however, they [buffaloes] come, dig with their legs, and then they fill the trench with soil to jump over it and graze in the plantations". (Farmer 2, Research interview, 05/03/2020).

Despite the existence of the compensation policy, the Park Chief Warden is also aware that the seriousness of the problem of animals coming out of the park and cause losses to local farmers. However, he believes that the government cannot afford to pay all those all the damages, he mentioned that there is no money for that. Instead, he agrees with the local farmers that more efforts should be concentrated in preventing those conflicts between people and animals, rather than relying on the current mitigation measure that serves no one. In this regard, he told me that RDB has got a plan to extend the park as one long-term solution to those programs. The extension will provide a buffer zone that will serve for the provision of more space to animals and then the tourism will develop as well.

All the Director of VNP and some of the people around the park I talked with, told me that there have been discussions and explanations about the plan between the park management and the local people. Some of the people who are subjected to be expropriated, have told me that they do not know what value was given to their properties after the inventory that has been already done. That might be, according to the Park Chief Warden, because it is still a plan, that means it has not become legislation or a clear policy yet.

Another person who lived near the park for 40 years told me that, if this plan is implemented, it will not be the first case for some of them. He said that there was a similar policy in the past, the policy forced people who lived in the park to leave it, they had to keep at least 400 meters between them and the park. They moved to another land called “agglomerations”. That time, there was no compensation for their houses at all, in those agglomerations, they were asked to build new houses on their own. However, they kept producing their lands:

“The land is still theirs, but they moved; they moved to the other land we might call agglomerations and left the park. ...they build houses on their own because they did not wave their rights on their lands; the land is still theirs; they simply left the park ... Only houses were removed”. (Village leader, Research interview, 08/03/2020).

4.5.3. Cooperatives as a Burden to the Local Community around VNP

All the categories of this research participants have highlighted “Cooperative” as a major entry point for each community member to benefit from different programs aimed at the promotion of community’s livelihoods diversification and local community development in general. The programs include the Tourism Revenue Sharing scheme of RDB, Community engagement of the Diana Fossey Gorilla Fund International, and many others concerning the conservation and tourism-based employment. However, according to the park chief warden, the big part of the population does not belong to any of the existing community cooperatives that work with RDB. He told me that they currently work with 67 cooperatives having a total number of 3,502 members across the total areas around VNP in four districts.

Both the members of the cooperatives or those who are not yet members, from the experience they shared me, have a variety of challenges connected to the context the cooperatives operate in the places. Though, the challenges vary depending on the status of membership they have; those who are members have got their particular problems and the same thing for non-members to the cooperatives. The challenges for those who did not join the community cooperatives include the perceived poverty linked to limited access to employment, low or no access to the TRS and NGOs support. While the members of cooperatives also suffer from problems associated with the costs of getting licences of their cooperatives, membership contributions, etc.

Staff from the Diana Fossey Gorilla Fund International has told me about his observation he has on differences between members and non-members of cooperatives in terms of development. For those who joined cooperatives have got an advantage, they have reached a certain level of development in comparison with those who are still working individually. There is a member of SACOLA who has the same observation; she said that the people who are not a member of any cooperative they live in extreme poverty in comparison to cooperative members. However, she added that they do not belong to any of the cooperatives because they have never been engaged in any kind of illegal activities in the park, therefore, they do not share the same problems as their neighbours who formerly invaded the park in one way or another. For her, cooperatives are formed by people who has the same background concerning park destruction. For example, those who were poachers have got their cooperative, those who were bamboo cutters they have also got theirs, and so on.

From most people I talked with about livelihoods diversification, membership to one of the cooperatives operating in the VNP areas is the main criteria to get both social support and jobs in either conservation or tourism activities. Some people who are employed in those activities have told me that they had to forsake poaching or other illegal activities in the park, join cooperatives and then got employed. As far as what they know, that is how it works:

“It is not possible. You cannot work there, unless, at least you are a member of other cooperatives, even if they do not work with tourists”. (Porter 1, Research interview, 29/03/2020).

The non-members of any cooperative do not only have limited access to employment in the areas around VNP but also, they have challenges in the engagement of small income businesses like artisan or handcraft. The Village leader told me that the local people cannot engage in handcraft unless they have a licence and it is rare to get a licence if you intend to work as an individual. He gave me an example of young people in his village who used to sell handicraft products, but they have abandoned because they were not members of cooperatives.

The Cooperative membership fee and contributions are one of the reasons mentioned, by the NGO staff, as a barrier for some of the community members to join cooperatives. The amount of money requested is difficult to find for an ordinary citizen in the areas around VNP. Even those who are members also have the same problem, however, for them, it is added to other costs related to the registration of their cooperatives. For their cooperatives to be recognised, the members told me that they had to have them registered in the Rwanda Cooperative Agency (RCA) based in Kigali, the capital city of Rwanda, and then issued a licence. The registration costs together with share capital and monthly contributions contribute to an increased amount of money requested for a new person who needs to join a given cooperative. A Porter who is a member of Kabeho Ngagi Sabyinyo explained to me how the current situation is presented in their cooperative:

“The membership contribution has now raised to 320 [RWF 320,000]. ...to become a member, you have to pay RWF 320,000. And it depends on the period; if they are taking new members. For instance, as last year we recruited new members, we will recruit others after five years. It was RWF 100,000 when I joined the cooperative. ...last year in two thousand and ... when we recruited after two years. When we recruited in 2017, it raised to RWF 200,000, then in 2019, 2018, it reached RWF 320,000 till today”. (Porter 1, Research interview, 29/03/2020).

4.5.4. Water Scarcity

The lack of water is a serious problem for the community surrounding the Volcanoes National Park. Most people do not have access to clean water, even for those who have got water, it is not enough; so many people share the same facet. Though, people suffer from water shortage mostly in dry seasons since during the rainy seasons they collect rainwater and store them for a while. Around the park, water is a problem to the extent a family can sleep without eating not because it does not have food to eat, instead, it lacks water to prepare the food. There are circumstances where neighbouring households may help each other by sharing the water they previously fetched or collected from the rain. For example, if one family missed the opportunity to fetch water, another family can give a small quantity of water to the family so that it can cook the food for the night to avoid going to bed without eating. Unfortunately, the neighbouring households may run out of the water at the same time, in that case, none of them is in a good position to help another.

“We sometimes go to bed on empty stomach, we might be doing different activities, and when we do not have time to fetch water, we go to bed on empty stomach because of the lack of water. What could we do about it? In case our neighbour did not fetch water, we go to bed on an empty stomach, and they go to fetch water in the following morning”. (Farmer 2, Research interview, 05/03/2020).

The available faucets are limited in number; therefore, many people must walk one to two kilometres to reach a public faucet. In a cell, you may find only two faucets. To reduce the distance between people's homes and sources of water, people prefer to fetch water in the park rather than walking long distances to fetch water from known and allowed wells:

"... the population cannot go to fetch water in two or three kilometres while they see a place where they can get water in 400 meters." (Porter 1, Research interview, 29/03/2020).

Fetching water from the park became a routine and even though it is not declared as a legal activity, but still it is practised by local people around VNP in their daily activities especially in dry seasons. The park staff such as rangers, trackers, etc know that it is not allowed for the local people to get in the park for the reason of fetching water, but since they are aware that there is no other alternative for them, they let them go. However, it is up to the park employee who works on the day to decide whether people fetch water in the park or not. One tracker told me that he is used to meeting the people at the park entrance and teach them the negative effects they may cause for the park conservation before permitting to go to fetch water. When they come from fetching water, he records and says it is one of the illegal activities in the park. Another park employee told me that they do not prohibit the people from fetching water from the park since they are aware of the water problem in the area they operate, therefore, they set hours to go to fetch water as one way to monitor the people's activities in the park.

