LINKING CONSERVATION TO THE IMPLEMENTATION OF REVENUE SHARING POLICY AND LIVELIHOOD IMPROVEMENT OF PEOPLE BORDERING BWINDI IMPENETRABLE NATIONAL PARK

BY

MEDARD TWINAMATSIKO

DIP.EDUC (KYU), BA (MUST), MA (MUST)

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DECLARATION

I, MEDARD TWINAMATSIKO, hereby certify that this thesis is a result of my original research work and I present it without any reservations for external examination.

Signature…… Date……

APPROVAL

The research work culminating into this thesis was conducted under my guidance and supervision.

Signature……..……..……. Date…….

ASSOC. PROF. DR. GRACE KAGORO RUGUNDA

Qualifications……..

Signature……..……..……. Date…….

PROF. DR. BENON BASHEKA

Qualifications……..

DEDICATION

This work is dedicated to my dear wife Sheila Niinye Twinamatsiko, my little angels; Emmanuel Twinamatsiko, Eliana Itungo Twinamatsiko and my brother Michael Bainomugisha (RIP). Michael, I will live to remember our childhood and how I wish you would have seen such an achievement and taken part in its celebration.

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LIST OF ACRONYMS AND ABBREVIATIONS

ASSOC: Associate

AWF: Africa Wildlife Foundation

BDP: Batwa Development Programme

BINP: Bwindi Impenetrable National Park

BMCA: Bwindi Mgahinga Conservation Area

BMCT: Bwindi Mgahinga Conservation Trust

CAM: Conservation Area Manager

CAO: Chief Administrative Officer

CARE: Cooperative for Assistance and Relief Everywhere

CBC: Community Based Conservation

CBD: Convention on Biological Diversity

CBT: Community Based Tourism

CC: Community Conservation

CCR: Community Conservation Ranger

CCW: Community Conservation Warden

CPIs: Community Protected Area Institutions

CTPA: Conservation Through Poverty Alleviation

CTPH: Conservation Through Public Health

DDPs: District Development Plans

DPECs: District Production and Environment Committees

EM: Ecological Monitoring

Fig: Figure

FFI: Fauna and Flora International

FPP: Forest Peoples Programme

GEF: Global Environment Facility

GDP: Gross Domestic Product

GPS: Geographical Positioning Systems

GoU: Government of Uganda

HLGs: Higher Local Governments

HS: Household Surveys

HUGO: Human Gorilla

ICD: Integrated Conservation and Development

ICDP: Integrated Conservation and Development Projects

IGCP: International Gorilla Conservation Programme

IUCN: International Union for Conservation of Nature

IMF: International Monetary Fund

ITFC: Institute of Tropical Forest Conservation

KII: Key Informant Interviews

LCs: Local Councils

LG: Local Government

LLGs: Lower Local Governments

M&E: Monitoring and Evaluation

MGNP: Mgahinga Gorilla National Park

MoU: Memorandum of Understanding

MUST: Mbarara University of Science and Technology

MUZs: Multiple Use Zones

NAADS: National Agriculture Advisory Services

NCC: Nkuringo Cultural Centre

NCCDF: Nkuringo Community Conservation and Development Foundation

NDP: National Development Plan

NTFP: Non Timber Forest Products

NGOs: Non Governmental Organisations

SCDPs: Sub County Development Plans

SL: Sustainable Livelihoods

SPECs: Sub County Production and Environment Committees

PAA: Policy Arrangements Approach

PAs: Protected Areas

PAC: Project Advisory Committees

PAM: Protected Area Management

PDT: Prisoner Dilemma Theory

PRAs: Participatory Rural Appraisals

PROF: Professor

REDD+: Reducing Emissions of Deforestation and Forest Degradation

R2P: Research to Policy

RPAs: Reformed Poacher Associations

RS: Revenue Sharing

SAPs: Structural Adjustment Programmes

UGX: Uganda Shillings

UNESCO: United Nations Educational Scientific and Cultural Organisation

UOBDU: United Organisation for Batwa Development in Uganda

URP: Uplift the Rural Poor

URU: Unauthorised Resource Users

USD: United States Dollar

UTAMU: Uganda Technology and Management University

UWA: Uganda Wildlife Authority

WMA: Wildlife Management Area

WTO: World Tourism Organisation

WWF: World Wildlife Fund

ABSTRACT

This study examined the implementation of Revenue Sharing policy at Bwindi Impenetrable National Park towards improvement of people's livelihood and support for conservation. Bwindi is a world heritage site and a home of almost 50% of the World Mountain Gorillas. Distributive, procedural, recognitive and contextual dimensions of equitable benefit sharing were explored and analysed. Revenue Sharing policy implementation was regarded as the independent variable while community livelihood was the dependent variable. Conservation support was treated as outcome variable which formed the second level of analysis. The study used a mixed method approach where cross sectional and explanatory research designs were employed. The study was composed of Revenue Sharing beneficiaries and non beneficiaries both Batwa and non-Batwa, key informants and unauthorised resource users who were picked from the records of Local Council I and Uganda Wildlife Authority. Data was collected using documentary review, Households Surveys, Focus Group Discussions and Key Informant Interviews. Data was analysed using Linear and Multinomial Logistic Regression models. Polychoric Principal Component Analysis (PCA) was applied to generate indices for quantitative variables. The study analysed qualitative data using thematic analysis aided by NVivo 10. Quantitative analyses were run in STATA 11 computer package to generate *P*-values, coefficients and descriptive values of mean and standard deviation where applicable. Results show that Revenue Sharing policy is not equitably implemented and there is limited impact on ground in terms of livelihood improvement. There is however progress in terms of conservation support although unauthorised resource use continues to take place despite Revenue Sharing policy implementation. The study demonstrates that the practice of implementing Revenue Sharing projects is marred by distributive as well as procedural inefficiencies. The poor targeting of projects and lack of a monitoring system have been identified as major shortfalls. People living in the frontline villages within a distance of 1 km from the park boundary were poorer members compared to others in the community. The policy does not target them yet they bear most conservation costs. The study concludes that in order to gain conservation support and improve local community livelihoods, proper targeting and greater involvement of those who bear conservation costs is pertinent. The study recommends a Revenue Sharing Equitable Framework (RSEF) which entails community based monitoring. This is hoped to improve policy practice.

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Introduction

The generation and sharing of revenue from Protected Area (PA) resources is predetermined by policy makers and implementers as a mechanism attracting community support for conservation. This is premised on the ability of such revenue to translate into people's livelihood improvement by demonstrating the economic importance and value of such Protected Areas (UWA, 2013). This programme of sharing park resource revenue is referred to as Revenue Sharing. Revenue Sharing policy has the potential to create a linkage between conservation and development (Salafsky, 2011; Ahebwa *et al.*, 2012). If well implemented using an equitable framework, it can be a pathway for improving people's livelihood and influence their support for conservation of Protected Areas. Globally, the phenomenon of community and individual livelihood security in the face of conservation revenue and benefits is attracting international and local debates as to whether conservation policy interventions best address people's livelihoods (Wells *et al*., 1993; Hughes and Flintan, 2001; Simpson, 2008; Blomley *et al*., 2010; Salafsky, 2011:975; Twinamatsiko and Muchunguzi, 2012; Twinamatsiko *et al*., 2014).

There is often the contestation between local communities and conservationists premised on inadequate benefits from Protected Areas (PAs) to address their livelihood needs yet such communities bear conservation costs (Archabald and Naughton-Treves, 2001; Bush and Mwesigwa, 2008). Revenue Sharing (RS) objectives are premised on improving people's livelihoods in order to gain their support for conservation (Archabald and Naughton-Treves, 2001; UWA, 2012a, UWA, 2012b). The empirical realities however show that the practice of the

Revenue Sharing policy around Bwindi does not address the initial objectives of the policy which looks at human livelihood improvement to gain support for conservation. Failure to achieve this pathway has resulted to negative attitudes by the communities towards conservation (Ahebwa *et al*., 2012; Twinamatsiko *et al*., 2014). This justifies this study that examined the implementation of Revenue Sharing Policy in improving people's livelihoods and their support for the conservation of Bwindi Impenetrable National Park.

The preliminary findings (Blomley et al., 2010; Twinamatsiko *et al*., 2014), demonstrated that community livelihoods around Bwindi lacked a linkage to specific Integrated Conservation and Development (ICD) interventions and not measured in a specific context of differences that exist within Bwindi local communities such as the Batwa and non Batwa, Unauthorised Resource Users (URU) and other community members that refrain from it and gender interactions.

The concept of livelihood improvement is an important measure of inclusive development, well being and an important aspect in achieving conservation goals (Flintan, 2000). Around PAs, local people continue to agitate for conservation benefits in order to embrace conservation since they bear more costs of conservation (Archabald and Naughton-Treves, 2001; Bush and Mwesigwa, 2008; CARE, 2006). There is a strong linkage between inadequate community livelihoods and unauthorised resource use which has curtailed conservation efforts (Twinamatsiko *et al*., 2014). This is attributed to failure of the community members to perceive the importance of conservation resulting from limited benefits that address their livelihoods and a desire to meet livelihood needs with the easiest option available to them.

This study therefore examined the implementation of Revenue Sharing towards human livelihood improvement and the conservation of Bwindi Impenetrable National Park (BINP). This introductory chapter presents the background to the study, the problem statement, the purpose of the study, the objectives, research questions, hypotheses, conceptual framework, scope of the study, justification and significance and the operational definition of key concepts.

1.2 Background to the Study

1.2.1 Historical Background

Livelihood improvement and security of local people neighbouring Protected Areas (PAs) has been a concern of the human race and governments throughout civilisation (Blomley *et al*., 2010). In the pre-colonial governments, people's livelihood improvement was on top of the agenda of any traditional administration in the utilisation of natural resources (Chambers, 1992; Odhiambo, 2006; DeGeorges and Reilly, 2009). Salafsky (2011, p. 980) observes that in absence of any obvious alternatives, people were given resource access freedom by their leaders that was a convenient choice to support their livelihoods. This freedom did not compromise with flora and fauna conservation. It has been documented that pre-colonial governments initially established management systems that prearranged rules and regulations on natural resource use within African societies. This regulation was however flexible to allow easy access to natural resources.

In pre-colonial societies, land was communally managed and over time society put in place laws, rules and regulations regarding access to and use of natural resources. The rules were precise, codified and made part of their culture, much as they were not written down (Baker *et al*., 2013

while quoting DeGeorges and Reilly, 2009). This therefore shows that traditionally, governments prioritised people's livelihoods by allowing them access to natural resources for their survival. This did not mean that free access affected conservation of natural resources. People sustainably used natural resources from one generation to another. A case in point, the Batwa of South Western Uganda who currently live as squatters in the community land were renown hunters but their hunting practices were done sustainably to cater for the needs of the next hunt (FFI, 2013).

In pre-colonial era, there was a high level of social organisation among communities in various ways from kingdoms to chiefdoms and clan systems although this organisation differed from community to community. This organisation included communities in Asia, Latin America especially in Indonesia and countries in Africa such as Cameroon, South Africa, and Kenya (Pemunta and Mbu-Arrey, 2013). In Uganda, the most significant kingdoms were those of Bunyoro, Buganda, Toro and Busoga that had well organised social structures. Forests were owned by kingdoms or chiefdoms and each kingdom or chiefdom managed the forests either as a communally owned or an open access resource (Baker *et al*., 2013).

As a result of the existing traditional norms and beliefs that were promoted and preserved by members of society, some forests were classified as sacred. Individuals and clans were assigned the responsibility of regulating use of its resources and would monitor resource off-take. This would entail sanctions put in place for the misuse of forest resources that were learnt by society through stories and folklore (Turyahabwe and Banana, 2008; DeGeorges and Reilly, 2009). For example, one of the beliefs by Ugandan societies was that, in case a person went to the forest when he or she did not report to the clan head or spiritual leader the purpose of the visit, such a

person would not find their way out of the forest and be back to their community (Turyahabwe and Banana, 2008; FFI, 2013). Such beliefs controlled people from misuse of the natural resources since their interaction with resources were known by community leaders.

This level of organisations of chiefdoms and kingdoms helped in sustainable management and governance of resources for people's livelihood improvement. This institutional approach entailed making people part of the implementation process but not excluding them. Evidence shows that wildlife populations were not as high on community land as in the current protected areas but were held in check by humans through hunting (DeGeorges and Reilly, 2009). It has been noted that, forest conservation as a regime of governmentality began during the colonial era and was intertwined with the colonial notion of private property and spatial governmentality (Pemunta and Mbu-Arrey, 2013). In Cameroon for example, state intervention was based on the premise that primary forests were not in use and were seen primarily as forests in which local people have never exercised any rights (Aubreville, 1949, p.100; Pemunta and Mbu-Arrey, 2013).

Following the declaration of Uganda as a British protectorate in 1890, the colonial administration put in place different policies to overhaul the traditional systems of administration which colonial masters considered irrelevant. This change was also experienced in Indonesia, Nepal and many other African countries such as Cameroon and Kenya (Hulme and Murphree, 2001). This new paradigm saw the deportation of traditional rulers most of who were either imprisoned or exiled. Those who collaborated with colonialists adopted the new systems of administration. Among the first activities of the colonial administration was to take over control and

management of natural resource (Baker *et al*., 2013). This management of natural resources did not realise that people initially depended on natural resources for their livelihood. The administration of colonialists also did not involve local people in governance of natural resources. The control of natural resources entailed western approaches of fortress conservation where human activities were restricted (Karki, 2013). The desire to attain livelihoods and recognition sparked off conflicts between local communities and natural resource managers.

In order to address tension that had arisen, colonial authorities recognised some of the existing systems of land ownership and resource management under the kingdoms. In areas without kingdoms, there were hierarchical resource management systems based on clans and chiefs. In this case, clan heads and chiefs operated under the supervision of colonial authorities. The British adopted these systems although they imposed new management regimes to govern natural resource use. Some large chucks of land were for instance designated as crown land where local people were not allowed to enter and get resources.

In 1917, a forest department was established following the clearance of large forest areas as cash crop estates such as cotton, coffee, sugar cane and tea that resulted into large scale appropriation of most forests in Uganda (Baker *et al*., 2013). In order to conserve environmental wealth and integrity, the colonial administration started managing most Uganda's forests. This was however for their commercial interests not local interests where for instance timber production was established as a lucrative commercial venture. Colonialists therefore began management of Uganda's forest estate towards the end of the 19th Century where local access was not allowed (Turyahabwe and Banana, 2008). It is therefore important to note that, protection of areas herein

this thesis referred to as conservation of forest reserves is a child of colonial policies (Twinamatsiko and Muchunguzi, 2012; Pemunta and Mbu-Arrey, 2013).

Sharing conservation revenues with community members surrounding protected areas is also not a new discourse but can be traced as far back as 1940s in the colonial era in various nations in the world (Newmark and Hough, 2000). As early as 1940's there was increasing recognition that conservation would provide revenue generating opportunities that would contribute to local livelihood development most especially in poor communities (Roe and Elliott, 2010 while quoting Adam, 2004). Conservation agencies were however concerned about possible biodiversity loss if stringent measures were not taken against people. An International Conference for the protection of fauna and flora in Africa sat in 1953 and agitated a need for more strict mechanisms to control human activities such as local hunting. Roe and Elliott (2010, p. 3) while quoting Caldwell (1954) observes that, this restriction was as a result of most people's dependence on fauna and flora for food and survival.

Community based approach to conservation was a response to the protectionist approach and the latter's failure to address the trend of unauthorised activities and sustainable resource use. From a conservation perspective, natural areas are important for conservation. This can not only be achieved using a protectionist approach with guns. Batisse notes that, over the two decades before 1980, boundaries of natural areas in the world especially developing countries began to be affected and there was a lot of biodiversity loss (Batisse, 1986, p. 69). In response to this challenge, UNESCO's man and Biosphere programme of Biosphere reserves proposed that

protected areas be safeguarded using several approaches such as buffering, community based approaches and the historical law enforcement (Batisse, 1986; Butynski, 1984).

The formalization of a Community Based Approach (CBA) to conservation hereafter referred to as Integrated Conservation and Development (ICD) which houses Revenue Sharing policy is a recent paradigm of 1980s. Integrated Conservation and Development (ICD) as a community based approach officially began in 1982 as a conventional approach to conservation following the 3rd World Parks Congress (Mugisha, 2002). It recognised the importance of local participation, sharing benefits with people neighbouring protected areas, sustainable resource use and collaborative park management. The policy began in Latin America in countries such as Indonesia and some African countries such as South Africa, Zimbabwe, Zambia and Tanzania (Roe and Elliott, 2010).

ICD projects represented a new approach to the conservation of biodiversity and ecological systems such that there is a linkage between conservation and development needs (Wells and Brandon, 1993; Alpert, 1996). In Indonesia, the first ICD commenced in 1982 although there had been informal ideas of sharing revenue with communities in the 1950s (Wells *et al*., 1998). A review of Integrated Conservation and Development Projects (ICDP) performance in Indonesia concluded: *'…very few ICDPs in Indonesia can realistically claim that biodiversity conservation has been or is likely to be significantly enhanced as a result of current or planned activities …"* (Wells *et al*., 1998, p.17).

The issue of how to deliver benefits from Protected Areas to local people has long been recognized as of great importance. The fifth objective of Bali Action Plan, which was a product of the 3rd World Parks Congress in 1982 aimed at promoting the linkage between protected area management and sustainable development (McNeely and Miller, 1984). Under their recommendation 5 of the 3rd World Parks Congress, as a strategy of gaining people's support for conservation, it was realized that people needed to share appropriately the benefits flowing from Protected Areas, be compensated appropriately for any lost rights and be taken into account in planning and operations (Baker *et al*., 2013; Twinamatsiko *et al*., 2014).

In 1985, World Wildlife Fund (WWF) recognized the need to give poverty and local economic development around Protected Areas greater attention (Roe and Elliott, 2010, p. 4). This was to be achieved by launching ICD projects. Through its programme-Wildlife and Human needs, 20 projects that combined conservation and development were launched. These projects were taken up in Southern Africa, such as the communal areas Management Programme for Indigenous Resources in Zimbabwe and the Luangwa Integrated Resource Development Programme (LIRDP) in Zambia (Roe, 2008, p. 20). It is documented from here that community based conservation projects by 2010 had multiplied throughout developing countries to about 100 projects including about 50 in Sub Saharan Africa (Blomley *et al*., 2010).

This trend of events shows how development theory and debates in 1980s rotated on harmonizing protected area conservation with people's livelihoods. As noted by Roe and Elliott (2010, p.4), emphasis was put on improving local participation and empowerment through benefit sharing. The period of the1980s saw a rising need to meet livelihoods of rural people

under the Structural Adjustment Programmes (SAPs) as instituted by International Monetary Fund (IMF). This is the time when there were governance failures most especially in developing countries. Sandbrook (2006) supported this evolution that conventional approach to the development in terms of rural livelihood began to come under fire during the 1980s and 1990s.

Before SAPs, government had been a sole provider of public services. The role of government was however limited by inefficiencies and high bureaucracy. This could not deliver well to improve people's livelihoods. Three key issues were therefore put into consideration as a way of promoting a need of livelihoods. The most important one was that, it did not consider the environmental impacts incurred by the large-scale extractive industry government encouraged. This left a lot to be desired on the sustainability of development policies (Sandbrook, 2006). The second issue rotated on more focus on national scale growth of economies and Gross Domestic Product (GDP) rather than the quality of growth (Sandbrook, 2006). This rapid growth did not put into account the translation into changes at the local scale and the livelihoods of the poor (Hughes and Flintan, 2001). The last issue is that government placed too much emphasis on economic change, ignoring issues of self-sufficiency, self-determination and empowerment (Mugisha, 2002). These deprecations fuelled the rise of a new discourse to improve development practice.

Ten years following the 3rd World Park Congress, at Caracas declaration in 1993, participants also agreed that the management of protected areas must be carried out in a way sensitive to the concerns, priorities and needs of the local people (Scherl *et al*., 2004 while quoting McNeely, 1993). After ten years, during the fifth IUCN World Parks Congress held in Durban-South Africa, participants resolved to find innovative and effective ways to position protected areas

within sustainable development and poverty reduction strategies (Baker *et al*., 2013). This was after analysing a list documented by United Nations (UN) showing the extent the earth surface was covered by terrestrial Protected Areas of about 17.1 million km^2 and moreover most found in developing countries (UN, 2003).

Uganda in the post-colonial era has continued to implement conservation policies that exclude local communities as an approach to managing PAs in Africa (Gibson, 1999, Twinamatsiko *et al*., 2014). This is witnessed with the top bottom approach that is mostly used in implementing conservation policies. Local communities that used to have access to wildlife resources were excluded from the established protected area management. This exclusion has surfaced through deployment of military trained rangers, whose job has been to enforce wildlife laws by detaining those that break the laws. They are beaten, fined or handed over to courts of judicature for prosecution (Baker *et al*., 2013). This arrangement builds on the already existing conflicts of dispossession at the time of gazettment. Local community members, in efforts to secure their means of survival, have been the majority of culprits of this wildlife management set up. This has continued to cause much tension and conflicts between PA managers and the local people bordering such PAs (Mugisha, 2002).

There have been various provisions that cater for the sharing of protected area resources with the communities neighboring those protected areas. It has been noted that the aim of these legal provisions address three areas. First, they aim at equitable benefit sharing to demonstrate the economic value of PAs and strengthen community support and acceptance (UWA, 2012b); secondly to address unauthorised activities and thirdly and most importantly to address the

livelihood needs of communities surrounding these protected areas (Sachs *et al*., 2009; Turner *et al*., 2012). At the 9th Conference of Parties in 2008 under decision IX/18, parties were encouraged to ensure that conservation and development activities in the context of protected areas contribute to the eradication of poverty and sustainable development (Twinamatsiko *et al*., 2014, p. 14). Poverty eradication and livelihood improvement is also echoed in the 2011-2020 Strategic Plan for CBD under decision X31. The document puts in place the guidelines for biodiversity conservation in order to contribute towards poverty eradication. This is similar to the decision X31 of the 10th Conference of Parties which encouraged parties to hold close initiatives on the role of protected areas in poverty alleviation (Twinamatsiko *et al*., 2014).

In Uganda, in response to the international demand for benefit sharing, a Revenue Sharing programme for PAs began at Bwindi in 1994 as a pilot study for other Protected Areas. Under this programme, the then Uganda National Parks (now Uganda Wildlife Authority) which was a parastatal managing Uganda's national parks was required to give 12 per cent of their total gate revenue collections from tourists to the local communities (Tumusiime and Vedeld, 2012, p.15-16). In 1995, the UNP formally adopted Revenue Sharing programme as a wildlife management policy. This policy outlined the goals and guidelines of sharing revenue with communities bordering Protected Areas in Uganda. In 1996, a wildlife statute was put in place that incorporates the Revenue Sharing policy. Section 70 (4) of the Uganda Wildlife Statute (1996) is to enhance communities' benefits from the Protected Areas to demonstrate partnership in management and conservation of PA resources (UWA, 2000).

The overarching goal of revenue sharing is to enable strong partnership between Protected Areas management, local communities and Local Governments. This is envisaged to lead to sustainable management of resources in and around protected areas that enables people living adjacent to protected areas obtain financial benefits derived from the existence of these areas that contribute to improvements in their welfare and help gain their support for protected areas conservation (UWA, 1996; UWA, 2013). The three main objectives of Revenue sharing policy include; provision of an enabling environment for establishing good relations between the protected areas and the bordering local communities; demonstration of the economic value of the protected areas and conservation in general to the local communities and lastly to strengthen support and acceptance of protected areas and conservation activities from the adjacent local communities.

Since 1996, the Government of Uganda has encouraged collaboration between UWA, local communities and local governments leading to the sustainable management of resources in and around PAs. This has been achieved through Local Governments and local informal groups that work as conduits for collaborative management. The governance arrangements however continue to use people rather than putting them at the centre of decision making processes. The Revenue Sharing policy outlines the ways of working with stakeholders (Local Government officials, local community and conservationists) in its activity implementation to ensure strong local partnerships supporting PA management. For instance Community protected area institutions (CPIs) evolved in 1990s (Namara, 2006) with an aim of soliciting community participation in the collaborative management of national parks as a way of representing interests of people bordering Protected Areas (Namara, 2006).

The CPI was supported by the Community Protected Area Institutions Policy (UWA, 2000c), which is a strategy to promote collaborative park management and increase community involvement in PA management (CARE, 2006). This institution was mandated to; act as a forum for mobilizing local communities to participate in various community conservation issues, channel and voice community concerns, and provide an avenue for Protected Area Managers to bolster active involvement of local communities in natural resource management (UWA, 2000a). The policy emphasised more on collaborative management but remained silent on governance arrangements. The policy also outlined how UWA was to achieve policy objectives and set principles under which it was to operate. There was however lack of institutional and legal framework that would facilitate compliance in implementing Revenue Sharing Policy.

Due to a need to set standards, procedures and legal principles that would put in place an institutional and legal framework for the policy implementation, the Uganda Wildlife Act Cap 200 of the Laws of the Republic of Uganda was enacted in 2000. The Act also merged Uganda National Parks and the Game Department into the Uganda Wildlife Authority (UWA) in 1996 (Baker *et al*., 2013, p.10). Section 69 (4) provides for sharing of revenue generated from Protected Area resources with the adjacent communities. Under the provisions of the Act, UWA is supposed to pay 20% of its gate collection revenue and part of gorilla levy fees from its protected areas to the neighboring communities through Local Governments of the areas bordering the Protected Area from which the fees are collected (UWA, 2000a; Amumpaire, 2015).

According to the Act, adjacent parishes, which are referred to in this thesis as frontier communities, are supposed to benefit from Revenue Sharing (UWA, 2000a). The interpretation of the word 'frontline community' has remained vague for proper policy practice. Revenue Sharing is not only practiced in Uganda. The UWA has put the provisions of this Act in the Uganda Wildlife policy guidelines amended in 2013. The 20% gate collection fee is not directly paid after revenue generation at the Protected Area. All money collected from tourism and other related income sources are controlled by the UWA treasury. All Protected Areas (PAs) are annually funded by the treasury according to their submitted work plans and budgets within the available financial resource envelope. These work plans and budgets entail the 20% annual Revenue Sharing funds as per the Protected Area.

Other countries such as Indonesia, Cameroon, South Africa, Rwanda and Tanzania implement a benefit sharing programme. The implementation modalities and the amount shared however differ although challenges seem to be the same. For instance, generating local benefits directly from ICDP-supported protected areas (PA) has not proved easy in Indonesia. Still in Indonesia, tourism revenues have not so far lived up to expectations, although they could become significant for a few PAs on Java and the marine PAs with attractive coral reefs. Entry fees remain low with 70% passing to local government and 30% to central government (Hughes and Flintan, 2001). In Cameroon there is a system of distributing half of its annual forestry fee (referred to herein by its French acronym, *redevance forestière annuelle*) revenues to decentralized public authorities (40%) and villages (10%) that live adjacent to exploited forests (Morrison *et al*., 2009, p. 1). In Rwanda, communities neighboring PAs share 5% of the annual revenues from tourism (Babaasa *et al*., 2013). This money, like in any other country aims at

enhancing local economic development, poverty reduction, and reducing levels of tension and conflict between conservationists and people adjacent to the forests.

For the case of Uganda, as a way of increasing the resource envelope as spelt out in Revenue Sharing policy and Act (section 4.0 of the policy and section 69 (4) of the Act), in 2006, a Gorilla levy fund was introduced at Bwindi Mgahinga Conservation Area (BMCA). This fund aimed at sharing with communities the money obtained from tourism permits that UWA issues to tourists for their Gorilla tracking. This money aimed at helping communities improve their livelihood. This fund targets at contributing to the amount of money shared with communities around Bwindi and Mgahinga National Parks. In 2008 such a permit for a foreign tourist cost US500 (. In 2011, there was a revision of this fee from US500 to US600. Of this, US$10 is allocated to the Gorilla Levy Fund and distributed directly to the villages adjacent to Bwindi INP effective July 2015 as adjusted from USD$5 (UWA, 2012b). This amount supplements the 20 percent of the park entry fees that communities receive (Tumusiime and Svarstad, 2011).

In 2010, Revenue Sharing policy guidelines were reviewed by a group of consultants aided by CARE and the policy was found to be inadequately implemented. Key elements identified included; the negative role of Community Protected Area institution (CPI) whose mandate was diverted from ensuring a collaborative management between protected area management and people surrounding protected areas to the desire to share on the percentage of the money disbursed (UWA, 2012a). This would limit proceeds to the local beneficiaries. This study identifies that even with the review of the guidelines; the implementation process has remained a rubber stamp of the old fashion of the guidelines. The review was not too intensive and only focused on CPIs role forgetting the actual implementation of the policy which left a lot to be

desired. The existing guidelines have gaps that this study identified and recommendations have been made to their effect in Chapter 5.

Under Revenue Sharing policy guidelines, the Government of Uganda through Uganda Wildlife Authority outlines the implementation framework and processes through which communities benefit. Revenue sharing policy emphasises that funds should be allocated towards improving the livelihoods of the households in the communities bordering protected areas and the reduction of Human Wildlife Conflict (HWC) (UWA, 2012b). The frontline communities are supposed to meet in July of every year under the guidance of the Local Council (LC) I Chairperson to identify community needs and priorities in general terms and specifically to identify potential projects for possible funding under the RS scheme (Section 5.3.1, UWA, 2012b, p. 6). Communities in Frontline LCIs meet in July of every year under the guidance of LCI Chairpersons to identify potential projects for possible funding under the RS scheme. Project Management Committees (PMCs) selected by frontline communities complete Community Application Forms for the identified RS projects and submit them to Frontline LCI Chairpersons by August 15th of every year.

Revenue Sharing guidelines also indicate that, the Frontline LCI Chairpersons will submit the completed Community Application Forms to Parish Development Committees (PDCs) by August 30th of every year (Section 8.4, UWA, 2012, p. 15). PDCs will receive Revenue Sharing Programme Community Application Form(s) completed by PMCs and forwarded by Frontline LCI Chairpersons. PDCs will prioritize the duly filled Frontline Community Application Forms for possible funding under the RS scheme and submit them to the Sub-County Chief through the

Parish Chief (who is Secretary to PDC) by September 15th of every year. RS projects prioritization will be based on the extent to which the identified projects address human-wildlife conflict as well as human welfare in an efficient and cost effective manner (Section 8.4, UWA, 2012, p.15-16).

Every year, Uganda Wildlife Authority is supposed to declare and disburse Revenue Sharing funds to the benefiting Local Governments of Kabale, Kanungu and Kisoro (UWA, 2000a; UWA, 2012b). This money is supposed to be banked on the district accounts and forwarded to the local communities through the selected local committees (PMCs and CPCs). This follows the institutional structures of Local Governments in Uganda as provided for in the Local Government Act of 1997. The policy guidelines outline a wide range of stakeholders to work with during implementation. These include; Higher Local Government (HLG) and Lower Local Government (LLG) departments composed of both technocrats and politicians, the community in the frontline LC I that the policy defines as individuals and households in an LCI that share a boundary with the protected area and UWA officials.

The key departments in this operation are; the office of the Chief Administrative Officer, Sub County chief, District and Sub county planning units and Local Council 1 at village level (Tumusiime and Veldeld, 2012). UWA managers give a backstopping role since the policy does not equip them with much mandate during implementation. The CAOs and Sub County chiefs are the accounting officers of Revenue Sharing funds. The office of the CAOs and Sub County chiefs are supposed to submit accountabilities of the previous releases before they receive current releases (UWA, 2012b, UWA, 2013). This is hoped to ensure transparency,

accountability and equity of the implementation system. All stakeholders are mandated to monitor Revenue Sharing projects to ensure sustainability. Monitoring and Evaluation (M&E) reports are supposed to be written by LC chairpersons upwards through Local Government structures to UWA.

1.2.2 *Theoretical Perspective*

This study used the Policy Arrangements Approach (PAA) to guide the linkage between conservation, Revenue Sharing policy and its practice to improve people's livelihoods. PAA has been accepted as one of the policy and institutional approaches that can explain contemporary policy processes in the field of environment and nature related studies. The approach was advanced by Van Tatenhove *et al*. (2006) to give analytical overviews on the study of policy processes (Ahebwa *et al*., 2012). This thesis applies PAA to better explain the implementation process of Revenue Sharing policy in the context of community livelihoods and their support for conservation. The study adopts certain elements of PAA that were relevant to this study but also points out limitations that justifies the development of a theory of change based on the shortfalls and parameters that this approach has not addressed. The theory of change hereafter in Chapter 5 referred to as Revenue Sharing Equitable Framework builds on the Justice framework.

PAA links daily policy processes and structural processes of social and political change. This is relevant since Revenue Sharing policy operates in a structural arrangement in line with the Act of Parliament of 1996 and the Local Government act of 1997. The arrangement of sharing revenue corresponds with the government benefit sharing structures in Uganda. The daily policy processes entail the actual implementation of the policy on the ground which entails local actors

(leaders and beneficiaries) in interpreting the structural arrangement, its applicability and social norms that explain its limitations.

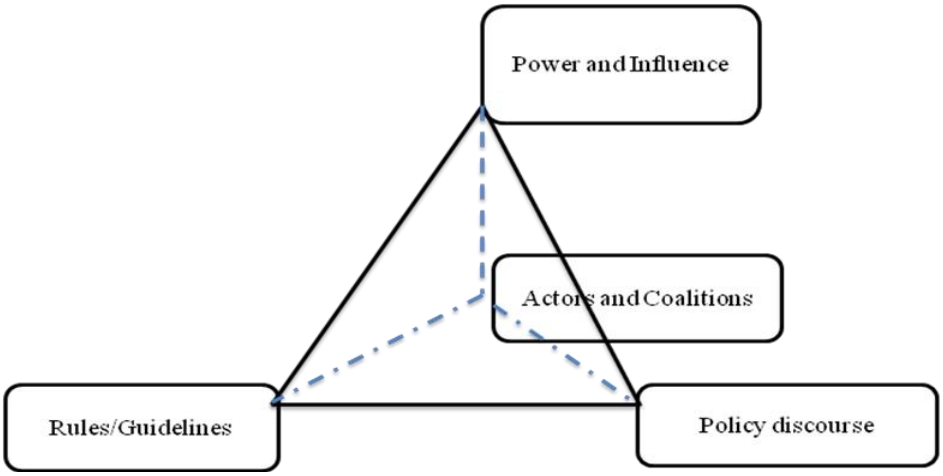


Figure 1: The Policy Arrangements Approach

Source: Van Tatenhove *et al*. (2006)

PAA presents key assumptions of which most were relevant to this study. It is premised on; actors and coalitions; power, resources and influence; rules of the game and policy discourses (See Fig.1). Van Tatenhove *et al*. (2006) identify actors as organizations or individuals involved in nature policies concerning a specific nature site. As illustrated in Fig. 1, coalitions are looked at as groups of cooperating actors who share rules of the game and implement and forecast joint policy discourses through their programmes (Van Zouwen, 2006, p. 20; Arts *et al*., 2006, p. 63).

For this case in Revenue Sharing policy implementation, there is interplay of various actors involved. These include; the central Government of Uganda (GoU), Uganda Wildlife Authority (UWA), Local Governments (LGs) that entail both Higher Local Governments and Lower Local Governments, Conservation Organisations and institutions outside the realm of government control and community beneficiaries. It is noted here by Arts (1998, p.57-59) that policy

arrangement is a system of power relations which is linked to influence. Power mainly concerns the ability to influence policy outcomes through actions and interventions.

The deficit in the implementation of most Integrated Conservation and Development (ICD) programmes has been a power vacuum at grass roots level (Twinamatsiko *et al*., 2014; Blomley *et al*., 2010). At Bwindi, power is much centralized (Namara, 2006) since it resides at UWA. This centralisation limits the ability of local people to influence actions that have to be undertaken by policy makers. There are also marginalized groups especially the Batwa, women and the youth who have very limited capacity to challenge other actors on key issues that affect the implementation and governance processes.

The Policy Arrangements Approach also assumes that, there should be rules in the game of policy implementation. Arts (2000, p.54) while elaborating on the arguments of PAA clarifies that, a policy arrangement should be a temporary stabilisation of the organization and substance of a policy domain which should be guided by rules at a specific policy level of policy making. Arts however, fails to link his arguments to policy implementation where rules are either broken or replaced by personal or social norms and constructs that fit certain individuals and institutions. It is important to note here that, in implementing policies, new ideas and rules emerge hence affecting the set rules and principles that guide the implementation process. The rules of the game therefore determine opportunities and barriers for the actors to act during a policy process. Rules can be formal or informal which the proponents of PAA failed to define.

The last assumption of this framework is policy discourses (Ref. Fig. 1). Arts (2000, p. 63) refer to policy discourses as key interpretative schemes ranging from formal policy concepts to

popular story lines. This to him makes meaning to a given policy domain. Actors at Bwindi have continued to formulate actions and discourses that further guide the implementation process of Revenue Sharing. This has been undertaken through meetings to make communities aware of the programmes but also reviewing elements of the policy that could hamper with its successful implementation.

In order to further understand the linkages of tourism revenue, community livelihoods and biological conservation and bearing the limitations of PAA, this research employs the ecotourism theory as advanced by Ross and Wall (1999) to illustrate the linkages under which policies operate. This theory explains a relationship between tourism as a source of revenue, local community livelihoods and biodiversity conservation (See Fig. 2). It helps to aid and expound on the key assumptions of PAA. This linkage is overall relevant to this study since the premise of Revenue Sharing policy as a tourism output to improve community support for conservation of biological diversity through improved livelihoods. The only limitation of ecotourism theory is the over generalization it has over the implementation of such linkages. Ecotourism theory does not detail the implementation process that would clearly explain the strength and weaknesses at each level.

The theoretical framework provided by Ross and Wall, creates links that mostly apply to impacts on tourists than direct Revenue Sharing (See Fig.2). This is outside the domain of this study. As a result the impacts on tourists were not considered. The three dimensions on the delivery of benefits to local communities (Link 1), the encouragement of sustainable resource use (Link 2), and the delivery of revenue for protection of biodiversity (Link 3). These three linkages explain

the interplay that exists between tourism Revenue Sharing and livelihoods in promoting sustainable biodiversity conservation.

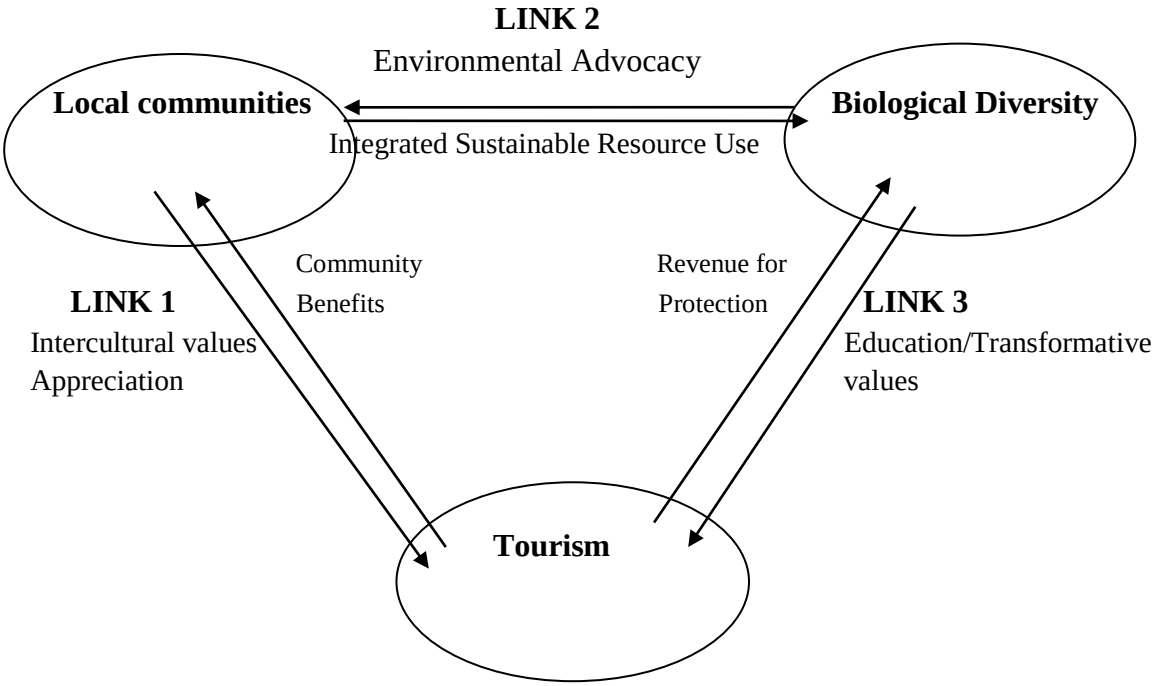


Figure 2: The Ecotourism Theory
Source: Adopted from Ross and Wall (1999) Ecotourism theory

As indicated in Fig. 2, the monetary contribution of revenue generated from tourism is likely to bring positive change for people in other aspects of their lives (Ashley *et al*., 2001). This can be possible if there is equity and transparency in the implementation of Revenue Sharing. Drawing from the need to detail the implementation modalities of Revenue Sharing, this study has identified four main dimensions that facilitate this linkage. These include; targeting of projects and beneficiaries, benefit impact distribution, governance of projects and unauthorised resource use. These areas identified as key research variables relate with the Policy Arrangements

Approach in terms of how the assumptions under PAA (rules, power, actors and policy discourse) affect Revenue Sharing implementation process.

Researchers that promote pro-poor tourism have investigated case studies in Africa and elsewhere on the impacts of tourism. Some of these show the positive impacts of tourism in improving people's livelihood capital. For example, in the human capital dimension, tourism has contributed to the provision of education in Uganda and Ecuador (Sandbrook, 2006 while quoting Braman, 2001; Williams *et al*., 2001) and has increase access to health care in Nepal. In the physical capital dimension it has contributed to improvements in roads, water and electricity at various sites in South Africa (Sandbrook, 2006 while quoting Mahony and Van Zyl, 2001). In the financial capital dimension it has improved access to loans and credit in Namibia (Sandbrook, 2006 while quoting Nicanor, 2001). This is not the case at Bwindi; the projects established have limited impact on the ground as illustrated in Chapter 4 of this thesis.

As Sandbrook (2006) observes, the second link in the ecotourism framework illustrate that tourism should encourage local communities to use resources sustainably (Ross and Wall, 1999). In order for community support for conservation to take place, people ought to appreciate the benefits that emanate from Revenue Sharing policy. This relates to the changes in behavior and attitudes to conservation. The complication here is that, local community attitudes are hard to measure if one does not undertake narrative analyses of the community views and perception of conservation such as issues of involvement, impact and ownership.

Literature presents cases where tourism revenue has increased conservation support. In Belize, tourism development increased local support for conservation (Sandbrook, 2006), and in Thailand, income generation from Khao Yai NP reduced unauthorised activities (Albers and Grinspoon, 1997). In other cases attitudes have changed, but the link with tourism has been complex (Gursoy and Rutherford, 2004). This shows how tourism can pose a threat to local livelihoods. In Costa Rica, tourism has offered viable economic alternatives to cultivation and as a result people have abandoned some land (Stem *et al*., 2003). A similar case is in Indonesia around Komodo NP where tourism benefits impacted on people's livelihoods. Local people linked economic benefits to tourism which increased their support for conservation. They however left other livelihood activities which do not show a clear link between tourism benefits, livelihood improvement and conservation support (Walpole and Goodwin, 2001).

The key limitation to Ross and Wall's framework is that it does not understand in-depth the practicalities and arrangement of Revenue Sharing policy and the key stages of its implementation which would enable its evaluation. The over generalisation of the theory does not create a deeper understanding on how money generated from tourism is managed and distributed. Much as it links local communities to Biodiversity conservation which is one important angle of analysis in this study, the theorists did not show the details of how biodiversity conservation is likely to be achieved. As a way of understanding the implementation challenges of Revenue Sharing, it was important that this current study analyses the policy implementation process in-depth. This could not be possible only with the use of over generalised Ecotourism theory but rather with the inclusion of the Justice Framework for protected area management. This formed a justification to adopt the Justice and Equity

framework (Taylor, 2000; Baxter, 2005; Schlosberg, 2007) that aided the proposed framework for proper practice of Revenue Sharing policy. Ecotourism theory therefore helped to house and also broadens the linkages between tourism revenue, community livelihoods and biodiversity conservation whereas the Justice and Equity framework analysed the details of how the three key elements are implemented showing the practical processes involved.

The proposed Revenue Sharing Equitable Framework (RSEF) in this study is an extension of the applied conceptual framework (Chapter 1, section 1.8) and results collected from household survey, interviews and documentary review (Chapter 4). The framework focuses on equity and justice in benefit sharing (Taylor, 2000). The framework illustrates the implementation process and points out the leakages in the practice of Revenue Sharing policy. The amount of money that is declared to benefit the local communities (inputs) is affected by the implementation practice (activities) and this has affected the impact this money would have created on both livelihoods and conservation (short and long term outputs). The Justice framework is supported by the Sustainable Livelihood (SL) framework (Sandbrook, 2006 while quoting Carney, 1998; Scoones, 1998). This approach takes a broader perspective than the traditional focus on land, labour and assets of the poor, considering instead the wider spectrum of activities, assets and access which make up the 'livelihood'.

The Equitable framework has been further supported by Ribot and Peluso (2003) who analysed resource benefits that are accessed by communities. They further analyse who actually benefits from 'things' and through what processes they are able to do so (Ribot and Peluso, 2003). This is what the equitable framework describes using the four dimensions of procedures, distribution,

recognition and context of benefiting. The argument posted here is to link benefits to natural resources. This argument creates an understanding of the aspects of property rights and rules that govern access to natural resources.

Some limitations and opportunities that would affect benefit are also illustrated. Focusing on natural resources, such arguments in the Justice and Equity framework and ideas put forth by Ribot and Peluso further analyses the range of powers embodied in and exercised through various mechanisms, processes, and social relations that impinge on people's capability to benefit from resources. The powers identified here could be material, cultural and political-economic strands that determine resource access. Ribot and Peluso (2003, p.155) note that people and institutions are positioned differently in relation to resources at various historical moments and geographical scales. The wisps thus shift and change over time, changing the nature of power and forms of access to resources. Over all access is linked to all possible means by which a person is able to benefit from the natural resources. The assertions by Ribot and Peluso (2003) short fall of an explanation that link benefits to livelihood improvement. There is no justification whether access to benefits and resources enhance community ability to support conservation efforts.

The conceptual framework of this study (section 1.8) was therefore constructed under the Policy Arrangements Approach and supported by key assumptions of the Ecotourism Theory and the Justice framework of which key elements were used to explain this study. It linked ideas put forth by previous scholars and puts into consideration various limitations analysed from their assumptions The three levels of linkages (see Fig. 3) illustrate the important elements of a policy

as illustrated under the PAA, the implementation aspects of Revenue Sharing policy that this study analysed basing on Justice framework and the outcomes of these elements on community livelihoods and conservation support that are illustrated under the Ecotourism theory.

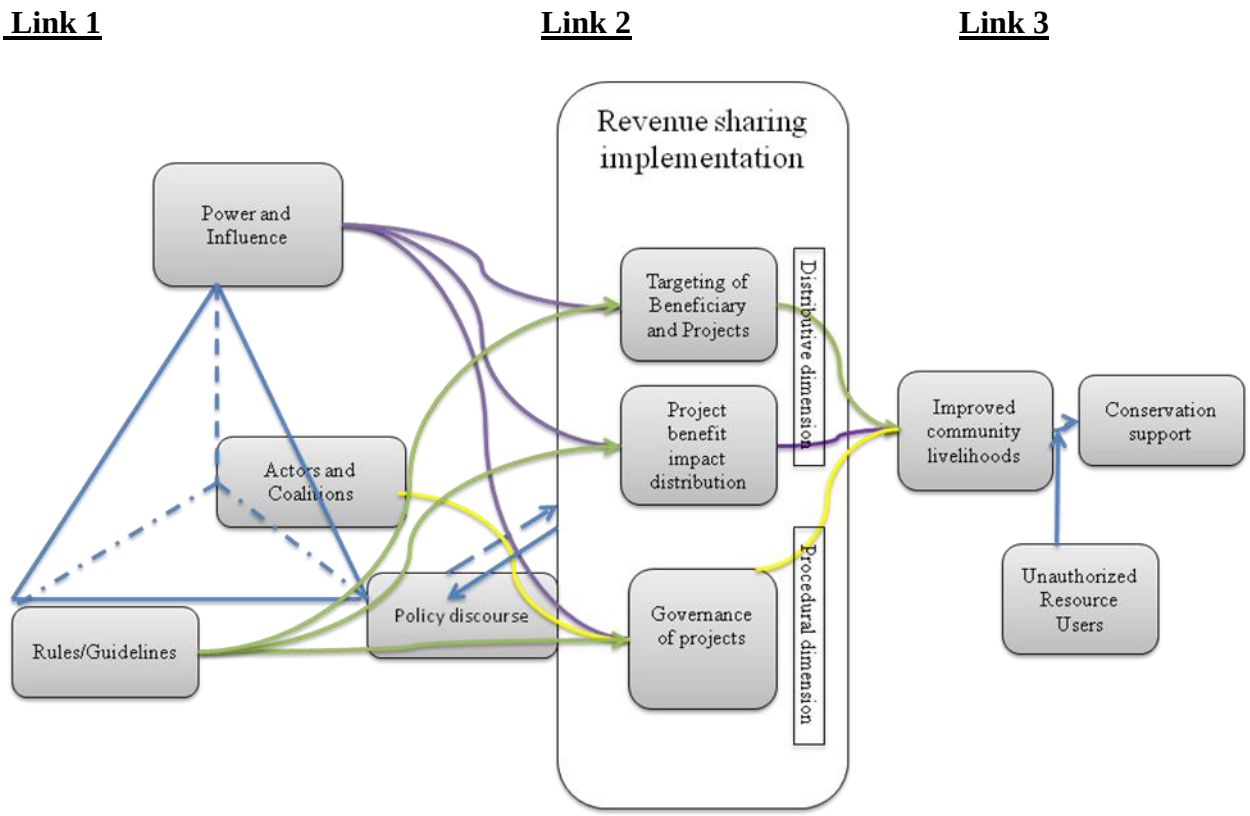


Figure 3: Policy Arrangements Approach, Ecotourism Theory and Justice Framework united with the conceptual underpinnings

Source: Researchers own elaboration basing on PAA, Ecotourism Theory and Justice Framework

1.2.3 Conceptual background

Revenue Sharing as a coupling intervention under ICDs (Blomley *et al*., 2010) explains the distribution of local income generated through tourism in protected areas to build national park

support by transferring economic benefits to local communities as a means of offsetting local costs of conservation (Pemunta and Mbu-Arrey, 2013, p. 1 while quoting Wunder, 2000; Walpole and Leader-Williams, 2002). Revenue shared at Bwindi is mostly generated from Gorilla tourism. Referring back to the objectives of the policy, it was hoped that Revenue Sharing can improve the attitudes of local people in supporting conservation.

Many studies have been done and debates are ongoing regarding the integration of local livelihoods interventions into Conservation of Protected Areas (Blomley *et al*., 2010; Baker, 2004; Baker *et al*., 2011). The existing studies however do not link policy to practice due to limited evaluation of Revenue Sharing on livelihood security and resource use (both authorised and unauthorised). ICD interventions such as Revenue Sharing around Bwindi are well fashioned with an interplay of currently about 35 conservation actors and major stakeholders (UWA, 2012b), however when it comes to implementation, a lot remain desired in addressing livelihood insecurity.

Tourism Revenue has been seen for decades as huge amounts of money that can stimulate community livelihood growth (Sandbrook, 2006; Sandbrook *et al*., 2008). Revenue Sharing is one practice under ICDP where a certain proportion of protected area revenue collected from resources such as tourism is shared amongst communities neighboring such protected areas. It is documented that Revenue Sharing is a mechanism that improves management effectiveness in terms of promoting cost effective management so that communities' commitment is enhanced to support wildlife conservation (Amumpiire, 2015). At most PAs in Uganda, the targets have not been achieved as a result of poor policy practice.

Under the UWA act (2000), the Conservation Area Manager (CAM) declares the available money for sharing every financial year calculated using population and boundary indices. Each district distributes the money to the Sub Counties and then to project management committees. Each year in July, communities are supposed to be consulted on the projects they want to fund. Community Procurement Committees are then selected to procure and distribute projects to the beneficiaries (UWA, 2012b, p.13).The challenge has however been the practice of these guidelines. This makes it hard to achieve the targeted objectives. Many communities continue to lament about little benefits compared to what is declared.

As a result of park revenue benefit dissatisfaction and negative attitude by people surrounding Protected Areas (Infield and Namara, 2001; Sandbrook, 2006), unauthorised resource use has continued to take place as a way of securing livelihood sources (Laurance, 1999; Twinamatsiko *et al*., 2014). This trend is not different from what takes place at Bwindi Impenetrable National Park yet such unauthorised activities are conservation threatening. As Olupot and Chapman (2006) noted, human modification of ecosystems is threatening biodiversity on a global scale.

Livelihood was defined by Chambers (1992, p.10) as "the capabilities, assets (stores, resources, claims and access) and activities required for a means of living". It has been observed that over three decades, concern for conservation has shifted from a purely protectionist approach to a more community based approach. This debate observes balancing sustainable resource use and livelihoods at the local level resulted in an increasingly close match with the emerging focus on local people within the conservation area (Baker, 2004). A livelihood is considered to be

sustainable when it copes with and recuperate from stress and shocks and enhance its capacities and assets both now and in the future without undermining the natural resource base (Carney, 1998).

Livelihood improvement denotes the outputs and outcomes of livelihood strategies. It can be referred to as improved socioeconomic well being. Livelihood improvement is supported by livelihood assets which refer to human and non-human resources upon which livelihoods are built and to which people need access.

Benefits are looked at by Ribot and Peluso in the theory of access as things. They can be material, cultural and political-economic strands within the "bundles" and "webs" of powers that configure resource access (Ribot and Peluso, 2003, p.155). Benefit distribution is the process through which benefits reach the intended people in the communities that are supposed to share revenue from the National Parks. Benefit distribution if well managed can create benefit impacts.

Impacts are long term outcomes of an activity. Perception of benefit impact entails access and maintenance which explains sustainability of what is benefited from. It is observed that, access control and maintenance parallel some aspects of Marx's notions of the relations between capital and labor. The relation between actors who own capital and those who labor with others' capital or means of production parallels the relation between actors who control others' access and those who must maintain their own access. The overall determination of impact is on who controls what (Ribot and Peluso, 2003, p.159).

Governance in this case would refer to the process by which power and responsibilities are exercised and decision undertaken can have a significant influence on the conservation of protected areas. Governance is not synonymous with government but rather how governments and other social organizations interact, how they relate to citizens, and how decisions are taken in a complex world (Namara, 2006; Ahebwa *et al*., 2012; Borrini-Feyerabend, 1996). Governance at Bwindi has been exercised through collaborative forest management (Namara, 2006). Formal and non formal institutions exist in most communities that boarder with Bwindi with an aim of linking the community to Protected Area management.

As a governance structure at Bwindi, the Community Protected area Institution (CPI) was previously tasked to monitor Revenue Sharing since 2000. CPI replaced the Park Management and Advisory Committee that was initiated in 1993/4 under Uganda National Parks. The two institutions differ in the objectives for which they were formed, their mandate, their membership, and available mechanisms of feedback to their constituencies. The Park Management and Advisory Committee was criticised for being primarily an institution to advance the interests of Uganda National Parks (and later UWA). Indeed, UWA's Revenue Sharing scheme remains a contentious issue, often challenged by local government.

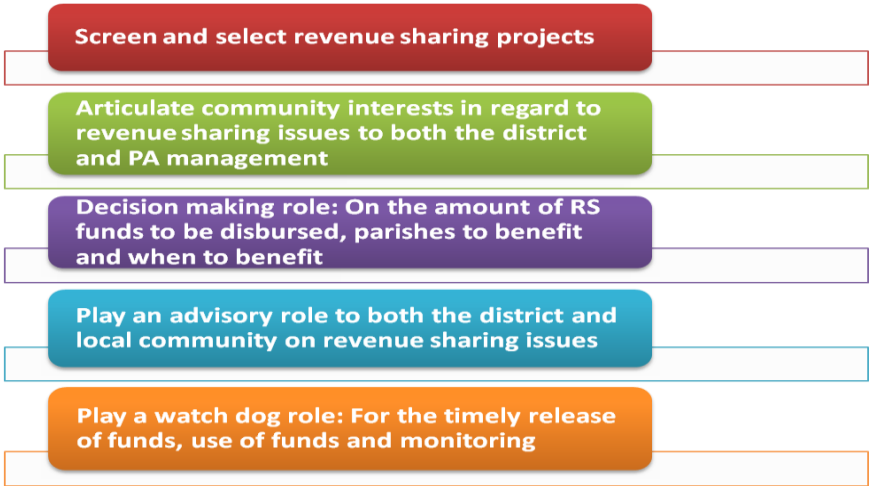


Figure 4: Specific roles of CPI
Based on UWA policy, 2000

CPIs were therefore instituted to ensure that Revenue Sharing programmes operate with an approach to relation building and collaborative management of the projects derived from Revenue Sharing (CARE, 2006), that community interests in Revenue Sharing programme are represented, that the content of projects are appropriate, that a community takes ownership and responsibility for a Revenue Sharing project and that the mechanism of Revenue Sharing is clearly understood and agreed upon by the community, Local Governments and UWA (Namara, 2006). These roles were clearly stipulated in the CPI policy of 2000 and its review in 2004. The disbandment of CPIs in 2012 however leaves a lot desired in terms of collaborative Protected Area (PA) governance. The existing institutions lack enough capacity to address local needs and concerns compared to the CPIs.

Bwindi Impenetrable National Park hereby referred to as 'Bwindi' was a central focus for this study. Comparisons are made with other protected areas in Uganda and with specific comparison to Volcanoes National Park in Rwanda. Bwindi is referred to as a home for almost

50% of the world mountain Gorillas. Bwindi was declared a world heritage by UNESCO in 2005. Blomley *et al*. (2010) notes that, Bwindi Impenetrable National Park and Mgahinga Gorilla National Park are two afromontane forests considered as extremely important biodiversity hot spots and have a world significance due to their population of highly endangered mountain Gorilla. This makes it a special place for conservation and livelihood improvement. With such riches, Bwindi is still surrounded by a big section of poor people who still depend on forest resources as well subsistence agriculture. That is why Bwindi is gifted by nature but its local people are dispossessed by leadership and policy implementers.

Unauthorised Resource Users (URU) are defined by this study as individuals who are arrested by rangers for poaching. They undertake actions or activities that are considered illegal by the Uganda Wildlife Laws. People who have been suspected or arrested undertaking such activities are considered by this study as Unauthorised Resource Users (URUs). The illegal access to park resources without permission from the park creates negative impacts on sustainable biodiversity conservation (Butynski, 1984).

Conservation support is the outcome factor when people appreciate the benefits and the impacts that natural resources create in their livelihoods. This study looked at conservation support in terms of; reduction of unauthorised activities/unauthorised resource use; the ability to willingly participate in National park activities such as responding to fire outbreaks and greater ownership of the National park and also the ability to report poaching.

1.2.4 Contextual background

Currently, the National Development Plan 2011-2020 indicates that tourism is the second contributor of Uganda's Gross Domestic Product (GDP) and has continued to put Uganda on the world map (GoU, 2011). Tourism provides an important source of foreign revenues for Uganda, and Gorilla tracking accounted for more than 80 percent of these in 2010 (UWA, 2012a). Remittances from Ugandans abroad were the only source of foreign revenues in Uganda higher than tourism that year. Only eight percent ($660m) of Uganda's Gross Domestic Product in 2010 came from tourism (Tumusiime and Svarstad, 2011). This trend has changed over the last five years.

A Uganda wildlife statute requires park management working with Local Governments to share 20 percent of park entry fees with the local communities living adjacent to PAs (UWA, 2000). Most of this revenue has been spent on community level projects particularly social infrastructure, but from 2006 there has been an increasing focus on efforts to improve livelihoods at individual household levels (Tumusiime and Vedeld, 2012). The current focus is on funding livelihood projects such as livestock and agricultural projects.

Bwindi Impenetrable National Park currently has 12 habituated Gorilla groups that continue to fetch income for the park as gate entry fees and Gorilla levy. On average, each gorilla group has 13 individuals. The number of habituated groups has increased from eight groups that were reported in 2011 (Tumusiime and Svarstad, 2011). There are about 400 gorillas (both habituated and unhabituated) in Bwindi forest (IGCP, 2011). This means that, if good policy practices were in place, such money in addition to Revenue Sharing funds would have improved livelihood

security of people neighboring such a world heritage. Current threats to Bwindi Impenetrable National Park include uncontrolled exploitation of forest resources as well as fire damage and the indirect pressures of demand for land. Interestingly, the mountain Gorillas and the biodiversity nature of BINP have made it a popular tourist destination yet local communities do not see improvements in their livelihood. It is therefore quite unfortunate to see the existing high poverty levels among people neighboring Bwindi Impenetrable National Park. There is therefore a need to explore these dynamics of policy implementation and measure livelihood security of communities surrounding BINP using a comparative approach on Batwa and the rest of the other ethnic groupings as well as intra-household relations to understand the aspect of gender relations.

The current wildlife law and policy of 1996 and 2000 respectively, recognize the significance of sharing benefits from conservation with local communities, the importance of maintaining good relationships with local communities for long-term conservation and of regulating access for local communities to resources within protected areas through a collaborative management framework (CARE, 2006). Under the Act, the current revenue shared with communities is 20% of the total gate collection fees. The annual total collections depend on the number of tourists. The trend of the number of tourists has been increasing since 2001 (UWA, 2012a). This percentage share was revised from 12 per cent of the total park revenues to the current 20% of park entry fees in 2000 (UWA, 2000a). The modification was meant to increase local share of the revenues from protected areas.

This however meant a decline in revenue shares for protected areas like Bwindi where the number of tourists allowed to track Gorillas which is the main tourist attraction was limited. The

communities surrounding other national parks like Queen Elizabeth and Murchison Falls benefited from this percentage increase since most park income came from park entry by visitors and therefore had more funds to develop and expand their livelihood projects (Tumusiime and Vedeld, 2012, p. 19). Besides, the increase of percentage share of the park entry fees meant that no revenue from Gorilla tracking permits would be shared; yet Bwindi's major tourist attraction and source of revenue is mountain Gorilla tracking.

The previous challenges with tourism revenue at Bwindi emanated from limited number of Gorilla permits because initially habituated Gorilla groups were few. There were also restrictions on numbers of visitors per day. This made the income at Bwindi low compared to other parks and less than what would have been the case if a share of tracking permits had been included. This was in comparison with the revenue collected at savannah parks where the number of visitors received daily is high. Savannah parks such as Queen Elizabeth National Park (QENP) have advantage of charging vehicle entry which is an additional contributor to the 20% that goes to the local governments surrounding the savannah PAs (Tumusiime and Vedeld, 2012).

In order to address this Revenue Sharing challenge from the gate entry fees and considering that Gorilla tourism in Uganda brings in the highest tourism revenue, communities around Bwindi and Mgahinga National Parks proposed that a levy be deducted from the Gorilla permit to supplement the 20% entry fee to boost the share they got from the Gorilla tourism. This formed the justification for the approval by the UWA Board in 2005 of US $5 Revenue Sharing levy on every Gorilla permit accruing to the local governments sharing boundaries with Bwindi Impenetrable and Mgahinga Gorilla National Parks (UWA, 2010).

At the time of approving the USD $5 gorilla levy, the cost of the gorilla permit was USD $500 for foreign non-residents and $475 for foreign residents (Tumusiime and Vedeld, 2012). Implementation of the gorilla levy started in 2007 with the first disbursement to Local Governments of Kanungu, Kabale and Kisoro in September 2009. Despite the introduction of the Gorilla levy, the amount of revenue shared with communities was and has remained much lower compared to what Queen Elizabeth National Park (QENP) shared with the communities. Currently, a foreign non-resident tourist pays USD $600 for Gorilla tracking (UWA, 2012a). Between 2010 and 2012, the revenue shared with communities at Bwindi was half of what was shared at QENP.

Table 1: Comparing revenue shared at QENP and BINP from 1996-2012

Years	**1996 – 2003**	**2004 – 2009**	**2010 – 2012**	**Total**
Revenue share/Gorilla Levy for BINP	164,755,000	654,020,175	661,774,809	1,480,549,984
Revenue shared with Communities around QENP	105,084,210	1,183,432,542	1,240,775,212	2,529,291,964

Adopted from UWA, 2012a

Management activities for Bwindi Impenetrable National Park (BINP) and Mgahinga Gorilla National Park (MGNP) have brought together Central Government (CG), Local Governments (LGs), and international community interests that sometimes are not in harmony with local community aspirations yet affect the outcomes of resource governance (Namara, 2006). The

evaluation of these outcomes has not been adequately undertaken due to a poor monitoring and evaluation system that tended to focus on conservation and development outcomes rather than the involvement and ownership of people in decision making process.

