CONSEQUENCES OF CONSERVATION-INDUCED DISPLACEMENT: A CASE STUDY WITH BATWA PARTICIPANTS IN SOUTHWEST UGANDA

by

NATALIE DIANNE RODRIGUEZ

B. A., University of Colorado Colorado Springs, 2018

A thesis submitted to the Graduate Faculty of the

University of Colorado Colorado Springs

in partial fulfillment of the

requirements for the degree of

Master of Arts

Department of Geography and Environmental Studies

2021

This thesis for the Master of Arts degree by

Natalie Dianne Rodriguez

has been approved for the

Department of Geography and Environmental Studies

by

David Havlick, Chair

Emily Skop

Jamie Van Leeuwen

Date: July 8, 2021

Rodriguez, Natalie Dianne (M.A., Applied Geography)
Consequences of Conservation-induced Displacement: A Case Study with Batwa Participants in Southwest Uganda
Thesis directed by Professor David G. Havlick

ABSTRACT

This thesis explores the inadvertent consequences of conservation-induced displacement utilizing a case study of Batwa, who were forcefully displaced from their ancestral forest lands to make way for three protected areas in southwest Uganda. It also provides a context to understand and make visible underlying sociopolitical forces driving the processes of exclusion from areas of conservation. Drawing on participant observations, interviews, and mental maps, the empirical findings of this case study reveal unmet emergency needs (food, housing, land, health, education, livelihood) evolve into a perplexing entanglement of long-term needs, reinforcing conditions of indigence. The adverse consequences faced by Batwa align with scholarly notions of the Impoverishment Risk and Reconstruction (IRR Model) formulated by Michael Cernea to explain, predict, and reverse impacts of displacement and involuntary resettlement. Thus, I propose using this predictive model as a tool to guide the reconstruction process, alongside a complementary rights-based approach, rebuilding displaced communities whilst redressing past injustices.

DEDICATION

To my boys, who inspire me to leave this world better than I found it.

You are my *reason*, always.

ACKNOWLEDGEMENTS

Foremost, I would like to thank my committee chair David Havlick for your countless hours of revisions, advice, and patience.

I am grateful to my committee member Emily Skop for your continual kindhearted mentorship, encouragement, and support.

I appreciate Jamie Van Leeuwen and GLI for your partnership and introducing me to Listen.*Think*.**Act**.

I am deeply indebted to Cindy Elkins, Robert Burkhardt, and John Guffey, my ERS family, for shaping the very values I live by today. Collectively, you gave me the gift of resilience by fostering a nurturing environment for personal growth and self-reflection, continually pushing me beyond my comfort zone. Thank you for advocating for me, supporting my endeavors, and instilling within me the invaluable mindset to always "find a need and fill it."

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LIST OF ABBREVIATIONS AND ACRONYMS

BINP	Bwindi Impenetrable National Park
ECFR	Echuya Central Forest Reserve
GEF	Global Environmental Facility
GLI	Global Livingston Institute
Guiding Principles	Guiding Principles on Internal Displacement
IDP	Internally Displaced People
IDP Policy	National Policy for Internally Displaced Persons
IRR Model	Impoverished Risks and Reconstruction Model
Kampala Convention	African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa
MGNP	Mgahinga Gorilla National Park
PA	Protected Area
The Act	Human Rights Enforcement Act
The Constitution	Constitution of the Republic of Uganda
The Pact	Great Lakes Protocol on Internally Displaced Persons
UNP	Uganda National Parks
UWA	Uganda Wildlife Authority

CHAPTER I

INTRODUCTION

Internal Displacement and Protected Areas

Imagine being forced to flee your home at gunpoint with no notice, nothing to your name, and nowhere to go. Losing everything you have ever known—your property, your livelihood, and your entire way of life. For Batwa, an internally displaced peoples (hereinafter IDPs) in southwest Uganda, this was the devastating reality; forcefully evicted from their ancestral forest lands, amid the formation of three protected areas (hereinafter PAs); Echuya Central Forest Reserve (ECFR), Mgahinga Gorilla National Park (MGNP), and Bwindi Impenetrable National Park (BINP).[1]

Internal displacement is a global phenomenon, impacting Sub-Saharan Africa disproportionately, accounting for more than 17.8 million of the world's internally displaced peoples (IDMC, 2019). The process of internal displacement occurs when populations flee their homes to avoid the adverse impacts of conflict (e.g., war and violence), disaster (natural and human-caused), and development (e.g., infrastructure and protected areas) (IDMC, 2014). Notably, IDPs are displaced within their country of origin, with no borders crossed during their flight. On this account, IDPs remain under the protection of their respective state government. In the case of development-induced

[1]For the context of this study, a protected area as defined by the International Union for Conservation of Nature (IUCN) embodies "a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature" (2008).

displacements (such as PAs), the state is responsible for providing resources to support the reconstruction of displaced communities (Cernea and Schmidt-Soltau, 2003). This dynamic becomes exceptionally challenging when the forces accountable for carrying out these (often violent) displacements are the very institutions responsible for providing asylum.[2]

A mainstay in conservation efforts, PAs encompass national parks, forest reserves, wildlife sanctuaries, and biosphere reserves. Due to the misguided belief that for successful conservation, the exclusion of people from nature must occur (Jacoby, 2003); displacement from PAs is almost always permanent with no option to return (Agrawal and Redford, 2009). Chiefly, during the establishment of PAs, "the compulsory removal process [is] initiated when a project's need for a right of way is deemed to override the right to stay of the inhabiting populations" (Cernea and Schmidt-Soltau, 2006). Thus, many well-intended conservation projects result in devastating consequences for IDPs. Given the recent goal under the UN Convention on Biodiversity to protect 30% of the world's territorial and marine surface by 2030 and 50% by 2050, the establishment of PAs will likely only intensify, making the processes leading to conservation-induced displacements and the ensuing implications, a relevant topic of research.

[2] A brief note on terminology, I follow Agarwal and Redmond's definition of "displacement", as the physical removal of people from their place, evoking involuntary resettlement at the hands of government or organizational actors (2009). Thus, throughout this thesis, I use the keywords "displacement", "removal", "dispossession", "expelled", "forced migration", and "eviction" interchangeably all to mean involuntary physical removal (Agarwal and Redford 2009).

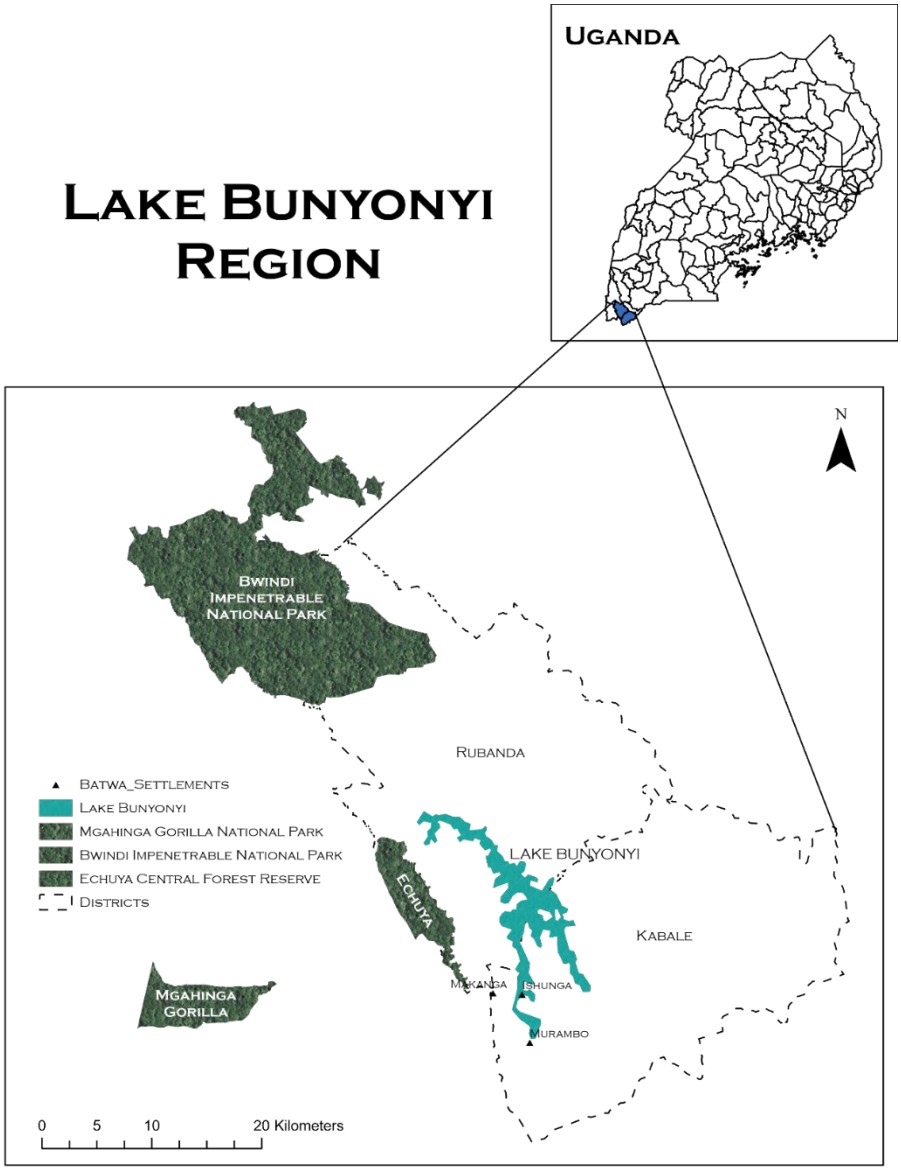
To answer the question, "What are the long-term consequences of conservation-induced displacement as experienced by Batwa people in the Lake Bunyonyi region of southwest Uganda?" I adopt an informal community needs assessment to identify outstanding challenges faced by this marginalized population. I build on the framework of Community Geography, which calls for a pragmatist or action-oriented model of inquiry to address real-world problems by informing systematic change (Shannon et al., 2020). As Shannon and colleagues note, Community Geography is "...a praxis rooted in collaborations between academic and public scholars, resulting in mutually beneficial and co-produced knowledge" (Shannon et al., 2020, p. 2). Thus, I undertook this research in partnership with Global Livingston Institute (GLI), a nongovernmental organization with an established presence in the study area (Appendix A). To truly understand the needs of a community, GLI encourages listening and thinking before acting. To *listen*, I engaged in conversation-driven methods, documenting community needs and gaps in services as experienced by Batwa. To *think*, I used findings as a catalyst for exploring possible solutions. To *act*, I call upon GLI, the local government officials of Kabale district in Uganda, and other organizations with a similar goal of improving Batwa's impoverished realities to collaborate and implement community-led livelihood reconstruction initiatives in an attempt to rectify past injustices.

This thesis begins with a delineation of the study area and a historical overview of Batwa, followed by an exploration of literature situated in the political ecology of militarized conservation. It continues by outlining the three

complementary qualitative methods utilized: participant observation, semi-structured interviews, and mental mapping. After contextualizing Batwa's identified needs and gaps in services from field notes, interview transcripts, and mental map data, I use content analysis to discuss what these findings mean for Batwa in Ishunga, Makanga and Murambo settlements. I conclude with two recommendations to advance the findings of this study. Firstly, I recommend utilizing the reversed Impoverished Risks and Resettlement Model (IRR Model) as a tool to guide community development initiatives, beginning with land-based livelihood reconstruction to achieve self-sufficiency. Secondly, I recommend redressing past injustices by taking an IDP rights-based approach. To inform this process, I provide a guide of IDP policies in Uganda related to Batwa's identified needs.

Scope of Study Area

Figure 1: Batwa Settlements in Study Area of Lake Bunyonyi, Uganda



Map created by the author: Natalie Dianne Rodriguez

Lake Bunyonyi, or "place of many little birds" in the local language of Rukiga, is a freshwater lake formed an estimated 8,000 years ago, following a nearby volcanic eruption. Situated in southwest Uganda, on the cusp of

Rwanda's northern border, this lava-dammed lake lies between 1.3° S and 29.9° E, covering 61 km of area, with an elevation range of 1,962 m – 2,478 m and a depth of just under 900 m. This high-altitude lake experiences a mild temperate climate met with year-round rains and cool temperatures in the mornings/evenings. The heavy rains, frequent to the area evoke a magnitude of environmental challenges, including floods, soil erosion, and landslides.

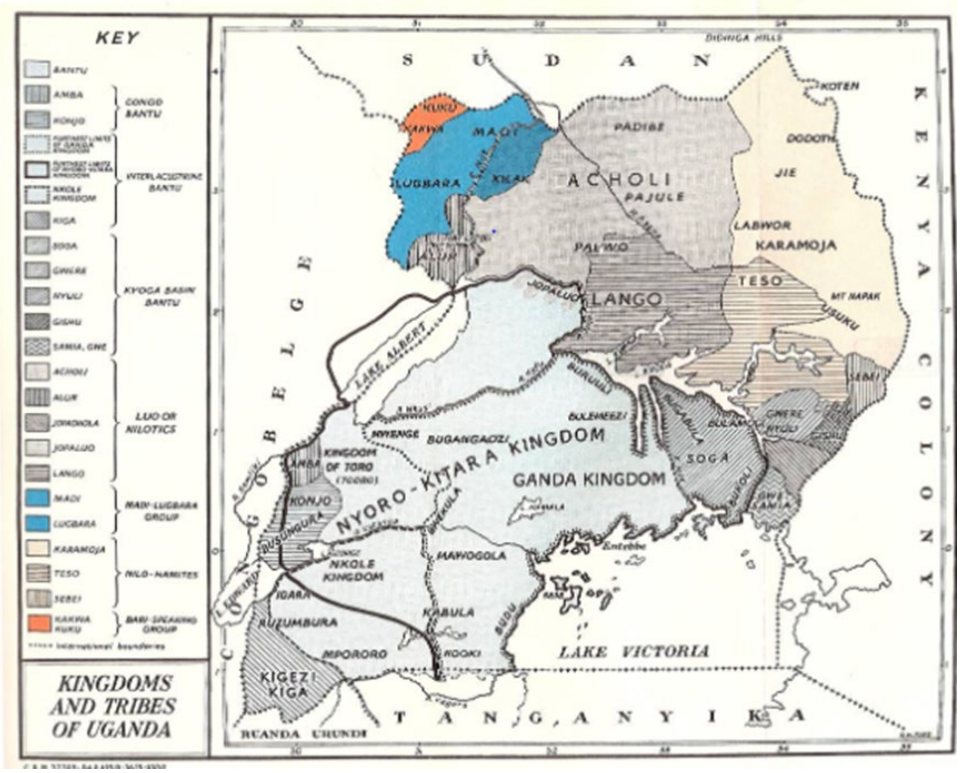
The lake itself is framed by steep, green-terraced hills heavily cultivated by the local populace (Figure 2). Notably, this area accounts for one of the most densely populated (427 km2) poverty-stricken agricultural regions in Uganda. In proximity to the lake, the town of Kabale lies just over 4 km to the east, ECFR 5 km to the west, MGNP 28 km to the southwest, and BINP 20 km to the northwest (Figure 1). As mentioned in the introduction, the PAs of ECFR, MGNP, and BINP make up Batwa's ancestral forest lands. For the scope of this fine-scale study, I focus on three Batwa settlements located in Kabale district, on the western half of Lake Bunyonyi: Ishunga, Makanga, and Murambo.

Figure 2: Agricultural Terraces on Lake Bunyonyi, Uganda

A Historical Context of Batwa in Kigezi, Southwest Uganda

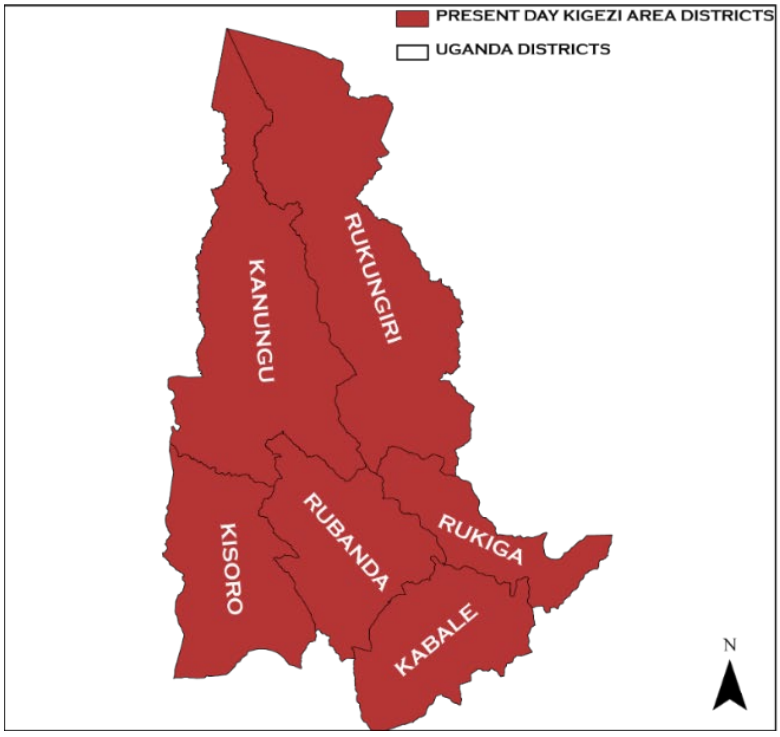
Considering my discussion of colonial and post-colonial contexts, I will further set out the geographical location of the study area. Batwa's ancestral forests of ECFR, MGNP, and BINP lie within the former territory of northern Rwanda, which was annexed in 1912 by the British Colonial Administration, integrating it as Kigezi district in Uganda's southwest corner (see Figure 3). Following Uganda's independence in 1962, Kigezi has since been subdivided into the six present-day districts of Rubanda, Kabale, Rukiga, Kanungu, Kisoro, and Rukungiri (Figure 4).

Figure 3: British Colonial Map of Uganda with Boundaries of Kigezi Area



Source: Kidd, 2008

Figure 4: Post-colonial Map of Uganda with Boundaries of Kigezi Area



Map created by the author: Natalie Dianne Rodriguez

Batwa are the original inhabitants of Albertine Rift's mountainous forests in Africa's Great Lakes region. Oral histories from Batwa express a shared belief of the forests being a gift from their God. Like many hunter-gatherers, Batwa were semi-nomadic, habitually moving to new forest areas when resources were

scarce or succeeding the death of a clan member. Foremost, Batwa were warriors of the forest, with distinct worship of the sun and a language (Rutwa) mimicking sounds of nature. They lived in an egalitarian society that valued equal roles among men and women, openness, and sharing. For Batwa, the clan was only as strong as the weakest member. The men used wild dogs, trained to track small game, and poison-tipped arrows or spears to hunt bush pigs, birds, and antelope, while the women collected wild honey, yams, mushrooms, fruits, roots, grasshoppers, and medicinal herbs. Collectively, Batwa survived off the forest's abundant resources.

The first migration to Kigezi came from Batutsi (pastoralists) in the mid-16th century, who, upon entering the lands, recognized Batwa's customary ownership of the forests. According to the historic land rights of Batutsi kings in Rwanda, "the domain of the bells" (named after the bells on Batwa's dogs' collars) belonged to Batwa (Lewis, 2000). Batwa were known to train and use wild dogs to track small game, as mentioned above. To locate these dogs, Batwa would create makeshift collars with bells. Often, the pigs tracked by the dogs would attack, alerting Batwa of their location. Batwa would then follow the sound of the ringing bells and hunt the pigs using poisoned arrows and spears. This recognition of land rights from the Batutsi entitled Batwa to collect tolls in the form of food and beer from those who encroached upon their forest lands (Lewis, 2000).