Both the people and park employees I talked with are familiar with negative impacts of fetching water in the park on both the people's lives and the biodiversity conservation. On one hand, a person living in the vicinity of the park told me that they fear animals which can make their lives even though they are permitted to fetch water from the park. On the other hand, the park employee has bad reputations of some people who abuse the permission they give them to fetch water. They take it as an opportunity to discover the forest with the intension to identify the best places they will set traps next time especially in the nights, they also identify trees in which there are bees so that they might come for honey. The tracker added that:

"I think when they get water, there will be zero cases of illegal practices. The biggest challenge is getting clean water". (Moutain Gorillas Tracker 2, Research interview, 07/03/2020).

A porter, who used to be with tourists, I talked with also consider people looking water in the park as a threat to the gorilla tourism in the Volcanoes National Park. In addition to throwing waste items, the people also use the park as their restrooms. He added:

"...when we are with tourists, we sometimes come across some people coming from fetching water, and when we see them, the tourists get scared; they find it unusual. So, that's a problem as well." (Porter 1, Research interview, 29/03/2020).

4.5.5. The Coronavirus (COVID-19)

This research was conducted during a period of Coronavirus (COVID-19), the global pandemic. I decided to hear from the participants of the research on how the pandemic affects the VNP conservation, the local community's livelihoods and tourism activities in the park:

The Park Chief Warden told me that the country was in lockdown from 20th of March 2020. Which means that almost all the activities in the country are closed including tourism activities in the Volcanoes National Park. He added that:

“saying that there is no tourism, means that the profits, the hotels, the food, which was consumed in different hotels, those association, porters who were paid by tourists, all those activities have shut down”. (Director of VNP, Research interview, 28/04/2020).

A porter who works with tourist has told me that the pandemic is affecting his livelihood in the sense no tourist comes in the park because borders are closed. And he does not expect any compensation or support from his supervisor because he even knows that the government is seriously affected. However, for him, what is important at the moment is to stay alive and health:

“Absolutely. A very big one. ...As they close the borders, and tourists are not coming, if I could work like three times per month, and I am not working anymore, and yet I do not know when the problem is over, therefore, you see that there have to be serious consequences. ...Even the government itself has shut down most of its activities. Therefore, our only priority is to stay healthy, others will come after” (Porter 1, Research interview, 29/03/2020).

One staff of the Diana Fossey Gorilla Fund International (DFGFI) told me that though the country is in lockdown, some of their activities like monitoring and protection of gorillas are still ongoing. They need to make sure that the gorillas are well protected so that they can not catch the pandemic. He said that there are, however, a lot of uncertainties concerning their NGO activities because there might be significant impacts of COVID-19 as the whole world is concerned about the pandemic consequences. As they operate thanks to fundraising, that means their budget comes from different donors. He worried if the donors will go on supporting them as they used to do.

Regarding the impacts of COVID-19 on the park conservation, both the DFGFI staff and the Director of VNP did not realise any consequences of the pandemic on VNP conservation yet. Though some of the community members have lost their livelihoods, they did not see them join poaching or other illegal activities in the park under the pretext that they were not getting the income they used to get from tourism activities. Those officials think that it will keep on like that until the pandemic ends. The officials believe that the local community’s mindset has developed a lot to the extent the community is expected to go on protecting the forest:

“However, I cannot say that is very alarming, that the park is being destroyed because COVID-19 has stopped tourism activities. Rather, thanks to those collaboration programs, those mobilization programs, the associations we established, we established them with a new and good mindset of doing Park conservation for the sake of conservation and for the value we give to the park. Then, we will later on get other benefits, and we believe we will get them”. (Director of VNP, Research interview, 28/04/2020).

5. Discussion

5.1. Overview

This chapter discusses the empirical results in relation to the theoretical context, mentioned in the literature review chapter, to address the research aim of this study. In the following sections, theory around decentralisation can be seen as an overarching frame to discussion of the potentials and drawbacks of achieving the goals of conservation, tourism and livelihood by using the Volcanoes National Park as a case study. The findings for this study show that different aspects of capacity and power influence dynamics of local community participation in different ecotourism processes such as the management and conservation of VNP; collection and use of the tourism revenues, etc. (Ribot, 2003 and Arévalo Vásquez, 2016) The interviews for this study indicate that the local community participation in those processes is limited due the lack of capacity and power, therefore, their ability to make use of the new tourism opportunities are limited too. Though the findings also indicate different initiatives such as the government Tourism Revenue Sharing system and NGOs interventions aimed at empowering and building capacities of the local community, the initiatives do not reach their objectives because of the uneven and unequal distribution of the ecotourism benefits among the stakeholders of ecotourism and within the community. Referring to the literature, therefore, this study suggests more attention to capacity building for the local community around the park so that they can take a part in various ecotourism processes. The empirical data of this study suggest that current the community lack different forms of capital, like education and financial capitals, which limit their power to influence the processes and, therefore, the community's ownership of the park as well. The aim of capacity building would be to enable a shift of participation from limited, to full participation i.e. from passive participation for material incentives to interactive participation and or self-mobilization (Arévalo Vásquez, 2016). With that aim, the tourism benefits could no longer be distributed as privileges, but rather be community rights to defend in case violated.

5.2. The Benefits of Combining the Conservation, Tourism and Livelihoods Goals

5.2.1. Improved Conservation of the VNP and the Mountain Gorillas

The increase in a number of the mountain gorillas, from 480 to 604 in 2010 and 2015 respectively, is seen as the biggest success of the efforts in conservation. There is, however, a big difference in the gorilla health conditions depending on whether they are habituated and monitored or not (Nielsen & Spenceley, 2011). The interviews for this study suggest that the trained mountain gorillas are doing well because they are more cared for and protected than non-visited groups. Despite the improved mountain gorillas conservation in the VNP, which is in Rwanda, part of the Virunga Volcanoes Range (VVR) comprising Rwanda, Uganda and DRC (McGuinness, 2014 and Nielsen & Spenceley, 2011), the information gathered in this study shows that, within the VVR, the number of mountain gorillas leaving the VNP is higher than the number gorillas coming in. The leave is justified by a lack of enough space in the VNP for the mountain gorilla to thrive. There is, however, no big problem about tourism of the gorillas since the signed treaty “Greater Virunga Transboundary Collaboration” between the three countries enables them to share revenues of the gorillas' visitation from wherever they are in VVR.

Throughout the study, many factors have been identified as causes of the successful conservation of the mountain gorillas; firstly, the elaboration and implementation of some government policies and strategies including the National Biodiversity Strategy and Action Plan (NBSAP). Secondly, the collaboration between the park management and local community in the conservation of the gorillas and the park in general. The main goal of the participatory approach of Protected Areas management is to allow the local people surrounding these areas to benefit from their resources (Givá, 2016). In this current study, tourism revenues, distributed to the community under the Tourism Revenue Sharing scheme, and new job opportunities generated by tourism that is conducted in the park, have been identified as the main motivations for a certain number of the community to engage in various activities aimed at conserving the VNP. Lastly, the role of NGOs in the conservation of the gorillas is tremendous. Besides their roles of monitoring and, protecting the gorillas, NGOs like Diana Fossey Gorilla Fund International provide funds to empower and build capacity of a certain number of local people so that they can earn their living independent of the natural resources from the park. Generally, all the factors are contributing to the change of the community's attitudes towards the conservation of the park. The data for this study suggest that there is an increased number of the local people that feels the ownership of the park and they, therefore, grow their understanding in the conservation of the park. However, as discussed in sections below, the feeling of ownership and received benefits are unequally distributed in the community.

5.2.2. Promotion of High-End Tourism

Unlike the other countries in the region, Rwanda has adopted high-end tourism over mass tourism (MINICOM, 2013). Both the Rwanda National Tourism Strategy (RNTS), developed in 2002 and then revised in 2007, and the Rwanda National Tourism Policy (RNTP) put in place in 2006 target or attract a small number of high-value visitors who can pay the higher amount of money. For example, a tourist to watch the mountain gorillas in VNP must pay up to USD 1500 an hour while the same gorillas can be watched for USD 600 and USD 400 in Uganda and D.R. Congo respectively. This study has identified the two main challenges that come along with the implementation of these tourist selective strategies; firstly, to accommodate this category of tourists requires high standards infrastructures such as hotels, roads, etc that the government of Rwanda is not able to find for them. Secondly, Rwandans, in general, are not able to afford neither the original prices nor discounts to visit the mountain gorillas. As a result, the majority of the tourists who visit VNP are foreigners mostly the westerns. Therefore, the opportunity for citizens to explore and enjoy the beauties of their country is limited. The government of Rwanda, however, addresses the first challenge by encouraging private and Public-Private Partnership investments in higher class tourism infrastructure development. For example, in February 2020, the One & Only Gorilla Nest Hotel built by investors from the Middle East was inaugurated by the president of the Republic of Rwanda. The hotel is situated in the foothills of the VNP, it is very expensive because to spend one night there, a person has to pay between USD 3,600 and USD 10,500.