Currently at Bwindi, there are many Conservation and Development Organisations that operate in communities surrounding this great world heritage. About 38 Non Governmental Organisations and local Community Based Organisations operate to address livelihood needs (UWA, 2014). UWA has several community based programmes and recently it has been disbursing huge amounts of money to districts of Kanungu, Kabale and Kisoro. A total of 661 million shillings has been declared in 2014 to support Revenue Sharing projects although some Sub Counties in Kisoro and Kanungu have not submitted previous accountabilities. Apparently there is little to show in communities that such efforts of addressing community needs are undertaken.

With increased awareness about conservation benefits, local people in various communities spend their time to support park initiatives. Such groups include; Human Gorilla conflict resolution (HUGO) committees, stretchers groups, staff support groups and local councils. Such local community groups continue to play an important role of addressing problem animal conflict as many people lose their gardens due to park animals.

The question here is whether local community time which would have been utilized for searching for a livelihood is paid for when it comes to Revenue Sharing. Local people have also planted thorny hedges along the boundary of the park to restrain park animals from entering

farmland. All these efforts contribute to conservation and particularly to the protection of the mountain gorilla. Local community members however look at their efforts as not rewarding (Twinamatsiko *et al*., 2014).

In a search for livelihood security, rural people (both men and women) have ended up encroaching on protected areas (Blomley *et al*., 2010). This is witnessed with the increase of unauthorised activities despite Integrated Conservation and Development interventions at Bwindi (Baker, 2004). The noted unauthorised activities have been mostly geared by people's long history of protests of protected area gazettment as well as unstoppable claims of indigenous ownership rights on some of the local communities (Butynski, 1984). This is attributed to the historical livelihood attachment to the gazetted areas. For the case of Bwindi, Mgahinga and Echuya Forests, the indigenous Batwa continue to push on with their claims that the said gazette areas formed their ancestral home (Kidd, 2008; Tumushabe and Musiime, 2011).

The Batwa people at Bwindi continue to claim aboriginal rights. They are known to be the historical occupants of the tropical forests before they were gazetted (Kidds, 2008). Majority currently live as squatters on Bakiga and Bafumbira land (Kabananukye and Wily, 1996; Kidds, 2008). Some Batwa were helped by Bwindi Mgahinga Conservation Trust (BMCT) to get land but the question they currently hold is on land ownership. This is because; land titles are not in their names but in the name of BMCT. Their hopes are still rooted on regaining Bwindi INP which they call their ancestral home. The Basongora in Queen Elizabeth National Park hold the same positions in South Western Uganda (Twinamatsiko and Muchunguzi, 2012). Other studies indicate that ethnic minorities in Uganda claim that the now government Protected Areas used to

be their homes and they were thrown out without compensation (Tumushabe and Musiime, 2011). This means that people were deprived of livelihood sources as a result of government conservation programs without providing alternatives.

There is increasing evidence that areas of outstanding conservation importance coincide with dense human settlement (Baker *et al*., 2011). This situation is common in sub-Saharan Africa, where areas of high conservation value are under threat due to the increasing populations whose livelihoods depend upon the natural resource base (Balmford *et al*., 2001). When the local communities do not value the importance of conservation, efforts to conserve would be in vain. What is important to note is that, the strictly protectionist approach has given way to a radical change in policy that encompasses the role of local communities in conservation (Baker *et al*., 2011). Hence, the fundamental basis of fully protected areas has been questioned, and the adoption of Community-Based Conservation (CBC) has arisen from a greater understanding of linkages between protected areas and rural development (Baker, 2004).

At the moment, some of the local community members at Bwindi understand the value and importance of conservation as a result of community conservation programs around Bwindi while others do not (UWA, 2012a). A study conducted in 2005 indicated that over half the community recognized the climatic influence of the forest in terms of rainfall. About 90% of the community acknowledged the ecological importance of the forest in terms of rainfall availability, with 55% mentioning it as a high importance (Namara, 2005). The community members mentioned that the forest attracts rainfall, and that their area is usually conducive for crop growth even when other areas are experiencing drought.

There are challenges however associated with this situation. In the southern sector of Bwindi, local residents complained of too much rainfall that at times destroys crops or causes landslides (Bush and Mwesigwa, 2008; Twinamatsiko *et al*., 2014). This benefit is widely appreciated because the community around in South Western Uganda who primarily depend on subsistence farming (Bush and Mwesigwa, 2008). The costs that local communities meet as a result of crop raiding however dilute the benefits got (Mackenzie and Ahabyoona, 2012). Therefore a comparison of costs and benefits of Bwindi Impenetrable National Park on the local community members would make conclusion on this assumption.

On the governance aspect, the only formal institution that used to link protected areas management and communities mostly in terms of Revenue Sharing funds implementation and monitoring was disbanded in 2012. The role of CPI was evaluated as inadequate both by UWA and independent consultants in 2010, following which the disbandment of CPI was recommended. CPI was assessed by a group of consultants funded by CARE in areas of composition, legitimacy, functionality and relevancy or added value in 2010 (UWA, 2012a).

In the external consultants report on the review of Revenue Sharing policy guidelines, CPI representation was questioned. It was viewed as a political structure and does not command the acceptance and respect of some of the program beneficiaries. The report further indicates that CPI deviated from the original set up and had gradually degenerated. This institution was found to be composed of a big group that had big demands. These councilors were not elected on the basis of their knowledge and skills in development work and certainly not on the basis of their

ability to steer implementation of Revenue Sharing projects. The report recommended CPI disbandment basing on gaps identified and argued UWA to directly deal with mainstream LGs instead of Community Protected Area Institution.

There are various informal institutions that include; the Human Gorilla (HUGO) group, the stretcher groups locally known as "engozi", the Resource User societies and Reformed Poacher Associations in Mushanje, Mpungu and Rubuguri. These informal groups lack capacity to influence Revenue Sharing policy. This is attributed to their unclear legal mandate as well as the education levels of executive committee members manning them.

1.3 Statement of the Problem

The Bali Congress specifically recognized that people living in or near protected areas can support protected area management *"if they feel they share appropriately in the benefits flowing from Protected Areas, are compensated appropriately for any lost rights and are taken into account in planning and operations"* (Recommendation 5, 3rd World Parks Congress, 1982 as quoted by McNeely and Miller, 1984). Revenue Sharing as an Integrated Conservation and Development strategy in Uganda is premised on increasing community support for conservation through improved livelihoods (UWA, 2012a; Tumusiime and Svarstad, 2011).

Despite these benefit sharing interventions, the huge amount of revenue generated from Bwindi and the proportion of money disbursed to communities, people around Bwindi have remained in absolute poverty and park managers remain puzzled on the proper modalities of implementation (pre-study discussions with CAM, BMCA, 2011). According to the Poverty status report 2014,

50.3% of people in this region are poor and insecure. Seven point six percent of 50.3% cannot afford two meals per day and live in poor quality housing while 42.8% are insecure (GoU, 2014; UNHS, 2012/2013). In 2013/2014, the total annual park collection was UGX 17,137,696,082 of which UGX 16,945,262,243 was from gate entry fees. The total expenditure of Bwindi was UGX 1,954,589,635 of which UGX 500,241,012 was shared with communities in 2013/2014 financial year. Research has shown that there is poor targeting of beneficiaries and poor selection of community based projects (Twinamatsiko *et al*., 2014). Livelihoods of people are mostly affected by crop raiding yet there are limited redress measures to this challenge. The policy has not shown practical indicators of addressing Human Wildlife Conflicts (HWC) although pronounced as policy statement in Revenue Sharing guidelines of 2012. There are a number of unmet expectations from communities adjacent to Bwindi as mostly influenced by politicians. The Local Government structures are seen by the local people as corrupt institutions unable to deliver services to address their livelihood needs (Twinamatsiko *et al*., 2014). Specific groups of people such as Batwa former forest people are mostly affected and live as squatters of Bakiga and Bafumbira land (Kabananukye and Wily, 1996; Kidds, 2008; FFI, 2013). Some people have resorted to begging from tourists to meet their livelihood needs. Guidelines to implement the policy are in place, but the practice does not address equity in terms of procedures, distribution, recognition and context (Tumusiime and Svarstad, 2011; Twinamatsiko *et al*., 2014).

This study was therefore conducted to examine the Revenue Sharing policy implementation towards livelihood improvement and conservation support of people bordering Bwindi Impenetrable National Park.

1.4 Purpose of the Study

The purpose of this study was to examine the implementation of Revenue Sharing policy towards livelihood improvement among people bordering Bwindi Impenetrable National Park to support its conservation.

1.5 Objectives of the Study

(1) To establish how Revenue Sharing projects are distributed to various sections of people bordering Bwindi Impenetrable National Park to influence their livelihood improvement and support for conservation

(2) To ascertain how the impact of Revenue Sharing benefits influences livelihood improvement and conservation support of people surrounding Bwindi Impenetrable National Park

(3) To examine how the governance of Revenue Sharing projects during implementation influences livelihood improvement and conservation support of Bwindi Impenetrable National Park

(4) To establish whether those that undertake unauthorised resource use at Bwindi perceive less benefits and involvement in Revenue Sharing policy implementation compared to those who refrain from it

1.6 Key Research Questions

(1) How are Revenue Sharing projects distributed to influence livelihood improvement and conservation support of various sections of people bordering Bwindi Impenetrable National Park?

(2) How does the impact of Revenue Sharing benefits influence livelihood improvement among people bordering Bwindi Impenetrable National Park to support its conservation?

(3) How does the governance of Revenue Sharing projects during implementation influence people's livelihood improvement for the conservation of Bwindi Impenetrable National Park?

(4) Do those that undertake unauthorised resource use at Bwindi Impenetrable National Park perceive less benefits and involvement in Revenue Sharing implementation compared to those who refrain from it?

1.7 Hypotheses of the Study

(1) Revenue Sharing benefit distribution has a significant influence on livelihood improvement and conservation support of various sections of people around Bwindi Impenetrable National Park

(2) Revenue Sharing benefit impact significantly influences livelihood improvement and conservation support among people surrounding Bwindi Impenetrable National Park

(3) The governance Revenue Sharing projects during implementation significantly influences livelihood improvement and conservation support of people bordering Bwindi Impenetrable National Park

(4) Unauthorised Resource Users perceive less benefits and involvement in Revenue Sharing policy implementation compared to those that refrain from it

Table 2: Summary of Primary Research Questions and Hypothesis

Research questions	Study Hypotheses
How are Revenue Sharing projects distributed to influence livelihood improvement of various sections of people bordering Bwindi Impenetrable National Park?	Revenue Sharing benefit distribution has a significant influence on livelihood improvement and conservation support of various sections of people around Bwindi Impenetrable National Park
How does the impact of Revenue Sharing benefits influence livelihood improvement among people bordering Bwindi Impenetrable National Park to support its conservation?	Revenue Sharing benefit impact significantly influences livelihood improvement and conservation support among people surrounding Bwindi Impenetrable National Park
How does the governance of Revenue Sharing projects during implementation influence people's livelihood improvement for the conservation of Bwindi Impenetrable National Park?	The governance Revenue Sharing projects during implementation significantly influences livelihood improvement and conservation support of people bordering Bwindi Impenetrable National Park
Do those that undertake unauthorised resource use at Bwindi Impenetrable	Unauthorised Resource Users perceive less benefit and less involvement in Revenue

National Park perceive less benefits and involvement in Revenue Sharing implementation compared to those who refrain from it?	Sharing policy implementation compared to those that refrain from it

1.8 Conceptual Framework

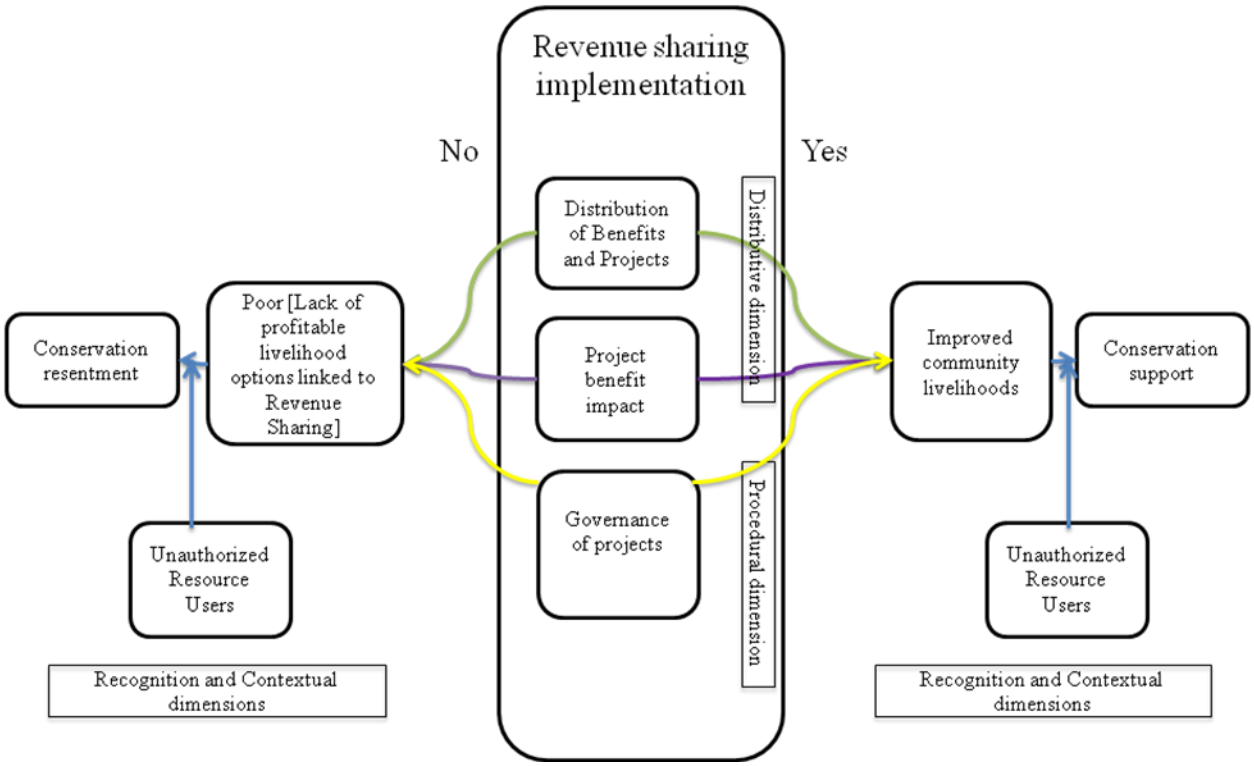


Figure 5: Conceptual framework developed by the researcher basing on Ross and Wall (1999); Taylor (2000); Schlosberg (2007) and Ribot and Peluso (2003)

Figure 5 indicates the conceptual framework that guides the study. The independent variable (IV) *Revenue Sharing policy implementation* and its parameters of analysis have been illustrated. The parameters under the IV include; the distributive and the procedural dimensions of benefit

sharing. Under the distributive dimension, benefit distribution and benefits impact have been explored. The procedural aspect on the other hand reveals the governance aspect of Revenue Sharing. This includes key principles of good governance; decision making for a voiceless community, accountability, capacity to influence outcomes, legitimacy and participation.

Another predictor variable that intervenes with Revenue Sharing implementation processes and explains the recognition and contextual dimensions of benefit sharing has been illustrated in Figure 5 as Unauthorised Resource Users (URUs). The recognition and contextual dimensions include; looking at specific sections of people in the population who have rights to use and access the resources and who deserve specific attention to change their negative behaviour. Under this study, unauthorised resource users have been analysed in comparison to other randomly selected members of the community they live in. This category of the population greatly influences conservation support if no special attention is given to them in community based interventions. They pose a direct threat to conservation despite implementation processes of Revenue Sharing. The study treats this group as a special group in the population and relates their actions to the implementation of Revenue Sharing policy.

The Dependent Variable (DV) is *community livelihood improvement* which will influence *support for conservation* as an outcome variable. This application is relevant for both sides of the conceptual framework. The 'yes' side represents what is likely to happen if Revenue Sharing policy is well implemented. The 'no' side represents the negative outcomes of poor implementation of Revenue Sharing policy. The conceptual framework has been based on the Justice and Equity framework in sharing benefits from Protected Areas (Taylor, 2000; Baxter,

2005; Schlosberg, 2007, McDermott *et al*., 2012) and the ecotourism theory (Ross and Wall, 1999) that links tourism benefits, community wellbeing and biodiversity conservation.

1.9 Significance to the Study

It is hoped the study will influence the implementation of Revenue Sharing policy and other Integrated Conservation and Development interventions. The aim of this study was to create a contribution to science in terms of meeting community development needs whilst pursuing conservation objectives. The availability of Revenue Sharing funds from the increasing number of habituated groups of Gorillas is important in stimulating improved livelihoods. This is what the research aims at contributing to.

Conservation of Uganda's National Park is fundamental for environmental sustainability. When people appreciate the conservation benefits that emanate from the protected area resources in an equitable sharing manner, then their attitudes will change positively in supporting conservation.

The study is also expected to aid institutional policy makers and implementers to identify practical strategic solutions to the ongoing tension between communities and park authorities. Hopefully, questions about conflict resolution on land issues could be answered as well as restoring hope to every community for an integrated social, economic and political development for Uganda as a whole.

The study is hoped to add meaning to the existing literature on Integrated Conservation and Development among different societies, providing new insights into the Ugandan perspective and broadening the academic scope of future researchers and academicians in similar fields of study.

1.10 Justification of the Study

This study is premised on the fact that Revenue Sharing policy objectives ought to be achieved to address both people's livelihoods and support for conservation. This however is not the trend of the current policy implementation at Bwindi. The three main objectives of Revenue Sharing policy are; to provide an enabling environment to establish good relationships between protected areas and local communities neighboring them; to demonstrate an economic value of PAs to the neighboring communities and to strengthen support and acceptance for conservation. This study is therefore important to bring to limelight what is going wrong with the implementation and governance of Revenue Sharing in meeting its set objectives.

The second premise relates to inadequacy of policy implementation of Revenue Sharing policy. Uganda is praised to have good policies but when it comes to putting them into practice, a lot remain desired. This study comes up with an equity framework to will act as model in the implementation of Revenue Sharing policy hence addressing the existing gaps. A community based monitoring approach has been developed to keep track of the impact the policy has created to enable local communities to address livelihood challenges.

1.11Scope of the Study

1.11.1 Geographical Scope

The study was conducted in and around Bwindi Impenetrable National Park hereafter in this thesis referred to as 'Bwindi' located in the Albertine Rift- South Western Uganda. Bwindi is found in Kigezi region and borders the three districts of Kabale, Kanungu and Kisoro. The Park is a home for world endangered species both fauna and flora. It is a world heritage for one of the two remaining small populations of the critically endangered mountain gorillas (McNeilage *et al*., 2006; Bitariho, 2013). The study covered three districts of Kabale, Kanungu and Kisoro since they all border Bwindi. In the 3 districts, 19 parishes out of 27 were included in this study. These parishes covered are composed of 57 frontline villages which were all included in this study (see Chapter 3 for detailed sampling selection and determination). It is vital to note that Revenue Sharing policy is only limited to the frontline communities bordering Bwindi. These communities refer to only LC1 cell or villages. They were considered since their local residents bear direct conservation costs. The detailed geography of the area is described in Chapter 3.

1.11.2 Content Scope

This study looked at how Revenue Sharing policy is implemented to improve people's livelihood and support the conservation of Bwindi Impenetrable National Park. Gaining community support for conservation through improved community livelihoods is the primary objective of Revenue Sharing policy. The study focuses more on distributive and procedural dimensions of benefit sharing but also looks at contextual and recognition dimensions of benefit sharing. These entail governance issues, institutional structures and power dynamics that are part of the implementation framework.

Under objective one, the study looks at how benefits have been distributed to various sections of people in their specific contexts. The community of Bwindi is composed of various ethnicities and resource users who could be targeted when distributing benefits. The second objective looks at the impact that benefits have caused and how this influenced people's livelihood improvement and their support for conservation. In the third objective the study looked at the procedural dimension of benefit sharing which entails governance of Revenue Sharing projects. The study established the influence of governance on people's livelihood improvement and support for conservation. In the recognitive and contextual aspects, the perceptions of unauthorised resource users on both benefits and involvement were important area that this study brought to limelight. This entailed an understanding of whether people who undertake unauthorised resource use perceive less benefits and involvement from Revenue Sharing policy.

Over all, key areas within the implementation framework are critically looked at, to give a greater understanding of this linkage with livelihoods at household and community level and to the conservation of Bwindi through refrain from unauthorised resource use. The selection of beneficiaries and projects for Revenue Sharing, the governance practices, the level of equitable benefit distribution and targeting of unauthorised resource users are key parameters of Revenue Sharing implementation. This is what the study looks at as discussed in chapter four.

1.11.3 Time scope

This study takes into account the period 1996 to 2013. This time corresponds with the enactment of Revenue Sharing policy at Bwindi as provided for in the Uganda Wildlife Act of 1996 which

mandated National Parks in Uganda to share revenue with communities surrounding them. From 1996, a lot of policy decision making, planning and implementation processes have taken root and various communities have shared revenue from the park either as common good projects or livelihood projects. In 2009-2012, the review of Revenue Sharing policy guidelines was undertaken by a consultant who thereafter recommended in a report, the disbandment of the old guidelines and adoption of the new guidelines (UWA, 2012b). Using the new guidelines, two disbursements have been witnessed across all communities surrounding Bwindi.

1.12 Operational Definitions of Terms and Concepts

Revenue Sharing (RS): The practice where Uganda Wildlife Authority gives communities that neighbour with Bwindi 20% of the total gate entry fees and USD$5 of USD$600 from Gorilla levy. It is also looked at in terms of distribution of this money across the 27 parishes and 96 villages that boarder with Bwindi. Revenue Sharing concept is further analysed in terms of the implementation process right from total revenue collections from Bwindi resources to the level of benefit at both community and household.

Livelihood improvement: In this study, livelihood improvement is synonymously used with livelihood security to mean the process and outcomes of well being that have been realised by Bwindi population as a result of Revenue Sharing policy. The study looks at livelihoods in terms of the supportive mechanisms that one survives on in order to live. In this study, livelihood improvement or lack of it is measured in terms of; ownership of basic household assets, access to water, access to food in a day, number of days that households go hungry in a week, health indicators and perceptions on life representation.

Governance: The study looks at governance in terms of the core principles of good governance that include but limited to; attendance of meetings, inclusive participation in meetings, decision making processes, accountability and transparency and involvement of people in Revenue Sharing activities. Other parameters include; local capacity to influence decisions and leadership on committees and their composition. This study uses governance to explain the procedural dimensions of equity.

Benefit distribution: This concept is operationalised as fairness in distributing projects that result from Revenue Sharing funding. This process includes; inclusion of Batwa as forest people, gender aspect, proximity to vehicle roads and village centres, proximity to the park boundary and costs of conservation in the face of Revenue Sharing benefits received. In this study, benefit distribution is interchangeably used with distributive dimension of equity.

Benefit Impact: This study looked at this concept as outcomes that result from Revenue Sharing benefits. It is important to note that not every benefit results into positive impact. Some benefits may result into positive impact, negative impact or no change from the previous state. Benefit impact in this study as refers to the distributive dimension of equity in benefit sharing where benefits should significantly impact various sections of people surrounding the resource. Benefit impact is different from benefit distribution. The former looks beyond the receipt of a project. It looks at the results or changes registered by the beneficiary from Revenue Sharing projects received.

Revenue Sharing beneficiaries: The study looks at beneficiaries as people within Bwindi communities who are selected to access Revenue Sharing funds and projects. Beneficiaries in this context include people who live in the frontline communities. According to UWA new

guidelines of 2012, park revenue is shared with villages that boarder with the park. This was the context of beneficiary scope in this study.

Revenue Sharing projects: These are projects funded using revenue generated from tourism under the policy of sharing 20% of the park gate entry fees and USD$5 Gorilla levy. These projects are categorized in this study as common good and livelihood projects. Common good projects refer to projects that benefit the community as a whole and address general community needs. These include; roads, schools, health centres, provision of water, furniture, council halls and bridges. Livelihood projects focus more on the household needs. Such projects aim at improving the livelihoods at household level. In this study, livelihood projects include; livestock such as goats, sheep and piggery, Irish potato growing, vegetable growing and passion fruit growing. The commonly distributed livelihood projects at Bwindi are livestock.

Unauthorised Resource Use: They are sometimes referred to in this study as unauthorised resource users. This is looked at in terms of unauthorised activities done by community members neighboring Bwindi. This includes hunting and collection of timber and non-timber products from Bwindi. It also means any activity that is done on Bwindi Impenetrable National Park that contravenes the existing laws and guidelines that manage the park. These people may come from frontline or non-frontline communities. In this case, frontline communities are those communities that directly boarder with the park whilst non frontline communities do not. This study labels unauthorised resource users as people who have been arrested by park authorities undertaking unauthorised activities at Bwindi.

Authorised Resource Use: This study defines authorised resource use as the arrangement made between Uganda Wildlife Authority and communities bordering Bwindi Impenetrable National Park to harvest park resources that have no major negative conservation impact. This arrangement is also referred to by this study as the Multiple Use Program to also mean harvesting park resources with permission from the park authorities. Members of the authorised resource use programme are referred to as Authorised Resource Users (ARUs) under this study. There are eight resource harvest zones bordering Bwindi forest. These include; Kaara, Kashasha, Mushanje, Kitojo (currently proposed to be removed from the list), Mpungu, Karangara, Rutugunda and Southern War-Kanungu Town Council (Bitariho, 2013). Authorised resource use is allowed under a collaborative arrangement where Uganda Wildlife Authority signs a Memorandum of Understanding (MoU) with the resource use society. The MoUs are reviewed after every five years upon satisfactory implementation of the agreement and the regulations outlined in Section 13 of the MoUs (Bitariho, 2013). Under resource use programme, people harvest medicinal plants, basketry materials and are allowed to keep bees inside Bwindi within a 2 km zone from the park boundary.

Conservation support: This entails change in attitudes and behaviour of people that boarder with Bwindi in stopping to undertake unauthorised resource use and showing willingness to be part of conservation. In this study, involvement in park activities, willingness to report unauthorised activities to park authorities and stopping or reducing unauthorised activities are parameters used to measure conservation support. This study looks at the opposite of this as conservation resentment.

CHAPTER TWO

THEORY AND LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature related to the thematic areas of this study. Major gaps have been identified and the study tried to fill them with the answers to the research questions. This chapter is arranged in line with the available literature surrounding the Policy Arrangements Approach, Justice/Equity framework, ecotourism theory, the conceptual framework of the study and the themes that form the study objectives. The chapter further points out gaps in the empirical studies conducted in the area of benefit sharing globally, regionally and locally. The chapter lastly synthesises the study and brings out key controversies that this study addressed or sought to address.

2.2 Theoretical Framework

The Ecotourism theory and the Justice framework have been used to construct and explain the relationships that exist between and among Revenue Sharing policy implementation, livelihoods and conservation. The theories have been applied using the Policy Arrangements Approach (PAA). These theoretical frameworks however have limitations that were filled by the new conceptual framework and the proposed Revenue Sharing Equitable Framework (RSEF). Ecotourism theory explains over all linkage between Revenue Sharing, livelihood improvement and conservation support. The Justice Framework creates an in-depth understanding Revenue Sharing implementation processes and modalities.

Scholars (Arts *et al*., 2006) argue that Policy Arrangements Approach sets forth four main assumptions that include; rules, power, actors and policy discourses. The four assumptions under PAA sets basis for procedural and distributive arrangement for benefit sharing. It has been observed that local community livelihoods form a discourse on which policies can be measured and conservation achieved. These processes are premised on set policy guidelines or rules and involve interplay of many actors. The success or failure of a policy rotates on power and influence. Debates on how benefits can be delivered to the local people who live close to Protected Areas has posed a complicated debate in order to achieve development goals and conservation plans (Ahebwa *et al*., 2012).

Scholars in the area of conservation and development integration (Ross and Wall, 1999, Ribot and Peluso, 2003; Sandbrook, 2006) have used the ecotourism theory among other theories to explain policy arrangement of Revenue Sharing and other ICDs (Chapter 1, section 1.3). Other theorists such as Ribot and Peluso (2003) and Salafsky (2011) enriched the understanding of access to benefits from natural resources. Ecotourism theory creates a linkage between tourism, local livelihoods and biodiversity. The studies agree that the new conservation debate should entail a strong focus on the livelihoods of people surrounding the protected areas (Sandbrook, 2006; Blomley *et al*., 2010; Twinamatsiko *et al*., 2014). The new conservation approach should bridge two irreconcilable and opposing truths (Salafsky, 2011).

The three links however as proposed by Ross and Wall (1999) (see Fig. 2) to create a win-win situation have proven to be difficult when it comes to implementation. In order to address this limitation, the study also adopted the Justice framework by Taylor (2000) and later expanded by

Baxter (2005), Schlosberg (2007) and McDermott (2012). The theory points out four dimensions of justice and equity while sharing benefits from Protected Areas. These include; distributive, procedural, recognitive and contextual dimensions (see Fig. 8).

The Justice Framework has been expanded by this study to fit within a situation of a high biodiversity hotspot where a lot of money is generated but little goes to the communities. The expansion on this framework has resulted into an equitable distribution framework of Revenue Sharing benefits that is recommended in Chapter 5. The limitations of these frameworks justified this research that looked at the implementation of Revenue Sharing policy in- depth. Adams *et al*. (2004) agrees with the assumption of lack of understanding of the implementation practice of Revenue Sharing policy as an ICD yet an important part in decision making processes. This was attributed to the fact that win-win situations are truly challenging to implement in the complex situations in which most conservation and development efforts occur (Salafsky and Wollenberg, 2000; Salafsky, 2011 while quoting Adams *et al*., 2004).

This study on Revenue Sharing policy implementation finds these complexities premised on the interpretation and practice of rules in the selection of projects and beneficiaries, the structural and day to day governance systems in terms of power and influence on decision making, accountability, participation and attendance of meetings among and between actors, the complexity to ensure equitable distribution of revenue benefits which would inform subsequent discourses during evaluations and reviews.

In expanding the linkages between tourism revenue, people's livelihoods and conservation of biodiversity, Salafsky and Wollenberg (2000) came up with a conceptual framework to link human needs and biodiversity. Three approaches were described which included; a characteristic of no linkage between livelihoods and conservation; where there is an indirect linkage and a situation of where there is linkage between livelihood activities and conservation (Salafsky and Wollenberg, 2000, p.1422).

According to this model, with a 'no linkage' situation, it is assumed that protected areas are created to exclude the interface of livelihood activities with nature. This is what fortress or protectionist conservation is about. This study agrees with this assumption since after the creation of Bwindi as a National Park in 1991, all communities that earned a livelihood from the natural resources were chased out. This affected those that fully relied on the forest as their livelihood source. This linkage is supported by the 'Prisoner Dilemma' arguments that set forth the elements of social exclusion and limited resource benefits amidst plenty (Ostrom and Schlager, 1992).

In reflection of this view, people around Bwindi impenetrable National Park had easy and unlimited access to the resources before its gazettment. Batwa specifically and some Bakiga and Bafumbira communities earned a livelihood from Bwindi through fruit gathering and hunting (for Batwa), pit sawing and mining (for Bakiga and Bafumbira). With the gazettment of Bwindi in 1991 after other restrictive measures under the game department, individuals were stopped from accessing these resources. This caused deprivation of local livelihoods. These are what scholars refer to as historical injustices (Salafsky, 2011; Ribot and Peluso, 2003). The theories'

proponents therefore ought to understand the linkages that new approaches to conservation such as Revenue Sharing have in addressing historical injustices to increase people's current livelihoods to strengthen their support for conservation.

As Alpert (1996) observes, Revenue Sharing projects and other community based projects come in to link conservation goals with development goals such that each fosters the other. What Alpert failed to bring out was how this linkage is achieved. Development goals have been set around conservation areas and people have been engaged and promised the redress. This is not always the case when it comes to implementation phases. The elements of good governance are always lost when the park managers hide information from the local people thus failing Revenue Sharing to yield substantive livelihoods both at community and individual levels.

It was observed by Forest People's Program (FPP) and United Organization for Batwa Development in Uganda (UOBDU) a Batwa organization that as a result of their exclusion from their ancestral forests and the subsequent loss of their forest-based livelihoods, the majority of the Ugandan Batwa suffers severe isolation, discrimination and socio-political exclusion (Kidd, 2008). It is vital to note that, the Batwa's customary rights to land have not been recognised in Uganda. Since their eviction from Bwindi, Batwa have not been compensated for their losses which has facilitated their livelihood insecurity where most of them have no land and live in absolute poverty. Almost half of the Batwa continue to squat on other tribes' land and offer their labour for food and small savings (Kidd, 2008).

These key findings mean that the Batwa's livelihoods were put at stake as a result of unfriendly conservation policies and programs which the cited theoretical frameworks do not properly bring to limelight. Revenue Sharing policy implementation has not directly targeted the Batwa and most of them live in 0.5km distance from park boundary where there are many incidences of crop raiding (Twinamatsiko *et al*., 2014). There is therefore a need to analyze their survival strategies and evaluate the revenue income that specifically goes to the Batwa. The study again compared them with the rest of the communities to understand the kind of conservation and development policies that can be harmonised to improve their livelihood security. The situation of no linkage between people's livelihood and conservation was also coined by Kabananukye and Wily (1996) who observed that the gazettment of Bwindi and other PAs in South western Uganda, excluded people who used to earn a living from those resources especially the Batwa pygmies.

Other arguments however can be posted in that the Batwa and other local communities surrounding the park have been on failure to diversify their livelihood and continuing to see the forests as sources of their livelihood despite their gazettment. It can be summarized here that the first assumption of 'no linkage' assumes that when there is a direct interface of local people with nature to meet their livelihoods, they will create harm to conservation. Protected areas are strictly defined as boarders that unauthorised people are not supposed to cross (IUCN, 1994; IUCN, 2004; Salafsky, 2011, p. 1422).

With indirect linkage between livelihoods and conservation which Salafsky (2011, p.1422) called economic substitution, conservationists began to work with local people around the

protected areas enable them develop economically. In the ecotourism theory, this ‘indirect linkage’ cannot translate into improved livelihood and community wellbeing. Wells and Brandon (1992) note that, during this arrangement, conservationist saw a need to meet human needs in achieving conservation objectives. This would entail getting economic avenue that would make people busy and embrace conservation. Mugisha (2002) observes that livelihood diversification is essential to food security and improved incomes for human development in African rural communities.

Uganda’s agrarian economy suffers from limited diversification, environmental degradation, low incomes, and multifaceted negative impacts of AIDS. Therefore, efforts to stimulate and support innovation in agricultural production technology, forms of social organization and poor markets are essential elements in promotion of sustainable rural livelihoods (Mugisha, 2002; Baker, 2004). Lewis (2000) has also coined on government programmes that have left minority groups vulnerable since they cannot have enough resources to support them. It is observed however, that the indirect linkage between livelihoods and conservation has failed in terms of implementation. There is no empirical study that has analysed the failure of this integration despite the biosphere reserve that justified people’s entitlement to use biological resources (UNESCO, 1972).

The direct linkage between livelihoods and conservation generates a debate on linked incentives for conservation (Salafsky, 2011). In ecotourism theory, this linkage is important to translate into community wellbeing (Ross and Wall, 1999). This is seen as a response to the shortcomings of fortress conservation and indirect linkage between livelihood and conservation. Wells and Brandon, 1992 observe that this is a paradigm of early 1990s in response to community

resentment of protected area gazettment. This is true at Bwindi since it realms with the period of her gazettment in 1991. In some places such as Mpungu Sub County, some parts of the forest were burnt by angry residents (Baker, 2004). Salafsky (2011) observes that the key feature for the linked incentive strategy is the development of dependent relationships between biodiversity and people surrounding it. Local stakeholders are given opportunities to directly benefit from biodiversity. This is looked at as a bolster to conservation by reducing chances of external threats to conservation.

This research adopts the third situation into the proposed Justice or Equity framework where there is a direct linkage between peoples' livelihoods and biodiversity conservation but further brings to limelight what the process of Revenue Sharing benefits would entail if the approach is to be successful. The new conservation debate appreciates this direct linkage (Twinamatsiko *et al*., 2014, Salafsky, 2011; Garnett *et al*., 2007).

Some hypotheses have been tested to show the implication of a viable enterprise if it is linked to biodiversity of a protected area and generated benefits for a community of stakeholders, then stakeholders are likely to act to counter threats that would affect the resources (Garnet *et al*., 2007; Salafsky *et al*., 2002), Salafsky *et al*., 2001). These studies however failed to link success to issues of governance of projects which would generate greater appreciation to biological conservation. The ecotourism theory and other constructed models fall short of in-depth analysis of the implementation framework of most of benefit sharing programmes. They generalise the understanding without a much deep look at the implementation modalities such as governance structures, benefit sharing procedure and processes as well as the pathways for biodiversity

conservation. The Justice framework illustrates how policy processes to benefit should be arranged (see Fig. 8). This theoretical framework compared to other frameworks has been adopted into this study to explain Revenue Sharing implementation process. The proposed Revenue Sharing Equitable Framework (RSEF) in Chapter five bases the implementation process on the Justice framework.

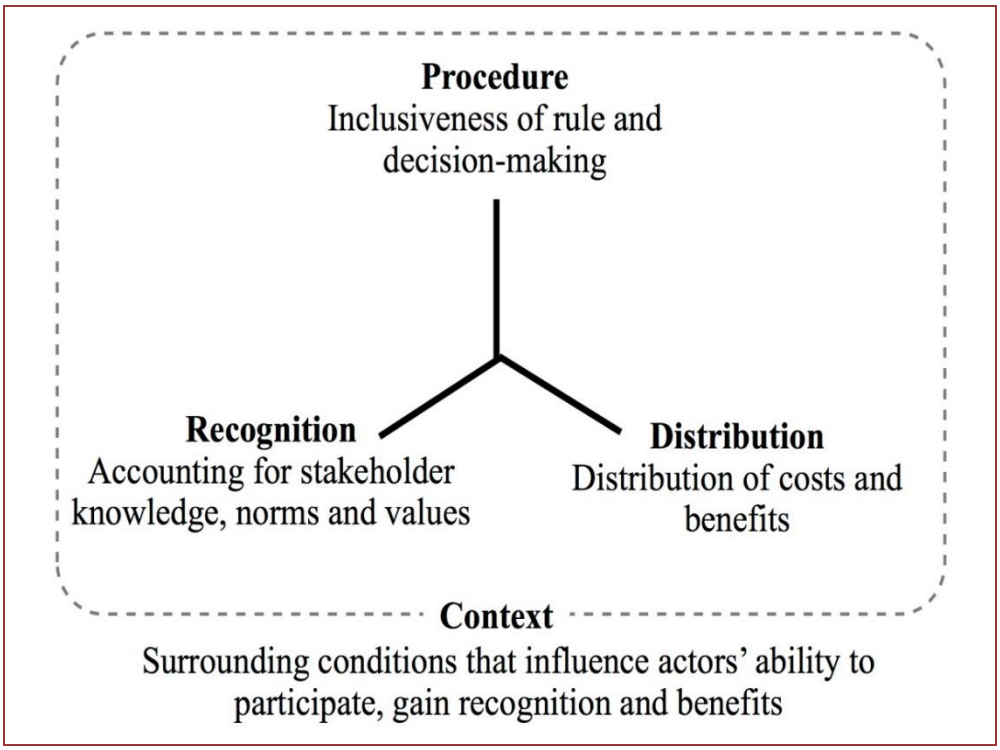


Figure 6: The Justice/ Equity framework
Source: Adopted from Schlosberg (2007)

This framework has not been tested although Reducing Emissions from Deforestation and forest Degradation (REDD+) has recently adopted it in informing its management decisions. Preliminary results from REDD+ show that it can enhance benefit sharing in ecosystem services (Schlosberg, 2007; McDermott, 2012). Brooks *et al*. (2006) tested a set of hypotheses based on a

numerical analysis of 28 selected benefits projects that were linked to protected areas. This study was based on 150 published journals (Salafsky, 2011). It was established that behaviour, attitude, economic and ecological parameters would improve as a result of the extent to which local people used protected areas, extent to which projects increased the integration of communities into wider markets, the degree of decentralised decision making in conservation management issues and the homogeneity of the local people associated with the protected area (Garnett *et al*., 2007 while quoting Brooks *et al*., 2004).

Results from this study, agree with the findings on the contribution this integration would make to decision making processes and change in attitudes to support conservation objectives. The study did not look at direct usage of the protected area such as unrestricted resource access and how Revenue Sharing projects link local people to wider markets. The analysis by Brooks and others did not critically analyse the implementation process on how people felt if they were consulted before projects are funded, they participate in meetings and make decisions that affect their day to day and structural arrangements as seen in the Policy Arrangements Approach. The studies also failed to link Revenue Sharing benefits to unauthorised resource use. This would make it clear as to whether those who undertake unauthorised resource use are indeed benefiting more in Revenue Sharing programme.

2.3 Conceptual Review: Understanding Revenue Sharing

Revenue Sharing is one of the Integrated Conservation and Development interventions. It is a strategy that aims at achieving community support for conservation through improved livelihoods of people surrounding PAs (Blomley *et al*., 2010; Tumusiime and Velderd, 2012;

UWA, 2012b, p. 2). The issue of delivering benefits generated from Protected Areas has long been recognised as an important factor towards conservation (Scherl *et al*., 2004; Garnett *et al*., 2007; Salafsky, 2011; Twinamatsiko *et al*., 2014). It has been documented that failure to link conservation to benefits accruing from protected areas and people's livelihoods leads inevitably to loss of biodiversity. The purported successes are not linked to improvement in wellbeing of people neighbouring such protected areas.

The policy of sharing revenue (as discussed in Chapter 1) sets 20% of gate entry fees to be shared among community members that bear conservation costs. This is premised on the fact that shortcomings are likely to arise in ensuring biodiversity conservation (Adams *et al*., 2004). There are key justifications for sharing revenue with communities that include among others; a recognition that conservation and development needs are key to be integrated; conservation is likely to be undermined if poverty is not addressed; there is a moral obligation for conservation not to compromise with poverty reduction and poverty conservation itself depends on the conservation of living resources (Garnett *et al*., 2007 while quoting Adams *et al*., 2004). The detailed goal, objectives and implementation processes have been discussed in detail under Chapter 1, section 1.2.1.

ICD projects represent a new approach different from protectionist approach to the conservation of biodiversity and ecological systems (Wells and Brandon, 1993). According to Blomley *et al*. (2010), Integrated Conservation and Development holds the promise of achieving mutually accepted outcomes, generating impacts for both conservation and local development. Important to note however, is that linking conservation with livelihood improvement through revenue

benefits is more than effective national park management but rather requires gaining support of local communities for conservation and resolving local conflict issues (Baker *et al*., 2013).

ICD has formally evolved since 1987 in Uganda with many dimensions. ICD is a combination of many interventions that all address community based approaches to conservation. The interventions under ICDs have been categorized as coupling and decoupling strategies (Blomley *et al*., 2010). Blomley in his socioeconomic assessment of ICDs at Bwindi between 2001-2002 using households surveys, illustrates coupling strategies as interventions that link local people to the resource and helping communities to generate some benefits and increase their willingness to manage and protect a resource in a long term. What Blomley failed to tackle were the implementation challenges that would deter support for conservation. Decoupling strategies include those ICDs that provide alternatives for income generation and reduce community dependence on park resources (Blomley *et al*., 2010).

As observed by Hughes and Flintan (2001, p. 39), by 1994, WWF was supporting more than fifty ICDPs. Roughly fifteen of these projects were continuations of the first-generation ICDPs developed in the mid-1980s. Different scholars such as Mugisha (2002); Sandbrook, (2006); Blomley *et al*. (2010) have done research on the history and assumptions of ICD policy, however, the analysis on how the approach addresses livelihood insecurity and unauthorised resource use remains a big question of concern that this study aimed at addressing. The studies generalized ICDPs and did not look at Revenue Sharing which is a focus for this research. For instance, UWA records show various trends of unauthorised activities from 2000-2012 (UWA, 2012a).

Scholars such as Sandbrook (2006) and Blomley *et al*. (2010) present an argument that looks at ICD approach as a strategy that the slow and complex process of changing the way people manage resources and earn their livelihood means that ICD develop and improve gradually, leading to a need to assess ICDs on a long-term basis (Larson *et al*., 1997; Abbot *et al*., 2001). The debate as to the conservation effectiveness of ICD is limited by the lack of socio-economic monitoring on the drivers of resource use and the state of governance of ICD projects (Mugisha, 2002). The fact that community based approaches aim at increasing community support to conservation, their model of implementation is important in addressing community livelihoods that would result into increased support for conservation. The challenges highlighted in this section such as limited socioeconomic monitoring are important for exploration to understand why monitoring of projects is not effective and gaps that exist in the governance of such projects.

Holmes (2003) observes that although many studies reviewing the success of benefit sharing strategies have measured local attitudes towards conservation a few have made the link between these changes in attitude and behavioral changes. As a result of these and other limitations, it becomes difficult to assess the overall validity of this approach. Integrating conservation and development through benefit sharing was introduced as a radical new approach that held great promise for overcoming major obstacles to conservation efforts (Baker, 2004). The programmes attracted considerable funding and were rapidly implemented within protected areas across the world in partnership with local implementers most especially local NGOs such as Bwindi Mgahinga Conservation Trust (BMCT).

Borrini-Feyerabend *et al*. (2004) stated that, benefit sharing failed to acknowledge the importance of governance and power in determining many conservation development outcomes at the local level. Most policy makers and implementers have failed to understand the surrounding complexities of natural resource use. They fail to understand what motivates the unauthorised resource users and the kind of costs local people bear as a result of conservation. The importance of governance is not always taken serious yet is important in attracting conservation support. This is because local people argue that it is through good governance of Revenue Sharing and other programmes that their local interests can be heard.

Drawing cases from the rest of the world, Uganda is not the only implementer of Revenue Sharing policy. The Beza Mahafaly Special Reserve in southern Madagascar at one point became the focus of an early ICDP in 1980s. It incorporated various development activities that included constructing a school, providing agricultural extension services and developing a community health programme (Larson *et al*., 1997). This and similar benefits continued to expand and other projects resulted from such institutional efforts. After some time, concerns arose over funding sustainability requirements (Kremen *et al*., 1998) and how such development interventions related to conservation since they were criticised to be too focused on rural development (Wells *et al*., 1992). In this case ICD programmes were widely considered as large, compound experiments that separated communities from resource management and failed to link conservation and development (Wells *et al*., 1992; Kremen *et al*., 1998).

In response to criticisms of failed linkages between conservation and development, a second generation of benefit sharing programmes was advanced. It was based on the principle that local

populations will only abide by conservation measures after realizing that their socio-economic well-being was addressed (Kremen *et al*., 1998). The second generation of benefit sharing also aimed at empowering communities with sustainable economic alternatives to destructive harvesting and land use practices (Wells and Brandon, 1993; Alpert, 1995). Furthermore, benefit sharing activists put specific emphasis on resolving conflict between protected areas and communities by designing strategies to mitigate conservation costs and ensure local benefits. This arrangement was good although the nature of benefits was not given attention. This study further analysed the kind of benefits that local people would prioritise to meet their livelihood needs.

2.4 Revenue Sharing Benefit Distribution, Livelihoods and Conservation Support

The issue of distributing revenue to communities surrounding PAs is not only a Uganda issue. In Central Africa, majority of the governments have introduced ways of redirecting more of the benefits from the extractive use of forests to the communities neighboring such areas (Morrison *et al*., 2009; Pemunta and Mbu-Arrey, 2013). Many forest revenue fee distribution schemes are being designed in order to bolster support for conservation. Other objectives include; decentralizing decision making processes, eradicating poverty thus enhancing development at local level (Morrison *et al*., 2009).This shows how benefits ought to be distributed to communities that live adjacent to the PAs. This could demonstrate the economic value of PAs to the neighboring communities but also strengthen partnership in achieving conservation objectives. The study by Morrison and others did not understand the distribution modalities that fail to translate into livelihood improvement when Revenue Sharing projects are not well targeted.

Some studies reveal that those who have the greatest impact on conservation are not necessarily the same as those suffering the greatest cost (Archabald and Naughton-Treves, 2001) and the uneven distribution of costs and benefits impedes efforts to ensure that Revenue Sharing funds achieve conservation-poverty linkages by reaching the poor and the marginalised (Bush and Mwesigwa, 2008; Archabald and Naughton-Treves, 2001). The recent study that linked conservation, equity and poverty alleviation at Bwindi through household surveys established that those who bear most conservation costs had not been selected during the distribution of benefits (Twinamatsiko *et al*., 2014). Much as these studies identify this gap in the practice of project implementation, they do not specifically follow the implementation process of Revenue Sharing policy as one of the ICDs. This study undertook face to face interactions with beneficiaries of Revenue Sharing and documented stories of those who benefit and those who carry most costs of conservation.

Arguments are put forth that conservation and environmental policy formulation has not involved the local people who are greatly affected by the designed policies (Shirkhorshdi, 2013; Twinamatsiko *et al*., 2014). Benefits should be going to those people who are targeted by such policies. These studies however did not follow the policy implementation processes to analyse where the gaps are which the current study did. The challenge comes when policies do not involve local people at the beginning. In establishing PAs, the interests and concerns of the local African people were not considered in the establishment of these Protected Areas (Mugisha, 2002). Even in the subsequent ICD interventions, the participation of most community members has remained formal rather than practical. As Mugisha (2002) while quoting Mackenzie (1988) rightly argues, foreign interests and not the interests of the African peoples influenced the

legislation for wildlife management and PAs in particular which subsequently influence distribution of benefits.

In many incidents, creation of these PAs deprived local people of a resource that they had been accessing for a long time, for both their cultural and economic values (Barrow and Murphree, 2001). It is important that local communities neighboring protected areas be integrated into efforts of conservation (Twinamatsiko and Muchunguzi, 2012). Successful management of protected areas depends on the cooperation and support of local communities (Baker *et al*., 2011). Conflict over use of natural resources can arise when local communities are excluded from management decisions or receive insufficient compensation for the costs they incur from the establishment of protected areas (Baker *et al*., 2011 quoting Balmford and Whitten, 2003; Twinamatsiko, 2013). The agenda of getting communities involved in conservation is to make nature and natural resource conservation beneficial and meaningful to rural communities. It is argued that only when conservation directly benefits those who incur costs of conservation, will rural communities take on resources management responsibility (Bell, 1987).

It has been argued that the selection of projects and beneficiaries for tourism revenue influences their ownership (Baker *et al*., 2013; Twinamatsiko *et al*., 2014). There is limited local ownership and control over decision making processes which make most of the Revenue Sharing projects unsustainable. At the national scale the World Bank has estimated that 55% of tourism revenues in developing countries are lost to developed countries (WB, 2008), whilst in the Caribbean, standard leakage levels of 70 % have been reported. At the local level leakages are inevitably

higher still, and can reach over 90%. At the most extreme, Ellis (2000, p. 45) reports that just 1% of tourism spending at Komodo NP, Indonesia, accrues to local people living within the park.

2.5 Benefit Impact of Revenue Sharing, Livelihood Improvement and Conservation

A fundamental premise of Revenue Sharing projects as ICDPs is that enhanced livelihood options and incentives in and around protected areas will lead to reduced pressure on biodiversity. The premise for this assumption is that as communities develop their dependence on the range of wild and other natural resources, their abundance will decline. There is however an argument that benefits distribution is necessary but without causing impact cannot be an incentive for wildlife conservation (Emerton, 1998). IUCN advises that protected areas in Africa should be repositioned "in the context of community development and the local economy" (IUCN, 1999, p. 51). Interestingly, there appears to be a growing discrepancy between the views held by donors as well as ideas from practitioners on ICDP performance where benefits have failed to translate into impact (Bush and Mwesigwa, 2008; Sandbrook *et al*., 2008; Ahebwa *et al*., 2012). These studies however do not analyse critically the level of impact distribution and which ICDPs would translate into relevant impact. This current study focused on Revenue Sharing and further analysed projects under this policy which informed recommendations outlined in Chapter 5.

Tourism was analysed as a potential conservation and development programme that would create impact to communities neighboring PAs (Sandbrook, 2006; Sandbrook *et al*., 2008). The study by Sandbrook looked at tourism benefits as a whole which did not specifically tackle how the amount of money generated as park revenue from entry fees and gorilla levy had addressed local

needs and priorities in order to improve their livelihoods. His study also failed to analyse the governance arrangements within Revenue Sharing Implementation. In other countries such as Cameroon, impacts had also failed to be realized until the 1994 reforms that increased the tax revenue and promoted more sustainable forest management (Morrison *et al*., 2009). It is vital to note that contrary to what is stated, enhanced livelihood options and incentives may not automatically lead to reduced pressure on biodiversity. The processes of translating to this impact were important to analyse. This only takes place when the benefit impact is distributed in an equitable way such that the various differences of impact among the populace are measured at the baseline level before an intervention.

At the practical level, there is a need to form a more effective link between protected areas and poverty alleviation (Sachs *et al*., 2009). This includes measures such as; improving knowledge to understand the importance of ecosystem services and how Protected Areas contribute to poverty reduction of the rural poor. As Scherl and other scholars note, this would entail designing management systems that permit certain subsistence activities in some categories of protected as areas and provide a safety net for poverty reduction strategies (Scherl *et al*., 2004). This study argues that local protected area agencies such Uganda Wildlife Authority should be made more aware of current poverty issues in order to ensure that their management activities do not accidentally contribute to greater poverty but deliberately do so. This is because community approaches to conservation is normally judged as economically successful if benefits are generated and are of a sufficient value to offset the costs of conservation on the adjacent communities (Emerton, 1998).

Conservation areas should translate its benefits into livelihood improvement (Turner *et al*., 2012) and poverty alleviation (Sachs *et al*., 2009). For effective poverty and conservation links, ensuring that the finance and economic planning ministries are well aware of the values of protected areas and goods and services they provide (Scherl *et al*., 2004). This current study agrees with the previous studies and also recommended a more meaningful analysis of the benefits that people will realize from conservation initiatives. This has worked in Rwanda where there are increased community incentives from conservation areas (Hitimana *et al*., 2006; Manirakiza, 2012) and Cameroon where there has been an increase in revenue base (Morrison *et al*., 2009) and therefore has the potential to work at Bwindi.

It has been noted that the importance of biodiversity as natural resource capital for economic development and sustaining human welfare has been debated on and documented (Mugisha, 2002 quoting Costanza *et al*., 1997). The debate however does not show how economic development can be achieved. This current study proposes the Revenue Sharing Equitable Framework that shows pathways of achieving local economic development. There is also a negative trend of biodiversity loss as well as human welfare deterioration in developing countries (Mugisha, 2002). This justifies the strategy of Integrated Conservation and Development (Blomley *et al*., 2010).

Communities around Bwindi have however remained in absolute poverty despite both coupling and decoupling interventions under Integrated Conservation and Development such as Revenue Sharing, multiple resource use, tourism development, community enterprises, agricultural substitution and work of the Trust. Some specific groups of communities around Bwindi and

Mgahinga especially the Batwa are more vulnerable than the other communities much as they are all in vicious circles of poverty (Infield and Mugisha, 2010).

Important to note however is that the rich and diverse availability of natural resources in Africa have boosted national economies in terms of tourism. Tourism in many countries in Africa greatly contributes to Gross Domestic Product (Tumusiime and Svarstad, 2011). Most communities surrounding Protected Areas however are still marred by high poverty index an indication of failed livelihood interventions (GoU, 2014). It has been documented that Africa is a rich continent but also a region where its people heavily rely on natural resources for their livelihood, which, in combination with other factors such as demographic, social and economic, threatens PAs (Mugisha, 2002). The searches for interventions that would achieve conservation and human development goals are crucial if the problem is to be addressed (Mugisha, 2002). If there is a need to understand conservation benefits to communities neighboring protected areas, a study of this kind that links Revenue Sharing to livelihood improvement and conservation support is justified.

According to Sandbrook (2008, p. 20), a similar experience in Peru was relevant to what happens at Bwindi, a successful tourism project was undermined when the forest attraction was destroyed because of local people lacking land tenure rights (Yu *et al*., 1997). In a particularly desolate example, when policy makers attempted to impose a new wildlife management area, a successful, locally run Community-Based Tourism (CBT) project in Ololosokwan, Tanzania, was declared illegal by the central government (Sandbrook, 2006).

This shows deliberate attempts by most central governments to have people remain in poverty despite the fact that they are surrounded by rich biodiversity. The lack of local control over tourism is not always due to the actions of policy makers and implementers. There are also limitations in terms of operations, existing structures and societal and cultural constructions on the ability of local communities to participate in tourism, making it difficult to transfer control (Tosun, 2000). These cases are similar to Bwindi's case where local people have limited control on determining the benefits that accrue from forest resources.

Other arguments rotate on having these benefits translate into mitigation measures to reduce human wildlife conflict. It should be noted that crop raiding has continued to rob local people of their potential livelihood avenues (Baker, 2004; Harrison, 2013; Twinamatsiko *et al*., 2014). In Rwanda, a compensation policy has been put in place. To address Human Wildlife Conflicts, an amendment to the wildlife laws was made to include compensation for damages caused by wildlife (Babaasa *et al*., 2013). This study by Babaasa and others did not show success stories resulting from Rwanda's compensation policy. This current study analysed other reports (Hitimana *et al*., 2006; Manirakiza, 2012) to further understand policy impacts in Rwanda.

In Rwanda, there are existing laws and legal frameworks that provides for the compensation policy (Law No. 26/2011 of 27/07/2011 on compensation for damages caused by animals; Law No. 52/2011 of 14/12/2011 establishing the Special Guarantee Fund for automobile and damages caused by animals (Babaasa *et al*., 2013); and Ministerial Order No. 14/MINICOM/2012 of 18/04/2012 determining the list of wild animal species concerned with the law on compensation for damages caused by animals) and compensation claims are now being processed for wildlife

damages around Volcanoes National Park (RDB/GVTC, 2011; Uwingeli, 2012). Much as these laws exist, the challenge remains with calculation of compensation fees and valuation of the losses incurred.

Much as policies exclude local people, policy makers and governments should know that financial flows to local communities do reduce their sense of grievance over the creation of National Parks although they do not compensate them for the costs of park creation (Adams and Infield, 2002). Such incentives however if realized by the community would increase their support for conservation. Different uses of livelihood analysis have been put to the lime light. It is important to note that rural livelihoods affect and are affected by natural resource management initiatives. There must be trade-offs between environmental sustainability and livelihood improvement because the two affect each other.

Discussing poverty in the context of conservation or protected areas may well lead to trade-offs between poverty reduction and conservation interests, but these need to be addressed in a positive way that does not disadvantage either of the two perspectives inappropriately (Scherl *et al*., 2004). Therefore involving communities in conservation policy formulation is important in supporting their livelihoods and is a pathway for conservation support. The fact that policy practices in Rwanda and Cameroon have enhanced community incentives and support for conservation, Uganda can borrow a leaf for more sustainable conservation.

2.6 Governance of Revenue Sharing Policy, Livelihoods and Conservation

Linking conservation with livelihood improvement is more than effective national park management but requires that the issues of governance, human rights, equity and power are addressed at all levels (Ghimire, 1994; Baker *et al*., 2013). Participation as one key form of governance is fundamental for Revenue Sharing and other ICDs yet it has been documented that most projects failed to devolve natural resource management to local people in the early days of ICD interventions (Ghimire, 1994; Larson *et al*., 1997). Participation of a community in the planning and operational aspects of an initiative or within ownership structures is not an aspect to under look if benefits are to be conveyed (Simpson, 2008, p. 3). This current study agrees with the assumption that governance is paramount in national park management. This is because local people are not only concerned about benefits but also the governance of natural resources. The study however analysed various parameters of governance and identified the most significant ones that National Park managers could put much focus on.

An earlier WWF internal review found that the key interests of important stakeholders and their participation had not been incorporated in natural resource management yet local resource use was intensive (Larson *et al*., 1997). Governance is a key form that would influence people's attitude to conservation since they would take part in issues that affect their livelihood (Koh, 2009). This involves inclusiveness in decision making processes which at the end make any possible interventions owned by the local people. This study established that the missing gap between governance and livelihood improvement has been a major factor explaining negative attitudes and illegal practices on natural resource use.

It is vital to note that, livelihood improvement is a primary rationale for natural resource-focused governance reform (Meinzen-Dick and Knox, 2001). This is because in most cases, reforms done for natural resources have the potential to directly affect rural households. Rural households may change to return to assets, including natural, physical, human, financial and social capital which can be got from the resources available to support and increase livelihood assets (WB, 2008). For instance, it has also been identified that forest sector governance reforms should allow poor people to make their assets more productive by supporting local organizations and decision making around forest use (Sandbrook, 2006). This means that a reform on Revenue Sharing or any other Integrated Conservation and Development (ICD) strategy should aim at the practical outcome of its implementation. In doing this, people neighboring such protected areas will concentrate on development projects, enjoy the visible outcome of such development interventions and embrace conservation.

When it comes to environmental policies and laws, when there is contradictions and lack of clarity in the regulations on resource user rights and other associated reforms, confusion about who controls natural resources will emerge (Oyono, 2005). Some scholars argue that, resource policies do not focus on integrating local people in conservation and the role of central government is resource policy and management leaves a lot to be desired. The unwillingness of the central government to intervene in natural resource use is among the reasons that explain high rates of resource loss that have been observed under its decentralization program (Oyono, 2005).

Participation, engagement, project benefits, and social capital have been identified as particularly crucial (Larson *et al*., 1997; Shirkhorshdi, 2013). While participation of local communities in national park management has increased over time, the type of participation that is practiced by park managers is rarely defined. This affects understanding of whether meaningful participation has been achieved where communities felt engaged with the decision-making process, and how effective this was in securing both livelihood improvement and conservation goals. Local communities have been taken as passive participants rather than active ones (Shirkhorshdi, 2013; Twinamatsiko *et al*., 2014). This affects decision making outcomes and the level of ownership of decisions that accrue.

The process by which power and responsibilities are exercised and decision undertaken can have a significant influence on the conservation of protected areas (Koh, 2009). Chapter 4 of this thesis brings some suggestions to these gaps. Achieving good governance within the context of Revenue Sharing initiatives includes the regular and inclusive participation of informed local communities in decision-making, fair compensation for the costs of conservation and equitable benefit sharing that addresses the needs of the poor and marginalized. Involvement of local people in project design is important for project success (Shirkhorshdi, 2013). This current study agrees with previous writers since meaningful involvement significantly influences livelihoods and support for conservation as discussed in Chapter 4.

From the current studies, the governance principles have been practiced at Bwindi in natural resource management (Bitariho, 2013; Namara, 2006). The UWA policies and plans streamline how communities neighboring Bwindi should be part of decision making processes to determine

how to share part of the revenue that comes from park revenue (UWA, 2012a). Groups have been formed to facilitate the process of benefit sharing (Twinamatsiko *et al*., 2014). This is manifested through various groups such as Resource Use Committees and the former Community Protected Institution. There are other informal park related groups operating around Bwindi that include HUGO committees and reformed poachers committees. The challenge with the established groups is that they are always used when it comes to implementation. They never take part in the design and evaluation of the established benefit sharing projects.

A case in point, Community Protected area Institution (CPI) was established as a formal community link to national park management in enhancing collaborative forest management. CPI involvement in collaborative management was however analysed to be inadequate and difficult to understand (CARE, 2006). Much as CPIs have been analysed to be inadequate, the weaknesses could be emanating from limited capacity in decision making processes which is in most cases deliberately done by policy implementers. The community groups at Bwindi channel local interests to UWA with the aim to increase community involvement in natural resource management. The level of success in achieving the collaborative forest management and governance remains an area of concern if a win-win situation is to be reached in governing BINP resources.

The other important channel of governance at Bwindi is the Local Government Institutions. These include; the District Councils and District Production and Environment Committees (DPECs) and Sub County Production and Environment Committees (SPECs) which should support the implementation of projects that will be recommended and approved by the lower

councils and the Community-Protected Areas Institution (UWA, 2004). While there are structures to facilitate community involvement, and that many evaluations of development and conservation outcomes of ICD have been done, there are few studies on governance resulting into a gap that this study on Revenue Sharing addressed. In objective 3 of this thesis, the researcher analysed the experience of CPIs in collaborative forest management and governance as outlined in the CPI policy of 2004.

As noted from the previous writings, one key element to balancing the tradeoffs of successful programmes lies in putting in place inclusive, adaptive, and sustainable governance structures. These structures should build meaningful partnerships, empower people and emphasize the use of the best science available (Scherl *et al*., 2004). In Rwanda, collaborative forest governance entails respect for the local knowledge and their contribution to conservation (Hitimana *et al*., 2006). This is true given the fact that people ought to be put at the centre of project processes if benefit sharing projects are to succeed.

Revenue Sharing policy implementers can borrow a leaf from the existing Multiple Use Program (MUP) which tries to woo local community participation in PA management activities (Bitariho, 2013; Shirkhorshdi, 2013), probably more than any other community conservation interventions within and around BINP (Namara, 2005). Much as these studies praise MUP, the types of participation as laid down in Twinamatsiko *et al*. (2014) ought to be understood. There are many types of participation but the crucial one remains interactive participation which results in self mobilization where people can take charge of matters that affect them.