By the mid-18th century, nine Kiga Bahutu clans (agriculturists) fleeing Batutsi rule in Rwanda sought refuge in Kigezi. Despite ongoing tribal conflicts

between the Bahutu and Batutsi, both interacted cooperatively with Batwa, each mutually benefiting from trade with one another. Bahutu benefitted from the use of Batwa forest lands for cultivation in exchange for agricultural products. At the same time, Batutsi benefitted from a strengthened military force of highly skilled Batwa archers, who in turn received payments of livestock, goods, and banana beer (Lewis 2000; Zaninka 2001). Bahutu and Batutsi were even known to hire Batwa to retrieve forest products such as medicinal plants, honey, meat, and other non-timber products.

By the early 19th century, the Batutsi kingdom expanded into the northern reaches of Ruanda (Rwanda), ensuing mass migration from Bahutu clans resisting conquest to the Kigezi region. Bahutu brought with them advanced (for the time) cultivating techniques and tools, such as hoes and billhooks, to clear large patches of forests for agriculture.[3] Batwa "resented very much the expansion of fields and pastures in the forests they regarded as their possession." (Maquet, 1964, p.91); thus, igniting conflict between the agriculturalist and the forest peoples. As the Bahutu's dominance and control grew over the Kigezi, so did Batwa's allegiance to the Batutsi kingdom, as the Batutsi continued to recognize Batwa's ancestral claim to the forest lands (Lewis, 2000; Zaninka, 2001; Kidd, 2008).

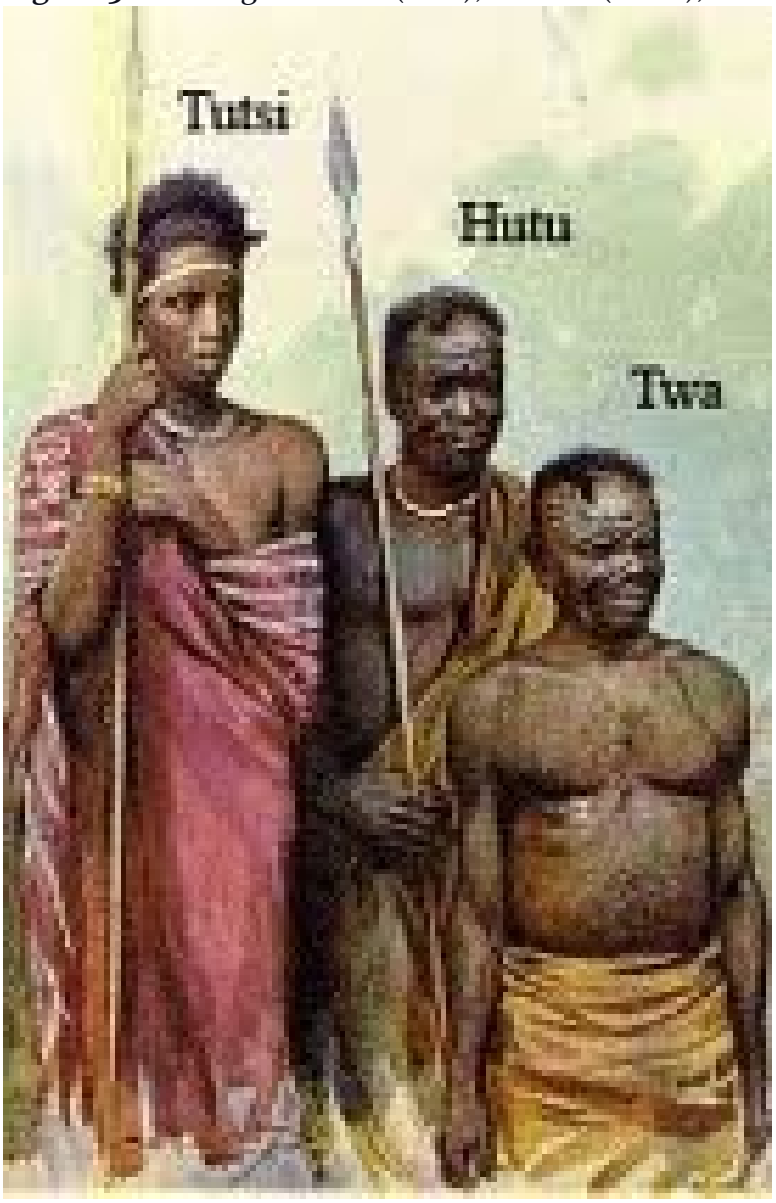
During the latter half of the 19th century, Batutsi kings, with the critical support of Batwa archers, overcame numerous Bahutu rebellions, establishing

[3] A *billhook* is a single-handed agricultural tool resembling a hybrid between an ax and a curved knife used to cut through tough and woody plants.

their rule over the Kigezi region. This victory was short-lived, though, and at the onset of the 20th century, the British gained control of Kigezi. Batutsi and Batwa joined forces once more in a failed attempt to regain control of the lands (Lewis, 2000). This allegiance to the Batutsi further fueled a mutual distrust between Batwa and Bahutu. These tensions account for present-day resentment towards Batwa from the majority Bakiga ethnic group, which includes former Bahutu clans (Kidd, 2008).

Despite Batwa's alliance with the powerful Batutsi kingdom, they were still regarded as "sub-human", maintaining a low social standing, and given no opportunity to increase power amongst the clans (Maquet, 1964). While marriage between a Bahutu and Batutsi was seen as socially acceptable (though uncommon at the time), "suggesting intermarriage with [Ba}Twa was very insulting" (Maquet, 1961, p.66). This unequal power dynamic is what severed ties between Batwa and Batutsi. Some of the stereotypical physical traits of Batwa, Batutsi, and Bahutu are shown in Figure 5, below.

Figure 5: Painting of Batwa (Twa), Bahutu (Hutu), and Batutsi (Tutsi)



Source: Kidd, 2008

The British colonial era (1894-1962) in Uganda brought forth a plethora of laws systematically enacting state control over land and resources, most of which were inherited post-independence. For instance, the Crown Lands Ordinance (1922) declared all land without proof of ownership as British crown land, instilling state control over many lands. The provisions necessary for the

colonial protection of Batwa's ancestral forest lands began with the gazettement of Mgahinga as a game sanctuary in 1930, Bwindi as a crown forest reserve in 1932, and Echuya as a forest reserve in 1939 (Zaninka, 2001). British colonialists perceived the long-held livelihood practices of local inhabitants as destructive (Marijnen and Verweijen 2016), and as such, the land and preservation policies created by the colonial administration laid the foundation for the native inhabitants' removal. For example, the Forest and Farm Act of 1947 and the National Park Act of 1952 collectively eradicated Batwa's customary rights to the forests (Nakayi, 2009). Furthermore, the British outlawed hunting in the forest by enacting preservation ordinances, criminalizing local communities' historic practices (Duffy, 2014).

Post-independence in Uganda, amid political turmoil, the forests were disregarded, and commercial hunting, timber extraction, mining, and poaching occurred at an all-time high, primarily by white imperialists with economic motives (Lewis, 2000). This mass exploitation of forest resources and wildlife poaching was a cause for concern among international conservationists. Thus, in 1991, following immense pressures from international organizations and subsequent funding from the Global Environment Facility (GEF) through the World Bank, the National Resistance Council of Uganda passed a resolution elevating the crown reserves to national park status under the administration of Uganda National Parks (UNP) (Lewis, 2000; Nakayi, 2009). Policies leading to Batwa's eviction are in Figure 6 below.

Figure 6: Policies and Events Leading to Batwa's Displacement

Year	*Politics*	*Implementing Party*	*Implications*
1922	Crown Lands Ordinance declaration converted all land without proof of ownership into crown land	British Colonial Administration	Established state control over land
1930s	Mgahinga declared a game sanctuary (1930), Bwindi a crown forest reserve (1932) and Echuya a crown forest reserve (1939)	British Colonial Administration	The forest continued to be economically and culturally important and accessible for the Batwa
1947	The Forest and Farm Act (amended 1964)	British Colonial Administration	Established state control of forest resources and criminalized hunting dogs, hunting weapons, and farming in the forest
1952	The National Parks Act of Uganda (repealed by the Wildlife Act of 1996)	British Colonial Administration	Permitted the designation of land as national parks, restricting inhabitation within its boundaries
1959	The Game Preservation & Control Act (repealed by the Wildlife Act of 1996, aside from its schedules)	British Colonial Administration	Regulated hunting of animals and birds, established the protection of specific wildlife, implemented the use of fees and permits to hunt within reserves
1961	Bwindi declared a gorilla sanctuary	British Colonial Administration	Batwa continued to inhabit the forests, relying upon it for daily subsistence and livelihood
1991	Mgahinga & Bwindi are elevated to national park status, creating Bwindi Impenetrable National Park and Mgahinga Gorilla National Park	UNP, UWA	Batwa were forcibly evicted and restricted from accessing the forest, without prior notice, informed consent or compensation causing them to become IDPs
1995	World Bank assessment of impact completed on Batwa	UNP	A condition of funding for BINP & MGNP, occurred after the Batwa had already been evicted and did not lead to their resettlement

Sources: Lewis, 2000, Zaninka, 2001, Nakayi, 2009, Mukasa, 2014

Despite the World Bank's requirement of an assessment to evaluate and mitigate Batwa's impacts before their displacement (World Bank, 1991), this did not occur until four years later, in 1995 (Nakayi, 2009). The World Bank's

requirement called for Batwa's "prior and meaningful consultation," along with "informed participation," in addition to having their needs met through resettlement and livelihood reconstruction, which also did not occur (Nakayi, 2009). A condensed version of recommendations made by this assessment, conducted by the UNP as a funding requirement, is as follows (World Bank, 1995; Nakayi, 2009):

- Redress the injustice suffered by Batwa, resulting from their exclusion from the forests, via capacity-building.
- Redistribution of land in the areas where Batwa lived.
- Recognition of and an urgent solution for the cultural and economic needs of Batwa connected to use of the forests ancestral land.
- Social articulation or the building of social networks, noting Batwa feel marginalized in the social service sector—health, education, community networks, and representation—where they do not feel welcome.

In 1991, the government of Uganda gave the order for the Forestry Department (Uganda Wildlife Authority) to use command-and-control removal strategies, expelling Batwa from the forests indefinitely (Mukasa, 2014). A handful of Batwa have since shared recollections of their eviction experience:

> "We did not know they were coming. It was early in the morning; I heard people around my house. I looked through the door and saw men in uniforms with guns. One of them forced open the door of our house and started shouting that we have to leave immediately because the park is not our land. I first did not understand what he was talking about because all my ancestors have lived on these lands. They were so violent that I left with my children." -Kwokwo Barume (Dowie, 2009, p. 63)

> "We were chased out on the first day. I did not know anything was happening until the police ran into my compound. They all had guns. They shouted at me, told me to run. I had no chance to say anything. They came at us and we ran, they came so violently. I was frightened for the children. I had eight children with me – but we just ran off in all different directions. I took my way, and the children took theirs. Other people were running, panicking, and even picking up the wrong children in the confusion. I lost everything. I had thirty-one cows and some goats and hens. They were killed. Twenty-one cows were killed, and the rest taken. They burned everything, even the bed, and furniture, and the kitchen. We're poor now." -Joy Ngoboka (Dowie 2009, p.63)

> "All I know is the soldiers came from far away to chase us out with guns. They said we could never return to the forest, and we were forbidden to hunt or harvest honey, water, and wood."- Tomas Mtwandi (Dowie, 2009, p.69)

In the plight of eviction, over 90% of Batwa were rendered landless (Ahebwa et al., 2012), with 82% deemed without lands during the 1995 World Bank assessment (Lewis, 2000). Batwa, "...who had lived for generations before and after 1930 without destroying the forest or its wildlife, and even had historical claims to land rights, only received compensation if they had acted like farmers, and destroyed part of the forest to make fields" (Lewis, 2000, p. 20). On the other hand, agriculturalists who played a crucial role in deforestation received compensation and recognition of land rights (Lewis, 2000). Dispossessed of their lands, home, and personal property, Batwa sought refuge on the forest periphery (Lewis, 2000). Many resorted to squatting on neighboring Bakiga farmlands where they built temporary shelters, turning day

labor, and begging into a means of survival (Lewis, 2000, Nakayi, 2009). This burdensome reliance on the Bakiga placed Batwa in a position of inferiority.

Three decades later, Batwa remain displaced at "home," in a state of protracted displacement (i.e., five or more years), as IDPs (IDMC, 2014). Their dire conditions have yet to be redressed, reinforcing their impoverished realities (Cernea, 1997; Cernea and Schmidt-Soltau 2003, 2006) as they fight for survival. Batwa continue to live in isolation, within rural settlements on small tracts of land bordering Echuya Central Forest Reserve, Mgahinga Gorilla National Park, and Bwindi Impenetrable National Park (UNPO, 2018). As of 2014, there were 6,200 Batwa in Uganda, making up a mere 0.2% of the country's total population (UPHS, 2014). Due to fear of being shot, many Batwa abstain from entering the forest altogether (Kenrick, 2000), placing a grave threat to their forest-centric culture. Leading Batwa elder Kwokwo Barume to believe, "We [Batwa] are heading towards extinction," both culturally and existentially (Dowie, 2009, p.70).

CHAPTER II

LITERATURE REVIEW

Despite having shaped the very landscapes targeted for protection and coexisting with flora and fauna for millennia, indigenous people's historical ties to lands continue to be systematically omitted and erased in the name of conservation. To understand the challenges faced by these often-marginalized groups, Linda Tuhiwai Smith, an expert in indigenous research methods, suggests untangling the colonial processes responsible for shaping their current realities (2012). Thus, insight into *why* displacements occur in the pursuit of conservation and *how* it transpires is central to investigating the broader implications. In the following, I evaluate the scholarly literature situated primarily in political ecology to address these questions.

The Militarization of Conservation

Green militarization, a term coined by geographer and political ecologist Elizabeth Lunstrum, merges military training tactics with radical enforcement strategies to pursue conservation objectives (Lunstrum, 2014). Other scholars in the field characterize this coercive approach, deeply rooted in colonial histories, as a process of "moral boundary drawing," representing park officials as heroes and poachers as criminals (Neumann, 2004) or "cruel thieves" (Marijnen and Verweijen, 2016). In the context of security logic, militarized interventions are fostered by instilling notions of the "outsider" or "other," and marrying them with "territorial trespassing" to desensitize locals (Lunstrum

and Ybarra, 2018). Through this lens, flora and fauna are portrayed as needing protection from poachers, "the supposedly dangerous figure that stalks the jungle or lurks within the bush," falsely depicted as "a greedy, slippery, opportunistic, or lazy person who takes without investing in the land" (Lunstrum and Ybarra, 2018).

Misguided and highly racialized views of native historical practices conditioned the narrative for Batwas' removal from PAs; First, by superimposing connotations of a "savage" intruder on the local peoples, who pose a security threat to protected areas (Lunstrum and Ybarra, 2018). Second, by disregarding the multi-faceted realities of perceived poachers, most of whom are neither cruel nor thieves, instead, facing complex circumstances leading to life-or-death decisions of encroaching upon forest resources for survival. These misconceptions have collectively led to state governments instilling control over areas deemed for protection through land acquisition, exclusionary conversation policies, and the prioritization of economic interests above local needs (Bryant 1997, Bryant 1998, Neumann 2004). Intensifying these dynamics is the actuality that PAs post-date long-held livelihood traditions retroactively labeled poaching (Neumann, 2004; Duffy, 2014; Lunstrum and Ybarra, 2018; Duffy et al., 2019). In turn, armed interventions are justified by painting human communities in areas targeted for protection as enemies of conservation (Jacoby, 2003; Dowie, 2009; Lunstrum, 2016; Massé and Lunstrum, 2016; Lunstrum and Ybarra, 2018). In this politicized environment, it is the "loaded

notion of difference unfolding across unequal power relations that provokes displacement" (Lunstrum and Ybarra, 2018).

A broad body of research has documented the use of militarized conservation tactics, leading to displacement in every inhabited continent, including Africa, Asia, Australia, and the Americas (Cernea and Schmidt-Soltau 2003; Neumann 2004; West, Igoe, and Brockington 2006; Cernea and Soltau-Schmidt 2006; Agarwal and Redford 2009; Lunstrum 2014; Marijnen and Verweijen, 2016; Massé et al., 2018; Lunstrum and Ybarra, 2018; Duffy et al., 2019; Massé 2019). Geographer Roderick Neumann found that in sub-Saharan Africa, "the main recruiting grounds for park guards and game scouts have been the army, police, and prisons where military-style discipline and tactics are common" (2004). Moreover, Neumann asserts that human rights violations and fatal attacks targeting local human populations in defense of biodiversity have become normalized in Africa's protected areas (2004). One example is the use of shoot-to-kill policies authorized by various state governments in Africa, giving park officials the go-ahead to shoot suspected poachers, forgoing arrest, and trial altogether (Neumann, 2004). In these instances, government officials provide rangers with sophisticated lethal weapons and rigorous military training (Lunstrum, 2014; Duffy, 2014). Political ecologists have criticized this process of enforcing highly coercive security measures and repressive policies against already marginalized communities for being a compliance tactic that compromises fundamental human rights (Duffy et al., 2019)

A 2006 study by Cernea and Soltau-Schmidt, which investigated park-establishment strategies used to form national parks in Central Africa, revealed the extensive use of forced evictions as a dominant technique, with an estimated 120,000-150,000 displaced from the 12 surveyed PAs alone (2006). To put this number into perspective, according to the World Database on Protected Areas (WDPA), there are currently 246,904 terrestrial PAs covering approximately 15.65% of the world's landmass (WDPA, 2021). As it stands, a credible method for tracking conservation-induced displacements has yet to be established, causing discrepancies in data ranging in yearly estimates from hundreds of thousands to tens of millions displaced (Cernea and Soltau-Schmidt, 2003; Neumann 2004; West, Igoe, and Brockington 2006; Cernea and Soltau-Schmidt 2006; Agarwal and Redford 2009; Dowie 2009). With gaps in empirical research leading to insufficient data, Agarwal and Redford assert, "The consequences of displacement on human welfare are difficult to state with precision even though they can be inferred. By the same token, it is also difficult to know exactly how much the setting aside of protected areas has contributed to biodiversity conservation" (2009, p. 9).

In a global overview of protected area-related evictions, West, Igoe, and Brockington analyze 184 functional studies, revealing a significant regional bias in eviction approaches among developing countries located in the global south, geographically clustered across Africa and Asia (2006). Relatively few displacements in the global north were documented, particularly within Europe

and Australia (West, Igoe, and Brockington, 2006). Notably, this apparent absence of reported evictions in developed countries does not translate to an absence of the eviction approach; rather, it signifies a function of the time. Displacements in the global north occurred during earlier periods of colonization when documentation of such matters was less of a priority. More recent evictions during 19th and 20th-century colonialism and its aftermath, have been tracked more readily.

A present-day example of green militarization is occurring in the Appa village of northern Uganda, where amid civil unrest, local government officials declared the ancestral lands of the Acholi people a protected area: East Madi Wildlife Reserve (Serwajja, 2018). Violent forced evictions mandated by government officials authorized rangers, police, and armed military forces to extinguish the Acholi communities, resulting in horrific accounts of torture, theft, brutality, property destruction, and fatalities (IDMC, 2014; Serwajja, 2018). These actions eradicated the Acholi's traditional livelihoods by denying access to lands, property, and essential services (Serwajja, 2018). Almost a decade later, the feud continues with thousands rendered landless, homeless, and uncompensated.