The high-end tourism perhaps might have many benefits other than economic ones. The contributions of ecotourism include cultural and environmental awareness among residents and visitors (Miller, 2016). In Rwanda, tourism plays many roles other than economic ones; the industry has been used to improve the global visibility of Rwanda and its image that has been dominated by violence in past. At a global level, Rwanda was previously known by civil war

and genocide between 1990 and 1994 but now the international perception of Rwanda has changed, and the country is recognised as one of the safest destinations for tourists in the region (Nielsen & Spenceley, 2011 and Kalulu et al., 2016). The present study has gone through different marketing strategies adopted to promote the tourism industry while beautifying the country image. Among the strategies, there are KWITA IZINA and VISIT RWANDA Campaign. On one hand, KWITA IZINA is a yearly baby gorilla naming ceremony that takes place in the vicinity of the VNP. During the ceremony, the mountain gorilla babies born in the last 12 months are given names by different public figures including the president of the Republic of Rwanda, ambassadors, Hollywood stars, international conservationists and Artists (Nielsen & Spenceley, 2011). On the other hand, the VISIT RWANDA Campaign is another tourism development strategy of attracting foreigners to visit and invest in Rwanda. To achieve its targets, European football clubs were targeted and so far, the partnership agreements were signed between Rwanda Development Board (RDB) and Arsenal Football Club from England and between RDB and Paris Saint-Germain from France. The two marketing strategies have got the sympathy of the government officials and the VNP management; they have contributed to an increased number of tourists who come to see, for example, the mountain gorillas while also exploring various opportunity to invest (or mobilise others to invest) in Rwanda. However, a lot of critics, as discussed later in the benefits leakage section, are raised against these tourism development strategies on grounds of putting many efforts in beautifying the country's image at the expense of the local people of which their big number cannot access the basic needs, clean water and electricity for example.

5.2.3. Economic Growth and Local Development

5.2.3.1. *Employment Opportunities*

The provision of alternative livelihoods for the local community is the main goal of ecotourism or the tourism conducted in PAs (Miller, 2016). Rwanda is one of the countries whose tourism activities are concentrated in PAs especially national parks (MINICOM, 2013). The gorilla-based tourism industry has brought new employment opportunities in addition to the agriculture that is practised. According to Hitimana et al. (2006), agriculture is the main occupation of 96 % of the households of the Kinigi area comprising all of the five districts sharing their borders with VNP. This study identified both the direct and indirect jobs thanks to tourism that few members of the community benefit for. The direct jobs include porters, tourist guides, and other unskilled employments in hotels such as security agents, gardeners and cleaners. The indirect jobs include all kinds of employments that have been created due to the impacted of tourism development in VNP. These are the conservation jobs such as trackers, park guards and rangers; local microenterprise like artisanal or handcraft businesses and the market for local agricultural produce to feed tourists, for example.

The present study, however, found out that the livelihood diversification process has had mixed success; without ignoring a certain number of the community members that earn their living from tourism and its related employments, the diversification comes along with different problems: Firstly, the local microenterprises face challenges like a lack of financial capital and skills for the local community to establish competitive businesses. Secondly, most of the available jobs are limited in their numbers and are also very competitive. As a result, various criteria for selection are set while selecting the employees. Among the criteria, there are education, membership to cooperatives, and other social capitals. Thirdly, most of the tourism jobs are part-time. For example, a Porter can wait up to 40 days to go back in his duties to work

for one day and then wait for the other 40 days. The porters are the part-time employees who assist tourists to carry their luggage in VNP. This category of employment is the most cited job positions especially for the illiterate people in the VNP context. Lastly, most of the compensations for tourism and its associated employments are relatively low. In most cases, salaries do not match the tasks performed.

This study has also analysed the Rwanda Protected Areas Concessions Management Policy (RPACMP) that was elaborated in 2013 to, legally, allow the exploitation of natural resources from the national parks. The implementation of the policy has impacts on both the local people and the government. The tensions between the community adjacent to the park and the park management have been reduced to some extent because of the tourism activities have been an alternative to illegal exploitative use of the resources from the VNP. The government of Rwanda has also found the tourism industry as a source of development, poverty alleviation and employment. Even though it is allowed to invest in tourism related businesses, this study found out that it is still a problem for the local residents to grab such opportunities. In addition to the long process to establish a business, requirements of getting concessions are difficult to meet. As a result, most of the concessions or authorisations are awarded to big investors (mainly foreigners) who can invest in luxury hotels, for example. According to MINICOM (2013), between 1999 and 2009, the total investment in the Rwandan Tourism was more than US\$ 700 million, of which around 20% were Rwandan local investments.

However, to enable the local community to take a part in tourism investments, the Public-Community Partnership (PCP) model was initiated. The model was also adopted by both the government of Rwanda and the VNP management to address the above-described problem of the lack financial capacity and skills for the local people to invest in bigger investments like luxury hotels. The present study illustrates an example of a partnership between the community and private sector; High-End Sabyinyo Silverback Lodge. The luxury lodge was built for the community by the government of Rwanda and other stakeholders such as mentioned by Nielsen & Spenceley (2011), the Governors Camps Ltd (private sector), the International Gorilla Conservation Program (NGO), the African Wildlife Conservation (NGO) and Rwanda Development Board, RDB (the Government Institution). Though the hotel was built in the partnership between the government, conservation NGOs and the private sector, it is managed by the private sector which shares about 7.5% of its profit to the community. To benefit from the hotel, the community formed a channel through which they can get the benefits. The channel is commonly known as Sabyinyo Community Livelihoods Association (SACOLA) which has got various ambitions other than receiving the benefits from the hotel; for example, the members of SACOLA participate in different conservation activities, in building public infrastructures and in providing the vulnerable groups among their community with a sort of social support.

Despite the positive impacts of the PCP and SACOLA particularly, this study highlights some negative aspects of its implementing actions. Firstly, the number of the benefit recipients is relatively low compared to the number of the community members that need the benefits; all the community around VNP are not members of SACOLA. Secondly, the SACOLA members do not effectively participate in evaluating the hotel's financial statement reports; they mostly wait for the businessman (private sector) to let them know how much profit has been made either weekly, monthly or yearly. Lastly, mismanagement or embezzlement of funds by some

of the SACOLA representatives has many negative effects on the rest of the association members and later on result in discouragement of local people to engage in VNP conservation.

5.2.3.2. Contribution of Tourism to National GDP

Most of the developing nations where tourist attraction is owned by the state, the tourism benefits are dominated by macro-economic growth, foreign currency earning and balance of payments (Nyaupane & Poudel, 2011). In 2018, Clare Akamanzi, the CEO of Rwanda Development Board mentioned on her Twitter account that tourism is Rwanda's number one forex earner and she added that the country was determined to double its revenue from tourism to USD 800 million over the next six years. Around a decade, tourism has been the fastest-growing economic sector for the country and it has a promising growth in the future. For example, the tourism receipts reached US\$ 282 million in 2012 (Republic of Rwanda, 2014) and RDB expected an increase of 4 % in 2013. According to the Chief Tourism Officer at RDB, Belise Kariza, in 2019, tourism contributed to 10% of the country's GDP and was responsible for 8% of all employment. Between 2008 and 2019, the sector was growing at an average of 11% each year (Devex, 29 June 2020). The VNP generates revenues through different sources; park entrance fees, the gorilla naming ceremony "KWITA IZINA", partners and donors, interest from treasury bills, etc (Nielsen & Spenceley, 2011). However, this study has found different indirect source of tourism revenues in addition to the aforementioned direct revenues from gorilla-based tourism. The indirect sources include the revenues from tourism-related employment and businesses such as hotels, restaurants, Safari, etc.

