Innovations and Sustainability in Tourism in Tanzania: Untapped Potentials

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Corporate Sustainability and Financial Performance of Tourism Firms in Tanzania: The Mediating Role of Firm Capabilities

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Abstract

This study examines the mediating effect of firms' capabilities on the effect of sustainability initiatives on financial performance of tourism firms in Tanzania. Data was collected using a questionnaire administered to managers of tour operators and accommodation firms operating in Tanzania and structural equation modelling was used to analyse the structural model. The results show that strategic proactivity capability mediates the effect of corporate sustainability initiatives (community, economy, and eco-efficiency) and firm financial performance while the mediation effect of collaboration capability was not supported. The results suggest that, firms need to prioritize corporate sustainability initiatives with immediate benefits to the external community; while develop and apply strategic proactive stance for corporate sustainability initiatives with little immediate benefits to external community.

Key Words - Corporate Sustainability, Financial Performance, Firm Capabilities, Tourism, Tanzania, Sub Saharan Africa

Paper type - Research paper

Introduction

Business organizations are increasingly encouraged to engage in sustainability due to its potential contribution on the sustainable development of societies (Whiteman et al., 2013). Corporate sustainability refers to firms' commitments to enhancing the social and environmental wellbeing of their societies (Wilson, 2003). However, there are claims that investment in corporate sustainability is expensive and inconsistent with firms' profit maximization objectives (Friedman, 1970; Grewatsch and Kleindienst, 2017; Jensen, 2002; McWilliams and Siegel, 2001). Thus, for several decades scholars have debated on the existence of business case for corporate sustainability without reaching a conclusion (Grewatsch and Kleindienst, 2017; Margolis et al., 2007; Orlitzky et al., 2003; Van Beurden and Gössling, 2008).

Research on the effect of corporate sustainability on financial performance in the tourism industry has received little focus with mixed results (Rhou and Singal, 2020; Rhou et al., 2016). Scholars argue that the mixed results exist because a direct

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effect of corporate sustainability on financial performance rarely occurs (Grewatsch and Kleindienst, 2017; Margolis et al., 2007; Orlitzky et al., 2003; Van Beurden and Gössling, 2008). Margolis et al. (2007), for instance, maintained that the relationship between corporate sustainability and firm performance is an indirect one, involving either moderating or mediating variables which most studies have ignored. Several studies (e.g. Christmann, 2000; López-Gamero et al., 2009; Ryszko, 2016; Sharma and Vredenburg, 1998), however, have investigated the mediating effect of firms' intangible resources and capabilities, drawing from Natural Resource-Based View (NRBV). However, as observed by Grewatsch and Kleindienst (2017), the analysis of the mediation effect of firms' intangible resources and capabilities is in its infancy stage.

Furthermore, the research on the effect of corporate sustainability on firm financial performance is dominated by studies from Western countries and emerging Asian economies (Alshehhi et al., 2018; Rhou and Singal, 2020). The number of studies from Africa and specifically Sub–Saharan African countries is negligible (Alshehhi et al., 2018; Grewatsch and Kleindienst, 2017; Rhou and Singal, 2020). Due to differences in socio-economic, political, and managerial traits, the sustainability conceptualizations and its initiatives between the Sub-Saharan region and the West differ (Dartey-Baah, 2011; Kühn et al., 2018; Visser, 2006). Thus, studies from the Sub Saharan Africa context may provide additional insights into the nature of the effect of corporate sustainability on financial performance. Likewise, corporate sustainability is significantly affected by cross-country (Dahlsrud, 2008; Matten and Moon, 2008) and industry (Campbell, 2007; Decker, 2004) differences. To control for such variations, Chand and Fraser (2006) argued that the relationship between corporate sustainability and financial performance needs to be studied at an industry level in a particular country context.

This study examines the mediation effect of firm capabilities on the effect of corporate sustainability on firm financial performance across tourism firms operating in Tanzania. In Tanzania, tourism is a significant contributor to foreign currency earnings, employment, and the GDP of the country (Anderson, 2018; Anderson and Sanga, 2019). In particular, Tanzania receives an average of 1.5 million international tourists per annum and generates over US$ 2.4 billion which represented more than 25% of the total exports, 60% of services receipts, and 9% of total investments (World Travel and Tourism Council (WTTC), 2020). Therefore, corporate sustainability efforts by tourism firms in Tanzania might have significant contribution to sustainable development of the communities around tourists' attractions. This study provides evidence that sustainability by tourism firms is a financially beneficial endeavour. In addition, it highlights the best approach through which the firms should undertake corporate sustainability to ensure sustainable pay-offs. Lastly, the study contributes to the corporate sustainability-performance debate in the tourism industry and Sub Saharan region in particular.

Literature Review

Corporate Sustainability

Corporate sustainability is one of the concepts that describe the nature of the relationship between business firms and the society. Other concepts include corporate social responsibility (CSR), corporate citizenship, responsible tourism, and sustainable tourism (Carroll, 2015; Mihalic, 2016). While these concepts emerged as completely different ideas in the past, they are now converging and are treated as synonyms by researchers (Carroll, 2015; Montiel, 2008; Montiel and Delgado-Ceballos, 2014). The term corporate sustainability, however, has recently become the most preferred (Montiel and Delgado-Ceballos, 2014; Strand et al., 2015). In this study, corporate sustainability is used as an umbrella term encompassing all other concepts associated with business-society relations. For the purpose of this paper, corporate sustainability refers to strategies and operating practices of business firms deliberately aiming at caring for the well-being of people and the environment (Glavas and Kelley, 2014).

The concept of corporate sustainability is generally considered to be a multidimensional construct (Grewatsch & Kleindienst, 2017). Despite this understanding, there is no agreement among scholars over the types and number of corporate sustainability dimensions. Those who view corporate sustainability from a sustainable development perspective consider it as a tri-dimensional construct made of the social, environmental, and economic dimensions (Diesendorf, 2000; Elkington, 1997). As a tool for stakeholder management, corporate sustainability initiatives are categorized based on the groups of the target stakeholders; the community, customers, suppliers, and employees (Inoue and Lee, 2011). Suluo, Anderson, et al. (2020) categorized corporate sustainability initiatives in the tourism industry in Tanzania into community, economy, and eco-efficiency initiatives. This classification was consistent with sustainable development tri-dimensional classification of social, economic and environment, respectively (Suluo, Anderson, et al., 2020). The term community initiative refers to philanthropic commitments made to community projects (Kuhn et al, 2018). The economy initiative dimension refers to initiatives that directly or indirectly improve the economy of the community within which the firm operates (Melubo and Lovelock, 2018). Eco-efficiency refers to the efficient use of resources such as water and energy as well as proper management of waste and pollutants (Melubo and Lovelock, 2018).

Corporate Sustainability and Financial Performance

The effect of corporate sustainability on financial performance is built on the business-case perspective for corporate sustainability. This perspective states that there are specific benefits to businesses in an economic, and financial sense which flow from investments in corporate sustainability activities and initiatives (Carroll and Shabana, 2010; Frederiksen and Nielsen, 2013; Nijhof and Jeurissen, 2010). This perspective argues that the interests of the firm and the society at large coincide, thus offering a win-win situation (Carroll and Shabana, 2010). This research strand

has been informed by different management theories, one of which is the resource-based view (RBV) (Grewatsch and Kleindienst, 2017; Van Beurden and Gössling, 2008).

The RBV proposes that firms perform differently primarily because of differences in their resources and capabilities endowment (Barney, 1991). The theory argues that resources that are valuable, rare, inimitable and non-substitutable (VRIN) are the ones capable of enabling a firm to achieve a sustainable competitive advantage (Barney, 1991; Dierickx and Cool, 1989; Peteraf, 1993; Wernerfelt, 1984). This subsequently results in better firm performance relative to competitors (Newbert, 2007). According to Surroca et al. (2010), in contrast to the physical resources, intangible resources are VRIN resources. Among the intangible resources are routines followed within the firm to undertake tasks - these are commonly known as firm capabilities (Zahra et al, 2006). According to Helfat and Peteraf (2003), firm capabilities refer to the abilities of the firm to undertake coordinated tasks, using firm resources, to achieve a particular result.

Hart (1995) extended the RBV to the Natural Resources Based View (NRBV) arguing that the external environment presents sustainability challenges that firms can counter either proactively or through ad-hoc strategies. Hart (1995) further argued that investments in proactive corporate environmental strategy lead to the development of firm-specific capabilities. The firm-specific capabilities, being intangible resources, are expected to have VRIN characteristics and are thus sources of sustainable competitive advantage (Sharma and Vredenburg, 1998). This suggests that firm capabilities may act as mediators between corporate sustainability strategies and firm financial performance (Grewatsch and Kleindienst, 2017; Surroca et al., 2010).

Hypotheses Development

Firms engaged in the corporate sustainability initiatives may develop a range of specific capabilities that may be used to help them achieve their sustainability goals (Hart 1995; Sharma and Vredenberg, 1998). Some capabilities that have featured in the literature include shared vision, stakeholder integration/management, continuous innovation, strategic proactivity, capital management, higher-order learning and the integration of CSR issues in strategic planning (Aragon-Correa et al, 2008; Bansal, 2005; Christmann, 2000; Cordano and Frieze, 2000; Hart, 1995; Sharma et al., 2007; Sharma and Vredenberg, 1998; Torugsa et al, 2013). Researchers have examined the role of these capabilities on the effect of corporate sustainability on firm financial performance as either antecedents or mediators (Aragon-Correa, 1998, Aragon-Correa et al, 2008, Torugsa et al, 2013; Sharma and Vredenberg, 1998). However, this study focuses on the mediation role.

Several studies on NRBV (Christmann, 2000; López-Gamero et al., 2009; Ryszko, 2016; Sharma and Vredenberg, 1998) examined firm capabilities as mediators in the corporate sustainability–firm performance relationship. The results indicated that

various capabilities mediate the effect of environmental management initiatives on firm financial performance. These studies generally focused on the environmental dimension of corporate sustainability, ignoring the social and economic dimensions. They also suggest, consistent with NRBV (Hart, 1995; Sharma and Vredenberg, 1995), that firms engaging in corporate sustainability initiatives may develop specific capabilities which may subsequently improve their performance. Studies that focused on SMEs (Aragón-Correa et al., 2008; Torugsa et al., 2013) have identified strategic proactivity capabilities and collaboration capabilities as being associated with small firms' corporate sustainability strategies. Since this study focuses on tourism firms in the Sub–Saharan African context, characterized by the majority of small businesses (Kühn et al, 2018), these two capabilities will further be studied.