Table 3: Types of participation

Type of participation	Characteristics
Passive participation	People are told what is going to happen or has already happened. These are unilateral announcements that do not listen to people's responses.
Participation in information giving	People answer questions posed by extractive researchers and they are not able to influence proceedings, with research findings not being shared with them.
Participation by consultation	People are consulted, but external professionals largely define both problems and solutions. Decision-making is not shared, and professionals are under no obligation to take on board people's views.
Participation for material incentives	People provide resources, for example labour, in return for food, cash or other material incentives.
Functional participation	People form groups to meet predetermined objectives related to the project. Such involvement tends to be during later project cycle stages after major decisions have been made.
Interactive participation	People participate in joint analysis, which leads to action plans and the formation of new local institutions or the strengthening of existing ones. These groups take control over local decisions so people have a stake in maintaining emerging structures or practices.
Self-mobilisation	People take initiatives independent of external institutions. They develop contacts with external institutions for the resources and technical advice they need, but retain control over how resources are used.

Source: Twinamatsiko et al., 2014

A focus on governance of protected areas therefore helps in understanding the interactions among structures, processes and traditions that determine how power and responsibilities are exercised and how decisions are taken and how citizens and all stakeholders see the management of natural resources. Good governance and the involvement of local governments and communities in natural resource management are prominently featured in current debates on sustainable management of natural resources (Ghimire, 1994; Larson *et al*., 1997; Koh, 2009).

2.7 Revenue Sharing Policy Implementation, Unauthorised Resource Use and Conservation

It should be noted that Bwindi Impenetrable National Park is one of the natural world heritage as a home for mountain Gorillas in the world. Blomley *et al*. (2010) notes that Bwindi Impenetrable National Park and Mgahinga Gorilla National Park are two afromontane forests considered as extremely important biodiversity areas, with global significance, due to their population of highly endangered mountain Gorilla. Threats to the two parks include uncontrolled exploitation of forest resources as well as fire damage and the indirect pressures of demand for land.

There is however increasing evidence that areas of outstanding conservation importance coincide with dense human settlement (Baker *et al*., 2011). This situation is common in sub-Saharan Africa, where areas of high conservation value are under threat due to the increasing populations whose livelihoods depend upon the natural resource base (Balmford *et al*., 2001). When the local communities do not value the importance of conservation, efforts to conserve would be in vain. What is important to note is that, the strict protectionist approach has given way to a radical change in policy that encompasses the role of local communities in conservation (Baker *et al*., 2011). Hence, the fundamental basis of fully protected areas has been questioned, and the

adoption of community-based conservation (CBC) has arisen from a greater understanding of linkages between protected areas and rural development (Baker, 2004).

Globally, the phenomenon of unauthorised resource harvest exists in most Protected Areas and other reserved natural resources. Many studies (Baker, 2004; Blomley *et al*., 2010; Baker *et al*., 2011) have been done and debates are ongoing regarding the integration of development into conservation as a way of regulating illegal human activities in Protected Areas. This poses a question on whether those that undertake unauthorised resource use perceive benefits and involvement from protected areas than those that refrain from such use. The ongoing debates however lack informed policy guidelines due to limited studies on the profiles and motivations of unauthorised resource users. The conservation threat of unauthorised resource use has not ruled out Uganda since most of her natural heritage is always tampered with by human race surrounding such Protected Areas (Chapman and Peres, 2001; Whitmore, 1997; Laurance, 1999). As Olupot and Chapman (2006) noted, human modification of ecosystems is threatening biodiversity on a global scale.

The noted unauthorised activities have been mostly geared by people's long history of protests of protected area gazettment as well as unstoppable claims of indigenous ownership rights on some of the local communities (Butynski, 1984). In the case of Bwindi, Mgahinga and Echuya Forests, the indigenous Batwa continue to push on their claims that the said gazetted areas formed their livelihood base and were their ancestral homes (Kidd, 2008; Kabananukye and Wily, 1996). The Basongora in Queen Elizabeth National Park hold the same positions in South Western Uganda (Twinamatsiko, 2013). Other studies indicate that ethnic minorities in Uganda claim that the now

government Protected Areas used to be their homes and they were thrown out without compensation (Nkote, 2007). These and more other factors put Uganda's protected areas at a disadvantage of facing many unauthorised activities. This study agrees to the fact that failure to recognize the livelihood needs and historical injustices among people bordering PAs, unauthorised resource use is likely to take place.

The aspect of unauthorised resource use has not been critically analysed especially who is involved and why they are involved although some studies exist on socio-economic evaluations and costs and benefits of harvesting resources from the park (Plumptre *et al*., 2004; Namara, 2005; Bush and Mwesigwa, 2008). Previous researches in Bwindi have also documented the successes and failures of ICD interventions in Bwindi both coupling and decoupling strategies that include; multiple use, tourism, Revenue Sharing and the Bwindi and Mgahinga Conservation Trust. As Blomley refers to them, decoupled interventions include agricultural development and the substitution programme (Blomley *et al*., 2010, Bitariho, 2013; Sandbrook, 2006). The attitudes of people towards ICD interventions however are not well captured. This poses a big question as to why unauthorised activities continue to emerge despite the presence of ICD interventions.

As noted by Baker *et al*. (2011), using long-term data on law enforcement patrols, there would be an investigation of why unauthorised activities continue to exist despite ICD policy interventions. The profiles of unauthorised resource users are not well documented to come to a conclusion of individuals who continue to engage in unauthorised resource use. It would be argued that the ICD interventions as adopted by UWA and local communities should be acting as

a deterrent to unauthorised activities taking place in the park of Bwindi (Baker, 2004). The previous studies however remain vague without analyzing specific ICDs. This current study therefore put a focus on Revenue Sharing which is premised on increasing community support for conservation as a way of addressing this gap.

As earlier noted, protected areas in Sub-Saharan Africa especially the countries in the tropics face a variety of conservation threats mainly as a result of socio-economic factors. This has been coined by various studies that reveal biological, social and economic threats that face protected areas (Wells *et al*., 1992). Over exploitation of natural resources is a primary concern for managers of forested protected areas in the tropics (IUCN, 2004), particularly hunting animals for bush meat. This threatens not only target species, which typically comprise ungulates (Wilkie and Carpenter, 1999a; Wilkie *et al*., 2000), but also non-target species that are of conservation concern from accidental trapping, particularly flagships such as the great apes (Plumptre and Williamson, 2001). Vital to note is that BINP is a biodiversity hotspot that remains the only home for endemic species such as Gorilla *berengei berengei* (McNeilage *et al*., 2006).

The impact of illegal hunting on human livelihood is connected to poverty and culture. Olupot *et al*. (2009) noted that, with exception of households headed by hunters, bush meat was a less important source of protein to the households in these sites compared to livestock meat and fish. Hunters also heavily depend on bush meat as a source of income. Poverty and cultural attachment were the main reasons for bush meat use. Bush meat eating households regard bush meat as more tasty and medicinal than livestock meat and fish. This is similar to Baker (2004) and Harrison (2013) where communities enter Bwindi forest mainly to get bush meat. Animal

parts are also valued for curative, spiritual and supernatural uses and this is in part what drives hunting of some species (FFI, 2013).

Previous studies indicate the relationship between park boundary and human activities. People closer to the park are more likely to undertake unauthorised resource harvests (Butynski, 1984; Twinamatsiko *et al*., 2014). This is true even with the current study where people living in 1 km from the park boundary were likely to undertake unauthorised resource use. For instance, the forest boundary for approximately 115km, about 97% of this boundary is adjacent to agricultural settlement and having removed most of the trees from their lands, the local people were entering into the reserve along most of its periphery to attain poles, or fuel woods. Olupot *et al*. (2009) says that most of the illegal use appears to be concentrated at the edge of the park and has reduced in core areas. The people who live adjacent to the two parks have a variety of interests regarding their use and management (Blomley *et al*., 2010).

Howard (1991) also found out that unauthorised activities such as harvesting of plant products occurred mainly along the nearly 115 km along the boundary, 97% of which is adjacent to dense agricultural settlement. Furthermore, there are unauthorised resources that they collect and these include; wood, bamboo and livestock. When this is however related to the reports on ground reports that poaching includes people in the second parishes and even other countries, it leaves a lot to remain desired for analytical review of the motivations for such distant people to undertake unauthorised activities. The results in this current study are in agreement with these previous studies where most local people who undertake unauthorised resource use were from frontline parishes.

Butynski (1984) noted that a large number of people (500-1000) per year illegally entered the forest in the 1980s for various reasons. This study however failed to specify who these people were. This left the profiles of such people unknown. This current thesis addresses this gap by bringing to limelight profiles of unauthorised resource users in Chapter 4, section 4.5. According to Butynski (1984, p. 39), majority of the people seen were in transit (46%), pit sawyers (30%) and the rest (24%) were mining, grazing, hunting, collection of medicinal plants and weaving materials. Similar resources collected from Bwindi are pointed out in this current study.

Ethnic minorities that claim ancestral ownership of protected areas continue to enter into the national parks illegally for particular cultural requirements and livelihood (Twinamatsiko and Muchunguzi, 2012). Within the communities, there are specialist user groups with common interests such as beekeeping, traditional medicines, basketry, pit sawing, game hunting and fishing, and gold mining. Of particular note are the Batwa who have roots in the pygmy population of Eastern Congo and Central Africa. The two forests of Bwindi and Mgahinga possess important social and cultural values for the Batwa such as sacred sites and burial grounds and footpaths that connected family members and markets on opposite sides of the forest area (Kidds, 2008, Infield and Mugisha, 2010, Blomley *et al*., 2010).

Today, no Batwa are known to be permanently living in Bwindi following their eviction in 1961 when the forest became a game sanctuary (Kabananukye and Wily, 1996). At the moment, many Batwa squat near the perimeter of the two parks (FFI, 2013), in very primitive conditions and

have thought of surviving through illegal hunting and honey gathering (Kidds, 2008). It is known that the Batwa also sell their labour to the Bakiga and Bafumbira farming communities (GEF, 2007; Kabananukye and Wily, 1996). The restricted access to resource use in BINP and harassment of local people arrested due to illegal mining and timber harvesting, resulted in a heavy escalation in the conflict between local communities and park staff (Baker, 2004; Blomley, 2003).

Before the strict laws and intensified law enforcement patrols on Bwindi park gazettment, local communities freely accessed Bwindi forest as a source many resources such as; timber, minerals, non-timber forest resources, game meat and agricultural land. Due to increased human activities on the forest, there were serious losses of forest cover over a period up to the late 1980s (Blomley *et al*., 2010). Tukahirwa and Pomeroy (1993) notes that before gazettment, Bwindi provided subsistence resources for local people, including forest products such as firewood and bean stakes, honey, medicinal plants, and basketry materials that were collected in relatively small amounts.

On the other hand, other studies point at most of the resources that were highly accessed illegally from Bwindi Impenetrable National Park (Scott, 1992; Cunningham, 1992). Their studies indicate that bean stakes were essential for climbing beans production and cutting them is an important seasonal agricultural activity in May-June. It is estimated that bean stake density of 50000 bean stakes per hectare were cut every year. This shows that farmers around Bwindi are involved in unauthorised resource use due to a growing need of supporting their agricultural activities. Quite well documented is that, local communities around Bwindi depend on

agriculture as a major source of livelihood. More data is however needed to understand the influence of farming around Bwindi towards illegal resource harvest.

Cunningham (1992) attributes the unauthorised resource use to farmers needs around Bwindi Impenetrable National Park. In a study conducted by Cunningham (1992), most of the farmers 73% indicated serious fuel shortages attributed to the little tree planting, 40% cited over population, 18% cited restricted access into the forest, 12% named climate change and land shortage was revealed by 8%. Furthermore, Ogutu *et al*. (1997) found that the main products harvested by communities around Bwindi included Bamboo, vines, and medicinal plants, weaving materials, bean stakes, firewood, poles and fruits. There is little documentation of what motivates local communities in accessing such minor forest resources.

It is important to note that not every part of Bwindi is marred by unauthorised resource use. For instance Baker (2004) noted that the interior and medium harvest zones are affected by too much illegal bush meat hunting. Various reasons were put forth to explain why bush meat hunters continued their activities in interior and low and medium harvest zones, yet avoided boundary areas and high harvest zones. It was found out by previous studies that; poachers favour interior areas of Bwindi, particularly Mubwindi swamp in the east and south interior, because of the abundance of ungulates (Butynski, 1984).

Furthermore, the evidence that poachers in Bwindi change their activities in response to law enforcement suggests that the poachers avoided the heavily patrolled boundary and high harvest zones, and were more active in the less well-patrolled interior and low and medium harvest

zones. The livelihood motivations that link to the practice of Revenue Sharing were not identified by these studies to understand what drives people to undertake unauthorised activities despite heavy patrols by rangers. This necessitated a need to identify profiles and motivations of unauthorised resource use linked to benefit sharing programmes and understanding key resources people want from Bwindi.

Bush meat is presumed to be an important resource for the many poor rural people in Africa, Asia, and South America (Robinson and Bennett, 2004). As noted by Booth (2009), conservation hunting generates significant income for local communities involved in community-based natural resource management as well as for national economies of these countries. Under appropriate governance and institutions conservation hunting has been a powerful tool used to promote conservation and rural development and thus improve the livelihoods of local communities. The opportunity costs by poachers were pertinent issues linked to objective 4 of this thesis. There was a need to find out whether poaching at Bwindi is the alternative approach to meeting livelihood demands due to failed policies.

The study of linking unauthorised resource use to conservation and livelihood improvement helps to analyse the subsistence needs that local communities present interest on around the Uganda's Protected Areas. Studies suggest that in many areas in West and Central Africa, bush meat is an economically important food and trade item for thousands of rural and urban families and animal parts are also important for their role in ritual (Wilkie and Carpenter, 2001). In West Africa, there are for a large part no legal restrictions on bush meat hunting and bush meat is sold openly in the markets. Wildlife populations have been so depleted by years of unsustainable

hunting for meat, that bush meat is no longer the most important source of protein in families' diets (Cowlishaw *et al*., 2005). In many markets, rodents now form the bulk of the bush meat as the antelopes and other larger mammals have been extirpated from the forests (Cowlishaw *et al*., 2005).

In Eastern and Southern Africa, the importance of bush meat to community development and national revenues is less well understood. Illegal bush meat hunting, has until recently, been thought of as a subsistence-motivated activity, carried out exclusively by rural families with a history of traditional use, but commercial trade across the region is now of serious conservation concern (Barnett, 2000; Born Free, 2004). At least 25% of meat in Nairobi butcheries is bush meat, sold under the auspices of domestic meat, and a further 19% is a domestic-bush meat mix (Born Free, 2004). The implication of increased bush meat hunting in Uganda and its connection to commercial trade ought to be known and documented.

A multi-dimension of factors continues to make people get engaged in unauthorised activities around Protected Areas. Resource access for livelihood (extractive resources & non extractive resources) such as medicinal plant access, hunting, honey, firewood, spiritual access are key drivers for unauthorised resource use (Bitariho *et al*., 2004, 2006; Kidd, 2008; FFI, 2013). A need to get income has been documented as a key factor in escalating timber extraction and fuel-wood extraction. It is presented that people in developing countries are not often against conservation itself, although they may resent the conservation imposed on them (Roe, 2008). This study is useful for policy related actions since most people in developing countries are sunk in poverty yet see large chunks of land gazetted as reserves or national parks. There is a need to

correct their myths, assumptions, attitudes and perceptions if effective conservation is to be a success.

Also, failure to have an alternative source of survival has been highlighted among the key factors that drive the local communities into unauthorised resource use at Bwindi Impenetrable National Park. For instance, most people have to travel long distance to reach the health centers that is why they prefer using the traditional medicine that is always available and near to them. Wild and Mutebi (1996) point out the failure of UWA officials to compensate community members for the crops that are always destroyed by animals from the park. This forces them to compensate themselves by going to the forest and getting some resources.

Blomley *et al*. (2010, p. 17) observes that, unauthorised resource use is now mostly conducted by the poorest members of the community, who appear not have benefited from Integrated Conservation and Development (ICD) interventions when compared with richer members of the community. He also added that, the scope or reach of number of the ICD interventions appear limited and in some cases is confined to certain parishes, which restricts their potential to positively impact on large proportion of the local population. In the Blomley study, this trend was confirmed by park rangers, who reported that the majority of cases of illegal timber cutting were carried out by poor, unemployed men and youths who provided timber to wealthier dealers in the major towns of Kabale and Kisoro near the two parks Bwindi and Mgahinga. This is an agreement with what Baker *et al*. (2011) reported that, unauthorised activities are motivated by extraction for commercial purposes and demand for subsistence use.

There has been an ongoing debate on whether socio-economic factors drive unauthorised resource users in Protected Areas. Crop raiding and other forms of human-wildlife conflict also drive illegal hunting but on a smaller scale than hunting for bush meat. Other studies link illegal bush meat hunting to subsistence needs. Popular contemporary belief is however that hunting for food rather than habitat loss is the leading driver of these losses (Robinson and Bennett, 2000; Wilkie and Carpenter, 1999).

2.8 Previous Empirical Studies and Gaps Identified

Over all, there are few studies that have analysed the implementation process of Revenue Sharing policy in achieving its objectives of improving livelihood and enhancing conservation support. Research reports at Bwindi (CARE, 2006; Blomley *et al*., 2010; Twinamatsiko *et al*., 2014) show a failure of programmes that link conservation to people's livelihood commonly known as ICDs in improving livelihoods of people that boarder with Bwindi Impenetrable National Park. These studies have looked at ICDs as a whole yet there are many programmes within ICDs. These programmes include; Revenue Sharing, Multiple Use Programme, Tourism development, community enterprises, agricultural substitution and BMCT.

Generalising ICDs does not give a picture on what a particular intervention is able to achieve. These studies however failed to analyse specific failures with Revenue Sharing projects which give direct benefits to communities in terms of funds disbursed. These studies did not show where the gaps are in terms of implementation of projects. This study on Revenue Sharing explored the implementation process to establish where the leakage is which fail to translate revenue to livelihood improvement and support for conservation.

A study conducted by Sandbrook on tourism, livelihood and biodiversity conservation in 2006 established that a huge amount of money is collected from tourism revenue. Sandbrook created an overview of tourism revenue at Bwindi and various leakages in delivering this to the local people. The study used household surveys to measure social well being. It analysed data in the parishes that boarder with Bwindi. This study did not analyse the implementation process of how money is distributed to the local people and the governance structure (Sandbrook, 2006). The study uses linear regression and does not disaggregate responses in each category of social wellbeing. This research has established the implementation process and further used Multinomial Logistic Regression to understand differences within livelihood domains.

According to Tumusiime and Vedeld (2012, p. 19) revenue from tourism which should in theory benefit the host economy is instead lost to the outside world without ever being re-spent at the destination. Their analysis did not bring to limelight the failures of the implementation process in specifically Revenue Sharing policy. This current study addressed this gap by focusing on Revenue Sharing as one ICD. The researcher also increased on the sample to 565 to get enough representation on livelihood impacts unlike the previous studies that had below 400 respondents.

Bush and Mwesigwa (2008) generated an understanding of the distribution of social and economic costs and benefits associated with protected areas (PAs) in the developing world. The used a combination of two complementary approaches: the Rapid Social Impact Assessment (RSIA), which identified which PA-related costs and benefits are most significant to local communities, and the Household Economic Survey (HES) which put a value on these costs and

benefits. Namara (2005) believes that communities around Bwindi are immersed in poverty and have limited sources of livelihood.

A recent study on Research to Policy (R2P) that randomly selected 356 respondents around Bwindi found out that residents cross to the national park were likely to go hungry, had poor sanitation, less education and limited information access (Twinamatsiko *et al*., 2014). The study conducted household surveys to determine the profiles and motivations of resource users at Bwindi. The study concluded that people within 0.5km of the park boundary are poorer compared to others in society. Much as this study is in agreement with the R2P study, a distance of 0.5 km may not be sufficient enough to make conclusions on poverty given the rugged terrain of Bwindi.

This current study extended the analysis to I km from the park boundary and increased the sample to get a more representation. The R2P did not particularly focus on an ICD but generalized all ICDs. Research to Policy study also mapped a distance of 0.5 km of park boundary to explain the poor targeting of ICDs. This is however a small area for analysis where there are few households that one would make concrete conclusions on. This study focused on Revenue Sharing to make a critical analysis and understand the implementation processes. This study further extended the zoning to 1 km in order to capture a range of households within the frontline communities.

Similarly, Blomley and others in their socioeconomic assessment of 15 years of ICDs at Bwindi observed that there were key issues on ground to look at if Revenue Sharing approaches were to

deliver effective livelihoods. The research by Blomley collected data from questionnaire interviews of about 600 people, analysed previous research on socioeconomic and ecological impact and also did surveys of human impact in the parks. Blomley's study summarised the findings that had earlier been done in 2001 and 2002 and were revived in 2009. The study fails to point out the current changes from 2001 to 2009 that could affect validity of data collected. Also the study looked at ICDs as a whole and did not interrogate specific ICDs in details. Generalisation of ICDs is likely to create general conclusions that may not apply in the specific contexts of certain programme. The researcher focused on Revenue Sharing to understand the implementation modalities in-depth as presented in Chapter 4.

Blomley *et al*. (2010) through a social welfare ranking of communities around Bwindi assumes that wealthier people facilitate more unauthorised resource use. There is no single study however that has compared the livelihood status of people who engage in unauthorised activities with those community members who do not but live in the same locality of unauthorised resource users. This study documented this comparison through comparative community household surveys on how communities view an individual who engage in unauthorised resource use. In practice, attempts were made to reduce threats to protected areas and improve the attitudes of local communities through the provision of social services, including schools, health clinics and roads, as compensation for the costs they incurred on behalf of conservation but the impact of this intervention is not well known and documented.

The national health and demographic household survey (2011) found most community members around Bwindi in a poverty trap despite being gifted by nature. There is however a potential

likeliness that money from tourism can deliver substantial monetary and non monetary benefits to people living around PAs. This is attributed to its annual steady flow into the communities and the legal mandate by the Government of Uganda (GoU). The current situation reveals that after more than 15 years of Revenue Sharing funds disbursement to communities around Bwindi, there is little to show the impact of this money. Revenue from tourism, which should in theory benefit the host economy, is instead lost to the outside world without ever being re-spent at the destination (Tumusiime and Veldeld, 2012). This study analysed the shortfalls within the implementation process and proposes a framework in Chapter 5 that can address such shortfalls basing on the empirical data generated.

2.9 Synthesis of Literature Review

Literature illustrates the failure of benefit sharing programmes and the challenges rotating on achieving equity with conservation as a means of attracting support for conservation. The theoretical framework highlights that the existing theories do not stand alone to explain the linkages between Revenue Sharing policy, livelihood improvement and biodiversity conservation. This is a justification for a new framework that is explained in Chapter 5. The new framework puts into consideration the strength of the existing theories and also their limitations. It is important to note that the attitudes of communities surrounding Protected Areas influence their behavior. This is related to how much benefits they perceive to receive from the park.

As many scholars noted in this chapter, the perceptions of local people on conservation benefits and costs is likely to influence how much they will support conservation efforts. For instance section 2.5 of this chapter shows a need to document the profiles and motivations of

Unauthorised Resource Users in order to understand their perceptions of benefits and involvement. It is important to note that despite more than 15 years of Revenue Sharing policy implementation, there is little to show in terms of improved livelihood of people neighboring Bwindi. Also, the time frame does not measure up the current support of conservation activities. This is witnessed with the trend of unauthorised activities despite Revenue Sharing benefit distribution.

The identified examples of studies from West Africa bring to limelight the broader picture and complexity of policy implementation and relates to the events happening at Bwindi. It is also vital to note that, community needs are quite different from conservation needs; therefore questions rotating on the effectiveness of ICD interventions especially the Revenue Sharing had remained eminent to justify this study to provide some answers to this puzzle. There are main four hypothetical issues that come from this literature. These include; equity in terms of benefits and equity in terms of governance arrangements. The third issue is the contextual and recognition dimensions where unauthorised resource use requires an in-depth understanding. Chapter 3 presents methods that were used to understand these issues. Chapter 4 presents and discussed empirical realities and Chapter 5 identifies key messages and recommendations for proper Revenue Sharing policy practice.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the research design, study population, sampling, study area, data collection procedure and methods, pretesting, data analysis plan and analysis methods, measurement of variables and ethical considerations.

3.1 Research design

A research design is the logic that links the data to be collected to the initial questions of the study (Yin, 2003, p.19). This research looked at Revenue Sharing policy implementation and community livelihoods of people surrounding Bwindi for its conservation. This study used cross sectional and explanatory designs that depicted a mixed method research approach. The two designs were adopted after a review of various literatures by authors who discussed various limitations and strength of other research designs.

Olsen and George (2004) recommend use of cross sectional and explanatory research designs when the researcher intends to understand the entire population and subset of that population to understand differences that exist. Cross sectional design also helps to triangulate relationships between independent and dependent variables (Olsen and George, 2004). Explanatory design creates in-depth interpretation of the current information on the subject matter. The cross sectional design was also employed because it helped to generate and triangulate data from a wider section of people within the same community of Bwindi. It is a recommended design when using mixed method research.

Creswell (2009, p. 203) recommends use of mixed methods research in order to broaden understanding of the discipline by incorporating both quantitative and qualitative research approaches or to use one approach to better understand, explain or build on the results from the other approach (Creswell, 2009, p. 204-205). The use of quantitative research approach is framed on using numbers through close ended questions (Creswell, 2009). The quantitative approach was used to bring to limelight descriptive statistics at household level of people who have benefited from Revenue Sharing and measuring the level of impact by various projects. It is associated with post positivist tradition where the researchers develop instruments to collect data, measure variables and assess statistical results (Creswell and Clark, 2011).

A qualitative approach on the other hand, is associated with using words or open ended questions (Creswell, 2009). This approach of research helps to generate ethnographical experiences from a wide section of respondents to understand their perceptions and attitudes on the governance and perceived benefits of Revenue Sharing policy. Neuman (2011) asserts that most qualitative studies involve a language of cases and contexts, examine social processes and cases in their social context and study interpretations in specific socio-cultural settings. This substantiated the quantitative results and gave them more meaning.

Both quantitative and qualitative approaches have been justified on a basis of the end result where conclusions are based on sound analyses. Tashakkori and Teddlie (2003, p. 12) contend that a major tenet of pragmatism is that quantitative and qualitative methods are compatible and researchers could make use of both in their research. Both quantitative and qualitative

approaches were therefore relevant to this study since the research met conditions of using mixed method research.

3.2 Study Area and Site Description

Bwindi Impenetrable National Park is located in Kigezi sub region in South Western Uganda. Bwindi is bordered by 27 densely adjacent populated parishes and 96 villages with 350 people km^2 (UWA, 2012b). It is among 10 National Parks and one of the 3 top most income generating tourism destinations in Uganda.

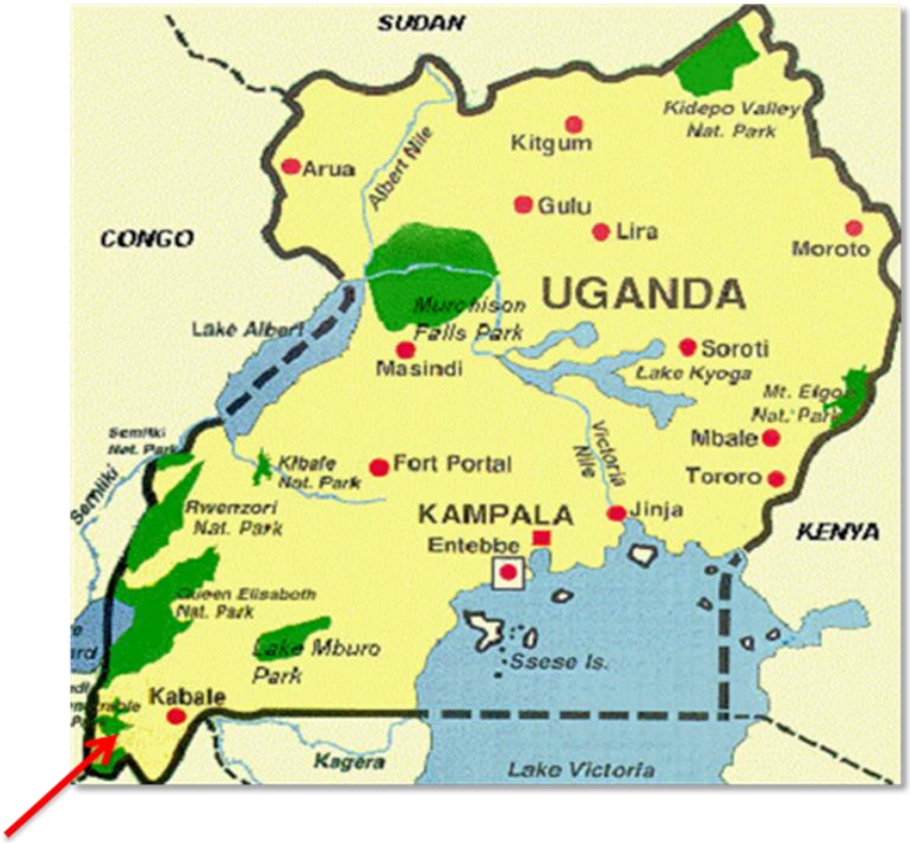


Figure 7: Map of Uganda showing Bwindi and other PAs

Source: Harison, 2013

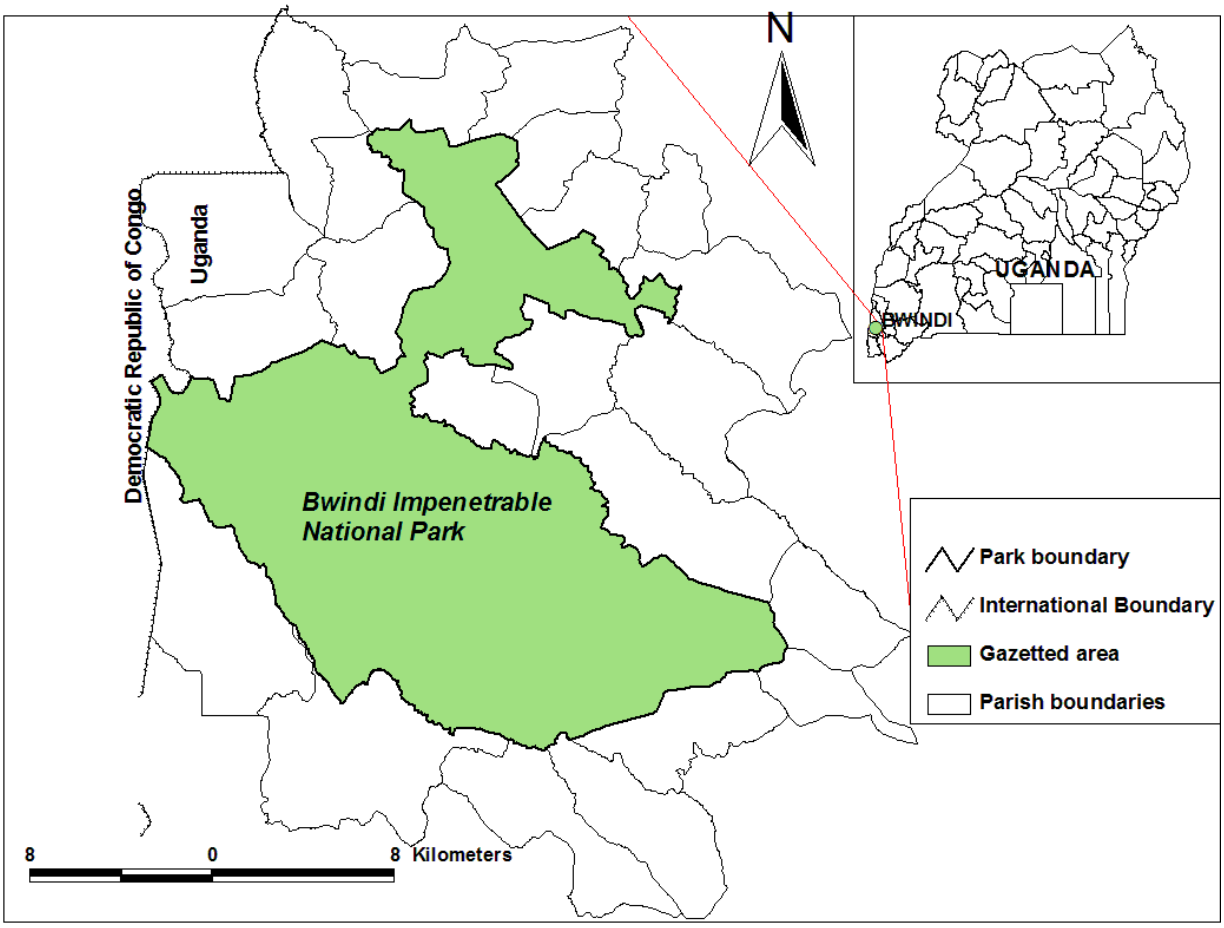


Figure 8: A map showing Bwindi Impenetrable National Park

Source: Bitariho, 2013

Bwindi Impenetrable National Park has been described by different scholars as an afromontane forest located in the South Western Uganda in the Albertine Rift Valley. This region has rich biodiversity as well as a large number of endemic species (McNeilage *et al*., 2006). It has a land size of 330 Sq Km2 and is a sanctuary of one of the two remaining critically endangered mountain Gorilla species (Baker *et al*., 2011; McNeilage *et al*., 2006). Bwindi was gazetted in 1932 as the Kasatoro and Kayonza Crown Forests, primarily to protect and preserve the mountain Gorillas (UWA, 2001). In 1942, the two Crown Forests were unified as Bwindi Central

Crown Forest. In 1961 just before Uganda attained political independence, Bwindi was gazetted as a Gorilla sanctuary. The enactment of the 1964 Forest and Game Acts by the post-independence Uganda government led to the management of the area by the then Forest and Game departments, as a forest reserve as well as a game sanctuary. Both departments restricted residing and farming inside the forest area and hunting. There was however flexibility in management. Local people were allowed by the Forest Department to have licensed timber concessions and the collection of forest products for subsistence. In 1991, the area was gazetted as Bwindi Impenetrable National Park and put under the management of the then Uganda National Parks which is now Uganda Wildlife Authority (Tumusiime and Svarstad, 2011).

It is vital to note that in the process of gazettment, communities had to seek permission from the government to access the reserve's resources. Nevertheless, hunting and cultivation continued inside the forest area. Bwindi Impenetrable National Park (BINP) was officially established in 1991 to integrate the historical trend of protection of mountain Gorillas and other natural resources. Bwindi Impenetrable National Park lies within one of the poorest and most densely populated regions of Africa, where rural communities depend on natural resources for their livelihood (Plumptre *et al*., 2004).

Previous ICD scholars such as Butynski (1984) and Howard (1991) consider Bwindi as one of the richest ecosystems on Earth and consequently Uganda's most important forest area for the conservation of biological diversity. The United Nations agency UNESCO also looks at Bwindi Impenetrable National Park as a world heritage site as a result of endangered gorilla species (UNESCO, 2005; IUCN, 2010). In 2011 census, Bwindi INP was estimated to be home to 400

mountain Gorillas. Another 480 individuals live in a nearby but separated mountain area of about 450 Km^2 bordering Rwanda in Volcanoes National Park, the Democratic Republic Congo in Virunga National Park and Mgahinga National Park in Uganda (Tumusiime and Svarstad, 2011 quoting International Gorilla Conservation Programme, 2011).

Bwindi Impenetrable National Park is inhabited by three main tribes. The dominant ethnic group is the Bakiga who compose of approximately 90% of the total population (GoU, 2014). Other local communities include the Bafumbira accounting for another 9.5 percent. The remaining 0.5 percent includes the Batwa, Bahororo, Bahunde, and recent immigrants from the DR Congo, Rwanda and other areas of Uganda (Plumptre *et al*., 2004; Sandbrook, 2006; Infield and Mugisha, 2010). The Bakiga and Bafumbira are mainly cultivators and various agricultural projects are taking place around Bwindi. These include; Irish potato growing in parts of Kabale and Kisoro, tea growing in parts of Kanungu as well as sorghum growing. These are grown on both subsistence and commercial level. The Batwa are traditionally hunters and gatherers in forests and wetlands (Kabananukye and Wily, 1996).

Land holdings are small and fragmented (Ellis and Bahiigwa, 2003), but subsistence agriculture remains the main occupation of almost all the inhabitants, the majority of whom are reported to live in extreme poverty (Lanjouw *et al*., 2001). Before the designation of the national park, the use of forest resources was important for local livelihoods. Local people were much involved in pit sawing and gold mining. Designation of the park was therefore met by local resistance in different forms, even to the extent of setting the forest on fire. In one incident in the first dry season after the park was gazetted, there were 16 fires, some of which were found to have been

deliberately set or left to burn. These fires destroyed an estimated five percent of the forest (Hamilton *et al*., 2000).

3.3 Study Population

This study employed various sections of people in Bwindi population in order to substantiate and correlate various views on Revenue Sharing policy. The study employed local community members as primary respondents. Local community members were categorised as Batwa (the historical occupants of Bwindi forest before gazettment), other community members (composed of Bakiga and Bafumbira) and Unauthorised Resource Users (people who access Bwindi resources without permission from park management).

Other categories of respondents included; Uganda Wildlife Authority (UWA) staff, staff of Conservation Organisations around Bwindi- Bwindi Mgahinga Conservation Trust (BMCT), Cooperative for Assistance and Relief Everywhere (CARE), International Gorilla Conservation Programme (IGCP), Institute of Tropical Forest Conservation (ITFC) and United Organisation for Batwa Development in Uganda (UOBDU). The researcher also interviewed local leaders at different Local Council (LC) levels. These included LC1, LC3 and LCV leaders (both technical and political leaders).

Community members were taken as the key unit of analysis because they are the direct beneficiaries of Revenue Sharing policy. It is a group the policy is purposed to benefit. Therefore community members in Kabale, Kisoro and Kanungu districts were selected to give views on the

policy. They participated in Household Surveys and Focus Group Discussions (FGDs). Uganda Wildlife Authority (UWA) Staff, Conservation Organisations and LC leaders were key informants in this study. They participated in Key Informant Interviews. Their inclusion in the study brought implementation processes to limelight since all of them are involved in implementing Revenue Sharing policy.

UWA was included in this study because it is a government parastatal that manages the natural resources of Uganda on behalf of Ugandans. It is the one mandated to manage resources, generate tourism revenue and declare revenue available for sharing in the three districts surrounding Bwindi. The authority staffs were engaged in understanding the revenue generation process and the design on the policy. Furthermore, UWA staff gave views on the challenges they meet during the implementation of Revenue Sharing policy. The staff of UWA also helped to availed relevant documents (guidelines, budgets, plans and reports) relating to Revenue Sharing to the researcher.

Conservation Organisation staff from BMCT, IGCP and UOBDU were integrated into the study to bring on board their experiences of working with UWA in the implementation of Revenue Sharing policy. All the 3 organisations work with local communities around Bwindi. BMCT was established by World Bank's Global Environment Facility (GEF) in 1994 to give a hand to park management and local development (GEF, 2007). The initial investment of USD$4 million was expected to generate enough interest to finance conservation and development activities. From 1994 to the current date, BMCT continues to fund research and community development activities around the park, as well as supporting park management in decision making processes.

CARE is the pioneer organisation that initiated ICDs in Uganda's Protected Areas particularly Bwindi. In 1994, CARE steered a Development through Conservation programme and pioneered Revenue Sharing at Bwindi Impenetrable National Park. It has a long history of working with communities. The views of their historical staff were vital for this thesis to trace the trend of developments under Revenue Sharing policy.

The IGCP works to improve the socio-economic conditions of people living adjacent to the gorilla ranges, so as to influence their attitudes towards conservation (WWF, 2006). IGCP was established in 1991 as a coalition between the World Wide Fund for Nature (WWF), the African Wildlife Foundation (AWF) and Fauna and Flora International (FFI). UOBDU is a Batwa organisation with more than 11 years of Batwa engagement. They have implemented programmes among the Batwa and advocate for Batwa issues around Bwindi and Mgahinga. Being part of this study helped us understand the perceptions of these organisations on Revenue Sharing processes especially procedural and distributive equity.

LC officials were involved in this study based on their role in the implementation of Revenue Sharing projects. In its execution of duties, UWA is mandated to work with Local Government. The declaration of Revenue Sharing funds is through the Local Government structures. The Higher Local Government (HLG) then sends money to the Lower Local Governments (LLGs) for implementation. Both HLG and LLGs are mandated to monitor the implementation of projects and give feedback reports to UWA.

3.4 Sampling Size Determination

A total sample of 595 respondents and 10 Focus Group Discussions (FGDs) were employed for this study. This sample included 565 household survey respondents that were part of the household survey and 30 key informants. 10 FGDs were composed of 120 participants where 12 people participated in each FGD. Five hundred and sixty five respondents (n=565) were community household members who were selected at random after stratification of Batwa and non-Batwa households from the 19 parishes that compose 57 villages that boarder Bwindi and 51 Unauthorised Resource Users (URUs). The categorisation and stratification was aimed at understanding the societal differences in terms of views, perceptions and level of conservation support by different sections of people in the same communities.

Specifically, the 565 household survey respondents included; 51 evidence based URU sample, 106 randomly selected Batwa households and 408 randomly selected community households (non Batwa). The 120 participants of the FGDs were selected purposively basing on their experience and role in their communities while during Revenue Sharing implementation process. 10 parishes were randomly selected for FGDs to understand the local perceptions and what communities thought as local solutions to the proper implementation and governance of Revenue Sharing policy. The 30 Key Informants included; 07 staff of Uganda Wildlife Authority, 01 senior staff of Bwindi Mgahinga Conservation Trust, 01 senior staff of International Gorilla, 06 District Local Government technocrats, 10 Local Government elected leaders and 05 opinion leaders around Bwindi including old staff from ITFC, UOBDU and elders in the community.

Table 4: Structure of the respondents

Study Population	Total Population	Sampled size	Sampling Technique
Unauthorised Resource Users	51	51	Purposive
Batwa households	145	106	Simple random
Other community households	9600	408	Simple random
UWA officials	07	07	Purposive
BMCT and IGCP officials	02	02	Purposive
Higher Local Governments (Technocrats)	06	06	Purposive
Local Government leaders	10	10	Purposive
Community opinion leaders	100	05	Purposive
Total		**695**	

Lists of LC1 households were collected from 96 villages that boarder Bwindi before interviews. The total population household in frontline communities was 9796 households (Batwa and non Batwa). The already identified bush meat hunters (n=51) who lived in those communities were excluded from the lists to avoid repetition. The lists were general and had to be stratified as Batwa and non Batwa in order to have separate strata for random selection. The result indicated 145 households for the Batwa and 9600 for non-Batwa. In each stratum, the formula for calculating sample size applied (Yamane, 1967, p. 886; Israel, 2013, p. 4). The formula was given as;

$$n = \frac{N}{1 + N (e)^2}$$

Two lists of Batwa and non Batwa were then entered into a Microsoft Excel Computer package. Interview and random references were created and interview numbers allocated to all households. A formula to generate random numbers was used as *=RAND ()* in the random number column. This formula generated all the random numbers for all households in respective locations. The researcher added 10% of the non Batwa calculated respondents as recommended to address non-response problem in case of failure to get identified contacts (Creswell, 2009; Israel, 2013, p.4).

The 10% recommended increase did not apply to the Batwa given their dense settlement pattern and bush meat hunters given their purposive selection. The scientific calculated number of non-Batwa was 384. With addition of 10%, it became 422. During field surveys, only 408 non-Batwa respondents were interviewed since 14 could not be reached. This remained within the range of a representative sample for a population of 9600 households. In summary, the sample size for the household survey was 565 comprised of; 106 Batwa, 408 other community members (non-Batwa) and 51 bush meat hunters.

A list of bush meat hunters from UWA records was also reviewed between 2010 and 2011. In total, 37 bush meat hunters were on the list and had been prosecuted or fined, In order to build more evidence base for unauthorised resource users, a fresh monthly arrest data system, between August 2012 and February 2013 (time of surveys), a total of 14 fresh arrests had been realised at 6 ranger posts. In total, all the 51 URUs became part of the household surveys. This approach generated a total sample of 565 household survey participants which was representative enough of the entire population (Creswell, 1998). Large samples are also recommended in historical

studies as representative to the entire population and build confidence in the conclusions (Krig, 1952).

The reason for using 565 household survey members related to documenting specific household perception of benefits, the status of livelihood and perception on governance of Revenue Sharing policy. The mixture of Batwa, non- Batwa and URUs helped to understand the differences in benefit distribution and variations in perception. 120 participants in 10 FGDs gave general views on Revenue Sharing governance and the implementation process. The purposive selection entailed key people nominated to give informed perspectives on the implementation. The choice of 12 participants in each FGD aimed at collecting views from a wider section of the population with different positions and portfolios. This was taken as a representative number in FGDs composed of different sections of people in the population.

The selection of 07 staff of UWA related to specific and relevant departments that deal with Revenue Sharing Policy implementation. These included; Conservation Area Manager (n=01) community conservation (n=03), law enforcement (n=01), tourism department (n=01) and finance department (n=01). The selection was influenced by the direct or indirect linkage the departments had with the study on Revenue Sharing. The community conservation department had more respondents compared to other departments because it is the UWA implementing department of Revenue Sharing policy.

BMCT and IGCP are historical conservation organisations linked to both community livelihoods and sustainable natural resource management. The two senior staff of both organisations had a

vast experience of Bwindi and the inception of RS policy. Local Government technocrats (03 District planners and 3 Chief Administrative Officers) were key district implementers and managers of the district development plans that budgets for RS funds. Chief Administrative Officers are the district accounting officers whereas district planners are the contact persons for Revenue Sharing in the districts.

The Local leaders (Sub County chiefs and local politicians) are key persons in influencing RS implementation processes. Sub County chiefs are the accounting officers for Revenue Sharing funds at the Sub County level. Local politicians monitor the implementation and make parish and Sub County development plans. Specific targets were put on local council leaders and chairpersons of stretcher groups. Lastly, the study employed 05 opinion leaders from local based institutions like ITFC, UOBDU and community elders among key informants to give their balanced views on RS policy implementation and governance. This sample distribution was adequate enough to give a picture of Revenue Sharing implementation and governance processes around Bwindi.

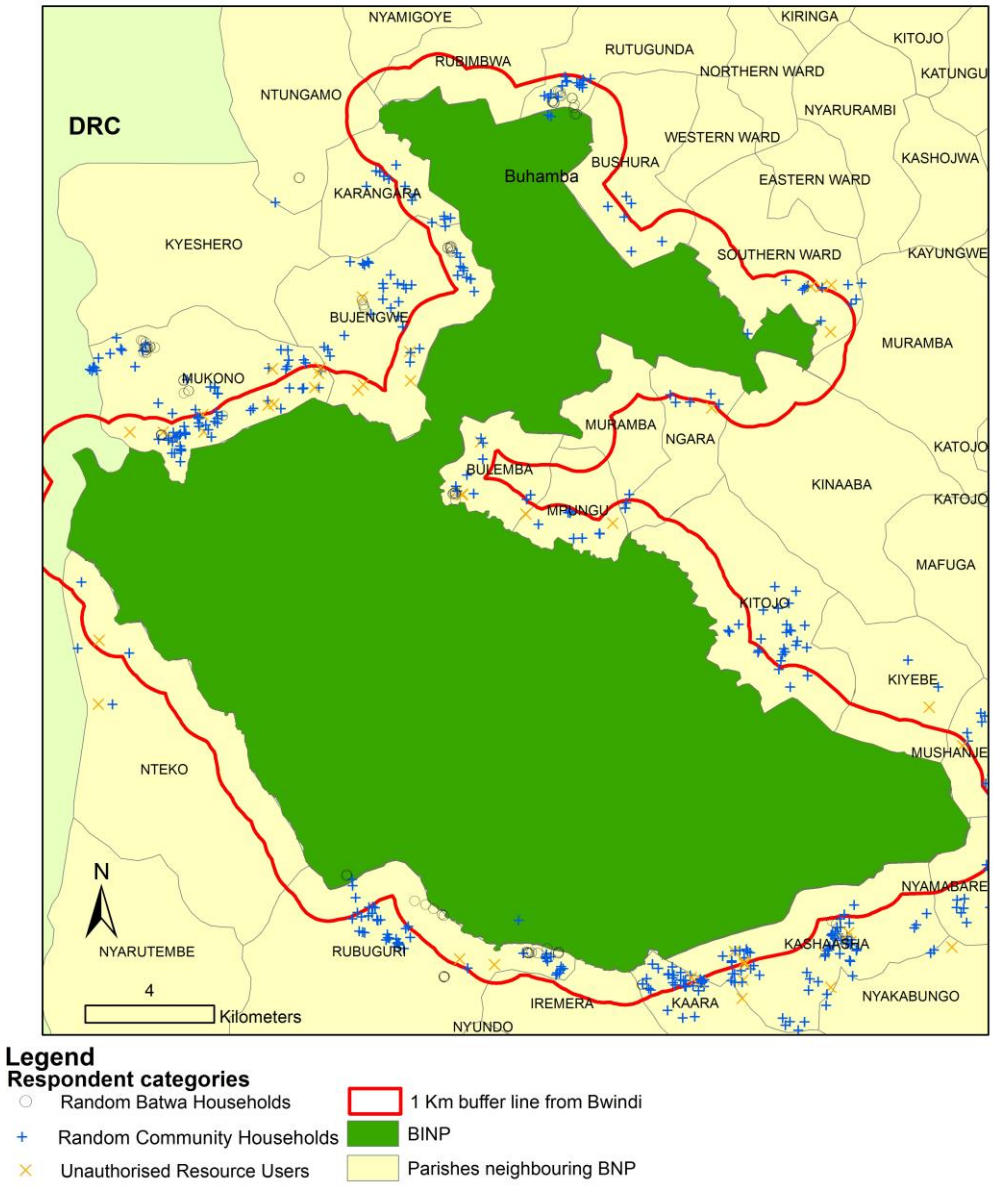


Figure 9: The frontline zone of BINP showing the distribution of respondents

Source: Primary data, 2013

Figure 9 indicates the location of respondents that participated in this study in the context of Bwindi Impenetrable National Park. A buffer of 1 km from the park boundary was geo-referenced to give a picture of respondents' location. As indicated in Figure 9, most Batwa and Unauthorised resource users live within a 1 km distance from the park boundary. This place explains their inclusion in the study as special groups of people within Bwindi community.

3.5 Sampling Techniques and Procedure

Sampling was done using stratified sampling, simple random and purposive sampling. Stratified sampling was used to generate strata for the Batwa and non Batwa. It also helped in stratifying men and women that participated in FGDs. Neyman (1934, p. 558) recommends the use of stratified sampling in order to segregate differences within the sample population. A list of household members was generated from village chairpersons where separate strata of Batwa and non-Batwa categories were made. The researcher then used simple random sampling to select Batwa and Non-Batwa respondents from the overall Bwindi community households. Unauthorised resource users who had been arrested by park management by interview time (n=14) and those who were recorded as 'arrested' for bush meat hunting by UWA records (n=37) were purposively selected and became part of household surveys.

Simple random sampling was used to generate a representative sample. Simple random sampling help researchers to eliminate bias in studies since it gives respondents equal chances of being selected. Purposive sampling was used to select URUs, Key Informants and participants in Focus Group Discussions. Purposive sampling helped to generate a sample with relevant knowledge and experience in the phenomena under investigation.

Key steps to collect data were followed. The researcher first built contextual data by analyzing historical records and existing literature on ICD interventions with a specific lens on Revenue Sharing remittances since 1991- a year when the park was created. Consultative meetings with UWA and local council leaders were then conducted. Existing records were analysed and documented from UWA and Revenue Sharing project records in order to build context for the study. The researcher then developed tools basing on the gaps identified and tested the developed questionnaire in two first line villages. After pretesting, field survey data on people surrounding the parks with contextual spatial data on socio-economic status was collected by the research team.

Questionnaires were administered on 565 households from 19 parishes and more specifically from frontline villages. Household surveys were triangulated with FGDs and key informant interviews to generate detailed data. Thirty key informants were interviewed from park management, district leadership and conservation organizations working around Bwindi (BMCT and IGCP). CARE, ITFC, UOBDU staff and a few community elders were interviewed as opinion leaders. The total sample of respondents was categorized as Batwa and non Batwa as well as men and women for FGDs. The interviews were conducted by the researcher and a team of six Research Assistants (RAs).

Furthermore, the researcher took part in the park-community meetings on Revenue Sharing, local council meetings and regional workshops. A standard procedure for the analysis of both quantitative and qualitative data was followed and results generated.

3.6 Data Collection Methods

The study collected both primary and secondary data using a mixed methodology. The use of various data collection methods allows methodological triangulation during various phases of the research (Patton, 2002). Primary data was generated from the field findings while secondary data was gathered from the existing literature on benefit sharing programmes and natural resource use. Specific focus was put on the implementation and governance of Revenue Sharing policy and its translation to livelihood improvement and sustainable resource use. Primary methods included; Household Surveys, Key Informant Interviews, Focus Group Discussions (FGDs), monthly arrest data collection and observation. Secondary data methods included documentary reviews on journal papers, books, book chapters, project reports and UWA records both published and unpublished.

3.6.1 Documentary Review

The primary objective of the literature review was to generate contextual data by gathering existing relevant data and information on the practical implementation of Revenue Sharing policy, profiles and motivations of resource users at Bwindi Impenetrable National Park, socioeconomic wellbeing of people around Bwindi and impact differences of Revenue Sharing policy on the local residents. This established the existing level of knowledge on Revenue Sharing, unauthorised resource users, the assumptions that have been made and the key information gaps particularly regarding conservation-poverty linkages.

It has been observed that documentary review helps to substantiate data with other sources of information and gain detailed insights in the research topics of interest than only relying on primary methods (Patton, 2002). This data was generated from journal articles, book chapters, books on conservation and development, project field reports and records from UWA community conservation department, Law Enforcement unit, Conservation Area Manager's office and the finance department both at Bwindi offices and Head office-Kampala. The desk review helped to build the study context but also beef up discussions in Chapter 4.

3.6.2 Primary Data

Primary data was collected from respondents using Household Surveys (HS), Key Informant Interviews (KIIs), Focus Group Discussions (FGDs), monthly arrest data collection system, GIS mapping and direct observation. This mixed methodology helped get a clear and wider view on the implementation and governance of Revenue Sharing policy at Bwindi. This approach was also helpful in the triangulation of data and substantiation of views.

3.6.2.1 Household Surveys

1. Identification of unauthorised resource users

Before field surveys commenced, unauthorised resource users were identified in order to target these individuals for the surveys. The approach undertaken to identify unauthorised resource users was important because of the ethical issues involved with this type of research, which included exposure and incrimination (Twinamatsiko *et al*., 2014). As an entry point to study this category of respondents, clearance was obtained from the Research and Monitoring unit of Uganda Wildlife Authority which collaborates with the Institute of Tropical Forest Conservation (ITFC) on social and ecological research. Being a staff of ITFC and having spent time with the

community in previous research work, it became easier for the researcher to access UWA records and unauthorised resource users.

Thirty seven Unauthorised Resource Users (URU) (n=37) were selected from law enforcement records. These people were identified to have undertaken bush meat hunting within Bwindi. The first stage of this research was to confirm what the list represented, such as individuals currently practicing bush meat hunting or hunters known to UWA but unknown whether they are active or not, and to verify the information. Verification of names was done through checking the list of unauthorised resource users with the law enforcement records, discussions with Community Conservation Rangers (CCRs) to understand how the list of names were developed and discussions with key local community leaders to verify the matter.

The researcher then collected basic profile data on other individuals arrested by law enforcement rangers for undertaking unauthorised activities in Bwindi Impenetrable National Park. The data was generated from UWA ranger posts on a monthly basis for one year to ensure consistence (August 01, 2012 to July 31, 2013). By the time of interviews in February 2013, 14 people had been arrested by UWA and these together with bush meat hunters were integrated as part of the household surveys to address objective four.

Key approach to interview unauthorised resource users was the indirect questioning technique where the researcher used the Basic Necessity Survey (BNS) and general questions as part of the household surveys. In order to protect these respondents from stigma and incrimination, all unauthorised resource users incorporated into the general list of household survey respondents

and a similar questionnaire was administered. The names of unauthorised resource users were integrated into the list of other respondents. The researcher avoided treating unauthorised resource users as a separate category during field work. This approach made them participate in the survey as any other people. The research assistants were however trained and briefed in advance to build strong rapport before interviewing them. In the survey, general questions on unauthorised resource use were included as an indirect questioning technique. Questions that were direct on individual unauthorised resource use and any other incriminating information were not included in the survey. This treatment helped the researcher to generate insightful data without causing any discomfort to the respondents.

2. Identification of beneficiaries of Revenue Sharing

Beneficiaries of Revenue Sharing were identified from records held by UWA and were verified by the researcher through community consultative meetings. It came to the knowledge of the researcher that most people in the community had benefited from Revenue Sharing whether on common good projects or livelihood projects. Therefore a purely random sampling included beneficiaries of Revenue Sharing.

3. Pilot Test

The survey was first pilot tested on fifteen community households selected at random from parishes where bush meat hunters are known to reside. The survey design and findings were reviewed following the pilot test and amendments made. Field survey data was gathered by a combination of interview and observational survey techniques to reduce bias that each technique on its own incurs. This pretest aimed at ensuring the good quality of data generated from the field. The design of the interviews ensured that sensitive information was handled at individual

level not in focus groups, and that the questions are as unprompted as possible. The study did not ask any leading questions during discussions.

4. **Actual Administration of Household Surveys**

Household surveys were administered on:

- Fifty one unauthorised resource users purposively selected from the law enforcement data (n=51)
- One hundred and six Batwa households (n=106)
- Four hundred and eight community members that were selected at random in Revenue Sharing benefiting villages (n=408)

Batwa and Non-Batwa Random Households were also integrated in household surveys. In order to achieve this, Batwa households had to be treated as a special group since we wanted to understand the selection of all community beneficiaries and how projects are distributed among Batwa and non Batwa households. Batwa people are known as historical inhabitants of Bwindi who lost their livelihood after its gazettment in 1991. Therefore the study understood the challenges of Batwa in a specific context.

3.6.2.2 Key Informant Interviews

Supplementary interviews with 30 key informants were conducted. This included 07 staff from Uganda Wildlife Authority, 02 Conservation Organizations around Bwindi, 06 Higher Local Government Technocrats, 10 Local Government political leaders and 05 opinion leaders around Bwindi. The purpose of selecting this study population relates to their vast knowledge

of Bwindi and Revenue Sharing guidelines. They were asked questions relating to the practical implementation of Revenue Sharing policy and availed reports that related to the governance of Revenue Sharing policy and their perceptions on resource use and livelihood security of communities that neighbor Bwindi.

As Ram (2001, p. 29) noted "There is a high degree of response rate. In interviews, spontaneous responses are generated from the respondents. This creates a basis for clarity of issues. Issues were explored to enrich the content scope and establish new insights. Interviews with key informants are also recommended because of the opportunities they provide to explore issues in-depth and in a relevant manner (Laws *et al*., 2003; Corbin and Strauss, 2008).

3.6.2.3 Direct Observation

Direct observation was used on all activities that all respondents were involved in. This was done in order to enable the flow of new insights into the study and also to enrich the collected data from the field. As Sarantakos notes, "Observation entails gathering data through vision as its main source" (Sarantakos, 2005, p. 221). The researcher attended some of the Revenue Sharing meetings in order to observe what takes place and substantiate what was said in household surveys, FGDs and Key Informant Interviews. This allowed the researcher to obtain first hand information in a naturally occurring context. The focus of the observation was to capture the non verbal communication behaviors to ascertain the perception of local people on Revenue Sharing projects being implemented and governed around Bwindi.

3.6.2.4 Focus Group Discussions (FGDs)

In order to understand the perception of people towards Revenue Sharing and to come up with practical solutions that are locally generated, FGDs were used principally in the extraction of qualitative data. FGDs entailed diverse groups of local people analysing their own development needs, conditions, perceptions, constraints and choosing their own means of improving them. The researcher used maps of protected areas showing Revenue Sharing projects implemented around Bwindi. This was aided by the researcher with the help of research assistants in the communities that were visited.

The researcher used FGDs because they generate collective views on pertinent issues (Creswell, 2009; Patton, 2002). 10 FGDs discussions were conducted in 10 parishes that were randomly selected. These community discussions entailed both men and women who are permanent residents of the selected areas. This was done to ensure gender and ethnicity disaggregation in the data collected. Each FGD contained 12 participants (6 men and 6 women that included Batwa) purposively chosen from their communities.

3.6.2.5 GIS Mapping

All Revenue Sharing projects were geo-referenced and mapped using GPS to increase visibility on the distribution of benefits across communities surrounding Bwindi. A zone of 1km from Bwindi National Park boundary was buffered from Bwindi shape files to make a map of Bwindi showing the proximity of projects distribution within the zone of 1km from the park boundary. GIS mapping was also used to visualize monthly arrest data for the places of arrests and residences of those who undertook unauthorised resource use. The parishes of CPIs who were

part of our governance study were also geo-referenced to create an understanding of collaborative forest management parishes around Bwindi.

3.7 Data Collection Instruments

For Household Surveys, this study used questionnaires. These contained a set of 55 questions (Appendix I). Most of the questions were close ended questions with a few open ended questions to provide discussions for structured responses. Focus Group Discussions were aided by FGD guides. These guides were designed prior the discussions and entailed guiding themes for discussion. Preference and matrix rankings as well as scoring were undertaken during the FGD exercises.

For Key informant Interviews, an interview guide for the different categories of key informants such as UWA staff, local leaders and Conservation Organisation staff were designed. An observation check list was used to take note of key observable features during field work. The checklist entailed thematic areas such as attendance of meetings, conduct of meetings and process of projects distribution that were pertinent in the implementation process.

3.8 Pretesting (Validity and Reliability)

Validity and Reliability of the study were ensured to achieve some high degree of accuracy and consistence of collected data. This was achieved through conducting a pilot test of the tools and instruments to be used in data collection. The household survey questions were pre-tested on 15 households around Bwindi and after pilots, tools were reviewed. Also after data collection, data was sorted and cleaned to reduce the level of errors and omissions.

Creswell (2009, p. 27) suggest that validity in qualitative research estimates whether the researcher sees what he or she thinks he or she sees so that there is evidence in the data for the way in which data are interpreted. Validity is the ability to produce findings that are in agreement with the theoretical or conceptual values and producing accurate results and to measure what is supposed to be measured (Amin, 2005). Validity of research instruments were measured using content validity (Polit and Beck, 2004). Content validity is a measure of the degree to which data collected using a particular instrument represents a specific domain of indicators/ content of a particular concept (Mugenda and Mugenda, 1999).

The researcher calculated the Content Validity Index (CVI). The CVI should be within the statistically accepted range of 0.7 and above to be adopted for use and if it were below it would be reconstructed (Polit and Beck, 2004). My CVI range was 0.7 and this justified the accuracy of my results for each of the values on the scale (I-CVI) and the overall values (S-CVI). The use of NVivo computer package in coding and managing data further enhanced validity of data. Welsh (2002, p. 7) observes that, one way in which accuracy of data could be achieved is by using facilities in NVivo which is seen by the product designers as one of its main assets facilitating interrogation of the data.

Reliability of the instrument on the variables was tested using the Cronbach alpha method and a Cronbach alpha (α) of 0.7 made the instrument to be taken reasonably reliable. Reliability of research questionnaire was measured using test and retest technique. Test retest reliability refers to the degree to which scores on the same test by the same individuals are consistent over time.

The choice for this technique is that it provided evidence that scores obtained on a test at one time (test) were the same or close to the same when the test was re-administered some other time (retest).

3.9 Data Analysis

3.9.1 Quantitative Data Analysis

All generated data from the field was cleaned, coded and entered into Microsoft access 7. Quantitative data collected from household surveys was analysed using STATA 11 statistical package where summarized field data on numerical variables was entered into the computer and after, tables and figures were generated to use in the presentation of data for easy interpretation. Statistical tests were undertaken using parametric and non-parametric tests according to the way the data were distributed. Multinomial Logistic Regression (MLR) and Linear Regression (LR) formed part of the analysis of the various processes of Revenue Sharing implementation and livelihood improvement of people around Bwindi. MLR helped to analyse differences among Batwa and non-Batwa, URUs and the rest of the community households.

Logistic regression was considered appropriate as the form of regression analysis because of the fewer assumptions about data than those other regression. Logistic regression analysis was used to identify factors that best explained the likelihood of either good livelihood or poor livelihood as a result of Revenue Sharing. It helped to rank the relative importance of the factors and to determine the percent of variance in the dependent variables explained by the factors. Linear regression was employed to determine significant variables across various factors. Multinomial Logistic Regression (MLR) helped to understand differences in the co-efficient relationships that

exist within each section in the community in the context of livelihood life representation. The quantitative analysis was employed on 565 household interviews.

Respondents were asked whether they have ever benefited from Revenue Sharing policy. Those who had ever received benefits from RS were asked to mention Revenue Sharing projects they have benefited from. In order to link benefits across groups to their livelihood and conservation support, respondents were asked to identify necessities that are basic to them and identify from the photos presented to them the necessities they had in their households. This was intended to understand their livelihood situation at household level.

This study used Principal Component Analysis (PCA) to generate indices for indicators of livelihood improvement and conservation support. PCA is an appealing method for combining variables because the component loadings or weights generated have a fairly intuitive interpretation (Njong and Ningaye, 2008:7). The use of PCA to assign weights to assets included in a wealth index has gained popularity in recent years (Howe *et al*., 2008). Since the indicators were discrete variables, PCA alone could not address this challenge to turn them into categorical manifestations. The researcher therefore extended PCA with polychoric correlation which is referred to as polychoric PCA (Kolenikoz and Angeles, 2004).