5.2.3.3. Infrastructure Development

The interviews of this study indicate that a category of infrastructure is developed in the area around the VNP thanks to Tourism Revenue Sharing (TRS) system. This study sheds more light on the use or investment of the tourism revenues. The 10%, of the total yearly income generated from tourism, that is distributed to the community is mainly invested in infrastructure development. However, the infrastructures in focus are, for example, offices of the local administrative extensions, roads, schools, clinics and most of them are in the line of the already planned activities in the performance contracts signed between the Ministry of local government and the local institutions such as Districts and Sectors . However, the top priorities of the local people such as the provision of clean water, energy sources, park fence construction to mitigate the Human-Wildlife conflicts, etc are mostly side-lined or less considered while deciding which infrastructures to develop. The ineffective choice of what infrastructure to prioritise is not the only problem with the TRS implementation, as the process is also considered as an indirect way by which the government institutions take back the 10% share, to finance the national budget. The same infrastructure in different parts of Rwanda other than the areas around VNP are financed by the government budget. Therefore, further researches are needed to prove whether the schools, clinics, roads, etc. are the outcomes of tourism done in VNP or not.

5.3. The Constraints to Conservation, Tourism and Livelihoods Linkages

5.3.1. Lack of Capacity for the Local Community

On one hand, the findings of this study show that the empowerment and capacity building, by ecotourism projects, of the local community are mainly social. According to (Nyaupane & Poudel, 2011 and Miller, 2016), the social empowerment that concerns the ability to be cohesive and live in harmony. The main achievement of the CBO around VNP is that their members are cohesive; they support each other, for example, in case someone dies they gather

resources needed for burial, or they do share happiness when there is something to celebrate. Though the support is mainly for survival, there are also some cases where the poorest of the poor, those who possess none of the human, physical or social capital, are supported by the community they belong to, the NGOs or the government. However, this kind of support does not represent any form of capacity building process. The main goal of capacity building is to empower those who are economically and politically weak so that their dependence on government and NGO is decreased (Nyaupane & Poudel, 2011).

On the other hand, the economic empowerment that involves community access to consistent and equitable economic benefits (Miller, 2016) is underachieved in the context of the community adjacent to VNP. The tourism revenues are unevenly distributed between the government and the local community and unequally distributed within the local community. The experience from the literature shows that actors with higher capitals such education, social, cultural, financial and physical capital occupy higher positions and dominate other actors who do not have those forms of capital. Similar experience is drawn from our case study where a certain number of community members, those who possess different forms of capital, have their lives positively changed thanks to tourism benefits. The benefits are from either the portion of the tourism revenues that the government distributes to the community or the employment opportunities in tourism activities.

The process of building capacities of local people surrounding VNP is relatively slow and has different obstacles including the high population pressure, limited access to land for agricultural activities, government priorities, etc. According to the fourth population and housing census in 2012, the population density around VNP is higher than the national population level. In Musanze District, for example, the population density is 694 inhabitants per square km compared to 415 people per km² at the national level. The same census indicates that in the district, 63.6% the population is young (under 25 years) and 72% of the population lives in rural areas. Most of that population is also not educated; the net and gross attendance rate in secondary education are below 50% where only 23.3% of the youth have attained secondary education and 12.5% of youth have no education (MINICOFIN, 2015). Besides the highest population density, the main economic activity for the population around VNP is agriculture. However, according to Hitimana et al. (2006), the agriculture is for subsistence; the smallholder farmers grow a variety of crops mainly for home consumption. In the Kinigi area (the five districts sharing their borders with VNP), 96% of households are occupied by agriculture and 35.9% of them own farm with the size of less than 0.2 Ha. All the challenges undermine the agricultural production for the farmers around the VNP, and as a result, their average annual income is estimated at USD 540 per household (McGuinness, 2014).

The above statistics show that the majority of the population lack different forms of capital such as human (education), physical (land) and financial capital. And (MINICOM, 2013) warned that investors are not interested in training the local community because the skilled labour at a competitive wage is available in different parts of the country other than the vicinity of the park. As a result, most of the community members are not in a good position to compete for the aforementioned benefits of ecotourism. Even though the present study does not provide the whole picture of the number of people who are employed or benefiting from ecotourism and where they are from, the available population statistics show that the majority of community around VNP has not the capacity to make use of the new opportunities brought by tourism in the park.

5.3.2. Limited Participation of Local People in Ecotourism Processes

The capitals such as economic, social, educational and cultural capital are pre-requisites for an individual or a group of individuals to influence decisions that can affect their ways of living (Inglis, 2012). As it is described above, most of the community around VNP do not possess the highlighted forms of capital. As a result, they lack the power to take part in or influence the decisions making processes concerning the management of the park, the distribution and investment of the revenues from tourism. This study underlines the different types of participation of the local community in various ecotourism processes:

Firstly, the community participate passively (passive participation) by being told what is going to happen or has already happened. Throughout this study, many examples have been identified; for illustration, let's use two examples: (1) the community do not participate in the accounting of the tourism revenues, but rather they are informed (or not informed) how much has been earned yearly, (2) the decisions on investments of the 10% share from TRS scheme are made by local administrations and then the community get informed during different meetings taking place in rural areas. Secondly, participation for material incentives is another type of participation of the local people. They participate by giving workforce in return for money. In some cases, however, the CBO participate for free in, for example, volunteer activities aimed at conserving the VNP and community works (commonly known as "Umuganda"). Most of the CBO activities include field implementation activities initiated by the NGOs and government or its partners' projects, digging trenches that can serve as park fence, patrol the park in coordination with rangers, mobilizing others against illegal activities in the park. Thirdly, functional participation is also evident because most of the conservation cooperatives around the VNP are formed to meet the RDB and NGOs' pre-determined objectives of conserving the park. Lastly, the community participate in information giving; when something is wrong like an animal from the park is killed, the community is called up to identify the killer.

To increase the power that the local community needs to influence decisions concerning ecotourism processes in the VNP, this study suggests a transfer of power from the Rwanda Development Board (RDB), the governmental agency responsible for the management of National Parks and tourism development, to locally elected authorities. These organizational and management changes could end up in a shift from limited to full participation of the local people in the processes. Instead of participating through the above four types of participation, the community could be self-mobilised and participate in joint analysis through interactive participation. They could be able to do action plans and form new local groups or strengthen the existing one. Therefore, the groups could take control over local decisions and take initiatives independent of external institutions.

However, the processes of power transfer and the capacity building of the local community could be done differently from what the literature suggests. Ribot (2003) suggests risks taking in transferring powers before building capacities of local communities because the power holders such as governments and environmental institutions use the capacity issue as a pretext of not transferring the power to local authorities on grounds that local authorities are not able to receive and retain the power. Though we do agree with Ribot that power and capacity are chicken and egg problem, the experience of this study suggests that capacity of local people are built first and then power is transferred to them. From the experience of the implementation of Tourism Revenue Sharing (discussed in the section), there is a high risk that any power

transfer ahead of capacity building in the context of VNP could be either empty (empty power transfer) or it would be transferred as privileges which are subjected to be easily taken away.

5.3.3. Tourism Revenue Sharing Model Conceptualized as Privileges rather than Rights

The implementation phase of the TRS is the most significant phase where tourism is linked to conservation and local development (Kalulu et al., 2016). It is a critical phase because TRS is the commonly known tool of transferring tourism revenues from the park management to the local community (Sandbrook, 2006 and Umuziranenge, 2019). In the VNP context, since it not spelt out in the constitution or through legal legislative, the benefits are distributed as “privileges”. They are handed out through administrative decrees or orders. According to (Ribot, 2003), the natural resources are both sources of wealth and power, and the power delegated by central agencies to local entities as privileges are easily taken away anytime. The present study found out that the tourism revenues shared with the local community around VNP are, mostly, distributed in a form of favour or delegated privilege, rather than the rights to defend. To elaborate; firstly, not all the people living around the park can access the TRS money, the priority is given to the cooperatives whose activities are directly connected to VNP conservation. And within the cooperatives, other criteria are followed; on one hand, the conservation cooperatives have got queues and because the queue is too long, it can take up to six years for the cooperative which has previously received the money to receive it again. On the other hand, even though it belongs to a list of the conservation cooperatives, one cooperative can be denied by RDB to receive the TRS money because the previous money was not been efficiently used.