In the article, "Why we must question the militarization of conservation," Duffy and co-authors make a call to rethink the use of coercive measures in the pursuit of conservation as they "can mirror and recreate past injustices, which risks alienating inhabitants of conservation spaces." (2019, p. 68) While

militarized efforts have seemingly led to improved wildlife security, this method has considerable drawbacks resulting in counter-productive and unjust outcomes, undermining conservation priorities (Duffy et al., 2019). Militarized efforts are known to compromise fundamental human rights by enforcing autocratic policies targeting poverty-stricken and marginalized communities. These are typically carried out using forceful and often violent strategies, without "addressing inequalities and ensuring that conservation does not exacerbate them," calling into question the overall sustainability of militarized approaches (Duffy et al., 2019). Thus, the authors of this article contend that more research is needed to gain a thorough understanding of the broader social, political, and economic implications brought forth by militarized conservation (Duffy et al., 2019). With this research, I aim to contribute to this literature by investigating the human impacts of conservation-induced displacement experienced by Batwa in southwest Uganda.

CHAPTER III

METHODOLOGY AND DATA ANALYSIS

This study utilizes community-engaged techniques to provide a multi-layered perspective of the daily lived realities experienced by Batwa participants in Ishunga, Makanga, and Murambo settlements. By bringing local voices to the table, the aim of development and policy-led initiatives can become more relevant, efficacious, and sustainable. Before conducting research, I received approval from the provincial government in the study area (Appendix B), the TASO Institutional Review Board (Appendix C), and the University of Colorado Colorado Springs Institutional Review Board (Appendix D). Fieldwork took place over two weeks in November 2019 at Lake Bunyonyi in Uganda, where I gathered primary data from Batwa participants. As a community geographer, I engaged in a participatory approach to investigate community-defined needs and challenges from a local context (Robinson and Hawthrone, 2017). Thus, guided by this collaborative geographic framework, the methods applied for this study include participant observation, semi-structured interviews, and mental mapping.

Participant Observations

Observations in the field are integral for understanding the lived human experience's breadth and complexities – an overarching endeavor for community-based research. It also provides geographers with an understanding of how people navigate in and around places (Clifford, 2016). I chose this

method to complement interview data to provide context to Batwa's identified needs and challenges. This flexible method allowed me to engage in meaningful interactions through various field visits, provide new insights, and raise inquiries I had not considered before being out in the field. For instance, I ended up raising questions regarding accessibility and how Batwa navigate within their environments. Additionally, participant observations before data collection led me to assess the cultural relevance and appropriateness of interview questions, foregoing emotionally provoking, confusing, and redundant questions. This integrated way of seeing proved to be the most advantageous asset, by far, in the entirety of my research.

Semi-structured Interviews

A form of qualitative data, interviews can provide a complex view of lived experience, permitting geographers to delve into participants' minds and uncover different ways of knowing (Hay, 2016). Interviews grant researchers the ability to unearth the complexity of problems faced by interview subjects, particularly when engaging with under-represented, marginalized groups whose voices are rarely heard (Hay, 2016). Additionally, direct interactions during the interview process facilitate a space to create personal connections, detect triggers, and decipher body language, all while presenting the opportunity to investigate inquires as they arise. Thus, a somewhat open interview process allows flexibility to expand and clarify each conversation's direction (Hay, 2016).

Interview guides (a set of flexible predetermined questions) used in this study involved collaboration with Jamie Van Leeuwen, CEO, founder of Global Livingston Institute (GLI), and Emmanuel Bugingo, from Partners for Conservation. As all contributors to the guide were in varying geographic locations (Uganda, Rwanda, and Colorado), I organized a conference call in June 2019 with Dr. Van Leeuwen and Mr. Bugingo. We collectively formulated interview questions to serve as a guide for Batwa and key informant interviews during that time. These guides were created to serve as an informal community needs assessment and are in Appendix E. The purpose of including key informants in interviews is to collect information from local community members who have firsthand knowledge of the challenges Batwa face, providing additional perspectives.

Building relationships and a foundation of trust are essential (though time-consuming) in community-based research, more so with historically marginalized populations, as traditional research approaches often link with colonialism's dominant power relations. Therefore, small sample size was appropriate due to my limited time in the field (two weeks). A total of 15 interviews took place, comprising of five key informants and ten Batwa. Notably, a heavy reliance on a translator was required as Batwa in this specific region of southwestern Uganda speak a combination of Rukiga and Rufumbira (and not much, if any, English), posing a significant language barrier for an English-speaking researcher. A close partnership with a translator, fluent in English, Rukiga, and Rufumbira, was critical to communicate with Batwa.

Kiconco Rodgers, a charismatic native of the lake region and a trusted employee of GLI, filled this role. In addition to translating in the field, Rodgers contacted each Batwa settlement councilman to gain permission before visits, both customary and required. Rodgers also briefed interview participants on the study by translating the informed consent form. Without this collaboration, fieldwork with this population would not have been possible.

Data Collection

Interview data were collected using a public mobile application by EpiCollect5 to record interview responses and the GPS locations of settlements. EpiCollect5 filled my needs due to its ability to collect data while offline, with an option to upload entries later. This feature was imperative as Batwa settlements' locations are in rural areas with no access to cellular service or Wi-Fi. While I could have recorded interview responses in my field journal, I decided to forgo this option due to weather constraints (heavy rains). Before fieldwork, I created two private projects on the EpiCollect5 online platform and inputted each survey's questions under their respective projects: Batwa Interviews and Key Informant Interviews. To test functionality, I created several test entries, ensuring the upload and GPS functions worked properly. Before collecting data, all participants were provided the Institutional Review Board Approved Consent Form (verbally translated by Kiconco Rodgers), and consent to participate in the study was verbally received. I used verbal consent due to high illiteracy levels among Batwa participants. Please refer to Appendix F for a copy of the consent form.

Batwa interview participants (10) were recruited through snowball sampling (referrals made by other Batwa participants), with interviews always beginning with the councilman or councilwoman of the settlement. Represented in this study are five Batwa women and five Batwa men from different households and three different settlements. All key informants selected are local Ugandans who either live or work along Lake Bunyonyi and have demonstrated geographic knowledge of the study area. Selected by way of purposive sampling, the key informants (5) interviewed included community members who interact with Batwa regularly, including:

1. a healer from neighboring Mourandi village,
2. a Batwa schoolteacher,
3. a Batwa school head,
4. a doctor from a health center, frequented by Batwa, and
5. a local NGO founder who serves Batwa and study area

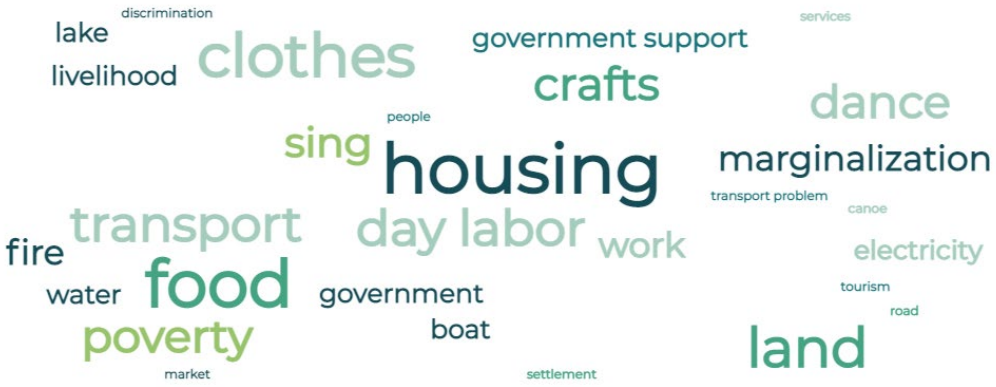
The interview process took place as follows: 1. The consent form was provided to all participants in English and translated to the local language of Rukiga or Rufumbira for Batwa participants and the healer by my translator, with verbal consent gained from each participant, 2. Participants chose where they wanted conversations to occur, ensuring they felt safe and comfortable in the environment, 3. I opened EpiCollect5 on my mobile device, and the respective project was selected (Batwa Interview or Key Informant Interview), 4. I created a new project entry for each interview participant, 5. I read

interview questions aloud in English, 6. The translator then translated the questions to the local language of Rukiga or Rufumbira for Batwa participants and the healer, 7. Responses then were translated back into English, 8. Interview responses were typed out in English on EpiCollect5, saved, and later uploaded. Interviews lasted between 30-45 minutes each. Additionally, four of the five key-informant interviews were in English (aside from the healer, which occurred in Rukiga), thus omitting steps six and seven for these participants.

Data Analysis

As the interviews were more halting and less productive than I hoped, I deemed content clouds to be one of the most effective ways to distill some meaning out of the responses. Thus, for analysis of interview data, I used manifest content analysis (Hay, 2016, p. 173) to capture key terms in interview transcripts from Batwa and key informants, separately, using a word frequency query to create a content cloud. Content clouds visualize qualitative data by depicting words that appear most often in the text as a larger font within the cloud (Cidell, 2010). First, I downloaded interview transcripts from EpiCollect5 into a separate Excel file for each project; Batwa interviews and key informant interviews. I then transferred Batwa interview responses (Figure 7) into the online software WordCloud Generator to run a word frequency query. I ran another query using key informant responses (Figure 8) to interview questions.

Figure 7: Batwa Content Cloud



The content cloud reveals the top ten most used words by Batwa during interviews in order of highest frequency:

1. Housing
2. Food
3. Land
4. Clothes
5. Poverty
6. Transport
7. Day labor
8. Crafts
9. Dance
10. Marginalization

Figure 8: Key Informant Content Cloud

The content cloud reveals the top ten most used words by key informants during interviews in order of highest frequency:

1. Education
2. Health
3. Livelihood
4. Housing
5. Poverty
6. Transport Problem
7. Marginalization
8. Access
9. Food
10. Water

According to the content cloud, the three words with the highest frequency used in Batwa interviews (housing, food, land) and key informant interviews (education, health, livelihood) correlated with observed patterns in the text

upon initial review of transcripts. To ensure this pattern accurately reflects Batwa's needs, I tallied up the responses for questions "What are your biggest needs right now?" answered by Batwa, and "What three services do you think Batwa need most?" answered by key informants. The results confirmed observed patterns in the text and visualized in the content clouds above in Figures 7 and 8. Batwa identified their three most significant needs as housing, food, and land (Figure 9), while key informants identified education services, health services, and livelihood services (Figure 10) as Batwa's most prevailing needs.

Figure 9: Batwa Identified Needs

Q: What are your biggest needs right now?	**High Priority**	**Medium Priority**	**Low Priority**	**Total Participants (10)**
Housing	X			10
Food	X			8
Land	X			6
Clothing		X		5
Livelihood			X	1

Figure 10: Batwa Needs as Identified by Key Informants

Q: What three services do you think Batwa need most?	**High Priority**	**Medium Priority**	**Low Priority**	**Total Participants (5)**
Education	X			5
Health	X			3
Livelihood	X			3
Food			X	1
Housing			X	1

These six needs formed the subthemes for further analysis. I then created a separate spreadsheet in excel for each of the six themes (housing, food, land, education, health, and livelihood). I went back through interview transcripts, field notes from participant observations, and mental maps to align data with each subtheme by segmenting responses, summarizing the content, and making the connections to the appropriate themes. These subthemes were all placed under the overarching theme of Batwa's identified needs. I use these findings in the next chapter to conceptualize Batwa's needs as identified by both groups using content analysis.

Mental Mapping

To supplement observations and interview data, I conducted a mental mapping exercise focusing on access to services. Mental maps provide a unique opportunity for researchers to observe space through the lens of its inhabitants. This method boasts a long history of improving geographers' interpretation of

complex place-based dynamics. Brought forth by urban planner Kevin Lynch, this approach explores the spatial cognition of inhabitants (Hayden, 1995), revealing how people navigate and make spatial relationships through lived experience. I use this creative method of collecting, modeling, and interpreting geographic data as a tool "to understand human behaviors based on peoples' perceptions of their spatial environment" (Boschmann and Cubbon, 2013, p. 237).

Data Collection

Directly following interviews, I presented Batwa and key informants with the optional task of creating a mental map displaying access to services within the settlement and surrounding lake area. I gave Batwa the prompt. "Draw a map of services available to you in your village and the areas surrounding (clinics, independent doctors, schools, food shelters, clothing assistance, markets, childcare, education centers, employment centers, etc.)." Key informants had an almost identical prompt worded to map their perception of Batwa's access to services. In total, seven Batwa and five key informants agreed to the mapping exercise. All participants had access to appropriate materials such as a blank waterproof sketch pad (8 ½" x 11"), permanent markers of varying colors, and waterproof pens of varying colors. While key informants worked on the mental maps independently, this was not the case with Batwa.

Due to high levels of illiteracy among Batwa participants, assistance was provided throughout the exercise by asking simple prompting questions such

as, "Where is the nearest hospital?", "Where is the nearest school?", "Where do you get water?" and "Where do you get food?". Upon completing their maps, Batwa participants interpreted maps, and features were labeled accordingly by Kiconco Rodgers (translator), who has spatial knowledge of the area. Key informants, on the other hand, had already created legends. Like Boschman and Cubbon (2013), I found this method enhanced conversations, noticeably diminishing initial researcher-participant barriers present during interviews with Batwa participants, resulting in reduced tensions. Working through each participants' spatial processes provoked conversation of their lived experience with access. This exercise ranged between 15-30 minutes per map.

Data Analysis

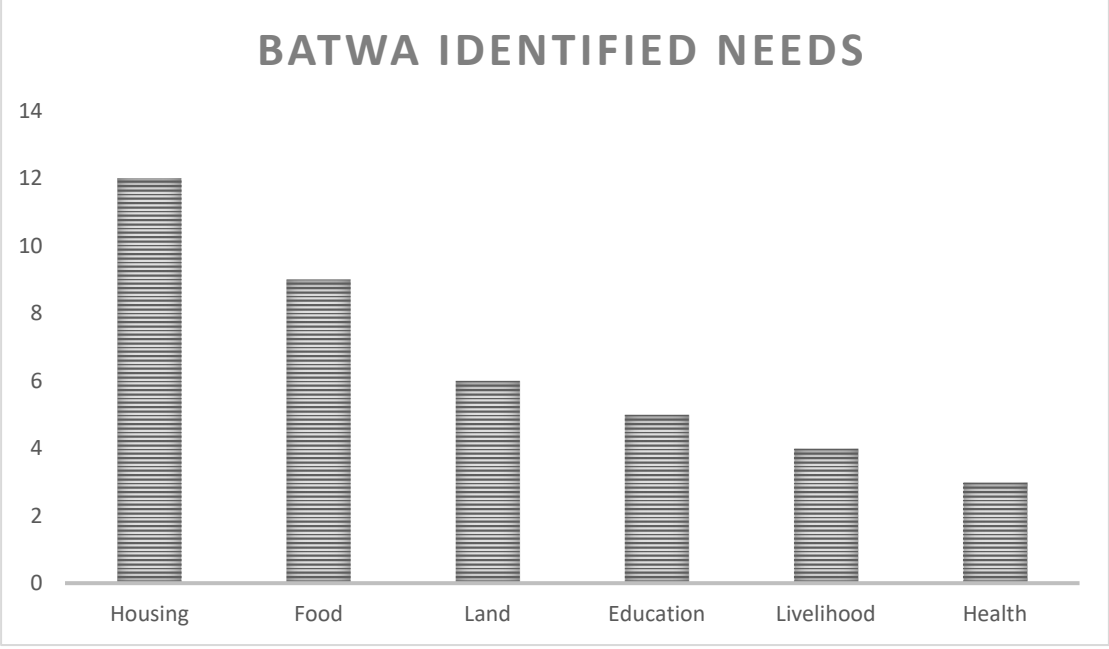
Mental maps complemented interviews; thus, content analysis took place alongside interview and participant observation data, informing access to services experienced by Batwa. This addition of visual-spatial narratives aids in identifying challenges as experienced by Batwa using a geographic lens. I coded maps based on participant type: K1, K2, K3, K4, K5, assigned to key informant maps, totaling five and B1, B2, B3, B4, B5, B6, and B7 assigned to Batwa maps, totaling seven. I scanned maps onto a desktop computer, which converted them into a PDF file. Mental maps were then saved, individually, as a PNG picture file to maintain visual integrity. All full-page versions of these maps are in Appendix G of this document.

CHAPTER IV

RESULTS

This section begins part one by providing a content analysis of the six high priority needs identified by ten Batwa participants residing in Ishunga, Makanga and Murambo settlements (Figure 9) and five key informants (Figure 10), utilizing qualitative data collected from participant observations, interviews, and mental maps. Figure 11 below depicts the hierarchy of these identified needs, listed in order of highest frequency. Given the fine scale of this study, any interpretations of data should not be generalized across all Batwa populations. Acknowledging that the fifteen participants constitute a small sample size, and the qualitative nature of this study, the following analysis is presented descriptively.

Figure 11: Batwa Identified Needs Hierarchy



Part I: Contextualizing Batwa's Needs

Housing

As seen in Figure 11, housing is the utmost need, identified by all Batwa interview participants. Observed homes in Batwa settlements are of temporary grass huts (Figure 12), semi-permanent structures (constructed from sticks, mud, and manure) with grass-thatched roofs (Figure 13), and semi-permanent structures with iron roofs (Figure 14). Collectively, these unimproved homes are small and crowded (Figure 15), with four to five Batwa sharing one small room to sleep, exposed to the elements, with grass mats posing as the only barrier separating the raw earth and their bodies. The lack of permanent walls or floors in all Batwa homes across the three settlements contributes to increased environmental exposure, leading to multidimensional vulnerabilities, the most prevalent being poor health. Previous projects that have provided Batwa with adequate housing (such as Batwa Development Program, based in Kisoro) have also improved health, water, sanitation, food security, self-esteem, and higher school attendance rates. However, these projects have not reached the settlements along Lake Bunyonyi, where I conducted my research.

Figure 12: Batwa Grass Thatched Hut

Figure 13: Batwa House with Grass-thatched Roof

Figure 14: Batwa Semi-Permanent House with Iron Roof

Figure 15: Batwa Crowded Living Conditions

Food (in)Security

Of the ten Batwa interviewed, eight stated that they were food insecure (consuming less than two meals per day), identifying it as a prevailing need during interviews. Many Batwa interview participants identified lack of land as the prevailing cause of food insecurity, while other reasons included no seed, no tools, and insufficient income. Though most Batwa do not own land to cultivate (all Batwa interviewed in this survey reported no land ownership), many are involved in farming either through day labor for neighbors (payment in the form of food from the harvest is typical) or by planting on small tracts of land for self-subsistence (e.g., household and community gardens) within their respective settlements. Cultivated crops among Batwa across the three settlements I visited are like their farming neighbors (Bakiga) and included Irish potatoes, sweet potatoes, sorghum, bananas, peas, and climbing beans (Figure 16). In one conversation during a field visit, a Batwa councilman stated that coffee, groundnuts, and beans generate the most income, though only one (beans) was being grown in the settlement due to lack of land and supplies. Countless factors contribute to Batwa's food insecurity, including climate conditions, lack of land, limited livelihood opportunities, and poverty.

Figure 16: Batwa Agriculture

Land(less)

Land symbolizes the "most emotive, culturally sensitive, politically volatile, and economically central issue in Uganda" (NLP, 2013). Given the emblematic importance of land for Batwa, this often became a focus in conversations. During interviews, all ten Batwa participants reported no land ownership; instead, they noted that inhabited lands belong to the State government of Uganda or NGOs. In the few instances where NGOs, such as the African International Christian Ministry(AICM), have purchased small land tracts for Batwa, organizations maintain ownership. In any case, Batwa participants did not identify the land as theirs, some expressing fears regarding possible eviction from the land they inhabit but do not own. Furthermore, Batwa repeatedly

made connections to land and the ability it has to address other prevailing needs, explicitly conveying interest to cultivate land for self-subsistence and broadening income generating activities, which Batwa indicated would go towards house construction, medicine, or livestock. Accordingly, land is a high priority and pressing need for Batwa, seen as key to alleviating their impoverished realities.