Howe *et al*. (2008, p. 2) further observes that the application of PCA remains novel; it is statistically unsuitable for use with the categorical data frequently included in wealth indices not discrete variables. Polychoric extension of PCA was developed by Kolenikov and Angeles (2004) and treats the observations of a discrete ordinal variable as the categorical manifestations of an underlying continuous and normally distributed variable. This information then allowed the

researcher to solve the eigenproblem with the use of PCA alone, which would result into a set of non-correlated variables, called principal components or eigenvectors.

3.9.2 Qualitative Data Analysis

Qualitative data was analysed using thematic content analysis where objectives were developed into themes and sub themes for an easy presentation of the findings. This was aided by NVivo computer package. NVivo has proven a powerful tool that can manage qualitative data (Silver and Lewins, 2014). Qualitative data collected from the field was organized into categories and sub categories, sorted and arranged following the research themes. This was done progressively right from the field findings so as to create meaning of data at each stage. NVivo helps organize and manage the data in a more coded way (Silver and Lewins, 2014; Dey, 1993). It helped to generate codes of texts and memos to link data to the original sources (Dey, 1993). It helped to make interviews transparent and portable through thematic coding. This method minimized response errors and irrelevant information that might have affected validity of data at the presentation stage. Coding of data helped to identify key narrations from respondents which later formed verbatim quotations during data presentation and discussion.

3.10 Measurement of Variables

P-value was used to test the study hypotheses and determine the level of significance between Revenue Sharing policy implementation, livelihood improvement and conservation support. For non-significant results, exact values are given for *P*-values < or > 0.05, and *P* values > 0.1 were reported as > 0.05. For significance results, *P*-values are reported as < 0.05 (Sandbrook, 2006; Dytham, 1999). For correlations (Linear and Multinomial Logistic Regressions), I used the formula of given below to determine the value of the relationships;

$$r = \frac{n\sum xy - \left(\sum x\right)\left(\sum y\right)}{\sqrt{n\left(\sum x^2\right) - \left(\sum x\right)^2}\sqrt{n\left(\sum y^2\right) - \left(\sum y\right)^2}}$$

The value of r was determined by the -1≤ r ≤ +1. The + and – signs were used to determine the positive and negative relationships. A perfect correlation occurred in circumstances where all data points lied exactly on a straight line. If r=+1 or =-1, then the slope of this line was determined as positive or negative respectively. The + and – signs were used to determine the positive and negative relationships. If r was closer to +1, then the independent and dependent variables had a strong positive relationship. When r value was exactly +1 it showed a perfect relationship. Cases where r value was closer to -1, then the independent and dependent variables had a strong negative relationship. An r value of -1 showed a perfect negative relationship. Where there was no relationship, r value was given as 0.

The formula for polychoric PCA was given as;

$$\text{Index}= \sum_{k=1}^{K} W_k . X_k + \sum_{d=1}^{D} [w_{d,1} \ldots w_{d,z}] \ldots \begin{pmatrix} X_{d,1} \\ \\ X_{d,z} \end{pmatrix}$$

The polychoric PCA helped to generate the index for livelihood improvement since it was composed of various indicators of both perception and actual measurements. It was also applied to build an index for conservation support for the three parameters used to measure it. This measurement of indices is justified for use in socioeconomic surveys where some discrete variables need to be merged (Kolenikov and Angeles, 2004)

All the 565 respondents that participated in household surveys ranked their socioeconomic status basing on wealth ranking indicators adopted from Bush and Mwesigwa (2008) and Sandbrook (2006). The five levels of status were used to measure respondents' status. These included; best,

fine, average, somewhat bad and worst. Other measurements of wellbeing and livelihood improvement such as education, access to water, and disease burden in the household and social status were used to measure livelihood improvement on various predictor variables used for this section.

Response Rate was also computed to increase validity of the study results. Scholars (Grove, 1987; Nulty, 2008; AAPOR, 2011) argue that studies have to generate a higher response rate in order to build confidence in the results. A higher response rate also assures researchers of accurate results in addition to data control (Nulty, 2008; Baruch and Holtom, 2008). Response rates create a basis of determining the rate of response errors in the survey or interviews and builds confidence in the interviewing process (Baruch and Holtom, 2008). In order to determine the response rate for this study, the researcher established the number of complete interviews in the survey with reporting units and divided it by the number of eligible reporting units in the sample. To reach a conclusion of the overall response rate, the following formula was used;

$$\text{Response rate} = \frac{1}{(1+P) + (R+NC+Os) + (UH+UOs)}$$

1=Completed interviews

P= Partial completed interviews

R=Refusal and break-offs

NC=Non-contacts

Os=Others

UH=Unknown eligibility if in the housing units

UO=Unknown others

3.11 Ethical Consideration

This study was reviewed and cleared by the Ethical Review Committee of Mbarara University of Science and Technology. Written consent (see Appendix VI) for the interview was obtained from all respondents before commencing interviews. In order to get consent from the respondents, the goal and purpose of the study was explained clearly and the procedures to be followed clearly stipulated. This built confidence between the respondents and the researcher since their values were put under consideration. The researcher clarified to all respondents the purpose of the study as purely academic and for policy discussions, and having no connection with the UWA or any of the organizations working in the area which could limit the level of information gathering.

Interviewees were further assured of anonymity and confidentiality of their responses. They were assured how their responses were treated with anonymity and data used for academic and policy discussions. Appointments for the interviews were made before data collection. Unauthorised Resource Users and Batwa being sensitive respondents were carefully treated to avoid any incrimination and stigma. The researcher had to acknowledge the Unauthorised Resource Users would feel shy to participate in this study if much effort was not made in terms of approaches and techniques to interview them (See section 3.5.2.1). The Batwa on the other hand feel marginalised as a result of social exclusion. Indirect questioning technique was applied where general questions were asked and Basic Necessity score applied. The researcher and research assistants avoided personal questions on unauthorised resource use (see other details in section 3.5.2.1 of this chapter). For the Batwa and Unauthorised Resource Users, the researcher met respondents individually prior the interviews to explain the positive

contribution of this study to their livelihoods. Because the Unauthorised Resource Users were known by UWA and fellow community members, they did not show remorse of participating in the household surveys or interviews. Since the study aimed at improving Revenue Sharing policy implementation, the Batwa willingly accepted to participate with hopes of gaining more benefits when an equitable framework is adopted and implemented.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This chapter of the thesis presents and discusses the study findings. The chapter is thematically presented in line with the study objectives. Each of the four themes (Revenue sharing benefit distribution; benefit impact, governance of projects and unauthorised resource use) is presented and discussed in details to enable a logical flow of results. As noted in chapter one section 1.8, both distributive and procedural benefit sharing for tourism revenue are the key factors under discussion. Recognition and contextual equity dimension is discussed in section 4.5 while understanding whether unauthorised resource users have benefited from Revenue Sharing or were recognized of the harm they create on the resources for proper targeting.

The first section deals with the response rate and biographic characteristics of the respondents. The second section looks at the linkage that Revenue Sharing benefits have on various sections of human population at Bwindi and later disaggregates Revenue Sharing projects in various sections of the population. These sections include; resource users, ethnic groups, gender aspect, age groups, education levels, proximity to the park boundary, proximity to vehicle roads and village centres. Revenue Sharing benefit distribution is later correlated with livelihood improvement and conservation support using linear regression.

The third section in this chapter presents and discusses Revenue Sharing benefit impact in the face on livelihood improvement and conservation of Bwindi. The fourth and last sections tackle the governance aspect and Unauthorised Resource Use. Each section is introduced with a brief

methodology employed; results are presented and discussed section after section. This is intended to give the reader a good flow of results and their meaning.

4.1 Response rate and Characterisation of Respondents

4.1.1 Response rate

This study achieved a response rate of 97.6%. As presented in Chapter 3, there is an estimated 9796 households in the frontline communities that boarder with Bwindi (Bwindi LC records, 2013). Response rate only applied to the household survey which had 565 interviews. This is because research institutions justify use of response rate on the number of predetermined survey questions (AAPOR, 2011, Nulty, 2008). The questionnaire had 55 items which were responded to. The researcher did not calculate response rate for Focus Group Discussions and Key informant interviews because of the explanatory design employed. In both FGDs and Key informant Interviews, the researcher used guiding questions but allowed the discussion on themes to flow depending on responses generated. This made the discussions different depending on the participants' knowledge of the Revenue Sharing implementation process and ability to prolong the discussion.

According to the scientific sample size determination, the targeted number of respondents was 579. This study however was able to get 565 respondents. 14 respondents were not found in their households by the time of interviews. Some had traveled to far places as casual laborers and others were busy business men. With the formula employed (AAPOR, 2011), a response rate of 97.6% was achieved. This percentage is within the scholarly accepted percentages taken as

complete response rate. According to AAPOR (2011, p. 44) and Baruch and Holton (2008), a higher response rate taken as complete rate should be above 80%.

In this study, the above formula applied as follows;

$$\text{Response rate} = \frac{565}{(565+0) + (0+14+0) + (0+0)}$$

This resulted into 97.6% response rate.

4.1.2 Biographic Characteristics of Respondents

4.1.2.1 Respondent type

This section looks at the category of respondents for this study. As illustrated in Chapter 3, section 3.2, they are all considered as resource users at Bwindi Impenetrable National Park but with varying socio-cultural and historical constructions. Resource users at Bwindi were categorised as Batwa, Unauthorised Resource Users (URU) and random community households (Bakiga and Bafumbira). These categories depict the recognitive and contextual dimensions of equity in benefit sharing which the researcher considered. The Batwa are historically known as forest people and consider Bwindi as their ancestral home (Kabananukye and Wily, 1996; Kidds, 2008). URUs are part of the community but undertake unauthorised activities as motivated by factors that are presented in 4.5. The random community households compose of people in Bwindi community who live adjacent to the forest and used to depend on Bwindi forest for their livelihood improvement. These are people who are targeted by the Revenue Sharing policy. These categories were therefore vital for this study.

These sections of people in the same communities have been for a long time defined by researchers as people with different values, beliefs, claims and aspiration although living in the same communities (Baker, 2004; Sandbrook, 2006; Kidds, 2008; Bitariho, 2013; Twinamatsiko *et al.*, 2014). The Batwa as historical occupants of Bwindi forest have a different culture and hopes of regaining Bwindi as their ancestral home (Kidds, 2008; FFI, 2013). The Bakiga and Bafumbira look at similar development interests from the resource benefits gained from Bwindi. The Unauthorised Resource Users continue to be threats to conservation and are labelled differently by those who do not undertake unauthorised activities. These differences necessitated the stratification in order to understand the various implementation approaches to better target various sections of people in the same community but with varying expectations and interests. The lack of recognition of differences in terms of interests, values, claims and priorities of different sections of people in the same Bwindi community continues to pose challenges to conservation managers (Ahebwa *et al.*, 2012; Twinamatsiko *et al.*, 2014).

Results indicate that most respondents were random community households 408 (72.2%) followed by Batwa who composed of 106 (18.8%) and Unauthorised Resource Users with 51 (9%). This distribution is premised on the proportion of each category in the entire population in the frontline communities that boarder with Bwindi. Figure 10 below summarises the results from the field.

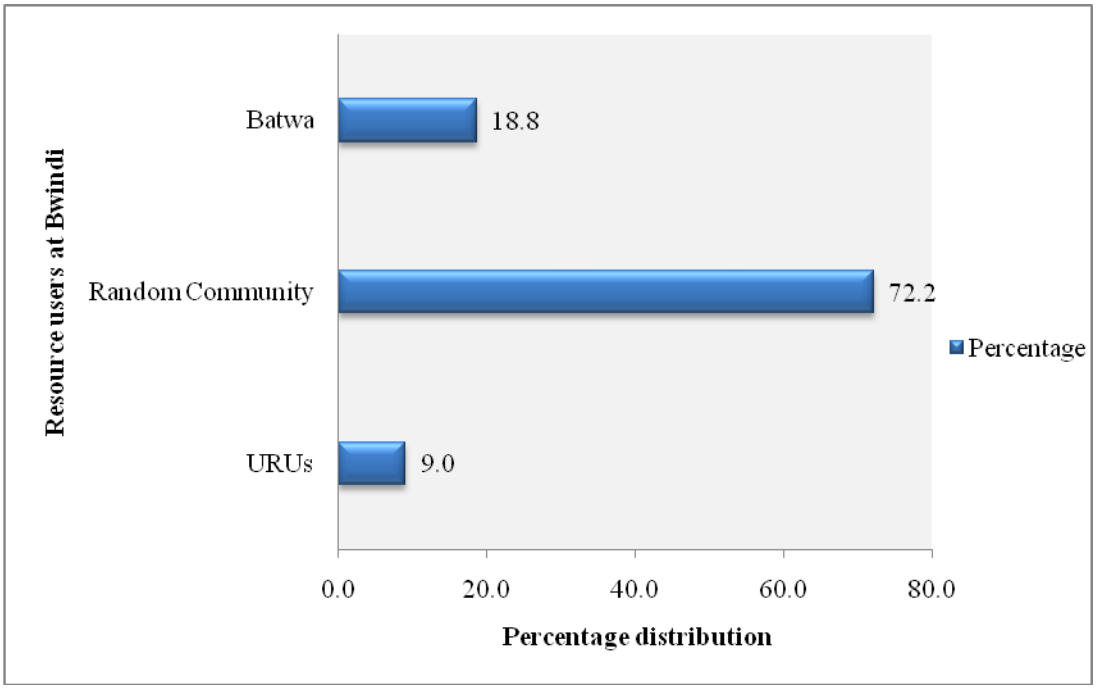


Figure 10: Category of survey respondents
Source: Primary Data, 2013

As from the results most respondents were random community households while the least were URU. The Batwa people who have always claimed ancestral rights over Bwindi compose approximately 5% of the entire Bwindi population. In order to generate all round views on the implementation of Revenue Sharing towards people's livelihood improvement and conservation support, it was important to look at Batwa people in-depth. The claim of Batwa ancestral rights and lack of special consideration in benefit sharing programme has continued to facilitate conflicts between Batwa and park management.

4.1.2.2 Parish and District Location of Respondents

It is vital to note that Revenue Sharing policy is only limited to the frontline communities bordering Bwindi. These communities refer to only LC1 cell or villages in the frontline parish. These parishes were considered since their local residents bear direct conservation costs. Results

show that majority of the respondents 284 (50.3%) were from Kanungu followed by 197 (34.9%) from Kabale and 84 (14.8%).

Among the parishes, most respondents were from Mukono parish represented by 115 (20.4%) while the least were from Kiyebe, Muramba and Ntungamo represented by 3 (0.5%) of the entire 565 survey sample size. This distribution of respondents was based on random sampling of Batwa and non-Batwa households as well as purposively selected Unauthorised Resource Users.

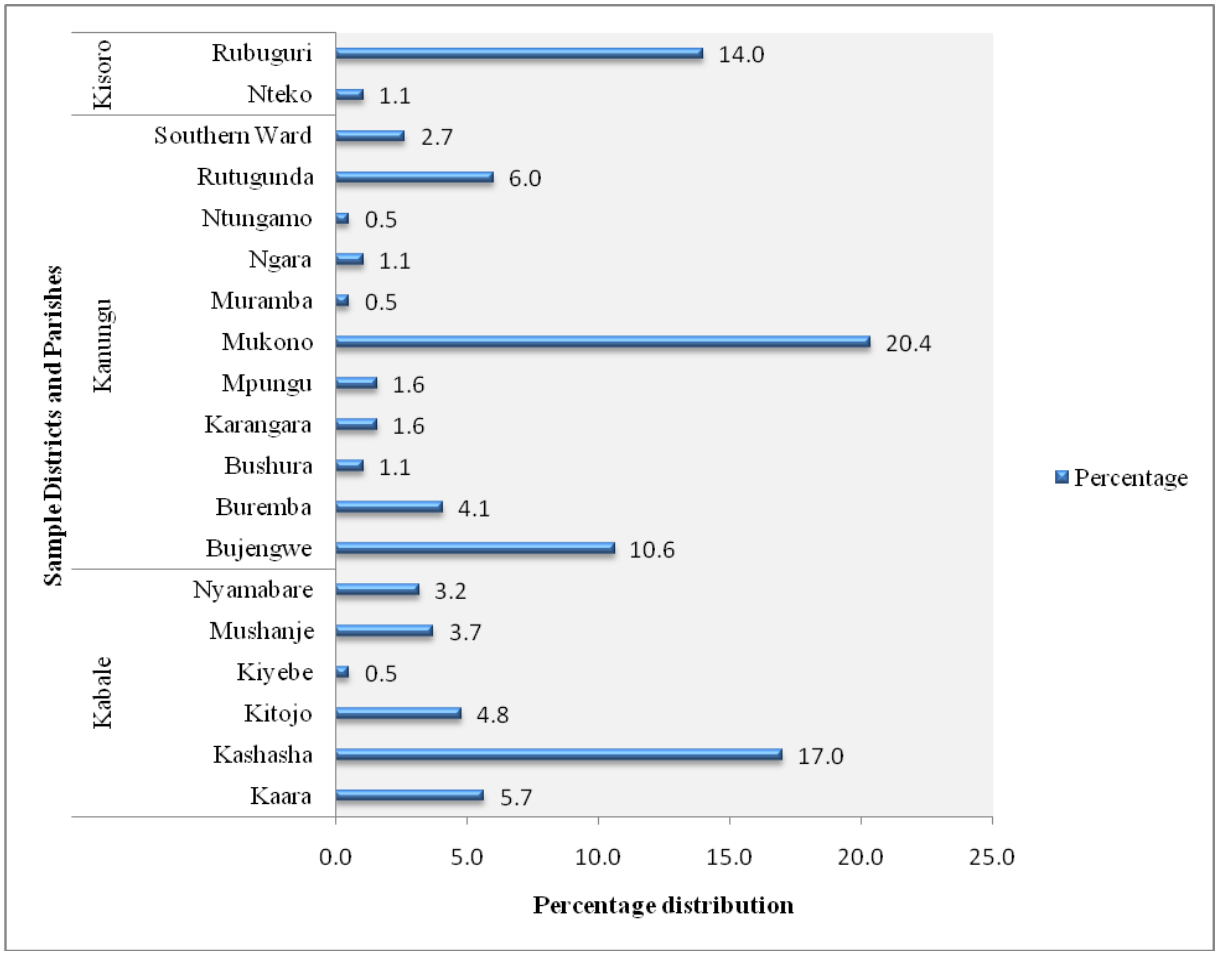


Figure 11: District and Parish distribution of respondents
Source: Primary Data, 2013

4.1.2.3 Gender of the Respondents

Results indicate that majority of the respondents 389 (68.8%) were males compared to 176 (31.2%) females (see Fig. 12). Being a random selection criterion for household surveys, it shows that most households around Bwindi like other places in Uganda are headed by men and therefore stand more chances of participating in research. This percentage distribution of gender followed the same trend across parishes and villages. In FGDs, the researcher stratified nominated names to have gender based responses. Most women would speak when encouraged to. This reveals gender inequalities in Bwindi communities.

In terms of comparing sex with the level of Revenue Sharing benefits, men are more likely to benefit since they dominate most decisions during meetings. Most men felt highly involved in Revenue Sharing policy implementation compared to women yet most women compared to men attend meetings. This is mostly attributed to cultural constructions in Bwindi communities like any other community in South Western Uganda.

Men felt strong ownership and benefit from Revenue Sharing projects compared to women. The attributes to this situation is related to the fact that the project point is a community where men are most heads of households and decision makers. Women, who were involved and had benefited or owned Revenue Sharing projects were either widows or those that had separate households as second or third wives. Figure 12 illustrates gender distribution of respondents.

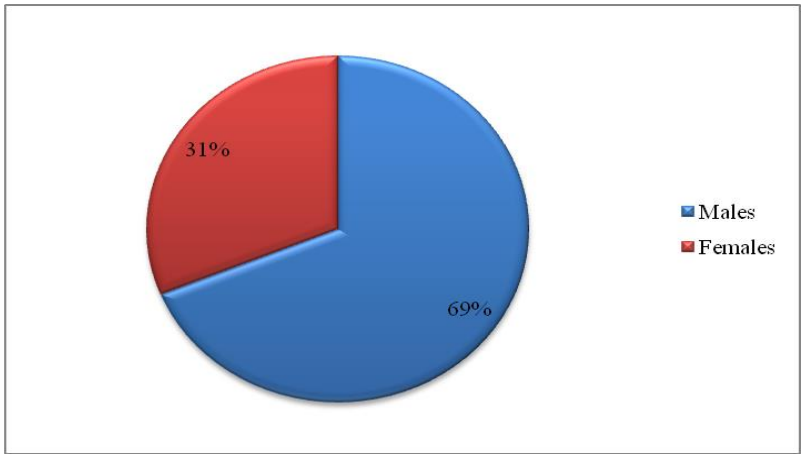


Figure 12: Gender distribution of survey respondents

Source: Primary Data, 2013

4.1.2.4 Main type of surrounding land use

The study looked at the main land use activities in the communities where respondents and beneficiaries of Revenue Sharing lived. Different land use patterns were identified during questionnaire development and pilot tests. These included farmland, village centres, forest and others. Farmland included both cultivation fields and pasturelands. Village centre category was composed of those people that stay in village trading centres while the forest referred to households closest to Bwindi forest. The 'others' category referred to local people who live near woodlots and public facilities such as schools, government institutions and health centres.

Results from household surveys indicate that most respondents 513 (90.8%) were surrounded by farmlands while the least 5 (0.9%) were surrounded by others and 8 (1.4%) by forest. 39 (6.9%) lived in village centres (see Fig. 13). This implies that since most people stay in farmlands, Revenue Sharing projects should mostly target farming activities than other ventures. Farmland would suit projects such as livestock, arable farming such as Irish potatoes and tea growing. If

this idea is put into consideration, projects are likely to succeed since they suit local environmental set-up.

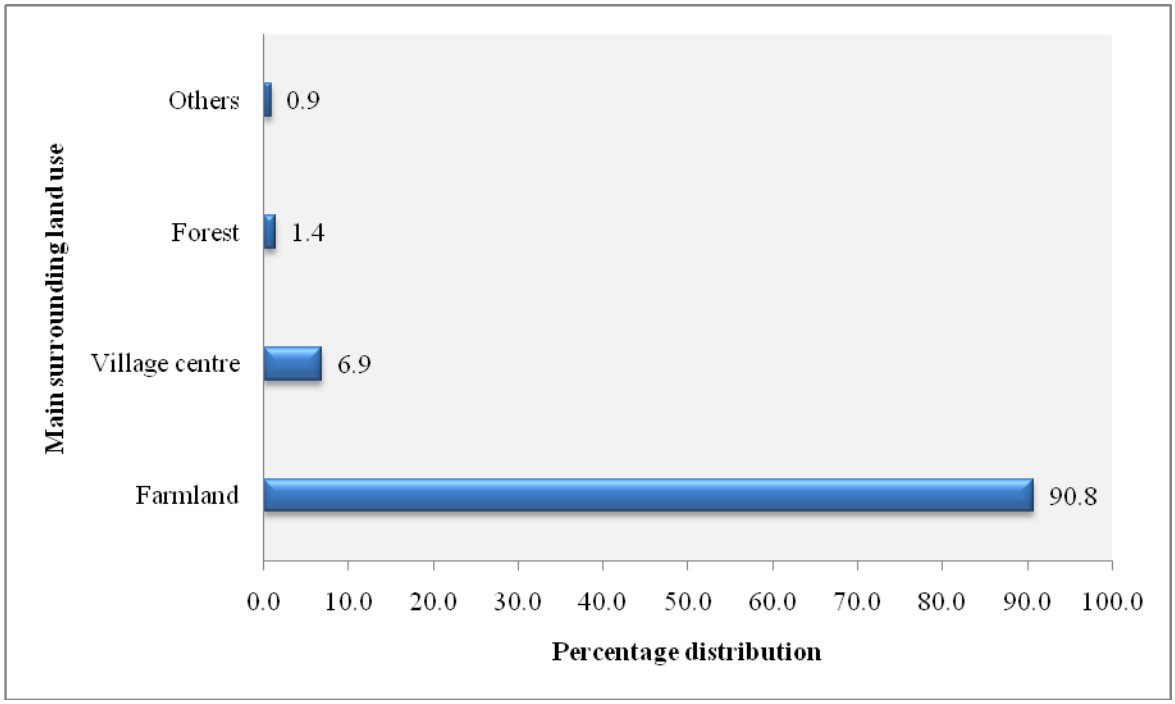


Figure 13: Respondents' main surrounding land use

Source: Primary data, 2013

4.1.2.5 Distance to vehicle road and village centre

Previous studies (Blomley *et al*., 2010; Twinamatsiko *et al*., 2014) had indicated that most ICDs were not targeting people living in remote areas around Bwindi. This study on Revenue Sharing further established the proximity of respondents in terms of distance walk and GIS proximity measurement. Results reveal that most respondents and in particular Revenue Sharing beneficiaries were living under 1 hour distance walk to reach both vehicle access roads and village centres. This is represented by 76.3% and 77.9% of the respondents respectively. This

reaffirms what had earlier been established. It further indicates that Revenue Sharing projects do not specifically target those in remote areas.

Table 5: Proximity to vehicle road and village centre

Category	Under 1 hr (Freq)	Under 1 hr (%)	Over 1 hr (Freq)	Over 1 hr (%)	Total (Freq)
Nearness to vehicle road	431	76.3	134	23.7	565
Nearness to village centre	440	77.9	125	22.1	565

Source: Primary data, 2013

4.1.2.6 Previously benefited from Revenue Sharing

In order to compare the differences in livelihood improvement, conservation support and the perceptions on Revenue Sharing policy implementation, respondents were categorised as beneficiaries and non beneficiaries. Initially, the researcher wanted to focus only on Revenue Sharing beneficiaries but desired to have a control group within the sample benefiting population who had not benefited. This helped to reveal the perceptions of those who have never benefited and why they had never since they live in frontline communities.

Results show that, out of 565 households that participated in the household survey, majority 424 (75%) had benefited while 141 (25%) had not benefited as indicated in Figure 14. This finding

was based on random selection of beneficiaries. The failure to benefit was attributed to many factors.

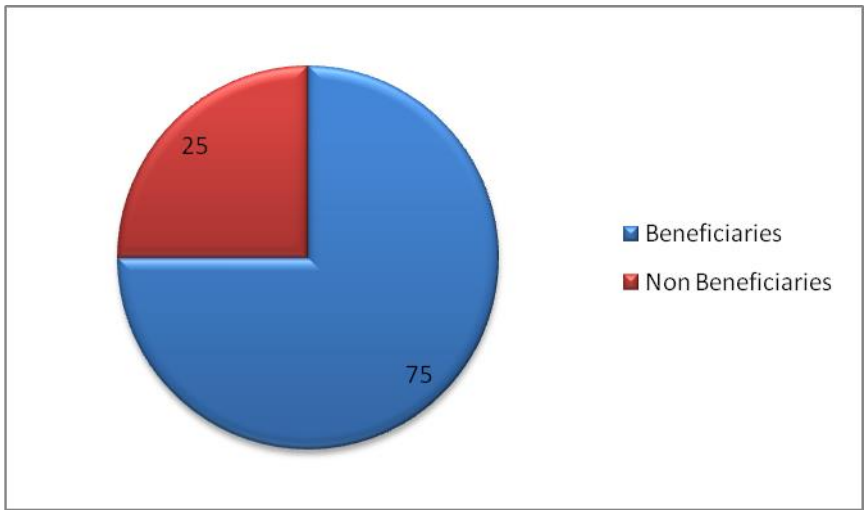


Figure 14: Benefiting status of respondents

Source: Primary data, 2013

The main factors mentioned included; community benefit rotation arrangement according to stretcher groups where there are some stretcher groups that had not had a chance of being selected since their turn of benefiting had not come. Lack of Revenue Sharing awareness, proximity to the national park, village centres and vehicle roads also limited local residents to access information regarding Revenue Sharing benefits. Corruption was also mentioned as a hindrance to benefits. This was pronounced at LC level where local leaders receive bribes from potential beneficiaries to be included on the benefiting lists. It was also established through surveys that even when beneficiaries are included on benefiting lists during meetings and prioritisation, sometimes new lists emerge where some names of earlier identified beneficiaries are replaced by those willing to pay some money to the Community Procurement Committee (CPC).

4.1.2.7 Age category of respondents

From Figure 15 below, respondents with the age of 21-40 and 41-60 were the majority as represented by 43.01% and 36.99% respectively of the total participants in the household survey. Since the household survey was random based on stratified and simple random sampling techniques, it reveals how majority of the households around Bwindi forest are in the productive age bracket. When age was collated with benefits from Revenue Sharing, respondents aged between 41-60 years felt that they benefitted more from Revenue Sharing projects, were more involved with RS projects and had greater ownership of the projects than younger local residents aged between 21-40 years, above 60 years and those 20 years and below.

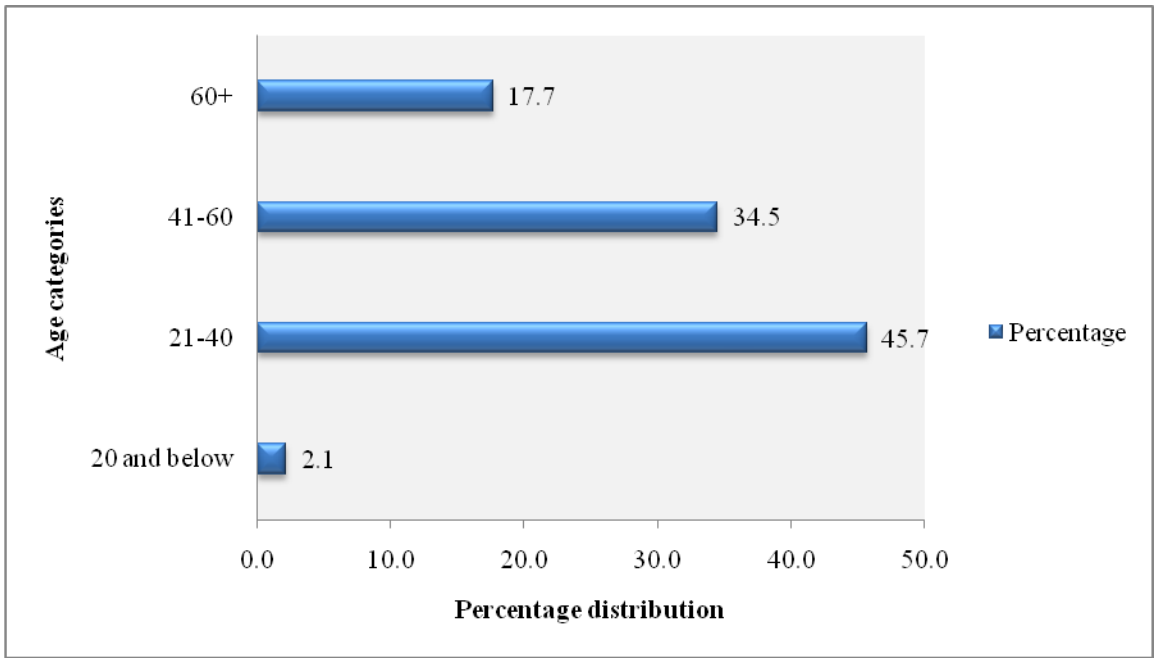


Figure 15: Age categories of respondents
Source: Primary data, 2013

4.1.2.8 Ethnicity of respondents

Bwindi is mainly inhabited by three tribes-the Bakiga who form the majority of the population, the Batwa and Bafumbira who form the minority. Kabale and Kanungu districts are mainly inhabited by Bakiga while Kisoro is mainly inhabited by Bafumbira and Batwa. Other ethnic groups such as Baganda, Banyankore and Congolese have come to Bwindi mainly because of business transactions. Ethnicity is historically known to be a considerable factor that determines resource allocation in Kigezi region (Preliminary key informant interviews, 2012). Figure 16 indicates that most respondents were Bakiga while the least were Bafumbira. Bakiga composed 444 (78.6%), Batwa 107 (18.9%), Bafumbira 6 (1.1%) and 8 (1.4%) other ethnicities of the total 565.

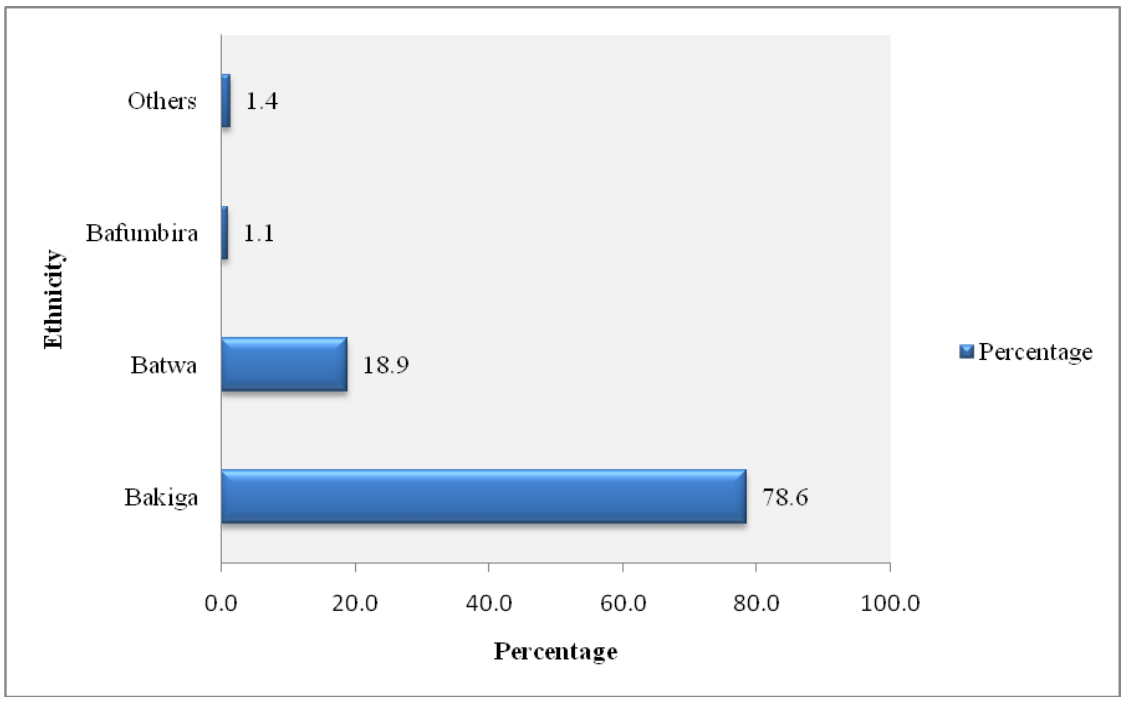


Figure 16: Ethnicity of respondents
Source: Primary data, 2013

4.1.2.9 Respondents' position in society

On the position held in society, 329 (58.2%) of the 365 respondents did not hold position in society compared to 236 (41.8%). Positions held included; Local Council (LC) committees (14.5%), informal group leaders (8.3%), project committees (3.4%) and religious leaders (2.5%) (see Fig. 17). The LC category was composed of chairpersons and secretaries who form LC committees. Informal group leaders were composed of; stretcher group leaders, resource user committees and savings and credit schemes leaders. Around Bwindi, there are about 38 projects under various conservation and development organisations. The main project leaders in this study were; BMCT, Nkuringo Community and Conservation Development Foundation (NCCDF), Batwa Development Programme (BDP), United Organisation for Batwa Development in Uganda (UOBDU) and Fauna and Flora International (FFI). Last but not the least; religious leaders were composed of the clergy and church wardens of different faiths.

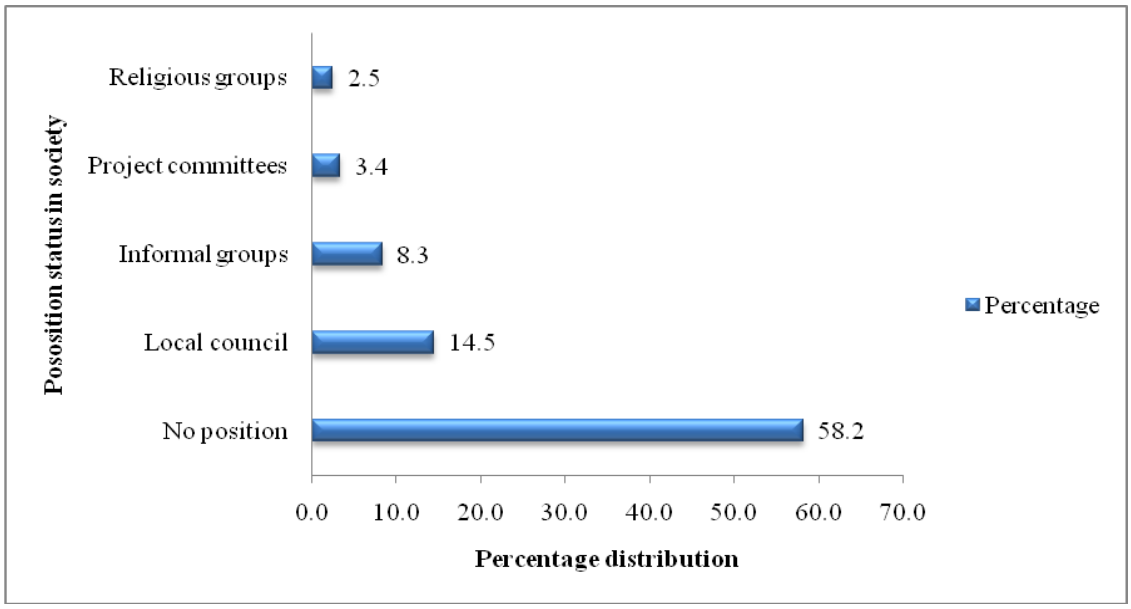


Figure 17: Position held in society
Source: Primary data, 2013

4.1.2.10 Length of stay in the community

On the length of stay in the community, results in Figure 18 indicate that majority 520 (92.1%) had lived around Bwindi for more than 10 years, 25 (4.4%) had lived 5-10 years while the least 20 (3.5%) had lived for less than 5 years. This representation implies that most residents around Bwindi frontline villages are permanent residents who have lived there for a longtime and a likely to benefit from Revenue Sharing compared to those who have stayed for a short time. Furthermore, this is likely to target people who historically depended on forest resources as earlier presented in section 4.1.2.1 of respondents' category.

This was significant for this study to generate views based on a wide experience of staying around Bwindi to see different RS policy changes. The majority category of 92.1% had stayed around Bwindi ranging from 20 to above 30 years. This means that they had witnessed the trends of Bwindi gazettment up to 1991 and the implementation of Revenue Sharing since 1996.

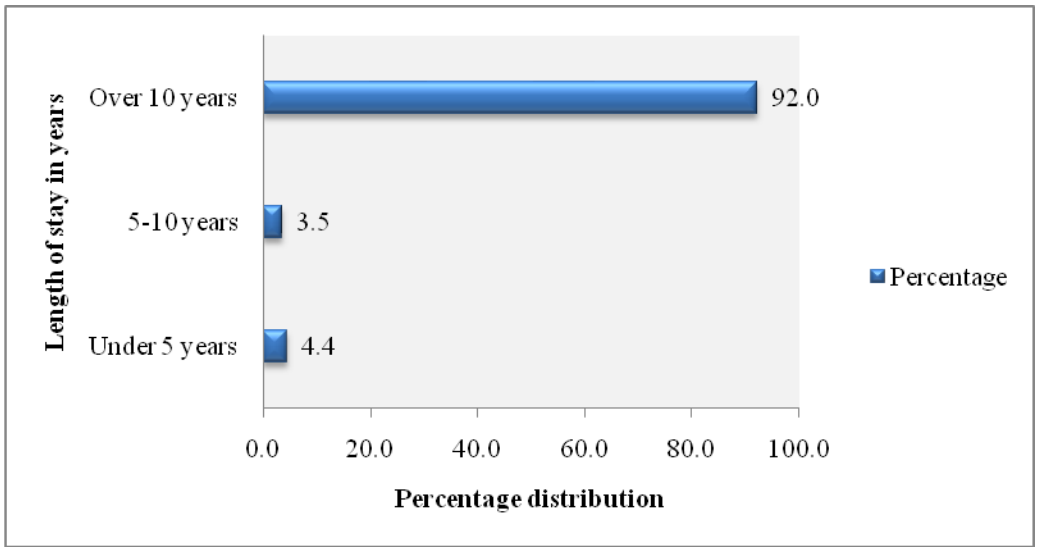


Figure 18: Length of stay in community
Source: Primary Data, 2013

4.1.2.11 Marital status of respondents

Marital status was considered a key variable in this study. This was intended to find out its influence on Revenue Sharing benefit, involvement and gender relations in Bwindi community. Through survey, respondents were asked to identify their marital status. Results show that out of the 565 household respondents, majority 465 (82.3%) were married, 77 (13.6%) were widowed, 18 (3.2%) were divorced or separated whilst 5 (1%) were single (see Fig. 19). This implies that most of the responses were generated from married couples. It further implies that most Bwindi residents are married compared to those not married.

This study targeted heads of the households to represent in-depth views of a household since the random selection was done on lists of households generated from LC1 records. All single respondents were those among the arrested under the monthly arrest data system.

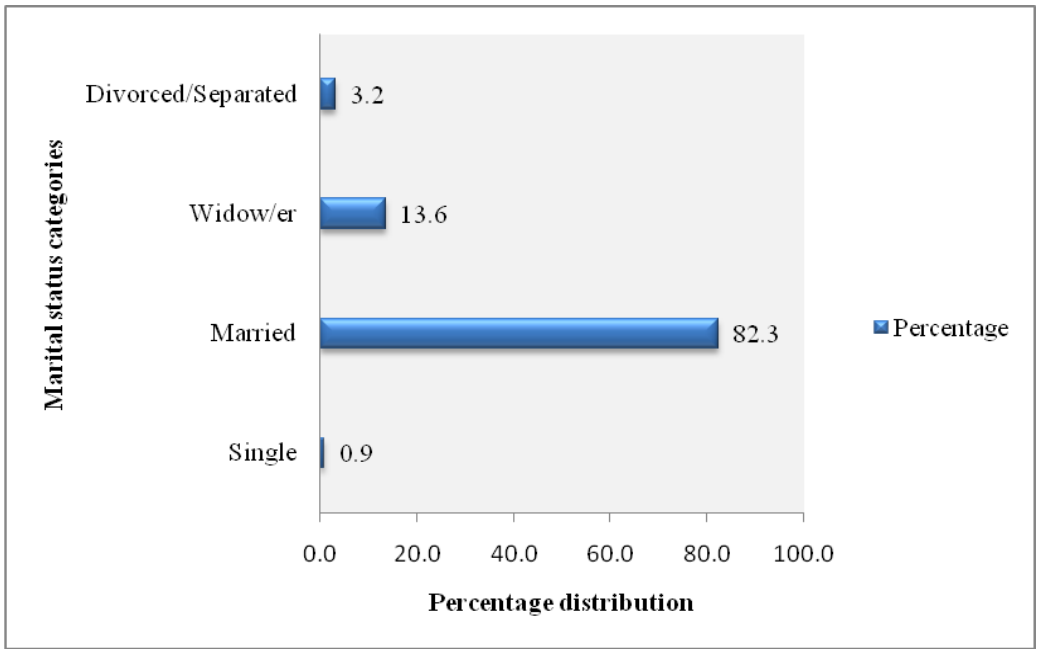


Figure 19: Marital status
Source: Primary data, 2013

4.1.2.12 Respondents' level of education

Figure 20 indicates that majority of the beneficiaries were in the level of primary education and no formal education. This is represented by 275 (64.9%) and 109 (25.7%) of the overall Revenue Sharing beneficiaries. The least were those in tertiary education level as represented by 08 (1.9%) and secondary education with 32 (7.5%). In the category of those that had not received benefits, the trend was the same with majority 99 (70.2%) and 29 (20.6%) in primary and no formal education respectively.

The least were in tertiary and secondary education levels represented by 03 (2.1%) and 10 (7.1) of the overall non beneficiaries respectively. Local residents with more years of formal education perceived more involvement with RS projects and more ownership than those with fewer years of formal education or those who never went to school. There was no significant difference between respondents' perceptions on level of ICD benefit received and number of years of formal education.

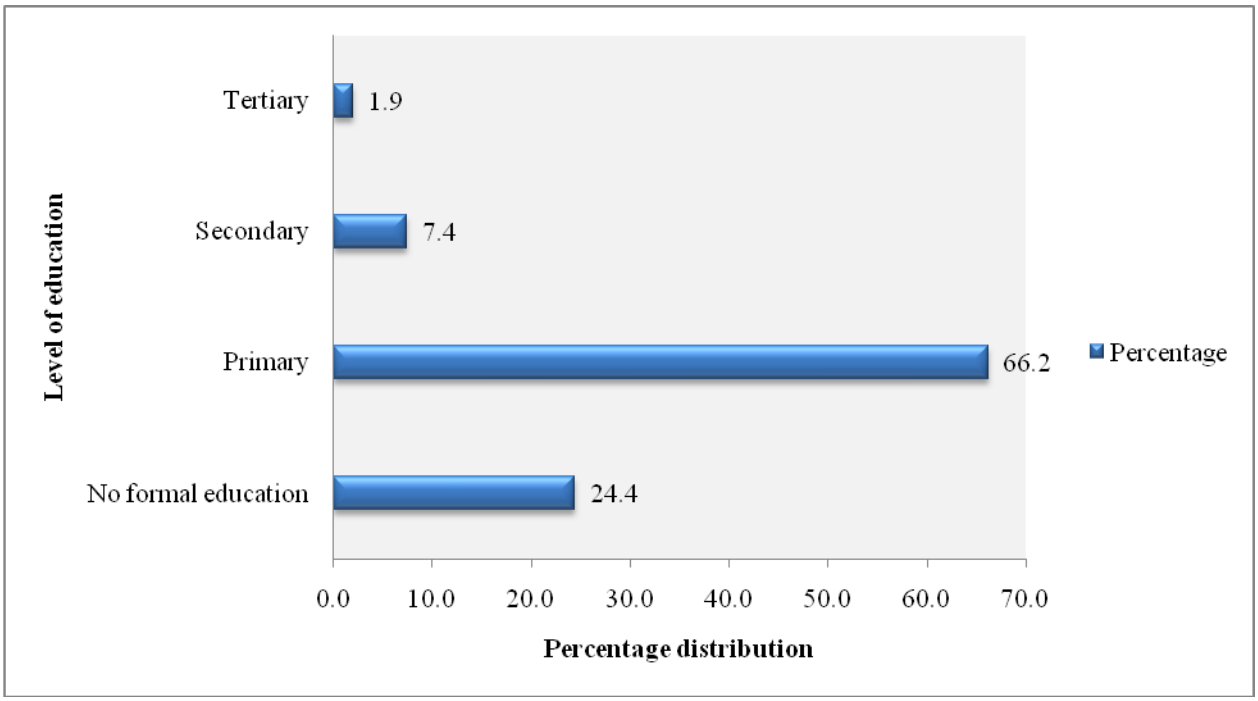


Figure 20: Respondents' level of education

Source: Primary Data, 2013

4.1.2.13 Respondents' main sources of income

The main sources of income for local people often indicate socio-economic livelihood status. This informs policy implementers the potential areas for funding and investments. It has been previously established that most Uganda rural communities are composed of majority subsistence farmers (GoU, 2014). Respondents were asked to mention main sources of income in order to link their livelihood status and prioritisation of Revenue Sharing projects.

Various categories were predetermined through anecdotal stories and informal discussions with communities before interviews commenced. These were subsistence farming, commercial farming, casual labour, small business enterprises, commercial and subsistence farming, formal employment and those who receive remittances from their children who live approach. Answers

from respondents without source of income were also considered for analysis. All the civil servants and private sector workers in formal positions were considered in the category of formal employment.

Results in Figure 21 indicate that, most respondents 293 (51.9%) were supported by subsistence farming while the least 1 (0.2%) had no main source of income and those that received remittances from their children abroad 2 (0.4%). Those local residents who depend on casual labour were 119 (21.1%) while those in business enterprises were 58 (10.1%). Commercial farming was composed of 37 (6.5%) while both commercial and subsistence farming composed of 37 (6.5%). The only people earning income from formal employment composed of a small number of 18 (3.2%).

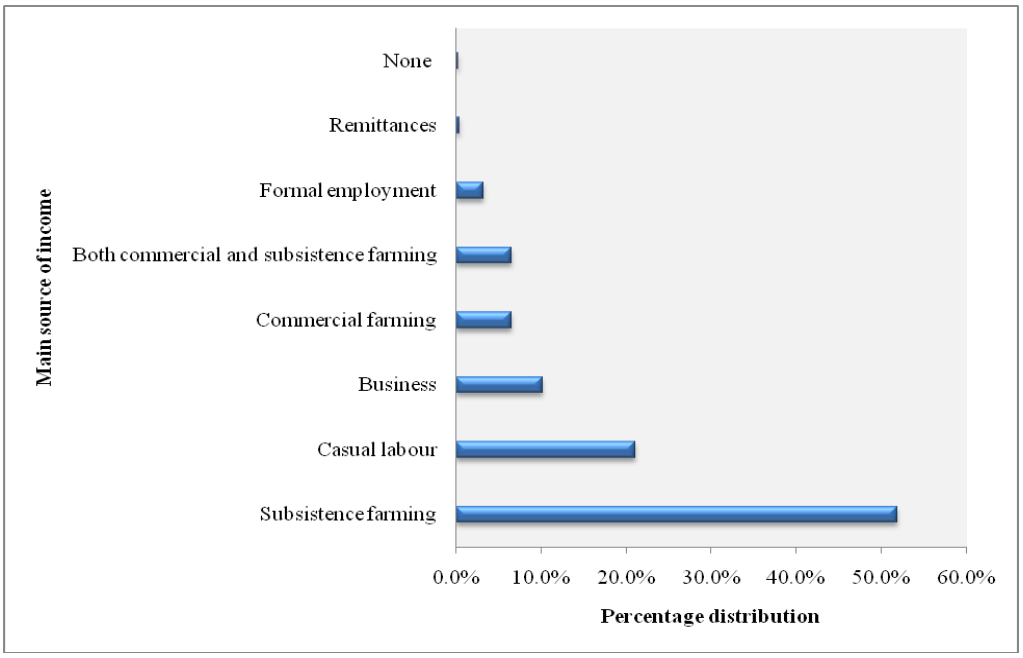


Figure 21: Respondents main sources of income

Source: Primary data, 2013

This implies that most people (96.8%) around Bwindi forest are engaged in informal employment compared to those in formal employment (3.2%). It further reveals that farming is the main source of people's income which tallies with the poverty status report, 2014. This would mean that any projects that aim at eradicating poverty and improving people's livelihoods should aim at areas that help to improve what people already have.

4.1.3 Discussion of Response Rate and Biographic Characteristics

Response rate is an important measure of accurate results since it builds confidence in the results presented (Baruch and Holtom, 2008; Nulty, 2008). Researchers who get less than 50% of answered questionnaires are categorized as refusals or break-offs; 50%-80% is referred to as partially completed while responses of more that 80% amounts to complete rate (AAPOR, 2011). As documented in 4.1.1, this study achieved 97.6% response rate of the entire participation in the questions asked which makes it a completion rate. Calculation of response rate helped the researcher to understand how much of the entire sample contained no response error and the causes for such error.

The high response rate in this study was achieved by ensuring that all units on the sampling lists collected from LC 1 chairpersons reflected the same units of analysis and ensuring that all respondents responded to the questions. The researcher ensured that the lists generated from LCs were cleaned to avoid duplicates and subsequent low response rate as a result of multiple entries. Efforts were made to reach out to respondents who were not in their households by the time of interviews. This was ensured through rescheduling of appointments. Only respondents who could hardly be reached were left out of the study. To achieve high response rate, the research

team ensured that, the purpose of the study was clearly explained to the respondents and research ethics adhered to while with survey and interviews respondents and participants of FGDs.

In order to build more confidence in the completion rate, cooperation rate at household during surveys and respondent levels during key informant interviews and Focus Group Discussions was calculated. In this process, the proportion of all people interviewed was divided by all eligible units ever contacted before interviews as generated from the lists of LC1 chairperson office and appointments made before interviews commenced. This avoided sampling bias. Other researchers emphasize avoidance of responses errors in order to achieve full response rate. Areas may originate from; members of the population that do not have a known zero chance to be included in the sample, when the researcher designs the instruments that will not produce reliable results and when non respondents that were originally part of the survey differ from respondents that were eventually useful to the study (Grove,1987).

The presented biographic characteristics of respondents influence the implementation process of Revenue Sharing and create a basis for recognition of the existing demographic features as well as social attributes that should guide policy implementers during project identification and selection, prioritisation and funding. Biographic characteristics under this study were in line with what previous scholars (Sandbrook, 2006, Kidds, 2008, Blomley *et al*., 2010; Baker, 2011; Twinamatsiko *et al*., 2014) had earlier established. The key areas that had similar or almost the same results were; ethnicity, age, gender, length of stay in community and distance from vehicle roads and village centres.

The results presented on length of stay in the community are similar to those earlier generated by a Research to Policy project that looked at building conservation through poverty alleviation where 348 (95.34%) of the 365 household survey respondents had lived around Bwindi for more than 10 years compared to 10 (2.74%) for less than 5 years and 7 (1.92%) for 5-10 years. These results were also similar to those of Sandbrook (2006) where majority of the respondents (94.3%) had lived around Bwindi in the parishes that he surveyed for his thesis.

Marital status of individuals influences the choices they make when it comes to benefit sharing. People who were married had different pressing needs and priorities compared to those that were not. This means that when funding Revenue Sharing projects, the social contexts ought to be put into consideration. The current challenge with implementation is that projects are too generalised without proper contextualisation. This is likely to affect project impact. This study was relevant to what was found out in the research to policy study where 298 (81.64%) were married, followed by 56 (15.34%) for the widows/widowers, those who had divorced or separated 8 (2.19%) and lastly single 3 (0.82%).

It is important that prioritisation of projects entail an understanding of the land use patterns in a particular community. This would enable proper targeting of projects that fit within. For instance if policy implementers supplied livestock to beneficiaries who have no farmland, it would limit progress of impact measurement since livestock is supported by such.

Other biographic features indicate a linkage with Revenue Sharing policy implementation. It is important that during implementation, considerations should be sought on best approaches to

deal with gaps that exist in disaggregating benefits and distributing projects. Both demographic features and socioeconomic attributes of a population are relevant when it comes to policy practice.

4.2 Revenue Sharing Benefit Distribution, Livelihood Improvement and Conservation Support

4.2.1 Introduction

This section presents and interprets key parameters within the implementation framework of Revenue Sharing (RS). Revenue Sharing beneficiaries and those not benefiting have been disaggregated in terms of resource user groups, gender, ethnicity, age, education levels, homestead distance and proximity from park boundary. The section also presents the distribution of projects across various sections of people bordering with Bwindi. Not all the variables to explain benefit distribution were significant for both livelihood improvement and conservation support.

This section therefore presents only the most predictive factors in Revenue Sharing distribution for livelihood improvement and conservation support. These included; resource users, ethnicity, gender, proximity from park boundary and homestead distance to vehicle roads and village centres. Non significant variables are however shown in the analysis sheets (Appendices section). Data was analysed both quantitatively and qualitatively to generate frequencies and percentages in order to reveal these differences. Mean and Standard Deviation (SD) for continuous variables were also been generated to show the level of variability of beneficiaries and non-beneficiaries of Revenue Sharing.

Key issues looked at under this section included; how Revenue Sharing projects are distributed between various sections of Bwindi population to improve their livelihood and support

conservation; whether the distribution influence livelihood improvement of people bordering with Bwindi; and how benefit distribution influences conservation support of Bwindi.

4.2.2 Results

4.2.2.1 Revenue Sharing Project Distribution across Various Sections in the Population to Improve their Livelihood and Support for Conservation

4.2.2.1.1 Revenue Sharing benefit distribution and Resource Users at Bwindi

Resource users around Bwindi were predetermined and categorised during exploratory studies before the surveys commenced. These were categorised according to how they used Bwindi as their source of livelihood. Community members identified that Batwa were the original inhabitants of Bwindi forest. Another category identified to be more attached to Bwindi was the Unauthorised Resource Users (URUs). They are URUs because the current UWA laws do not allow access to Bwindi resources by local people without any legal arrangement although to them, Bwindi is their historical natural resource. The last category under this section is the random community households. These include other members in the community who have a stake on Bwindi resources. The intention of this categorisation was to determine the approach of Revenue Sharing benefit distribution and the extent of benefit across these various categories of resource users around Bwindi. This was guided by the distributive dimension of equity framework explained in Chapter 2 of this thesis.

Data presented here is based on the analysis of total Revenue Sharing beneficiaries in the study sample (n=424) and non Revenue Sharing beneficiaries (n=141). The category of ‘Yes

beneficiary' represents members of Bwindi community within the study sample who indicated to have received a Revenue Sharing project or projects before the study field work while 'Not beneficiary' category represents those that indicated to have not received a Revenue Sharing project before the study field work. It is vital to note that since 1996, various projects have been distributed to people at both individual level (livelihood projects) and community level (common good projects). Under this distribution, not everyone in society has received these benefits.

Most respondents who had benefited from Revenue Sharing were random community households represented by 310 (78%) of the total 424 beneficiaries followed by Batwa 78 (18.4%) and 36 (8.5%) Unauthorised Resource Users as shown in Figure 22. In the category of those who had not benefited from Revenue Sharing, majority were random community households 98 (69.5%) followed by Batwa 28 (19.9%) and lastly Unauthorised Resource Users 15 (10.6%) out of the 141 total non- beneficiaries.

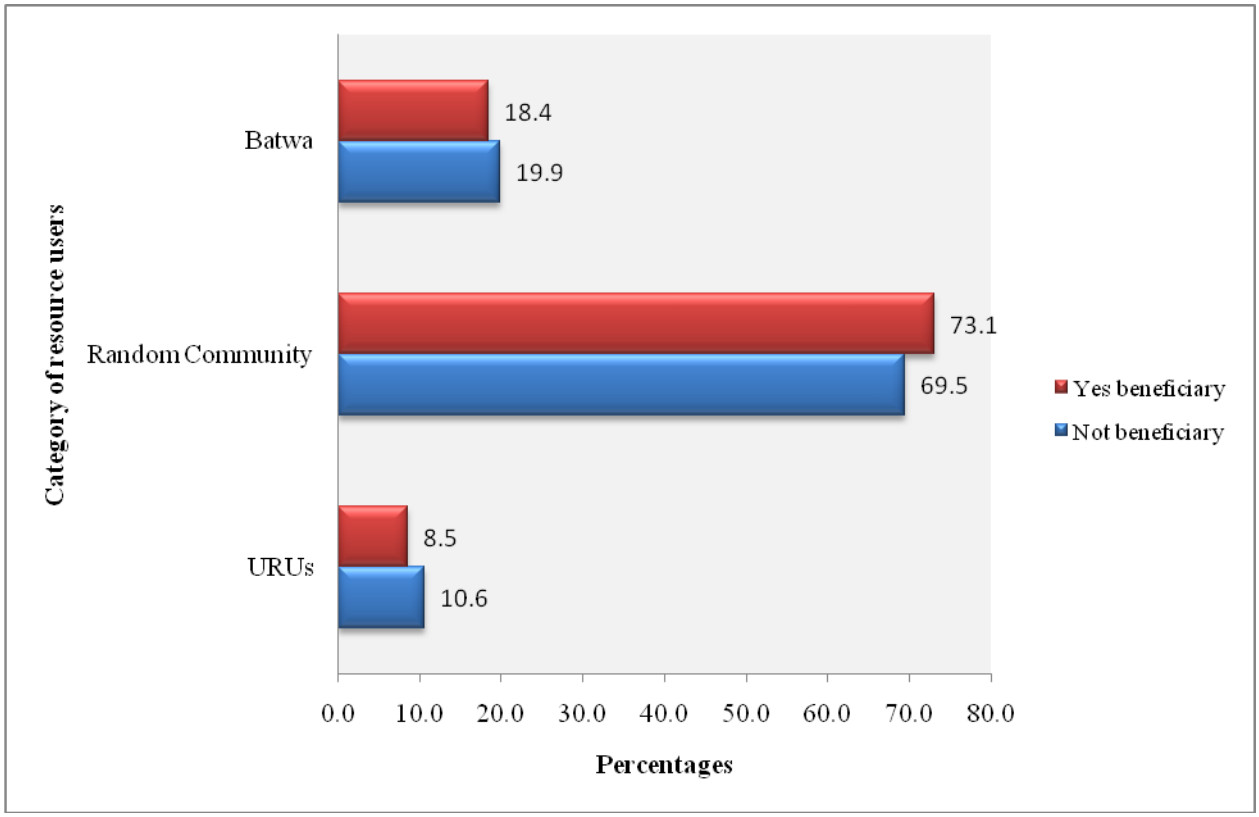


Figure 22: Revenue Sharing and Resource Users at Bwindi

Source: Primary Data, 2013

This record reveals that when selecting beneficiaries for Revenue Sharing, the target is not biased towards those who have rights over Bwindi INP and those who do harm to Bwindi INP but a random distribution is applied. In the equity framework and ecotourism theory, this kind of distribution is not adequate enough to woo conservation support. The equity framework asserts that, in distributive equity, benefits should target those who have rights to benefit, those who do harm to the natural resource, those who support conservation initiatives and where there is an opportunity cost. This helps to target all sections in the community who matter most to conservation.

In FGDs, the Batwa were identified as forest people who have more rights over Bwindi than other people in the community. This was revealed by both Batwa and non-Batwa participants. Targeting them for more benefits would enhance conservation support and address historical injustices of displacement. The targeting of more Unauthorised Resource Users is likely to bring them on board and discard bad behaviour that creates harm to biodiversity. Results reveal that Revenue Sharing projects are just disbursed in the communities surrounding Bwindi without this critical equity consideration.

Box 1: Local community perception on Batwa targeting

"Abantu aba (Batwa) bakaba baratuura mwihamba. Twatubarebaga barikuruga omwihamba bine enyaama kandi ezitwabire nituhinganamu nabo omugusha hamwe nemondi. Nahati tukyamanya abatwa nkabantu bihamba. Ekyi nikyo kyitumire abatwa baremwa kwejumbira omukuhinga ebyokurya ahabwokuba tibaramanya okubarikuhinga…"

Translated as;

These people (Batwa) used to live in the forest. We would see them come out of the forest with meat and we would exchange with them sorghum and Irish potatoes. We still know them as forest people. That is why they have even failed to practice agriculture because they do not know how to dig...
(Mukiga elder 78, Byumba FGD, Bujengwe, Kanungu District. May 12, 2014).

"Itwe Abatwa tunagirwe enyima. Kandi orareeba turi abantu bomwihamba. Eihamba ryabwindi ryorareeba neryitu kwonka kubarikuba nibagaba esente zebintu ebiraruga omwihamba, itwe Abatwa tibakatuhaho…"

Translated as;

We Batwa have been marginalized. You see we are forest people. This Bwindi you see belongs to us but when they are giving out money from our resource, we are not considered as Batwa..."
(AMutwa from Nyabaremura FGD, Rubuguri, Kisoro District, March, 2014)

Figure 23 indicates that most projects are allocated randomly to community members as represented by 310 (73.3%) of the beneficiaries compared to 78 (18.4%) Batwa and 36 (8.5%) unauthorised resource users. Batwa benefited from all projects apart from other livelihood projects. Unauthorised Resource Users benefited from most projects apart from other livelihood projects and other general projects.