One of the main objectives of the TRS system is to induce the local people’s ownership in PAs through access to the benefits of legal extraction of those PAs (Miller, 2016; Umuziranenge, 2019 and Nyaupane& Poudel, 2011). The interviews of this study suggest that the irrational distribution of the tourism revenues has generated animosity in the community around VNP; on one hand, those who benefit from the TRS feel the ownership in the park and they more motivated to conserve it. While on the other hand, those who do not benefit from different ecotourism projects find no interests to engage in various initiatives aimed at conserving the park. However, the present study has not gone through different categories of people who are still engaged in illegal activities in the park. Therefore, there is a need of further studies to find out whether the trend in illegal activities in VNP are linked to the lack of ownership for some of the community members who do not receive the direct benefits from the park or not. However, the experience of the literature shows that the ownership of the local community in the park could improve its conservation. According to Acheson (2011), the owners of the rights to property have an incentive to invest in and conserve it.

5.3.4. Benefits Leakage among the Stakeholders of Ecotourism

In most of the interplays of actors, those with high capital mostly occupy higher positions and they are likely to dominate the interplay. While the actors with less capital become losers and, therefore, their interests are not represented (Inglis, 2012). The present study sheds more light on the interplay between the goals of conservation, tourism and livelihoods in the VNP context. The interplay has got three key main players; the government of Rwanda, NGOs and the local community. Firstly, without ignoring the government responsibility of ensuring the achievement of the three goals, it acts as the main defender of the tourism development goals. Secondly, NGOs like the Diana Fossey Gorilla Fund International defend the conservation goals. Lastly, the local community defend the goals of livelihoods. Though different kinds of

collaboration between the three actors have been elaborated throughout this thesis, dominance; winning and losing have been the characteristics of the interplay between the stakeholders. In this study, the government investments in tourism development and the prioritisation of infrastructure development around VNP were used to illustrate the divergence of interests among the stakeholders of the linkage between conservation, tourism and livelihoods:

First, the huge investments in marketing strategies like “VISIT RWANDA campaign” shows how tourism goals are prioritised over the others. As mentioned earlier, Visit Rwanda is a tourism marketing strategy that consists of signing partnership agreements between the government of Rwanda and Football Clubs, mostly Europeans. The first agreement was signed in 2018 between RDB and Arsenal Football Club on a deal of £ 30 million, the amount was spent for putting the name of the country on the sleeve of the club’s shirt. The deal has received a lot of critics, especially from the western media. For example, *The Sun* (10 June 2018) critics were on the ground that the country is poor and survives because of the international aid, and that Rwanda should not invest in such businesses. The Britain leading newspaper argued that the signed deal is about half of the £64 million in taxpayers’ money Britain hands to Rwanda in aid. Therefore, other newspaper like *The Guardian* (29 May 2018) suggested that the money would have been invested in infrastructure development such as water, electricity, etc. However, Clare Akamanzi, the CEO of RDB, has countered that claim by arguing that infrastructure is imported and she added that tourism is Rwanda’s first forex earner; the more the country earns from tourism, the more it can invest in its people (ibid). Later on, in 2019, another deal was also signed between RDB and Paris Saint-Germain, the French football club.

Second, the tourism infrastructures are prioritised over conservation and local infrastructures. The literature for this study suggests that where the tourist attraction is owned by the state such as a national park, the government benefits are more likely to be achieved than those of the other stakeholders (Nyaupane& Poudel, 2011 and Sandbrook, 2006). For our case of study, we define tourism success as the main government objectives. As mentioned earlier in this chapter, ecotourism projects have developed different tourism infrastructures to accommodate high-end tourists. The tourism infrastructures developed around VNP include luxury hotels, roads, communication facilities, etc. However, other kinds of infrastructures such as conservation and local infrastructures are still underdeveloped. On one hand, the conservation infrastructure like park fence does not exist. The present study found out that crop-raiding by the animal from VNP is among the main problem for the community, they suggest a park fence to reduce the human-wildlife conflicts existing between the wildlife and them. On the other hand, the development of the local or social infrastructures such as water and electricity are very slow, and the existing ones are poorly distributed. According to McGuinness (2014), Ekise et al. (2013) and MINICOM (2015), the distribution varies with tourism concentration activities, in urban and rural areas. For example, portable water is accessible by people with high wealth status and those who are close to commercial centres (Ekise et al., 2013 and McGuinness, 2014). This study identifies water shortage as the problem number one for the community surrounding the VNP. The access to clean water is very limited and those who own faucets do not have enough water. The NGOs supports the community with the provision of both domestic and communal water tanks to collect rainwater during the wet seasons. The dry seasons are the most difficult periods for the community around VNP; they need to travel long distances to fetch dirty water in the park.

Based on the above examples of the interest divergence and the potential consequences that might be associated to it, this study uses the experience from the literature to warn about the likely environmental issues that can be linked to lack of social and local infrastructures. According to Miller (2016), without well-developed infrastructure, an ecotourism project runs the risk of leading to environmental degradation and failing to meet its sustainable goals (Miller, 2016). The present study identified environmental problems associated with the poor development of local infrastructures, mainly electricity; trees are cut as sources of energy for cooking. The community mainly use wood, firewood and charcoal. According to the fourth population and housing census in 2012, in Musanze district, the main source of energy for cooking is firewood (48.6%) and charcoal (48%) in urban areas in comparison to 89.6% (firewood) in rural areas (MINICOFIN, 2015). However, the cutting of trees is not from the park, they are instead from fields owned by the community.

5.3.5. Dependence of the Local Community on the VNP

Though the present study does not prove whether the trending illegal activities in VNP are linked to lack of ownership, poverty or routine of the adjacent community to the park, those activities are still problems. Despite the heavy punishments imposed to those invading the park, animals are still being killed; traps set by poachers are being identified and defused, and a certain number of the community members are being punished. However, the rate of the identified cases of illegal activities has been gradually decreased but it is interesting to know why the few cases still exist. Today, engagement in poaching or other illegal activities in VNP is considered as a crime and it is also a risk-taking action due to the aforementioned punishment applied to those found guilty.

This study, however, found out that cases of one category of illegal activities are gradually decreasing while those for the other category are increasing. Generally, cases of the killings of animals, collection of bamboo and honey in the park have decreased while at the same time the number of people travelling to the park to fetch water is increasing. In addition to the other problem, associated to the benefits leakage mentioned earlier, water scarcity is amongst challenges for the local people living around VNP. Regardless of unclean water found in VNP, the community is highly dependent on it to the extent that it informally allowed to fetch water in the park. During dry seasons, mostly, the park staff let people get in the park to search for water. This study identified the potential negative effects of fetching water in the park. On one hand, it is not good for the community lives; besides that, the water is not clean, the people also are at risk of being killed by animals in the park. On the other hand, animals especially the mountain gorillas are exposed to some of the human diseases. In addition to the diseases, there have been some recorded cases where the community abuse the permission given to fetch water; they use the opportunity to identify the best places they will set traps next time, in the night for example.

5.3.6. Heavy Conservation Costs for the Local Community

Among the outcomes of the contemporary participatory conservation approach, the administrative costs are lowered through the reduction of labour deployed in the conservation of PAs. However, there are ongoing debates for the local community's benefits of the approach (Ekise et al., 2013). Apart from the achieved wellbeing of the mountain gorillas and the development of high-end tourism, the present study has shown that some members of the local community suffer from the costs related to the current conservation model. The costs are associated to heavy punishments imposed to those who are guilty of invading the park;

economic losses caused by, on one hand, their crop raid by animals from the park and much of their time spent in performing unpaid jobs on the other hand.