Strategic proactivity capability refers to a firms' tendency to initiate changes in its various strategic policies instead of reacting to events (Aragon-Correa, 1998). The objective for developing this capability is to enable firms to shape the general business environment to their advantage (Torugsa et al, 2013). In a corporate sustainability context, strategic proactivity capability refers to the firms' ability to exploit the opportunities brought by sustainability demands and minimize risks associated with them (Aragon-Correa et al, 2008). Firms with strategic proactivity capabilities develop various management and operational processes that enable them to integrate the sustainability demands in their strategies (Torugsa et al, 2013). Such firms invest heavily to enhance sustainable technological leadership and are quick in introducing sustainable products and thus creating and expanding the markets for them (Aragon-Correa, 1998). Firms with such capabilities are more likely to exploit corporate sustainability to enhance their competitive advantage and subsequently financial performance (Aragon-Correa, 1998; Torugsa et al, 2013). As proposed by Hart (1995), firms that approach corporate sustainability with a proactive stance may need to develop capabilities such as strategic proactivity which may later be the source of sustained financial performance. It is thus hypothesized that the strategic proactivity capability may mediate the effect of corporate sustainability initiatives on firm financial performance.

Since the proponents of the strategic proactivity capability (Aragon-Correa, 1998; Aragon-Correa et al, 2008; Torrugsa et al, 2013) consider it as the ability to align the general business environment with business's self-interest, it is believed that its mediation effect will work for each corporate sustainability dimension. Therefore, it is hypothesized that: (H1a) strategic proactivity mediates the effect of community initiatives on firm financial performance; (H1b) strategic proactivity mediates the effect of economy initiatives on firm financial performance; and, (H1c) strategic proactivity mediates the effect of eco-efficiency initiatives on firm financial performance.

Collaboration capability refers to the firms' ability to establish a trust-based collaborative relationship with stakeholders, especially those without economic

goals (Sharma and Vredenberg, 1998). Stakeholders with non-economic interests may include local communities, environmental groups, government institutions, and non-governmental organizations (NGOs). Collaboration capability allows firms to institute mechanisms to consult stakeholders for knowledge and integrate that knowledge into their policies, products, and processes enhancements (Sharma and Vredenberg, 1998). The firms' alliances with collaborators may expand the resource base that may be available for the execution of corporate sustainability initiatives (Aragon-Correa et al, 2008). This capability may also enhance the ability of the firm to reduce the negative influence of the social and environmental impact in its pursuit of competitive advantage (Torrugsa et al, 2013).

Despite the scarcity of studies on the mediation role of collaboration capability, Sharma and Vredenberg (1998) found that petroleum firms' proactive environmental strategies led to the development of collaboration capabilities which subsequently influenced the firms' competitive advantage. However, Sharma and Henriques (2005) argue that different dimensions of corporate sustainability are influenced by stakeholders differently. For example, they argued that external stakeholders have no influence on firms' initiatives of eco-efficiency initiatives. This suggests that firms may not necessarily need to establish collaborative relationships with external stakeholders in response to the execution of eco-efficiency initiatives. Similarly, Melubo and Lovelock (2018) noted that firms establish various partnerships with communities which improved delivery of social services, economy of individuals, and the conservation of biodiversity. This suggests that for corporate sustainability initiatives with immediate benefits to the community such as community and economy initiatives (Suluo, Anderson, et al., 2020), collaboration with external stakeholders may be necessary.

In contrast, for corporate sustainability initiatives with little immediate benefits to the community such as eco-efficiency initiatives (Suluo, Anderson, et al. 2020), collaboration with external stakeholders may not be necessary. Consequently, the collaboration capability, being an intangible resource, may have an effect on the improvement of firm performance (Sharma and Vredenberg, 1998; Surroca et al, 2010). It is therefore hypothesized that: (H2a) collaboration capabilities mediate the effect of community initiatives on firm financial performance; (H2b) collaboration capabilities mediate the effect of economy initiatives on firm financial performance; and (H2c) collaboration capabilities do not mediate the effect of eco-efficiency initiatives on firm financial performance.

Methodology

This study tests the hypothesized moderating roles of firm capabilities on the effect of corporate sustainability on financial performance of tourism firms in Tanzania. Thus, a quantitative approach was considered appropriate based on the study's objectives. In Tanzania's tourism industry, over 80% of tourism firms are either tour operators or accommodation businesses (United Republic of Tanzania (URT), 2018). Thus,

the study sampled tour operators and accommodation firms as the unit of analysis. Data was collected from the tour operators and accommodation facilities which are members of Tanzania Association of Tour Operators (TATO) and Hotel Association of Tanzania. There were 203 tour operators in the TATO members' directory and 186 accommodation facilities in the HAT members' directory. The directories were downloaded from the respective associations' websites.

Self-administered questionnaires were circulated physically to the offices of tour operators and accommodation firms. Every firm was required to fill only one questionnaire and was to be filled by individuals holding the top management positions. The top managers were considered relevant respondents since they receive information and make decisions about sustainability and financial matters of the firm. Finally, 304 properly filled questionnaires were collected, where 141 were from the accommodation firms (46%) and 163 from the tour operators (54%). This number was adequate for a structural model of 6 constructs with at least 3 measured items as indicators (Hair et al., 2010). The largest proportion of respondents (40%) was made up of directors/general managers. Other respondents included owner-managers (21%), finance managers (16%), operations managers (for tour operators) (14%), and sustainability/CSR managers (9%). The distribution based on firm size was as follows; micro-sized (31%), small-sized (49%), medium-sized (13%), and large-sized (7%).

Measures

Due to a non-availability of the secondary data on firms' capabilities and implementation of corporate sustainability initiatives, managers' self-perception measures were used (Aragon-Correa et al, 2008; Torugsa et al., 2013; Ghaderi et al, 2019). Similarly, perceptual measures were adopted for the measurement of the financial performance of tourism firms. Despite the bias which may be introduced with the subjectivity of perceptual measures, performance research in international contexts indicates that perceptual data can be more reliable than secondary data in emerging markets contexts (Hult et al., 2008). In the Sub Saharan Africa context, not only is the objective performance data of questionable reliability but also most tourism firms are reluctant to provide them. Moreover, empirical evidence suggests that the subjective measures have content validity and reliability too (Chandler & Hanks, 1993). The study constructs were thus measured as indicated below:

Corporate Sustainability: The corporate sustainability construct was measured in three separate initiatives – community, economy, and eco-efficiency. Measurement items for the three constructs were adopted from Suluo, Anderson, et al. (2020). Each of these three constructs was measured using items indicating initiatives the firm has actively been undertaking in the past five years. The measurement employs a five-point Likert scale ranging from 1 (never undertaken) to 5 (always undertaken).

Firm Capabilities: Firm capability was measured in two separate constructs – strategic proactivity capability and collaboration capability. Strategic proactivity capability was measured using items adopted from a validated scale developed by Aragon-Correa (1998) and later used by Aragon-Correa et al. (2008) and Torrugsa et al. (2013). Respondents were requested to rate the extent of their agreement with each statement using a five-point Likert-scale ranging from 1 (strongly disagree) to 5 (strongly agree). Collaboration capability was measured using scale items for external collaborations adopted from Allred et al. (2011). Respondents were requested to rate the extent of their agreement with each scale item using a five-point Likert-scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Financial Performance: Financial performance was measured in one construct. The construct was operationalized using, as a proxy, the managers' level of satisfaction with the overall financial situation of the firm for the past five years (Garay & Font, 2012; Molina-Azorín et al., 2009; Suluo, Anderson, et al., 2020). Respondents were requested to indicate their level of satisfaction with the overall financial situation of the firm in the past five years employing five-points Likert scale ranging from 1 (very poor) to 5 (very good).

Control Variables: Researchers indicate that corporate sustainability initiatives vary across the tourism industry subsectors (Dodds and Kuehnel, 2010; Martínez et al., 2013) and therefore is the effect of such initiatives on firm financial performance (Inoue and Lee, 2011; Lee and Park, 2009). Since this study collected data from both tour operators and accommodation firms, it was found necessary to control for the effect of firm type. Similarly, large firms' corporate sustainability initiatives are considered to be more effective due to their endowment of slack resources relative to small firms (Aguinis and Glavas, 2012; Van Beurden and Gössling, 2008). Again, this observation necessitated controlling for the effect of firm size. Firm type refers to whether a firm is an accommodation firm or tour operator. The firm size was determined based on the number of employees. According to the Tanzania National SMEs Policy of 2002, firm sizes based on number of employees are categorized as follows: the micro-sized (0 to less than 5), small-sized (5 to 49), medium-sized (50 – 99), and large firms (above 100).

A questionnaire was designed to capture all the measurement scale items for all the constructs as well as information required for control variables. The questionnaire was subjected to critical review by 4 experts from the tourism industry in Tanzania to ensure content validity. In addition, the questionnaire was subjected to a pilot test by 23 tourism firms' managers to test whether it was comprehensible and that the questions were well defined, clearly understood, and presented in a consistent manner. The final questionnaire was used for data collection.

Results

Confirmatory Factor Analysis

Model Fit

The CFA was conducted for 6 factors and 21 measurement scales. The confirmatory factor analysis results suggest that the measurement model provides a reasonable goodness-of-fit (x^2 = 315.81, df = 174, p = 0.000, x^2/df = 1.815, RMSEA = 0.055, SRMR = 0.0545, CFI = 0.963, TLI = 0.956) and thus it is suitable to proceed to examine construct validity.

Construct Validity and Reliability

From the confirmatory factor analysis results (Table 1), all standardized loadings estimates and AVE exceeded the recommended minimum of 0.5. Also, composite reliability values were above the recommended minimum of 0.7. The results also confirm discriminant validity since all AVEs are higher than inter-construct squared correlations. Scale reliability test results indicate that constructs passed the internal consistency (reliability) test since for each construct, the Cronbach's alpha coefficients were at least 0.7, items-to-total correlations exceeded 0.5 and inter-item correlations exceeded 0.3 (Pallant, 2013).