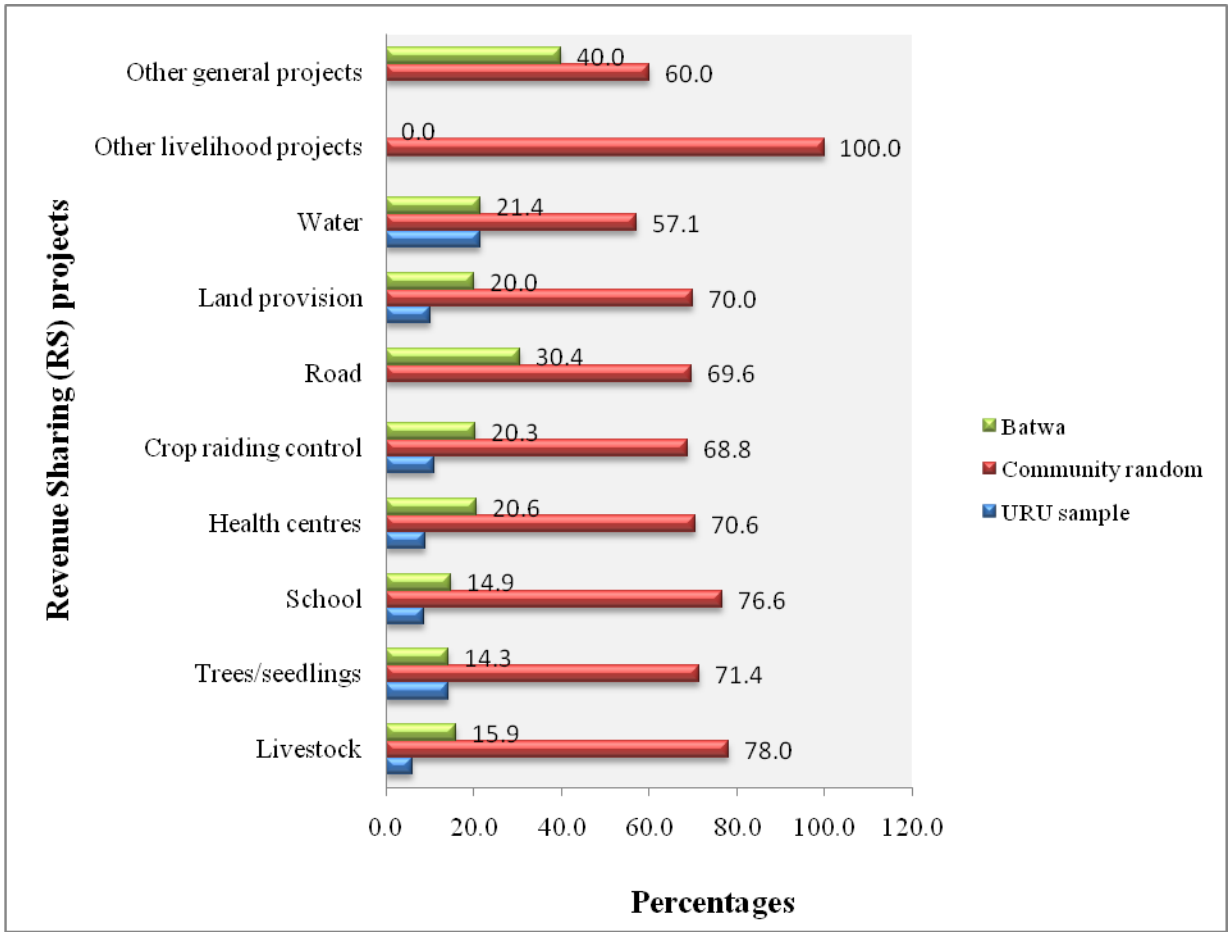


Figure 23: Distribution of Revenue Sharing Projects across resource users

Source: Primary data, 2013

Results show that when selecting beneficiaries, there has not been specific targeting of projects to different categories of people in society. This implies that, the recognitive and contextual dimensions of equity are not applied in project distribution at Bwindi.

The study revealed differences that exist in terms of socioeconomic well being of the Batwa and non Batwa. Most Batwa live within 1 km distance from the national park boundary as frontline residents. Batwa are poorer compared to non-Batwa. The Batwa had fewer neighbors, less years of formal education, fewer sanitation facilities, and go hungry with not most of them having above one meal per day. From the distance to access water, the Batwa fetch water from an unprotected water sources. The Batwa rated their quality of life lower than non-Batwa.

It was revealed that from the revenue generated by Bwindi Mgahinga Conservation Trust, most Batwa land was bought near the national park. The reason behind this arrangement related to a need to maintain their forest attachment. The other reason was relating to land availability and affordability. Land near park boundary is cheaper compared to land far from the national park. This land near the park boundary was found out to be prone to crop raiding a reason why most local residents have abandoned it for serious commercial crop production. Regarding Revenue Sharing projects, the Batwa were more likely to have benefitted from a livestock project and a land provision project. This related to lack of specific targeting for the Batwa local residents in the resource access programme.

Majority of the unauthorised resource users live in the frontier villages (within 1 km distance from the park boundary) which are composed of poorer members of the communities. The study

however did not completely conclude that it is poverty that drives unauthorised resource use since there were other motivations for unauthorised resource use. Some of these individuals however had received a benefit from Revenue Sharing projects (section 4.4).

The location of Batwa and some unauthorised resource users place them in disadvantaged positions and limited probability to benefit from both livelihood and common good projects. The limited chances to benefit from livelihood projects relate to who is likely to be selected as a beneficiary basing on the level of benefit awareness through greater involvement in Revenue Sharing activities. It also relates to the challenges of transparency and equity in beneficiary selection (see section 4.4). Common good projects are likely to benefit less Batwa and URUs due to poor location targeting. Since most Batwa and some URUs live within 1km distance from the park boundary, they are likely to miss out in accessing public goods such as roads, water, schools and clinics that are mostly located beyond 1km distance from the park boundary (see Table 5 and Fig. 28).

4.2.2.1.2 Revenue Sharing benefit and Gender

Gender is an important factor that determines inclusive development approaches and equitable benefit sharing. In this study, both men and women were integrated as part of the surveys and also in Focus Group Discussions. This was intended to establish the current distribution of benefits across gender and find out some of the limitations to benefit from Revenue Sharing projects for both men and women. It is important to note here that women interact with the environment more often than men and bear the burden of looking for most of the household livelihood needs such as firewood, water and food. Previous UWA records revealed that women

undertake unauthorised resource use on minor forest products such as firewood and bean stakes (UWA, 2010). This justified the inclusion of gender as a key variable for the analysis.

Figure 24 indicates that most respondents benefiting from Revenue Sharing 294 (69.3%) were males compared to 130 (30.7%) females of the total number of beneficiaries (n=424) in the study sample. In the category of those that had not benefited (n=141), males were 95 (67.4%) while women were 46 (32.6%). This is related to the proportion number of men and women participating in research studies but also the gender inequality aspects in communities bordering Bwindi. Results from FGDs and Key Informant interviews further confirmed inequalities in benefit sharing by both men and women. 9 FGDs (90%) out of 10 mentioned lack of gender equality when distributing benefits.

Being a random selection criterion for household surveys, it shows that most households around Bwindi like other places in Uganda are headed by men and therefore stand more chances of participating in research. In terms of comparing gender with the level of Revenue Sharing benefits, involvement and ownership, it was found out that men felt more involved with Revenue Sharing projects compared to women. Men felt strong ownership and benefit from Revenue Sharing projects compared to women. This implies gender inequalities among Bwindi communities and households.

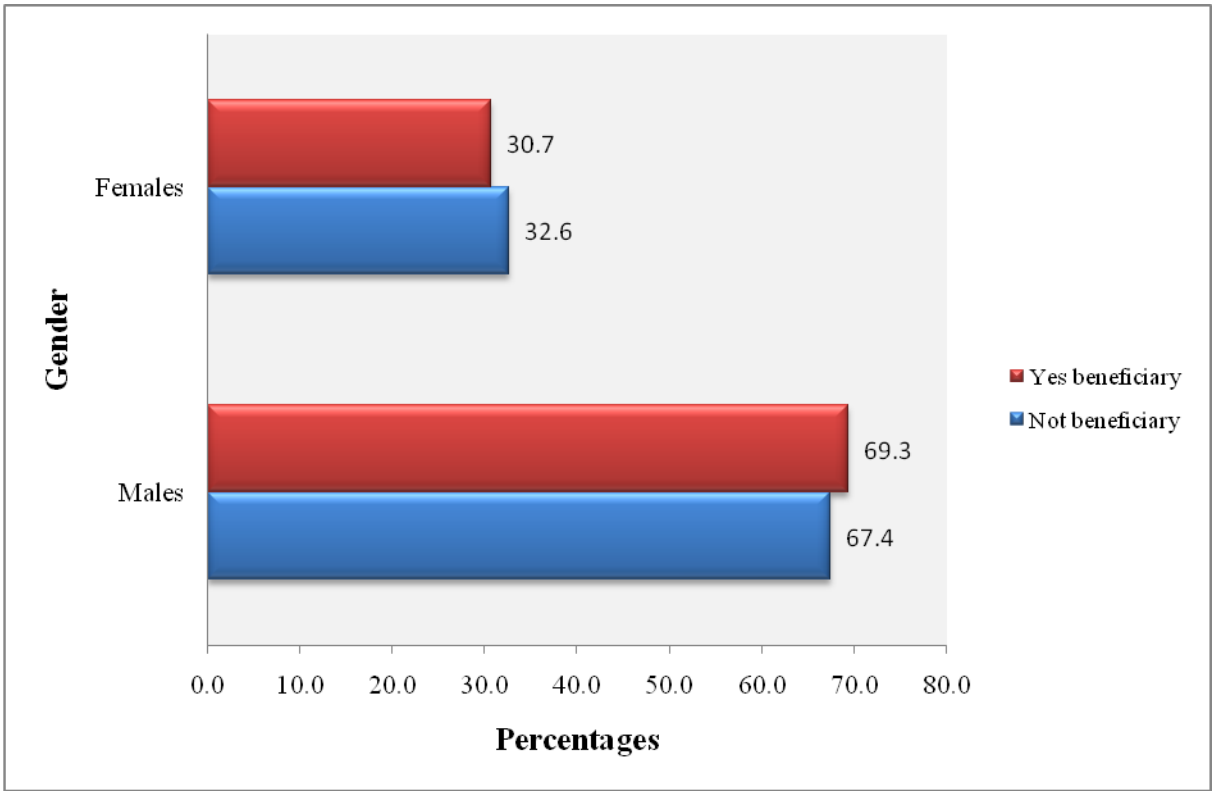


Figure 24: Revenue Sharing benefit and Gender

Source: Primary Data, 2013

With 81.6% of the participating households being headed by men, there are minimal chances of women to benefit from Revenue Sharing projects. Men are the ones that represent families in meetings and when projects are selected, they are owned by men as household heads. Women who were found involved, benefited or owning Revenue Sharing projects were either widows or those that were having separate households as second or third wives. During FGDs, participants revealed that benefits are not distributed equally and equitably to both gender.

Since 2012, Revenue sharing revised guidelines emphasise selection of livelihood projects compared to common good projects (see chapter 1, section 1.1.1). With socio-cultural

constructions where men are heads of households and owners of most of the family resources, women are likely to benefit less from livelihood projects. Results from a few women who had benefited and those that participated in Focus Group Discussions show that even the selection of a few common good projects does not put practical and specific gender needs into consideration. A gender needs assessment approach was proposed by female respondents. This would address gender inequality during projects and beneficiary selection. If not done, it leaves women behind the benefiting line compared to men. There were no differences in gender considerations across Bwindi communities. In all communities, gender consideration is not an issue when distributing benefits to local people.

Box 2: Local community perception on gender consideration
"Itwe abakazi baturekire enyima omukwejumbira omuntekateka zoona. Abashaija bitu nibo baratwara omubagane muhango. Burikintu kyoona ekiri omunju, omushaija niwe akineho obushoborozi. Nobuwakuba oyine porogyekiti eryeyawe ahabwawe, omushaija nagyeyeterera nkeyeye. Izoba rimwe nkaza omurukiiko kwakira embuzi yitu nkeka, kunahikireyo, nashanga eryeyomushaija etariyangye. Embuzi kuyahikire omuka yagitwara omusenta kugiguza.Tuturagarukire kumureba kurinda esente ziyatungiremu zahwerire omumaarwa niho yagarukiire". Translated as; *"For us women we have been left behind these interventions. Our men take a lion's share. Everything in a household belongs to a man. Even when you have your own project, a man claims it is his. One time I went to pick a goat from a meeting for our family. I found the name on the list was for my husband not mine. When the goat reached home, the man took it to the trading centre and sold it. We did not see him again until the money was over as spent on drinking…"* **(A woman member of Nteko village FGD, Nyabwishenya, Kisoro, April 2014).**

Results further show that, Revenue Sharing projects do not specifically target women. The projects to fund are determined by a community. The community decides on what project to implement and to be funded. The community also nominates the list of beneficiaries for the selected projects. With the identified cultural constructions and rigidities around Bwindi, women are more likely to lose out of the Revenue Sharing benefits. When projects are funded, they are meant to benefit a household. The study revealed intra gender differences which make it hard for women to benefit from household projects. The patriarchy setting of Bwindi makes a man a head of the household and with sole authority to make decisions for and on behalf of the family. Therefore, such positions attribute to low socioeconomic wellbeing on part of women compared to men.

Figure 25 indicates that, majority of the projects allocated to males were ‘other livelihood projects’ such as poultry and passion fruit growing (100%) , land provision (85%) and crop raiding control measures (79.7%). The project that were mostly allocated to female beneficiaries was water (92.9%) .

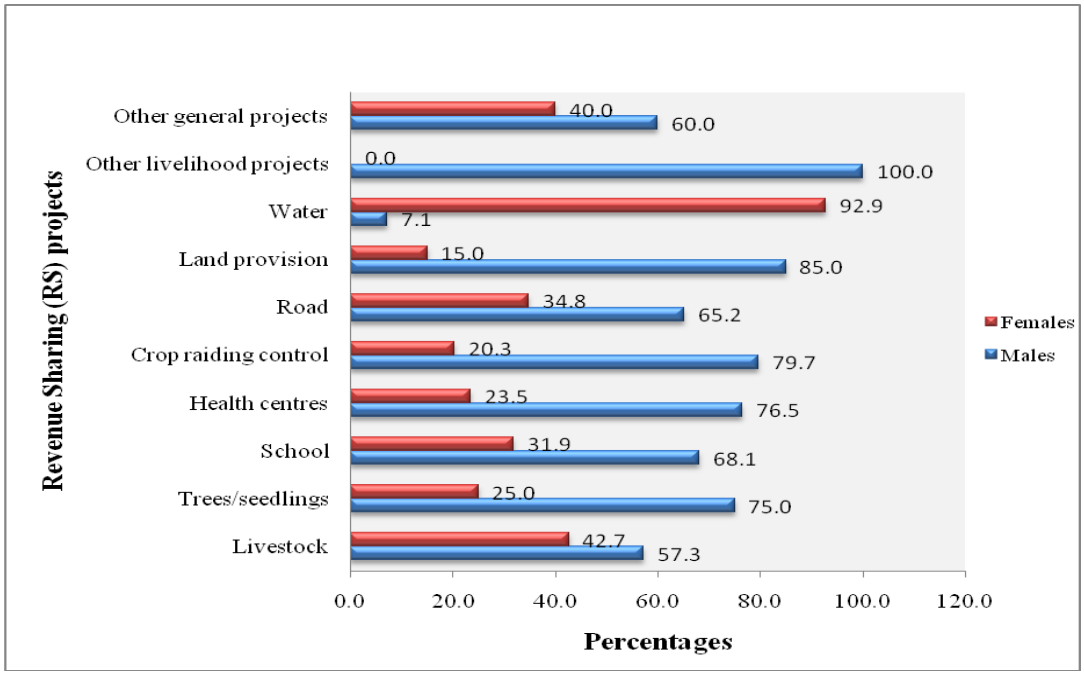


Figure 25: Distribution of Revenue Sharing Projects across gender
Source: Primary Data, 2013

Results show differences in projects funded to benefit both men and women and the degree of benefit for both gender. Over all, men perceive more benefits from almost all projects apart from water compared to women. This implies that gender needs ought to be integrated into the projects that are funded in order to equally benefit both gender. Both men and women have different gender needs as mentioned in Focus Group Discussions (Box 3). For instance women mentioned more funding to go to water, health and credit schemes. Men mentioned crop raiding control measures and livestock. Targeting gender needs is a pathway for inclusive development.

Box 3: Local community perception on project funding
"Omurukiko rumwe tukabagambira kutureenda ameezi kwonka abashaija basharamu esente baziteka omukwombeka ekyombeko kya kanso. Nbwenu itwe abakazi nitwija kugobera nkahe ahakyombeko kandi tutine obwebembezi bwona ahigomorora? Nobutwakuba turikwenda kubugana omurukiko rwabarasharuura omwihamba, nitubuganira ahansi yomuti hatari omukyombeko ekibayombekire."

Translated as;

> *In one meeting we told them that we needed a water project but men over ruled that we put money on the council hall. How do we as women benefit from that hall since we never take part in Sub County leadership? Even when we have meeting there for resource use group members, we meet under the tree outside the hall.*
> **(A Mukiga woman, Mpungu FGD, Kanungu District, January 12, 2014).**

4.2.2.1.3 Distribution of Revenue Sharing benefits across ethnic groups

The study disaggregated Revenue Sharing benefits across ethnicities and the livelihood situations of different ethnic groups around Bwindi. As earlier mentioned (see Fig. 14), 424 (75%) of the respondents had received Revenue Sharing benefits while 141 (25%) had not received them. Figure 26 reveals the findings from household surveys which indicate that most people from those that had received benefits were Bakiga as represented by 338 (79.7%) of the total 424 beneficiaries. They were followed by Batwa 78 (18.4%), Bafumbira 05 (1.2%) and others as represented by 03 (0.7 %) as indicated in Figure 25. Still for the non-beneficiaries (n=141), majority were Bakiga represented by 106 (75.2%) while the least were Bafumbira represented by 1 (0.7%). This distribution had a connection to the proportion distribution of these ethnical grounds across Bwindi community.

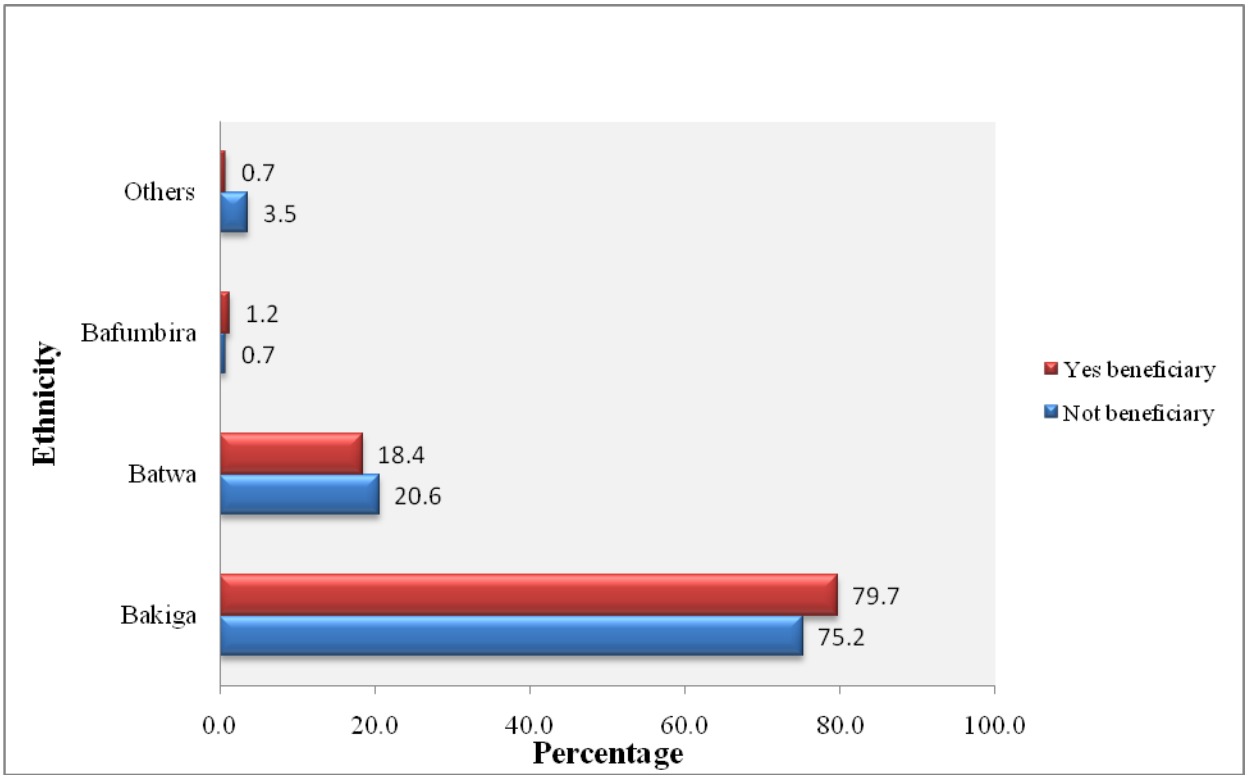


Figure 26: Revenue Sharing benefits across ethnicities

Source: Primary Data, 2013

The study stratified ethnic groups in order to get a representative sample in each ethnic group. This reveals how Bakiga are many compared to other tribes that boarder with Bwindi. Similarly the study by Sandbrook revealed the same dominant category of the Bakiga around Bwindi. The baseline survey found 589 households across the six study villages, with a total of 2,821 members. These individuals were drawn from 13 East African ethnic groups. Of these, the Bakiga were strongly dominant with 96.4% of individuals, and only five other groups had four or more members. These results were almost similar to those given by CARE (1994), who found that 94.5% of people living around BINP were Bakiga (Sandbrook, 2006).

The distribution of RS across ethnic groups has also not been purposive in order to put various factors such as property rights, population size of the ethnic group and poverty levels within the benefiting groups. The lists of beneficiaries in 2012 from Bwindi southern sector reveal that no Mutwa received a benefit across the 12 villages of Nteko, Rubuguri and Iremera (UWA, 2012c). This shows how a specific lens to balance benefits is not worn while distributing them. This is likely to affect the proportion that each ethnic group is likely to get from Revenue Sharing funds. Figure 27 below indicates the disaggregation of projects across ethnic groups at Bwindi.

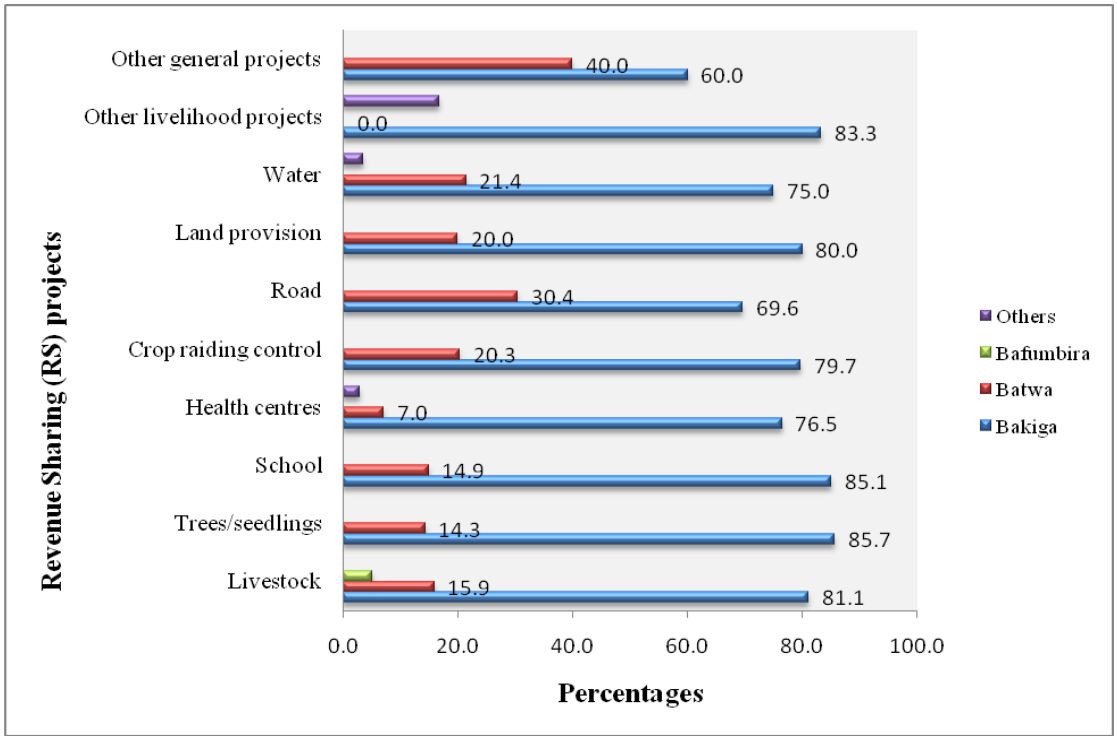


Figure 27: Distribution of Revenue Sharing Projects across ethnicities
Source: Primary data, 2013

As noted in Figure 27, Bakiga have been allocated most of the projects compared to other tribes. Figure 27 further indicates that this allocation is across all funded projects under Revenue Sharing. Batwa received benefits across all projects apart from other livelihood projects. Other livelihood projects included; irish potato growing, vegetable growing, passion fruit growing and

tea planting. This indicates limited level of Batwa's involvement in commercial farming and other income generating ventures. The most projects that Batwa were involved in were other general projects. These mostly included savings and credit schemes locally known as *"akabox".*

It was established through Focus Group Discussions that most Batwa are involved in the savings and credit scheme. Batwa results show that land, livestock and savings and credit schemes were most prefered to other projects. Bafumbira were only allocated livestock project. This has a livelihood implication on the Bafumbira people since livestock alone may not generate potential avenues for livelihood improvement. Bafumbira ranked livestock projects as their preference but emphasised diversification from sheep to cows and 3 goats per household. This was attributed to the Bafumbira traditional relationship with sheep which they did not prefer as a domestic animal. They also linked their dislike of sheep to the potential returns that sheep can give compared to other livestock.

This implies that most projects are randomly funded which puts Bakiga in a more advantaged position to be selected as beneficiaries compared to other ethnic groups. The ethnic composition of Bwindi communities entails diversities of communities in terms of resource use and cultural differences in terms of priority projects. Consideration of such diverse settings is paramount within the equitable framework of Revenue Sharing since needs and priorities of certain ethnicities would be put into proper consideration. This would enable different ethnicities get their priorities and live in harmony since they would all be considered during beneficiary selection. These are the recognitive and contextual dimensions of equity as per the Justice/ Equity framework.

4.2.2.1.4 Revenue Sharing benefits and Homestead distance

Respondents were asked to mention the estimated distance they take in order to access both a vehicle road and a village centre. This measure originated from a study that was conducted at Bwindi from 2012 to 2013 that revealed that people in remote areas were likely to be poor, with less education, poor sanitation and less access to social services (Twinamatsiko *et al*., 2014). Other previous studies such as Bush and Mwesigwa (2008) had revealed that ICDs were targeting places of easy access. Therefore in order to understand who is likely to benefit from Revenue Sharing, respondents identified the distance they cover from their households to vehicle roads and village centres. This was measured in terms of less than 1 hour walk or over 1 hour walk.

Table 6 indicates that most people who benefit from Revenue Sharing live less than 1 hour walk from a vehicle road and a village centre. This is represented by 325 (76.3%) for those under 1 hour walk compared to 99 (23.3%) for beneficiaries over 1 hour walk from vehicle road. Further still, in terms of homestead distance to the village centre, those who benefited in a walk distance under 1 hour were 332 (78.3%) compared to 92 (21.7%). This is attributed to the process of Revenue Sharing implementation where those in remote areas over 1 hour walk to reach a vehicle road and village centre are not always targeted. Awareness, consultative and distribution meetings are always conducted in places of easy access which is likely to limit chances of potential beneficiaries far from places of reach.

Table 6: Benefits across homestead distance to roads and village centres among Beneficiaries and Non Beneficiaries of Revenue Sharing

Category of beneficiaries	**Closeness to the vehicle road**				**Closeness to the village centre**			
	Under 1hr walk (Freq)	***Under 1hr walk (%)***	***Over 1hr walk (Freq)***	***Over 1hr walk (%)***	***Under 1hr walk (Freq)***	***Under 1hr walk (%)***	***Over 1hr walk (Freq)***	***Over 1hr walk (%)***
Not beneficiary	106	75.2	35	24.8	108	76.6	33	23.4
Yes beneficiary	325	76.7	99	23.3	332	78.3	92	21.7
Total	431	76.3	134	23.7	440	77.9	125	22.1

Source: Primary data, 2013

Results from Focus Group Discussions further indicate that most of these people living over 1 hour walk are closer to the park boundary and spend most of their time guarding crops from raiding by Bwindi problem animals and vermin. This poses two threats; there is lack of motivation to attend meetings thus limiting ones' chance of being selected as a beneficiary. There is also the challenge of being held back to attend meetings because of guarding crops from being raided. This is attributed to the fact that almost 96% of people around Bwindi depend on subsistence agriculture (UBOS, 2011).

Box 4: Local community perception on people near park boundary
"Itwe abantu abahikiine nihaamba tutukaaza omunkiiko ahabwokuba nituba turasyamira emisiri kugira ingu enyamishwa zitatwoonera. Ndabasanta kusiga engagi ziranyonera haza nkaza omu inkiko? Enkiko zirabaasa nkundisa? Ekyonikyo kiratuma naguma indinzire emisiri yangye kugira ingu enyamishwa za paka zitanyonera."

Translated as;

> *"We cannot attend meetings because we have to guard our crops from being raided. How can I leave my garden in the hands of Gorillas and i go for a meeting? Do I feed from those meetings? That is why we opt to remain guarding our crops from crop raiding."*
> **(A married male Mukiga, Rushaga FGD, Rubuguri, Kisoro. March 2014)**

> *"Nyowe ntikarebagaho abakozi bapaaka bariija kutushobororera ahamisiri yitu kwiyaho baratweeta ngutubuganire omusenta ya Ntungamo. Eki kiramanyiisa ingu inshemerire kutambura eshaha zihahika ebiri kugira ingu nyetabe omurukiiko. Ngeenu emisiri yangye ningisigahe? Hine omuntu wena owakubasa kuririsa eka yangye? Bakabiire nibareta enkiko hiihi nemisiri yetu kugira ngu bareebe amari okugaratushishira kugira ingu kibaretere nabo okutuyamba ninga okutushuumbusha. Ndahurira mberigwe kubi ntashemerirwe ahabyomugasho gweyi paaka".*

Translated as;

> *I have never seen park people come to brief us from our gardens. Instead they call us to meet at Ntungamo trading centre. This means I have to walk for 2 hours to attend to them. Where should I live my garden? Will any one give my family food? They should instead hold meetings here so that they see what damage these animals create on our crops and they compensate us. I even feel bad about the value of this park*
> **(Elderly Mufumbira key informant in Murore village, Nteko parish, Kisoro. January 2014)**

This implies that, if Revenue Sharing meetings and selection activities do not target people in remote areas, there are high chances of not being selected as beneficiaries. Such people in the population are likely to have limited impact of Revenue Sharing on both their livelihoods and support for conservation.

Table 7 and 8 reveal that majority of the beneficiaries both under and over 1 hour walk to the vehicle road and village centre benefit from livestock and crop raiding control projects compared

to other projects. This is represented by 38.7% and 15.1% respectively of the entire projects funded.

Table 7: Projects and their distribution to the proximity of a vehicle road

RS projects	**Nearness to the vehicle road**					
	Under 1hr walk (Freq)	***Under 1hr walk (%)***	***Over 1hr walk (Freq)***	***Over 1hr walk (%)***	***Total (Freq)***	***Total (%)***
Livestock	125	76.2	39	23.8	164	38.7
Trees/seedlings	21	75.0	7	25.0	28	6.6
School	33	70.2	14	29.8	47	11.1
Health centres	24	70.6	10	29.4	34	8.0
Crop raiding control	54	84.4	10	15.6	64	15.1
Road	18	78.3	5	21.7	23	5.4
Land provision	15	75.0	5	25.0	20	4.7
Water	23	82.1	5	17.9	28	6.6
Other livelihood projects	5	83.3	1	16.7	6	1.4
Other general projects	7	70.0	3	30.0	10	2.4
Total	**325**	**76.7**	**99**	**23.3**	**424**	**100**

Source: Primary data, 2013

Table 8: Projects and their distribution to the proximity of a village centre

RS projects	Nearness to the village centre					
	Under 1hr walk (Freq)	***Over 1hr walk (%)***	***Under 1hr walk (Freq)***	***Over 1hr walk (%)***	***Total (Freq)***	***Total (%)***
Livestock	126	76.8	38	23.2	164	38.7
Trees/seedlings	21	75.0	7	25.0	28	6.6
School	36	76.6	11	23.4	47	11.1
Health centres	24	70.6	10	29.4	34	8.0
Crop raiding control	52	81.3	12	18.8	64	15.1
Road	18	78.3	5	21.7	23	5.4
Land provision	17	85.0	3	15.0	20	4.7
Water	24	85.7	4	14.3	28	6.6
Other livelihood projects	5	83.3	1	16.7	6	1.4
Other general projects	9	90.0	1	10.0	10	2.4
Total	**332**	**78.3**	**92**	**21.7**	**424**	**100**

Source: Primary data, 2013

In Kabale and Kanungu the most funded livestock projects was goat rearing while in Kisoro all respondents mentioned sheep rearing. These projects are funded consecutively following the rotation of households within the community to enable all people receive a benefit. This indicates that projects are not about what impact they create but the coverage of beneficiaries.

4.2.2.1.5 Revenue Sharing Benefits and Proximity to the National Park Boundary

Revenue Sharing policy guidelines stipulate that money will be distributed to those who live in the frontline villages adjacent to the park (UWA, 2012a, p. 4). This distance is estimated to be 1-2 km from the park boundary. The Community in frontline LCI comprises of the entire population of individuals and households in a LCI that shares a boundary with wildlife Protected Area. The overall goal of Revenue Sharing is *"to ensure strong partnership between protected areas management, local communities and local governments leading to sustainable management of resources in and around protected areas by enabling people living adjacent to protected areas obtain financial benefits derived from the existence of these areas that contribute to improvements in their welfare and help gain their support for protected areas conservation"* as stated in the policy guidelines (UWA, 2012a: p. 6).

This study used Bwindi shape files to measure the 1 km distance from the park boundary (see Fig. 10). The researcher further geo-referenced household locations of all the 565 respondents who included; 106 Batwa households, 408 community random household and 51 Unauthorised Resource Users. This helped to determine and compare the distance from the park boundary with the location of Revenue Sharing beneficiaries. Figure 10 illustrates the location of beneficiaries in the face of park boundary. It indicates the red buffer line of 1 km from Bwindi park boundary and the locations of different categories of beneficiaries who were the respondents in this study.

From the analysis run using descriptive statistics, 424 (75%) compared to 141 (25%) of the respondents were beneficiaries of Revenue Sharing. Results show that most of the respondents were above 1km of the park boundary. Regarding Revenue Sharing benefits, there was no

significant difference in the level of benefit reported by residents living up to 1km from the national park boundary and those above 1 km.

People living within 1km from the national park boundary however reported benefiting from fewer Revenue Sharing projects than those above 1km. This implies that beneficiaries beyond 1 km of park boundary are likely to perceive great benefits compared to those within 1 km. This contravenes what the policy targets-people who are closer to the park. It also implies that people who bear the most conservation costs such as crop raiding and other human wildlife conflicts are likely to be targeted less compared to those above 1 km. Crop raiding was mostly reported in Focus Group Discussions as a hindrance to livelihood improvement.

Box 5: Local community perception on crop raiding and livelihood improvement
"Okwonerwa niko kuretire ekyaaro kyitu kyayoyengyera kugaruka enyima. Korikuhinga emisiri yaawe, otakasharurire nooba wamanyire kwooraza kwihamu busha ninga kimwe kyakana (1/4) ahabwoshemerire nosharura ahabwokwonerwa amari. Ekiratuteganiisa itwe abaturagye, engagi kuzirikwija omumisiri yeetu, baziramburiramu obwo ziratabangura emisiri yeetu. Obwire bwokubagana esente eziraruga omungagi, tibakagereraniisa okutushishikarirwe. Ekyonikyo kitureteere twareba paaka nkomuzigu wokubanza otumire tutaratunguuka turaguma omubukyene." Translated as; *"Crop raiding is what has increased our vulnerability in this place. You can plant your crops but before you harvest them, you are sure to get nothing or a quarter of the produces because of these wild animals. What disturbs us as a community, Gorillas come to our gardens and they trek them from there...while they are destroying crops. When it comes to Revenue Sharing, this cost is not specifically considered. That is why we now look at the park as our number one enemy to livelihood security".* **(FGD in Mayanja cell, Bujengwe, Kanungu District, March 2014)**

The policy stipulates that *"It can be stated with reasonable confidence that implementation of these guidelines will contribute significantly towards reduction of human-wildlife conflict and improvement of livelihoods of households in communities adjacent to wildlife protected areas since the guidelines are built on broad consensus and comply with all laws and financial regulations of the country" (UWA, 2012a: p. 4).*

The study also analysed the poverty differences between residents close to the park and those far from the park. It was found out those local residents who live within 1 km of the national park boundary were significantly poorer (P-value ≤ 0.05) compared to residents living beyond 1 km from the park boundary. Residents in 1km distance also had less years of formal education and fewer sanitation facilities than those who lived beyond 1 km from the national park boundary. Most of these people rated their quality of life lower than residents above 1 km. These results illustrate that people living in frontline communities (within 1km of the national park boundary) are the poorer compared to others in the same parishes (see Fig. 10).

4.2.2.2 Relationship between distribution of benefits and Livelihood Improvement

4.2.2.2.1 Revenue Sharing projects funded across various sections of people in society

Various projects that have been funded by UWA were identified from the community conservation department at UWA offices in Buhoma. The records revealed a number of both common good and livelihood projects that have been funded since 1996 and distributed across Bwindi communities. Common good projects include those projects that benefit a community as

a whole while livelihood projects benefit individual households. Discussions with UWA staff before household surveys were intended to have proper planning and design of the questionnaire. UWA staff revealed that from1996 to 2010; the policy emphasis was on funding common good projects.

In 2010 after the revision of guidelines, livelihood projects were then prioritised. Therefore from records and anecdotal discussions, various projects including livestock, trees/seedlings, schools, health centres, crop raiding control measures that included planting of Mauritius fence and pepper, roads, land provision, water, other livelihood projects and other general projects were included on the list. Other livelihood projects were; Irish potato growing and tea planting. Other general projects included; savings and credit schemes, distribution of furniture in schools and construction of council halls and repairing bridges. Figure 28 reveals data that was mapped in line with projects that UWA has funded since 1996 as generated from UWA records.

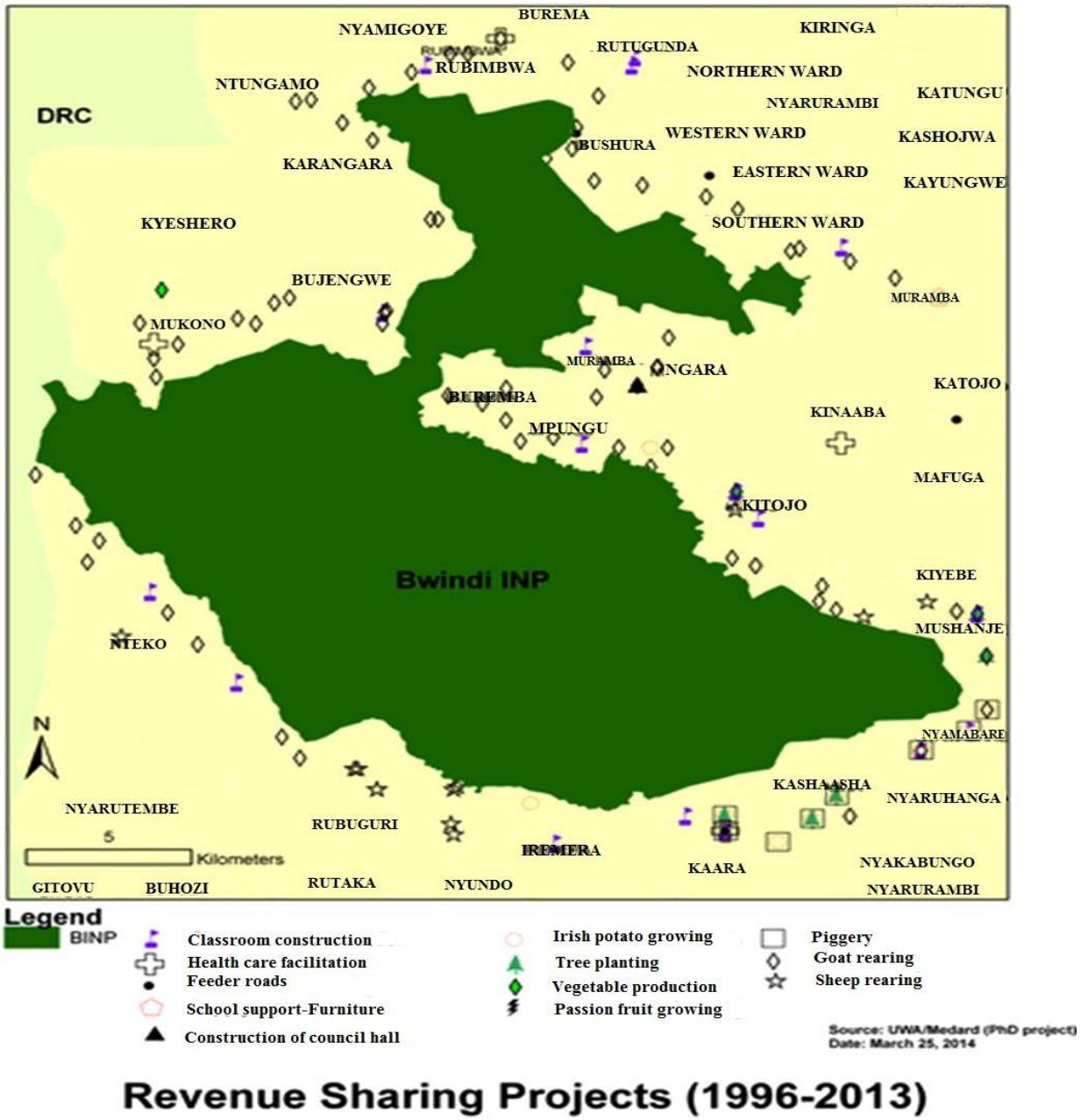


Figure 28: Map of Bwindi Showing Revenue Sharing Projects Implemented 1996-2013

Source: UWA RS data, 2013

Figure 29 indicates that majority of the funding has gone to livestock as represented by 164 (38.7%) followed by crop raiding control 64 (15.1%). The least funded are the 'other livelihood projects' such as poultry, passion fruit growing and Irish seedlings with 6 (1.4%). Selection of projects has a significant influence on livelihood improvement (P-value ≤ 0.05).

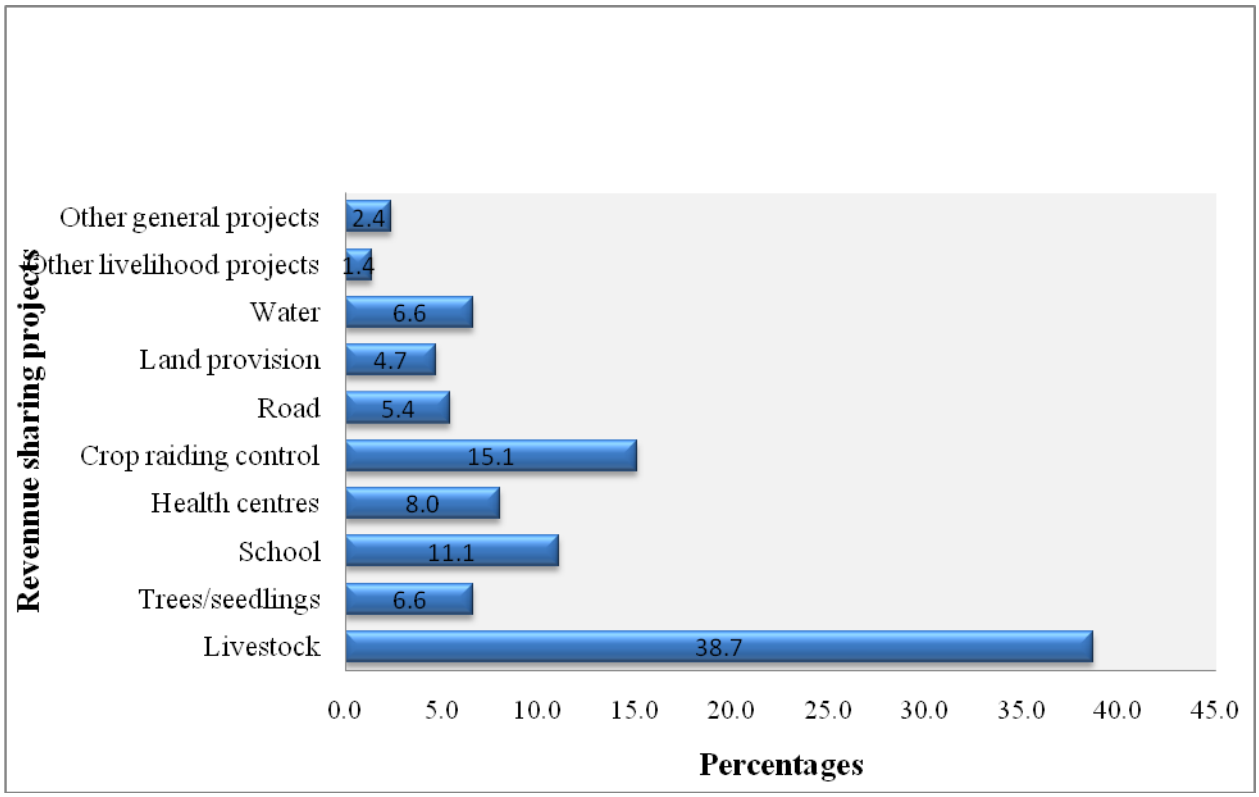


Figure 29: Distribution of Revenue Sharing Projects in percentages
Source: Primary data, 2013

The current livestock funded (goats and sheep) are not adequate enough to address livelihood insecurity across Bwindi communities. During Focus Group Discussions, participants mentioned projects they would desire to see funded if their livelihoods were to improve. The most mentioned livelihood projects in their order of ranking included; commercial cultivation,

livestock projects that focus on cows, 3 goats per distribution phase (not 1 goat), group poultry farming, tea planting, village savings and credit schemes, and small scale business enterprises.

At household level, livelihood projects are most preferred compared to common good projects such as roads, health centres and schools which are more preferred by local leaders. The preference of livelihood projects at household level was attributed to a need to raise household income whereas local leaders mentioned in Focus Group Discussions that common good projects show and create more impact compared to livelihood projects. It was however understood from community interactions that local leaders prefer common good projects to boost their political empires and platforms in their communities.

Box 6: Local community perception on projects to be funded

"Nyowe inyine amatsiko mingi ingu porogyekiti ya matungo ne mbibo tizikatekaho empinduka yamani eyokureberaho ahanyima yemwaka nka makumi ataano. Sente obubabiire bakyazita omunkuuto hamwe nomubyombeko, hakiri bikaba birarebeka, kwoonka hati kubarakuha embuzi irizoba, esande erakurataho noshaanga bagirire ninga bagigurize."

Translated as;

"I am very sure that livelihood projects do not make a significant impact that you will see even after 50 years. When they were still funding common good projects at least you would see something but now when goats are supplied today, the next week they are either slaughtered for meat or sold
(Chairman LC1, Byamihanda, Kaara, Kabale District, March 2014)

"Abebembezi beetu barakozeesa akasiimo kararuga omwihamba (eseente) omukutunguura ebyobutegyeki bwabo. Ekirareberaho kansara weetu wa disiturikiti akakozesa obuyambi buraruga omupaaka omukuroonda oburururu bwomwaka 2011. Akejunisa ekyombeko kigomborora ekyayombekigwe obuyambi buraruga omupaaka ingu niwe yakyombekire kandi obwo seete ziturabagana ahamagoba gihamba zirizo zayejunisiibwe omukwombeka. Porogyekiiti zamatungo nembibo zituyambire omukuheera abaana beitu ebishare byamashomero. Ekyokureberaho noguza embuzi obona akaseete kokutwara omwana ahishomero. Kwonka tindabaasa kuguza ishomero ahabwokuba neryaboona. Hati ekiturashaba nokutuha hakiri embuzi eishatu ninga ente eboneere burika omumyaanya gwokutuha akabuzi katiine nkokukari"

Translated as;

"Our local leaders use Revenue Sharing projects for their political capital. When the LC5 councillor was campaigning for elections of 2011, he used to refer to the council hall which was constructed using Revenue Sharing money. Livelihood projects help us to meet school fees for our children. You can sell a goat and take a child to school. How can i sell a school which is owned by all...what we need now is to get like 3 goats or a big cow as one household than just a small goat"

(FGD participant, Mpungu, Kanungu District, February 2014).

The revelation shows controversies on Revenue Sharing projects between community leaders and local beneficiaries. It was reported that most of the common good projects that were constructed before 2010 were always used by politicians as campaign tools to gain political support. As most key informants reported, the shift from common goods to livelihood was intended to avoid duplication of Government social services yet results indicate that in Buhamba Batwa community, Revenue Sharing goats were eaten the next morning after distribution. This implies that, if livelihood projects are to improve people's livelihoods, sensitization and monitoring of funded projects remain important. Also change in livelihood projects funded could be explored. For instance, a focus on tangible livelihood projects such as cows or group farming

that have the capacity to change livelihood situations and easy to monitor would be important to be prioritised for funding. This would depend on people's priorities and land use pattern. It is better to target few people but with tangible projects and rotate in next rounds of disbursement.

4.2.2.2.2 Revenue Sharing Benefit Distribution and Livelihood Improvement

This section presents the level of significance and the relationship that various distributive parameters have on people's livelihoods. The initial parameters to measure this relationship included; resource users, type of projects funded, ethnicity, gender, length of stay in the community, homestead location to the vehicle road and village centre and proximity from the park boundary. Not all the parameters were significant (P-value $\geq$ or $\leq$ 0.05). After running linear regression, only resource users, ethnicity, projects funded and proximity distance from the park boundary were most significant (P-value $\leq$ 0.05). There were however differences across parameters in terms of the relationship they currently have with livelihood improvement.

Livelihood improvement was measured in terms of basic necessities, life representation, hunger score, access to water, education levels, position in society and disease burden. In order to create a particular index to represent livelihood improvement polychoric PCA was used. Parameters under Revenue Sharing distribution were then collated with the livelihood index. Table 9 below indicates results from the analysis. It is indicated that Ethnicity, proximity from the park boundary and resource use are highly predictive factors that influence livelihood improvement but negatively associate with livelihood improvement (P-value $<$ 0.05). The type of projects to be funded is also a significant factor for livelihood improvement although with a negative relationship (P-value $<$ 0.05).

Table 9: Linear regression model between Revenue Sharing benefit distribution parameters and livelihood improvement

RS distribution variable	Coefficient	*P*-value	T	Standard error
Resource users	-.47***	0.002	-3.10	.14
Ethnicity	-.54***	0.000	-3.78	.14
Projects funded	-.04**	0.037	-2.09	.02
Proximity from park boundary	-.54***	0.000	-3.78	.14

**** Very highly significant at 5%*
*** Highly significant at 5%*

This implies that while distributing RS projects, implementers should put much focus on the most predictive factors identified in Table 9 if livelihood improvement is to be registered. This does not mean that other factors such as age and gender are not important. Evidence shows that the level of significance among considerable factors differs in terms of which elements in society are mostly likely to associate with livelihood improvement. Although there is a relationship between the parameters in distributing RS projects and benefits, the relationship is negative.

The study further ran a Multinomial Logistic Regression to determine differences in relationship across various measurements of life representation. Five ranked categories of life representation of respondents included; worst, somewhat bad, average, fine and best. Results show that the livelihood of resource users in the category of worst is more significantly influenced by Revenue Sharing project distribution compared to other categories in the population. This is true since people in the worst category of the population can easily observe change in livelihood compared

to other categories. It is established that most Batwa and people living closer to the park boundary ranked among the worst category.

Results further indicate a strong positive relationship (Coeff=2.2, *P*-value=0.000, SE=0.4, df =564) between distribution of projects and livelihood improvement. This implies that as more Revenue Sharing projects are distributed to people in society within various categories of the population, the more their livelihood improvement is felt among those beneficiaries. Limited targeting of such categories, limits their livelihood improvement.

Among ethnic groups, results further indicate that, the livelihoods of those in the category of worst are more significantly influenced compared to other categories such as somewhat bad, average, fine or best life representation. There is also a strong positive relationship (Coeff=0.72, *P*-value=0.01,SE=0.3, df=564) between distribution of Revenue Sharing benefits to certain ethnicities such as Batwa, majority of whom were in worst category and their ability to realize improvement in their livelihood. This implies that the more funding targets ethnic groups in the worst category of life representation, the more improvement of livelihood of such ethnicities is likely to occur and vice versa. Since most Batwa are ranked in the worst category, targeting them would easily show improvement in their livelihood compared to other people in the same communities. People who have low livelihoods are likely to show improvement in livelihood when targeted by Revenue Sharing projects compared to those with other livelihood sources.

In some other ethnicities however that were in the category of average, the negative relationship implies that the targeting of such groups does not necessarily facilitate improvement in their

livelihoods. This is true since most people in the average category have alternative sources of livelihood such as business or formal employment. Other parameters of life representation did not indicate any relationship with Revenue Sharing benefit distribution. The funded projects that showed a level of significance include; land, trees/seedlings and other livelihood projects that included; Irish potato growing, passion fruit growing and poultry.

4.2.2.2.3 Revenue Sharing Benefit Distribution and Conservation Support

This study analysed the relationship between Revenue Sharing benefit distribution and people's support for the conservation of Bwindi. Results show that there is a significant relationship between conservation support and some parameters in the distribution of Revenue Sharing benefits. The most predictive factors were; ethnicity, resource use and proximity from park boundary (P-value < 0.05). Ethnicity was looked at in terms of Bakiga, Batwa, Bafumbira and other ethnicities. Resource users were categorised as URUs, random community and Batwa people. This implies that diversities in ethnicity, resource use and proximity from the park boundary compared to other factors, matter most when distributing Revenue Sharing projects. This is in line with the contextual and recognitive dimensions of equity where a specific lens should focus on significant attributes in society.

The three significant attributes also differed in their level of significance although they are all important in terms of targeting benefits. Proximity to the park boundary highly significantly influenced conservation support (P-value =0.000, Coeff= -0.54) compared to ethnicity and resource users. Ethnicity significantly influenced conservation support (P-value = 0.008) more

than resource users (*P*-value=0.02). Table 10 below illustrates the summary of levels of significance and relationship.

Table 10: Linear regression model between Revenue Sharing benefit distribution and conservation support

RS distribution variable	Coefficient	*P*-value	T	Standard error
Resource users	.27*	0.02	2.32	.12
Ethnicity	-.35**	0.008	-2.16	.16
Proximity from park boundary	-.54***	0.000	-3.78	.14

**** Very highly significant at 5%*
*** Highly significant at 5%*
** Significant at 5%*

Results from FGDs confirmed these findings. Out of 10 FGDs, 08 (80%) mentioned changing the formula of distributing benefits since Bwindi community is diverse. It was noted that the Batwa and Bakiga are different in terms of socioeconomic and cultural construction. One FGD participant had this to say;

Box 7: Contextual distribution of benefits
"Itwe abatwa tukizire kubonabonesibwa omubwire bwokubagana ebintu bya revenyu shayaringi. Baratuha ebintu birikushwana ne byabakiga kandi obwe abakiga nabihiingi kandi itwe abatwa turi abantu behaamba tutaramanya kuhinga. Tugyerizeho kweega okubarahinga kwonka nahati kikyaari ekizibu ahariitwe nkabatwa. Enkyuro ehwireho, omugeemu akatuha embibo zemondi zokuhinga nkeziyahiire abakiga. Obwire bwokusharura kubwahikire, itwe abatwa tukasharura busha kandi obwe emisiri ya Bakiga ekaba ebonereere kimwe kandi bo bakasharura bingi munonga."

Translated as;

> *"As Batwa we have been mistreated when it comes to giving us Revenue Sharing projects. They give us same things as Bakiga. Bakiga are agriculturalists while we Batwa are forest people. We have tried to learn cultivation but it is still a challenge to us. Last season the warden gave us Irish potatoes to plant as was given to the Bakiga. We did not harvest anything at the end of the season yet Bakiga's gardens were flourishing..."*
>
> **(A mutwa elder Buhamba FGD, Rutugunda, Kanungu District, December 2013)**

This implies that consideration ought to be put on the context of benefit distribution as confirmed from both household survey results and FGDs. This however entails an analysis of needs and priorities of various elements in society during project selection and prioritisation meetings. Having separate meetings to select projects based on needs and priorities would enable acceptability of the projects funded.

4.2.3. Discussion of Results

It is vital to recall that Bwindi Impenetrable National Park is home to half of the world's endangered population of mountain gorillas and a world heritage site (IGCP, 2011) yet surrounded by poor villagers. As an Afromontane forest in South Western Uganda, Bwindi is an area of high biodiversity with many rare and endemic species (Butynski, 1984; Cunningham, 1992). Results in this chapter section 4.2 reveal differences that exist in the distribution of Revenue Sharing benefits across different sections of people within the community. Significant variables such as resource use, ethnicity, gender and proximity have been established. There are however other factors that this study considered but were found not significant. These include;

age, education levels, length of stay in the community, position in the community and marital status.

What is key to note here is that resource use and proximity to the park boundary are highly significant compared to other variables and had a relationship with both livelihood and conservation support. This means that the more implementers target specific categories of resource users and those closer to the park boundary, the more improvement in livelihood and support for conservation is likely to be registered. The key categories under this group of resource users are unauthorised resource users, Batwa and other community members in the same communities. It however came out that Batwa and Unauthorised Resource Users had a strong relationship with the livelihood improvement and conservation support compared to other members in their communities.

This finding corresponds with the equity framework in benefit sharing that emphasis a deeper lens of distributive, contextual and recognitive dimensions of equity (Schlosberg, 2007); McDermott *et al*., 2012). It is emphasised here that when distributing benefits from Protected Areas, specific considerations should be made to those local residents that have more property rights compared to others and also those who do harm to the resource. In the context of Bwindi, this approach is relevant. The Batwa people are historically known as forest people and inhabitants of Bwindi (Kabananukye and Wily, 1996; Kidd, 2008, Infield and Mugisha, 2010). Since gazettment of Bwindi in 1991, Batwa were chased out of Bwindi. Because they have been left with limited livelihood sources in the communities they live in, they are likely to look for

means of surviving. Since most of them live closer to the national park, it could be a source of their livelihood support without permission from Bwindi park management.

The Unauthorised Resource Use is another area that should draw attention of Bwindi park management. The equity framework emphasizes the need to target people who do harm to the resources in order to change their behavior. Revenue Sharing benefit distribution does not currently consider this. This explains the negative relationship that exists. Since there is a good will from poachers to reform and form associations as it is the case for Mpungu, Mushanje and Rubuguri, more targeting of these people while distributing Revenue Sharing benefits would further change of behavior.

It has been presented in section 4.2 that people living within the frontline villages were poorest members of their society compared to other residents. It was also found out that most Batwa and Unauthorised Resource Users live in the distance of 1 km of the park boundary and were likely to have limited access to education, health care, road, good sanitation and information. Key findings also reveal that, most of the frontline local residents suffer from crop raiding. It was not easy to conclude whether crop raiding was responsible for limited livelihoods or other factors relating to being far from such social amenities.

It is however important to note that, people who live closer to the national park boundary and those who have land near the park boundary suffer most of the conservation costs compared to residents who live far away from the national park. The conservation costs carried by such residents contribute greatly on their livelihood status. Crop raiding as found out by this study

creates a lot of damage to the potential harvests that would have addressed the problem of livelihood insecurity. Secondly, young children of school ongoing age, miss out education as a result of staying behind to chase away vermin and problem animals. People in Ruhija, Rushaga and Kashasha mostly reported elephants while those of north and north east sector of Bwindi reported baboons.

This livelihood situation is similar to what happens at Queen Elizabeth National Park where crop raiding by Elephants and Buffaloes continue to affect Bakonjo's and some Basongora's livelihood avenues (Twinamatsiko, 2013; Babaasa *et al*., 2013). In Mgahinga Gorilla National Park, buffalos, porcupines and elephants have continued to affect people's livelihood (Babaasa *et al*., 2013). Rwenzori Mountain National Park (RMNP) is also not an exception where blue and vervet monkeys, chimpanzees and push pigs greatly affect people's gardens and have increased poor support for conservation. This shows how the problem at Bwindi is the same as other communities that boarder with National parks in Uganda which require a national policy solution.

This is also similar to what a study by Plumptre *et al*. (2004) found out although the methodology of data collection and analysis differed. The Plumptre *et al*. (2004) report was produced by some NGOs and generated data using rapid survey techniques. This was a quick survey and did not internalize issues around Bwindi. The study also lacked peer-review which limits confidence in the data they collected. The report however showed that crop raiding was a challenge in hindering livelihood improvement and socio-economic well being of people bordering with Bwindi. In Rwanda, the policy provides for compensation of such losses where

5% of the total revenue collected from the parks compensates community losses (Babaasa *et al.*, 2013). Although valuation of losses incurred is still a challenge, there is however hope built among local people neighboring such PAs. As such their support for conservation is high. This could be further explored to understand the implementation modalities to improve the practice at Bwindi.

In this understanding, it would mean that conservation benefits should go direct to such categories of people in the frontline villages. Much as the new Revenue Sharing guidelines cater for human wildlife conflict by putting aside 15% of the disbursed amount to the benefiting communities (as guidelines for gorilla levy), the household questions are not adequately answered. It would have been better if a formula to calculate the losses was instituted or to set in place a compensation policy that would address crop raiding challenge. From the research findings, the frontline villages ought to appreciate the efforts of conservation when all interventions involve them and benefit them.

Bwindi being a world heritage would be surrounded by an able population that would be capable of meeting their livelihood needs if implementation of such programmes is focused adequately. The issues of livelihood insecurity pose other questions as to whether those who undertake unauthorised resource use are driven by factors relating to meeting their livelihood needs. Until the funds are targeted towards improving socioeconomic well being, efforts to conservation remain in shortfalls. This study argues proper targeting of Revenue Sharing projects most especially to those who have historical rights over Bwindi and those who bear the most conservation costs. The targeting should entail different approaches to different sections of the

populations since all have divergent needs and problems. Generalization of Revenue Sharing benefits will not address the objectives of Revenue Sharing policy.

The socioeconomic well being of the Batwa is another important factor to look into. As noted, Batwa live in the frontline villages and hence are part of the poorest members of the communities. It was found out that Bwindi Mgahinga Conservation Trust bought land for most Batwa at the periphery. Batwa are living on this land without any viable economic livelihood venture. The land bought for the Batwa boarders with the park and therefore this puts them at a disadvantage of being victims of crop raiding since we have realized the challenge of crop raiding. With their limited zeal to undertake agriculture, this challenge becomes a disincentive to livelihood improvement and conservation support.

Much as many conservation organizations are working with the Batwa, some organizations use them as conduits of profit making. As a result, the Batwa continue to face social and economic exclusion and are more likely to remain marginalized if deliberate efforts are not made to systematically involve them in Revenue Sharing programmes and other ICDs. The small percentage allocated to marginalized groups does not specify the Batwa and as a result, benefits that go to the Batwa have remained low to address their livelihood needs. Batwa have specific concerns which ought to be looked at separately. They are not civilized compared to non Batwa, which makes them passive participants when it comes to park meetings that determine who to benefit.

As a separate entity, women were looked at with specific lens. The results show that women as compared to men are living in poor socioeconomic status. This was attributed to the fact that Revenue Sharing benefits use a community and a household as a unit of benefit. Most communities surrounding Bwindi are patriarchal and therefore the position of women in terms of community or household property ownership is minimal. This continues to put women at a disadvantage to get out of poor socioeconomic status compared to men. There is a need to address gender gaps that exist at all levels which continue to challenge women's hope to meet their livelihood needs and priorities.

All respondents attributed their low socioeconomic and wellbeing to crop raiding. When asked what affects their possession of basic necessities and quality of life in a negative way, most respondents described the impacts of crop raiding that have increased livelihood insecurity especially food and economic security. This is the same at other National parks in Uganda such as Mgahinga, RMNP and QENP. From household surveys using the basic necessity score, the key conservation cost mentioned was the loss of food from crop raiding by wild animals. Other impacts of crop raiding were a reduction in income to buy basic necessities, abandoning land because of crop raiding and the challenge of children not going to school because of guarding crops.

The main reason for the ranking of low quality of life was still connected to crop raiding. All the 10 FGDs (100%) out of 10 of respondents listed 'animals raid my crops' as the main reason for a low livelihood improvement. Crop raiding was mentioned as a key factor affecting household income yet Revenue Sharing policy has not given attention to funding people that are mostly

affected by crop raiding. This implies that crop raiding is a negative factor for livelihood improvement. Results from FGDs further show that there is no deliberate effort made to connect Revenue Sharing to crop raiding apart from the 15% of the allocated funds which is set aside for crop raiding and marginalized groups. Respondents however revealed that this amount of money was too little to address the costs of crop raiding.

In the southern sector of Bwindi, the results show that gorillas come out the park and spend about 60% of their time on community land raiding crops and stalling crop production. In Ruhija Sub County (Kitojo parish), elephants were identified as challenges to crop production. In Mpungu and Kayonza Sub Counties, baboons were highly reported as negative contributors to livelihood insecurity. Results show that over years from 1996, no much effort has been put on board to address this problem. From local government act, it is clear that vermin will be controlled by the local Governments while problem animal are a responsibility of Uganda Wildlife Authority.

It was also revealed from household survey that most Revenue Sharing projects are scanty and do not have meaningful contributions towards addressing livelihood insecurity. This was substantiated with key informant interviews where local leaders preferred common good projects compared to livelihood projects as it was in the old Revenue Sharing guidelines. This was attributed to limited and inadequate livelihood projects such as goats, sheep, Irish potatoes that were not enough to address household needs. Some respondents mentioned that each of the selected households may receive a young goat of averagely UGX 50,000 which may not address livelihood needs for the entire households. Local people suggested distribution of tangible

projects such as a cow or three goats. Such projects were seen by most people as tangible enough to address livelihood insecurity.