Despite an improved engagement of the local community in the conservation of PAs, the participatory conservation has some aspects of a fortress conservation model that has been abandoned across the globe (Sandbrook, 2006 and McGuinness, 2014). The empirical study done by Ekise et al. (2013) has proven that there is an exercise of force in the management of the VNP. The legal force is applied as a fear tool to prevent the community from invading the park. Their study found out punishment was the main challenge encountered the population of Kinigi Sector around VNP, it was ranked number one before the other parameters considered such as wild animal attacks, crop-raiding, etc. Similarly, the present study has found out that punishment imposition is still adopted as a strategy to protect the park. Though the park management insists that punishments are not their aim rather than teaching the community, in most cases, the imposed punishments are too heavy for those who are caught conducting illegal activities in the park. The imposed punishments include imprisonment and fine. According to the environmental organic law No 04/2005 of 08/04/2005, the imprisonment varies from two months to two years while the fine ranges from RWF 300,000 to RWF 2,000,000. The two penalties or one of them can be applied to one person depending on the gravity of the underlying crime (Republic of Rwanda, 2014).

The economic loss due to crop raiding by the animal from VNP in another challenge for the community living in the vicinity of the park. The loss comes in different ways; firstly, the community do not get a return to their investment in agricultural activities. The claimed RDB's policy of compensating damages caused by animals seems not working, it increases costs to the local community instead. The local community criticise the policy on grounds that its implementations go along with unnecessary bureaucracy with the associated costs, undervaluation and/or refusal of the damages, etc. Secondly, the community's self-defence to attack of animals from the park; they guarantee the security for their crop in two ways. They either pass the nights in the forest to prevent animals from coming in their plantations or they dug trenches in the boundaries to serve as a fence. Unfortunately, the two ways also rarely work, still, their crops are raid to some extent. Lastly, various volunteerism activities that mentioned earlier as forms of local participation in conservation of VNP are costly to the community. The activities take much of their time for nonpaid tasks.

5.3.7. Lack of Visitation and COVID-19

Even if all other barriers to successful ecotourism development are avoided, a lack of visitation to an ecotourism destination makes all the benefits of ecotourism unreachable (Miller, 2016:31). Unlike the lack of tourism marketing strategies of attracting tourists in Belize that lead to a failure of the Community-Based Ecotourism (CBET) projects (ibid), the various market-based reforms to strengthen the role of the private sector in tourism development (Nielsen & Spenceley, 2011) and the aforementioned tourism marketing strategies; KWITA IZINA and VISIT RWANDA has made the tourism industry successful in Rwanda. Therefore, in normal conditions, the lack of visitation is not the main problem for the ecotourism projects in Rwanda. However, the tourism industry has been hit and it is still suffering from the Coronavirus (COVID-19), the current global pandemic. Since March 14, 2020, when the first patient of COVID-19 was declared in Rwanda, different measures have been put in place including lockdown to prevent the spread of the pandemic. The lockdown means that almost all activities are banned including both local and international travels, i.e. no tourist could come

to visit the country. The country was in the lockdown for about three months and then step by step Rwanda eases the lockdown measures. Today the country is in semi-lockdown and both the local and foreign tourists are allowed to visit VNP provided the current health guidelines for COVID-19 are followed. The tourism industry is the first economic activity that has been heavily affected by COVID-19. In June 2020, Belise Kariza, Chief Tourism Officer at RDB, said that what they recorded a 54% decline of their visitor arrivals in March. This decline and cancelled events produced an estimated loss of USD 42 million for the sector and country (Devex, 29 June 2010). Though the tourism activities including the mountain gorilla trekking were resumed, recovery of the industry will take a long time. RDB does not expect many tourists to come in a big number as it was before the pandemic. As a result, the government of Rwanda, through RDB, has slashed gorilla permits between 60 and 80% and the new price regime is valid for about six months (RDB Twitter account, 18 June 2020).

6. Conclusion and Recommendation

This study identified the benefits and constraints of combining the goals of conservation, tourism and local community's livelihoods in the region around the Volcanoes National Park (VNP) in Rwanda. In the region, gorilla-based tourism has shown the ability to link the three goals. However, the implementation of different ecotourism projects had achieved mixed success. On one hand, both the goals of tourism development and conservation of VNP are achieved at higher levels while on the other hand, the community's livelihood and development goals are underachieved. The Tourism Revenue Sharing (TRS) scheme that is used as the main tool of transferring the tourism revenue to the local community is not achieving its goals because the revenues are mostly used to fund the government-oriented projects (like building schools, clinics, roads rehabilitation, etc.), rather than empowering and improving the wellbeing of the local community. The limited participation of the local community is not only present while deciding where to invest the TRS money but also in the management and conservation of VNP. Most of the processes concerning the management of VNP; collection and distribution of the tourism revenues are performed by Rwanda Development Board (RDB). The processes are top-down, the local community mostly participate either for material incentives by giving workforce in return for money; or participate passively by being told what is going to happen or has happened or they also participate in information giving. This study has also shown that benefits leakage among the stakeholders of ecotourism, in addition to the limited participation of the local people, is the main challenge of linking the goals of conservation, tourism and livelihoods. However, the leakage and the limited participation of the local community are interconnected. The experience from the literature shows that when the local people, for one reason or another, do not effectively participate in various processes of ecotourism, their interests are side-lined. Similarly, this study shows that the community lack of both capacity and power to influence the decisions aiming at improving their livelihoods and development in general. Consequently, the powerful stakeholders such as tourism and conservation defenders take the advantage to maximise their profits. Tourism industry (including the Mountain Gorilla trekking in VNP) is the fastest growing economy in Rwanda and the wellbeing of the mountain gorillas has been improved since a new collaborative approach of protecting and conserving VNP has been adopted in 2005. The benefits from these successes for livelihoods have however been limited. Similar experiences were observed in Uganda and Nepal where tourism attraction like National Park is owned by the state; the ecotourism benefits are mostly based on macro-economic growth, foreign currency earning and balance of payment. The lack of capacity for the local community also limits the possibilities for most of them to make use of the new job and business opportunities linked to tourism. Therefore, the benefits of tourism are not only unevenly distributed among the stakeholders but also, they are not equally distributed within the community. Even though the protection and conservation of VNP have registered some signs of progress, this study has shown that the future of the park conservation is uncertain for two main reasons; The empirical material for this study has shown that (1) the lack of local infrastructure such as water and energy sources like electricity increases the dependence of the local community on the park. (2) the new management approach still has some aspects of fortress conservation model, where punishments are enforced as one of the main tools of protecting the park.

To sum up, the process of combining the goals of conservation, tourism and livelihoods in the context of the Volcanoes National Park has not achieved its objective because of, mainly, the benefits leakage and limited participation of the local community in different ecotourism projects. The benefits of tourism are mainly dominated by macro-economic growth aspirations. However, further studies are recommended to assess if there is a significant difference in the socio-economic development between the people living around the VNP and people living in other parts of the country. To address the above-mentioned conservation uncertainties and the livelihoods problems of the local community, the study suggests to further explore how a decentralisation of natural resources management can be developed as a sustainable approach to managing resources of the VNP. The experience compiled in the literature review points towards the needs for a shift from participatory to representative forms of democracy under elected local authorities who can value, manage and voice the claims on behalf of the local community. Referring to theory on processes of decentralisation (Ribot, 2002), the government of Rwanda, through RDB, is suggested to allow elections of local authorities who will be accountable to the local community, and then transfer to them the discretionary power and make sure that the security of the transferred power is maintained.