Education

While Ugandans value education, Batwa illiteracy rates remain high, and school enrollment rates low due to discrimination, distance, and limited resources. During interviews, all key informants identified education as Batwa's most prevailing need, while no Batwa listed this as a need. Though two Batwa settlements have access to a (poorly structured and inadequately funded) primary school, none of the settlements have access to a secondary or tertiary (college) level of education. Many Batwa children do not attend school due to chronic poverty, a lack of access, marginalization, and parents not being sensitized to the value of education as an essential step forward to rise out of poverty. To date, only a handful of Batwa has received a tertiary degree, one of which I had the pleasure of spending a few days with during a visit to the BDP in the neighboring district of Kisoro.

Health

During interviews, key informants identified health care as a high priority need for Batwa, while none of Batwa listed this directly as a need. When asked

about health care practices, all Batwa mentioned the use of home remedies, including herbal medicine and healers, as their primary source of care. As mentioned above, the most common health issue among Batwa in this region is malaria due to high exposure of environmental elements from lack of adequate housing, clothing, and mosquito nets. During my visit, I encountered two Batwa with malaria who could not afford treatment due to extreme poverty. An older woman at the Makanga settlement was too weak for travel, with the nearest hospital nearly 4 km away.

Livelihood

As seen below in Figure 17, Batwa rely on casual day labor as a primary source of livelihood (income generation) and survival, accounting for a majority of Batwa participants surveyed. Many of these jobs are low paying (most working an entire day for a small amount of food) and low-skilled, requiring intensive labor such as stone-breaking, digging, harvesting crops, or carrying heavy loads for farmers to markets. The second highest reported form of livelihood came from selling of crafts (Figure 18) and baskets to visitors of their settlement, followed by entertaining through cultural song and dance, primarily for tourists, and lastly, farming. Factors such as discrimination, illiteracy, extreme poverty, and lack of education inhibit Batwa's ability to access decent-paying jobs in society. During interviews, Batwa expressed interest in agriculture, fishponds, beekeeping, and trades training such as carpentry, tailoring, and craft-making to increase livelihood opportunities.

Figure 17: Batwa Skills and Livelihood Activities

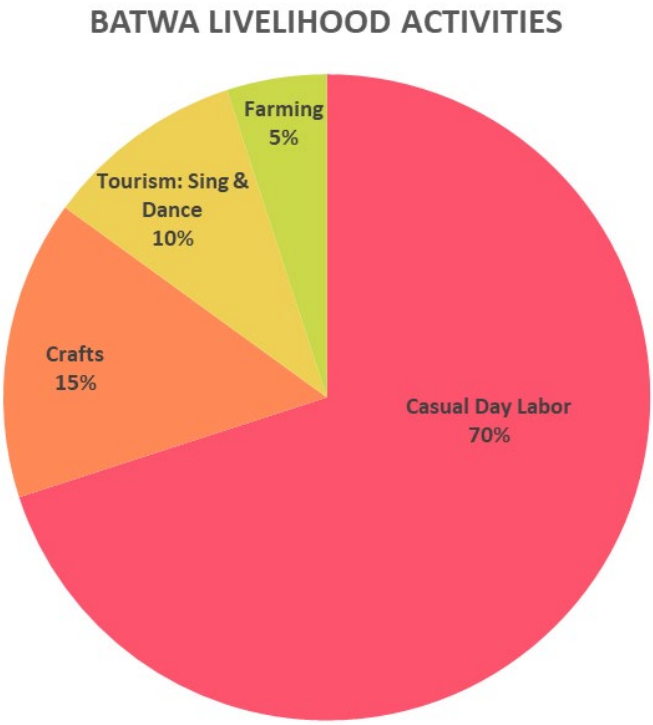


Figure 18: Batwa Crafts

Part II: Contextualizing Settlement Access to Services

During my research, I found that each settlement experienced access differently. Thus, part two of the findings serve to provide context to understand Batwa's access to services – or lack thereof. I present this data by providing a tabular overview of each settlement I visited, followed by a brief narrative describing settlement specific challenges to access.

Ishunga Batwa Settlement Overview

Figure 19: Ishunga Settlement Services

Service	***Name***
Housing	Temporary grass huts, Semi-permanent with grass thatched roofs and Semi-permanent with iron roofs
Education	~~Ishunga Primary School~~, None
Health	Nyamiryango Health Center II
Market	Kyevu Market
Water	Lake, Rain
Transport	Water, Road
Electricity	None, Fire

Located on a steep hillside terrace in the village of Kyevu, Ishunga settlement has 50 Batwa in 12 families, with an average household size of 4.2. Out of the three settlements visited, this one had the best access to services in terms of proximity. Though, I must note, since my visit in November 2019, Ishunga Primary School (Figure 20) has collapsed due to a mixture of heavy rains and winds. Children in this settlement have no alternatives for education

within walking distance (<5km).[4] Additionally, there is no access to secondary or tertiary (college) levels of education from this settlement. While Batwa seemingly have access to a health center located adjacent to their settlement in Kyevu and the Kyevu Market (Figure 21), they cannot afford the medications prescribed for treatment. In terms of access to potable water, an NGO funded a rainwater catchment tank that has since burst and no longer holds water (Figure 22). Thus, water is accessed directly from the lake and collected rainfall. While this settlement has access to an unimproved dirt road, due to lack of transportation options (Boda Bodas and bicycles)[5], there are no services Batwa of this settlement can access on this road within walking distance. Canoes and boats for transportation near the lake are scarce, with none belonging to Batwa, and with minimal income, many are bound to the confines of their settlement and surrounding Kyevu area. Thus, Batwa in this settlement describe lack of access to transportation options, particularly the shortage of boats, and poverty, as their most significant challenges to accessing services.

[4] The Uganda Bureau of Statistics uses under 5 km as a measure of accessibility in household surveys; thus, any mention of walking distance refers to being located within 5 km.

[5] *Boda Bodas* are motorized bikes, commonly used as a form of transportation throughout Uganda.

Figure 20: Children in Ishunga Primary School, Prior to Collapse

Figure 21: Kyevu Market

Figure 22: Ishunga Settlement Broken Water Tank

Makanga Batwa Settlement Overview

Figure 23: Makanga Settlement Services

Service	***Name***
Housing	Semi-permanent with iron roofs
Education	Kagoma Primary School
Health	Kashasha Health Center II, Nyamiryango Health Center II
Market	Kashasha Market, Kyevu Market
Water	River, Rain
Transport	Road, Water
Electricity	None, Fire

The Makanga settlement is the farthest from the lake's edge, with its nearest access being Kyevu (approximately 4 km away). A total of 43 Batwa in

10 families, reside in this settlement, with an average household size of 4.3. Though it is located near the road, Makanga is quite challenging to reach due to unimproved dirt roads, which tend to get washed out during heavy rains. According to Batwa and key informants, this area is unsupported by the government, making it difficult to access services. Batwa do not have a health center, market, or school adjacent to this settlement, but they are within walking distance (<5 km). Their distance to services from the settlement is as follows; Kagoma Primary School (1.1 km), Kashasha Health Center II (3.1 km), Nyamiryango Health Center II (3.7 km), Kyevu Market (3.8 km), and Kashasha Market (3.9 km). I must also note that the hike to and from Kyevu is quite strenuous, along narrow footpaths and steep terrain, making it extremely difficult to access during poor weather, health, or if carrying supplies to/from the market. Like the other two settlements visited, access to a secondary or tertiary level of education is nonexistent within walking distance. As Makanga does not directly access the lake, water is accessed from a nearby river and collected from rainfall. When asked what their most significant challenges to accessing services were, Batwa in this settlement identified distance, lack of transportation options (bicycles, Boda Bodas, boats), and poverty. An asset of Batwa utilized quite often in the Makanga settlement is their community hub (Figure 24), which serves as a haven from heavy rains and a gathering place.

Figure 24: Makanga Community Hub

Murambo Settlement Overview

Figure 25: Murambo Settlement Services

Service	***Name***
Housing	Semi-permanent structures with iron roofs
Education	Rutojo Primary School
Health	None
Market	None
Water	Lake, Rain
Transport	Water
Electricity	None, Fire

Located directly on the lake's edge (Figure 26), the Murambo settlement consists of 58 Batwa in 12 families, with an average household size of 4.8. By far the most remote of the three settlements, Murambo does not have access to a health center or market within walking distance. While there is a primary school nearby, access to secondary and tertiary (college) levels of education for this settlement, like the others visited, is non-existent. With its proximity to the lake (Figure 26), this is the primary source of water used for drinking and cultivating plants, with additional water collected from the rain using saucepans and jerrycans. Murambo sits on a larger plot of land and is farther from markets, necessitating self-sustenance within the settlement. As such, small individual gardens are more prevalent in this settlement than the others. Access to canoes and boats is scarce at best, binding Batwa to the confines of their settlement and surrounding areas reached only by foot. Further complicating matters, the rural location makes day labor challenging to find, exacerbating poverty. During interviews, Batwa in this settlement described discrimination (from the government and their neighbors), limited transportation options, and lack of livelihood opportunities as their most significant challenges to accessing services.

Figure 26: View of Lake Bunyonyi from Murambo Settlement

Summary

The data presented here represents challenges faced by Batwa in Ishunga, Makanga, and Murambo settlements. Results indicate that Batwa continue to face discrimination, impeding access to public services (food, water, housing, transportation, electricity, health, education), social integration, and livelihood opportunities. Furthermore, a lack of land tenure and income-generating activities prohibit Batwa from meeting basic needs, provoking dependence on external support, from neighboring farmers and humanitarian organizations, whilst reinforcing conditions for a chronic cycle of poverty. Therefore, to become self-sustaining, land ownership and income generation through livelihood reconstruction should be considered a top priority.

CHAPTER V

DISCUSSION AND RECOMMENDATIONS

A Reflection of the Research Process

Succeeding fieldwork in late November 2019, the global spread of COVID-19 introduced a variety of new challenges and uncertainties. As such, this research signifies a snapshot in time, and Batwa's priorities may have since shifted. On this note, I undertook this research to focus on the human impacts of conservation-induced displacement with a scope on unmet community needs. Interviews with Batwa and key informants focused on identifying Batwa's needs and their challenges accessing services. Before conducting interviews, I spent a few days visiting five Batwa settlements in the Kisoro District, neighboring Bwindi Impenetrable National Park. All five settlements visited were actively involved in various community development projects through the Batwa Development Program (BDP), which the Kellerman Foundation established. In essence, the BDP supports Batwa for health services, home building, education (at all levels), literacy classes, and various livelihood opportunities. This exclusive partnership afforded me the invaluable opportunity to engage with Batwa as a friend of Turyamureeba Jovahn, the director of BDP, rather than as a researcher.

During these visits, Mr. Jovahn graciously introduced me to Batwa as a friend and (patiently) facilitated open discussions. I am grateful to have met one of the few living elders who had spent much of his life in the forests of

BINP. I listened to him gleefully recollect folktales of how their god explicitly created the forests as a gift for Batwa and how he would spend his days navigating the forests, tracking small game, and fending off trespassers. Ironically, he noted that rangers who evicted him from the forests would enlist his help to retrieve medicinal plants, honey, and meat from these same lands, while also utilizing his expertise to help track mountain gorillas and even poachers. Other conversations revealed limitations I had yet to consider, such as lack of light for cooking tasks, tending to livestock, farming, making crafts, and for children to complete homework, pausing all productivity with sunset.

Furthermore, I was welcomed into a handful of homes, varying drastically in conditions from temporary (grass-thatched huts) one-room dwellings to permanent (brick and concrete made from locally sourced materials with iron roofs). These home visits allowed me to observe Batwa's varied living conditions and daily challenges, which interviews alone would not have afforded. I also observed Batwa's skillful basket weaving, meticulous wood carving, and lively yet ground rattling cultural stomp dance. Collectively, these varied experiences and conversations contributed vital insights to Batwa's lived experiences. As Smith warned (2012), following introductions as a researcher while at the lake settlements, interactions with Batwa took a noticeable shift from enthusiastic to apprehensive, as if I bore a sign with the phrase "proceed with caution" stamped across *and* **bolded**.

Despite my efforts to engage Batwa in detailed conversations during interviews conducted in Ishunga, Makanga, and Murambo settlements at the

lake, this level of engagement did not equate to reality. Instead, conversations were disjointed, at no time reaching a point of saturation, characterized by the absence of new information or insights (Hay, 2016). During my two weeks in the field, it was apparent that research fatigue has set upon this population. Simply put, Batwa participants seemed to be tired of being researched, and it showed through their lack of engagement throughout the research process. Interview questions resulted in a brief, straight to the point, and seemingly uniform responses from Batwa. While I did have some luck using probing questions to ignite conversations slightly beyond the surface level, the overall lack of in-depth answers remained constant. Though I must say, Batwa participants were somewhat more engaged when I asked about livelihood ideals and when discussing land.

For example, when I asked Batwa, "How do you earn money?" their static responses led me to follow up with, "How would you like to earn money?" At first, it threw some of Batwa off (mainly the females). It caused several nervous giggles and lengthy pauses while they took the time to think. It was apparent that this type of question is uncommon. Answers ranged from beekeeping (a traditional practice for Batwa), aquaculture (fishponds), culture tours, advancing craft-making skills, and an eagerness to learn new trades. Responses to many of the questions prior were almost repetitive. It felt as if Batwa participants were going through the motions with yet another researcher or organization looking to "help," anticipating no tangible results in return. Thus,

I was thrilled when this question sparked a genuine interest, with varying answers from Batwa participants.

This labored process may have been due to the overall bad weather during my visit (cool and constant heavy rains), causing several Batwa from each settlement to get sick, placing additional stressors on each community. It may also be due to insufficient time in the field building a sense of trust among Batwa and myself. If I could do it again, I would have refrained from using any form of structure (be it structured/semi-structured interviews or a recording device) to collect data, as I feel this may also have been a cause for some of the closed-off responses. As Batwa are extremely community oriented, I would utilize open group discussions as a primary method for data collection in the future. This initial inclusion of group discussions would have allowed for more voices to be accounted for while putting Batwa at ease, affording more opportunities for in-depth responses. Luckily, for this study, I applied two other methods, which for the most part, led to productive insights (mental maps) and organic interactions (participant observations), both of which I drew heavily upon during content analysis.

A Fight for Survival

Interestingly, the needs identified by Batwa, and key informants were conflicting. For the most part, I found that Batwa's identified needs revolved around immediate relief, whereas key informants aimed toward future trajectories. As evidenced in the content clouds, Batwa identified unresolved

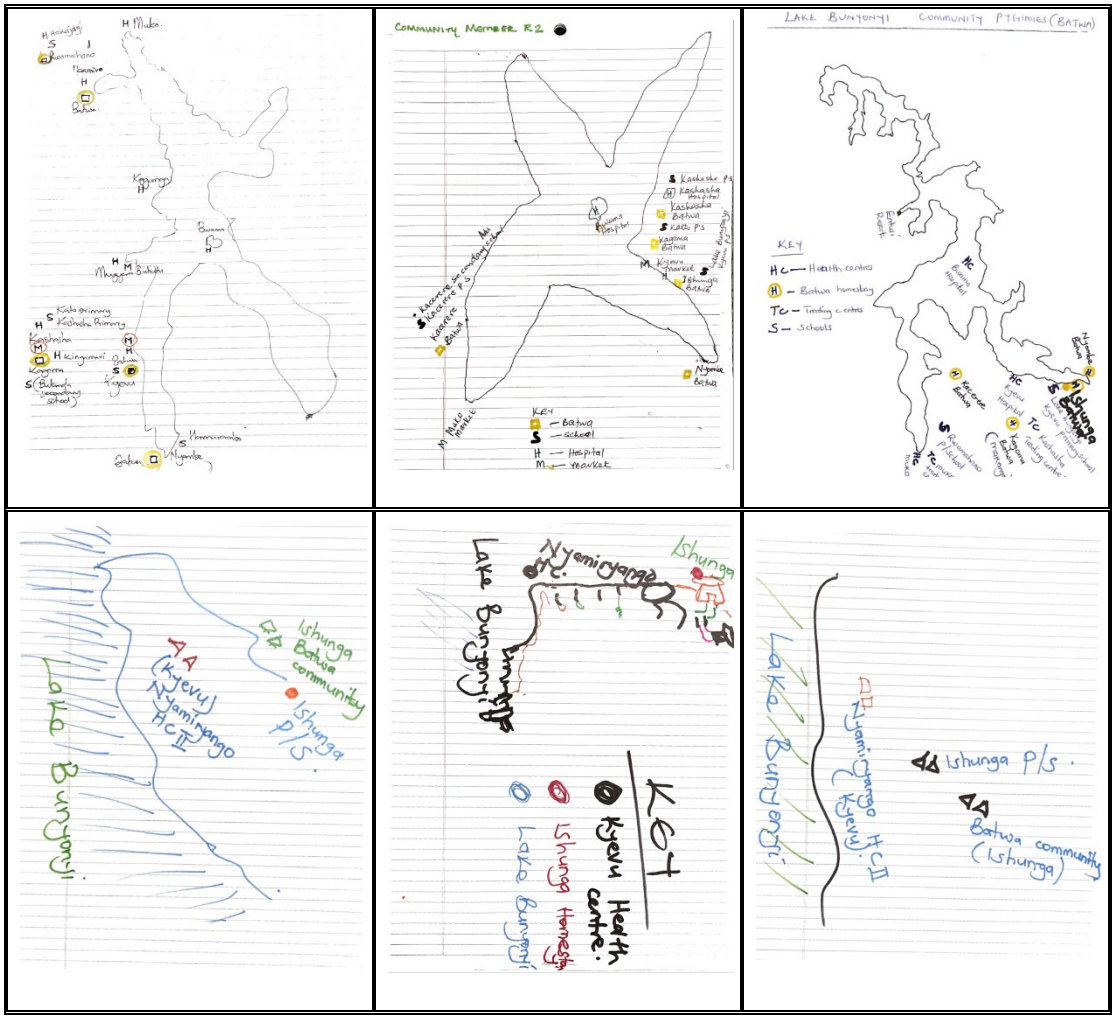
basic emergency needs, typically met with humanitarian aid, such as housing, food, clothing, and land allocation. Whereas key informants identified health, education, and livelihoods, all of which take an extended time to gain any form of tangible benefit. Batwa's responses attest that most are landless, living each day reliant on casual labor from their neighbors to secure food. In cases where Batwa have been granted land, the reality stands that it is held in a trust, providing no title or permanent claim to these lands vested to them. This insecure land tenure has made Batwa hesitant to invest time or the little money they do generate to cultivate these lands. Furthermore, interviews revealed that Batwa's lack of land tenure is often used as an intimidation tactic by neighboring farmers who constantly remind them land can be taken away by the government, ingraining a vulnerability amongst Batwa. Batwa are then exploited by these same neighbors, using them as a cheap source of labor, modeling a form of modern-day indentured servitude. As it stands, Batwa struggle to meet daily basic needs, causing a "fight-or-flight" response in their literal fight for survival.

The View from the Lake

During the mental mapping activity, Batwa consistently returned to the problems they faced with access to transportation and lack of livelihood options, exacerbating poverty. Similarly, when I spoke with key informants and local NGOs, they repeatedly expressed access and poverty as a hindrance preventing Batwa's social integration in Ugandan society, and impeding

participation in formal education. Conversations with both participant groups made it quite clear: the presence of a service in the vicinity of the settlement did *not* translate to access due to ongoing discrimination and high levels of impoverishment faced by Batwa across all three settlements. As my research progressed, I focused more intently on accessibility and how access is experienced by Batwa and perceived by outsiders, in this case, local key informants. Above all else, mental maps (Figure 27) revealed drastically differing spatial realities between Batwa (bottom), and key informants (top).