Household surveys and key informant interviews showed that what is actually budgeted by Uganda Wildlife Authority and what is on paper is not what is actually practiced. In some sub counties such as Ruhija and Kashasha (Ikumba) and Mpungu, the last disbursement of 2013, saw a lot of fraud in terms of Revenue Sharing project funding. Some goats distributed were budgeted for UGX 120,000 but later distributed goats of UGX 50,000 per household. Households in Ruhija were asked to come up with goats from their homes to pause for photos and get UGX 50,000 while those of Mpungu pocketed UGX 80,000. The level of corruption therefore in some communities was attributed to increased livelihood insecurity.

As part of its approach to the long-term conservation of Bwindi Impenetrable National Park (BINP), UWA has implemented collaborative management agreements with both local communities and local government. It has been noted by the studies conducted that BINP's approach to collaborative forest management has involved local communities (Bitariho 2013; Namara 2006). It is vital to note that, threats to the BINP include uncontrolled exploitation of forest resources as well as fire damage and the indirect pressures of demand for land which therefore poses a concern since such organised groups are supposed to address such scenarios through intelligence report submission and sensitisation of their fellow community members. There is however increasing evidence that areas of outstanding conservation importance coincide with dense human settlement (Butynski, 1984). This situation is common in sub-Saharan Africa,

where areas of high conservation value are under threat due to the increasing populations whose livelihoods depend upon the natural resource base (Balmford *et al.*, 2001).

4.3 Revenue Sharing Benefit Impact and People's Livelihood Improvement to Support Conservation of Bwindi

4.3.1 Introduction

This section relates Revenue Sharing benefit and the perceived impact that people have at Bwindi. Impact of Revenue Sharing benefits as operationalised in Chapter 1 section 1.12 was looked at as outcomes of Revenue Sharing projects. Receiving a project and the impact it creates were treated as two different issues that the study established. This section therefore relates to how people perceived the outcomes of the benefits or projects they receive. Beneficiaries of Revenue Sharing (n=424) were asked to rank how the projects received have impacted on their livelihood improvement. Three categories were established which included; benefit impact, no benefit and no change.

Under this section, benefit impact has been correlated with livelihood improvement and conservation support to understand the level of significance and relationship. Through Household Surveys, FGDs and documentary review, overall results indicate that the policy has not been effectively implemented to address livelihood security as one of its set objectives. This was attributed to poor implementation approaches and targeting of projects as well as limited funds disbursed by the Bwindi park management. The study observes that, if the implementation practice can be changed and projects targeted well, there is a likelihood of achieving substantive impact on the livelihoods and their support for conservation. This is because, results show that Revenue Sharing benefit impact significantly influence livelihood improvement and conservation support.

Key issues presented under this section include; the amount of money has been disbursed to the benefiting districts in the context of visible Revenue Sharing projects; people's perceptions of Revenue Sharing benefit impact; the relationship between Revenue Sharing benefit impact and livelihood improvement and the relationship between Revenue Sharing benefit impact and people's support for conservation.

4.3.2 Results

4.3.2.1 Revenue Sharing (RS) funding and benefit perception since 1996

Results from the community conservation department reveal a number of RS projects that have been funded around Bwindi since 1996. Steady funding that resulted from increased tourism however started in 2000. Revenue Sharing projects range from common good projects as per the old guidelines to livelihood projects as per the new guidelines. Projects are funded by UWA and should be guided by the RS guidelines. Results however show a significant variation in terms of the set guidelines and what is practically followed whilst funding selected projects. This was seen in areas of decision making processes, procurement processes and monitoring of projects.

In the previous section 4.2, Figure 10 indicated that Uganda Wildlife Authority has supplied many projects both common good and livelihood projects in all parts of the National Park. It is evident that all the 27 first parishes have at least received a Revenue Sharing project. The implemented projects are categorized as common good projects that include; feeder roads, classroom construction (schools), construction of council halls, health care facilitation and supply of furniture. On the other hand, the reported livelihood projects include; Irish potato growing, tree planting, vegetable production, passion fruit growing, piggery, goat rearing and

sheep rearing. The other projects that were reported by respondents not on the map include; water and land provision.

The Conservation Area Manager, UWA finance and community conservation departments revealed that from 1996 to 2013, a total of UGX 1, 980,790,996 (One billion nine hundred eighty million seven hundred ninety thousand nine hundred ninety six shillings only) has been disbursed to support the geo-referenced projects. This covers the period of 17 years of investment for the three districts of Kabale, Kanungu and Kisoro as illustrated in Table 11. The disbursement for 2014 has not taken effect due to delays in accountabilities of the 2013 phase by some Sub Counties in Kanungu and Kisoro and hence not presented in this thesis.

Table 11: Revenue Sharing Funds Distribution 1996-2013

Years	Benefiting Districts			
	Kanungu	**Kabale**	**Kisoro**	**Total**
1996	44,000,000	20,000,000	12,000,000	76,000,000
2002	57,223,000	21,032,000	10,500,000	88,755,000
2006	69,895,500	29,603,200	14,720,000	114,218,700
2007	80,000,000	18,000,000	9,000,000	107,000,000
2009	232,762,375	99,400,150	100,638,950	432,801,475
2012	350,740,649	148,899,332	162,134,828	661,774,809
2013	266,860,832	121,661,574	111,718,606	500,241,012
Total	**1,101,482,356**	**458,596,256**	**420,712,384**	**1,980,790,996**

Source: UWA CC data, 2014

Table 11 reveals the amounts of money that has been disbursed to the benefiting parishes around Bwindi. The implementation process is guided by the new Revenue Sharing guidelines of 2012. The researcher moved around Bwindi while mapping Revenue Sharing projects that were said to have been implemented. From the household surveys however, the notable observable projects were common good projects. Some of the livelihood projects such as trees and crop raiding control measures were visibly seen. It was however hard to associate livelihood projects such as goats, sheep, Irish potatoes and vegetable gardens to Revenue Sharing funds. This is because there are many ICD implementers around Bwindi that include; Government of Uganda (GoU), Conservation Organisations (COs) such as BMCT, CARE, UOBDU and BDP and Faith Based Organizations (FBOs).

When households were asked whether they received benefits from Revenue Sharing, a total of 424 (75%) of the total 565 respondents indicated they had benefited whereas 141 (25%) indicated not having benefited. This implies that majority of the respondents (76.8%) had received one or more Revenue Sharing projects. In order to understand benefit impact, respondents (n =424) were asked to mention their perception on the projects they received from UWA.

Table 12 indicates that overall, projects had an impact on their livelihoods as represented by the majority 242 (57.1%). A substantive percentage 182 (42.7%) perceived no benefits as indicated with either no change in livelihood or no benefit impact.

Table 12: Matrix Ranking of Revenue Sharing Projects in terms of Impact

RS projects	Level of Benefit Impact			
	No benefits	**No change**	**Benefit impact**	**Total**
Livestock	58	27	79	164
Trees/Seedlings	21	3	4	28
Schools	5	0	42	47
Health centres	3	1	30	34
Crop raiding control	8	24	32	64
Roads	5	2	16	23
Land provision	4	5	11	20
Water	8	2	18	28
Other livelihood projects	3	0	3	6
Other general projects	2	1	7	10
Total	**117(25.6%)**	**65 (15.3%)**	**242 (57.1%)**	**424**

Source: Primary data, 2013

The latter is a big percentage of the sample to perceive no benefits when they received a project under Revenue Sharing. The most mentioned project that people perceived benefit impact was livestock (79 respondents), schools (42 respondents) and crop raiding control (32 respondents). The least reported with benefit impact were other livelihood projects (3 respondents) and trees/seedlings (4 respondents).

Specifically, there were variations in terms of projects and their level of impact. Over all, majority of the respondents indicated that livelihood projects compared to common good projects had impacted on them. This was however different in key informant interviews with local leaders, they indicated that common good projects were more impacting than livelihood projects. They attributed this to their level of visibility and the ability to benefit a big percentage of the population. This implies differences in the perception of Revenue Sharing projects by both local people and their leaders which might pose a conflict during project proposal selection and funding. This is because in the process of project selection and funding, both parties have a part to play and endorse.

Results further show that, Revenue Sharing has not had a considerable impact on the lives of women compared to men as a result of poor implementation approach and the existing gender inequalities at community and household levels yet women are custodians of nature. The assumption that women will benefit from both community and household projects leaves the needs of women not specifically tackled. Specifically, knowledge held by Batwa women in traditional forest management practices and institutions has often not been seen as valid specifically in the implementation of the Revenue Sharing policy and Multiple Use Programme. Batwa pygmies who live at the boundary of Bwindi (within 1 km of park boundary) are trapped in livelihood insecurity due to among other factors gender gaps that exist at household level and poor targeting of Revenue Sharing projects to both genders.

The level of benefits among people very highly significantly influenced the level of ownership of projects and the relationship was positive (Coeff=0.5, *P*-value=0.000, SE=0.02, df=564). Local

people reporting benefits from a project were more likely to feel a high level of ownership of that project. Similarly, residents who did not perceive any benefits from a RS project were most likely to feel no ownership of that project. People who felt no ownership reported no change or no benefit of the project. As the level of benefit impact increases, the level of ownership increases and the reverse is true.

4.3.2.2 Local perceptions on impact of Revenue Sharing Benefits

Table 13: FGD Project Matrix on the Type of Revenue Sharing Projects

Advantages	
Common Good Projects	**Livelihood Projects**
They are easy to monitor.	There is individual direct benefit.
They are tangible projects; they can be seen by any person.	An individual has full ownership of the project.
Many people benefit.	They are easy to manage by the owners.
There is minimal embezzlement of funds due to the fact that ways of money are communicated to all.	Owners easily recognize the source or the origin of the Project.
Risk are shared by all the beneficiaries.	It is easy to recognize the loss and the origin of the loss.
There is an information sharing and acquiring skill especially on VSLA.	
Easy accessibility of services like water, medical and road services.	
Disadvantages	
Common Good Projects	**Livelihood Projects**
There is no individual direct benefit .	The owner shares the risk alone.

Not easily to manage as they have hierarchy.	It is costly in term of monitoring projects in distant places.
There is no full ownership of the project.	If they need land, the one with land he or she can not benefit.
Decision making is done by leaders.	If the project needs individual financial contribution and the one who doesn't have money cannot benefit.
They are implemented on bill of people but not individual will.	It is easily affected by corruption; if you are not known by the leaders your name can't be considered.
Those who are close to the park at times they don't benefit in some projects like schools.	
Some of the projects do not benefit some people especially child education cannot benefit elders who are no longer of school age	
Sheep and pigs cannot benefit Muslims in case they are in a group.	

Source: Primary data, 2013

There are significant differences (P-value ≤ 0.05) in the level of attribute to the benefits of RS policy. Apparently local leaders are not in full support of the new guidelines that emphasise more of livelihood projects. There are differences in terms of perceptions on common good projects and livelihood projects. Overall, local leaders across Bwindi believe that common good projects leave a strong impact on ground compared to livelihood projects. The pros and cons of common good projects and livelihood projects have been presented in Table 13 as generated from FGDs conducted in the 10 parishes of Bwindi.

From FGDs and key informant interviews, people had different opinions regarding Revenue Sharing benefits. Members of the community were asked how they would want to see Revenue Sharing posing an impact on livelihoods. Most community members during the 10 FGDs showed dissatisfaction of the impact Revenue Sharing is creating. The views raised also compared common good projects and livelihood projects in relation to the potential impact they have on livelihoods. The major challenge raised which has not been tackled by UWA interventions is crop raiding yet there is no focused percentage of revenue collected to address this problem in the policy guidelines. One leader is Kisoro and a community member in Kalangara had this to say;

Box 8: Local community perception on Revenue Sharing benefits
"Omukubanza engyenderwa yokubagana seete zararuga omwihamba zikabaziboneere wagyeraniisa obwahati. Okubanza revenyu sheyaringi ekaba erimu oburinganiza kandi atarimu buryarya ahabwokuba ekaba erakora ebintu ryokuyamba abaturagye boona. Ekyorareberaho Igomborora rya Nyabwishenya, hati eribareeta Kirundo, tukahandiika turikushaba obuyambi. Kutwamazire kububona, twabukoresa ahirwariro rya senta yakabiri erirashangwa omwigomborora rya Kirundo. Tukombekaho ekyombeko kihaango kandi hati barikurize ryaba senta ya kana. Kandi empinduka egi nawazayo hati oragishangayo. Nobundabe ndatekateeka ingu nikirungi kuhweera abantu abahikiine napaaka orarabira omukubaha amatungo hamwe nembibo zokuhinga, kwonka tibitireho empinduka mpango omukyaaro. Twine za porogyekiti nyingi ziresirwe ebitongore ebyagavumenti (NAADS) ne betongore ebitari byagavumenti. Nahabwekyo porogyekiti za matungo ne mbibo eziraruga omuseete za paaka tikizibu." Translated as; *"At first Revenue Sharing policy was good compared to today. At first, RS was a bit open and transparent because it worked on community welfare projects. In the then Nyabwishenya Sub County now Kirundo Sub County, we worked on Health Centre II after writing a proposal for funding. We built a big building and now the centre is upgraded to Health Centre IV status. This impact is seen even if you go there now. Much as I think it is good to support communities neighboring the park with*

livelihood projects, the impact on ground is minimal. We have many projects by NGOs and NAADs, so the livelihood projects from Revenue Sharing money is not felt…"
(Chairman LCIII Kirundo Sub County, 56 years old. March, 2014).

"Itwe nkabaturagye tukabiire nitwenda za purogyekiti za matungo hamwe ne ze mbibo, ahabwokuba eseete nizihikira ahamuturagye. Orabaasa kwebuza, mukaka wangye oyine emyaka 73 kandi amazire emyaka eshatu atakaaza Kabale, ngenu enkuto iwe nemuyambaki kandi obwe akasiri keye kakye kemondi karikwonerwa amari (enkobe) burizooba. Abebembezi nibakunda eseete zirikuruga omwihamba kuziteeka omubintu ebirarebeka nkebyombeko hamwe ne nkuuto kugira ngu obwire bwokuroonda oburuuru bwahika babikozese ngu nibo babiresire"

Translated as;

"As a community, we prefer livelihood projects because money comes direct to me as an individual. You can imagine, my grandmother is 73 years and has spent 3 years without going to Kabale. So what does the road mean to him yet her small garden of Irish potatoes is affected by baboons time and again. Leaders prefer common good projects because they use them to get votes from the entire population…"
(A community member of stretcher group, Mayanja village, Kalangara parish, Kanungu District. March, 2014)

A similar point was raised by some groups, that Revenue Sharing should explicitly be implemented as compensation for crop-raiding:

Box 9: Perceptions on compensation

"..Batwegyesize obwiire burengwa ngu sente zararuga mwihamba kuzishemeriire kuza mubantu abarafegwa ebihingwa byabo habwenyamiishwa kuboonera. Obwahati abaganyigwemu nabo abe enyamishwa zitaronera. Nahabwekyo seete tigizire mugasho haryaabo abashemereere kuziganyigwamu. Amagoba nokufegwa tibikashwana. Hashemereere kugira ekyakogwa mazima…"

Translated as;

"They have for a long time sensitized us that Revenue Sharing should go to people who lose their crops from crop raiding. Currently those who have benefited are those not affected by crop raiding and therefore does not impact those who should benefit from it. The losses and benefits are not similar and something should be done for sure…."
(Community member, Hakikoome FGD, Buremba parish, September, 2013)

"..Ekyiratuteganisa itwe nibebembezi beetu aha disiturikiti negomborora okushomankura ezi sente zatakatuhikire. Ekyi kirayoreka obutagyendagye bwamateeka. Turahurira ngu seete zirihwaho kureberera purogyekiti kwonka titukareebaga omuntu weena hanu. Eseete ezo zikabiire nizo zongiire namunonga ahabituratuunga kugira ngu zigume zirashishikarira mumaboondo gaabo agijwire"

Translated as;

"What is disturbing us is the swindling of this money by our local leaders at the district and also the Sub County before it reaches us. This creates a lot of failures in the policy. We hear money is deducted for monitoring but we have never seen any person here. Such money would have increased more benefits instead of wasting it in the already satisfied berries."
(Community member of Higabiro, Rubuguri, Kisoro District, October, 2013).

"…bakyatushariramu! Nahabweki? Turyabaana? Gyenda obabuze ekirakireeta. Baramanya ebiturenda? Obwire obuhwere bakagaba embuzi ezazitamanyirire embera zekyaro kyeetu kandi mukwezi kumwe zikaba zaafire zoona. Mbwenu nimagobaki nempinduka ebyoragambaho….?"
Translated as;

"They normally decide for us! Why? Are we children? You go and ask them why. Do they know our needs? Last season, they distributed goats that were not familiar with local situations and in a month they were all dead. So what kind of benefit impact are you talking about……?"
(Community member of Byumba village FGD, Bujengwe parish, October, 2013).

The verbatim quotations in box 8 and 9 indicate mixed feelings of selection of projects on where more impact should be felt. As earlier commented, local leaders perceive more impact on common good projects while local people want direct funding to address livelihood at household level and costs of conservation. Using the equity framework model, benefits in protected area management ought to address costs of conservation and should be distributed in particular local contexts.

Failure of Revenue Sharing policy to translate into livelihood improvement and support for conservation was also looked at in terms of limited funds. CPI members described that the 20% of RS funds was a focus of advocacy, as they considered that such money was little to address livelihood concerns of the local communities. This was not appreciated by the local communities in comparison to the conservation costs they bear. CPIs also questioned the implementation process of the 20% of Revenue Sharing. Members of CPI reported that, the money that comes from Uganda wildlife Authority does not reach the intended beneficiaries. This was attributed to the bureaucracy involved and corruptions that result from these bureaucratic lines.

On Revenue Sharing, local leaders showed dissatisfaction with the implementation process on top of the small percentage that was sent to the communities. Passing money through the district account was not ideal in making an impact on the ground (Box 10).

Box 10: Perceptions on Revenue Sharing

".....ahabicweeka makumi abiri (20%), ikumi nabitano (15%) bikaba bisigaraga aha district kandi bitaano byonka bika ariryo byasindikwa ahigomborora. Itwe tubaka tugizire ngu eseete ezi zokuba ziyijire, zijire kimwe ahigomborora zitakora 'koona'ha district, bakaba baratugira ngu amateka nikwegari tihine okugahinduramu kandi nikwe eseete zirija, ziratekwa kubanza zaraba aha district. Turino kutekateka ngu woshanga sente zayijire zaza ha district bazikozisa endiju mirimo nikyo kitumire sente zaremwe kuhika habantu…."

Translated as;

"...out of 20%, 15% would be left at the district and only 5% would be sent to the sub-county. For us we had said that when this money comes, it comes directly to the sub-county but not making that 'corner' to the district. They would tell us that policies are like that so you cannot change because when this money comes, it goes first to the district account. We are even thinking that may be, you might find that the money meant for last year came and at the district they used it to do other activities and that is why they failed to bring it to the people"

(CPI representative Kinaaba Parish, Kinaaba Sub County, Kanungu District. February 2013).

Translated as;

"Bakaba bacwanuriraho aha disiturikiti kandi zikihika ahigomborora, owegomborora nawe acwanuraho akacweeka, owaragura ebintu nawe atemaho. Bakiza kugaba embuzi oshaanga babahereza akabuzi kakye kari nkekiteebo obwo oshemereere kutunga embuzi yemitwaaro nka munaana ninga eyikumi"

Translated as;

They would deduct at the district and when it reaches the Sub County, the chief deducts some percentage, the tenderer also cuts some percentage and when they go to give the goats to the people you find that they are giving a small goat which is like a basket and yet they are supposed to give a goat of 80,000= or 100,000=

(CPI representative, Muramba parish, Rutenga Sub County, Kanungu District. February 2013)

Box 11: Implementation of Revenue Sharing policy
"Sente ziraruga omwihamba tizikyakoragye zaguma ziraraba ahigomborora. Tukamara obwiire turarwaana nabasheeja abo. Twaara ekyokureberaho omugomborora yeetu, tukarwaana nowegomborora na kyayimaani barenda kuta seete aha kanso yigomborora".
Translated as:
Revenue Sharing program will never be effective if the Sub County chief oversees its implementation in the Sub County. We spent time struggling with these men take an example of our Sub County we fought with the Sub County chief and the chairman LC111. They wanted to use that money for the construction of the council hall ***(CPI representative, Muramba Parish, Rutenga Sub County-February 2013)***

Local leaders did not support the current flow of funds from the protected areas to the local people as per the new RS guidelines. They demanded for reforms in the implementation formula of RS if local communities were to benefit. They cited bureaucratic tendencies that affect performance of protected areas and called for a direct link between protected areas and local people that are to benefit from those programs. It was revealed that Local Governments have general priorities that are meant to benefit the Sub County as a whole not as specific group that would be getting direct benefits. The flow of Revenue Sharing was seen as a long chain of command that leads to revenue loss before reaching the intended beneficiaries. This was connected to bank transfer charges, administration fees at each administrative level, monitoring fees and corruption practices (see Fig. 11).

Local residents across Bwindi cited other challenges limiting positive impacts of Revenue Sharing projects. One of the key challenges cited was monitoring of Revenue Sharing money to determine the level of impact it creates on ground. It was mentioned that some local people

mainly Batwa sell or consume some of the distributed projects such as goats and sheep immediately after receiving them. A case in point from interviews with park staff is Kitariro Batwa Community where the supplied goats of 2009 were all consumed by the Batwa. Community members related this to lack of a monitoring process that can make such members of the community accountable on Revenue Sharing benefits. A community member from Kaara parish had this to say;

Box 12: Perceptions on follow up of RS projects
"…abakozi b'omwihamba bakabyama tibarebereraga ebibatuhiire. Nyowe tinkankarebaga omuntu weena arija hanu kureba ebintu bikozigwe esente ziraruga hihamba. Abantu baragurizaho ebintu ebibaratuunga.Tutakatungyire obuyambi, aba bantu bihamba bashemerire kubanza babuza narishi babara ehihamba ebyabenyima babwiine". Translated as; *"The park officials have slept without monitoring what they give us. I have never seen anyone come here to monitor Revenue Sharing projects. People quickly sell off what they are given. Before we receive benefits, these park people should first evaluate the park the previous ones had* **(Community member during Byamihanda FGD, Kaara parish, October, 2013).**

Monitoring of Revenue Sharing projects as reported by local people is pertinent in order to steer more impact on ground. Results from local leaders' interviews show that UWA normally does not do thorough monitoring of these funded projects yet people respect UWA as a funding body. The role of UWA is more active and felt at the declaration and remittance of funds to the district accounts. Little is known on the percentage that reaches local people and the sustainability of the projects that were funded. This implies that there is still limited capacity by local people (both

beneficiaries and leaders) to monitor Revenue Sharing projects. This necessitates the intervention of UWA and other key stakeholders in monitoring these funds and projects.

4.3.2.3 Relationship between Revenue Sharing Benefit impact and Livelihood Improvement

The relationship between the level of benefit impact and livelihood improvement was statistically analysed. This was intended to understand whether Revenue Sharing projects had a significant impact on people's livelihoods. Revenue Sharing impact was measured in terms of people's perception of the benefits as to whether they benefited from them. Livelihood improvement on the other hand was measured in terms of life representation, basic necessity score (what items people have as basic necessities), hungry score, health indicators, access to water, position status and education status. In order to come up with a general index, the researcher ran a polychoric PCA to generate a representative index of livelihood improvement. In order to avoid challenges of data reduction, these parameters were regressed separately to understand significant differences.

Results indicate that perceptions of Revenue Sharing impact highly significantly influence people's livelihood improvement (Coeff=0.11, *P*-value=0.002, SE=0.03, df =564). As shown by the correlation coefficient (r), there is a positive relationship between perceived impact and livelihood improvement of people surrounding Bwindi. This implies that, as impact of Revenue Sharing improves, the more likelihood that people's livelihoods will improve. As benefit impact reduces, the more likelihood livelihoods will be affected. This also shows the potentiality of Revenue Sharing projects to influence people's livelihood since those who perceive benefit

impact reported and had their livelihood improved compared to those who perceived no benefits or no change after receiving a benefit.

This study further used the multinomial logistic regression model to understand who was most impacted in the categories of wellbeing life representation. This was in terms of how people ranked themselves in society (life representation) and what actually they had in their households (basic necessity survey). Five categories were generated before household surveys during preliminary community meetings. These categories included; worst, somewhat bad, average, fine and best. The corresponded with the five level of the likert scale.

Results reveal that Revenue Sharing benefit impact highly significantly influence livelihood improvement of people in the category of 'worst' compared to other categories of wellbeing life representation (*P*-value=0.009). 'Somewhat bad' was used as base category. There was however a negative weak relationship between people's current perceived benefit impact and livelihood improvement (Coeff= -0.36, SE= 0.13). This implies that, much as well being life representation of the worst people in society is a significant factor to livelihood improvement, their current perception of benefits have not improved their livelihood than other categories. Targets could be made to such poor people in society in order to improve their livelihood when selecting beneficiaries. This is because livelihood improvement is likely to be much felt that other people in the same community.

4.3.2.4 Relationship between Revenue Sharing Benefit impact and Conservation Support

The study also relates Revenue Sharing benefit impact to the conservation support of Bwindi. The policy objective is to woo communities surrounding Bwindi and other PAs in Uganda to support conservation through improved livelihood. Conservation support was measured in terms of people's perception on reduced unauthorised activities, their involvement in conservation activities such as meetings, crop raiding controls, responding to fire outbreaks and their ability to report poaching incidences. The study employed the 5 level likert scale to determine the three parameters of measuring conservation support. Polychoric PCA was used to generate an index to measure conservation support.

Using linear regression model for Revenue Sharing benefit impacts and conservation support, results indicate that perception of Revenue Sharing impact by local residents of Bwindi highly significantly influence people's support for conservation and there was a positive relationship between benefit impact and conservation support (Coeff=0.39, *P*-value=0.000, SE=0.03, df=564). This implies that the more perception of benefit impacts from Revenue Sharing by people increases, the more likely that their support for conservation will increase and vice versa.

Results further show that people's livelihood improvement also highly significantly influence people's support for conservation and the relationship between two variables is positive (Coeff= 0.24, *P*-value=0.000, SE= 0.04, df=564). This implies that, as improvement in people's livelihood increases, support for conservation will increase and vice versa. The current situation reveals that those who perceive impacts and improvement in their livelihood have more support

for conservation compared those with negative perception of benefits and livelihood improvement.

4.3.3 Discussion of Results

This study reveals a mismatch between the increased opportunities for raising Revenue Sharing funds and addressing livelihood insecurity. There was no positive relationship to show the impact Revenue Sharing projects have created in improving people's livelihoods. The number of habituated Gorilla groups is increasing which creates prospects of increasing more revenue as a result of the increased number of tourists. This is true with the study that was conducted by IGCP (2010) on the census on Bwindi which showed an increase of the number of Gorillas from 340 to at least 400. Since 1993, the number of tourists has been positively increasing (UWA, 2012a).

This makes it possible to be sure and certain of much revenue to be collected from Bwindi resources. Much as UWA is committed to the disbursement of more funds to address livelihood insecurity and unsustainable resource use, the problem still lies at the implementation level. 1.98 billion distributed in 17 years to 27 highly populated parishes of an average of 350 per square km as indicated in the first section of this chapter is little amount to address livelihood needs. Compared to QENP as presented in table 1, chapter 1, Bwindi shared revenue remains little over years yet generates more revenue compared to other nine National Parks in Uganda. Even the little that is sent to neighboring communities has not been effectively and efficiently utilized to tackle livelihood needs. This implies that this problem of lack of translation of projects into livelihood improvement should be tackled from both central and decentralised levels for policy

reform to increase the amount shared but also the local arrangement to address implementation gaps.

Results show that local people living within 1 km of the national park boundary were poorer than residents living further away. The study also reveals that Batwa and women have not greatly benefited from Revenue Sharing policy. There have been however no specific interventions that target such sections of the population. The research findings indicated that local residents in the frontline villages are in a poverty trap - they have little education from which to seek employment, are at risk of disease from poor sanitation facilities and appeared to live in remote areas further from trading centres and road transportation that other residents benefit from.

Furthermore, living close to the national park, their crops are frequently raided by wild animals resulting in a loss of food and income source. This is similar to studies that had earlier been conducted around PAs and revealed that, those who have the greatest impact on conservation are not necessarily the same as those suffering the greatest cost (Archabald and Naughton-Treves, 2001) and the uneven distribution of costs and benefits impedes efforts to ensure that Revenue Sharing funds achieve conservation-poverty linkages by reaching the poor and the marginalised (Archabald and Naughton-Treves, 2001).

Majority of the local residents revealed crop raiding as the main factor affecting the impact of Revenue Sharing interventions both at attitude level and compensation level. Crop raiding dispossesses local people of their basic necessities and quality of life, and schools and employment as the primary ways that conservation efforts contribute towards poverty alleviation.

Crop raiding prevents most residents from taking part in Revenue Sharing activities especially project selection and sensitization meetings. Nonetheless, these findings highlight gaps in Revenue Sharing implementation where improvements can be made for Bwindi policies to make a greater contribution towards addressing livelihood insecurity.

This analysis on crop raiding is in agreement with what was found out in another study by Robinson and Bennett (2000) that crop raiding and other forms of human-wildlife conflict also drive illegal hunting but more particularly bush meat hunting both as revenge but also seen as a compensation for subsistence needs. Other studies link illegal bush meat hunting to subsistence needs (Bush and Mwesigwa, 2008; Twinamatsiko *et al*., 2014) popular contemporary belief is however that hunting for food rather than habitat loss is the leading driver of these losses (Wilkie and Carpenter, 1999).

Still the results presented here agree with what was found out in a study by Sandbrook (2008) where it is observed that where people receive benefits, they may not be appropriate to compensate them for the costs of conservation. For example, Mgahinga NP in Uganda brings some benefits for local people, but these are insufficient to compensate for the cost of having being evicted from the National Park (Adams and Infield, 2001). Secondly, local attitudes are not only influenced by economic benefits, which are normally the focus of tourism interventions (Wearing and Wearing, 1999; Sandbrook, 2008).There is need to look at other factors such as governance (procedural equity) which people mentioned as a key component of benefit sharing.

In connection to targeting of Revenue Sharing projects, it was found out that there are many organizations working with local communities around Bwindi whose activities lack coordination. The notable projects include; BMCT, CARE, FFI, NAADS, Sand beam, Big beyond, CTPH, NCCDF, NCC, Ride for a woman, BDP, UOBDU, URP among others. Such organizations implement similar activities as UWA Revenue Sharing programme. This creates duplication and limited appreciation of Revenue Sharing benefits.

It has also been observed from the field that there is no distinction attached to what Revenue Sharing policy offers and what other organizations offer. This challenges viable outcomes of any policy interventions. When it comes to monitoring Revenue Sharing projects, monitors will find it hard to assess the kind of livelihood projects that are attributed to Revenue Sharing. During field work and the mapping of Revenue Sharing projects, it was hard to conclude on some livelihood projects on whether they belonged to Revenue Sharing policy. This is a major gap especially at monitoring level. The study concludes that Revenue Sharing projects need to be fashioned in a way that will clearly show an impact.

The formula used by Uganda Wildlife Authority is not good to steer community expected benefits. The long hierarchy from the disbursement of funds to the funding of projects ought to be changed. First, this takes long to reach the beneficiaries. Secondly, the beneficiaries are not put at the centre of planning, implementation and evaluation processes. Stretcher groups in various communities exist as social groups where everyone in a community must belong. They have their own social set rules and administration of social justice.

This study explored possibilities of stretcher groups being conduits for Revenue Sharing funds. One challenge of stretcher groups is that they are informal in nature. Most of the stretcher groups around Bwindi are not registered although some have started this process. This makes majority of them sham structures in terms of legal set up. Possibilities of having stretcher groups could be explored to see options of having a community based organized institution that can administer Revenue Sharing funds.

Many local governments in Uganda have faced problems of corruption and lack of transparency. Therefore the question whether local governments in Kanungu, Kabale and Kisoro can be transparent enough to steer the benefits of Revenue Sharing remain a big concern, especially given the new Revenue Sharing guidelines. The other main challenge remains with the tendering system. With a limited empowered community, decision making processes are manipulated. Ideally, the Community project Procurement Committees should be elected by the general assembly under the new guidelines. Most of the PPCs however were found to be appointed or nominated by the sub county leadership.

Box 13: Revenue Sharing implementation formula
. *"CAMs will transmit RS funds from the PAs RS Accounts to Districts General Collection Fund Accounts with Schedules specifying amounts allocated to respective sub counties and respective projects. 5% of the district RS share will be set aside for HLGs & LLGs supervision, monitoring & evaluation. 35% of the 5% will be retained by the district. 65% of the 5% will be sent to sub counties. 95% of the district share will be sent to sub counties RS accounts with Schedules specifying amounts allocated to respective*

projects. RS funds will be paid by sub counties' accounting officers to RS projects suppliers/service providers on recommendation by respective PMCs" (UWA new Revenue Sharing guidelines, 2010).

Since local park institutions are locally instituted and can be easily monitored by local people who choose them periodically, a local institution could be more transparent in benefit management than local governments. The study however argues that local institutions need to be elected on a yearly basis to facilitate a path for transparency.

The role of Revenue Sharing monitoring is another point of concern as revealed by this study. Findings show that 5% of the Revenue Sharing disbursed funds from UWA is meant for monitoring by both district and sub county leadership. Out of 5%, the district retains 35% while the Sub Counties get 65%. This money is meant to monitor the implementation of activities and also benefit impact. The role of the sub county was relatively felt on ground compared to the districts.

All the interviewed respondents revealed no monitoring role done by the districts yet 35% is retained for this role. The role of UWA stops only at declaration of available funds and remittance to district accounts according to the new guidelines. The follow-up monitoring is therefore vested in the hands of local governments which also have a wider mandate of many development projects. All in all, monitoring and evaluation therefore remains in balance. The study revealed that for the project to be successful, the project cycle (planning, implementation, monitoring and evaluation) ought to be functional. If the cycle breaks on the way, limited

success is expected. A strong monitoring system that is community owned and based is important for the success of Revenue Sharing policy.

Monitoring and Evaluation is an important step in project success. Monitoring and Evaluation is a key approach in outcome-based management. It is a strategy used in management of projects or approach by which an organization ensures that its processes, products and services contribute to the achievement of clearly stated results. Without it, one is not able to judge whether or not they are getting where they want to go, whether they can credibly claim progress and success or how to improve on efforts. More precisely, the overall purpose of monitoring and evaluation is the measurement and assessment of performance in order to more effectively manage the results. Therefore in line with Revenue Sharing projects, there is no way success will be measured without an adequate monitoring and evaluation system. This system should put into consideration the community needs and aspirations in terms of collaborative forest management and governance.

As highlighted in this chapter section 4.2 on what communities perceive as the best approach to community based governance, putting local people at the project decision making and implementation process was relevant for sustainable outcomes. This therefore shows that for a strong monitoring system to take place, communities need to be put at the centre of implementation and decision making processes.

The fact that UWA role does not stretch beyond the disbursement of funds, the basis of other funds declaration should be premised on monitoring and evaluation reports to unveil shortfalls

and success stories of the previous Revenue Sharing projects. UWA can coordinate with local communities and form a local based monitoring programme that can be effective in generating data for analysis by the community conservation department. The opportunity is that UWA has ranger outposts in most sectors of the national park. Each sector has a community conservation ranger attached to it. This could be utilized as a base of report generation. This would improve decision making processes in the disbursement of funds and a focused approach of benefiting communities.

The combination of results provide insight into the residents who perceived the most ownership and benefit from Revenue Sharing. Frontline local residents reported limited levels of Revenue Sharing benefit impact compared to those living up to beyond 1 km from the national park boundary. Reporting low quality life by respondents however perceived fewer benefits, less involvement with projects and less ownership of Revenue Sharing projects than local residents reporting a higher quality of life. On this basis, targeting benefits to frontline local residents is likely to depict a more equitable sharing of benefits and improve the livelihood of poorest residents who reside in the frontline zone of 1 km from park boundary.

4.4 The Influence of Governance of Revenue Sharing on People's Livelihood and Conservation of Bwindi

4.4.1 Introduction

Governance as a procedural dimension of equity is fundamental in achieving conservation support. This would entail proper practices of governance principles. Principles of good governance were therefore used as parameters to understand the governance aspect of Bwindi Revenue Sharing policy implementation. This study uses; attendance of and participation in meetings, involvement in Revenue Sharing activities, decision making outcomes, equity, accountability and transparency, information flow and awareness, leadership on committees and capacity to influence decisions as key indicators of governance at Bwindi. These indicators were adopted from various writings (Koh, 2009; Scherl, 2004).

After analysis, only involvement, information flow, capacity to influence decisions and leadership committee composition were significant and had a relationship with livelihood improvement. Further still after regressing the indicators of governance with conservation support, only involvement, accountability and capacity to influence decisions were significant and had a relationship. Only significant indicators were considered in the discussions.

As a way of deepening understanding into the governance aspect of Revenue Sharing at Bwindi, the researcher selected a 'former' formal collaborative park management institution-Community Protected Area Institution (CPI) as a case point to analyze the level of participation and involvement of local leadership in park-community activities. The aim of the focus on CPI was

to understand the governance aspect of Bwindi by documenting 'stories' by members of community institutions that had associated with Bwindi Impenetrable National Park on their experiences of interacting with conservation authorities.

Key issues presented and discussed under this section include; how local people define 'good governance of Revenue Sharing projects', the implementation of Revenue Sharing policy guidelines in the context of governance, the influence of governance of Revenue Sharing projects on livelihood improvement of people neighboring Bwindi, the influence of governance of Revenue Sharing projects on people's support for the conservation of Bwindi and the community cherished governance of Revenue Sharing in the context of livelihood improvement and conservation support.

4.4.2 Results

4.4.2.1 Community definition of good governance of Revenue Sharing

Community members were asked to give their perception on the current governance of Revenue Sharing funds and define what they call good governance of Revenue Sharing projects. During household surveys and FGDs, the researcher was interested in knowing what community members defined as good governance to collate it with the theoretical descriptions of the concepts. Good governance was defined as putting community members at the centre of decision making processes right from Revenue Sharing project selection up to the final stage of project evaluation. Communities prefer a bottom-up approach and greater involvement. Local leaders further indicated that the current arrangement does not involve local people in PA governance.

4.4.2.2 The linkage of current Revenue Sharing guidelines with Governance

The study findings revealed that there are existing Revenue Sharing guidelines which are supposed to be followed by all stakeholders while implementing Revenue Sharing policy. The existing guidelines are a revision of the old guidelines (1996) that were reviewed from 2009 to 2011 and became official in 2012. During FGDs and key informant interviews, respondents were asked to comment on the current Revenue Sharing guidelines and whether this puts them at the centre of Revenue Sharing projects governance.

The Conservation Area Manager of Bwindi Mgahinga Conservation Area (BMCA) reported that, the revised Revenue Sharing guidelines of 2012 clearly stipulate the implementation and governance of the disbursed funds to benefiting communities. The entry point is the district local government, Sub County and then procurement committees that later trickle down to beneficiaries. Local people are supposed to be put at the centre of the implementation. This should be done through meetings in frontline villages. Local people are supposed to be part of the governance structures such as Project Management Committees (PMCs) and Community Procurement committees (CPMs).

The objectives of Revenue Sharing policy as given in Chapter 1 (see section 1.2.1) and set guidelines on how Revenue Sharing should be implemented and governed are supposed to be disseminated by UWA to all stakeholders during the implementation process. The study established that, there were variations in policy implementations from Sub County to Sub County, Parish to Parish and Village to Village. This related to stages of decision making,

planning, implementation, monitoring and evaluation of Revenue Sharing projects. Differences existed in terms of participation and the level of involvement. This section therefore presents community perceptions of governance of Revenue Sharing policy, the procedural implementation processes and the relationship that governance has on livelihood improvement and conservation support of Bwindi.

According to the Community Conservation Warden of Bwindi, the institutional design is decentralized in decision making processes and the policy uses a bottom up approach. This is because communities identify projects that meet their needs and priorities and proposals are done by the PMCs and submitted to the Parish Development Committee for prioritisation. The Community Conservation Warden revealed that Revenue Sharing policy guidelines would be adequate enough to enable address of livelihood insecurity but the challenge remains with the implementers. She reported that UWA guidelines follow the annual local government planning cycle. About the procedure of collection, UWA collects money from gate entry and gorilla levy and all money is banked on Revenue Sharing account. After money has been accumulated, the CCW revealed that it is declared to the 3 districts of Kanungu, Kabale and Kisoro.

As reported from Key Informant interviews with UWA staff, during project funding, meetings are held in 96 villages, put on announcements showing the programme and every one attends in general meetings. At parish level, UWA, Sub county and village generate information on population. This is different from the previous arrangement where frontline villages were not much considered but now frontline are given the priority. Funds are openly declared to the communities in a meeting. 5% of the available funds per district caters for monitoring (65% for

sub county and 35% for district monitoring) and 95% of the total amount is sent to the Sub County for funding projects. Communities come up with the lists and write proposals and sometimes they implement more than two projects after agreeing on who should benefit and then selected proposals are funded.

Box 14: Status of distributed funds
"Obwahati, sente zeyongyire. Buri mwaka ,hihi million magana atano zirashorozibwe kandi eseete ezirashagwa ahangangi guka terana mugyenderwaho ensya wajeragyeranisa nokutandika kwa puraani obu seete ziraruga mungagi zabiire zigabwa omurundi gumwe.Ekyokurebeho ogwe 2007 zikagabwa aharubaju kwonka zikagabwa rimwe mugwe 2009. Hati seete ezirangiriirwe kugabwa omwaka gwe 2013 gworekire miriyoni magana mukaaga nkaga ne mwe zeshilingi za Uganda kusha (661m).Ezi seete zoona zirija kugwabwa omumiruka yoona ehikine ni hamba" Translated as; *Currently, the revenue collected has improved. Annually, approximately five hundred million (500m) is collected and gorilla levy was incorporated into the new guidelines in comparison with the initial plan when Gorilla levy was given once and separate for instance in 2007 but the funds were disbursed at once in 2009.. The current disbursement of Revenue Sharing for 2013 has been declared at six hundred sixty one million shillings only (661m). This amount will serve all frontier neighbouring parishes.* **(CCW, Bwindi, March 2014).**

This research through an in-depth documentary analysis of Revenue Sharing policy guidelines identified various contradictions in the governance modalities and general implementation process. To begin with, the prioritisation of the projects where frontline communities should be at the centre of decision making processes is done at the Parish and Sub County levels through the Development Committees yet the guidelines show that local people in the frontline communities will meet and select projects based on their needs and priorities (see Chapter 1,

section 1.1.1). The timely remittances and selection of projects is important if impact is to be realised.

This research also established the hierarchy of implementation of Revenue Sharing funds. The process of implementation is looked at by community members as a challenge and limitation to their involvement and benefit. The chain of command illustrated in Figure 30 shows a flow of Revenue Sharing money from the Protected Area management to the beneficiaries. Most community members and lower local leaders reveal dissatisfaction on this hierarchy to benefit and its limitations to integrate everybody in decision making processes.

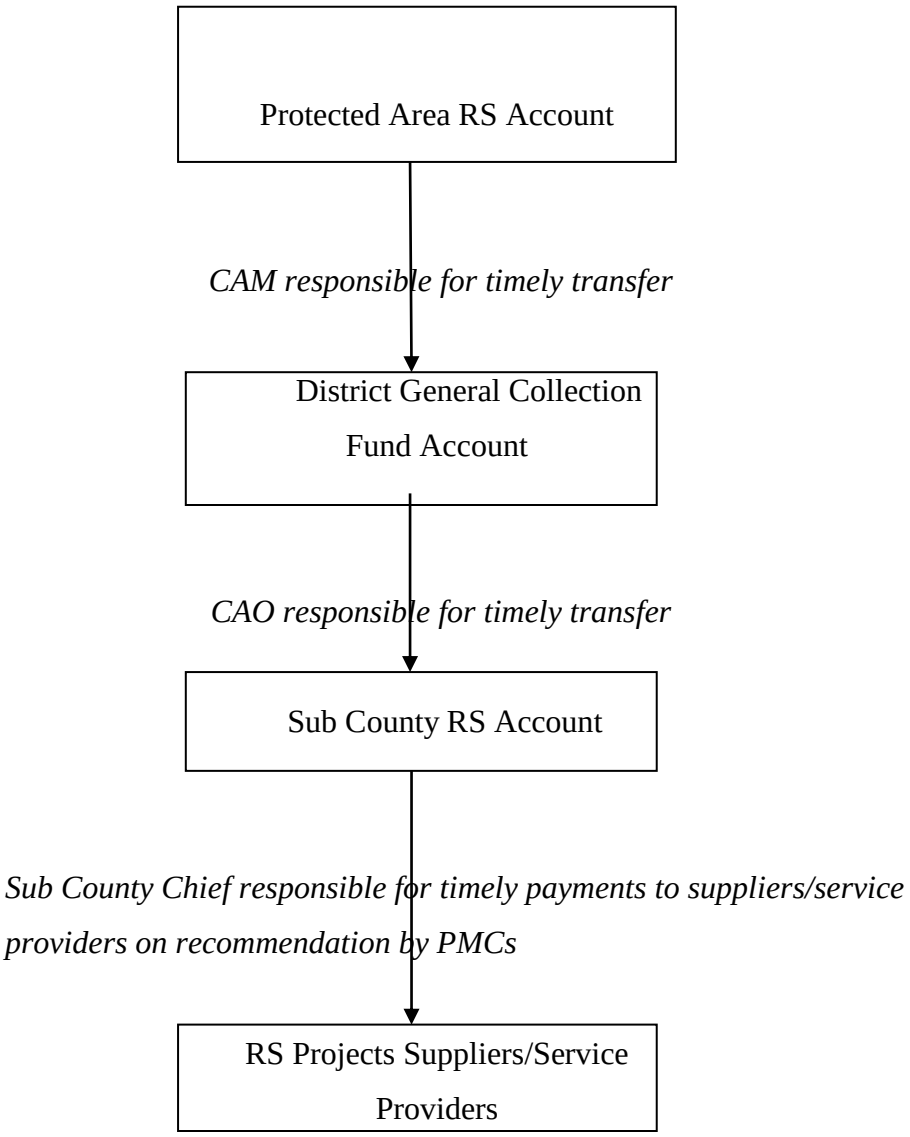


Figure 30: RS Funds Implementation Formula According to the Policy
Source: UWA new Revenue Sharing guidelines, 2010

On the governing of Revenue Sharing (RS) funds, community leaders that participated in FGDs identified strengths and weaknesses in the RS implementation process. Results show that at every stage of implementation, money that is supposed to go to beneficiaries is deducted either as a monitoring fee, bank charges or being embezzled by the implementers. Local people cited limited participation in this hierarchy. Local beneficiaries are always given the selected projects

by the Parish Development Committee (PDC) and Sub County Development Committee (SDC) which might not meet their immediate priorities. Limited participation in the tendering system was also cited as a challenge to governance aspect since it is perceived as non transparent.

Local people reported a high chain of command and strong bureaucratic system which is prone to institutional abuses and corruption. They revealed how the districts have never monitored and how the selection of projects is not transparent. The local leaders of Kanungu District were convinced though that the current system works better. Lower Local Government leaders revealed that districts do not monitor, it is only the sub counties that do monitoring. It was recommended by leaders of LLGs that revenue funds should come from the protected areas direct to the beneficiaries without a big hierarchy (Figure 31).

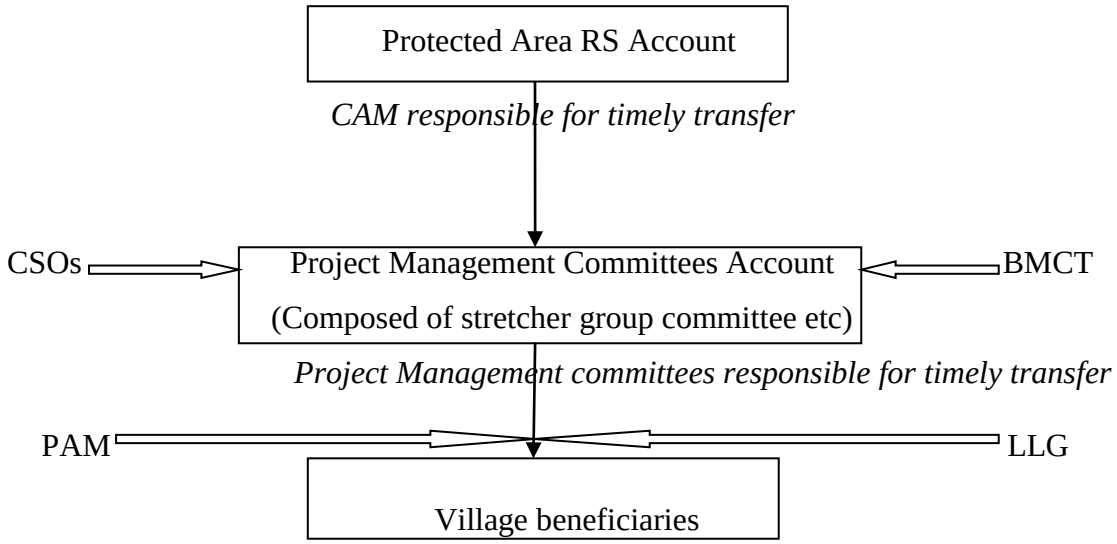


Figure 31: Community preferred RS Funds Flow in Contrast to UWA Policy Guidelines
Source: FGDs, February 2013

As illustrated in Figure 31, local people revealed a need for direct funding of community beneficiaries if UWA Revenue Sharing program is to succeed and improve the livelihoods of communities surrounding protected areas. This would reduce cases of funds' loss as a result of institutional bureaucracy and corruption practices.

4.4.2.3 The Relationship between Governance and Livelihood Improvement

Indicators of good governance were used to understand their relationship with livelihood improvement. This was intended to determine whether governance is a key factor to influence livelihoods of people bordering with Bwindi. After linear regression, not all indicators were significant (P-value ≤ 0.05). Only significant indicators are presented in this section to test the study hypothesis that governance of Revenue Sharing projects influences livelihood improvement and also determine the level of significance. These indicators include; involvement, information flow, leadership engagement on committees and capacity to influence decisions. Table 14 below presents the values for each indicator.

Table 14: Relationship between Governance and livelihood improvement

Parameters	**Coefficient**	***P*-value**	**t**	**Standard error**
Involvement	0.11*	0.02	2.28	0.05
Information flow	-0.17*	0.01	-2.43	0.07
Leadership on committee composition	-0.05**	0.011	-2.57	0.02
Capacity to influence decisions	-0.35***	0.000	-4.66	0.07

**** Very highly significant at 5%*
*** Highly significant at 5%*
** Significant at 5%*

4.4.2.3 .1 Participation and Involvement

Local leaders acknowledged that participation and involvement was paramount in their operations with UWA in the early days of Revenue Sharing policy (1996-2004). Results show that participation was high from the beginning when CARE was funding most of Revenue Sharing activities through providing members with transport allowances to attend meetings and through provision of meeting feedbacks to members. Revenue Sharing meetings were regular in year. This resulted into success stories in the first eight years of implementation. This participation however diminished after CARE withdrew its funding especially for CPI activities. This limited the capacity to meet and also monitor projects and funds.

Local leadership who participated in FGDs illustrated an understanding of their role as a community in park governance. Respondents revealed that UWA at first involved CPI members in policy formulation and management plan designs. During their involvement however, they were not given full platform to facilitate decision making processes. For instance, it was cited that UWA involved CPI in the selection of RS projects and would later fail to involve them in evaluation processes to see whether projects were successful or not.

CPI members cited limited or no involvement in the formulation of big policies such as the General Management Plans and Operational Management Plans, but were only informed after their formulation (Box 2). Table 15 indicates that most of the beneficiaries 173 (40.8%) of Revenue Sharing projects were not involved in the implementation of Revenue Sharing policy compared to 136 (32.1%) who were involved a lot. Another substantive percentage (27.1%) felt little or some involvement during implementation and benefit.

Table 15: Ranking of Revenue Sharing Projects in terms of involvement

RS Projects	Level of Involvement				
	None	**Little**	**Some**	**A lot**	**Total**
Livestock	59	22	27	56	164
Trees/Seedlings	20	3	1	4	28
Schools	13	1	8	25	47
Health centres	17	2	6	9	34
Crop raiding control	23	7	16	18	64
Roads	9	2	5	7	23
Land provision	14	1	1	4	20
Water	13	1	7	7	28
Other livelihood projects	3	2	0	1	6
Other general projects	2	2	1	5	10
Total	173 (40.8%)	43 (10.1%)	72 (17%)	136 (32.1%)	424 (100%)

Source: Primary Data, 2013

Findings indicate that Bwindi uses a top bottom approach in the selection of projects and announce decisions that have already been undertaken. Participatory decision making and implementation happens but at a low rate since projects are always decided by those that can influence the group. Group cohesion was therefore looked at a hindrance to collaborative governance principles. This assertion was similar to the general CTPA survey where three FGDs out of 15 stated that 'participatory decision making and implementation' is not currently used, reporting that communities were involved with decisions on ICDs. It is therefore revealed by

this study that communities are not always put at the centre of decision making processes and implementation of Revenue Sharing policy. There is a calculated exclusion which is likely to be influenced by those that have an influence in the communities where projects are selected. This is likely to frustrate the success of the implemented RS projects.

When asked to define community involvement and participation with RS, FGDs described the importance of being able to contribute throughout the whole process of a project, but placed most emphasis on being part of the decision on the type of the project to be implemented. The primary descriptions given by FGDs on local involvement and participation with RS were:

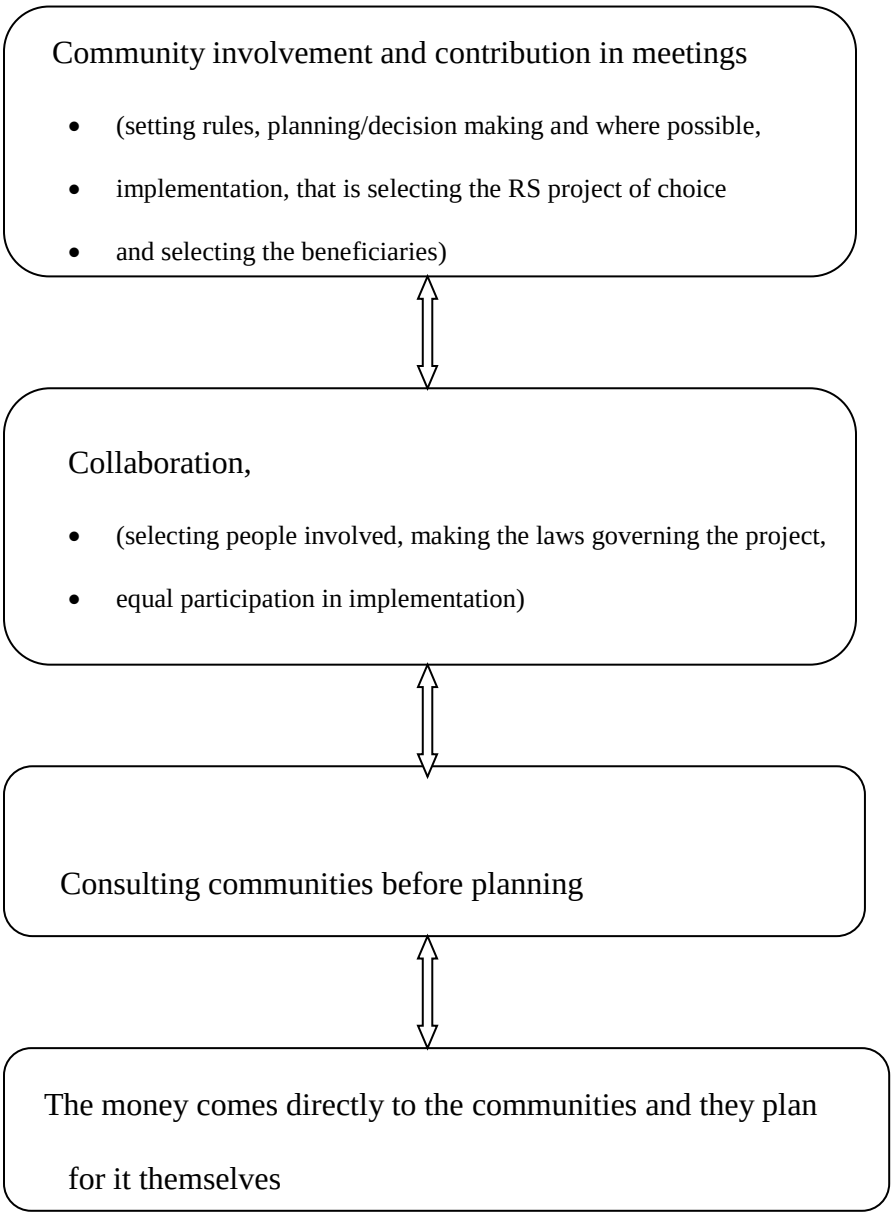


Figure 32: Community Definition of Local Involvement and Participation
Source: Primary Data, 2013

4.4.2.3 .1.1 Involvement and project ownership

People who felt highly involved in the design and implementation of a project almost always felt complete ownership of that project. There were respondents who however reported ownership of a project that they felt no involvement in the design or implementation of projects. This was considered most likely when they perceived a direct benefit from the project, such as the goat provision scheme.

Discussions on ownership of a RS project showed distinction in the eyes of local communities between ownership and the importance of ownership to the design and implementation of different types of RS projects. Community defined ownership in terms of having full responsibility and authority by individuals.

4.4.2.3 .1.2 Women's involvement in Revenue Sharing Policy Implementation and Governance

This section presents an understanding on the existing gender relations and analyses the involvement of women in forest resource revenue flow and governance and how they have benefited from Revenue Sharing policy interventions. Benefit sharing at Bwindi and other Protected Areas in Uganda has been looked at as a good strategy in promoting sustainable conservation since it aims at integrating community development needs into conservation objectives (Blomley *et al*., 2010; Baker, 2004; Baker *et al*., 2011; Tumusiime and Svarstad, 2011). These studies however do not link benefit sharing policies to practice in terms of addressing both community and intra-household gender gaps and the capacity both men and women have in making sound decisions on forest resource revenue access, management and governance.

Therefore, the study evaluated the governance of Revenue Sharing by analyzing the policy guidelines on whether all local people (both men and women) have been involved and the capacity they have to influence decisions. This was measured in terms of local community participation in the design of national and local policies, participation of people in Revenue Sharing processes.

Results reveal gender differences on leadership committee composition. The study revealed that PMCs and CPCs are formed during the selection, procurement and funding of projects at village level. These committees are temporary in nature and exist within the timeline of Revenue Sharing implementation processes. The sampled 10 parishes out of 27 that participated in FGDs were also analysed in terms of committee representation to understand the differences that exist within leadership positions at community level. The 38 villages of the 10 parishes were also analysed to understand the gender composition of the existing committees. Each committee is composed of 9 members who are elected by the general assemblay (all present residents participating in a meeting).

The Project Community Procurement Committees (CPCs) vary from village to village in terms of their composition ranging from 4-6 members. All existing structures-PMCs and CPCs were however analysed to understand gender differences in terms of leadership positions. There were some villages where the PMCs and CPCs never existed.

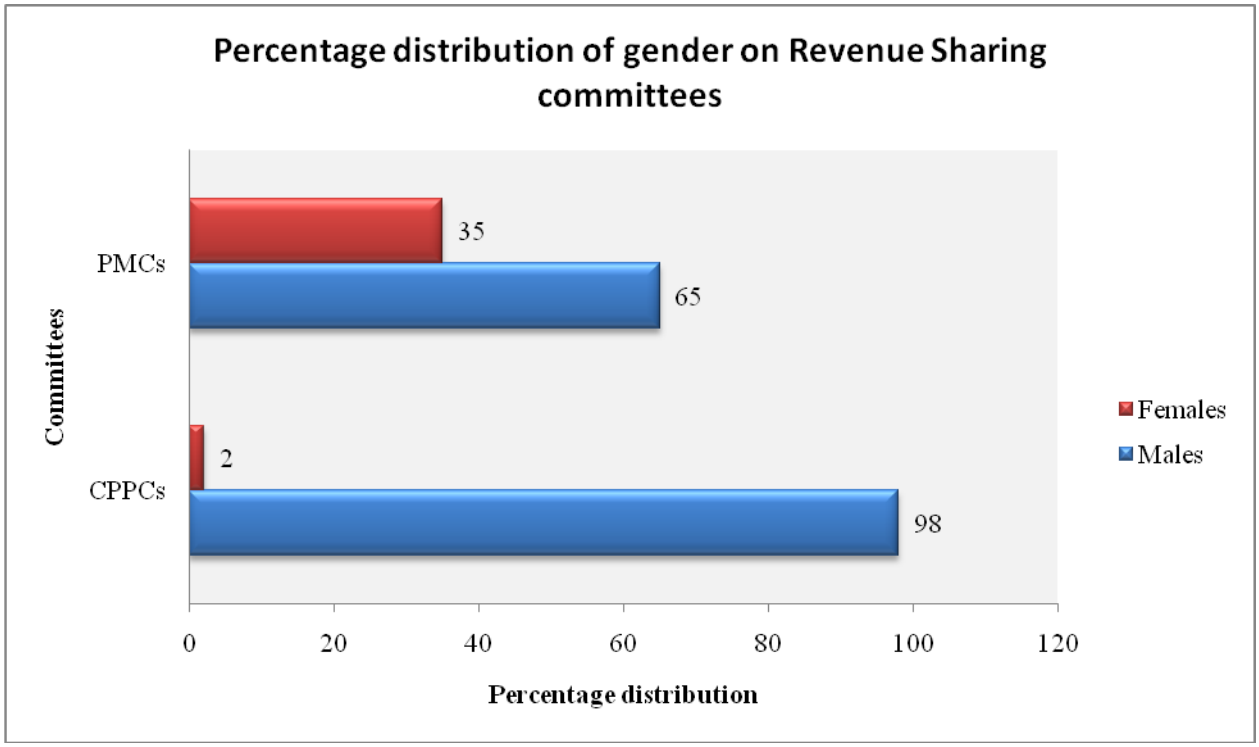


Figure 33: Gender composition of PMCs and CPPCs at Parish level
Source: Primary data, 2014

4.4.2.3 .1.3 Barriers to effective involvement and participation in Revenue Sharing activities

Results indicate that local people's part in decision making processes is likely to be curtailed if they do not directly prioritise the projects according to their needs. This is likely to affect the impact projects will have on their livelihood improvement. It was also established from FGDs that at the community level, meetings are always conducted before funds are disbursed. The attendance of meetings by the local people remains minimal especially the Batwa and those who live closer to the park boundary.

Most people lack the motivation and incentives to benefit since little attention is given to their needs during the selection of projects. Batwa people normally expect meeting allowances and because of their poverty levels, they shun meetings in an attempt to look for food in Bakiga and Bafumbira farmlands. People closer to the park boundary do not attend meetings since they spend most time guarding their crops from being raided by problem animals and vermin. Table 16 below illustrates reasons that limit local people's participation in Revenue Sharing programmes.

Table 16: Barriers to participation for both men and women

Barriers to participation	Gender					
	Males (Freq)	**Males (%)**	**Females (Freq)**	**Females (%)**	**Total (Freq)**	**Total (%)**
Gender inequality	20	5.1	12	6.8	32	5.7
Bad leadership	19	4.9	6	3.4	25	4.4
Corruption	70	18.0	68	38.6	138	24.4
Crop raiding	120	30.8	30	17.0	150	26.5
Discrimination	1	0.3	0	0.0	1	0.2
Limited capacity	15	3.9	12	6.8	27	4.8
Limited information flow	33	8.5	17	9.7	50	8.8
Poverty	50	12.9	3	1.7	53	9.4
Lack of follow-up	1	0.3	0	0.0	1	0.2
Lack of meeting allowances	1	0.3	0	0.0	1	0.2
Unfairness in project distribution	59	15.2	28	15.9	87	15.4
Total	**389**	**100**	**176**	**100**	**565**	**100**

Source: Primary Data, 2013

Table 16 indicates that 150 (26.5%) of respondents are limited to participate and get involved in Revenue Sharing activities because of crop raiding. Also, 138 (24.4%) reported corruption as a barrier to participate. The least reported limitation was discrimination, lack of follow-up and lack of meeting allowances. These were represented by 1 (0.2%) of the respondents. Crop raiding also reported as the most attribute for limited livelihoods seems a key challenge to harmonise conservation and development needs.

Corruption is a major challenge even in Revenue Sharing project distribution. Respondents identify project procurement as a major area where corruption is felt. Sometimes, projects that are decided and purchased by the tenderers such as goats or sheep, do not meet the desired standards. This implies that when people are limited in participating in key decisions that affect them, decision outcomes are likely to address issues they did not prioritise. It would be vital for UWA and development partners to look at key limitations cited in this study and address them to enable proper governance practices.

4.4.2.3 .2 Leadership institutions and committees at Bwindi Impenetrable National Park

4.4.2.3 .2.1 Informal Collaborative Institutions and Groups

The Park management of Bwindi indicates that it implements its activities using a collaborative approach of involving local communities in its natural resource management. Bwindi is rich in biodiversity and is a habitat for half of the world mountain gorillas which sometimes spend time in the community. Groups have been formed to facilitate the process of benefit sharing. This is manifested through various groups such as Resource Use Committees and the former Community Protected Institution. There are other informal park related groups operating around Bwindi that include Human Gorilla (HUGO) committees and reformed poachers committees.