Table 1: Measurement Scales

		Loadings	AVE	CR	CA
Corporate Sustainability initiatives					
Community initiatives			0.717	0.949	0.909
SPS1	Our firm supports education projects	0.883			
SPS2	Our firm supports healthcare projects	0.891			
SPS3	Our firm helps communities have access to clean water	0.823			
SPN2	Our firm supports the conservation of wildlife and their habitats	0.785			
Economy initiatives			0.567	0.872	0.919
SPE1	Our firm purposely hires employees locally	0.689			
SPE2	Our firm purposely purchases its supplies locally	0.796			
SPE4	Our firm empowers women and youth economically	0.77			
Eco-efficiency initiatives			0.779	0.949	0.888
SPV1	Our firm ensures it uses its resources (energy, water, etc) efficiently	0.742			
SPV3	Our firm ensures it minimizes pollution	0.918			
SPV4	Our firm manages its wastes responsibly	0.971			
Firm Sustainability Capability					
Collaboration Capability			0.713	0.948	0.907
SRC1	Our firm regularly contacts with local communities' leaders to understand their sustainability challenges.	0.9			
SRC2	Our firm frequently make contacts with institutions (such as schools, hospitals, etc) to understand their sustainability challenges	0.832			

		Loadings	AVE	CR	CA
SRC3	Our firm frequently meet its stakeholders to discuss sustainability issues	0.85			
SPC1	Our firm always collaborates with various stakeholders to initiate, run or enhance sustainability initiatives	0.793			
Strategic Proactivity Capability			0.764	0.948	0.907
SPC2	Our firm has a variety of products/ services and we are always looking for new opportunities in the tourism industry to develop more packages.	0.888			
SPC3	The main technology focus of this firm is on having leading flexible and innovative technologies	0.843			
SPC4	Our planning systems are very open and flexible to allow us to seize new opportunities.	0.891			
Financial Performance			0.655	0.932	0.882
SFP1	Achieving the desired business growth	0.739			
SFP2	Securing the desired number of customers	0.811			
SFP3	Attaining desired sales level.	0.866			
SFP4	Attaining desired profit level.	0.817			

AVE = Average Variance Extracted; CR = Composite Reliability; CA = Cronbach AlphaCoefficient

Structural Equation Modelling (SEM) Analysis

Multivariate Assumptions

SEM analysis assumes that data distribution is normal, linearly related, and free from multicollinearity. Univariate and multivariate normality were reviewed using kurtosis critical values (Byrne, 2010). The results indicate that the univariate kurtosis values were less than 7 which suggests that data distribution is moderately normal (Byrne, 2010). Similarly, the multivariate kurtosis indicated that the critical ratio is 4.191 which suggests that the data was moderately multivariate non-normal but sufficient for the SEM estimation technique (Byrne, 2010; Ory and Mokhtarian, 2010). Multicollinearity was determined by the computation of the Variance Inflation Factor (VIF). The results show that all VIF values were less than 2, indicating that all exogenous variables were distinct from each other (Pallant,

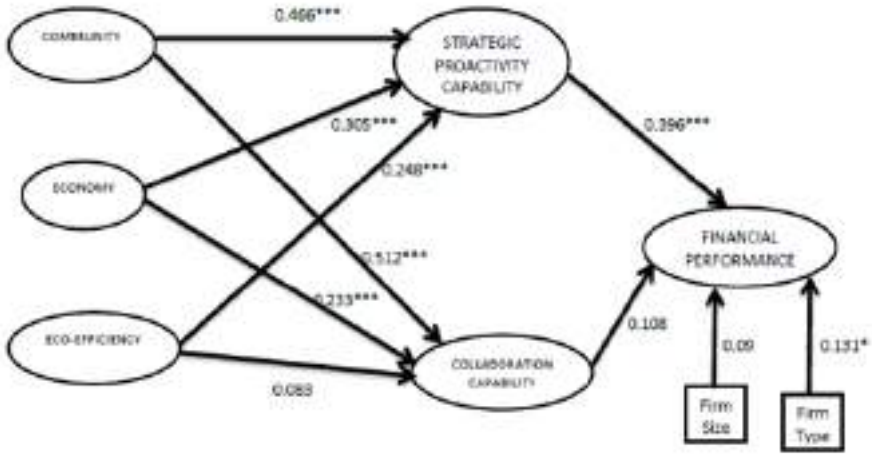
2013). Linearity among latent variables is difficult to assess. However, the linear relationship between pairs of measured variables can be assessed through a matrix of scatterplots between each pair of the variables (Pallant, 2013). The number of scatterplot matrices to be reviewed was relatively large, given a large number of items. Therefore, the evaluation was conducted through inspection of scatterplots matrices for several pairs of variables randomly selected from the data. The results indicated that the relationship between all the reviewed pairs of observed variables was moderate to strong linear.

Hypotheses Testing

The analyses of the structural models to test the hypotheses were conducted using AMOS version 23. To examine the mediation effects of firm capabilities on corporate sustainability initiatives and firm financial performance relationship, three alternative structural models were estimated. This is consistent with four conditions for examining the mediation effect by Baron and Kenny (1986) and their application by Maxham III and Netemeyer (2002) and Baldauf et al. (2009).

The first condition is satisfied if the independent variables (community, eco-efficiency, and economy) directly affect the mediators (strategic proactivity and collaboration capabilities). The second condition is satisfied if the mediators (strategic proactivity and collaboration capabilities) directly affect the dependent variables (financial performance). To review these two conditions, a full mediation model (Figure 1) was estimated with direct paths from independent variables to the mediator and from the mediator to a dependent variable but without direct paths from independent variables to the dependent variable.

Figure 1: Full Mediation Structural Model

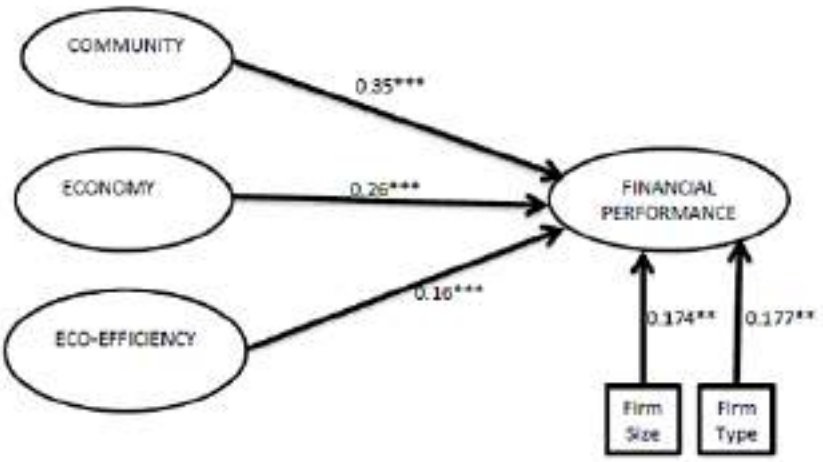


** p < 0.05; *p<0.01; *** p < 0.001*

The path coefficients in Table 2 indicate that all corporate sustainability initiatives positively and significantly relate to both the mediators (firm capabilities) except for eco-efficiency initiatives on the collaboration capability path. This suggests that condition 1 is met. The path coefficients in Table 2 further indicates that strategic proactivity capabilities (a mediator) positively and significantly relate to firm financial performance. However, collaboration capabilities have no significant relationship with firm financial performance. This suggests that condition 2 is met along the strategic proactivity capability path and not on the collaboration capability path.

The third condition is satisfied if the independent variables (community, eco-efficiency, and economy initiatives) directly affect the dependent variable (financial performance). To examine this condition, a Direct Effect Model (Figure 2) was estimated with direct paths from independent variables to the dependent variable, without paths linking mediator to independent or dependent variables. The structural path coefficients, Table 2, indicate that all corporate sustainability initiatives are positively and significantly related to firm financial performance. This suggests that condition 3 is met for all paths.

Figure 2: Direct Effects Model

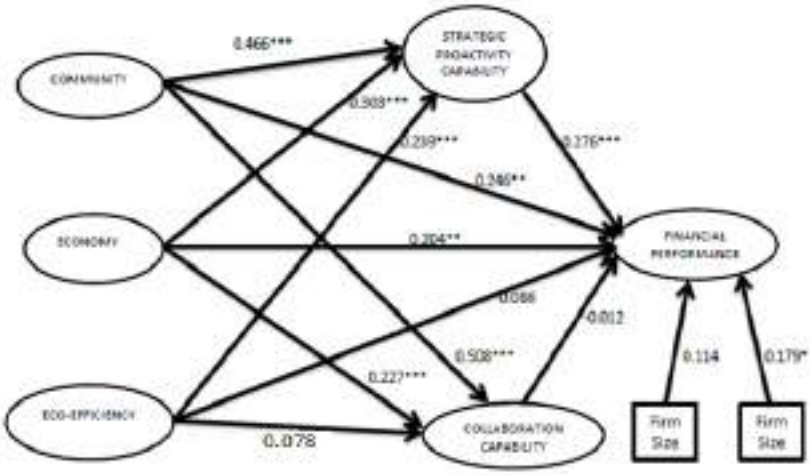


** p < 0.05; *p<0.01; *** p < 0.001*

The fourth mediating condition is satisfied if the direct paths from the independent variables (community, eco-efficiency, and economy initiatives) to the dependent variable (financial performance) become insignificant (signifying full mediation) or reduced in strength (signifying partial mediation) when the mediator is included in the model. This condition was evaluated using the partial mediation model (Figure 3). The path coefficients, Table 2 indicates that the direct path of eco-efficiency initiatives on firm financial performance has become insignificant and reduced

in strength after the introduction of mediators. Also, the direct paths of economy and community initiatives have been reduced in strength although they remain significant. This means that condition 4 is met.

Figure 3: Partial Mediation Model



** p < 0.05; *p<0.01; *** p < 0.001*

Therefore, the results suggest that strategic proactivity capability fully mediates the effect of eco-efficiency initiatives on firm financial performance while partially mediates the effect of economy and community initiatives, and firm financial performance. In contrast, collaboration capability has failed to mediate the effect of corporate sustainability initiatives on firm financial performance. Therefore, the results confirm hypotheses H1a, H1b, H1c, and H2c; while rejects the hypotheses H2a and H2b.

Table 2: SEM Analysis Results

			FULL MEDIATION	DIRECT EFFECT	PARTIAL MEDIATION
Collaboration Capability	<---	Community	0.512***		0.508***
	<---	Eco-efficiency	0.083		0.078
	<---	Economy	0.233***		0.227***
Financial Performance	<---	Collaboration	0.108		-0.012
	<---	Community		0.350***	0.246**
	<---	Eco-efficiency		0.164**	0.086
	<---	Economy		0.263***	0.204**
	<---	Firm Size	0.090	0.174**	0.114
	<---	Firm Type	0.131*	0.177**	0.179*
	<---	Strategic Proactivity	0.396***		0.276***

Strategic Proactivity	<---	Community	0.466***		0.459***
	<---	Economy	0.305***		0.303***
	<---	Eco-efficiency	0.248***		0.239***
Model Fit Estimates					
Chi-square			410.004	178.629	387.948
DF			212	91	208
CMIN/DF			1.934	1.963	1.865
p–value			0.000	0.000	0.000
CFI			0.952	0.967	0.956
TLI			0.943	0.956	0.947
RMSEA			0.058	0.059	0.056

* p < 0.05; ** p < 0.01; *** p < 0.001

The final test for partial mediation involved testing whether the partial mediation model produces a better fit than the full mediation model. The model fit statistics, Table 2, indicate that the partial mediation model has better model fit indices than the full mediation model. Moreover, a chi-square difference test was performed to determine if the difference between the models is significant. The results indicate that the partial mediation model is not significantly the best model than the full mediation model. The data, thus, support partial mediation for some corporate sustainability initiatives and full mediation for others.

Discussion

This study examined the mediation effect of firm sustainability capabilities on the effect of corporate sustainability initiatives on firm financial performance. The results indicate that strategic proactivity capability partially mediated the effect of corporate sustainability initiatives (community and economy) on firm financial performance, while fully mediated the effect of eco-efficiency initiatives on firm financial performance. However, the results showed that the mediation effect of collaboration capability on the effect of corporate sustainability initiatives on firm performance was not supported.