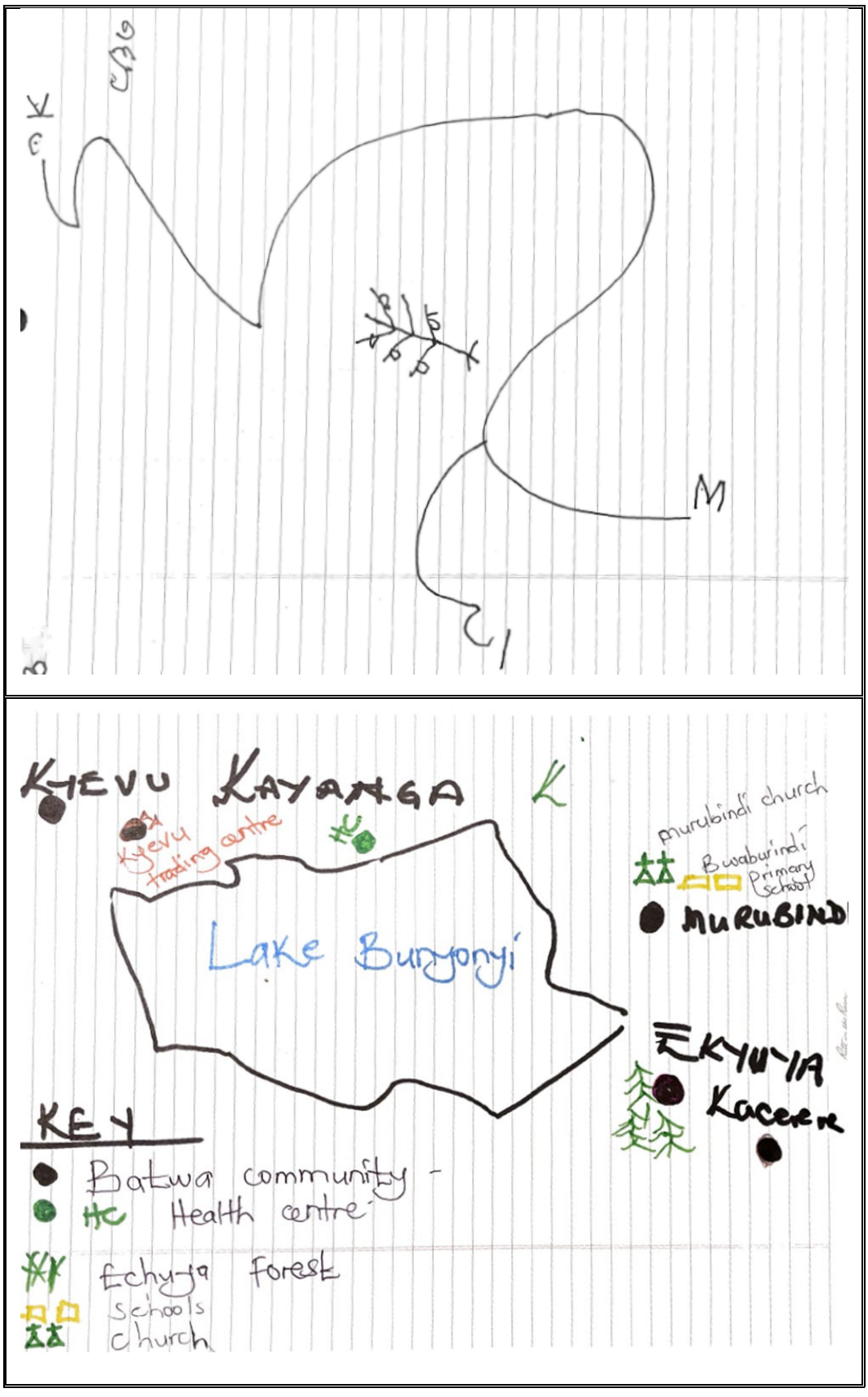
Figure 27: Mental Map Comparison



As noted above, spatial conceptions of access as portrayed in mental maps created by Batwa varied significantly from those of key informants. Regarding scale, all but one key informant drew their perception of Batwa's access at the lake level, positioning it at the center of their maps and identifying services at various locations reaching far beyond Batwa Settlements. On the other hand, Batwa maps reflected a much more refined sense of access, most of which were limited to areas adjacent to their respective settlements (aside from Batwa in Makanga, which I will discuss later). Furthermore, the lake itself seemed to pose a barrier for Batwa, severing their physical access to the outside world. Whereas for key informants, the lake seemed to serve as a pathway connecting Batwa to a plethora of services. These findings graphically confirm the isolation experienced by Batwa, which in turn has limited their access to the surrounding environment and shaped their narrowed view of places accessible to them.

As illustrated in Figure 28, the range of access varied from one settlement to another. While Batwa in Murambo and Ishunga settlements defined their access near their respective settlements, Batwa in Makanga settlement expanded their horizon to include Kyevu (adjacent to the Ishunga Batwa settlement), Echuya and even Kabale. One map (Figure 28), drawn by a Batwa participant in Makanga settlement, went as far as symbolizing the nearest town of Kabale on their map as a far-off place, using lines to symbolize a road as the connection, foregoing drawing the lake on the map altogether.

Figure 28: Makanga Settlement Mental Maps



Another interesting observation emerged regarding the significance of land in one Batwa's spatial narrative (Figure 29), with bold black lines portraying the distinct barriers experienced in terms of access to lands adjacent to Ishunga settlement. This can be seen depicted from the lake's edge to the clear boundaries drawn around each plot of land, seemingly isolating Batwa from the vicinity. These restrictions to access are a stark contrast from those outlined by key informants, adding a fresh perspective on how access is experienced by Batwa in this settlement. Overall, mental maps varied among participants groups in terms of scale, range, and perceived access, displaying differences in spatial interactions and daily lived experiences.

Figure 29: Mental Map Land Plots

Recommendation #1: Land-Based Livelihood Reconstruction

The findings of this study resonate with scholarly notions concerning the adverse impacts on local populations following displacement. Pivotal to such understandings is the Impoverishment Risk and Reconstruction Model (IRR Model) developed by social scientist Michael Cernea, derived from extensive data over two decades of displacement and resettlement research (Cernea, 1997, 2000). The IRR Model calls attention to the inadvertent consequences of displacement and forced resettlement, serving both as a predictive and reconstruction tool to guide planning and resolutions. Per this framework, the eight identified risks of displacement are multifaceted including, 1. landlessness, 2. joblessness, 3. homelessness, 4. marginalization, 5. food insecurity, 6. increased morbidity and mortality, 7. loss of access to common property and services, and lastly 8. social disarticulation (Cernea, 2000).

The impacts of displacement are felt robustly by IDPs, more so by populations reliant on natural resources derived from the lands they once inhabited for survival and livelihood. Empirical data has shown that populations displaced by PAs are disproportionately affected by impoverishment as they must leave their livelihood and land behind, finding it extraordinarily difficult to access new economic opportunities (Cernea and Schmidt-Soltau, 2003). Principally, in the face of conservation-induced displacements, "Research holds that the creation of national parks without an

equitable and sustainable livelihood alternative to the expelled local population – results in a lose-lose situation" (Cernea and Schmidt-Soltau, 2003, p. 24).

For the socioeconomic reestablishment of displaced communities, the IRR model is meant to be “turned on its head” (Figure 30) and used as a simplistic guide to community reconstruction by way of targeted risk-reversal (Cernea, 2000). As a conceptual framework, the IRR Model provides a prescription for action that pushes beyond immediate humanitarian relief mechanisms focusing on the reconstruction of communities, emphasizing self-reliance. Though I must note, this model does not provide a specific toolkit delineating these processes, as solutions are meant to be localized.

Figure 30: A Conceptual Framework for Resettlement

The Reversed Impoverishment Risks and Reconstruction (RIRR)
From *landlessness* to land-based resettlement
From *joblessness* to livelihood reconstruction
From *homelessness* to house reconstruction
From *marginalization* to social inclusion
From *increased morbidity* to improved health care
From *food insecurity* to adequate nutrition
From *loss of access* to restoration of community assets and services
From *social disarticulation* to networks and community rebuilding

A one-size-fits-all approach does not exist for development initiatives, especially in vulnerable communities. Each community encompasses its unique challenges, priorities, and assets. Disadvantaged communities, especially, are

multi-faceted, and addressing one element of the community's struggle does not tackle the deeper community concerns. Thus, planning for and mitigating these risks must occur at the local level, collaboratively, and based on community-identified priorities and needs. This model serves as a metaphorical roadmap to mitigate outstanding needs, applying settlement level particulars to inform the rebuilding process.

I recommend beginning the community rebuilding process with land-based livelihood reconstruction to empower Batwa and ensure the long-term feasibility of future development initiatives. In agrarian societies, dominant in Uganda, land ownership offers the means for achieving self-sufficiency and is a critical determinant of economic well-being (NLP, 2013). Evidenced in Uganda's progressive refugee policies, allocation of land is shown to "empower refugees and nationals in the area to the extent that they will be able to support themselves."(Government of Uganda and UNHCR, 2004). At a minimum, land should be fertile and of significant size to produce crops, accommodate livestock, and build adequate housing to meet the community's needs. Providing land will not achieve self-reliance alone. Rather, land should be accompanied by diversified livelihood strategies such as agriculture, livestock rearing, beekeeping, and specialized crafts, to build resilience and safeguard income-generation amid unforeseen circumstances. As Batwa settlements are in rural areas with limited access, I propose that initial livelihood strategies be

centered around acquired lands, ensuring basic needs are met, hastening self-sufficiency.

Recommendation #2: Redress Utilizing an IDP Rights-Based Approach

Past researchers have investigated the extensive violations of land and human rights suffered by Batwa as an indigenous people and minority group with fruitless outcomes in terms of legal redress (Kenrick, 2000; Lewis, 2000; Zaninka, 2001; Kidd, 2008; Dowie, 2009; Nakayi, 2009; Mukasa 2012, 2014). As an alternative approach, I seek to illuminate Batwa rights through the relevant lens of IDPs.[6] I undertake this review of policies in efforts to bridge the evident gaps in service delivery, calling attention to Uganda's legal obligation to meet Batwa's identified needs: food, housing, land, health care, education, and livelihood. This section broadens Batwa's scope of protection, which I recommend as a complementary approach to land-based livelihood reconstruction rather than a standalone solution.

To preface, as a former British protectorate, Uganda inherited the dual English legal system, consisting of primary (statutory law) and secondary (common law, customary law) sources of law. The supreme law in Uganda is that of the Constitution of Uganda 1995 (hereafter "the Constitution"). In other

[6] Uganda's National Policy for Internally Displaced Persons legally defines an IDP as: "Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border." (2004) [emphasis added]

words, no form of legislation (domestic or international) can conflict with the Constitution. Within this context, a rights-based approach complementary to Uganda's supreme law is imperative. Therefore, each legal agreement analyzed is alongside the Constitution. In efforts to support practical application, only legally binding agreements are included.

Against this background, the Guiding Principles on Internal Displacement of 1998 (hereafter "Guiding Principles") marked the first international instrument to outline the rights, protections, and assistance of IDPs throughout all phases of displacement (Dieng, 2017). Drawn directly from principles reflected in international human rights laws and international humanitarian laws, the Guiding Principles is commonly a provision for international donors' funding (Dieng, 2017). With origins stemming from human rights laws, the Guiding Principles guarantee all IDPs the right to an adequate standard of living, outlined as food, water, sanitation, housing, clothing, education, and health (1998). This framework continues to serve as a universal guide for IDP legislation formation at a global scale.

Building upon the Guiding Principles, Uganda positioned itself at the forefront of IDP rights by being the third country in the world to launch a national policy on IDPs in 2004. The National Policy for Internally Displaced Persons 2004 (hereafter "IDP Policy") guarantees to take the lead of resettlement, (re)integration, and re-integration of all IDPs. While it guarantees protections regarding arbitrary displacement, the criteria are consistent with

that of the Constitution, inserting, "Large-scale development projects which are not justified by compelling and overriding public interest" (IDP Policy 2004). The IDP policy places the responsibility of implementation and funding initiatives directly in the hands of local governments, which is questionable given these very political powers are often the authorized personnel carrying out evictions from PAs. Furthermore, policies whose enforcement depends principally on local government's capacity and political will are relatively weak (Cernea and Soltau-Schmidt, 2006; Santner, 2013). In this context, they often lack the capacity, funding, and staff to fulfill the ever-growing demands needed to uphold the provisions in this policy (Santner, 2013)

The Pact on Security, Stability, and Development for the Great Lakes Region (hereafter "the Pact") of 2006, represents the legal agreement between twelve member states in the Great Lakes Region of Africa promoting peace, security, stability, and development (the Pact, 2006). The Pact is the first multilateral instrument to commit member states to adopt and implement the Guiding Principles as a legal framework for protecting IDPs' rights. Article 12 in the IDP Protocol obligates Uganda to "provide special protection and assistance to internally displaced persons and particularly adopt and implement the Guiding Principles on Internal Displacement as proposed by the United Nations Secretariat" (IDP Protocol, 2006). Thereby it domesticated the Guiding Principles as a legal framework for Uganda.

Following the Pact's lead in 2009, the African Union Convention for the protection and the Assistance to Internally Displaced Persons 2009 (hereafter "Kampala Convention") became one of the world's first legally binding instruments at the regional level. This Convention comprehensively addresses all internal displacement causes, including natural disasters, armed conflicts, development-induced, and arbitrary displacement (Dieng, 2017). The Convention imposes obligations on States to ensure durable solutions for IDPs through a sustainable return, local integration, or relocation by guiding development and recovery programs towards rehabilitating and reconstructing social and economic infrastructures (Dieng, 2017). According to Dieng, the Convention "...treats IDPs as subjects of rights rather than victims of circumstance, while at the same time spelling out the obligations of States as primary duty bearers..." (2017). Regrettably, following the lead of the IDP Policy's ineffective implementation, the Kampala Convention has yet to be "systematically and comprehensively translated into practice" anywhere in Africa, over a decade later (Hovil, 2018).

The fundamental rights and freedoms guaranteed to the citizens of Uganda are in Chapter Four of the Constitution; however, these rights are "inherent not granted by the State" (Article 20, 1995). Thus, it is the responsibility of each individual and government agency in Uganda to uphold these rights. In the case of infringement, Article 50(4) requires a law passed by the parliament to administer enforcement (The Constitution, 1995). Recently, the Human Rights

Enforcement Act 2019 (hereafter 'The Act') gave effect to Article 50(4) in the Constitution, providing for the legal structure and procedures mandatory to levy action against human rights violations in Uganda. The Act provides for the redress of rights and freedoms to be filed through Magistrate Courts, High Court, Court of Appeal, or Supreme Court, with an option to appeal court decisions as outlined in Part III, Section 16 (2019). Radically, The Act places liability for infringement of rights and freedoms directly on offenders with no immunity option if found liable (The Act, 2019).

Regarding the statute of limitations, the Uganda Human Rights Commission Act 1997 states, "No complaint shall be brought before the commission after the expiration of five years from the date on which the alleged violation of a human right to which the complaint relates occurred." This makes extended redress through the Uganda Human Rights Commission (established through the Constitution) non-permissible. According to The Act, Part III, Section 19(1), human rights violations should be challenged within ten years of occurrence. However, subsection (2) offers the possibility of a fair hearing if the victim was unable to bring such action before the court "for any justifiable reason" before the expiration of the allotted timeframe (2019). This provision shines a light on a rare, though reasonable prospect to apply for redress through the courts, despite displacement occurring decades earlier. As per Article 50(1) in the Constitution, any citizen of Uganda whose rights or

freedoms are in question has the freedom to apply "to rights and competent court for redress which may include compensation" (1995).

The above legal agreements collectively widen the scope of protection for Batwa as IDPs, while providing a solid foundation for building a legal case in Uganda. After many documented cases of inadequate restitution from the Government of Uganda, it remains clear that legal redress will be required to see any form of reparations from the outlined IDP protections, which could also lead to land provisions for Batwa. Much work remains to occur on advancing the implementation of these legal agreements and requires a collaborative effort in doing so. I recommend legal redress as a complementary approach to land-based livelihood reconstruction. Figure 31 below provides an overview of my findings outlining each legal agreement analyzed, year implemented, type of law in Uganda, and most useful, the structure and location of each topic (food, housing, land, health, education, and livelihood) within each legal document (e.g., protections relating to food in IDP Policy can be in chapter 3).

Figure 31: Guide of IDP Policies in Uganda

Scope: BATWA NEEDS	Legal Document:	The Constitution	Guiding Principles	IDP Policy	The "Pact"	Kampala Convention
	Law Type:	Statuary Law	Legal Instrument	Common Law	Common Law	Common Law
Year		1995	1998	2004	2006	2009
Structure		Article	Principle	Chapter	Protocol	Article
Food		XIV, V, VII, XXII	18	3	4 in *IDP Protocol*	9, 11
Housing		XIV	18	3	4 in *IDP Protocol*	9, 11
Land		26	21, 29	3	3 in *IDP* & 4, 5, 8 in *Property Protocols*	4, 9, 11
Health		XIV, XX	18, 19	3	4 in *IDP Protocol*	9, 11
Education		XIV, XVIII, 30, 34	23	3	4 in *IDP Protocol*	9, 11
Livelihood		XIV	22	3	7 in *Property Protocol*	3, 11

Legal documents analyzed: The Constitution of the Republic of Uganda (Uganda Constitution), The Guiding Principles on Internal Displacement (Guiding Principles), The National Policy for Internally Displaced Persons (IDP Policy), The Great Lakes Protocol on Internally Displaced Persons (The Pact), and The African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa (Kampala Convention).

CHAPTER VI

CONCLUSION

Hunter-gather societies' burden of displacement is immensely felt given their dependency on access to place-based resources, making them more susceptible to indigence than their farming neighbors (Kenrick, 2000). As Cernea and Schmidt-Soltau stress, "without land to hunt, gather, or cultivate, the displaced indigenous groups become—as indeed we will see later—destitute and poorer than they were before." (2006). Nevertheless, the reality for these populations displaced from PAs is the abrupt dispossession of land without prior consultation, compensation, or resettlement assistance (Cernea, 2006). As emphasized throughout this thesis, indigenous communities are often the most drastically affected by conservation projects due to their spatial extent and character, initiating forced relocation to rural environments with limited resources to rebuild livelihoods. This inequitable power dynamic almost always leads to prolonged poverty and marginalization. As such, I contend that establishing a protected area is a political act, regardless of the undertaking or justification; this is perhaps never more accurate than in the case of Batwa, as exclusionary policies planted the seeds for their displacement. This notion of unequal power relations ties directly into the ideas that are central to political ecology. Power provides the leverage necessary to drive action and can result in alternative approaches. As a starting point, the reevaluation of exclusionary policies and procedures proven to impoverish populations needs to occur.

This research offers an analysis of the linkages between conservation-induced displacement and impoverishment risks. Through this study, I investigated the implications of coercive and repressive policies leading to the displacement of human communities from PAs. The findings reveal a wide range of socio-economic needs that were never adequately addressed following the dispossession of lands, thus transforming Batwa's unmet immediate needs into their impoverished realities. For Batwa, the loss of access to their ancestral forest lands has led to a lack of livelihood opportunities, reinforcing poverty, in turn, affecting the ability to meet some of their most basic survival needs. Moreover, displacement has diminished Batwa's social standing, as their impoverishment places them in an inferior position among their neighbors. Batwa communities' social deprivation and discrimination have led to isolation, unequal access to services, high levels of illiteracy, poor local integration, and in many cases, indentured servitude.

Livelihoods are critical as they shape a community's ability to manage poverty and become self-sustaining. As next steps to address some of the challenges faced by Batwa, I recommend a two-fold solution: land-based livelihood reconstruction (e.g., collaborative community-led initiatives) and policy enforcement to redress past injustices while helping to alleviate the needs faced by Batwa populations in Uganda. During this process, I cannot stress enough the importance of collaboration, proving pivotal to the long-term feasibility of community development efforts. While this study provided

insights on some of the adverse human impacts of conservation-induced displacement, there are still significant gaps in understanding the socio-cultural implications of displacement, specifically among indigenous communities. For future research considerations, an assessment focusing on displaced peoples' social and cultural well-being would create a space for dialogue and provide critical view into these often-overlooked topics in studies regarding this vulnerable population. These findings would inform future development initiatives by interlinking social and cultural values to livelihood strategies. Foremost, it would make visible the *invisible* wounds of displacement.