7. References

- Acheson, M. (2011). Ostrom for Anthropologists. *International Journal of the Commons*. Vol.5(2), pp.319-339.
- Agrawal, A. (2005). Environmentality. Community, Intimate Government, and the Making of Environmental Subjects in Kumaon, India. *Current anthropology*. Vol.46(2), pp.161-190. DOI: 10.1086/427122
- Ahebwa, W. M. (2012). *Tourism, livelihoods and biodiversity conservation: an assessment of tourism related policy interventions at Bwindi Impenetrable National Park (BINP)*, Uganda.
- Arévalo Arévalo Vásquez, A. R. (2010). Enhancing natural resources management and livelihoods in Zapatera Archipelago National Park, Nicaragua. Masters' thesis. Uppsala: SLU
- Devex. (2020). How will tourism in LMICs change post-COVID? <https://www.devex.com/news/how-will-tourism-in-lmics-change-post-covid-97559?fbclid=IwAR3JL86gGunno2WsqIdh9hILByUG4IWY9Yslg7otOOB0NAxANfnIuETf0K4#:~:text=Our%20COVID%2D19%20coverage%20is%20free.&text=%E2%80%9CWhat%20we%20recorded%20in%20March,for%20the%20sector%20and%20country> [2020-08-10]
- Ekise, I. E., Nahayo, A., Habumugisha, J.B & Mbabazi, P. (2013). A Socioeconomic Determination of the Impact of Volcanoes National Park on the Livelihoods of the Local Neighbouring Communities in Northern Rwanda. *New York Science Journal*, 11, 14-26. <http://www.sciencepub.net/newyork>
- Ellis, F. (2000). *Rural livelihoods and diversity in developing countries*. Oxford Oxford University Press.
- Fairhead, J., Leah, M., & Scoones, I. (2002). Green Grabbing: a new appropriation of nature?, *Journal of Peasant Studies*, 39(2), 237-261. <http://dx.doi.org/10.1080/03066150.2012.671770>
- Fisher, H. W. (2016). Beyond Participation and Accountability: Theorising Representation in Local Democracy. *World Development*, 86, 111-122. 2016. DOI: 10.1016/j.worlddev.2016.05.003
- Givá, N. (2016). *Parks with People?* (Doctral dissertation). DOI: 10.1080/03057070.2017.1374810
- Hitimana, J., Namara, A., Sengalama, T., & Nyirimana, J. (2006). Community-Based Natural Resource Management (CBNRM) Plan. Kinigi Area, Rwanda. *Report prepared for the International Gorilla Conservation Programme*.
- Hornborg, A. (2013). Revelations of resilience: From the ideological disarmament of disaster to the revolutionary implications of (p)anarchy, *Resilience* 1(2) 116-129, DOI: [10.1080/21693293.2013.797661](https://doi.org/10.1080/21693293.2013.797661)
- Inglis, D. (2012). Phenomenological paradigms. The symbolic interactionist paradigm. *An Invitation to Social Theory*. Cambridge. Polity Press 86-128.
- Lanjouw, A. (2008). "Building partnerships in the face of political and armed crisis." *Journal of Sustainable Forestry*. Volume 16(3-4), 89-110.

- Latour, B. (2005). Reassembling the social. An Introduction to actor-network-theory. *Journal of Economic Sociology*. Oxford University Press, 14(2), 73-87.
- Leach, M., Newell, P., Scoones, I., & Mehta, L. (1999). Exploring understandings of institutions and uncertainty: new directions in natural resource management.
- Lewis, C. (Ed). (1996). *Managing conflicts in protected areas*. IUCN.
- Mc Guinness, S. (2014). *The effects of human-wildlife on conservation: a case study of the Volcanoes National Park, Northern Rwanda* Doctoral dissertation, Trinity College Dublin. DOI: 10.13140/RG.2.1.1245.9367.
- McDonald, I. (2003). Community-Based Conservation: A Reflection on History.
- Miller, C.C. (2017). Challenges and potentials of ecotourism as a form of conservation and sustainable development on Zapatera island, Nicaragua. Master's Thesis. Uppsala: SLU
- MINICOFIN. 2015. Musanze District Profile. National Institute of Statistics of Rwanda: Fourth Population and Housing Census, Rwanda,2012.
- MINICOM (Ministry of Trade and Industry). 2013. Rwanda Protected Areas Concessions Management Policy.
- Murray Li, T. (2007). Practices of assemblage and community forest management, *Economy and Society*, 36(2), 263-293, DOI: [10.1080/03085140701254308](https://doi.org/10.1080/03085140701254308)
- Nielsen, H., & Spenceley, A. (2011). The success of tourism in Rwanda: Gorillas and more. Yes Africa Can: Success stories from a dynamic continent, 231-249. DOI: 10.13140/RG.2.1.3853.1956.
- Nyaupane, G.P., & Poudel, S. (2011). Linkages among biodiversity, livelihood, and tourism. *Annals of tourism research*, 38(4), 1344-1366. DOI: [10.1016/j.annals.2011.03.006](https://doi.org/10.1016/j.annals.2011.03.006)
- Pretty, J. N., Guijt, I., Thompson, J., & Scoones, I. (1995). Participatory learning and action—A trainers guide.
- RDB (Rwanda Development Board). (2017). Annual Report. [file:///C:/Users/ndaje/Desktop/EX0889%20\(SLU-30166\)%20Master%20thesis%20in%20Rural%20Development/Theory%20and%20Literature%20review/RDB-Annual-Report-2017-Final.pdf](file:///C:/Users/ndaje/Desktop/EX0889%20(SLU-30166)%20Master%20thesis%20in%20Rural%20Development/Theory%20and%20Literature%20review/RDB-Annual-Report-2017-Final.pdf) Last visited on 24/09/2020.
- Republic of Rwanda. 2014. Revised and Updated National Biodiversity Strategy and Action Plan.
- Ribot, J. C. (2002). *Democratic Decentralization of Natural Resources: Institutionalizing Popular Participation* (World Resources Institute, Washington, DC). Washington, DC.
- Ribot, J. C. (2003). Democratic decentralization of natural resources: institutional choice and discretionary power transfers in Sub-Saharan Africa. *Public Administration and Development: The International Journal of Management Research and Practice*, 23(1), 53-65. DOI: 10.1002/pad.259

Ribot, J. C. and Chhatre, A., & Lankinad, T. (2008). Introduction: Institutional choice and recognition in the formation and consolidation of local democracy. *Conservation and Society*, 6 (1). 1-11. <http://eprints.lse.ac.uk/45367/>

Ronald, K., Emmy, T., & Emmanuel, N. (2016). Local Community Attitude and Perceptions towards Tourism Conservation Policies in Rwanda Case of Volcanoes National Park. DOI: 10.13189/aeb.2016,041201.

Salafsky, N., & Wollenberg, E. (2000). Linking livelihoods and conservation: A conceptual framework and scale for assessing the integral of human needs and biodiversity. *World development*, 28(8), 1421-1438.

Sandbrook, C. G. (2006). *Tourism, conservation and livelihoods: the impacts of gorilla tracking at Bwindi Impenetrable National Park, Uganda* (Doctoral dissertation, University of London). [Written permission from the author was received on 2020-09-05].

The Guardian. (2018). Rwanda's £30m Arsenal sponsorship divides opinion. <https://www.theguardian.com/world/2018/may/29/rwandas-30m-arsenal-sponsorship-divides-opinion> [2020-08-10].

The Sun. (2018). Rwandan tyrant pays Arsenal £30m to put 'Visit Rwanda' on their shirts while orphans are so poor they can't even afford a football. <https://www.thesun.co.uk/news/6495778/rwandan-tyrant-pays-arsenal-30m-to-put-visit-rwanda-on-their-shirts-while-orphans-are-so-poor-they-cant-even-afford-a-football/> [2020-08-10].

Tolbert, S., Makambo, W., Asuma, S., Musema, A., & Mugabukomeye, B. (2019). The perceived benefits of protected areas in the Virunga-Bwindi Massif. *Environmental Conservation*, 46(1), 76-83. Doi: 10.1017/S0376892918000309.

Travelandnews (TAN). (2019). Revenue from gorilla tourism grows 25% in Rwanda. <https://www.newtimes.co.rw/news/revenue-gorilla-tourism-grows-25> [2020-09-24].