While these findings support prior studies (Christmann, 2000; López-Gamero et al., 2009; Ryszko, 2016; Sharma and Vredenberg, 1998) which indicate that firm capabilities mediate the effect of corporate sustainability on firm performance, they contrast the findings by Sharma & Vredenberg (1998) that collaboration capabilities have mediation role. The contrasting findings may be explained by the differences in the conceptualization of collaboration capability. According to Sharma and Vredenburg (1998), and Hart (1995) collaboration was expected to enable firms to use stakeholders' views to incorporate sustainability in improving its internal processes and products design to reflect sustainability concerns. However, in this

study collaboration capability enabled firms to transfer their sustainability functions to the stakeholders for implementation.

The findings imply that strategic proactivity is the most effective capability that may ensure firms' corporate sustainability initiatives result in financial pay-offs. This seems to stem from the very nature of strategic proactivity capability, that is, it is the firm's ability to turn corporate sustainability opportunities and risks into its advantage (Aragon-Correa, 1998; Torrugsa et al, 2013). In contrast, the findings imply that collaboration with stakeholders does not guarantee firms' corporate sustainability initiatives' financial pay-offs. This suggests that collaboration with stakeholders, especially one which focuses on outsourcing corporate sustainability implementation, does not necessarily enhance firm financial performance. In other words, the results suggest that outsourcing of corporate sustainability initiatives through collaboration does not contribute to enhanced financial performance unless the firm also develops strategic approaches to the implementation of corporate sustainability initiatives.

The results showed that all corporate sustainability initiatives have significant positive relationships with strategic proactivity capability. This indicates that as firms increase their involvement in corporate sustainability initiatives, they tend to shift away from ad-hoc to the strategic proactive implementation of corporate sustainability. When firms' corporate sustainability involvement is higher, more resources, efforts, and stakeholders are involved in the process; something which makes it difficult for corporate sustainability implementation to be effective without adopting a strategic proactive stance. The results showed that community initiatives were the strongest predictors of strategic proactivity capability followed by economy initiatives. In comparison with other initiatives, the community is the most common corporate sustainability initiative in the Sub–Saharan African context (Kühn et al., 2018; Melubo and Lovelock, 2018; Visser, 2006; Suluo, Mossberg, et al., 2020) and involves making philanthropic contributions towards community projects with little direct reciprocal benefits to firm self-interests (Suluo, Anderson, et al., 2020). Therefore, firms may need strategic proactivity capabilities to ensure the link between community initiatives and firm self-interests become more certain. Relatively, firms may enjoy immediate financial benefits when they engage in both economy and eco-efficiency initiatives (Suluo, Anderson, et al., 2020) and thus relatively little strategic proactivity is required to align these initiatives with firms' self-interests. This may explain why relative to community initiatives, the other two initiatives have relatively low predictive power on firm strategic proactivity capabilities.

Corporate sustainability initiatives also have a significant positive relationship with collaboration capability except for eco-efficiency initiatives. This means that effective execution of community and economy initiatives leads to the establishment of collaborations with local communities and NGOs. In contrast, eco-efficiency initiatives, consistent with Sharma and Henriques (2005), do not

demand firm collaboration with external stakeholders. This observation implies that since community and economy initiatives have direct immediate benefits to the community in comparison to eco-efficiency initiatives (Suluo, Anderson, et al., 2020); their successful implementation requires close collaboration with community stakeholders. However, since eco-efficiency initiatives are mainly linked to firms' internal operational efficiency and have little, if any, direct immediate benefits to the community within which the firm operates (Suluo, Anderson, et al., 2020), do not demand external stakeholders' collaboration for its effective implementation (Sharma & Henriques, 2005).

While these results confirm NRBV's proposition that corporate sustainability initiatives trigger the development of firm sustainability initiatives (Hart, 1995; Sharma and Vredenburg, 1998), they further indicate that corporate sustainability initiatives have varying relationships with different capabilities. This observation implies that a given corporate sustainability initiative triggers the development of firm capabilities which are specifically important in ensuring the overall effectiveness and efficiency of such a particular initiative. Where the capability is not necessary for effective implementation of a particular initiative, there will be no significant effect of such initiative and the capability. Therefore, the overall goal of the firm to establish an initiative will decide the nature of a capability that firms need to develop to ensure the effective and efficient use of resources in attaining the intended goal.

Conclusion

This study examined the mediating effect of firms' capabilities on the effect of corporate sustainability initiatives on the financial performance of tourism firms in Tanzania. The results showed that strategic proactivity capability partially mediates the effect of the community and economy initiatives on firms' financial performance while fully mediates the effect of eco-efficiency initiatives on firm financial performance. The mediation effect of collaboration capability was not supported.

In Sub–Saharan Africa, sustainability initiatives targeting to benefit the community are highly valued by the stakeholders and firms emphasize them while other non-community related initiatives are given little emphasis (Kühn et al., 2018; Melubo and Lovelock, 2018; Suluo, Anderson, et al., 2020). Therefore, in light of these findings, it may be postulated that the effect of corporate sustainability initiatives, which are highly valued in a particular context, on firm financial performance is likely to be partially mediated through strategic oriented firm capabilities. This may be true because highly emphasized/valued initiatives are those which bring a win-win solution to both firms and stakeholders (Suluo, Anderson, et al., 2020). Therefore, firms do not need to put much effort to align their corporate sustainability initiatives with firm self-interests. However, the effect of corporate sustainability initiatives, which are less valued by stakeholders in a particular context, on firm financial performance is likely to be fully mediated through strategic oriented firm capabilities. This means that, since such initiatives do not bring a win-win solution

to both firms and stakeholders (Suluo, Anderson, et al., 2020), firms require more strategic proactivity efforts to align the outcome of such initiatives with firms' self-interests.

The results imply that firms may hasten the adoption of sustainable development principles with confidence that it pays to do so. However, the study clarifies that there are two ways through which firms may guarantee financial pay-offs from their corporate sustainability commitments. First, corporate sustainability initiatives that have direct benefits to the society, such as community and economy initiatives in Sub–Saharan Africa have direct reciprocal financial benefits to the firm even when undertaken in an ad-hoc manner. However, those initiatives which do not benefit the society directly, such as eco-efficiency in Sub–Saharan Africa, may not have direct reciprocal firm benefits. This means that even firms which have low ability to develop a strategic proactive approach to corporate sustainability implementation may focus on corporate sustainability initiatives which are highly valued by the primary stakeholders in their business contexts, as a starting point. Second, regardless of the nature of corporate sustainability initiative, undertaking corporate sustainability initiatives through a strategic proactive approach will pay-off. This is because a strategic approach to corporate sustainability implementation enables firms to align their corporate sustainability initiatives with their self-interests.

It is thus important for tourism firms' associations, government authorities, and NGOs to popularise the narrative that "it pays to be good". Moreover, the policymakers need to understand that firms always prefer to invest in initiatives that enhance their self-interests. To encourage more firms to adopt sustainable development principles, the government needs to reward such efforts by providing incentives, such as tax-related incentives, to firms that engage in corporate sustainability. Moreover, tourism firms' associations need to promote the application of sustainability certifications so that firms' sustainability efforts may be recognized and rewarded.

This study has several limitations. The mediating effect of firm sustainability capabilities on the effect of corporate sustainability initiatives on firm performance was analysed using the NRVB lens. Other theories, such as Stakeholders' Theory (Anderson et. al, 2017; Theodoulidis et al, 2017), also provide a different perspective on how this relationship can be evaluated as well as providing room to identify other non-capabilities mediators. Also, this study focused on the capabilities aspect of NRBV. The NRBV also argues that physical resources may act as a mediating variable between corporate sustainability and firm performance if they are valuable, rare, inimitable, and non-substitutable (Hart, 1995). Future studies may as well consider the mediating effect of physical, financial, and intangible sustainability firm resources on the effect of corporate sustainability initiatives on firm financial performance.

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Service Innovation: Does Tourist Interaction and feedback Matter?

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Abstract:

Tourist interactions with service providers are an obvious action that facilitates tourism experience. Yet, the knowledge about the effects that can be obtained from these interactions in conjunction with the tourist's feedback is slightly limited. Therefore, the purpose of this study is to examine the direct and indirect relationships between tourist's interaction and tourist's feedback on service innovation. This study is based on survey data from a sample of 290 tourism firms. In order to test the direct and indirect relationships between tourist's interactions, tourist's feedback on service innovation Structural Equation Modelling (SEM) was used in the Partial Least Square method while measurement scales were adopted from the previous studies. The findings answer the research questions raised in this study and reveal that both tourist's interactions and tourist's feedback have positive and significant relationship on service innovation. In the direct relationship, tourist's interactions portrayed a strong positive relationship to service innovation meanwhile the results also suggest a partial mediation of tourist's feedback on tourist's interactions and service innovation. The results of the study enrich the service industry in a way to capitalize on interactions and feedback towards new service generation. Thus, managers are at a high point to set strategies to improve interactions as means towards good service innovation practices. In addition managers should emphasize strong interactions with their customers in all stages of service production. The study offers an extension of the theoretical understanding in interactions as applied in the service dominant logic. Apart from the exchange focus, interactions can be used as information sources for service innovation across firms. Thus, this study contributes to the theoretical framework of co creation and service innovation.

Key words: Interactions, Feedback, Service Innovation and Tourism

Introduction

Interactions are inevitable actions in service-related industries; they offer important platforms for customers and employees to communicate, share information and accomplish service delivery process. Nevertheless, until recently relatively little research has focused on interactions in deed with focus to the human context (Hornbæk and Oulasvirta, 2017). Interactions facilitate a number of activities in

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service organizations, such as exchange process of information and knowledge, service delivery and service design (Storey & Larbig, 2018); they involve customer involvement (Alam, 2018) and further connected to overall service innovation (Alam, 2006). Hornbæk and Oulasvirta (2017) argued that human interaction in service industries should be a research topic since there is lack of scientific and homogenous definition as more concepts are derived from human computer interactions and in technology related industries. The existing studies on interactions have already revealed interesting results about interactions behaviour's among frontline employees, but in order to understand the diverse roles of these interactions in services and individuals, we still need to explore more on the effects in various dimensions of service value chain (Vargo & Lusch, 2008). This study aims to examine the effect of interactions particularly on service innovation and their influencing power to generate customer feedback, for the tourism firms in the service sphere. The study intends to answer the following questions; Do interactions influence service innovation? Is customer feedback a result of interactions? Does customer feedback mediate the relationship between interactions and service innovation? These questions target to answer the overall research question that; Does tourist interaction and feedback matter in service innovation?

Previous studies have synthesized service innovation as it clarifies the use of interactions as an essential element in the development of new services (Alam, 2002; Taghizadeh, Rahman, and Marimuthu, 2018). Basically, the assumptions on this concept are derived from the value co creation among customers and the firm as joint parties that collectively work together for their mutual benefit through an exchange process (Vargo and Lusch, 2004). This working stance originates from many other concepts such as market and learning orientations which have opened up for dipper customer engagement (Jaworski and Kohli, 1993; Slater and Narver, 1995). To-date the attitude of interacting and absorbing customer information has enslaved the service industry and raised more concern in the literature (Eide and Mossberg, 2013; Alam, 2013; Storey and Larbig, 2018). The study refers interactions to all the conversations taking place in the service process which in turn deliver customer information available for any further action.