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APPENDIX A

GLI Research Partnership Letter

20-001, Rodriguez V1 7/15/2019

June 18, 2019

Dear UCCS IRB Committee,

This letter is in support of Natalie Dianne Rodriguez in her work as an executive intern and research fellow with the Global Livingston Institute (GLI). Her focus will be to support a better understanding of our community development work in Uganda during the Summer of 2019. As a member of her research committee and in my role as CEO of the GLI I will advise and oversee her research efforts.

I have known Natalie since January 2018 and am supportive of both her research agenda and her enthusiasm to develop her methodology skills in an international setting. Her work is consistent with the Sustainable Development Goals of Uganda and are in line with the research agenda of the GLI. She will be working with our team to conduct her research efforts and will have access to our networks and resources at Lake Bunyonyi in Southern Uganda where our organization is headquartered. Our team here is Ugandan run with deep ties to the local community. They are supportive of this research effort to better understand the Batwa community and our hope is that the work that Natalie does in this arena will better inform our service delivery to this very underserved population.

We enthusiastically welcome Natalie to our research team and hope that this will both be a great learning opportunity for her while at the same time informing our community development work in East Africa. Please feel free to contact me if you have any questions regarding the nature of this research and/or our commitment to the project.

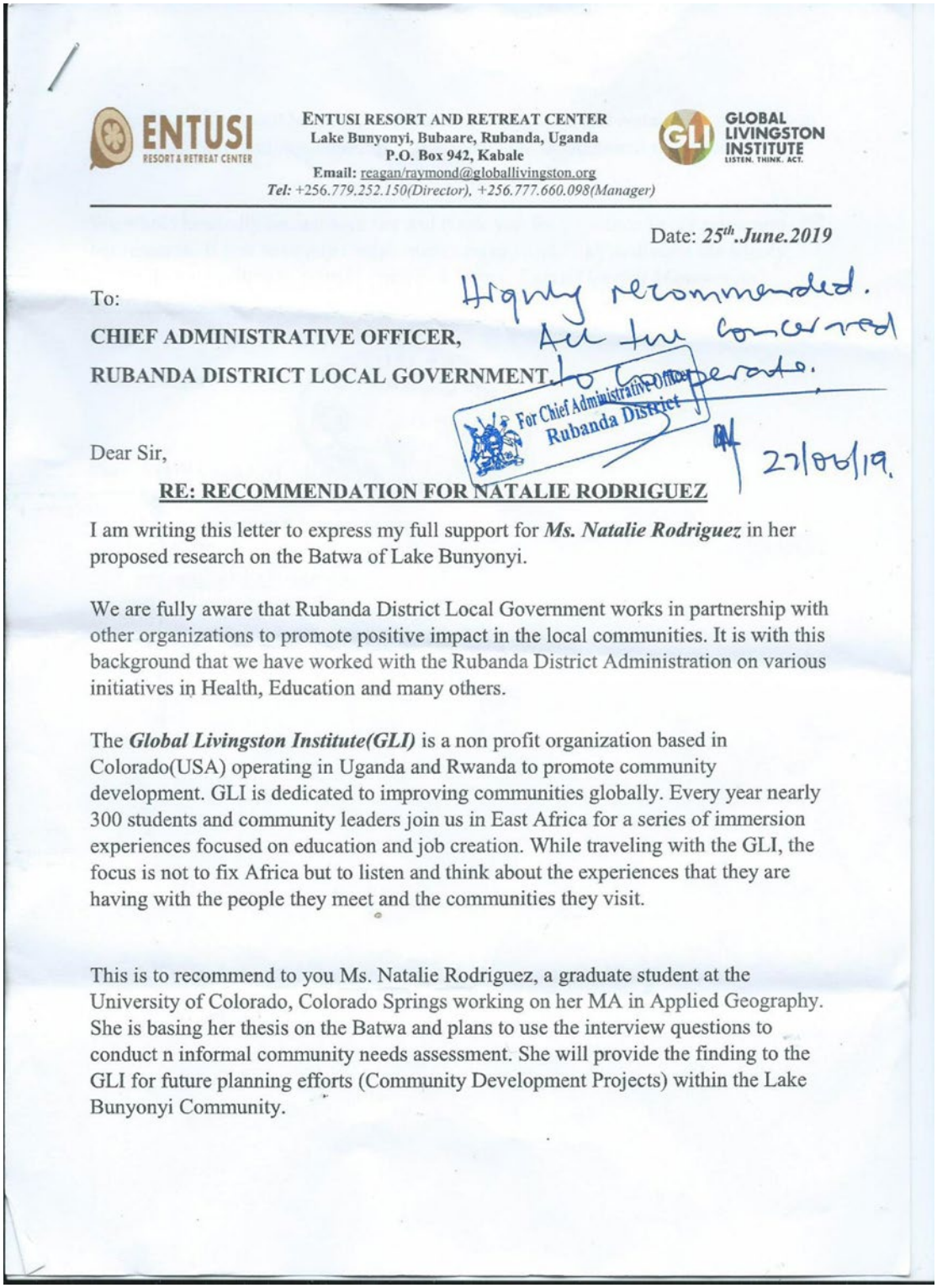
Sincerely,

Jamie Van Leeuwen, PhD

CEO & Founder, Global Livingston Institute

APPENDIX B

Research Approval from Local Government



ENTUSI RESORT & RETREAT CENTER

ENTUSI RESORT AND RETREAT CENTER
Lake Bunyonyi, Bubaare, Rubanda, Uganda
P.O. Box 942, Kabale
Email: reagan/raymond@globallivingston.org
Tel: +256.779.252.150(Director), +256.777.660.098(Manager)

GLOBAL LIVINGSTON INSTITUTE
LISTEN. THINK. ACT.

Date: *25th.June.2019*

To:

CHIEF ADMINISTRATIVE OFFICER,
RUBANDA DISTRICT LOCAL GOVERNMENT.

Highly recommended. All the concerned to Cooperate.

For Chief Administrative Officer
Rubanda District

27/06/19.

Dear Sir,

RE: RECOMMENDATION FOR NATALIE RODRIGUEZ

I am writing this letter to express my full support for ***Ms. Natalie Rodriguez*** in her proposed research on the Batwa of Lake Bunyonyi.

We are fully aware that Rubanda District Local Government works in partnership with other organizations to promote positive impact in the local communities. It is with this background that we have worked with the Rubanda District Administration on various initiatives in Health, Education and many others.

The ***Global Livingston Institute(GLI)*** is a non profit organization based in Colorado(USA) operating in Uganda and Rwanda to promote community development. GLI is dedicated to improving communities globally. Every year nearly 300 students and community leaders join us in East Africa for a series of immersion experiences focused on education and job creation. While traveling with the GLI, the focus is not to fix Africa but to listen and think about the experiences that they are having with the people they meet and the communities they visit.

This is to recommend to you Ms. Natalie Rodriguez, a graduate student at the University of Colorado, Colorado Springs working on her MA in Applied Geography. She is basing her thesis on the Batwa and plans to use the interview questions to conduct n informal community needs assessment. She will provide the finding to the GLI for future planning efforts (Community Development Projects) within the Lake Bunyonyi Community.

The collected data will be stored in a secure environment and Natalie Rodriguez will abide by all rules and regulations put in place by the Government of Uganda.

We whole heartedly recommend her and thank you for your time in consideration of her research. If you have any further questions or would like to discuss the survey, please do not hesitate to contact *Raymond Bokua, Entusi General Manager on* *+256.777.660.098* *or* Email at *raymond@globallivingston.org*

Yours sincerely,

ENTUSI RESORT Lake Bunyonyi 25 JUN 2019 Signed ANDA RETREAT CENTER

.....

For: NOWAMAANI REAGAN
Executive Director
Entusi Resort and Retreat Centre
+256.779.252.150
reagan@globallivingston.org

cc. District Education Officer

APPENDIX C

TASO Ethic Committee Approval Letter

20-001, Rodriguez V1 7/15/2019

The AIDS Support Organisation (TASO) Uganda Ltd.

TASO Headquarters
Mulago Hospital Complex
P.O. Box 10443, Kampala-Uganda
Tel: +256 414 532 580/1
Fax: +256 414 541 288
Email: mail@tasouganda.org
Website: www.tasouganda.org

TASO COLLEGE OF HEALTH SCIENCES (TACHS)
Kanyanya Off Gayaza-Road, Alter Mpererwe
P.O. Box 10443, Kampala
Tel: +256 414 567 657
Fax: +256 414 566 704
Email: training@tasouganda.org

SERVICE CENTRES
TASO ENTEBBE
Plot 15-17 Lugard Avenue
P.O. Box 235, Entebbe
Tel: 0414 320 030/0752 774 135
Email: entebbe@tasouganda.org

TASO GULU
Plot 4 Mathew Lukwiya Road
P.O. Box 347, Gulu
Tel: 0471 432743/ 0752 774142
Email: gulu@tasouganda.org

TASO JINJA
Jinja Referral Hospital
P.O. Box 577, Jinja
Tel: 0360360 117/0752 774 145
Fax: 0434 120382
Email: jinja@tasouganda.org

TASO MASAKA
Masaka Hospital
P.O. Box 1678, Masaka
Tel: 0392 749 908/0752 774 145
Email: masaka@tasouganda.org

TASO MASINDI
Masindi Hospital
P.O. Box 117, Masindi
Tel: 0465 420 636/ 0752 774 144
Fax: 0465 420 636
Email: masindi@tasouganda.org

TASO MBALE
Mbale Hospital
P.O. Box 2250, Mbale
Tel: 0454 433 507/ 0752 774 137
Fax: 0454 435 851
Email: entebbe@tasouganda.org

TASO MBARARA
Plot 25 and 27 Hospital Road
P.O. Box 1010, Mbarara
Tel: 0485 421 323/ 0752 774 136
Fax: 0485 421 323
Email: mbarara@tasouganda.org

TASO MULAGO
Mulago Hospital
P.O. Box 11465, Kampala
Tel: 0414 530 034/ 0752 774 139
Fax: 0414 541 288
Email: mulago@tasouganda.org

TASO RUKUNGIRI
Ishasha Road
P.O. Box 358, Rukungiri
Tel: 0486 442 613/ 0752 774 141
Fax: 0486 442 613
Email: rukungiri@tasouganda.org

TASO SOROTI
Soroti Hospital
P.O. Box 422, Soroti
Tel: 0454 461 383/0752 774 143
Fax: 0454 461 042
Email: soroti@tasouganda.org

TASO TORORO
Plot 30, Cox Road
P.O. Box 777, Tororo
Tel: 0454 442 309/0752 774 140
Fax: 0454 445 334
Email: tororo@tasouganda.org

DISCRETE PROJECTS
GRANTS MANAGEMENT UNIT I GLOBAL FUND
House of Hope, Plot 10 Windsor Loop
P.O. Box 10443, Kampala
Tel: 0414 259 555/ 0752 774 159
Email: mail@tasouganda.org

TASO-KARAMOJA PROJECT
Plot 10, Independence Avenue
P.O. Box 131, Moroto
Tel: 0752 744 792
Fax: 0454 445 334
Email: mail@tasouganda.org

TORORO LABORATORY HUB
P.O. Box 777, Tororo
Tel: 0454 442 009/ 0752 774 723
Fax: 0454 445 334
Email: hub@tasouganda.org

5th July, 2019

Our Ref: TASOREC/037/19-UG-REC-009

Natalie Dianne Rodriguez,
University of Colorado
nosorio@uccs.edu

Dear Natalie,

RE: RESEARCH APPROVAL "COMMUNITY NEEDS ASSESSMENT FOR BATWA COMMUNITY IN SOUTH WESTERN UGANDA."

Thank you for submitting an initial ethics review application of the above-referenced research.

I am pleased to inform you that your correspondence dated **3rd July, 2019** with the responses to review comments of the committee meeting on **21st June, 2019** met the requirements for approval.

TASO REC, gave a favorable ethical opinion of the research, and annual approval has been granted, effective **5th July 2019**, valid until **4th July 2020.**

Documents reviewed and approved:

Document Type	Date	Version
1. The Study Protocol.	01/07/2019	2.0
2. Informed Consent Form.	01/07/2019	2.0
3. Data Collection Tools.	15/06/2019	1.0
4. TASO REC Research Review Application and DOC of Interest.	15/06/2019	1.0
5. Letter of Support, Global Livingston Institute.	18/06/2019	
6. UCCS Institutional Review Board Approval.	15/06/2019	

Amendments: All proposed amendments to the study (including personnel, procedures, or documents) must be approved by the REC in advance before implementation.
Adverse Events/Unanticipated Problems: Please keep in mind that it is your responsibility to inform the REC of any adverse consequences to participants that occur in the course of the study.
Site Monitoring Visits: shall be undertaken to verify that only approved procedures are being implemented, to ensure that the rights and welfare of participants are being protected.
Study Reports: It is a requirement by the REC that you submit timely progress reports.
Renewal of the study approval. This should be through submission of the Annual Report and a Continuing Review Application, at least 60 days prior to expiration date.
Protocol documents which contain the REC-stamp (if applicable), must be utilized during recruitment of participants, obtaining informed consent and data collection processes.

We recommend that you proceed with the registration and final clearance of your study by the Uganda National Council of Science and Technology (UNCST) before commencement.

Yours sincerely,

THE AIDS SUPPORT ORGANISATION
04 JUL 2020
Approved, Valid Until.....
RESEARCH ETHICS COMMITTEE

Dr. Kagimu Dawid
Vice-Chairperson, TASO RESEARCH ETHICS COMMITTEE (REC)
CC: Executive Director, TASO (U) Limited
CC: Uganda National Council for Science & Technology (UNCST)

APPENDIX D

Institutional Review Board (IRB) Approval

University of Colorado Colorado Springs

Institutional Review Board (IRB) for the Protection of Human Subjects

Date: 7/29/2019

IRB Review **APPROVED**

IRB PROTOCOL NO.: 20-001
Protocol Title: Community Needs Assessment of Batwa
Principal Investigator: Natalie Rodriguez
Faculty Advisor if Applicable: David Havlick
Application: New Application
Type of Review: Expedited 7
Risk Level: No more than Minimal Risk
Renewal Review Level (If changed from original approval) if Applicable: N/A No Change
This Protocol involves a Vulnerable Population: Economically/Education Disavantaged Persons
Expires: 30 July 2020
*Note, if no expiration date is indicated: Changes in the research need to be approved before implementation, and you need to report any adverse events. Requests for status updates may be sent by the IRB In addition, the protocol may match more than one review category not listed.
Externally funded: ☐ No ☒ Yes
OSP #: **Sponsor:** Eagle Rock School

Thank you for submitting your Request for IRB Review. The protocol identified above has been reviewed according to the policies of this institution and the provisions of applicable federal regulations. The review category is noted above, along with the expiration date, if applicable.

Once human participant research has been approved, it is the Principal Investigator's (PI) responsibility to report any changes in research activity related to the project:

- The PI must submit all protocol, recruitment, advertising, and consent form amendments/revisions to the IRB for approval.
  - The IRB must approve these changes prior to implementation.
- If you are a student, please note that it is required to include the IRB approval letter to the library when you submit the dissertation/thesis.
- The PI must promptly inform the IRB of all unanticipated serious adverse events (within 24 hours). All unanticipated adverse events must be reported to the IRB within 1 week (see 45CFR46.108(a)(4)(i)). Failure to comply with these federally mandated responsibilities may result in suspension or termination of the project.
- If required, renew the study with the IRB at least ***10 business days prior to expiration***.
- Notify the IRB when the study is complete

If you have any questions, please contact Research Compliance Program Director in the Office of Sponsored Programs and Research Integrity at 719-255-3903 or irb@uccs.edu

Thank you for your concern about human subject protection issues, and good luck with your research.

Sincerely yours,

Zek Valkyrie
Zek Valkyrie, PhD
IRB Reviewer

www.uccs.edu/~osp/
Version 1.11.2019
1420 Austin Bluffs Parkway Colorado Springs, CO 80918 719-255-3321 phone 719-255-3706 fax

APPENDIX E

Interview Guide

Study Interview Guide

Batwa Questions:

Who are the Batwa?

Describe your family structure. (Married, children, etc.)

What skills do you have?

How do you earn money?

How do you care for your family?

Where were you born?

How did you end up in this area?

How long have you and your family lived here?

Do you own land?

What services are being offered to your community?

What are your biggest needs right now?

What are your biggest challenges to accessing services?

If you could have any three things, what would they be?

What are your views on conservation?

Have you or anyone in your family ever been displaced or forcefully evicted?

Mental Mapping Activity:

Draw a map of services available to you in your village and the areas surrounding (clinics, independent doctors, schools, food shelters, clothing assistance, markets, childcare, education centers, employment centers, etc.).

Key Informant Questions:

Who are the Batwa?

What brought the Batwa people to Lake Bunyonyi?

What are the Batwa's biggest obstacles?

How often do you associate with the Batwa people?

How does the community perceive the Batwa?

Are the Batwa involved in policy making?

List the basic needs faced by the Batwa:

Do you feel Batwa needs are being met by the local government?

What three services do you think the Batwa need most?

Are the Batwa conservation refugees? Why or why not?

Do you feel the Batwa were forcefully evicted from the forest?

Mental Mapping Activity:

Draw a map of services available to the Batwa within their village and in surrounding communities. (clinics, independent doctors, schools, food shelters, clothing assistance, markets, childcare, education centers, employment centers, etc.).

APPENDIX F

IRB Consent Form

Protocol Number: 20-001 Version and Date Received: V1 7/15/2019 APPROVED

University of Colorado
Colorado Springs (UCCS)
Consent to be a Research Subject

Title: Batwa Community Needs Assessment

Principal Investigator: Natalie Rodriguez

Funding Source: Private scholarships

Key Information
Consent for this research is being requested from each participant and participation is completely voluntary. This research argues the need to work with displaced populations on an individual scale to determine community-identified needs and priorities, and advocates for the community's concerns, allowing for more accurate investigation and depiction of social justice issues faced by the community. Therefore, the community-based approach I plan to utilize in this research can help shed light on the complicated colonial histories of how displacement and lack of planning processes have kept the Batwa marginalized for over 25 years. The methods I will use are semi-structured interviews and photovoice. Each interview is expected to take approximately one hour. As photos are instant, the time varies depending on how many photo you would like to contribute.

You are being asked to be in a research study. This form is designed to tell you everything you need to think about before you decide to consent (agree) to be in the study or not to be in the study. **It is entirely your choice. If you decide to take part, you can change your mind later on and withdraw from the research study.**

Before making your decision:

- Please carefully read this form or have it read to you.
- Please ask questions about anything that is not clear.

Feel free to take your time thinking about whether you would like to participate. By agreeing to be in the study you will not give up any legal rights. You may want to print a copy of the consent form for your records.

Study Overview
This study plans to learn more about understanding the complex social issues that exist for this group by identifying the basic needs and gaps in community services present in the Batwa community. Ultimately, this research may be published in my graduate thesis and presented a conference.

Procedures You are being asked to be in this research study because I want to identify outstanding need your community has. I will conduct ten semi-structured interviews using a selective sampling method with an ethnographic approach, which emphasizes the study of people and cultures, to interact with Batwa community members in productive dialogue and encourage conversation through storytelling. While the selection of interviewees will rely mainly on availability, language barriers and willingness to participate, my focus will be on directed on obtaining as much diversity (males, females, elder, school-aged, etc.) as I can in the participants. I will use a snowball sampling for community members Interviews with five community members beginning with the manager of Entusi Resort, where I will be staying during my time in Uganda. A total of 15 participants will be interviewed. I will conduct three one hour long interviews per day, in the local

Batwa community and will record all interviews via a hand-held audio recorder. I will be uploading the audio files to my private laptop nightly and erasing recordings on audio recorder to ensure privacy is maintained.