Umuziranenge, G. (2019). Parks' Governance and Management in Rwanda: Opportunities and Challenges of the Community Participation for a Sustainable Conservation – Case Study of Nyungwe National Park. *International journal of environmental protection and policy*. Vol. 7, No. 2, 2019. 61-71. DOI: 10.11648/j. i jepp. 20190702. 13

USAID 2008. *Biodiversity Conservation and Crisis*.

8. Appendices

THE ASKED QUESTIONS TO RESEARCH PARTICIPANTS FOR THIS STUDY

I. Questions asked to the Park Management and Government Representative.

1. Which approach/es the Volcanoes National Park (VNP) is managed?
2. What are the major achievements for your organization/institution concerning the Gorilla and park conservation?
 - a. Are the mountain gorillas increasing or decreasing in number? how many are they today in comparison to previous years?
 - b. What do you think are the reasons behind the increase or decrease in their number?
3. What are the challenges for the Mountain gorilla conservation and the VNP conservation in general?
 - a. To what extent poaching is regarded as a threat to the conservation of VNP? How the number of poaching cases has been evolving?
 - b. What are other human activities or Non-human activities (if any) that affect both the park and gorilla conservation?
4. Generally, what are your opinions of community engagement in the Gorilla and VNP conservation?
 - a. How do you think the local community's conservation mindset is growing?
 - b. From your perspective, how do you think the conservation activities affect the community adjacent to the VNP either positively or negatively?
 - c. Do you think the local community has been provided with the necessities in exchange to what they were used to find in the park?
 - d. At what extent do you think the local community participate in decision making processes in the management of the park?
5. Regarding the local community cooperatives aimed at conservation of the Mountain gorillas and VNP,
 - a. How do you think the formation of the cooperatives are important in conservation of gorillas and the park?
 - b. What are benefits of the cooperative members in the context of the VNP conservation?

- c. Could you please estimate the number of the people around the VNP who are not cooperative members?
 - d. What the people who are not members of those cooperatives might lack of?
6. Rwanda is one of the countries where tourism activities are conducted in protected areas like National Parks, what do you think are drawbacks and benefits of tourism for
 - a. The conservation of the mountain gorillas and VNP in general?
 - b. The development for the community around the park?
 7. What are the existing tourism development strategies for VNP and in Rwanda generally?
 - a. Could you please tell me something about the Visit Rwanda campaign?
 - b. How do you think the strategy will impact the tourism industry development in Rwanda?
 8. Concerning the Tourism Revenue Sharing (TRS) scheme,
 - a. How the money from TRS is spent or invested?
 - b. How big size of the population around VNP is covered by the TRS?
 - c. What are impacts of the TRS for the community adjacent to VNP?
 9. What kind of partnership/collaboration do you have with other institutions or organizations such as NGO (for example: Diana Fossey Gorilla Fund International, etc), Local government, the Greater Virunga Transboundary Collaboration (GVTC), other National parks of the Virunga massif?
 10. From your perspectives, how do you view the goals of tourism development; conservation and the local community development in the context of the VNP and its surroundings?
 - a. How do think these goals can be combined?
 - b. How is your organisation contributing to the achievement of the three goals?
 11. Concerning the COVID-19, the ongoing pandemic that has been declared to be a Public Health of Emergency of International Concern,
 - a. How has it affected your job personally and the organization you work for?
 - b. How the conservation activities are affected so far by the virus?
 - c. How do you think the pandemic will affect the conservation activities in the future?

II. Questions asked to the Non-Governmental Organisation (NGOs) Representatives.

1. What are the major achievements for your organization concerning the Gorilla and park conservation?
2. Are the mountain gorillas increasing or decreasing in number? how many are they today in comparison to previous years?
3. What do you think are the reasons behind the increase or decrease in their number?
4. What are the challenges for the Mountain gorilla conservation and the VNP conservation in general?
5. To what extent poaching is regarded as a threat to the conservation of VNP? How the number of poaching cases has been evolving?
6. What are other human activities or Non-human activities (if any) that affect both the park and gorilla conservation?
7. Generally, what are your opinions of community engagement in the Gorilla and VNP conservation?
8. How do you think the local community's conservation mindset is growing?
9. From your perspective, how do you think the conservation activities affect the community adjacent to the VNP either positively or negatively?
10. Do you think the local community has been provided with the necessities in exchange to what they were used to find in the park?
11. Rwanda is one of the countries where tourism activities are conducted in protected areas like National Parks, what do you think are drawbacks and benefits of tourism for
12. The conservation of the mountain gorillas and VNP in general?
13. The development for the community around the park?
14. What kind of partnership/collaboration do you have with other institutions or organizations such as RDB, Local government, the Greater Virunga Transboundary Collaboration (GVTC), other National parks of the Virunga massif?
15. From your perspectives, how do you view the goals of tourism development; conservation and the local community development in the context of the VNP and its surroundings?
16. How do you think these goals can be combined?
17. How is your organisation contributing to the achievement of the three goals?
18. Concerning the COVID-19, the ongoing pandemic that has been declared to be a Public Health of Emergency of International Concern,

19. How has it affected your job personally and the organization you work for?
20. How the conservation activities are affected so far by the virus?
21. How do you think the pandemic will affect the conservation activities in the future?

III. Questions asked to Villagers living and/or working around the Volcanoes National Park

1. Identification:
 - a. Where do you live and for how long have you been living there?
 - b. What is your occupation?
2. Relationship between VNP and its adjacent community:
 - a. What do you know about the VNP?
 - b. How could you compare the current approach of conserving and managing the park with how it was done before the last 15 years?
 - c. How do you think the community attitude towards conservation is either growing or decreasing? What do you think are motivations or demotivation for this?
 - d. How do you think punishments are contributing to improved management and conservation of the park?
 - e. What are the main conservation and management activities do the local community participate the most?
3. Trends of illegal activities in VNP:
 - a. Do illegal activities still exist in the park?
 - b. Have you ever been engaged in different kinds of illegal activities in the park?
 - c. When have you seen/heard the last case of illegal activities in the park?
 - d. Do you think cases of illegal activities in the park are increasing or decreasing?
 - e. What do you think are the reasons behind both the past and current illegal activities in the park?
 - f. Besides the engagement, of some of the local community members, in illegal activities in the park, what are the other kinds of Human-Wildlife conflicts that could be experienced in the context of VNP?
4. Tourism activities in the VNP:
 - a. What is your experience in tourism activities in the park?
 - b. How do you think is easy or hard for local tourists to visit the park?
5. Impacts of tourism in VNP on the community living around VNP and on the conservation of the park
 - 5.1. Tourism Revenue Sharing (TRS):
 - a. Who are the beneficiaries of the TRS?
 - b. Where and how the TRS money is invested?
 - c. How do the local community participate in the collection, distribution and use of tourism revenues from the park?
 - 5.2. Livelihoods diversification:
 - a. Do you think there are new jobs created because of the tourism activities conducted in the park?
 - b. How do you think it is hard or easy to grab the new job opportunities?
 - c. Are the new jobs seasonal, full or part-time ones?
 - d. How would you appreciate the compensation for the jobs?

- e. How do you think the tourism industry has promoted the entrepreneurial attitudes for the local community?
 - f. Are there opportunities or challenges for the local community to establish their own businesses?
- 5.3. Infrastructure development
- a. Are there new infrastructures developed in your area thanks to tourism activities in the park?
 - b. How do you think tourism has contributed to access to clean water, electricity, schools, health care services, etc?
- 5.4. The Mountain Gorilla-based tourism and VNP conservation:
- a. How tourism activities in VNP have contributed to an improved relationship between the park and its adjacent community?
 - b. Has tourism given exchange to what people were used to finding in the park?
 - c. What are the tourism activities you think they might be harming the park?
6. Community cooperatives:
- a. Why do you think it is important to be a member of any community cooperative?
Given the context of VNP
 - b. Why do you think some of the community members have joined the cooperatives while for the others it is not the case?
 - c. What do you think are the driving forces for the creation of the cooperatives?
 - d. What do you think are the challenges and opportunities for both the existing and new cooperatives that can be formed?