These conversations basically involve the exchange of information but, at times, also goods and services (Hornbæk and Oulasvirta, 2017). That is to say, referring to the tourism sector, customer service delivery is accompanied by many pre and post conversations which are termed useful for service rectification. Through such dialogues, the working firms get access to customer needs and possible solutions as related inputs for the NSD process which is nowhere else to be found except from customers (Nambisan, 2002). This suggest that by interacting with customers, the firms get access to new ideas, knowledge and other resourceful information which can facilitate a better new service development process (Matthing, Sandén, and Edvardsson, 2004; Fang, 2008; Storey and Larbig, 2018). Based on this relevance this study aims at examining the mediating role of tourists' feedback between interactions and service innovation in the context of tourism firms. With this

objective, this paper proceeds with the literature review, followed by the research methodology, results, discussion, implications, limitations and lastly the conclusion.

Literature review

Theoretical foundation

Ever since the evolution of relationship marketing, the role of customers in several firm activities has been enormous. Customers play a great role in product and service modification and supporting the establishment of new services. Indeed, the theoretical foundation regarding such customer roles has been dispersed and scattered in several disciplines. Mostly, interactions have been studied in communication and advertisement research, human computer interaction (Bødker, 1995; Hornbæk and Oulasvirta, 2017) and on technology related fields (Kirlik, 2006). In relationship marketing, the concept is at its infant stage (Vargo and Lusch, 2004; Heinonen et al., 2010). Therefore, the theoretical framework of this is derived from the service dominant logic and customer dominant logic which integrates interactions and customer activities as necessary aspects of value formation (Vargo and Lusch, 2004; Heinonen et al, 2010).

Service dominant logic is relevant since it offers the importance of interactions as a medium to service delivery between the firm and the customers who exchange their skills and information for value creation. Similarly, the customer dominant logic embraces the customer's activities, experiences and their life context in the service delivery process (Heinonen et al, 2010). Thus both theories intend to bring new managerial strategies that look at customers and the firm in a wider perspective.

Empirically, the view of customers as a source of innovative ideas has its origin from the literature including von Hippel (1986) and Groth (2004). As users of services, customers share their needs and preferences to meet their desired want; in such they offer the firm information related to the services and goods at the service environment. Ramirez et al., (2018) suggest that innovative ideas come from both the internal and external environment. While internally innovative ideas come from employees and other firm related personnel, the external innovative ideas are explained to be from customers, suppliers and even competitors. From customers, information is obtained through customer activities, experience and dialogues which later enhance value formation (Heinonen et al, 2010). Contacting and working in collaboration with customers enhances product performance as it enhances the understanding of user needs and reduced development costs (Urban and von Hippel, 1988). Not only that, this further increases the success on product development process (Laage-Hellman, Lind and Perna, 2014).

From this perspective, the NSD not only rely on internal firm resources (Ramirez et al, 2018) but also on another three aspects. The first is the effectiveness and the ability of the firm to integrate its customer information. Second, its interactions and modes build to capture the information within the service context (Alam, 2002).

Third is the relationship with the external parties (Vargo and Lusch, 2004). Thus, another study acknowledges that the more the firm links with its external parties the more it realizes its innovation (Laursen and Salter, 2006).

Service Innovation

New service development is an aspect of innovation that is vital for building a firm's competitive advantage (Schumpeter, 1934). Innovation literature regards NSD as the creation of new services or the modification of the available services for the purpose of meeting new customer demand, responding to customer preferences and building a firm's innovative capacity (Matthing, Sanden and Edvardsson, 2004; Eide and Mossberg, 2013; Hjalager, 2015). Generally, innovation is referred to as the act of creating or improving firm products (both tangible and intangible); process; organization and markets (OECD, 2005). As such, the NSD art can take place in any form of innovation through to products being the final service output. Also, in the service process it may include the ways in which services are delivered to include the approaches of delivery and tools of service delivery. In the organization forms, NSD is reflected in the structure of the firm, its service delivery culture and its management approaches. Moreover, in the market approach it covers the distribution systems, new markets and all sort of marketing approaches. Arguably NSD is embraced as one form of innovation taking place in the service sector. It exists in the establishment and design of new customer services, products, process, organization, markets and all sort of improvement associated with the service (OECD, 2005). Overall, NSD has ruled the recent literature for its interactivity with several theories, industries and multiple firm advantages.

Interactions

Interaction is by far compulsory in the service industry. The reason being the inseparability of the services with its providers makes it more complex and dependent on many variables. Interactions are the most vital element that make the service exchange process sustainable (Nambisan, 2002; Alam, 2013). Interactions act as the medium through which services are delivered and value is transferred from the service providers to the service users (Vargo and Lusch, 2004). According to the service dominant logic, both players contain value items and resources which need to be exchanged and create a mutual benefit amongst them (Vargo and Lusch, 2004). However, such resources and knowledge are scattered across several stages of interaction. According to Alam (2002), customer interaction is more intense at the initial stages during idea generation. At this point several information and customer ideas are extracted, which later in the analysis stage through sorting very fine and visible ideas pass to the next step. At several stages customers are involved in the whole process of service generation and value creation. Similarly, special customer interaction and involvement through lead users in specific stages of new product development reveal positive impact on new products/services (Gruner and Homburg, 2000). Generally, firm-customer interaction is necessary for successful innovation (Im and Workman, 2004) and different modes of interactions result into

specific types of innovation such as products, markets, process and organization (Eide and Mossberg, 2013). So we suggest that;

Tourist interaction with firm supporting staff has a direct positive relationship with service innovation

Customer feedback

Customer post service information is broadly described as all information provided by the customers during and after service delivery (Nguyen Hau and Thuy 2016). This information is specific to the firm, employees, services, products and service process based on their own service experience. The information is vigorous for improving firms' services and other marketing decisions (Chang and Taylor 2016). Recalling this in the customer dominant logic, customer post service information is cited as one of the customer experience moments that come last after service delivery (Heinonen et al, 2010). Such information happens due to either service consumption; firms' interaction experience in the service delivery process to create information and actions which customers offer to the service provider or others regarding their service experience (Heinonen et al, 2010). Other literature describes this as an extra role of customer behavior in the service industry which may include suggestions to service improvement, complaints, complements and appraisal towards the service and its service providers (Groth, 2004). Through such behavior, customer information has entrenched firms with significant benefits. These include enhancing product marketing speed (Fang, 2008) and facilitating new product performance (Chang and Taylor, 2016; Morgan Obal and Anokhin, 2018). Others are improving the firms' innovative capability (Belkahla and Triki, 2011) and increased internal knowledge (Ramirez et al, 2018). All these, lastly facilitate the new service development process.

Tourist feedback mediates the positive relationship between tourist interaction and service innovation

Research methodology

Sampling

In order to answer the research questions in this study, tourism firms which interact with the tourists for the sake of providing them with tourism services were selected for survey. In particular, tour operators and cultural enterprises were purposely selected because they were observed to be involved in the designing of new services for the past years but also, they were the most involved with tourists as far as tourism experience is concerned (TACTO, 2018, January 3rd). These firms were selected from three parts of Tanzania which carry out tourism activities more than the rest of the parts in the country namely; Arusha, Kilimanjaro and Zanzibar. The regions were also observed to have at least one specific highly consumed tourism attraction, for instance wildlife tourism from Arusha which accounts for 30.9% of all tourist arriving in 2016. Beach tourism in Zanzibar which occupies 22.7% of all tourists and cultural and mountain climbing in Kilimanjaro which occupies 12.4% of all

tourists arriving in Tanzania for the year 2016 (National Bureau of Statistics, 2017). In total the three regions accounted for 72% of all tourists visiting Tanzania for that particular year.

The population of these firms was determined using the international travelling website known as Trip advisor where as a total of 960 firms were found from these three regions (514 = Arusha; 221= Kilimanjaro; 225 = Zanzibar). After determining the sampling frame, random sampling technique was applied in order to attain the required minimum sample. A total of four hundred and eighty firms were sampled and surveyed. During the survey, a questionnaire was used to gather the required information from managers of these firms for a period of three month from 15th January to 31st March 2018 by three personnel namely the researcher and two research assistants. Each personnel were assigned to one region and the research assistants were trained to be familiar with the research objectives but also, they were informed about the possible data collection setbacks like rejection. A total of 480 questionnaires were physically administered in the areas and 295 questionnaires were successfully filled in and collected. The response rate was 61.5% of the randomly selected sample. The study experienced high response rate due to prior communication made through phone calls to the prospective sample with regard to the intention to have them surveyed. But also, through the use of three research personnel during data collection with multiple collection strategies (Creating awareness and making physical survey). After the survey, data was systematically cleaned by checking for missing values and outliers both for univariate and for multivariate. The data was cleaned and checked for outliers and multivariate assumptions to ensure non bias and influential results. Out of two hundred and ninety-five (295) collected questionnaires, 5 questionnaires were omitted from the sample for multivariate outlier problems, 290 questionnaires met the quality for further analysis. According to Hair et al., (2014), this sample size is adequate for Structural Equation Modelling.

Measures

A total of three constructs were in the study namely service innovation, interaction and feedback. By using previous studies scales the questionnaire was developed. For service innovation items were adopted from multiple scales measured in six items from Knowles, Hansen and Dibrell (2008). These items are intended to capture the extent to which firms seek information and implement service innovation. Interaction was measured in seven items adopted from Rindfleisch and Moorman (2001). These items focused on how close customers and the firm service providers feel to one another during and after services. Lastly, the feedback was measured in seven items adopted from Belkahla and Triki (2011) and Yi and Gong (2013). These items measured the extent to which the firm seek and act on customer after service information. All the variables were measured in the five Likert scales, one representing strongly disagree and five referring to strongly agree.

Analysis and Results

The study analysis was carried out by Partial Least Squares (PLS) to estimate the proposed model and the measurement scale. This technique was chosen over LISREL and AMOS for its ability to estimate the structural model by the use of the previous developed scales, but also due to its ability to deal with non-normal data. In the study the data was slightly non normal hence the use of PLS was also to ensure its ability to handle such kind of scenarios. Moreover PLS-SEM was used for the prediction purpose with the ability to carry out mediation simultaneously during model estimation.

Descriptive Results

In a sample of 290 tourism firms the descriptive results indicates that tour operators represent 77% of the sample and 23% represent the cultural enterprises. It can be observed that tour operators represent a large group of the respondents; however, compared to their overall population this was only 27% of its population (816). While cultural enterprises represent the minority group yet the 23% was equivalent to 47 % of its overall population (144). This suggests that by representation, cultural enterprises were highly represented compared to the tour operators. Moreover, the sample was geographically diverse in all the three tourism cities known in the country such that 45% of the sample was from Arusha, 30% of the sample was from Zanzibar and 25% of the sample was from Kilimanjaro. Among these firms 68% offer between 4 to 6 services and 32% offer equally below and above 4 and 6 services respectively. In these firms about 43% age between 7 to 14 years which represent the largest age group. However, there was one firm which was older than the rest aging 68 years. Generally, the sample was characterized by small and medium size firms to the extent of 60%. These employ around 5 to 20 employees however in the sample there one was highly employing firm which had 800 employees. The average number of customers received by these firms range between 100 to 700 customers per year (45%), while 32% receive up to 99 customer and a few firms receive above 10,000 customers a year.