Other people in this study: Up to 15 people will participate in this study.

Risks and Discomforts

Emotional vulnerability: Participants may become emotional, recalling the history that led them to marginalization and impoverishment. I will comfort individuals as needed and remind them that participation in interview is completely voluntary.

Consent and critical reflectivity: As a researcher, I must protect the objectivity of research and ensure unbiased reporting of data along with the open sharing of that information with the community. I will make my research goals clear to the members of the Batwa community and gain the informed consent of their local leader in advance. I will make every effort to be transparent in my interpretations of data, by documenting and sharing each interview transcript and outline the process of data collection and interpretation, while justifying my interpretations through open discussions with contacts from GLI and local Batwa community members.

Extraction of data: To avoid extraction of data which occurs in most cases of international research, the industrialized world sets the research agenda and carries out the research, I will ensure post-research benefit by sharing data gathered with local governments, nonprofits and the Batwa communities, which in turn I hope to lead to new community development infinitives.

Colonial Concerns: As a westerner entering the community, there may be ethical concerns relating to colonial ideologies. I will conduct a community consultation with the GLI team and Emmanuel Bugingo (community member with extensive knowledge on the Batwa and their background and currently working to improve the conditions of Batwa communities within Rwanda) before my research begins. As a researcher, I will respect the culture and dignity of the community and achieve the Batwa's understanding and acceptance of the research.

Benefits

This study is designed for the researcher to learn more about existing needs and gaps in service to make modest recommendations for community-development projects.

Compensation

No compensation is provided.

Confidentiality

Data collected will be de-identified and access to research data will be based on a "need to know" and "minimum necessary" standard.

Your confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties.

Certain offices and people other than the researchers may have access to study records. Government agencies and UCCS employees overseeing proper study conduct may look at your study records. These offices include the UCCS Institutional Review Board, and the UCCS Office of Sponsored Programs and Research Integrity. UCCS will keep any research records confidential to the extent allowed by law. A study number rather than your name will be used on study records wherever possible. Study records may be subject to disclosure pursuant to a court order, subpoena, law or regulation.

Your de-identified data collected during this study will not be used for future research studies.

Voluntary Participation and Withdrawal from the Study

Taking part in this study is voluntary. You have the right to leave a study at any time without penalty. Withdrawal will not interfere with your future care or services at UCCS. You may refuse to answer any questions that you do not wish to answer. If you withdraw from the study, you may request that your research information not be used by contacting the Principal Investigator listed above and below.

Contact Information

Natalie Rodriguez: *nosorio@uccs.edu*

- if you have any questions about this study or your part in it,
- if you have questions, concerns or complaints about the research, or
- if you would like information about the survey results when they are prepared.

Contact the Research Integrity Compliance Program Director at 719-255-3903 or via email at irb@uccs.edu:

- if you have questions about your rights as a research participant, or
- if you have questions, concerns or complaints about the research.

Electronic Consent

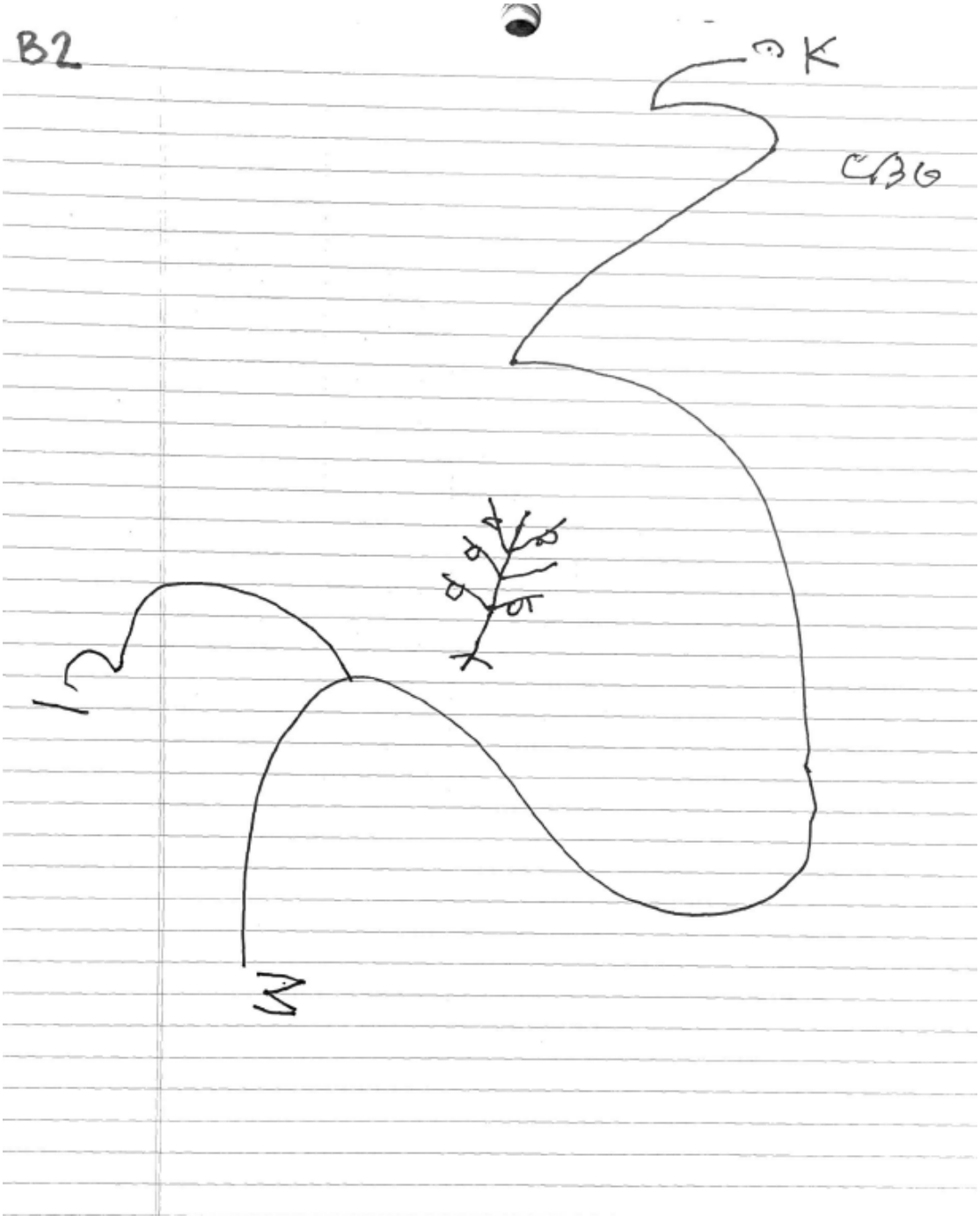
Please print a copy of this consent form for your records, if you so desire.

I have read and understand the above consent form, I certify that I am 18 years old or older and, by clicking the submit button to enter the survey, I indicate my willingness voluntarily take part in the study.

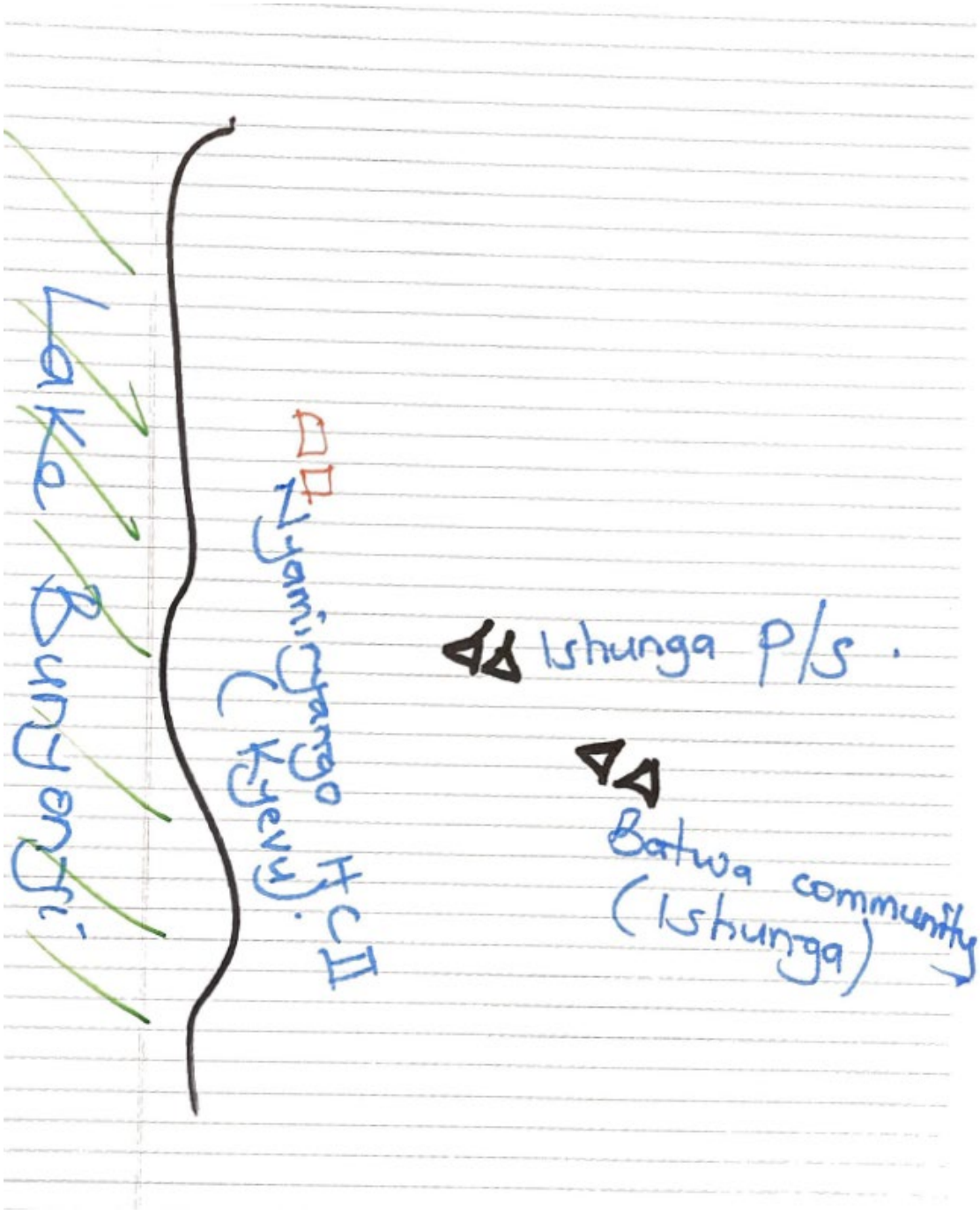
APPENDIX G

Mental Maps

B1



B2

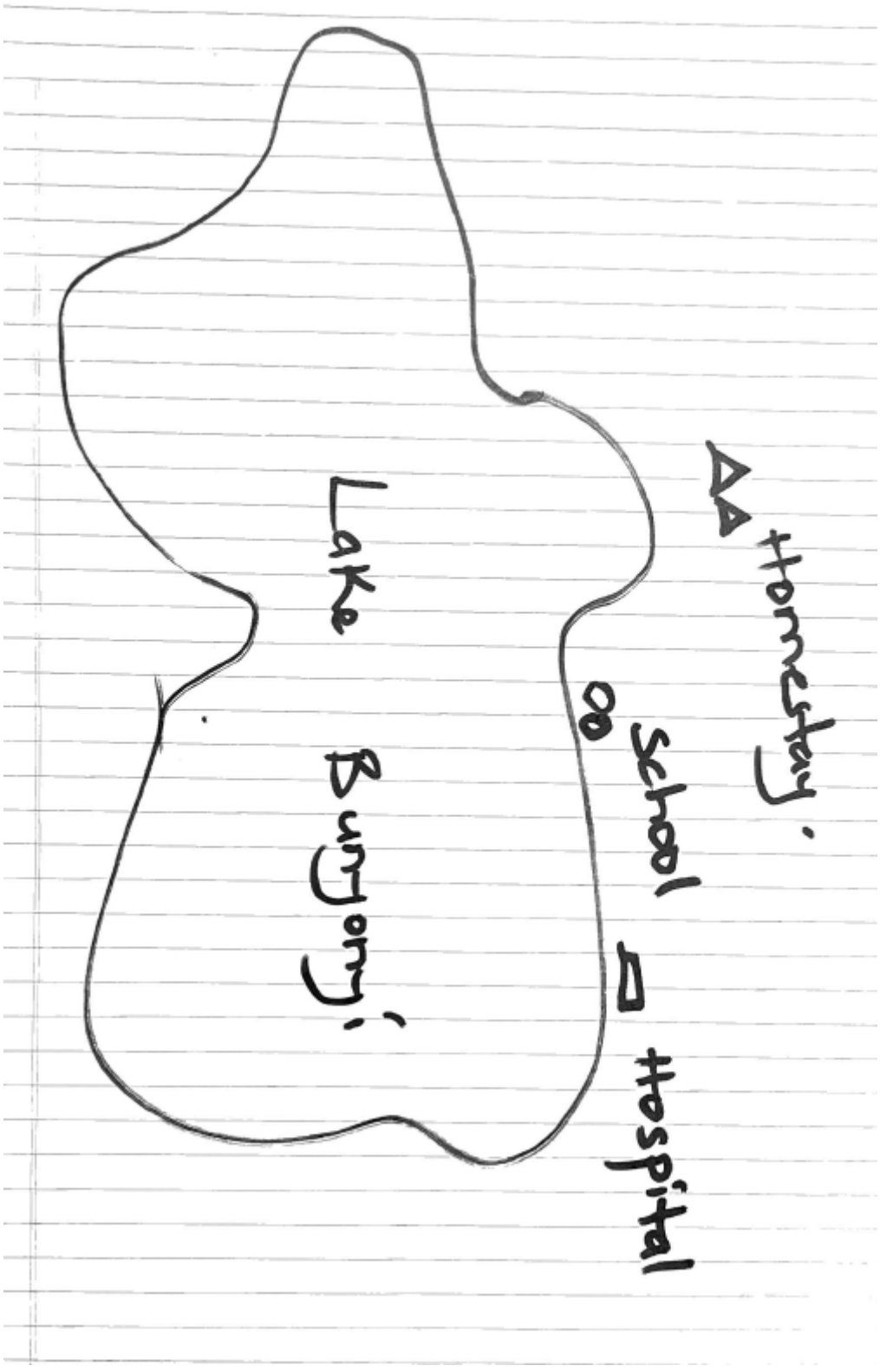

Lake Bunyonyi
Nyamigano (Kyevu) FC II
Ishunga P/S.
Batwa community (Ishunga)

B3

B4


Lake Bunyonyi
Nyamigyange
Ishunga
Key
Kyevu Health centre.
Ishunga Homestay
Lake Bunyonyi