There are also various informal and formal community groups around Bwindi. These groups channel local interests to UWA with the aim of increasing community involvement in natural resource management. The level of success in achieving the collaborative forest management and governance remains an area of concern if a win-win situation is to be reached in governing BINP resources.

4.4.2.3 .2.2 Formal Institutions: A critical Analysis of the Community Protected Area Institutions (CPIs)

Using a case study approach the community protected area institution was analysed as one legal former institution in order to understand challenges in following established policy guidelines. CPI was established as a formal community link to national park management in enhancing collaborative forest management. CPI involvement in collaborative management was however analysed to be inadequate and difficult to understand (CARE 2006). The other important channel of governance at Bwindi is the Local Government Institutions. These include; the District Councils and District Production and Environment Committees (DPECs) and Sub County Production and Environment Committees (SPECs) which should support the implementation of projects recommended and approved by the lower councils. While there are structures to facilitate community involvement, and many evaluations of development and conservation outcomes of Revenue Sharing, there are few studies on governance which justified this study.

Former CPIs were picked on as a case study in this research in order to understand the experience of institutions that participate in governance of Bwindi Revenue Sharing policy. All CPI members reported that the nomination and selection of CPI to power was carried out differently and not in line with the UWA CPI policy of 2000. According to the policy, all CPIs were supposed to get elected from the local council hierarchical system in the capacity of secretaries of production from village level (Local Council I) to parish level (Local Council II).

The difference between policy and practice was attributed to the limited knowledge of CPIs on their selection criteria. Respondents revealed that some CPIs selected were parish councilors; others were LCII committee members and former Park Management and Advisory Committee (PMAC). Furthermore, the selection was different in different parishes. Most CPIs in Ikumba Sub County were selected from the Sub County councils, whereas some members in Kayonza Sub County were former members of PMAC but others were members of Local Council II. On the other hand, CPIs in Kanungu town council and Rutenga Sub County were selected from the existing local council system. Even intra-parish compositions were found to be arranged differently in terms of CPI membership (Box 15).

Box 15: Selection of CPI members

"...kuba CPI, nandi omubiiki hamuruka, tukaza Kayonza twagirayo orukiiko. Tukagiraho ekiganiiro naba paaka turagamba ha paaka. Aba paaka bakatugambira kubareenda ba CPI kujwekyera emiruka ahigomborora. Ebyo kubyahweere twateererwa oburuuru nasiinga abaandi..."

Translated as;

"...to be the CPI, I was the treasurer at LC11, then we went to Kayonza and we had there a meeting, and we had a dialogue to talk about park. Then park officials said that they need CPI members to represent parishes at the Sub-County, then after, we held elections and I defeated the rest..."
(CPI representative, Muramba Parish Kayonza Sub County, February, 2013)

"Nyowe nkeeja nko wemisharuuro aha muruka hakuba aba geemu bakaba batarikiriza muntu otari memba wa kanso yomuruka. Bakatugambira ngu akakiiko akituraronda karaza kuza mumwaanya gwa PMAC… Nikwo twaronzire tutyo akakiiko nanye nkaba memba…"

Translated as;

> *"I came as secretary for production because they (Park officials) would not select a member outside the council committee. Then they told us that this committee which we chose was to replace PMAC… Then they said that, that committee is going to form a top down approach. They formed that committee where I was a member…"* ***(CPI representative, Mushanje Parish, Ikumba Sub County- February 2013).***

> *"…Nyowe, bakatweeta murukiiko. Aba paaka bakatugambira ngu bareenda omuntu aharukiiko rwomuruka oraruga omubyaaro ebirakwaaka aha paaka. Nkoku twabiire turi murukiiko, niinye nyenka nabiire ndaruga heehi napaaka kandi nkaba ndi owebyabakazi aha muruka. Nikwo natahiremu…"*

Translated as;

> *...for me we attended, the park meeting so they (park officials) said that they want someone from the LC11 who comes mainly from the village which is close to the park, so the way we had attended that LC 11 meeting, I was the very person who was coming from a frontier village, and I was on LC11 as the secretary for women and at the same time from the village close to the park in the same parish so I just joined like that.*
> ***(CPI representative, Kinaaba Parish, Kanungu District. February 2013)***

Experience with CPI members illustrates variations of which community institutions are constituted. For instance, the policy guidelines of UWA (2000) catered for secretaries of production at parish levels to choose a member that would serve as CPI. These policy guidelines however were not adhered to, the selection criteria was generally different which could explain why some local governments failed to own some CPIs in their respective Sub Counties.

Most CPI members revealed that they were happy working with UWA. They cited many achievements in line with how the local residents benefited from their role as CPIs. These

achievements included an improvement in local attitudes towards the national park as a result of increased sensitization and awareness. CPI members linked these improved attitudes to promoting positive feeling on the conservation of BINP, reducing unauthorised activities and other threats such as fires. They achieved the attitude improvement through a series of community engagement meetings when topics relating to conservation of BINP were discussed. They cited that the only limitation to this achievement was lack of adequate funding to facilitate more community sensitization campaigns.

It was important to note that the CPI involvement was crucial for collaborative forest management such as sensitization campaigns on conservation threats, conflict resolution and conservation benefits to local communities. Members identified how their role was more grounded since they were dealing with fellow community members. CPI members mentioned how they acted as mouth pieces for local community members and boosted their participation in crop raiding control projects such as Mauritius thorn hedge planting, multiple use program and Revenue Sharing projects which was a focal role for their existence.

Box 16: Participation of local leaders
Aba (UWA) bakaba baratweeta kandi batugambira za purogyekiti ezibobeire barenda kutanditaho. Bakaba batugambira ebibagyenderiire kukora mbwenu nyowe ndatekateeka ngu titurabyejumbiramu munonga" Translated as; *..They (UWA) would call us and they tell us the project they would wish to initiate. They would just tell us what they will implement certain programs so i think we were not fully involved...* **(CPI Karangara parish, Kayonza Sub County, February 2013)**
"…orashushwa ngu bakaba besireho abantu bakye hakakiiko kwonka kubashomire manegyimenti puraani, nyowe ndijuka omwe ahari ba CPI, Fara akabuuza ekibuuzo ngu owakozire engyenderwaho noohe? Ndijuka arabuuza ngu engenderwaho yibabiire barashoma nohe owagikorire… Yababurize yaaba bagiire habantu bahansi ningashi bateekatekire ngu niyo ehikire..." Translated as; *It's like they had called a few people on the executive but when they read the management plan, I remember one of the CPIs Fara asked a question that who formulated that constitution? I still remember him posing that question. He asked that you are reading that constitution, who formulated it? Did you go to the grass root to involve community members or you saw it convenient and put it in place. For them they said that, they saw it convenient* **(CPI Muramba parish, Mpungu Sub County-Kanungu District. February 2013)** *"Tukaba tuganiira hamwe kwonka ebitenso byeetu byabitagarukwamu kandi bitahikirire nkokutwebeire twendire nari obwire obu twabeire twikirizinganaho bwokuba batwetaga ahubayenda. Bakaba batuta mubintu bimwe ebindi bababikoraga batatumanyiise".* *Translated as;* *…we would discuss together but all of our views would not come out or be fulfilled the way we would want or the time we would have agreed because they would call us at any time they wanted. They involved us in some things and other things could be done without informing us.* **(CPI representative, Mpungu parish, Mpungu Sub County, Kanungu District. February, 2013).**

Therefore, CPI members' perceptions were that their involvement by UWA was not adequate enough for them to steer their roles of collaborative park management. They also perceived that CPI members could be fully involved if policies and programs are to be successfully implemented, and that consultations at local community level and legitimacy in the implementation of projects are important if park management is to achieve its objectives. All respondents revealed that their relationship with the park management and other stakeholders such as mainstream local government was fairly good. The only challenge cited was failure to belong and lack of home where they would share views and seek guidance on important things that pertained park management. It was revealed that when they were elected to CPI positions, the mainstream government disowned them and thought it was UWA to take care of them (Box 10).

Box 17: Perception on community-park relationship
"…Nyowe kwongeraho haryekyo itwe muza LC turakora hamwe habwokuba Mpungu nkomuruka gukwesire hihamba, mbwenu twobere turenda kwororya ebintu twogambire owigomborora kugira amanyise ba ishe ntebe yokubanza boona ,yamara ebeta ahambuga nkuru zi igomborora habwokuba muryezi nkiko hariho abu otarafa kweta kwonka kubarahurira ngu hariho omuntu kuruga higuru, oshange boona bayija bege kandi ne mirimo egyende kurungi, mbwenu twarikirizingana hamwe habwo kugira ngu tukabaka turihehi ni hamba kandi enyameshwa zitushishira emisiri munonga, mbwenu toshemiririre kwija nokusharamu ngu batuhe embibo yomukwatango kuzibyara kutanga enkobe… ." Translated as; *...me to add on that, for us in all LCs we work together because the whole of Mpungu touches on the park so when we would want to make the thing easier we would tell the Sub County chief to invite all the chairmen LC1s, then he would invite them to the Sub County headquarters...Because in these meetings there are those who cannot just be called but when they hear that there is someone who is coming from above, you find that all of them have come. They learn and activities go on well. So we would agree together due to the fact that we were near the park and animals would always destroy our crops so much,*

so we came up with a resolution that they should give us seeds of Mauritius thorns then we plant them to stop baboons...
(CPI representative, Mpungu parish, Mpungu sub county, Kanungu District. February 2013).

During discussions, it became clear that CPIs acted as conduits for harmonizing community relationship with the park. Various activities were undertaken by CPI members that reduced unauthorised activities within the park and increased community relationship with park authorities. CPI members revealed that this was achieved through regular meetings with their fellow community members and maximizing the opportunity of staying with them in the same localities. CPI members noted that, before the inauguration of CPI, a negative relationship existed between communities and park authorities but that this trend reduced, which they attributed to their role of involving community members in park activities (Box 18).

Box 18: Community park relationship

"Hakiri tukaba tugamba nabantu kurugirira hamyooga yeetu. Tukaba twiine omugisha gwokubugana buriijo nobutwabeere tutamanyisize kuhariho orukiiko. Tukaba tubagambira kubashemereere kutashisha ihamba ahobwe baririnde. Twabagambira amazima turabasa kuganyirwa mwihamba twaba turarihagira mundebera yaryo"

Translated as;

At least we used to counsel people basing on our roles. We had an advantage of meeting them every day even though we had not called for formal meetings. We would tell them not to destroy the park instead protect the park. We assured them that we could only get park benefits if we were supportive in park management.
(CPI representative Southern Ward, Kanungu Town Council. February 2013).

The impact on failed relationship building was identified as a challenge to park management. It was revealed by respondents that the relationship between people and park officials is fragile and ought to be well built. It was further mentioned that some community members have not seen value in protecting the park and therefore their involvement would be key in steering this positive relationship. CPIs expressed disappointment on not being appreciated for building community relationship with the park.

Other challenges that CPI members mentioned included a lack of belonging. They indicated that they failed to be owned by UWA and were seen not to be part of local government. Lack of belonging challenged their role of being watchdogs to Revenue Sharing program and monitoring ICD projects. Respondents revealed incidents when they would be blamed by their local sub counties for being UWA spies and interfering with local government programs. CPI representative of Ikumba however revealed that they had a good relationship with Ikumba Sub County officials in the beginning but this relationship was affected by a need for CPIs to play a transparent role and were thereafter seen as saboteurs.

4.4.2.3 .3 Local Capacity to influence decisions

Capacity of the local people to influence decisions has been cited by this study as a highly significant factor influencing livelihood improvement. The current practice however shows a negative relationship (Coeff=-0.35, *P*-value=0.000, SE=0.07, df=564). Limited capacity was classified into two aspects. The first aspect related to the inability to influence decisions on the projects local people are to benefit from. This is mainly attributed to high illiteracy rates, poverty and lack of a voice to air out their concerns.

The second classification relates to limited empowerment to advocate for issues to higher levels. This related to issues like tendering in community complaints, areas to report to and also failure of many organisations around Bwindi to advocate for change of policy practice. This second part of capacity entails funding in case of any advocacy need and activities. For instance, it was cited by local leaders especially CPIs that they would want to advocate for policies but get limited by funds. Capacity for local people can be built through trainings and empowerment campaigns since it determines how their livelihoods are likely to improve.

Box 19: CPI capacity to deliver to policy expectations
"…bamara babagiraga ngu twaba turikugaba embuzi ngu CPI memba ashemeriire kuba arihi. Twatubagaho hakutandika kuhisa hamuheru kwonka tutatunge kasiimo. Abakozi bihaamba batugira ngu turija kutunga akasiimo omubweere bwokukuratira za purogyekiti. Kwonka nabwo haawe tihariho twatungire. Tukaba turi nkabayaambi kwonka hi nabayaambi kubarabaha kyamushana…" Translated as; *...then they would say that when we are giving goats and the CPI member should be there. We would be there during the whole exercise but end up getting no allowance. Park officials would say that during the time of monitoring it is when we shall give you allowances. But we never got them... we were in fact volunteers but even volunteers are given lunch..* ***(CPI representative Kinaba parish, Kanungu District. February 2013).*** "Seete kuzazihikaga ahigomborora, twatugiraga ngu hasigareho sente zimwe *zokukora emirimo yeitu, kureeba nka pasenti eyi tubire nirakozesa kumanyisa abantu. Kyitukorereho habwokuba turibamwe aha tiimu eraza kurebuza za purogyekiti ezitandikirweho nokuziragyenda mumeesho. Mbwenu kutunga ekyo rwarubaga orutaro kandi ndatekateka eyinekuba eryeshonga yatumire batwihaho kandi bakasharamu bakakozesa omuhandiki webye misharuro ahi gomborora otaramanya emitendera egi yoona".* Translated as;

> *..When the money would reach the sub-county, we could say that there is this certain percentage that can facilitate our work, or look at this and see a certain percentage that shall facilitate mobilization. You do it for us because we are part and parcel of the team to enable monitoring of the established projects that are going on. So to get that would be a tag of war and I think that it might be the reason why they scrapped us off and decided to use the secretary for production at the Sub County who does not understand all this process.*
> ***(CPI representative, Southern Ward, Kanungu Town Council, February, 2013)***

4.4.2.4 Relationship of Governance and Conservation Support

Results in this section reveal the relationship that exists between indicators of governance and the support for the conservation of Bwindi. The researcher regressed governance indicators listed in section 4.4.1 in order to determine the level of significance and the relationship the two variables had. The only significant variables included; accountability, involvement and capacity to influence decisions. Table 17 below indicates the results and values for each governance indicator.

Table 17: Relationship between governance and conservation support

Parameters	Coefficient	*P*-value	t	Standard error
Accountability	-0.15**	0.008	-2.66	0.06
Involvement in RS projects	0.33***	0.000	7.27	0.05
Capacity to influence decisions	-0.29***	0.000	-4.20	0.07

**** Very highly significant at 5%*

*** Highly significant at 5%*

** Significant at 5%*

Table 17 illutrates that both involvement and capacity to influence Revenue Sharing decisions highly significantly influenced conservation support compared to accountability (*P*-

value=0.000). Accountability of Revenue Sharing funds was also significant and had a relationship (*P*-value=0.008, Coeff=-0.15) with people's perception to support conservation. It was only involvement in Revenue Sharing projects that had a positive relationship (Coeff=0.33) compared to accountability and capacity to influence decisions (Coeff= -0.15 & -0.29).

This implies that as people feel involved in Revenue Sharing activities, see Revenue Sharing implementation in a transparent and accountable manner or perceive capacity to influence it, they are likely to support conservation of Bwindi. Respondents indicated that involvement was important to address their concerns and feel part of the implementation process. Results further show that through involvement, poeple are able to prioritise their needs and select appropriate projects. Accountability was seen as a key tool to facilitate people's attitude for conservation.

Through FGDs, local people also revealed disatisfaction of how money was swindled by the implementers and not addressing their concerns. Results show that resentment and disatisfaction was among the drivers for unauthorised resource use. Limited capacity to make decisions was seen as a hinderance to receive benefits from the park. This affects people's attitude to support conservation. Efforts to build local capacity remain limited. This implies that, if people are not made aware of conservation objectives, Revenue Sharing policy objectives through conservation education, they are not likely to support conservation.

4.4.2.5 Community Cherished Approach to Governance of Revenue Sharing project

Seven of 10 (70%) FGDs reported that in all processes of Revenue Sharing implementation and governance, decision making that is collaborative was important to generate viable successes of the policy. This approach was best preferred by participants that took part in this study. This approach was also coined during the Focus Group Discussion of comprehensive CTPA study where collaborative decision making and implementation in ICD was the approach preferred by local communities regarding governance of the policy (Twinamatsiko *et al*., 2014).

Discussions on this approach highlighted the importance that local communities placed on collaborating with donors and external experts in both the decision-making and implementation stages of Revenue Sharing projects. Two FGDs (20%) reported consultative approach in decision making, implementation and monitoring processes whereas the remaining one FGD mentioned participatory decision-making and implementation of Revenue Sharing policy. All FGDs agreed that community members ought to be part of the implementation processes and should be involved in the governance of Revenue Sharing projects.

When UWA management was consulted to give a view on community solution to governance challenges during key informant interviews, it was reported by the CCW that UWA tries as much as it can to collaborate with local communities. In some cases however, local community members shun implementation activities such as meetings and follow up of Revenue Sharing funded projects. One incidence was cited in Mpungu and Ruhija sub counties where the tenderer

connived with local residents and instead of receiving goats; they received money not worth the budget.

Box 20: Local capacity to fight corruption
"….kikabakitebekanisibwe ngu buri mbuzi eryagurwa emitwaaro ikumi nebiri kwonka abaturagye bo bakakira emitwaaro etaano. Zaripota kuzayijire nyowe nka gyezaho kukwatanisa na' baturagye kwonka ekyokutangaza nowa bigambire taragarukire kuhereza bujurizi byekyabireho. Mbwenu nobu turagyezaho kukorengana na baturagye kureberera ihamba nokurye bembera, abaturagye barateganisa mumikorere…." Translated as; *"It was planned that each goat would cost UGX 120,000 but instead local residents received UGX 50,000. When the reports came, I tried to link up with local community members, but surprisingly even the one that reported the matter did not turn up to give testimony of what happened. So much as we are interested in collaborative forest management and governance; the local community members frustrate the system…."* **(CCW, BMCA-Buhoma, March 19, 2014).**

Local residents reported limited capacity to participate equally with other partners such as Uganda Wildlife Authority and Conservation Organisations. UWA uses militaristic methods of management that even for community meetings, community conservation rangers (CCRs) put on UWA uniform which does not create a condusive atmosphere for decision making processes. Some Conservation Organisations were also reported to be more sophisticated and lack local touch in dealing with local communities. Some staff members come in expensive vehicles and with white collar clothes. They normally use English amongst themselves as a means of communication. This puts them in a level that is not compatible with local residents.

From FGDs on RS projects implemented in their communities, the groups were asked which projects they considered had been implemented successfully. Three were community-benefit

projects (health clinic, school and a road), one was an Irish growing agricultural project and the final project was the crop raiding control in Mpungu. Reasons given for success of the community-benefit projects were similar: success arose from local community involvement in project selection and implementation. Local involvement in project selection and implementation was also given as reasons for success of the agricultural project. FGDs however reported that the only direct beneficiaries of agricultural projects were the ones who owned the project.

Table 18: People's perceptions on differences in success and failure of projects

FGDs Views on Successful Types of Revenue Sharing projects				
Revenue Type Projects Considered Successful	Were communities Involved	Do communities own the projects	Reasons given for ICD success	Reasons given for levels of failure
Common good projects	Yes	Yes	The projects benefit all The projects provide us with long lasting services They are sustainable projects We participated in the construction of roads and got an income	Some people are too old not to benefit from schools They duplicated the work of government (They are not maintained by government) They did not address the problem of crop raiding It took long to complete the project
Livelihood projects	Somehow	Yes	We got individual benefits	Only the direct beneficiaries are the

			We attended some meetings We are clear of who is to benefit next We are fully involved in all stages.	owners. There was a lot of corruption in the procurement process Some members of the communities especially the Batwa were sidelined There is technical know who

Source: Primary data, 2013

4.4.3 Discussion of Results

4.4.3.1 The importance of governance for protected area conservation

The process by which power and responsibilities are exercised and decision undertaken can have a significant influence on the conservation of protected areas (Koh, 2009). The results reveal poor implementation and governance of Revenue Sharing policy. There are limited involvement, participation, monitoring and feedback systems that would put local communities at the forefront of decision making processes. The top-bottom approach is not relevant for inclusive development because it does not enable sound choices by local people that would make them

own projects that are put in place. As noted, one key to balancing the tradeoffs of successful programmes lies in the creation of inclusive, adaptive, and sustainable governance structures that build partnerships, empower people, foster dialogue, and emphasise the use of the best science available (Koh, 2009; Scherl *et al*., 2004). This is true given the fact that people ought to be put at the centre of project processes if they are to succeed.

It is also important to note that Governance is not synonymous with government but rather how governments and other social organizations interact, how they relate to citizens, and how decisions are taken in a complex world (Namara, 2006; Ahebwa *et al*., 2012; Borrini-Feyerabend, 1996). The study on governance helps in understanding the interactions among structures, processes and traditions that determine how power and responsibilities are exercised and how decisions are taken and how citizens and all stakeholders see the management of natural resources. Good governance and the involvement of local governments and communities in natural resource management are prominently featured in current debates on sustainable management of natural resources (Koh, 2009).

Good governance is becoming an increasingly important aspect in Protected Area management manifested by a number of international agreements and conventions such as World Heritage Sites Convention on Biological Diversity (1972); Ramsar Convention on Wetlands of International importance (1971); UNESCO's Man in the Biosphere Program (1971). Implementing decisions basing on local consultations of players and stakeholders and capacity of influence is vital in these conventions.

During the 2003 Fifth World Parks Congress in Durban, South Africa, delegates from wildlife management authorities, NGOs and local communities reiterated the position that governments have to view ecosystem sustainability as essential to human life. They also agreed that, in practical terms, conservation and management of protected areas could only be effective through considering the rights, knowledge and aspirations of neighboring populations (Namara, 2006). This can be possible if local communities are made partners in natural resource management and make decisions on the implementation of projects and benefits. Partnership building process has been characterised by dialogue, shared assessment of problems and opportunities, fair negotiation of decisions and actions, and mutual agreement, which are all the cornerstones of real partnerships for resource management (Borrini-Feyerabend and Sandwith, 2003).

It is important to note that good governance is an aspect of biodiversity conservation policies and treaties. However, when the local communities do not value the importance of conservation, efforts to conserve would be in vain. What is important to note is that, the strictly protectionist approach has given way to a radical change in policy that encompasses the role of local communities in conservation (Mugisha, 2002; Baker *et al*., 2011). Hence, the fundamental basis of fully protected areas has been questioned, and the adoption of community-based conservation (CBC) has arisen from a greater understanding of linkages between protected areas and rural development (Baker, 2004).

The principles of good governance such as citizenry participation and involvement, fair distribution of benefits, inclusiveness and accountability are a basis for this section to understand the experience of leaders with regard to involvement in Bwindi collaborative protected area

governance and understanding the existing gaps and how the gaps can be filled to improve on governance at Bwindi. It has been argued that the government's response to collaborative governance needs through its parastatal agency the Uganda Wildlife Authority (UWA) included laws and policies aimed at organizing and regulating access, use and management of natural resources within national parks for local people (CARE, 2006).

The current wildlife law and policy therefore recognize the significance of sharing benefits from conservation with local communities, the importance of maintaining good relationships with local communities for long-term conservation and of regulating access for local communities to resources within protected areas through a collaborative management framework (CARE, 2006). Management activities for Bwindi Impenetrable National Park (BINP) and Mgahinga Gorilla National Park (MGNP) have brought together local government, national government, and international community interests that sometimes are not in harmony with local community aspirations yet affect the outcomes of resource governance (Namara, 2006). The evaluation of these outcomes has not been adequately undertaken due to a poor monitoring and evaluation system that tended to focus on conservation and development outcomes rather than the involvement and ownership of people in decision making process.

From the current studies, the governance principles have been practiced at Bwindi in natural resource management (Bitariho, 2013; Namara, 2006). The UWA policies and plans streamline how communities neighboring Bwindi should share part of the revenue that comes from park revenue. Community understanding of good governance and what is actually practiced are different. The communities would want to be at the centre of project cycle and do not support to

bottom approaches. Members would want to be part of decision making, planning and implementation processes. In Rwanda specifically at Volcanoes National Park, communities have been made part of decision making processes in deciding how the 5% revenue allocated to administrative sectors is to be shared among communities.

It has been documented that the Rwanda Development Board (RDB) issues calls for proposals, and a project selection process is made at sector and district levels that greatly involve local communities in decision making. Selection criteria include positive impacts on conservation of biodiversity in protected areas, and to local community. It is the local people that decide where funding should go (Manirakiza, 2012; Babaasa *et al*., 2013). Areas that register more cases of conflict between protected areas and the community, according to results of Ranger-Based Monitoring, have preferential access to funds, as do those which are located closer to protected areas. At Volcanoes National Park, when the selection of projects is done, contracts are signed with the district authority and the community. Bwindi park management could generate lessons on how communities have been greatly engaged at Volcanoes to achieve more support for conservation.

4.4.3.2 Institutionalisation at Bwindi: The Community Protected Area Institution (CPI)

Community protected area institutions have been evolving since the early 1990s (Namara, 2006). To enlist community participation in the management of national parks, Community Protected Area Institutions (CPIs) were instituted to represent the interests of parishes bordering a protected area (Namara, 2006). The CPI is supported by the Community Protected Area Institutions Policy (UWA policy, 2000c), which is a strategy to promote collaborative park

management and increase community involvement in PA management (CARE, 2006). This institution was mandated to: act as a forum for mobilizing local communities to participate in various community conservation issues and channel and voice community concerns, and provide an avenue for Protected Area Managers to seek active involvement of local communities in natural resource management (UWA, 2000c).

CPIs were therefore instituted to ensure that Revenue Sharing programmes operate with an approach to relation building and collaborative management of the projects derived from Revenue Sharing, that community interests in Revenue Sharing programme are represented, that the content of projects are appropriate, that a community takes ownership and responsibility for a Revenue Sharing project and that the mechanism of Revenue Sharing is clearly understood and agreed upon by the community, Local Governments and UWA. These roles were clearly stipulated in the CPI policy of 2000 and its review in 2004.

The abolition of CPIs without an alternative community institution is not a good idea given the perception of local people on local government and its practices. The high rate of corruption in local governments in Uganda cannot leave them as alternative replacement for CPIs. The other groups within the community such as stretcher groups would be good conduits for collaboration but have limited capacity. UWA will not engage communities without a community institution that links it to the people. Drawing lessons from Rwanda, the use of cooperatives around Volcanoes National Park while implementing ICDs has increased empowerment of local people thus resulting into support for conservation (Uwingeli, 2012; Babaasa *et al*., 2013). This is also

the same approach used at Nyungwe National Park in Rwanda (Manirakiza, 2012) which has acted as an incentive for collaborative forest governance.

4.4.3.3 Institutional Prospects and Strategies for Future Governance Interventions

On part of CPI prospects, members indicated a need by park management to use bottom up approaches in implementing UWA policies. They perceived that local communities at the village level are not greatly involved in park activities and that many frontier villagers were not attending meetings called by park authorities because of a lack of prior information on purposes of meetings and being conducted in far places. CPI members also stated that Sub County Local Governments cannot help UWA in collaborative forest management because their plans relate to the development of a Sub County as a whole. There is a need to look at full involvement of frontier villages to win their support in the conservation drives.

They emphasized a need for empowerment of former CPIs or any local community- park institution that will replace them because of the importance for local community- park institutions to promote effective collaborative forest management and aim at a win-win situation by addressing village-level needs and priorities. They also suggested use of mass forums such as churches and mosques for community mobilization. CPI members emphasised equitable distribution of park resources in collaborative park management. They described how park management and community institutions do not operate on a level ground when implementing policies and distributing park benefits. Yet CAMs are supposed to declare actual or available RS funds or RS Funds projections to HLGs, LLGs & Frontline Communities at the beginning of LGs planning cycles.

4.4.3.4 Governance of RS Projects: The Procedural dimension of Equity

Forestry and wildlife policies of Uganda identify local community involvement in protected area management as a strategy for forest and wildlife conservation. This research evaluated whether local people felt involved in the design and implementation of Revenue Sharing projects at Bwindi, to have ownership of the projects and to have benefitted. This research illustrated that successes have been achieved, as local people reported involvement, ownership and benefit of Revenue Sharing projects. This research also illustrated that local people who felt involved in design and implementation were most likely to report that they benefitted from Revenue Sharing and had ownership of a Revenue Sharing project. This highlights the importance of involving local communities of Bwindi in the Revenue Sharing decision-making process for local people to perceive benefits from Revenue Sharing.

Definitions of good governance of Revenue Sharing by local people all related to community contribution throughout the whole Revenue Sharing process with most emphasis on the decision on the type of the project to be implemented. In Rwanda, greater involvement of communities at Volcanoes National Park has increased their support for conservation (Manirakiza, 2012). The engagement of adjacent communities in cooperatives at Volcanoes National Park and Nyungwe National Park further increases monitoring of projects as a group. People at Bwindi desire to see themselves as part of the projects design, implementation and evaluation. This is important if ownership of Revenue Sharing projects is to be felt. It is vital to note that, local people are not only concerned about benefits but also procedural matters.

4.5 Revenue Sharing Implementation, Unauthorised Resource Use and Conservation Support at Bwindi INP

4.5.1 Introduction

Under this section, the study establishes the linkage between unauthorised resource use and Revenue Sharing benefits. It further relates resource use to livelihood improvement and conservation support. The key assumption is that those who undertake unauthorised resource use have not benefited from Revenue Sharing policy implementation. It was assumed that such culprits of unauthorised resource use have not been involved in the governance of Revenue Sharing policy and perceive limited support for the conservation of Bwindi INP. Results indicate that unauthorised resource use has a significant relationship with Revenue Sharing benefit and also support for conservation (P-value < 0.05).

In order to build context for the governance data, a documentary review was conducted before interviews commenced. UWA law enforcement records indicated names of people who were arrested from 2010 to 2012 for poaching. Short interviews with the Law Enforcement Warden for Bwindi were conducted to validate the records. A monthly arrest data system was also put in place and collected data from August 2012 to July 2013. This enabled the researcher to get a list of 51 URUs who are analysed in details under this section.

Key issues under this section include; the profiles of resource users around Bwindi; the motivations of resource users around Bwindi; whether URUs perceive less benefit and

involvement in Revenue Sharing projects; the relationship between resource use and livelihood improvement and the relationship between resource use and conservation support at BINP.

4.5.2 Results

4.5.2.1 Understanding of Unauthorised Resource User (URUs)

This study used this term Unauthorised Resource Users to refer to people who enter the National Park of Bwindi without permission and those that extract resources illegally. In the eyes of local communities such as Batwa, illegal resource access is a strange term since before gazettment of Bwindi; they accessed resources without any limitations. Therefore coining the term unauthorised resource use and URUs would be more relevant to conservation managers who use it to refer to natural resource law breakers or poachers. Various unauthorised resource use around Bwindi include; bush meat hunting, collection of minor forest products such as firewood, Non Timber Forest Products (NTFPs), encroachment as a result of lack of a park buffer, pit sawing, mining, illegal grazing, illegal path through the park and illegal tracking.

4.5.2.2 Profiles of Unauthorised Resource Users

Results show that 39 people were arrested by Uganda Wildlife Authority undertaking unauthorised resource use from August 2012 to July 2013. Out of the 39 arrested, 24 (61.5%) were residents of Bwindi communities while 15 (38.5%) were non-Ugandans. 13 out of 15 were from Democratic Republic of Congo, 01 American and 01 Israelite. Out of 24 local residents, 22 (91.7%) were Bakiga while 2 (8.3%) were Bafumbira. There was no Mutwa arrested. It is hard to conclude whether Batwa do not undertake unauthorised resource use or are smart enough to escape arrests due to their rich forest knowledge. This study however only considered Ugandans whom Revenue Sharing policy applies as Table 19 indicates. This is because the study intended

to relate the implementation process with URUs to understand whether they benefit from Revenue Sharing and perceive involvement in the implementation.

Twenty five (64.1%) were from benefiting parishes while 14 (35.9%) were from non benefiting parishes. A slightly big percentage of the arrested Ugandans 9 (36%) was because of bush meat hunting. 8 (33.3%) were arrested because of collecting minor timber forest products such as firewood and bean stakes, 3 (12.5%) for Non Timber Forest Products (NTFPs), 3 (12.5%) for encroachment, 1 (4.2%) for illegal path, 1 (4.2%) for mining and 1 (4.2%) for illegal grazing.

Fourteen individuals of the 24 arrested were interviewed as part of the household survey while 10 were not. This related to the timeline for data collection (interviews started in February 2013). The profiles and motivations of all the 24 Unauthorised Resource Users were however documented for comparison purposes. Out of the 14 people interviewed, 13 had benefited from Revenue Sharing projects and all (100%) were residents of Revenue Sharing benefiting parishes. The parishes included; Southern Ward (23.08%), Kashasha (23.08%), Nteko (15.38%), Mpungu (7.69%), Mushanje (7.69%), Ngara (7.69%), Rubuguri (7.69%) and Bujengwe (7.6%).

Table 19: Profiles of the arrested Ugandans

Arrest gender	Ethnicity	Parish benefiting from Revenue Sharing?	Reason for arrest	Proximity to the park boundary	Revenue benefit (Yes/No)
M	Mukiga	Yes	Encroachment	≤ 1 km	Yes
M	Mukiga	Yes	Bush meat hunting	≤ 1 km	Yes
M	Mukiga	Yes	Bush meat hunting	≤ 1 km	Not sure
M	Mukiga	Yes	Encroachment	≤ 1 km	Yes
M	Mukiga	No	Minor timber collection	≤ 1 km	Yes
M	Mukiga	No	Bush meat hunting	≤ 1 km	Yes
M	Mukiga	No	Bush meat hunting	≤ 1 km	No
M	Mukiga	No	Minor timber collection	≤ 1 km	Yes
M	Mukiga	Yes	Minor timber collection	≤ 1 km	Yes
M	Mukiga	Yes	Minor timber collection	≤ 1 km	No
M	Mukiga	Yes	Mining	≤ 1 km	No
M	Mukiga	Yes	Bush meat hunting	≤ 1 km	Yes
M	Mukiga	No	Encroachment	≤ 1 km	Yes
M	Mukiga	No	Minor Timber Collection	≤ 1 km	Not sure
M	Mukiga	No	NTFP collection	> 1 km	Not sure
M	Mufumbira	Yes	Illegal path use	> 1 km	Not sure
M	Mufumbira	No	Minor timber collection	≤ 1 km	Not sure
M	Mukiga	Yes	NTFP collection	≤ 1 km	Yes
M	Mukiga	No	Bush meat hunting	≤ 1 km	Not sure
M	Mukiga	No	Minor timber collection	≤ 1 km	Not sure
M	Mukiga	Yes	Bush meat hunting	≤ 1 km	Not sure
M	Mukiga	Yes	Bush meat hunting	≤ 1 km	Not sure
M	Mukiga	Yes	Illegal grazing	≤ 1 km	Not sure
M	Mukiga	Yes	NTFP collection	≤ 1 km	Not sure

Source: Primary data, 2012- 2013

The arrested locations were geo-referenced in order to identify the parishes of residence and their location proximity to the park boundary. Figures 35-47 indicate that unauthorised resource use continues to take place at Bwindi INP despite Revenue Sharing policy. The figures further show that URUs reside in the parishes benefiting from Revenue Sharing. This was further confirmed in FGDs where participants reported that there were other factors apart from failed Revenue Sharing benefit that motivate URUs to do illegally access resources from Bwindi forest.

Box 21: Community perception of Unauthorised Resource Users

"Abantu nabo baratunga obuyambi, bamwe babire bari kwakira embuzi neetwe. Nyowe ndatekateka ngu neshonga nyingi ezi abantu batine bushoborozi kukozesa ebintu. Enkuru munonga nokushanga projects ezigabirwe zitaramara ebyetaago byabo kandi barahurira kubi ahabwabihaamba obutabajumbira mubintu byiihamba. Kandi naabo baraza munkiiko tibaragamba obwe batinire aba UWA ngu batabamanya".

Translated as;

"These people have also received benefits. Some have been receiving goats with us. I think there are many reasons for undertaking Unauthorised Resource Use. The main one is that the distributed projects are not enough to address their subsistence needs but also some resent park management because of limited involvement. Those who come for meetings do not talk for fear of being recognized by UWA"
(FGD Kanyamahene village, Rubuguri, Kisoro District, December 2014)

"….Abantu abo barakyira kuba bari mwehamba mbwenu tibiine bwire bwingi bwokuza omunkiiko. Nahu bobayijire, baratina ngu barabasiba nahabwekyo baramaramu akire kakye bagyende. Barija kwakira embuzi kusha habwire bwokuzigaba ahasigara amakuru goona bagaferwa kuruga mukutandika…"

Translated as;

These people are always in the forest so they do not have enough time to attend meetings. Even when they come, they fear that they could be arrested and therefore leave after a short time of attendance. They only come to pick goats at the time of distribution and miss all information from the beginning. ***(FGD Byumba village, Bujengwe, Kanungu District, January, 2014).***

Figure 34 and the subsequent Figures 35-47 indicate that all the Ugandan URUs reside in frontline parishes which are part of Revenue Sharing policy implementation. The fact that there were other URUs outside Uganda indicate that there are other factors more than benefiting from Revenue Sharing that may be inadequately addressed in the eyes of URUs.

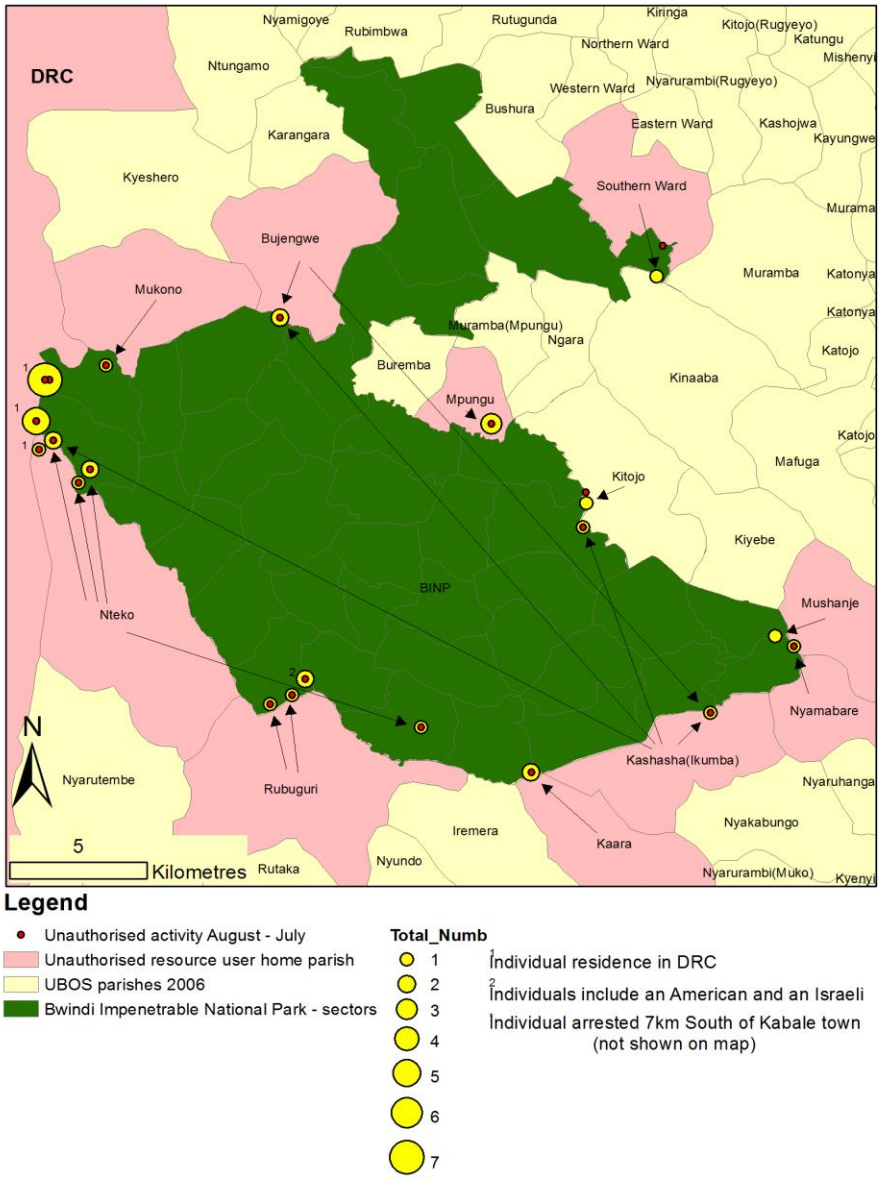
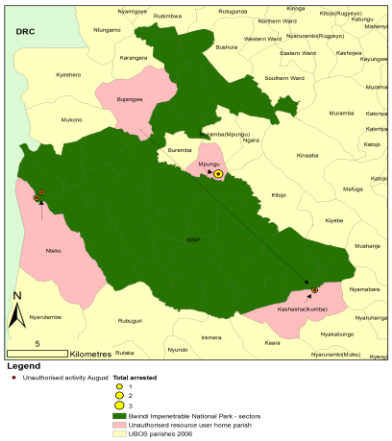
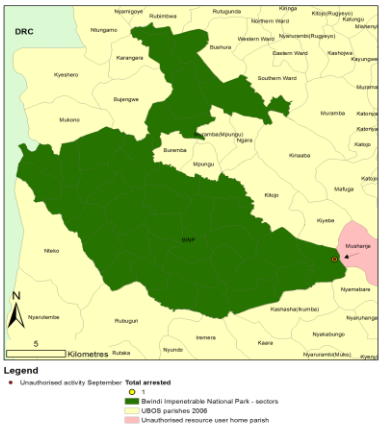


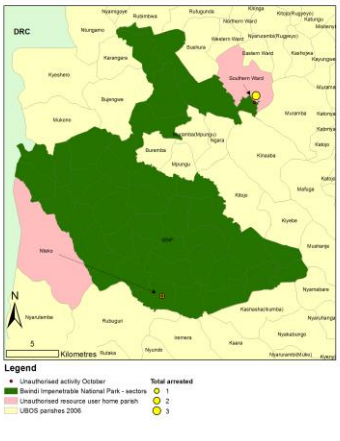
Figure 34: Location of URU at Bwindi from August 01, 2012-July 31, 2013
Source: Primary data, 2012-2013



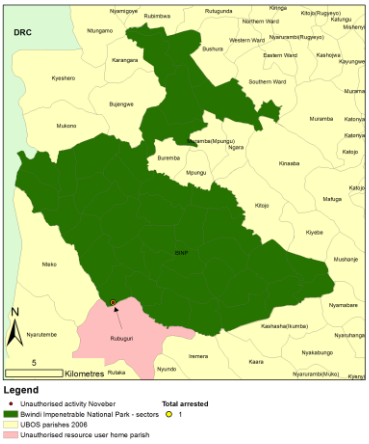
Unauthorised resource use August 2012



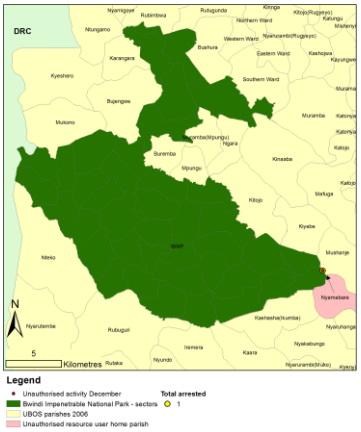
Unauthorised resource use September 2012



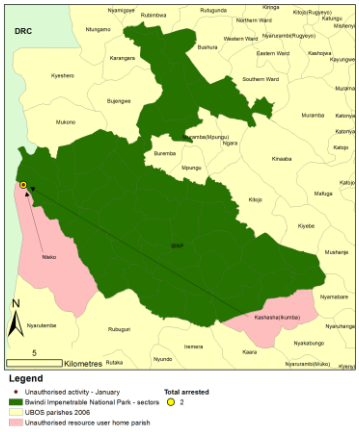
Unauthorised resource use October 2012



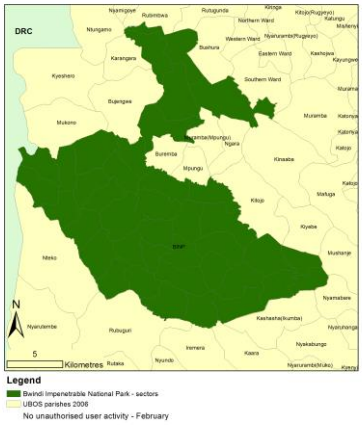
Unauthorised resource use November 2012



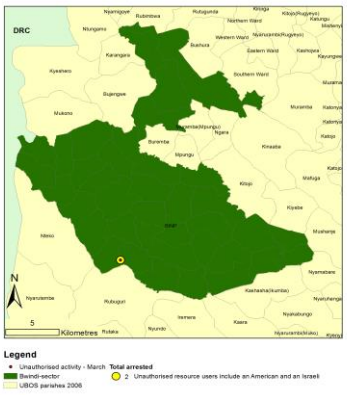
Unauthorised resource use December 2012



Unauthorised resource use January 2013

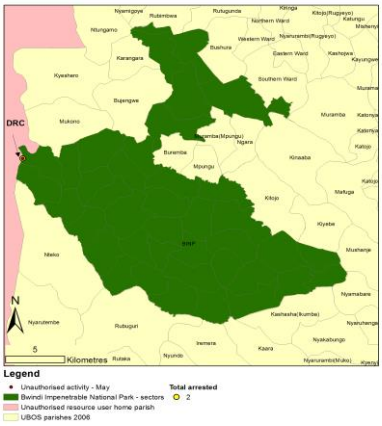


Unauthorised resource use February 2013

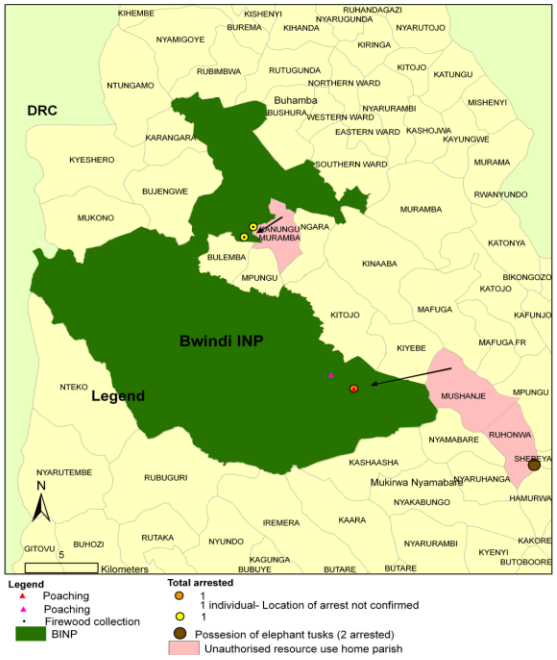


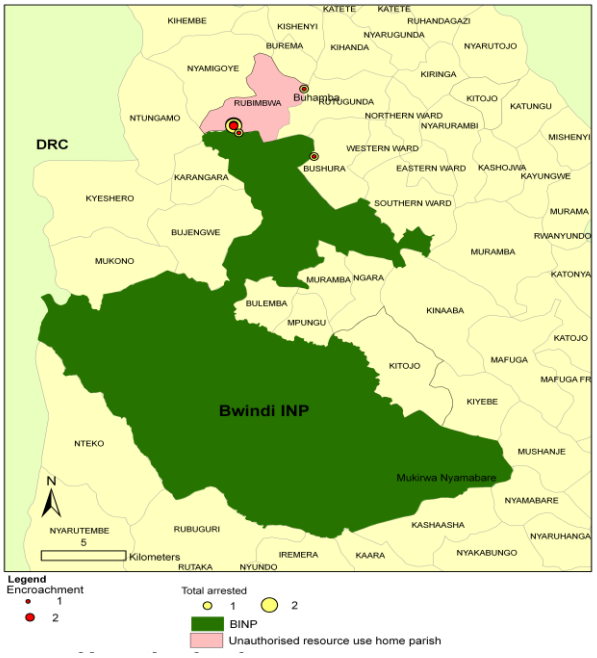
Unauthorised resource use March 2013

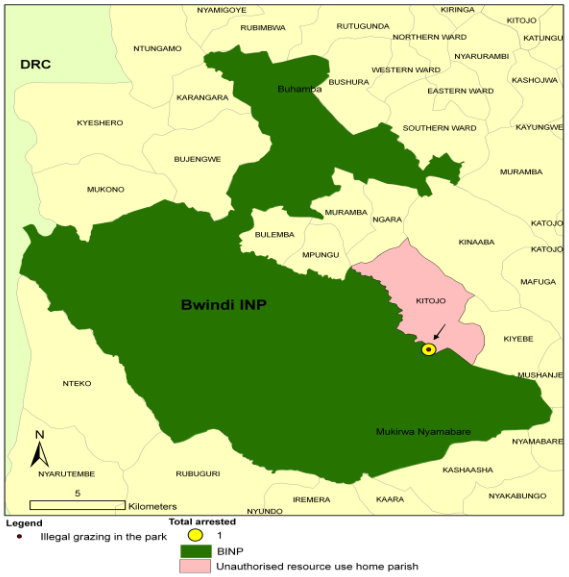
Source: ITFC/CTPA Project
Map Author: Andrew Kirkby
Date: 16 Aug 2013

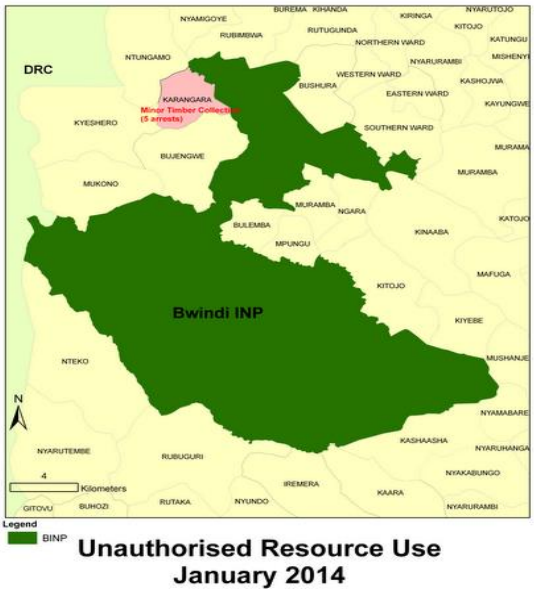


Unauthorised resource use May 2013









Figures 35-47: 13 months specific trend of URU at Bwindi

Source: Primary data, 2012-2013

4.5.2.3 Motivations of Unauthorised Resource Users and their Livelihoods

1. Bush meat hunters

Bush meat was identified as the most important resource that people desire and illegally collect from Bwindi. This revelation was the same with the law enforcement records that the researcher verified in 2012 and the CTPA research that was done at Bwindi from 2012 to 2013 (Twinamatsiko *et al*., 2014). As indicated in Table 19, results showed that all households obtaining bush meat and arrested hunters live near the park boundary (within 1 km zone). Such households lived over 1 hour walk from a vehicle road and village centres compared to other people in the sample.

This implies that proximity from park boundary and social services without active engagement is likely to contribute to unauthorised resource use. As people get isolated, they are likely to do harmful activities on the environment near them. Closeness to the National Park with limited livelihood sources is likely to entice residents to seek an alternative from the National Park resources. Therefore greater and meaningful involvement of such people as defined in section 4.4 of this chapter would be important for conservation efforts.

Results further show that, subsistence needs of people bordering Bwindi who have no livestock or money to buy meat and those who seek bush meat to treat childhood malnutrition were the among the drivers for bush meat hunting. Through FGDs, it was identified that local people bordering Bwindi sell bush meat within their communities. This trade is however on a small scale and not on commercial scale. Compared to prices from the local butchery (1 kg of beef cost 8000-9000), bush meat cost 5000-6000. This is attributed to the need for a quick sale because of

illegality. Participants in the FGDs also mentioned that, bush meat is trusted to have medicinal properties and hunting is used by the Batwa to pass on traditional knowledge to the subsequent generation. Subsistence and livelihood security needs were however identified as the primary motivations for local people to hunt bush meat.

2. Minor timber collection

Minor timber forest products especially firewood were identified among the resources that people collect illegally from the park. People who collected firewood from Bwindi during the past year lived within 1km from the national park boundary compared to others. Firewood collectors were living further from village centres and vehicle roads. Such URUs live too close from the park boundary.

Minor timber collection especially firewood were collected because of limited alternatives in the communities where people live. Evidence observed from the field show a growing scarcity of land for tree growing because of a high population. The current population around Bwindi stands at 350 people per sq km (UBOS, 2011). Results further established that limited land for woodlots has made it hard to get building poles outside the national park yet construction around Bwindi is mostly supported by poles. This was substantiated by most observed semi-permanent structures across Bwindi communities during household surveys.

Other resources illegally collected included medicinal plants. These are believed to be more effective at curing illness when compared to conventional medicines. Some FGD participants across Bwindi parishes described those conventional health care services to be too far away and

also expensive. This entails the observation from the field about the rugged terrain of Bwindi communities and location of health centres. Female FGD participants mentioned that nurses and other medical personnel in such health care centres are rude to them thus making them prefer traditional herbs from Bwindi. This creates preferences for traditional medicine that is near them and believed to be more effective of curing infections compared to the one from such modern health facilities.

3. *Boundary encroachers*

Results also show that local people encroach on park boundary through agricultural activities and tree harvesting. Those who encroach on the park boundary live closer within 1 km from the park boundary or have land that directly boarders with the park. They were among the people that had no formal education and who had not attended park meetings within the past 12 months. Encroachers ranked themselves in the category of somewhat bad for livelihood status. Linked to RS benefit, most boundary encroachers (2 out of 3 arrested individuals) had benefited from Revenue Sharing projects although indicated dissatisfaction on the level of impact of RS projects distributed.

4. *Miners*

Only one person was arrested for mining gold from Bwindi INP. The history of this person indicated that his family was supported by Bwindi before gazettment as a livelihood source. He narrated to the research team how his father was a gold miner and since 1991, their livelihood changed negatively. The motivation for unauthorised resource use was identified as resentment since the national park gazettment deprived their family of their livelihood resources. Miners lived far from the national park and had large families. Much as he indicated that he has received

a RS project, he was quick to point out the weakness of the policy where former gold miners have not been specifically targeted for tangible benefits.

Mining is taken by URUs as a source of immediate income. Results further show that miners were resenting park activities in the context of historical injustices that took place after gazettment. Miners mentioned that they have never been compensated for their livelihood losses and Revenue Sharing does not specifically target them.

5. *Basket makers*

People also mentioned collection of basketry materials from the park. This was attributed to the high demand of baskets due to tea growing around Bwindi and a need for ready income. Although Bwindi park management implements a Multiple Use programme (MUP) where a number of people (n=660) are allowed to legally access selected resources, those who illegally collect basketry materials indicated that not all resources are covered under MUP.

FGDs described *Smilax anceps* and *Loeseneriella apocynoides* as good forest resources for making winnowing trays and baskets needed for tea harvesting, yet they are only found in the park. When the researcher crosschecked with resources on the MUP, the two plants are among the restricted plants to be accessed by the group members. Results from household surveys further indicate that basketry makers desire to have part of Revenue Sharing funds put in improving their handcraft skills yet this is never prioritised.

6. *Other Unauthorised Resource Users*

Other people arrested at Bwindi were those collecting Non timber forest products (NTFPs). These include medicinal plants, bean stakes and wild honey. Other people were arrested for grazing goats illegally in the park and walking through the park in places not gazetted as formal paths. Most of these people were living closer to the park boundary and were among the poorest members compared to other community members. Most people in such areas no formal and primary level of education. Such resources were accessed for household use (for medicinal plants, wild honey, bean stakes and illegal grazing) and local trade (for honey).

From the identified profiles of unauthorised resource users, this research identified preferences of resources during FGDs in order to establish the possibilities of integrating such resources into Revenue Sharing project selection or recommend to the park management possible ways of funding the initiatives to propagate such resources in the bordering communities. The most needed resources were identified as bush meat, firewood, medicinal plants, building poles, honey and basketry materials that are not on MUP.

Bush meat was the most commonly resource obtained and needed from the forest. The second important resources that people needed were minor timber forest products. These included; firewood, bamboo shoots, bean stakes and deadwood. Firewood was mostly mentioned in FGDs. It was mentioned that Revenue Sharing policy stopped funding tree planting projects when CARE withdrew its activities from Bwindi.

Results also indicate that due to limited land for cultivation, people find it hard to access firewood. It should be remembered that during pilot testing of the questionnaire to identify basic needs of life, firewood was ranked number two after land. This implies that attention in Revenue Sharing project selection could be given to some of the key resources that people need from Bwindi to reduce pressure on such resources. Also, more collaborative arrangements could be made between people and park management to collect resources from the park which have no or limited conservation threat.

Table 20 presents motivations for unauthorised resource use. Results show that poverty was a major factor driving unauthorised resource use with a slight majority of 227 (40.6%). This is followed by unfairness that cause resentment 201 (35.6%), immediate income 66 (11.7%), culture 37 (6.6%), peer norms 28 (5%) and lastly 'others' 4 (0.7%). 'Others' category included factors such as; social capital, looking at Bwindi INP resources as the easiest option to meet needs and idleness.

Table 20: Motivations of Unauthorised Resource Use

Motivations for URU	Freq.	Percent	Cum.
None	2	0.4	0.35
Culture	37	6.6	6.9
Poverty	227	40.2	47.08
Income	66	11.7	58.76
Unfairness	201	35.6	94.34
Peer norms	28	5.0	99.29
Others	4	0.7	100
Total	**565**	**100**	

Source: Primary Data, 2013

Specific results from the 51 URUs who were part of the study (14 new arrested and 37 bush meat hunters from UWA records) indicate that the motivations for unauthorised resource use were the same as general views of all the 565 respondents. Out of 51 URUs, poverty was mentioned by 34 (66.7%) while 9 (17.6%) mentioned unfairness. Other 4 (7.8%) URUs mentioned culture, 3 (5.9%) mentioned income and 1 (2%) mentioned 'other factors' that were identified such as; social capital and easiest livelihood option. This implies a complicated story whether Revenue Sharing benefits contribute to poverty reduction or redress to conservation injustices that may cause resentment. In the case of Bwindi, respondents understood poverty in terms of the inability to meet subsistence needs which in this thesis is called economic poverty.

Unfairness was connected to failure to address conservation costs but also limited involvement in park activities. Failure to address conservation costs relates to the distributive dimension of equity whereas involvement is a component of procedural equity. This study (section 4.4) has already indicated that involvement significantly influences support for conservation and people's livelihoods. Compared to other members in the same community, URUs perceived less involvement in Revenue Sharing policy implementation. Greater involvement could therefore be a catalyst for addressing URU. Table 21compared these differences and indicated that URUs were not targeted in Revenue Sharing activities compared to Batwa and other random community households. Results further imply that, during RS implementation, the challenges of URUs ought to be well analysed both from the distributive and procedural dimensions of equity.

4.5.2.4 URU and governance aspect

Results from governance indicate that unauthorised resource users perceived less involvement in protected area activities much as most of them had attended park meetings. This shows that the procedural dimension of equity is important on top of distributive dimension. If attention is not given to all dimensions of equity, distributive equity alone may not yield support for conservation. As illustrated in Table 21, unauthorised resource users were compared with other community households that refrain from unauthorised resource use or are not yet known by UWA as URUs. Using Multinomial Logistic Regression (MLR), random community households were taken as base outcome since it was a large sample for comparison.

Table 21 reveals that governance of Revenue Sharing significantly influences resource use (*P*-value < 0.05). Compared to other households in the same community, the governance by URUs in terms of taking part in leadership such as committees of Revenue Sharing projects significantly influences their use of resources compared to other people in the same society (*P*-value = 0.002). This was the same as Batwa people compared to other community members.

The other key parameter of governance that influences resource use was accountability. Although involvement of Batwa in terms of 'accountability' as a measure of governance significantly influence their use of resources than any other resource users, the level of significance of URUs' involvement is high compared to other random community households (*P*-value =0.08). This implies that involvement of URUs and Batwa compared to any other members of their communities is pertinent in influencing resource use. More meaningful

engagement of URUs in RS leadership committees and increased benefit impact in their lives is likely to influence their behavior towards unauthorised resource use.

Table 21 further reveals the relationships that exist within the significant parameters of governance. Accountability and leadership compared to involvement had a positive relationship (Coeff= 0.33& 0.7) for URUs and for Batwa (Coeff= 0.33). Involvement had a negative but strong relationship (Coeff= -.0.5) for URUs. Leadership compared to accountability had a strong positive relationship (Coeff= 0.7) for URUs since it is almost close to 1.

Table 21: Relationship between Governance and Unauthorised Resource Use

Parameters	**Coefficient**		***P*-value**		**Z**		**Standard error**	
	URUs	**Batwa**	**URUs**	**Batwa**	**URUs**	**Batwa**	**URUs**	**Batwa**
Involvement	-0.5**	0.34**	0.002	0.002	-3.1	-3.2	0.1	0.1
Accountability	0.33*	0.33*	0.08	0.015	-1.8	-2.4	0.2	0.1
Leadership on committee composition	0.7**	-	0.011	-	2.54	-	0.2	-

**** Very highly significant at 5%*
*** Highly significant at 5%*
** Significant at 5%*

4.5.2.5 Relationship between Resource Users and Revenue Sharing benefits

There was no statistical significance between Revenue Sharing benefit and unauthorised resource use (*P*-value > 0.05). There was also no relationship between the two (Coeff=0, SE=0.05). This

implies that benefiting from Revenue Sharing does not necessarily influence unauthorised resource use. Other factors ought to be put under consideration. When respondents were asked about the motivation for unauthorised resource use various factors that include; poverty, culture, need for income, unfairness which causes resentment, peer norms and influence were mentioned.

Table 22: Revenue Sharing projects and resource users at Bwindi

RS projects	**Resource Users**			
	Unauthorised Resource Users	**Random community members**	**Batwa**	**Total**
Livestock	10	128	26	164
Trees/Seedlings	4	20	4	28
Schools	4	36	7	47
Health centres	3	24	7	34
Crop raiding control	7	44	13	64
Roads	0	16	7	23
Land provision	2	14	4	20
Water	6	16	6	28
Other livelihood projects	0	6	0	6
Other general projects	0	6	4	10
Total	36	310	78	424

Source: Primary data, 2013

4.5.2.6 Relationship between Unauthorised Resource Users and Livelihood Improvement

This study regressed Resource user category and livelihood improvement. This was intended to find out whether unauthorised resource users perceive limited livelihood improvement compared

to other people living in their communities. It was also intended to find out the relationship between unauthorised resource use and livelihood improvement. A study conducted at Bwindi in 2012 to 2013 indicated that unauthorised resource users were poor compared to other members in their society (Twinamatsiko *et al*., 2014). Following FGD results, it is now clear that poverty motivates people to undertake unauthorised resource use. This relates to the inability to meet basic and perceived needs of life. Linking resource use to livelihood improvement would therefore bring to limelight the validity of these assertions.

Results after linear regression indicate that resource use highly significantly influence livelihood improvement. There is however a negative relationship between resource use and livelihood improvement (Coeff=0.71, *P*-value=0.000, SE=0.09, df=564). The study further investigated the differences in terms of relationship and significance that exists on livelihood improvement with unauthorised resource users in the face of other people in the same communities. Other people included Batwa and other community members who are not reported to be undertaking unauthorised resource use. Multinomial Logistic Regression helped to establish the differences.

Using other community members as a base category, results indicate that resource users significantly influence livelihood improvement compared to other community members (Coeff=-0.28, *P*-value=0.04, SE=0.14, df =564). The Batwa are significantly influenced by livelihood improvement than Unauthorised Resource Users and other members in their community (Coeff=-1.13, *P*-value=0.000, SE=0.13, df =564). The relationship however for both Batwa and Unauthorised Resource Users and livelihood improvement was negative.

This implies that at the moment, both the livelihoods of Unauthorised Resource Users and Batwa have not been affected by the current implementation of Revenue Sharing projects although resource use and livelihood improvement relate. The other lesson from results would be a focus of intervention to Unauthorised Resource Users and Batwa since they are more related to livelihood improvement than other members in their communities.

4.5.2.7 Relationship between Unauthorised Resource Users and Conservation Support

The relationship between resource use and conservation support was also established using linear regression. The differences among Unauthorised Resource Users, Batwa people and other community members in terms of significant influence were also established using Multinomial Logistic Regression. This was intended to determine whether resource use influenced people's support for conservation. Also determining who strongly relate with conservation support among resource users in the same communities was also paramount for this study.

Conservation support was measured in terms of; reduced unauthorised activities, involvement in conservation activities such as stopping fire outbreak on Bwindi forest, ownership and participation of crop raiding control measures, participation in conservation education programmes and the ability to report poaching. In order to establish an index for conservation support, polychoric PCA was applied. The researcher however further looked at these indicators of conservation support separately in order to avoid data reduction. The results were the same as for the index created which built confidence in the results.