According to the mean, standard deviations and correlations the dependent variable NSD shows a positive relationship with customer post service information and firm-customer interaction. Moreover, with the other firm characteristics, NSD, customer post service information and firm-customer interaction are positively related to the number of customers, new services developed and the overall firm's total services. Such results provide support for further analysis.

Table 3: Correlations and Descriptive Statistics

	Mean	**SD**	1	2	3	4	5	6	7	8
Service Innovation	3.88	.608	**1**							
Tourist Interaction	4.01	.576	.557**	**1**						
Tourist Feedback	4.11	.603	.568**	.617**	**1**					

4.Firm Age	11.57	8.432	.097	.137*	.077	**1**				
5.No. Employees	22.88	53.201	.048	.124*	.078	.399**	**1**			
6.No. Customers	737.47	1500.82	.346**	.361**	.274**	.315**	.209**	**1**		
7.No. Services	5.00	1.618	.232**	.261**	.297**	.275**	.180**	.407**	**1**	
8.No. New Services	2.88	1.377	.260**	.206**	.250**	.293**	.150*	.427**	.422**	**1**

**. ; *. Pearson Correlation is significant at p< 0.01; p< 0.05
SD. Standard Deviation

Validity and Reliability Results

Through confirmatory factor analysis, the study variables were checked for validity and reliability. Validity was measured by Average Variance Extracted (AVE) whereas all values were above 0.5, while construct reliability was all above 0.7 that indicates convergence/internal consistency (Hair, et al., 2014). The model fit met the minimum required value after model specification. Two items were dropped during model specification from NSD and Interaction. See Table 1.

Table 4: Variables and Measures

Variable and items	**Factor Loading**	**AVE**	**CR**
Service Innovation		***0.690***	***0.93***
Our company actively seeks new service processes from outside this organization.	.821		
Within our company, we are able to implement new service processes used by other companies.	.782		
Our company actively seeks new products from outside this organization.	.832		
Our company actively seeks new business systems from outside this organization.	.854		
Within our company, we are able to implement new business systems used by other companies.	.839		
Within our company, we are able to implement new service used by other companies.	.852		
Tourist Feedback		***0.675***	***0.936***

Variable and items	**Factor Loading**	**AVE**	**CR**
Tourists' feedback helps us rectify new products/services after their diffusion.	.762		
Collecting information about and from tourists allows us to be accurate in developing new products.	.775		
We adapt and modify our new products/services on the basis of tourists' feedback.	.778		
We draw upon tourists' suggestions to launch new products and services.	.875		
When tourists encounter a problem during service, they let the service provider know.	.874		
When customers receive a good service from the employee, they comment on it.	.817		
If customers have useful ideas on how to improve service, they let the employee know.	.861		
Interaction		***0.673***	***0.935***
Customer knowledge is generated through focus groups with tourists interacting sessions	764		
We communicate knowledge about new products/ services with the tourists	.834		
Tourist databases are used to facilitate the traceability and transparency of customer knowledge	.788		
Tourists feel indebted to our services and for what we have done for them.	.886		
Our relationship with our customer can be defined as "equally rewarding."	.806		
We share close social relationship with the tourists	825		
We expect that we will be working with our customers far into the near future	.834		
Average Variance Extracted (AVE) was calculated according to Hair et al, 2014: p > 0.5; CR= Construct Reliability			

Table 5: Discriminant validity

Discriminant validity			
	Feedback	Interaction	Service Innovation
Feedback	**0.822**		
Interaction	0.626	**0.82**	
Service Innovation	0.583	0.568	**0.83**

Hypotheses Test Results

In order to test the hypothesis, SEM was utilized to examine the relationships between variables. SEM was appropriate because of its ability to test both the hypothesis and the mediation between variables and to properly confirm the significance of the results through bootstrapping. The analysis of the structural model was by assessing R^2, the Critical Ratio, and the respective regression weights. The direct relationship between firm-customer interaction and NSD was significant and positive (0.377; $p<0.001$) with the critical ratio of 7.821 greater than 1.96 and the total variance explained being 25%. This result indicates that as a firm interacts with its customers it has positive outcomes in its NSD and such interactions increase the rate of new services due to the assumed greater input from customers. Thus, the direct relationship is supported by such results. See Figure 1 below;

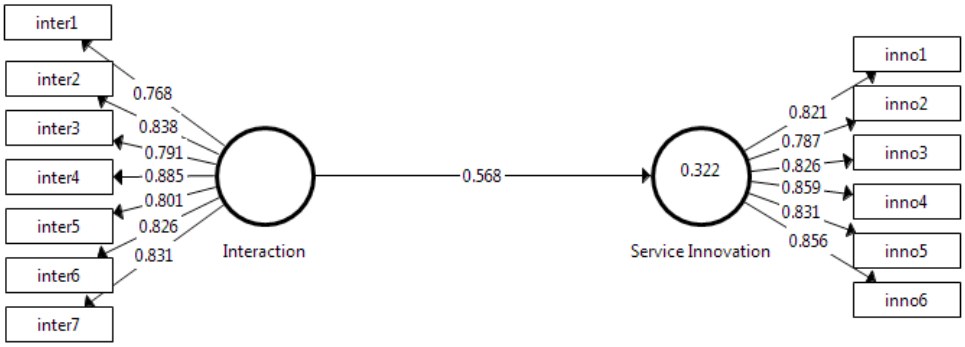

Figure 1: The Direct Relationship Results

The indirect relationship was tested whereas customer post service information was used as a mediator of NSD and firm-customer interaction. Through bootstrapping it was confirmed that customer post service information partially mediates the relationship of NSD and firm-customer interaction (0.202; $p<0.001$) with the critical ratio of 4.187 greater than 1.96 and the total variance explained being 40%. The indirect effects result is significant on a two-tail bootstrapping confidence (0.178; $p<0.001$) to indicate the indirect relationship and the occurrence of partial mediation since the direct relationship remains significant with reduced effect from 0.5 to .27.

See Figure 2 below;

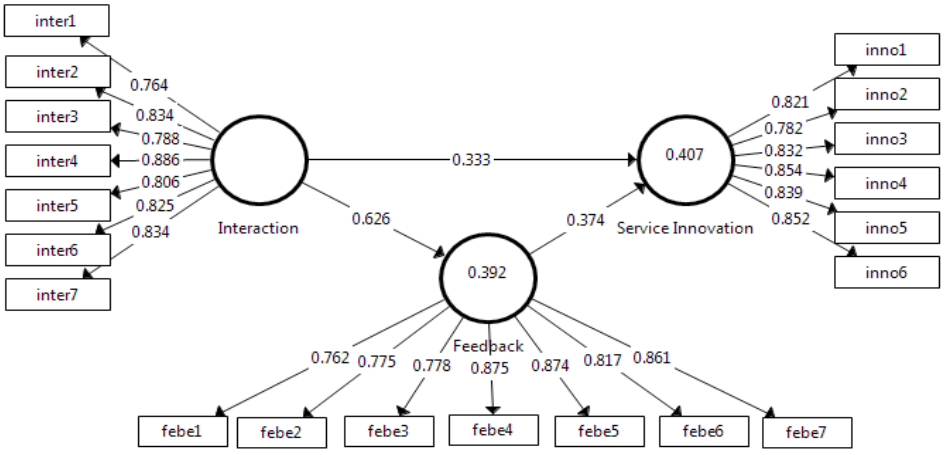

Figure 2: The Indirect Relationship Results (Mediated Model)

Hypothesis	**Direct**	**Indirect**	**Total effect**	**(R^2)**	**Result comments**
Inter - Innovation	0.568(sig)	**Na**	**Na**	**32%**	Significant
Inter- Feedback	0.626(sig)	**Na**	**Na**	**39%**	Significant
Inter-Feedback-Innovation	0.333 (sig)	0.235 (sig)	**0.568**	**41%**	Partial Mediation

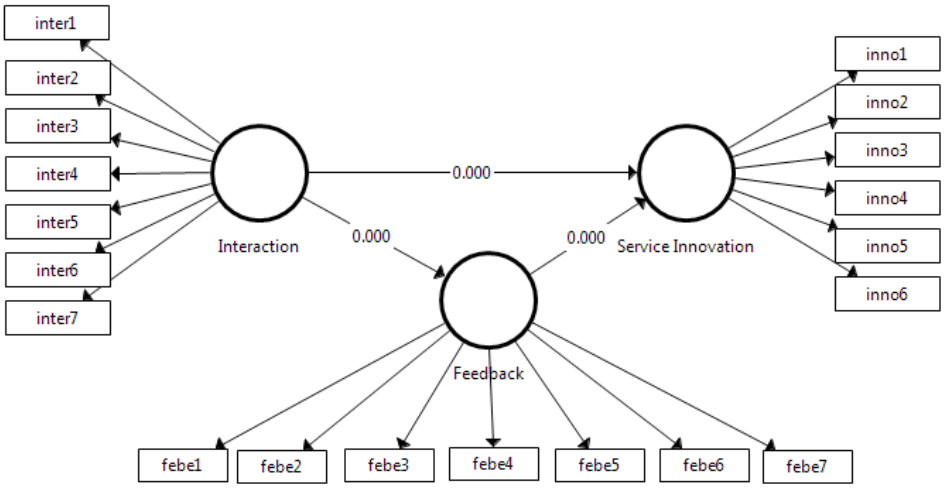

Figure 3: Bootstrapping results

Discussion of the findings

The aim of the study was in a large extent to test the mediation of tourist feedback on service innovation and tourist interaction. But prior to this, the direct relationship between these variables was checked whereas significant and positive relationship was witnessed. As a result, the further analysis revealed that, in the presence of tourist feedback, the relationship between interactions and service innovation yields appealing results. The explanatory power of interaction increases in presence of tourist feedback by 9%, this means that interactions have greater effect on feedback compared to service innovation which further enhances its effect to the service innovation. This effect was also witnessed in the path coefficient where there was around 6% difference between the two paths. The interactions' ability creates better positive results as they stimulate further information from customers during and after their service process. The analysis and the results indicate that, NSD is well explained when a firm emphasizes on customer post service information rather than manipulating on basic interactions alone. Such results imply that, firms which focus on preparing their customers to provide more information on their service process have greater access to customer post service information. Reflecting this to the tourism sector, such results have as significant a contribution to managers in the service industry as the recent tourism sector which has been greatly depending on customer reviews as they become more responsive to other experienced customer information. This information is basically significant as it has a pure feeling of the firm's services and these customers represent a true picture of exactly what exists in the services.