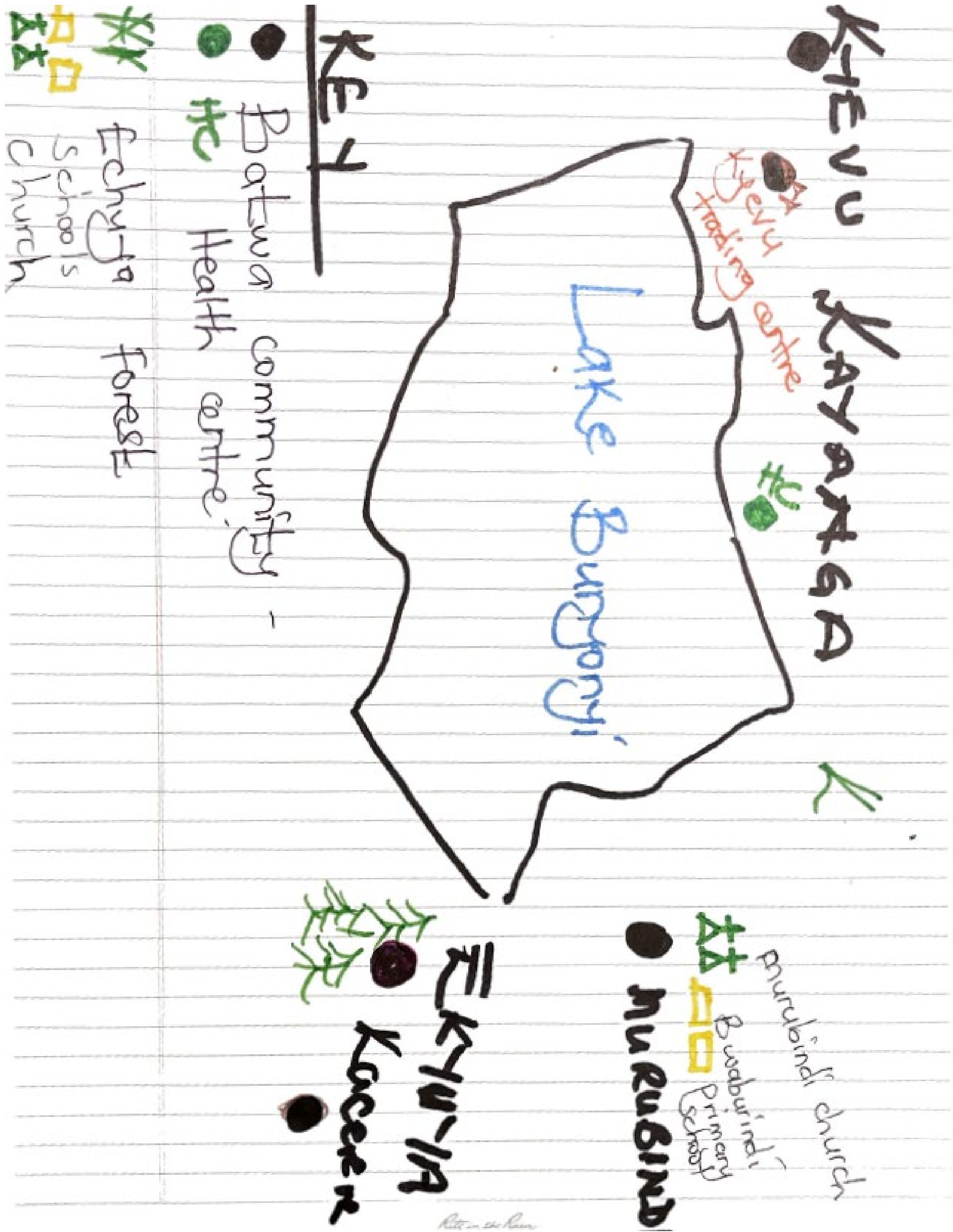
B5



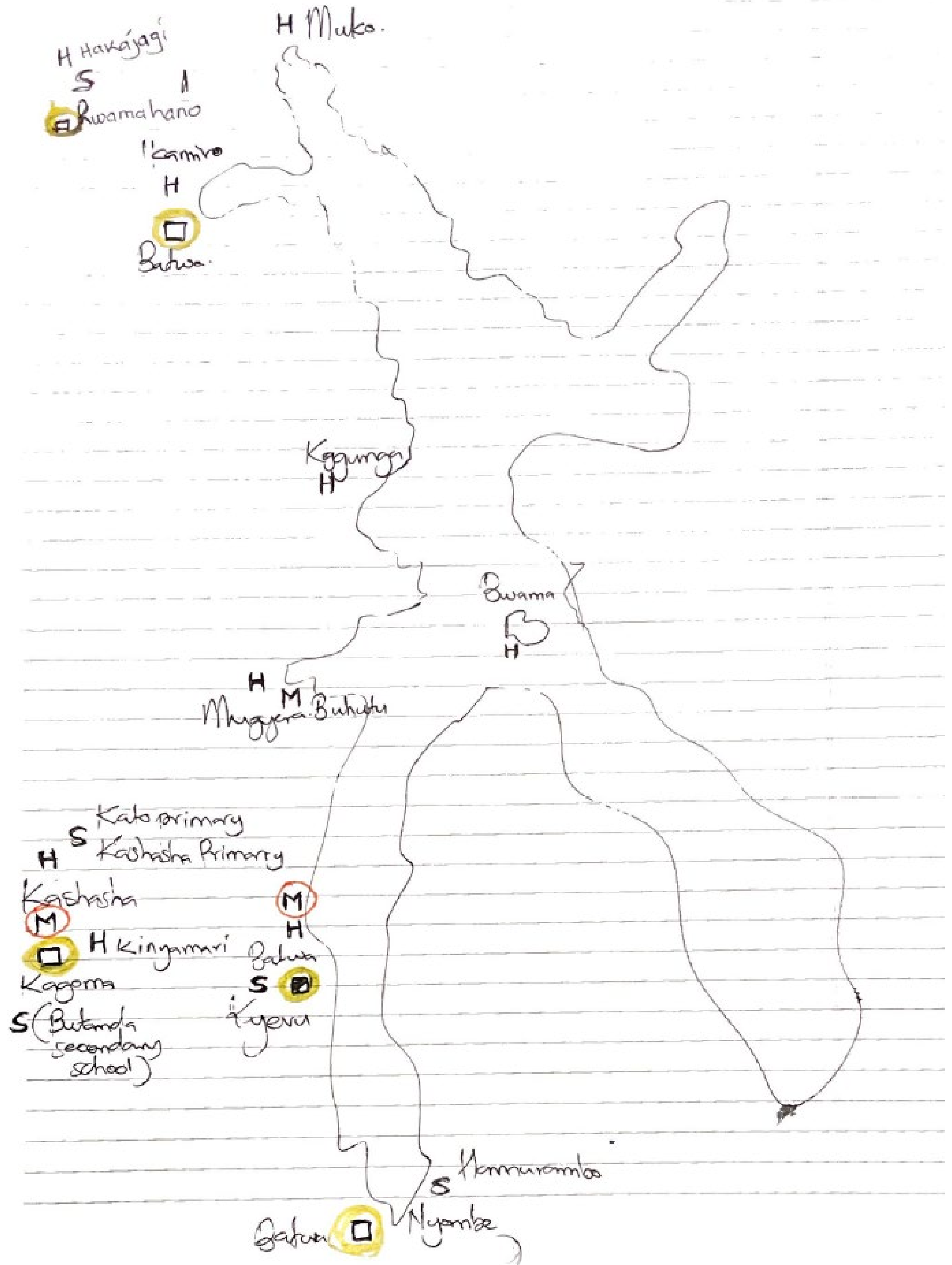
B6


Ishunga
Batwa
community
Ishunga
P/S
(Kyevu)
Nyamiyango
HC II
Lake Bunyonyi.

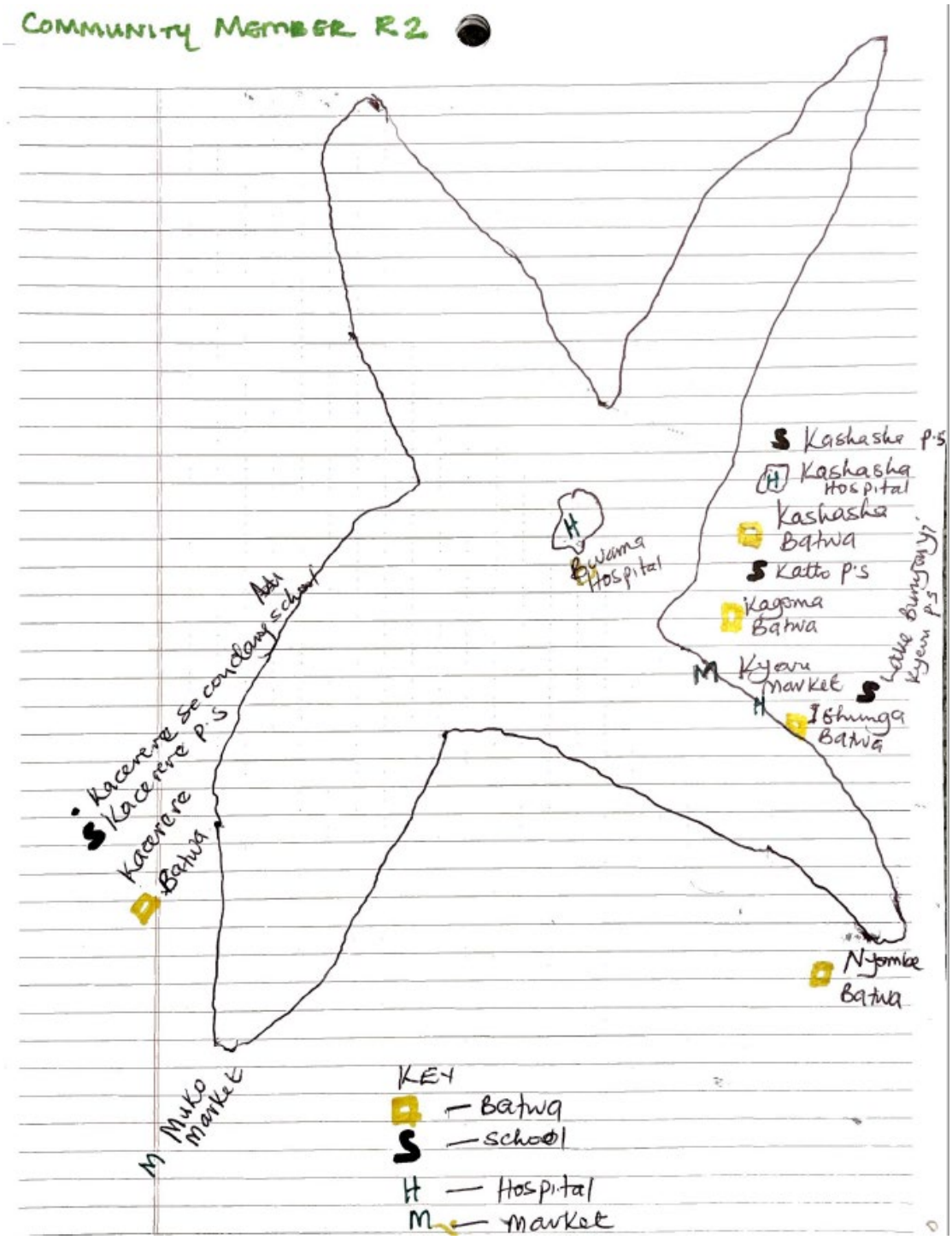
B7


KYEVU KAYANAGA
Kyevu trading centre
Lake Bunyonyi
KEY
Batwa community
Health centre
Echyuya forest
Schools
church
Murubindi church
Bwaburindi Primary School
MURUBINDI
EKYUYA
KACERER

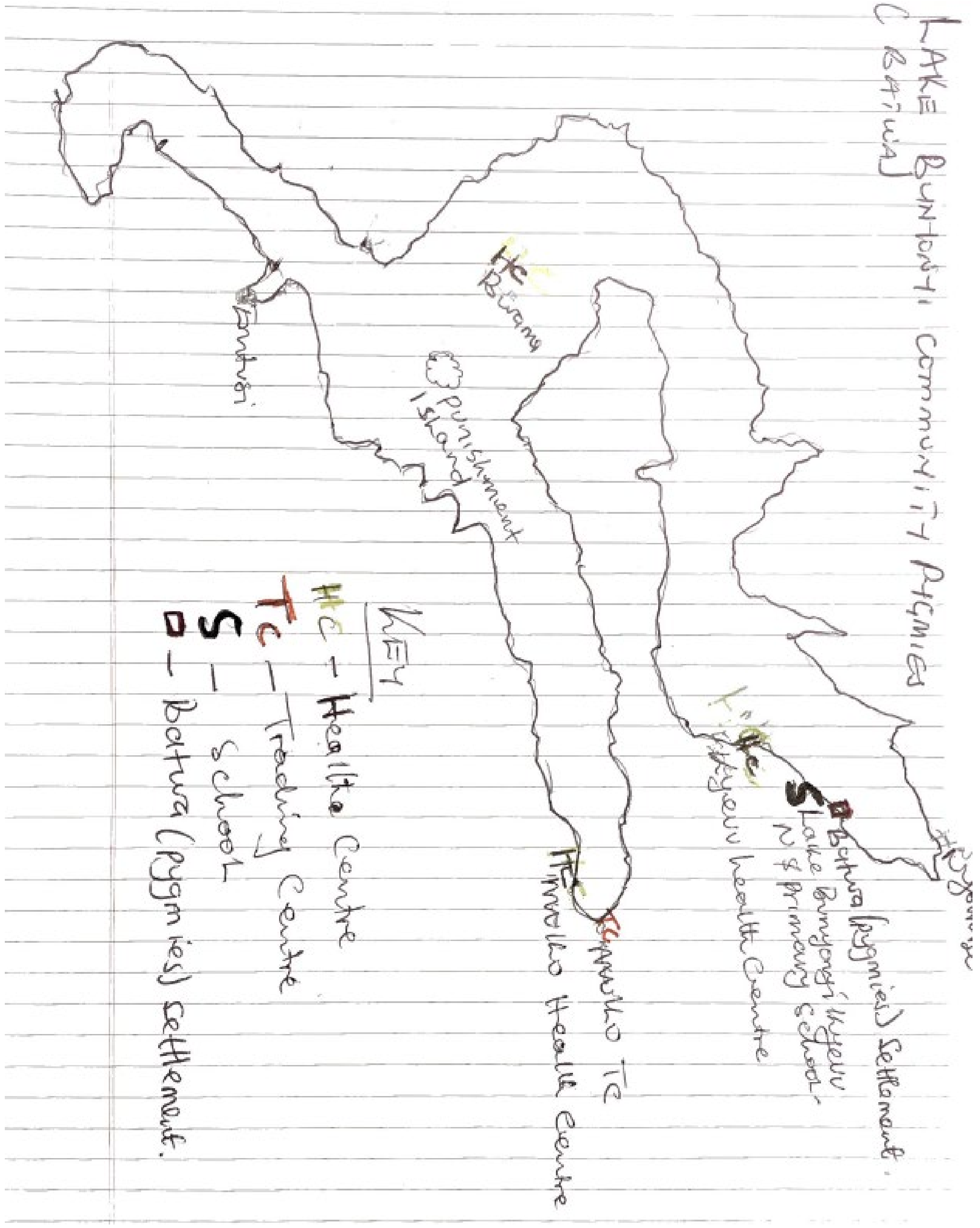
K1


H Muko.
H Hakajagi
S
Rwamahano
H
Batwa.
H
Bwama
H
H
M
Kato primary
S
Kashasha Primary
H
Kashasha
M
H Kingamari
Kagoma
S (Butanda secondary school)
M
H
Batwa
S
S
Nyambe

K2

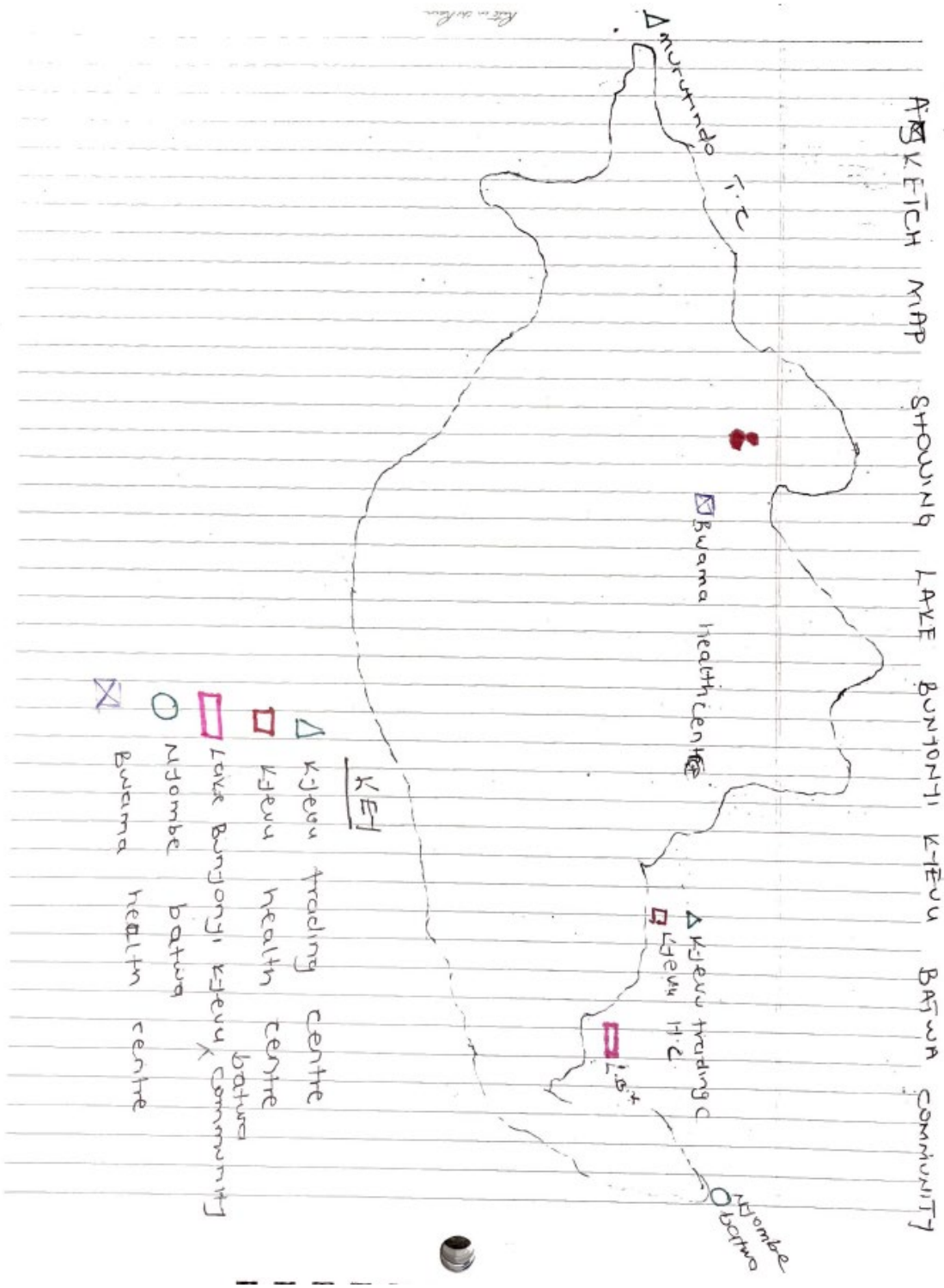

COMMUNITY MEMBER R2
Kacerere secondary school
Kacerere P.S
Kacerere Batwa
Muko Market
Bwama Hospital
Kashasha P.S
Kashasha Hospital
Kashasha Batwa
Katto P.S
Kagoma Batwa
Kyoru market
Ishunga Batwa
Nyamba Batwa
KEY
Batwa
School
Hospital
Market

K3

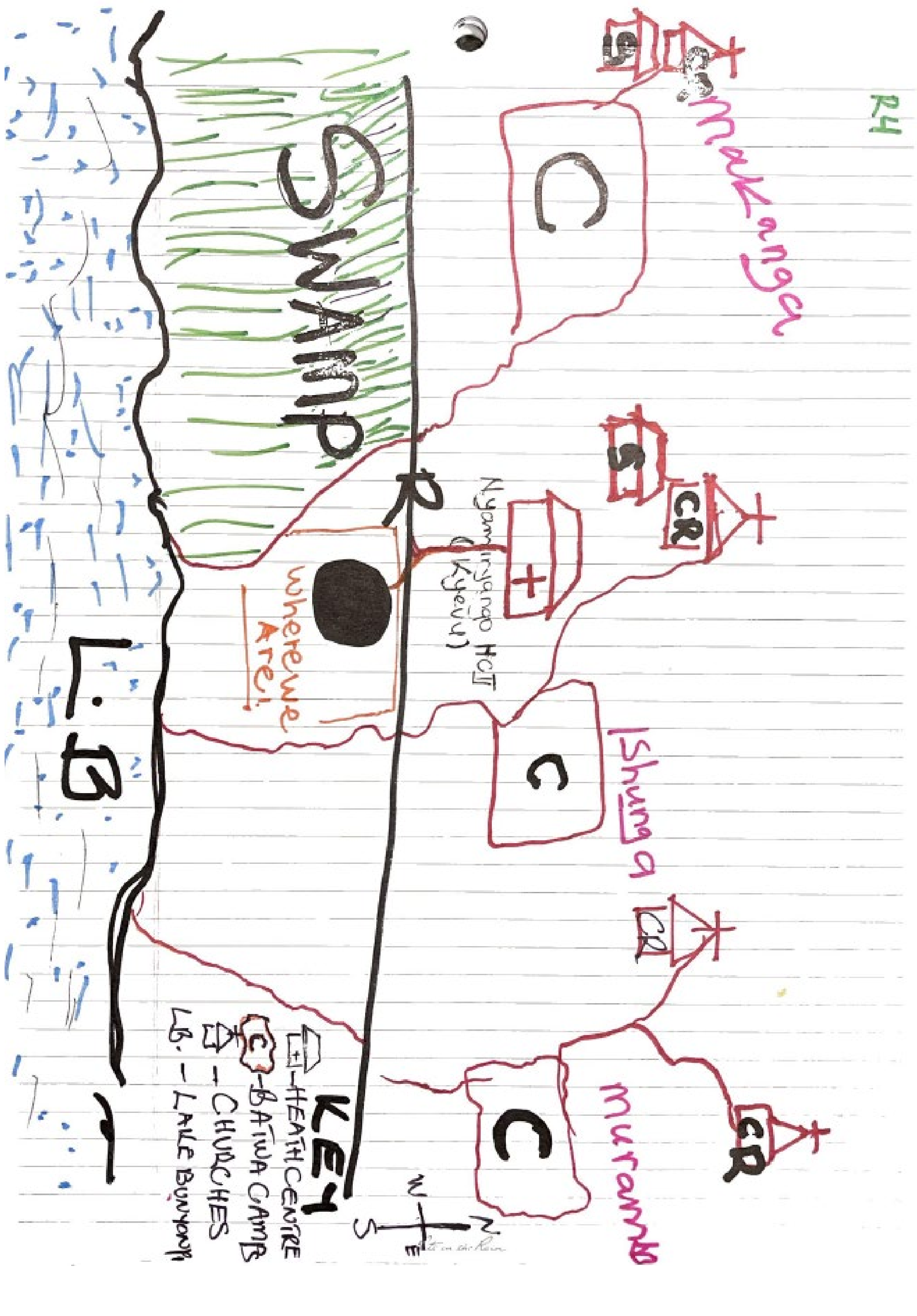


LAKE BUNYONYI COMMUNITY PYGMIES
(BATWA)
Punishment Island
KEY
HC – Health Centre
TC – Trading Centre
S – School
□ – Batwa (Pygmies) settlement.

K4


A SKETCH MAP SHOWING LAKE BUNYONYI KIJEVU BATWA COMMUNITY
Murumuddo T.C
Bwama health centre
Kijevu trading c
Kijevu H.C
L.B.K
Njombe batwa
KEY
Kijevu trading centre
Kijevu health centre
Lake Bunyonyi Kijevu community batwa
Njombe batwa
Bwama health centre

K5


SWAMP
L.B
where we Are!
Ishunga
KEY
HEATH CENTRE
BATWA CAMP
CHURCHES
LB. - LAKE BUNYONYI

Bonus Mental Map Created by Local Community Member