Results indicate that resource use statistically significantly influence conservation support (*P*-value < 0.05). Also, there was a positive relationship between resource use and conservation support within sections of resource users. The key significant factors in conservation support were; involvement in conservation activities and ability to report poaching compared to the third indicator of reducing unauthorised activities.

Results indicate that unauthorised resource users compared to other people in their community positively relate with conservation support (Coeff=0.31, *P*-value=0.02, SE=0.13,df=564). Other community members were used as a base category. The level of significance between the Unauthorised Resource Users and Batwa was however low. The use of resources by Batwa highly significantly influence conservation support more than any other member of their society (Coeff=-0.36, *P*-value=0.000, SE=0.09,df=564). The level of relationship between Batwa and conservation support is negative compared to that of unauthorised resource users.

4.5.3 Discussion of Results

Taken together, the results provide strong evidence that unauthorised resource use influences conservation support compared to its relationship with livelihood improvement. The most convincing pieces of evidence of conservation support are that compared to other community members, unauthorised resource users if well targeted can reduce on unauthorised activities, participate in park conservation activities and report cases of poaching to park management.

These findings are consistent with other studies in this area (Twinamatsiko *et al*., 2014) where unauthorised resource use was driven by poverty and asserts that if they are involved in park

activities and perceive benefits they are likely to change their behavior and support conservation efforts. To carry these findings forward, our discussion will focus on: why they continue to undertake unauthorised resource use despite the existence of Revenue Sharing policy, what motivates them to undertake unauthorised resource and whether Revenue Sharing practice can be improved to attract their support.

4.5.3.1 Profiles and Motivations of Unauthorised Resource Use despite Revenue Sharing

This research demonstrated the use of a mixed-method approach to establish whether unauthorised resource use had an association with livelihood improvement and conservation support. The mixed method approach also helped to understand the profiles and motivations of unauthorised resource users of Bwindi forest. Despite many years of implementing Revenue Sharing at Bwindi, unauthorised resource use has continued to take place. Results indicate that Unauthorised Resource Users come from parishes that benefit Revenue Sharing policy and a good percentage of them (70.5%) had received Revenue Sharing projects.

What is however key to note here is that Unauthorised Resource Users felt they were not involved in Revenue Sharing projects yet governance indicators were significantly related with resource use. This means that Unauthorised Resource Users like any other member of the communities are not only concerned about the distributive dimension of equity but also the procedural dimension that entail being part of the day today decision making processes.

Results generally show that, people who are closer to the park boundary (see Fig. 10 showing 1 km distance from the national park boundary) and also live further from roads and trading

centres are significantly poorer than other residents. Wealth was not a significant profile characteristic of the hunter dataset as a whole or for households obtaining bush meat, although arrested hunters were poorer than other local residents (by the Basic Necessity Survey, not by household construction and size) (Twinamatsiko *et al*., 2014).

FGDs identified people who hunt bush meat to be among poor members in society without livestock or money to buy meat. Arrests show that residence location of Unauthorised Resource Users was within 1 km range. This implies that if the previous recommended approach in section 4.2 of targeting people closer to the park boundary would be applied in Revenue Sharing implementation, Unauthorised Resource Users will also be targeted since most of them live within the identified zone.

On the other hand, despite many years of law enforcement, unauthorised resource use has not ended yet the approach is very expensive in terms of the number of rangers and equipments needed. This failure reveals a need for a strong focus on community based approaches to address unauthorised resource use. At many protected areas in Uganda, law enforcement patrols collect data on the people collected from the park and where unauthorised activities take place (Twinamatsiko *et al*., 2014). Understanding the 'who' and 'why' of unauthorised resource use can enable conservation managers to identify the diversity of people and drivers involved with unauthorised resource use from international to local levels, and implement appropriately targeted law enforcement while improving livelihoods of the rural poor.

Motivations for unauthorised resource use reveal both poverty and unfairness that cause resentment as two major drivers. This entails both distributive and procedural equity dimensions. Revenue Sharing policy has not significantly addressed poverty issues around Bwindi. This is attributed to inadequate funds remitted to communities and poor policy practice. Secondly, as noted by unauthorised resource users, unfairness that breeds resentment has not been addressed by implementers of benefit sharing programmes. These two issues are pertinent for the proponents of Revenue Sharing policy. Previous themes indicate the potential of Revenue Sharing to address conservation support through improved community livelihood. What is now needed are the approaches and the framework of implementation.

This objective aimed at understanding people who continue with unauthorised resource use and why despite Revenue Sharing, and the governance approaches to RS that local people most prefer and the impact differences of RS. Unauthorised resource users need proper targeting if conservation support is to be realized. It has been established that unauthorised resource users in Mpungu, Rubuguri and Mushanje have formed reformed poacher groups. Revenue Sharing money could target such groups and fund them on their priority projects that would make them change behavior. The equity framework under the recognition and contextual dimensions emphasizes sharing benefits with those who cause harm to the environment in order for them to change behavior.

Unauthorised activities seem to have changed when comparing before and after gazettment of Bwindi. Before gazettment of Bwindi in 1983, hunting signs were found in approximately 24% of Bwindi forest and it was estimated that 60 to 120 people were entering the forest to collect

bush meat (Butynski, 1984). In contrast, an estimated 100 and 300 people were employed in pit sawing and a further 100 to 200 people in gold panning and mining (Butynski, 1984). In one year between August 2012 and July 2013, only 39 people were arrested by UWA.

An evaluation of ICD at Bwindi approximately ten years after gazettment identified that illegal pit sawing and mining in the national park had declined, which was largely a result of law enforcement, although bush meat hunting had continued particularly in interior areas of the forest (Baker, 2004). At 24 years after Bwindi gazettment, this study shows that bush meat was the most desired forest resource by local residents neighboring the national park and, out of the six resources assessed, the most widely consumed and was also at the top of cases of unauthorised resource use.

4.5.3.2 Relationship between Unauthorised Resource Use and Revenue Sharing benefits in the context of their livelihoods and support for conservation

Results have shown that Revenue Sharing benefits have not significantly influenced resource use. This is a complex scenario to the agitators of Revenue Sharing policy and other ICDs. Results however show that Revenue Sharing benefit influenced conservation support and there is a positive relationship between resource use and conservation support. Unauthorised resource users on the other hand perceive limited involvement in Revenue Sharing activities. This therefore addresses fear as to whether Revenue Sharing policy can address unauthorised resource use. From this elaboration, yes it can.

This however entails changing approach to target unauthorised resource users in the procedural aspects. They need to perceive greater involvement in the governance of Revenue Sharing projects. As elaborated in section 4.4, local people who perceived greater involvement, perceived greater benefits and greater support for conservation. In FGDs, local people showed their willingness to participate in these programmes. This would entail an inclusive approach when it comes to the awareness of meetings and programmes to take place.

This study argues that Revenue Sharing can adopt recognition and contextual aspects of equity framework to address the needs and priorities of unauthorised resource users. A combination of other ICD approaches on top of Revenue Sharing such as Multiple Use Program (MUP), agriculture development, substitution and tourism development is however important to further bring them on board.

The study has further established that resource use was positively related to conservation support. This is a good entry point of justification for policy implementers. If Revenue Sharing targets those who do harm to change their behavior, there are high chances that conservation objectives will be achieved. This entails working with the already known bush meat hunters and other poachers who are in the records of UWA. Reformed poacher groups that already exist in Mpungu, Rubuguri and Mushanje can be specifically targeted when distributing Revenue Sharing projects. This is likely to attract more poachers if benefits and involvement are perceived to have an opportunity cost.

The results could indicate the diversity of individuals undertaking hunting and consuming bush meat. Discussions with Community Conservation Warden of Bwindi and staff of Conservation Through Public Health indicated that there are traditional hunters around Bwindi who hunt for subsistence needs and to sell bush meat, with bush meat being a small, modest income source, but also poorer local residents who go to the forest for bush meat in response to emergency needs, such as family sickness.

A detailed study on bush meat hunting at Bwindi is needed to fully assess the socio-economic aspects of hunting. Nonetheless, this research established that bush meat was the most desired and consumed forest resource by local residents neighboring the national park, households obtaining bush meat and arrested hunters lived close to the national park and in remote areas further from roads or trading centres and hunters are primarily motivated by subsistence needs and livelihood security but traditional beliefs and resentment at park authorities also drive local people to hunt. It is important to note that bush meat hunters pose a great threat to conservation. Their activities have time after time affected the conservation of the world mountain Gorillas. This is in agreement with a report by IGCP (2011) on a gorilla that died as a result of poaching around Bwindi. There bush meat hunters ought to be engaged and their concerns addressed in order to address threats to conservation.

4.5.3.3 The Revenue Sharing equitable approach to reduce Unauthorised Resource Use

This study observes that there are approaches that can be adopted to address or reduce bush meat hunting using the Revenue Sharing policy. Park managers should consider greater involvement of poachers in Revenue Sharing activities. This entails attendance of meetings, sensitization,

conservation education and being part of PMCs and CPCs. Secondly, alternative livelihood schemes that can engage poachers to reduce dependency on poaching ought to be thought about during Revenue Sharing project selection. These should address immediate needs and priorities of bush meat hunters.

Furthermore, Payment for Ecosystem Services (PES) as an alternative income source that promotes conservation can be adopted at Bwindi INP. Many involve working with hunters directly to encourage them to stop hunting and adopt alternatives of either income sources, livelihoods or protein. Advocates of these schemes claim this approach is sustainable leading to long-term change, whereas critics argue that the schemes are 'rewarding the sinners' (Twinamatsiko *et al*., 2014). Overall, reducing poaching requires systematic but also a combination of factors to address the why question so critically. Two main factors; poverty and unfairness that cause resentment are crucial to be addressed.

Table 23: Summary of the key findings and hypotheses

Implementation and Governance of Revenue Sharing Policy	
Hypotheses	**Key Findings**
Revenue Sharing benefit distribution has a significant influence on livelihood improvement and conservation support of various sections of people around Bwindi Impenetrable National Park	**Yes.** Revenue Sharing benefit distribution significantly influences livelihood improvement of people surrounding Bwindi and their support for conservation
Revenue Sharing benefit impact significantly influences livelihood improvement and conservation support among people surrounding Bwindi Impenetrable National Park	**Yes** Perception of Revenue Sharing benefits significantly influences livelihood improvement and conservation support
The governance Revenue Sharing projects during	**Yes.** Involvement and participation, information flow, capacity to influence decision outcomes, leadership

implementation significantly influences livelihood improvement and conservation support of people bordering Bwindi Impenetrable National Park	committees and accountability highly significantly influence livelihoods improvement and support for conservation of Bwindi Impenetrable National Park
Those who undertake unauthorised resource use perceive less benefits and involvement in Revenue Sharing policy implementation than those who refrain from it	**Yes and No** Unauthorised Resource Users perceived less benefits of Revenue Sharing project although most of them had received a Revenue Sharing project. They also perceived less involvement in Revenue Sharing policy implementation. Resource use was also established as a significant factor to conservation support compared to livelihood improvement.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents major conclusions and recommendations generated from the results presented in Chapter 4. A Revenue Sharing Equity Framework (RSEF) which has been generated from the study and earlier constructions of the Justice framework is a basis of the recommendations made hereafter in section 5.3. Overall, Revenue Sharing has a potential to address livelihood improvement and conservation support if well implemented and governed. This is justified by the statistical significances that certain process parameters in the implementation and governance had on both livelihood improvement and conservation support.

It is now clear that there is a mismatch between Revenue Sharing policy and its practice at Bwindi. The current implementation and governance of Revenue Sharing policy at Bwindi face challenges that hinder effective delivery of the policy to its initial objectives. The study argues that the objectives of the policy are also outdated and need reformulation. They were set in place in 1996 and there are many changes that have taken place in both livelihoods of people neighboring Bwindi such as population increase, climate change, tourism development and role of civil society. In this case, Revenue Sharing can contribute to livelihood improvement but not seen as an overall contributor to address livelihood insecuurity. There are major distributive and also procedural equity challenges that the study has established that ought to be addressed as illustrated in the proceeding conclusions.

5.2 Conclusions

5.2.1 Revenue Sharing Benefit Distribution, Livelihood Improvement and Conservation Support

Equity has come out as a key concept that conservation managers need to look at while distributing Revenue Sharing benefits. It is concluded that the distribution of Revenue Sharing projects across various sections within the population seems not well targeted. People who bear most of the conservation costs and live closer to the park boundary have not been effectively targeted by Revenue Sharing. This also relates to the recognition and contextual dimensions of equity where those who have historical property rights such as Batwa people and those who do harm to Bwindi resource have not been given special consideration during the implementation process. The two categories of people both live within the 1 km of the park boundary and are likely to bear conservation costs (see Fig. 10 in Chapter 4). Curtailed by historical injustices, Batwa and URU's support for conservation has remained low. This research therefore established that those who are most affected are now well targeted during implementation yet Revenue Sharing policy guidelines focus on two critical areas of intervention-Human Wildlife Conflict and frontline community welfare (See Chapter 1, section 1.2.1).

There are varying differences in the socioeconomic and well being status and needs of people around Bwindi. The problems that affect community welfare are different across Bwindi among the Batwa and non-Batwa, men and women, unauthorised resource users and those who refrain from unauthorised resource use. In implementing Revenue Sharing policy however, this has not been put into consideration which attributes to the failure to implement the policy well. The formula of Revenue Sharing implementation has to be tailored towards understanding the status

of people the policy is supposed to impact. It is also important to recognize that generally, most people surrounding Bwindi are not well off. They lie in the category of poor people as manifested in the levels of best, average, somewhat bad and worst. No one was able to choose best category and this was validated by the observational socioeconomic household profiles.

5.2.2 Revenue Sharing Impact, Livelihood Improvement and Conservation Support

Projects that are currently funded at Bwindi under Revenue Sharing policy are inadequate to improve people's livelihood but have the potential to attract conservation support. Since the policy guidelines indicate that conservation support will be achieved through improved livelihoods and addressing Human Wildlife Conflict among the people bordering PAs in Uganda, then a need to fund projects that bear more impact would be a good strategy for conservation managers. Common good projects are likely to show impact in community compared to livelihood projects although local people prefer livelihood projects.

Key hindrance to translate Revenue Sharing benefits to livelihood improvement rotates around the procedural and distributive inequities. This relates to limited involvement of the local people which affects level of benefit appreciation and ownership, poor implementation approaches, a high bureaucratic system and a poor monitoring system by stakeholders that are charged with the monitoring task. If Revenue Sharing benefits do not translate into livelihood security, collaborative community based conservation will not be achieved. This is likely to fail efforts towards reducing unsustainable resource use.

Revenue Sharing projects impacts were generally the same across all communities bordering Bwindi although the policy guidelines are implemented differently. According to the policy guidelines (see Chapter 1, section 1.2.1), the implementation approach should be the same across all benefiting communities. This is in contrast to the process communities follow during implementation. As documented in Chapter 4, there are variances in the time frame of implementation due to delayed accountabilities from local governments. The procedure of selecting beneficiaries and projects is also different. Overall, the impacts of Revenue Sharing policy were not visible to match with the hopes and increases in funds generation as a result of gorilla tourism. Habituation of more Gorilla groups has increased the number of visitors over years and hence increases in revenue generation. Much as UWA's policy is to submit all collections to the central treasury, the dispossession of local people amidst plenty of resources ought to be addressed.

This is a strategy that should involve top UWA management to consider more remittances back to Bwindi to match with the level of income generation. This would entail increase of 20% of gate entry fees and calculate gorilla levy into percentages not in USD. The study also makes an appeal to all implementing partners to put into proper use the 20% gate collections and USD 10 from gorilla levy in case changes are not yet effected. The overall observation is that it is not about funds being low. The already allocated funds have not been put into proper practice. New implementation strategies are important to show a difference in the lives of the beneficiaries.

A combination of both common good and livelihood projects is important not being rigid on one line of funding as long as the selection meets local needs and priorities. Common good projects

facilitate household income in many ways. First, they act as conduits for market accessibility (roads), access to health care (health centres and water projects) and educational support to children. Livelihood projects on the other hand, should be well targeted to address crop raiding and other related poor household needs. Much as the policy guidelines clearly stipulate the prioritisation of projects based on Human Wildlife Conflict and community welfare after coming up with a wishful list, in contrast the policy implementers do not specifically select projects based on this criterion. In Chapter 4, results indicate that some of the projects selected were not necessarily the needs and priorities of the benefiting communities and there is nothing much to connect them to the two aspects in the guidelines-improving community welfare and addressing Human Wildlife Conflict.

5.2.3 Governance of Revenue Sharing Projects, Livelihood Improvement and Conservation Support

It is now clear that local people are more concerned about procedural equity on top of receiving benefits from the park. People who perceive greater involvement in decision making processes are more likely to perceive impact of Revenue Sharing and support for conservation. This means it is vital that people are put at the centre of decision making processes during the implementation of Revenue Sharing. It is important that the UWA park management of Bwindi has implemented a collaborative management approach through former CPIs and Local Government of Kanungu, Kabale and Kisoro to the distribution of Revenue Sharing funds, as directed to do so by the Revenue Sharing policy. The evaluation of CPIs in 2012 found the groups to be ineffective and recommended that the groups be disbanded. The evaluation however did not document experiences of collaborative management by CPI members and

therefore, does not enable a full assessment of the successes and limitations of CPIs as local governance approach for the fair and equitable distribution of tourism revenue.

The current implementation and governance of Revenue Sharing policy suffers a lot of shortfalls which cannot unleash the successes in meeting the policy objectives and targets. This is manifested through continued unauthorised activities despite Revenue Sharing projects (see Chapter 4, section 4.5) and also the low socioeconomic and wellbeing status. This study concludes that procedural equity where local communities are actively involved in decision making processes is vital compared to only receiving Revenue Sharing benefits. The implementation formula ought to be changed to accommodate a strong collaborative natural resource management. People at the grass root level ought to be put at the centre of all decision making, planning, implementation and monitoring and evaluation processes. This is what will improve the level of ownership of Revenue Sharing projects and Bwindi.

Local leaders also identified limitations of the CPI process that had limited their effectiveness. These limitations were first; the lack of involvement and participation of villagers in identifying local needs and priorities for the Revenue Sharing funds, and the limited capacity of local governance structures to facilitate collaborative management objectives. It was reported by members that during the course of implementation of their activities, some of the UWA policy planning did not consult local communities to better understand their needs and aspirations. This made CPIs look as non performers in the eyes of their fellow community members. Members further cited limited capacity building in terms of having refresher courses and training on their

work. This reveals that governance of Revenue Sharing is very vital to facilitate a strong collaboration between communities and park management.

5.2.4 Revenue Sharing Policy Implementation and Unauthorised Resource Use in the Conservation of Bwindi

It is now clear that poverty among other factors drives unauthorised resource use at Bwindi. Despite RS policy for now 18 years, unauthorised resource use has continued to take place. The limited potential of Revenue Sharing to address unauthorised resource use is connected to the perception of Revenue Sharing benefit impact and the level of involvement of unauthorised resource users. There is no justification this study can put forward as to whether Revenue sharing programme has reduced the level of unsustainable resource use. Unauthorised resource users ought to be engaged a lot with a special focus (recognitive equity) for them to change their behaviour. Across Bwindi, people have started to form RPAs. Little or no support is however given to such groups. Part of Revenue sharing programme can be directed towards boosting the economic potential of such groups.

All in all, to achieve sustainable conservation, ICD approach is more relevant compared to Law Enforcement. This doesnot mean that protected area managers are advised to stop law enforcement. It means that prioritisation should be more put in ICD interventions such as revenue sharing. This is because ICDs if well implemented and governed have the potential to bring local people on board to support conservation efforts. Revenue Sharing and other ICDs are not very expensive compared to Law Enforcement. Both can co-exist with more focus on ICDs to achieve biodiversity conservation.

5.3 Recommendations for Policy and Implications

Basing on the results presented and discussed in Chapter 4 of this study and bearing in mind the need to strengthen the implementation framework and processes, various recommendations have been made as presented in this section.

The research established that different communities were implementing revenue sharing policy guidelines differently across all frontline villages. This was mostly attributed to delays in disbursing funds to the local communities through Local Government structures. There were both structural and institutional delays as a result of late submission of accountabilities by some Local Government Sub County chiefs and delays in submitting monitoring reports. This is in contrast to what the policy stipulates that July of every year under the guidance of the LCI Chairperson, community needs and priorities should be identified. It further stipulates that, communities should identify potential projects for possible funding under the Revenue Sharing scheme (UWA, 2012b).

This research established that the implementation of Revenue Sharing policy has been affected by implementers and an existing bureaucratic system (see Fig.30). People require a direct linkage between UWA and benefiting local communities (see Fig. 31). The pathways under the Local Government create grounds for fund leakages and corruption. It is important to appreciate that the Local Government act of 1997 stipulates the processes to be followed for service delivery. With UWA funds however a direct linkage between UWA and benefiting grass root communities would be important to avoid delays and funds leakage. This should entail trusted CBOs such as BMCT and Local Governments to build the capacity of local community members

to get empowered in selecting appropriate projects and also sustaining the distributed projects. During implementation, dimensions of equity should be adopted to put into consideration procedural, contextual, recognitive and distributive aspects of society.

Results further established shortfalls in monitoring and evaluation of the funded projects. Much as the policy lists a variety of stakeholders such as the frontline community, Local Government and UWA. The policy further provides for a 5% of the disbursed funds for monitoring. Different monitoring roles such as convening evaluation meetings and assessing implementation processes are stipulated in the policy guidelines. During projects implementation however, there were no indicators of monitoring Revenue Sharing projects yet community members admitted that, there has not been sustainability of projects due to limited monitoring and evaluation. The role of UWA, Local Government and other key stakeholders such as Conservation Organisations (COs) in monitoring is passive rather than active yet people believe its role is vital in sustaining the established projects.

Drawing on the key elements that have affected the implementation of revenue sharing policy and mindful of the theories that guide this study, a Revenue Sharing Equitable Framework (RSEF) has been developed as a catalyst for improved livelihoods and support for conservation. Issues of timely funds flow, direct linkage between UWA and benefiting communities, equitable benefit sharing and periodic monitoring require a framework that will guide the operations. It comes at a time when UWA and Government of Uganda are seeking ways of improving revenue sharing policy to address its initial objectives. UWA and the Ministry of Tourism have started

drafting ideas for improved policy practice. The framework assumes that funds from UWA will be disbursed in time after submission of accountabilities of the previous reimbursements.

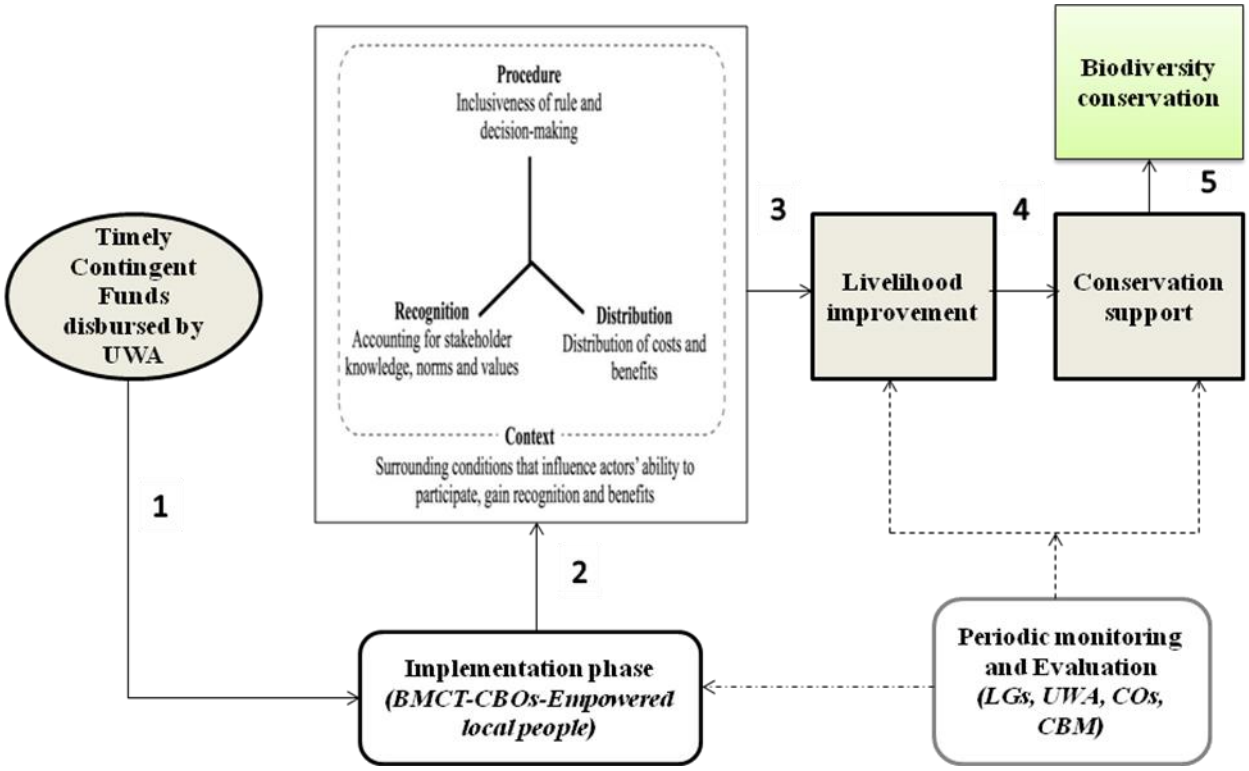


Figure 48: The proposed RSEF for BMCA

Source: Researcher's own elaboration based on theories and empirical data

The study proposes the RSEF as a key tool to aid the proper implementation of Revenue Sharing policy. The RSEF is based on a critical analysis of the current implementation processes and the failure to translate this practice into improved livelihoods and support for conservation. Support for conservation will result into sustainable biodiversity conservation. Using the RSEF, this study proposes the following actions for policy makers and implementers in Uganda and the world at large;

There is a need for timely disbursement of funds to the benefiting communities in order to consistently address livelihood needs. The breakdown of annual funds distribution is likely to break the positive trend of livelihood improvement. Results have revealed that Revenue Sharing benefit is positively related to improved livelihoods. This can be achieved using the following actions;

1. That UWA's community conservation department and finance department treats Revenue Sharing policy as an important part of the Annual Operational Plans (AOPs). This would mean proper timely planning and coming up with realistic work plans each year that clearly spells out how the process will be addressed. This process also entails mapping out communities that will benefit early enough based on the current information but not old data. The study proposes a zero based planning and budgeting rather than the current incremental type. The process of implementation should not be hurried since this is likely to affect outputs and outcomes of implementations (3&4).
2. The implementers such as the proposed BMCT and CBOs or the current structure of Local Government submit accountability reports in time. UWA's disbursement of the available annual funds should be based on accountable systems by the implementers. The current situation revealed that delays in submitting accountabilities contributed to break down in the flow of funds to be distributed to the benefiting communities. A strong system of accountability should be based on moral obligation but also rules as described in the Policy Arrangements Approach in Chapter one of this thesis.
3. That UWA makes a follow-up of who receives the funds and how they eventually reach the intended beneficiaries. UWA should not be active only at the declaration of the available funds and receiving of accountability reports. Its role should roll over from the

beginning to the end. This can be charged with both top managers but also junior officers such as Community Conservation Rangers.

The current implementation of Revenue Sharing policy has been proved as inefficient to translate into livelihood improvement and support for conservation. This study proposes that UWA at Bwindi pass through BMCT and Community Based Organisations (CBOs) and an empowered local community to aid the implementation process. One issue that arises is that Revenue Sharing policy is a national policy not a Bwindi policy yet BMCT operates around Bwindi and Mgahinga. It should be noted that, BMCT is established by the act of Uganda parliament. Therefore, there is a possibility of identifying and even establishing other conservation trusts in Uganda's PAs.

Research results indicate that most local people trust the work of BMCT and have perceived benefits from the trust that link to their livelihood. Working with trust is more likely to increase livelihood benefits using their model of implementation in the context of equitable dimensions illustrated in the RSEF. Trust can be a receiving agency for Revenue Sharing funds since it operates in all the frontline villages. Local people ought to be empowered to start CBOs where funds will be remitted after identifying the projects that meet their needs and priorities. This increases legitimacy and builds an accountability system. Selected projects should be funded based on Revenue Sharing guidelines. The current guidelines have some loopholes that need to be collected as identified in chapter four sections 4.4. The contradictions rotate on selection and prioritisation of projects. It also entails the selection criteria and proper definition of the community. These gaps can be corrected during guidelines review in 2016.

This study further recommends that the equity dimensions be adopted when identifying beneficiaries. Chapter 4 section 4.2 and 4.3 talk about poor targeting as a major challenge while distributing projects. Projects have not targeted specific people within the frontline villages. Equity is a key element that RS implementers should target to achieve at Bwindi and other PAs in Uganda. The following issues have been raised for consideration based on the objectives of this study and the proposed RSEF;

1. Procedural Equity; that benefits are shared while involving people in decision making processes. This should entail greater involvement of people right from the beginning of the projects (design phase) to the end (evaluation phase). This is what people defined as good governance. Inclusiveness is vital in bringing everyone in the community on planning and implementation. The more people felt involved, the more they perceived benefits and support for conservation.

   Revising Revenue Sharing guidelines should also involve local people to identify critical gaps that should be addressed in order to achieve policy objectives. There is need for more meaningful involvement of the frontline poorer, remote residents in Revenue Sharing design and implementation. This would help to overcome challenges of information flow, meeting attendance and ensuring feedback sessions with local people.
2. Distributive equity. The study recommends that projects should be distributed based on the costs for conservation. Those to benefit from Revenue Sharing projects should be those people around Bwindi who bear the most conservation costs. Results show that such people are poor compared to others in the same communities and live closer to the park boundary. If cases arise for people bearing conservation costs beyond 1km of the

park boundary, then specific considerations could be effected. For instance people in Kikomo village, Nteko parish, Kisoro district suffer from gorilla raiding yet they are not closer to the park. Such people could be looked at after evaluation of the costs they bear. Capacity building for frontline households to develop Revenue Sharing project proposals and implement funded projects.

3. Recognitive dimension of equity is important while sharing Revenue Sharing benefits. This study proposes that, the implementers should consider people who; have historical property rights such as the Batwa; those who have unique values and traditions that can support conservation efforts and those that are pro-conservation. Such categories could be integrated in the benefit sharing process.
4. Contextual dimension of equity ought to be adopted. This relates to putting on specific lenses on key elements in society that could affect conservation costs. Implementers can look at surrounding conditions that could influence the ability of actors to participate, gain recognition and benefit. In the context of Bwindi, this would entail gender issues and inequalities where women, Batwa people and Unauthorised Resource Users should be specifically targeted.

Unauthorised Resource Use is a major hindrance to biodiversity conservation. This study recommends that efforts should be made to reach out to Unauthorised Resource Users. Reformed Poachers Associations (RPAs) in Mpungu, Rubuguri and Mushanje should be encouraged (recognitive dimension) and funded during implementation. This will act as a conduit to woo other poachers to come on board hence changing their behaviour.

As also observed by Twinamatsiko *et al.* (2014), rotational livestock schemes aim to reduce poaching by creating a 'livestock bank' for the rural poor. The schemes are based on the principle that households receiving livestock return the first born to a central base, for redistribution to the next family. Many such schemes also include visitor attractions where tourists are given a guided tour of the scheme and households involved with opportunities to buy local produce. A rotational livestock scheme targeted at poorest, remote frontline villagers of Bwindi linked with conservation education programmes on hunting could overcome limitations of the current goat-provision schemes in reducing hunting.

Monitoring and Evaluation should be periodic. A comprehensive monitoring framework should be developed and utilised. This study recommends a combined approach of monitoring where the role of UWA and Local Governments (LGs) is pertinent. UWA should monitor through the community conservation department since almost every district, there are more than two ranger outposts. This study however observes that the current mandate of CC rangers is wide and may not juggle out all the activities in the department. Monitoring and Evaluation efforts of RS to report on indicators of good governance, including identifying whether local people perceived that they were involved, had ownership of and benefited from a Revenue Sharing project.

The following observations are recommended to strengthen the monitoring framework;

1. It is recommended here that to effect monitoring of UWA ICD projects, the number of CC rangers should be increased from 1 to at least 2 or 3 depending on the resource envelope. A lot of money goes to Law Enforcement department but the CC department is underfunded.

2. UWA should also consider increasing more funds to the community conservation department. This can increase the monitoring and evaluation processes. The study recommends that monitoring should be done at the implementation level (2) and also impact level (3 & 4) to evaluate changes in livelihoods and conservation support.
3. A community Based Monitoring (CBM) is also proposed as a key strategy to facilitate monitoring outcomes and increase community engagement and responsiveness. The R2P project in 2014 piloted a CBM approach using 6 monitors that were trained in the Southern Sector OF Bwindi. Such approach should be rolled over to Kabale and Kanungu. The CBM approach should entail identification and training of monitors using a simple tool for better understanding. Electronic media such as mobile phones could also be used as monitoring instruments t o inform policy implementers and evaluators of the hindrances established.
4. Local government should allocate responsibility to the community development office to take up monitoring of Revenue Sharing projects. This study observes that, the role of LG role should be much pronounced and felt at monitoring of Revenue Sharing projects during implementation and impact evaluation. The Community Development Officers should come up with quarterly and biannual reports on the implementation process and impact outcomes.

This study lastly recommends that ecological impact assessment should be linked with social impact assessment. The impacts on biodiversity conservation should inform all stakeholders whether community support for conservation contributes positively to the overall biodiversity conservation. This can be done through information sharing

workshops, sharing of reports between the Ecological Monitoring (EM), CC department, LG, BMCT, COs and local people.

It is recommended from this study that UWA ought to strengthen its operations with community-park institutions if her work of planning, implementation and follow-up ought to be done more efficiently. This institution should be trusted by both the local community members and the mainstream local government especially the Sub County which is a key player in project implementation. From discussions with CPIs, stretcher groups operate in all the communities surrounding BINP and command a good level of community trust. This is attributed to their methodology of selection and operation.

The overall goal of Revenue Sharing is to ensure strong partnership between protected area management, local communities and local governments leading to sustainable management of resources in and around protected areas by enabling people living adjacent to protected areas obtain financial benefits derived from the existence of these areas that contribute to improvements in their welfare and help gain their support for protected areas conservation. It is therefore recommended that UWA looks at empowering the stretcher groups that seem to be trusted by the community members.

5.4 Limitations of the Study

Limitations have been seen as hindrances that may affect the results (Creswell, 2009).This study was sensitive since it had Unauthorised Resource Users (URUs) as part of the survey. At first, URUs felt uncomfortable with the questions. This led to withholding of information. The

research team however created enough rapport and kept on reminding respondents that this study was for academic purposes. The research team further explained the potential positive consequences resulting from this study.

The study had planned to compare Bwindi data with Volcanoes National Park in Rwanda. Primary data from Rwanda was however difficult to get due to the poor research environment in Rwanda. The researcher therefore depended on secondary data for comparison. It was established before interviews that there were questions that were not relevant to Rwanda's setting. The other challenge related to Rwandese who may with hold information.

5.5 Contribution of the Study

This study has made contribution in guiding the implementation of Revenue Sharing at Bwindi and also in Uganda. The Revenue Sharing Equity Framework has been developed which is hoped to guide implementers to practice Revenue Sharing policy equitably. This work is to guide UWA in their day to day decision making processes which will improve management effectiveness. Some of partial findings have already been utilized at various platforms and actions have already been taken on some recommendations such as the Community Based Monitoring programme which is being piloted in the Southern sector of Bwindi. The developed framework on Revenue Sharing equity could be piloted at Bwindi. If successful, it can then be replicated in other PAs in Uganda and the world at large.

This research is the first one to evaluate the implementation of Revenue Sharing and link it to its policy objectives of conservation support through livelihood improvement. There is no prior research that understood these processes before. This study explored important factors that affect the implementation process which make the policy inadequate in fulfilling the targeted goals. It further provided evidence on the gaps that exist during implementation. One of the main gaps contributed to as the fact to appreciate people's involvement in Revenue Sharing activities on top of benefits received.

The empirical findings are a contribution to the existing body of literature on benefit sharing programmes and ICDs in general. This study is important for the academicians in the discipline of conservation policy and natural resource governance. The study provides new empirical affirmation to literature. Publications have been made and others will be made out of this work to create a reference point for ICD policy evaluation. The study further contributes to the methodology on Revenue Sharing policy implementation. Various parameters on measuring benefit distribution, benefit impact, governance and Unauthorised Resource Use were explored and brought to limelight. These can be used by future researchers in the same discipline.

5.6 Further Research

More studies are recommended to be done on ecological and conservation support linkages. This study assessed conservation support but there would be more need to analyse whether conservation support by communities in terms of reduced unauthorised activities, engagement in park activities and ability to report poaching impacts on positive ecological impacts. This can be achieved through ecological impacts assessments. There is also a need to do a cost benefit

analysis on the revenue and expenditure of Bwindi tourism sector. This can be done through a process tracing approach to determine the economic impact of what is distributed, costs and benefits accrued.

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Appendix I: Main Questionnaire for the Household Survey

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY PHD PROGRAMME

GPS Northing_____
Easting_____

Date:_____ Interview Ref # _____

Interviewer names:_____

_____

Respondent type: (circle)
Mutwa **UWA suspected BM hunter** **fresh arrest** **random community household**

Describe household location: **LC1:** **Parish:**

Main type of surrounding land: (circle) **farmland** **forest** **village/centre** **other:**
Nearest **village/trading centre** (circle) **under** or **over** 1 hour walk
Nearest **road for vehicle use** (circle) **under** or **over** 1 hour walk

1. Interviewee

1.1 **Name** (optional)_____Revenue Sharing beneficiary **Yes/No**

1.2 **Age**: (circle) **+60** **41-60** **21-40** **Below 20**

1.3 **Ethnicity**: (circle) **Bakiga** **Batwa** **other_____**

1.4 **What is your position in the community?** _____

_____

1.5 How long have you lived in this village? (circle) **<5 years** **5-10 years** **>10 years**

2. Homestead information

2.1 What is your marital status? (tick)

☐ **Married** → If married,
Number of wives _____
Number of households_____

☐ **Single (never married)**

☐ **Co-habiting**

☐ **Widower**

☐ **Divorced and separated**

2.2 **How many people currently live in your household (including person being interviewed)?**

Age (years)	Number of males in this household	Number of females in this household
+60		
41-60		
21-40		
Below 20		
	Total number: Of these n. your own children:	Total number: Of these n. of your own children:

2.3 **How many children would you like to have or wanted to have?_____**

3. Education

3.1 What is your level of education? (tick)

☐ **No formal education**

☐ **Primary school**

☐ **Secondary school**

☐ **Other (please**

detail)_____

3.2 What is your children's level of education? (tick)

Education level	Status		
	Not completed	Completed	Currently attending
No formal education			
Primary school			
Secondary school			
Tertiary			
Other			

4. Health

4.1 Do you have (and look around for evidence): (tick)

☐ **Hand-washing water facilities at toilets**

☐ **Drying rack**

☐ **Kitchen with a smoke escape out-let**

☐ **Built toilet**

☐ **Toilet cover**

☐ **Easy access to firewood**

- ☐ **Water tank**
- ☐ **Woodlot**

4.2 Where do you obtain water? (tick all that apply; if more than one circle main source)

Protected source:	Unprotected source:
☐ **Protected spring**	☐ **Lakes**
☐ **Bore hole**	☐ **Ponds**
☐ **piped water**	☐ **Rivers**
☐ **gravity flow scheme**	☐ **Spring**
☐ **roof catchments**	

4.3 On estimate, how long does it take you to collect water (in km/hour)

- ☐ **Less than 15 minutes**
- ☐ **15-30 minutes**
- ☐ **31-45 minutes**
- ☐ **46-60 minutes**
- ☐ **Above 1 hour**

4.4 How many of these diseases have you and others in your household had in the last 6 months:

Total number (not occurrence):_____

Tuberculosis, Measles, Polio, Tetanus, AIDS, Malaria, Scabies, Cough

5. Livelihood

5.1 **List the 3 most important income-generating activities to your household** (**most important first**) **-** such as farming, livestock, tourism-related activities, forest resource utilization, village market sales etc

Income-generating activity	Who in household does this?
1.	
2.	

3.	

5.2 On average how many meals do you and your family have a day? (circle) **1** **2** **3+ A DAY**

5.3 How often do you / your family go hungry per week: (tick box below)

Never	**Once or twice a week**	**Three or four times a week**	**Above five times a week**
☐	☐	☐	☐

6. Basic Necessity Survey

6.1 *Show respondents the cards:*

a. **Which of these items do you think are basic necessities - things that everyone should be able to have and no one should have to go without?** (tick boxes below)

6.2 *Show respondents the cards again:*

b. **Which of these items does your household currently have?** (tick boxes below)

Item	**Basic necessity items**	**Items household has**
Stove (three stone)		
Clothes		
Firewood		
Built latrine		
Water source within one hour walk from household		
Chicken		

Meat food		
Non-meat food		
Road for vehicle use within one hour walk from household		
Bicycle		
School education		
Land for crops/household		
Formal healthcare (health care centre)		
Spear		
Hoe		
Cooking utensils		

6.3 *Discuss reasons for their choices with links to natural resources if appropriate (e.g. opportunities and deprivation of BINP towards such basic needs).*

6.3 What are the current gender needs for both men and women in your household?

Males	**Females**

6.4 In what ways do you meet the outlined gender needs in this household?

.....
.....

.....

7. Wellbeing

7.1 If 1 is the worst and 5 the best, what number best represents your life at the moment? (circle) **1 = worst; 2 = somewhat bad; 3 = average; 4 = fine; 5 = best**

7.2 **Discuss reasons for score** with links to Revenue Sharing implementation and costs of conservation if appropriate (for example, Revenue Sharing does not meet their needs or they need household building materials or fuel wood)

Engage the respondent in discussion about their goals, desires and ambitions for their future.

7.3 What kind of conservation costs do you bear in this household?

7.4 **What are your main aspirations in life?**

8. Implementation of Revenue Sharing Projects

8.1 **Which Revenue Sharing project(s) do you know about and their level of impact, involvement and ownership** *(no prompting; if not applicable write N/A)*?

Revenue Sharing projects	Know about (tick)	What impact did the project have on your household? (tick)				Were you involved in designing & implementing the project? (tick)				What level of ownership of the project did you feel? (tick)			
		0= No benefits	1 = Bad	2 = No change	3 = Benefit	A lot	Some	A little	None	A lot	Some	A little	None
School													
Health clinic													
Road													
Furniture													
Water													
Livestock eg goats, sheep,pigs													
Land provision													
Trees / seedlings													
Crop raiding control measures													
Savings and Credit scheme													
Others													

(specify)													

Discussion points for Revenue Sharing projects mentioned in table 7.1:

8.2 Has any of your family member(s) benefited from Revenue Sharing livelihood projects? **YES/NO. If yes:**

Benefit got:_____

When:_____

How did you benefit from this project? (Probe indirect benefits)

8.3 What restrictions do you face in terms of benefiting from Revenue Sharing projects? (Probe gender inequalities)

9. Governance of Revenue Sharing Projects

9.1 If you have ever benefited from Revenue Sharing, what process did you follow to get a project from Revenue Sharing programme? (Probe how beneficiaries were selected, meetings, selection of projects, procurement up to receiving a project etc in the context of gender)

a)The process of benefit I went through to get a Revenue Sharing livelihood project was fair?

- ☐ **Strongly agree**
- ☐ **Agree**
- ☐ **Neutral**
- ☐ **Disagree**
- ☐ **Strongly disagree**

Comment

b) The procurement processes of Revenue Sharing at Bwindi are well handled?

- ☐ **Strongly agree**
- ☐ **Agree**
- ☐ **Neutral**
- ☐ **Disagree**
- ☐ **Strongly disagree**

Comment

c) There is a good Information flow and sharing before benefiting from Revenue Sharing

- ☐ **Strongly agree**
- ☐ **Agree**
- ☐ **Neutral**
- ☐ **Disagree**
- ☐ **Strongly disagree**

Comment

d) There is accountability and transparency in distributing Revenue Sharing benefits

- ☐ **Strongly agree**
- ☐ **Agree**
- ☐ **Neutral**
- ☐ **Disagree**
- ☐ **Strongly disagree**

Comment

e) As a community member, I have the capacity to influence Revenue Sharing policy implementation

- ☐ **Strongly agree**
- ☐ **Agree**
- ☐ **Neutral**
- ☐ **Disagree**
- ☐ **Strongly disagree**

9.3 Have you attended any National Park Revenue Sharing meetings? (circle) **Y / N** If yes:

a) What was the meeting about? _____

b) Who held the meeting (no prompts)? _____

c) How was the meeting conducted? (circle)

I was..... excluded somewhat involved fully involved

Discuss with guiding questions:

Were there opportunities to ask questions and express their views? Did they feel listened to? Were the meetings too short / long? Cover everything they wanted? Was the purpose of the meeting clear and was this achieved?

a. How was the meeting outcome? (circle) **Very Poor Poor Ok Good Very good**

Ask the respondent to explain their answer:

9.4 In terms of Revenue Sharing projects to fund, if you were the national park manager, between common good projects and livelihood projects, what would you fund and why?

9.5 If you were the national park manager, what would you do for local communities to benefit from tourism revenue better?

10. Motivations for resource use

10.1 Chat with the respondent to **explore motivations for resource use through guiding questions** considering the following:

Poverty **Income (To sell forest items or labour)** **Cultural tradition** **Societal norm / peer** **Other**

Discussion notes on motivations:

11. Survey closure

11.1 **Any comments or questions on anything that we have discussed?**_____

_____

_____

_____

_____

Appendix II: Interview Guide for opinion leaders

Guiding questions

1. Tell me what you know about Revenue Sharing Policy/projects
2. How are the projects selected and funded?
3. What has been the trend of funds disbursement?
4. What is your perception on the governance of Revenue Sharing projects?
5. How do you perceive benefits of Revenue Sharing?
6. How do you rate the advantages and disadvantages of common good and livelihood projects?
7. What do you boost as achievements of this programme?
8. What are your perceptions on the linkages between Revenue Sharing and illegal activity trend?
9. What challenges have you met as management in administering these funds?
10. How are benefits shared at household level
11. How would you want to see the implementation and governance of Revenue Sharing projects?
12. What recommendations do you give to make Revenue Sharing programme more effective than it is now?

Appendix III: Interview Guide for UWA Park Managers and District Leaders

1. Bio data and job experience
    a) What is your position in Uganda Wild Life Authority?
    b) How long have you been with UWA?
    c) What motivates you to do your work?
    d) Knowledge on Revenue Sharing policy?
2. Involvement and participation in policy design and implementation
    a) Do you know the objectives of Revenue Sharing (Probe which ones are known and unknown to the staff?)
    b) How are involved in the formulation and review of programmes and policies?
    c) How are you involved in disbursement of Revenue Sharing funds?
    d) How are involved in the community tendering processes?
    e) How are you involved in the administration of the agreed Revenue Sharing projects?
    f) What is your level of involvement and participation in decision making of projects to implement (do you perceive that UWA is consulted and responds to community queries; are you able to voice your opinions, which activities do you get limitations in voicing out concerns)
    g) What challenges do you face while implementing Revenue Sharing policy? (Probe community and institutional)
3. Revenue Sharing Monitoring and Evaluation
    a) How do you monitor to ensure beneficiaries get their planned benefits?

b) How do you get feedback from the community? (Probe the feedback system in voicing out concerns and getting responses either way)

c) What was the role of CPIs in monitoring of Revenue Sharing funds and projects?

d) What is your comment on the disbandment of CPIs?

e) Power relations (with the park, mainstream Local government and community institutions)

f) Challenges faced in the monitoring and evaluation of Revenue Sharing projects? (Probe community and institutional challenges)

4. How is UWA accountable in executing its roles and responsibilities during:

   a) Revenue Sharing fund disbursement

   b) Community proposal writing and project selections

   c) Financial and narrative reports as a way of feedback

5. What kind of benefits and achievements can you cite originating from Revenue Sharing?

6. What are your prospects in ensuring equitable distribution of tourism revenue and projects:

   a) What capacity have you built in the local community members to influence revenue policy implementation and governance processes?

   b) What would you do to work with local communities and make sure that local people equitably benefited from the park?

   c) What failed with CPIs that should be rekindled for future community institutions working with the Park? What should be done to ensure failure doesn't happen again?

   d) What are your recommendations for proper Revenue Sharing implementation and governance?

Appendix IV: Focus Group Discussion Guide

Guiding questions

1. Tell me what you know about Revenue Sharing Policy/projects
2. How are the projects selected and funded?
3. What has been the trend of funds dispatchment?
4. What is your perception on the governance of Revenue Sharing projects?
5. How do you perceive benefits of Revenue Sharing?
6. How do you rate the advantages and disadvantages of common good and livelihood projects?
7. What do you boost as achievements of this programme?
8. What are your perceptions on the linkages between Revenue Sharing and illegal activity trend?
9. What challenges have you met as management in administering these funds?
10. How are women involved in Revenue Sharing programme?
11. In terms of participation, vote the number of men and women in making decisions of Revenue Sharing programme
12. In terms of benefits, give a vote on how many men and women benefit in this area
13. In terms of committee composition, how many men and women on committees?
14. How are benefits shared at household level
15. How would you want to see the implementation and governance of Revenue Sharing projects?

16. What recommendations do you give to make Revenue Sharing programme more effective than it is now?

Appendix V: Monthly Arrest Data Form

MONTHLY RECORD FORM FOR FRESH ARRESTS OF UNAUTHORISED RESOURCE USERS-BWINDI

Month of Arrest……..

Year of Arrest…….

Date of Arrest	*Total number arrested*	*Names of all arrested*	*Village of Residence*	*Parish of Residence*	*Sex*	*Age*[1]	*Tribe/ Ethnicity*	*Location of the arrest*			*Location of illegal activity*[2]			*New / Re-arrest*	*Reason for the Arrest*	*Outcome of the arrest*
								Local area name	**Eastings**	**Northings**	**Local area name**	**Eastings**	**Northings**			

[1]: Adult / Juvenile / Child

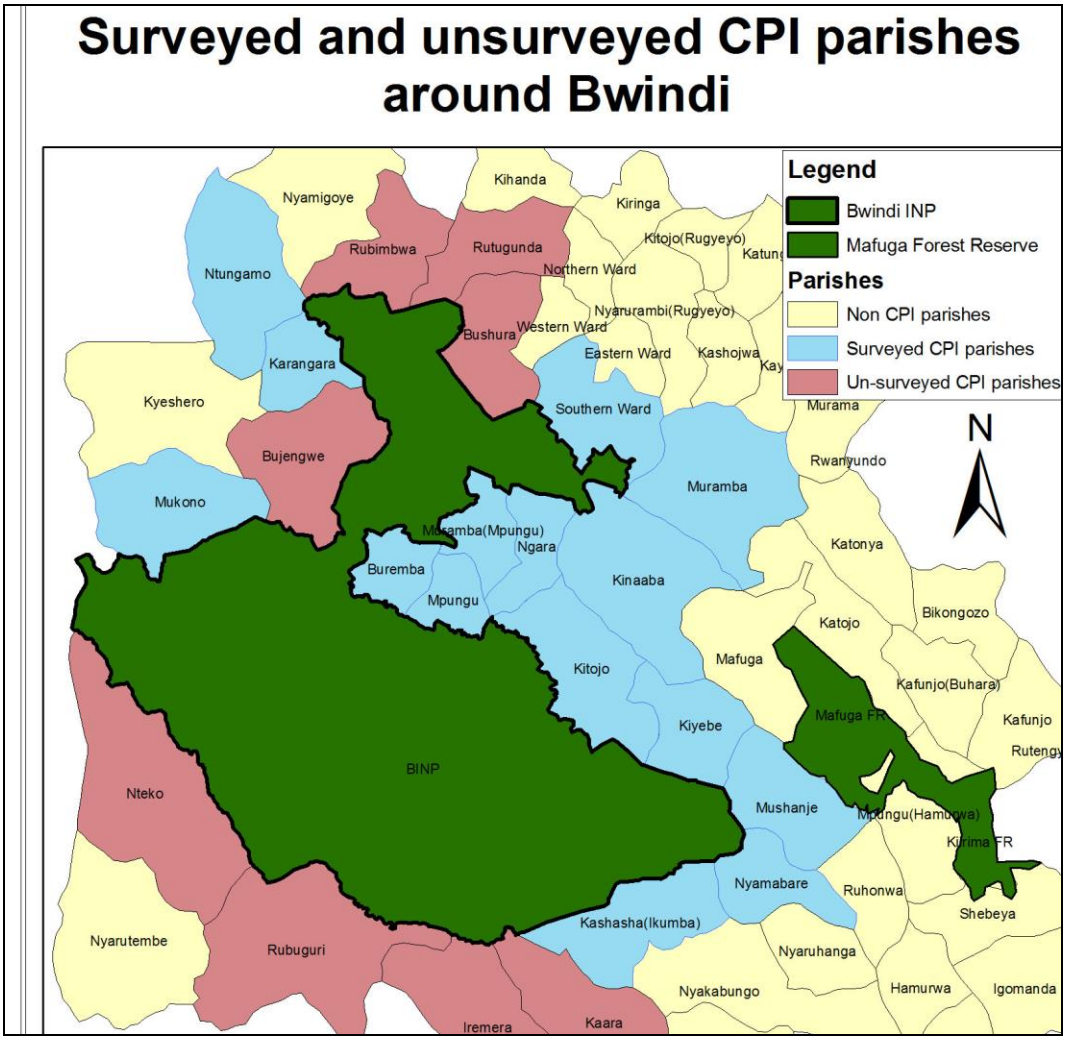
2: location of illegal activity IF KNOWN. If unknown then record 'unknown'

RANGER POST……. Submitted by……

Date…….

Received by……..Date……

Appendix VI: Map of Bwindi Showing CPI Parishes



Source: Primary Data, February 2013

Appendix VII: IRC Consent form

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY

INSTITUTIONAL REVIEW COMMITTEE

P.O. Box 1410, Mbarara, Uganda

Tel: 256-4854-33795 Fax: 256 4854 20782

Email: irc@must.ac.ug mustirb@gmail.com

Web site *: www.must.ac.ug*

INFORMED CONSENT DOCUMENT

This document outlines the research study and expectations for potential participants. It should be written in layman terms and typed on MUST-IRC letterhead. The wording should be directed to the potential participant NOT to IRC. If a technical term must be used, define it the first time it is used. Also, any abbreviation should be spelled out the first time it is used.

NB: All the sections of this document must be completed without any editing or deletions

*Please **use a typing font** that is easily distinguishable from the questions of the form*

Study Title: *It should be the same as on all other documents related to the study*

RESPONDING TO POLICY-PRACTICE GAPS: IMPLEMENTATION AND GOVERNANCE OF REVENUE SHARING POLICY TOWARDS LIVELIHOOD SECURITY AND SUSTAINABLE RESOURCE USE AT BWINDI

Principal Investigator(s):_MEDARD TWINAMATSIKO

INTRODUCTION

What you should know about this study:

- You are being asked to join a research study.
- This consent form explains the research study and your part in the study
- Please read it carefully and take as much time as you need
- You are a volunteer. You can choose not to take part and if you join, you may quit at any time. There will be no penalty if you decide to quit the study

Orashabwa kutwegitaho ahamushomo ogu gwokucoondooza. Ekihandiiko eki kirashoborora ahabikwatirine nokucoondooza oku, hamwe nomurimo gwaawe omukucoondooza oku. Ndankushaba okishomegye okyetegyereze obwo orikutwaara obwire obworenda kukishomagye. Okwetaba omumushomo ogu tikwokugyemwa kwihaho nokweshariramu kusha. Oine obugabe byokusharamu yaba orenda kwetaba omumushomo ogu ninga kwanga kwetabamu. Nobuwakuba wahika rwagati orabaasa kwaanga kugumizamu. Tihaine kirakubeho washaramu obutagumizamu.

Provide here a brief background to the study

Omushomo ogu gukwatirene noku sente eziraruga omwihamba rya Bwindi zirateebwa omunkora nokuzirategyekwa kwenda ngu habeho emibereho mirungi omubaturagye hamwe nokukozesagye ebyobuhangwa. Enkora egi ekatandika omwaaka gwa 1996 omumahaamba goona aga Uganda obwo barikugyenderera okwihikiiriza emibereho mirungi yabaturagye abetorere amahaamba,

okukundisa abantu obyobuhangwa hamwe nokwogyera kutamu abantu amasiko ahabintu birungi ebiraruga omukurinda amahamba. Kwiiha enkora egi yokutunga sente zemahamba etebwaho, abantu ba Bwindi bagumire omu bwooro kandi nangwa nibyokushiisha eihamba rya Bwindi bikyariho. Eki kukiragumizamu, kirateka amagara gebyobuhangwa nk'engagi, kyimpanze nebindi bintu ebiri omwihamba rya Bwindi ahakusisikara.

Purpose of the research project: *Include a statement that the study involves research, estimated number of participants, an explanation of the purpose(s) of the research procedure and the expected duration of the subject's participation.*

Omushomo ogu nogwokucoondoza oku sente ziraruga omwihamba rya Bwindi ziratebwa omunkora kuretaho emibereho mirungi yabantu nokurindagye ebyobuhangwa obutwire bwoona. Okumoshoma ogu niguza kuba gurabuza abantu baringana 395 abarimu abasheija, abatwa, abakazi nana abantu abarakozesa ebyobuhangwa bya Bwindi. Eki kigyenderere okutunga ebitekateko byabaturagye boona obwo baragamba ahabintu ebibakwasireho ne birabashaasha ahankora ya sente ezi. Ekiganiiro egi kiraza kutwaara omwanya mukye guri ahagati yedakiika 45 kwihika 50 kusha.

Why you are being asked to participate: *Explain why you have selected the individual to participate in the study.*

Iwe otorenwe kuba omwe ahabantu abindaza kubuuza ahabwobukugu bwaawe omukyanga kyaawe. Ekyakabiri, kutwarundiine amaziina goona agabaturagye omu miruka ikumi namunaana ehererene na Bwindi kandi tukagata omuri karimagyezi, eiziina ryaawe rikatoranwa. Mbwenu, turakushaba kuhayo ebitekateko byaawe omumushomo ogu nkokworabasa.

Procedures: *Provide a description of the procedures to be followed and identification of any procedures that are experimental, clinical etc. If there is need for storage of biological (body) specimens, explain why, and include a statement requesting for consent to store the specimens and state the duration of storage.*

Turaza kurundaana ebitekateko byaawe nebyabaandi bantu abatorenwe. Byanyima, ndaza kubirabamu kwongyera kubyetegyerezagye. Reero, kuturaheza kubyetegyereza, turaza kutandika kuhandiika ekitabo kirimu byoona ebyotuganiriire. Ebiganiro byaawe byoona, biraza kubikwagye kande biraza kukozesibwa ahabwomushomo ogu kusha. Kuturaheza kubikyencura nokubita omukitabo, byanyima yemyaaka eshatu turaze kubyosa kugira ngu omuntu weena ondiijo etabikozesa omumuriingo ogutari gwo mushomo ogu.

Risks / discomforts: *Describe any reasonably foreseeable risks or discomforts-physical, psychological, social, legal or other associated with the procedure, and include information about their likelihood and seriousness. Discuss the procedures for protecting against or minimizing any potential risks to the subject. Discuss the risks in relation to the anticipated benefits to the subjects and to society.*

Harabasa kubaho ebintu ebirakuteganisa waaba oragarukamu ebibuuzo byomushomo ogu. Eihamba rya Bwindi ninga abararitegyeka barabasa kuba baakushagiize omumuringo gwoona ningashi ebinyamiishwa birabasa kuba birakusiisiire emisiri yaawe. Kwonka ekigyendererwa kyomushomo ogu nikuroonda omubazi ogurabaasa kutaho entebekanisa yokumaraho ebizibu ebikwatiriine nenkozesa yasente ezirahebwa abaturagye kuruga omwihamba rya Bwindi. Mbwenu ndikukushaba ngu ebi oyigiire eri ihamba obyebwe bitateganisa ekiganiiro kyaitu. Reeru tushube turonde omubazi.

Benefits: *Describe any benefits to the subject or other benefits that may reasonably be expected from the research. If the subject is not likely to benefit personally from the experimental protocol note this in the statement of benefits.*

Okucoondooza oku kurabaasa kuretaho entebekanisa ensa ekwatiriine nokukozesagye sente eziraruga omwihamba rya Bwindi. Abaturagye barabasa kuganyibwamu omukumanya okubashemerere kukuratirira enkozesagye ya sente ezi. Eki kirabasa obutakorerwaho kwonka nikiija kwihikirira obwo kiraraba omu bantu nabebembezi byanyu nana abokureberera ihamba rya Bwindi.

Incentives / rewards for participating: *It is assumed that there are no costs to subjects enrolled in research protocols. Any payments to be made to the subject (e.g., travel expenses, token of appreciation for time spent) must also be stated, including when the payment will be made.*

Okugarukamu ebibuuzo byomushomo ogu nokwekundira. Tikwokushashurwa sente. Nahabyekyo turakushaba oyetabe omumushomo ogu etarikutekateka ngu araza kushashurwa sente. Nyowe ndi omwegi wa yunivasite kwenda ngu ndeteho okumanya munonga oku enkozesa zasente eri reeru habeho omuringo omusya ogurabaasa kuganyira abaturagye.

Protecting data confidentiality: *Provide a statement describing the extent, if any, to which confidentiality or records identifying the subjects will be maintained. If data is in form of tape recordings, photographs, movies or*

videotapes, researcher should describe period of time they will be retained before destruction. Showing or playing of such data must be disclosed, including instructional purposes.

Ekindi ndakumanyisa ku ebiganiiro byaitu byoona omumushomo ogu biri ebyitu tweembi kandi ebyekihama. Ahu ndakuteere ekishushani ninga kukwaata amaraka gaawe aharutambi, ninyija kubikoresa ahabwomushomo ogu gwonka. Kandi, ahundenda kubikozeseza ekindi kintu, ndabanza nakushaba orusa nabwanyima yokunyikiriza, ntyo nshube mbikozese. Byoona ebiganiiro byitu biraza kubiikwa kumara emyaaka eshatu nabwanyima, bisangurwe ninga byokibwe.

Protecting subject privacy during data collection: *Describe how this will be ensured.*

Kuturabe turacoondooza nokuganiraho niiwe, turaba turaganiiraho niiwe wenka. Turaza kuronda omwanya egweheriire ogu twembi turabasa kuganiriramu gye. Habaho omuntu weena owiija turaganiira, turaza kwemereza ekiganiiro tushube tugumizemu kwaragyende. Ebitekateko byaawe biraza kukumwagye okuhisya ahamuheru gye'kiganiiro kyitu.

Right to refuse / withdraw: *Include a statement that participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled.*

Omushomo ogu nogwetabamu oyekundiire otaragyemwa. Oine obugabe kwanga kwetaba omumushomo ogu ninga kugurugamu ahu orendera. Tihine kifubiro ekirakuhebwa ahabwokwanga kwetaba omumushomo ogu.

What happens if you leave the study? *Include a statement that the subject may discontinue participation at any time without penalty or loss of benefits.*

Oine obugabe kwanga kugumizamu omushomo ogu hatariho kiheneso ninga okwihwaho oburungi oburaruga omumushomo ogu. Tihaine kifubiro kyoona ekyoratunga ahabwokwanga kuba omwe omumushomo ogu.

Who do I ask/call if I have questions or a problem? *Include contact for researcher or Faculty advisor and Chairman MUST-IRC*

Haba hene ekibuuzo kyoona ekyoyine ninga wenda kwihikirira omuntu weena kwenda kwetegyereza ebirakiraho, arabaasa kubuza Medard Twinamatsiko (orakurira omushoma ogu),Institute of Tropical Forest Conservation, Mbarara University of Science and Technology; Esimu 0751892953/0772892953 ninga Dr. Grace Kagoro Rugunda, Faculty of Science Mbarara University of Science and Technology ninga Prof.Benon Basheka owa Uganda Technology and Management University ninga Dr. Simon Anguma, Dean wa Faculty of Science, Mbarara University of Science and Technology ori kyayimaani wa MUST-IRC

What does your signature (or thumbprint/mark) on this consent form mean?

Your signature on this form means

- You have been informed about this study's purpose, procedures, possible benefits and risks
- You have been given the chance to ask questions before you sign
- You have voluntarily agreed to be in this study

Sayini yaawe ninga ekinkumu, kyiramanyisa ngu nakushoborora ahakigyendererwa kyomushoma ogu, enkuratirira yomushomo, ebirungi nebibi ebirabaasa kugurugamu. Oine

obugabe kubuuza ebibuuzo otakatiire mukono ahakihandiiko eki kandi wikyiriza oyekundiire kwetaba omumushomo ogu.

--- --- ---

Print name of adult participant Signature of adult participant/ legally authorized representative Date

Eiziina ryangye (omuntu omukuru) Sayini yangye (omuntu omukuru ninga weena **oyikirizibwe** kuhamiza ondiijo) Ebiro byokweezi

_____ _____ _____

Print name of person obtaining Consent Signature Date

Eiziina ryomuntu orikwihaho okwikiriza Sayini Ebiro

--- --- ---

Thumbprint/mark Signature of witness

Ekinkumu Sayini yomujurizi