These results are similar and in support of customer involvement in the innovation process according to Matthing, Sanden and Edvardsson, (2004). But also, in Fang

(2008) similar customer participation aspects have been noticed to improve products' performance and their ability to be known in the market through customers. Along with such remarks Taghizadeh, Rahman and Marimuthu, (2018) also suggest that both internal and external idea generation opportunities make a great contribution in value creation as such ideas become useful for service restructuring and redesigning. At the same time, interactions studies also emphasize the usefulness of interactions as a source of information to new service development process. Several studies note that interactions are a crucial part of the innovation process. According to Alam (2013) as customers interact with the innovation team, they offer new service ideas for better services. But also, customer's information during interactions can be used to reconcile some redesigning conflicts in the innovation process. Conclusively, both interactions and customers post service information are termed in this study as influencers of NSD, more specifically when interaction is used as a means to stimulate customer post service information and is later used as a mediator for NSD.

Conclusion and implications

This study intends to propose a framework and empirical evidence on the relationship between firm-customer interactions, customer post service information and new service development. Our findings reveal that in the presence of customer post service information, firm-customer interaction has a strong, significant positive relationship with new service development. This positive significant relationship was also revealed in both firm-customer interactions and customer post service information to new service development. However, the direct relationship was weaker than the mediated relationship. The study offers both theoretical and empirical contribution in understanding interactions and customers as applied in the service and customer dominant logics. Practically to managers the study underlines the use of interactions in generating more customer post service information which ultimately could enhance the development of new services. Therefore, this study adds to the customer and interaction related literature to bring about the combination of factors that work best in the development of new services which is an important issue in the innovation literature.

Developing new services is an art and a strategic action that requires a high level of users (customers) self-information and their overall engagement (Matthing, Sanden and Edvardsson, 2004; Alam, 2013). Customer self-information and their engagement has been viewed as a source of new ideas and suggestions that are useful for new service development and service improvement (Matthing, Sanden and Edvardsson, 2004). Recalling from the service dominant logic, interactions are means through which services are exchanged and value creation is enhanced (Vargo and Lusch, 2004; Lusch and Nambisan, 2015). In addition, the customer dominant logic suggests that, customers are the key resource in the service process as they facilitate value formation. That is to say firms that have a strong link with their customers and know how to position these customers, can access useful ideas,

suggestions and comments for improving their services and easily create the new ones which better fit customer's needs. These results give an insight on the use of interactions between the firm's employees and the customers to facilitate the provision of after service customer information. This helps the process of making new services an easy task since the services developed reflect the customer experiences that come from their related interactions. In this way, firms end up creating quality services and offer their customers required satisfactions.

Therefore, companies that strictly capitalize on interactions have a high possibility of obtaining more after service customer information which also in turn gives positive results in new service development. Since NSD involves the understanding of customer needs and preferences (Matthing, Sanden and Edvardsson, 2004), managers need to consider the proper means of improving the interaction's quality and also create strategic mechanisms that will gather more information from their customers. Such strategic approaches may include enhancing active customer support systems which are easily tracked for information processing. But, moreover, managers may be enhanced through interactions to create a set of procedures that may help in shaping the overall customer experience and satisfaction.

Study limitations and future research areas

These study findings need to be interpreted with respect to the following limitations. First, the measurement scale used for firm-customer interactions was drawn from several different scales which may indicate inconsistency in the measure of interaction. Thus, this study recommends the development of new scales to measure interactions as it has become one of the key concepts in innovation and value co creation. Second, the study was sector specific in the tourism sector which is highly diverse with many business lines having different settings that may result in different business approaches, hence different practices which may affect results. Therefore, the study suggests the use of one specific firm type within a given service sector in order to make concrete similarities, differences and even generalization. Methodologically the study suggests the use of other multivariate analysis techniques in order to increase the reliability of the results.

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PART TWO: GEOGRAPHICAL AND PRODUCT-WISE DIVERSIFICATION FOR INCLUSIVE TOURISM DEVELOPMENT IN THE SELECTED LAKESIDE REGIONS OF TANZANIA

Summary

The inclusive destination development approach, value chain analysis and sustainable livelihoods analysis are desirable in the underdeveloped tourist circuit such as the lakeside, western and southern tourist circuits in Tanzania. For example, the overreliance on mining and extractive industries for the past five decades in the lakeside regions, have not been able to offer potential for sustainable legacies and alleviate the extreme poverty. Lakeside zone cover six regions, namely, Kagera, Mwanza, Shinyanga, Mara, Geita and Simiyu. The current baseline study covers Kagera, Geita and Mwanza. The study utilized a landscape approach, participatory workshops, focus group discussions and observations (use the local community or leadership to identify the potential attractions) as well as conducting interviews. Geographical coordinates were taken using specific GIS equipment. Four chapters that attempted to map the untapped tourism potentials in the selected lakeside regions are presented.

The chapters, somehow, respond to the key issues that triggered the study, namely:

(i) Concentration of tourism research activities in few tourist circuits or zones within Tanzania and overreliance on one tourism product line - wildlife safaris

(ii) Limited involvement of local communities in the tourism development and destination management in the rural areas

(iii) Weak local linkages between the tourism sector and other key sectors such as agriculture, education, healthy, etc.

(iv) Untapped natural and cultural heritage opportunities for tourism;

(v) Inadequate recognition of tourist attractions in the least developed tourism areas for socio and economic development

(vi) Over 30% of the country's exports are related to mining and extractives yet this is not translating into benefits at the local level, particularly in the lakeside regions, where most mining activities are taking place

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Innovations for sustainable tourism development: The case of "Chimpanzees habituation" in Rubondo Island National Park, Tanzania

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Abstract

This study aims to unearth the undocumented success story of chimpanzees' habituation among the evidences of innovations in tourism. The habituation of chimpanzees in Rubondo National Park within Lake Victoria has been successful and the process has been led by the local experts, the unsung Tanzanian heroes to successfully do chimps' habituation to the level of selling the tourism product. There are two approaches used in habituating chimpanzees: food provisioning and neutral visit. The chimps of Rubondo have been habituated using the neutral visit approach. As a result, the chimpanzees have demonstrated various attributes including: adapting to the new environment from captivity to free range, survived and multiplied in numbers. Chimpanzees have also enabled the promotion of sustainable tourism; encourage various research activities that enhance knowledge related to chimpanzees' ecology. Their presence also brings economic benefits and the associated efforts to protect their habitat indirectly provide ecosystem services including protecting water catchments, mitigating climate change, floods and landslides. The paper also provides the chimps habituation success factors, associated challenges as well as measures to enhance chimpanzees' conservation for inclusive tourism development.

Key words: chimpanzees, Rubondo, habituation

Introduction

Seventeen wild chimpanzees (*Pan troglodytes verus*) caught in Guinea, Ivory Coast, and Sierra Leone, and spent considerable amount of time in European zoos, were released in Rubondo Island National Park in Lake Victoria, Tanzania between 1966 and 1969. The introduction was motivated by welfare concerns, as the majority of chimpanzees were considered dangerous and no longer wanted. It was therefore, hoped that Rubondo Island would become a *"refuge for the apes"* (sanctuary) as the largest part of the island was forested, uninhabited and contained few terrestrial predators.

With the aim of developing the chimpanzees for photographic tourism, the chimpanzees' habituation project was initiated in 1996 and was operated jointly by Tanzania National Parks and Frankfurt Zoological Society (FZS) from Germany until 2014 when TANAPA operated the same project with Honeyguide Foundation

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(HGF) a Non-Government Organization (NGO) based in Arusha. TANAPA and Honeyguide are still collaborating in running the project.

The Rubondo Island National Park which is dominated by dense Congolese lowland tropical rain forest is suitable for chimpanzees and the animals have managed to adapt, increase in numbers and are now naturalized. The chimpanzees occur in the northern and southern zones of the forest and studies during habituation process have identified the locations where they reside. The sites include Kasenye, Masekela, Michikoko, Kibandala and Kamea in Northern zone and Nyakutukula in Southern Zone.

The habituation of chimpanzees has been successful and the process has been led by the local expert Shaib Utenga Wetare who is the first known Tanzanian to successfully do chimpanzee habituation to the level of selling the product. Chimpanzees are a unique natural heritage and currently have increased in numbers to approximately 60 individuals. According to the IUCN Redlist chimpanzees are Endangered (EN) species and need special conservation attention to sustain their population.

The chimpanzees in Rubondo have demonstrated various attributes including: adapting to the new environment from captivity to free ranging, have survived and multiplied in numbers. The chimpanzees have also enabled the promotion of tourism; encourage various research activities that enhance knowledge related to chimpanzee ecology. Their presence also brings economic benefits and the associated efforts to protect their habitat and indirectly provide ecosystem services including protecting water catchments, mitigating climate change, floods and landslides. Finally, the plan to introduce gorillas in the park should be of high priority to enhance the ecological and tourism value of the park. Gorillas will attract more visitors, increase their duration of stay and improve revenue collection.

Rubondo Island National Park: History, Geographical location and Ecology

Rubondo Island National Park which is under Tanzania National Parks (TANAPA) first became a forest reserve in 1928 (Petrášová *et al.*, 2010). The Government declared the island a game reserve in 1965 for the purpose of creating a sanctuary where species threatened with extinction could be introduced and protected (Akiko, 2000; TANAPA 2003; Stevens, 2011). Then, in 1967 Rubondo Island was declared a National Park (NP) through GN 21 and is currently among the twenty-two (22) national parks in Tanzania (TANAPA, 2020). Historically, the island was occupied by a small human population mostly Wazinza that practiced fishing and subsistence farming (Grzimek 1970; TAWIRI, 2009). The island which has a variety of habitats, is a breeding ground for migratory birds and fish species and it harbors a large

number of unoccupied ecological niches and there are no large predators on the island.

The island as a sanctuary for species threatened with extinction, different animal species were released to the island by Prof. Bernhard Grzimek of the Frankfurt Zoological Society (FZS) (Akiko, 2000; TANAPA 2003; Stevens, 2011). The introduced animals included chimpanzees (*Pan Troglodytes*), giraffes (*Giraffa camelopardalis*), black-and-white colobus monkeys *(Colobus guereza),* suni (*Neotragus moschatus*) roan antelope ((*Hippotragus equinus*), African elephant (*Loxodanta africana*), and black rhinoceros (*Diceros bicornis*). All other introduced species have survived, thrived and have become naturalized except the black rhino which became extinct by 1996 due to poaching.

Figure 1: Rubondo Island is located in the southwest portion of Lake Victoria. Map of East Africa was obtained from Wikimedia Commons; map of Rubondo was obtained from Google Earth, both have been altered.

Figure 1: Rubondo Island National Park
(Source: Rubondo Island National Park, 2021)

Rubondo Island National Park has an area of 456.8 km^2 of protected land of which 236.8 km^2 is composed of land and 220 km^2 is water, and at least 80% of the land area is forested. The park is in the southern corner of Lake Victoria at 2° 18′S, 31°50′E. The national park consists of a partially submerged rift of four volcanically formed hills, linked by three flatter isthmuses. The highest point is Msasa Hills in the far south at 1,486 m (350m above the lake level). The island measures 28 km from north to south, and nowhere it is more than 10 km wide. The park is comprised of 12 islands and the main island protects the other 11 small islets namely Mizo, Chitebe, Chitende, Nyamitundu (Western), Izilambuba (Kusini), Makozi, Manyira, Chambuzi, Iroba, and Kalera (Eastern). None of the smaller islands is larger than 2 km^2. Figure 1 below indicates the location of Rubondo Island National Park.

The national park encompasses large areas of both aquatic and terrestrial habitats. The aquatic ecosystems provide potential aquatic resources such as fish breeding

grounds that serve the sustainable fishing industry for both economic and social benefits. The waters are also important for navigation, aquaculture, lake tourism and water sports. The park waters also possess the deepest point (80m) in Lake Victoria located at Irumo area. On the other hand, the terrestrial ecosystem is dominated by dense Congolese lowland tropical rain forest and harbors a variety of wildlife species and is potential for various tourism activities.

Park vegetation

Rubondo island habitat is made up of mixed evergreen and semi deciduous forest, which covers about 80% of the island's surface area with common species including *Croton sylvaticus, Drypetes gerrardii* and *Lecaniodiscus fraxinifolius*. Often the vegetation has dense understory of lianas, or woody vines. The forest is interspersed with patches of open grassland and, all but restricted to the Lukaya area, acacia woodland. The eastern lakeshore is characterised by rocky areas and sandy beaches whilst the western shore supports extensive papyrus swamps, lined with date palms.

According to Rubondo Island National Park (2021) vegetation studies in the park have so far managed to identify at least 40 plant species. These include:- *Annona senegalensis; Bridelia micrantha; Trichilia emetica; Phoenix reclinata; Ficus mucoso; Croton sylvaticus, Croton macrostachyus; Drypetes gerrardii, Albizia glaberrima; Lecaniodiscus fraxinifolius, Kigelia africana; Ficus thonningii; Bersama abyssinica; Antidesma venosum; Sideroxylon inerme; Trichilia roka; Haplocoelum foliosum; Paveta abyssinica; Celtis zenkeri; Markhamia acuminata; Celtis africana; Ficus sycomorus; Rapanea rhododentroides; Meyna tetraphylla; Euphorbia candelabrum; Milicia excelsa; Combretum molle; Diospyros mespiliformis; Olea africana; Psychotria* sp; *Maclura africana; Canthium* sp; *Grewia bicolor; Teclea simplicifolia; Syzygium guineense; Pseudospondias marcocarpus; Acacia gerrardii; Parinari curatellifolia; Combretum collinum; Albizia petersiana; Vitex* sp; and *Chlorophora* sp.

Park Wildlife

Wildlife species currently present in the park (Rubondo Island National Park 2021) include 14 species of mammals (Table 1) that are indigenous; 194 species of birds; 19 species of reptiles; and 11 species of amphibians. At least 7 mammal species were introduced in the park in 1960s and 1970s including 16 black rhinoceroses (*Diceros bicornis*), 12 giraffes (*Giraffa camelopardalis*), 5 roan antelopes (*Hippotragus equinus*), 14 suni antelopes (*Neotragus moschatus*), 17 chimpanzees (*Pan troglodytes*), 25 colobus monkeys (*Colobus guereza*), and 6 African elephants (*Loxodonta africana*).

Table 1: Mammal species found in Rubondo National Park

S/N	Common Name	Scientific Name	S/N	Common Name	Scientific Name
1	Sitatunga	*Tragelaphus spekei*	8	Cane rat	*Thryonomys gregorianus*
2	Bushbuck	*Tragelaphus scriptus*	9	Velvet monkey	*Cercopithecus aethiops pygerythrus*
3	Suni Antelope	*Neotragus moschatus*	10	Black and white colobus monkey	*Colobus absyssinicus*
4	African Elephant	*Loxodonta africana*	11	Chimpanzee	*Pan troglodytes*
5	Maasai Giraffe	*Giraffa camelopardalis*	12	Bush Pig	*Potamochoerus larvatus*
6	Large Spotted/ Blotched genet	*Genetta tigrina*	13	Spotted necked otter	*Hydrictis maculicollis*
7	Marsh mongoose	*Atilax paludinosus*	14	Hippopotamus	*Hippopotamus amphibious*

Source: ***Rubondo Island National Park, (2021)***

All species (except rhinos) have become naturalized and increased in numbers. For example, currently there are over 60 giraffes and more than 100 elephants. Chimpanzees have also increased from 17 to the estimated 60 individuals at present. They have also become one of the most important tourist attractions to the park attracting many tourists especially from USA who are interested in great apes' tourism. Due to lack of large predators on the island wildlife is relatively safe except for limited poaching which is largely under control.

Introduction of Chimpanzees on Rubondo Island

According to Borner (1985), introduction of chimpanzees onto Rubondo Island was initiated by Professor Dr. Bernhard Grzimek of FZS between years 1966 and 1969. During this period, 7 male and 11 female (one died on transit) chimpanzees aged 4-12 years were brought to Rubondo Island from Europe in four groups (cohorts) by FZS (Grzimek, 1970; Borner, 1985; Akiko, 2000). Table 2 shows the reintroduction of chimps in different years.

Table 2: Chimpanzees introduced to Rubondo between the years 1966 - 1969

S/N	Time for Release	Sex	Date of birth	Country of Origin
1	June 1966	Female	1955	.
2	June 1966	Female	1954-1955	.
3	June 1966	Female	1955-1956	Cote d"Ivoire

4	June 1966	Female	1956-1957	.
5	June 1966	Female	1957-1958	.
6	June 1966	Female	1958-1959	.
7	June 1966	Female	Unknown	Sierra Leone
8	June 1966	Male	1957-1958	.
9	June 1966	Male	1958-1959	.
10	June 1966	Male	1958-1959	.
11	June 1966	Male	ca. 1962	.
12	October 1966	Male	1958-1959	.
13	1968	Male	1959-1960	.
14	1969	Female	1960	.
15	1969	Female	1960	.
16	1969	Male	1959-1960	.
17	1969	Male	1959-1960	.

Source: ***Borner (1985)***

The introduction of chimpanzees was motivated by welfare concerns, as the majority of chimpanzees were considered dangerous and no longer wanted in the zoos in Europe (Borner, 1985; Akiko, 2000). It was therefore considered that Rubondo Island would become a *"refuge for the apes"* (sanctuary) as the largest part of the island was forested, uninhabited and contained few terrestrial predators (Akiko, 2000). The evergreen dense primary lowland Congolese forest covering at least 80% of the island was also an ideal habitat for the chimpanzees.

Originally, the chimpanzees had been caught in the wild in Guinea, Ivory Coast, and Sierra Leone, and are thought to belong to the *Pan troglodytes verus* species (Borner, 1985; Akiko, 2000). By the time they were brought to Rubondo, the chimpanzees had spent between 3.5 months and 9 years in captivity in German and Dutch zoos and circuses, under conditions that varied from good zoo conditions in the company of other chimpanzees, to inadequate cages or solitary confinement.

Most of the animals were difficult, troublesome and some even attacked or bit their keepers. Two males were shot soon after release after attacking people living on the island (Akiko, 2000). The chimpanzees were initially provisioned and could feed on abandoned banana plantations. Within two months of post-release, the chimpanzees were exhibiting a range of natural foraging behaviors. They foraged on wild foods, including leaves, fruits and seeds. Consequently, provisioning was terminated within two months of post-release (Borner, 1985, Akiko, 2000). Initially, the chimpanzees tried to interact with humans and sometimes slept in the platforms on trees. However, within a year, they had taken to the daily construction of sleeping platforms ("nests") and evidence of the chimpanzee typical fission-fusion social structure emerged.

According to Akiko (2000), in February 1968, two females were seen to carry offspring. In 1984, two females of the first generation were observed, and some

of the original chimpanzees' likely survived. Currently, there are estimated 60 Chimpanzee (from initial 17) in the park.

Introduction of the taxon to an ecologically appropriate habitat outside of its recorded distribution is recognized as potential conservation tool with success of any effort measured by the establishment of a nutritionally self-sufficient population (Williamson and Feistner 2003). The chimpanzees of Rubondo have just proven this for more than 50 years they have been in Rubondo Island.

Species of chimpanzees

Chimpanzee (*Pan troglodytes*) is a great ape species native to the forests and savannah of tropical Africa of which four species have been confirmed and there is a fifth proposed subspecies (Humle *et al*. 2016; TAWIRI, 2018). These species include:

a) Central chimpanzee or *tschego (Pan troglodytes troglodytes)*, found in Cameroon, the Central African Republic, Equatorial Guinea, Gabon, the Republic of the Congo, and the Democratic Republic of the Congo.

b) Western chimpanzee (*P. troglodytes verus)*, found in Guinea, Guinea-Bissau, Mali, Senegal, Sierra Leone, Liberia, Ivory Coast, and Ghana.

c) Nigeria-Cameroon chimpanzee (*P. troglodytes ellioti* (also known as *P. t. vellerosus))*, that live within forested areas across Nigeria and Cameroon.

d) Eastern chimpanzee (*P. troglodytes schweinfurthii)*, found in the Central African Republic, South Sudan, the Democratic Republic of the Congo, Uganda, Rwanda, Burundi, Tanzania, and Zambia.

e) Southeastern chimpanzee, *P. troglodytes marungensis*, found in Burundi, Rwanda, Tanzania, and Uganda: It is argued that this is a subspecies, created by enough variation between the northern and southern populations of *P. t. schweinfurthii*.

Chimpanzee behaviour

Chimpanzees are highly adaptable species. They live in diverse biotopes in altitudes of up to 3,000m including closed canopy rainforests, savanna woodland, gallery forests and mosaic habitats with plantations and grassland (TAWIRI, 2018). They are highly social animals that live in a community, care for their offspring and congregate to socialize (Goodall 1986; TAWIRI, 2018). Female chimpanzees reach maturity at around 9-13 years, and usually give birth to a single baby, or occasionally to twins. The inter-birth interval, when a baby survives till weaning, is typically 4-5 years after a gestation period of about 8 months (Goodall 1986, Van der Wal *et al*. 2000). In the wild, chimpanzees can live up to 55 years (Goodall 1986) but in captivity, some live beyond 60 years (Goodall 1986).

Chimpanzees in a community know their territory boundary and defend it against other communities. They use their territory mostly for foraging and nesting/sleeping. Chimpanzee communities also show similarities and differences referred to as cultural differences (Moscovice, 2006). Female chimpanzees can move to another community while males remain in their natal community for life.

Chimpanzee communities are characterized by male dominance and strong male-male bonds. In contrast, female chimpanzee relationships are traditionally classified as egalitarian and weak, probably because they are less related to each other than males (Boesch *et al.* 2006). Males patrol the territory, protect group members, and search for food as well as remain in their natal communities, while females generally emigrate at adolescence. However, this unusual fission-fusion social structure, in which portions of the parent group may on a regular basis separate from and then rejoin the rest, is highly variable (Moscovice, 2006). The individual that chimpanzees congregate with at a given time are mainly determined by the level of individual autonomy those individuals have within their fission-fusion social groups. As a result, individual chimpanzees often forage for food alone, or in smaller groups as opposed to the much larger "parent" group, which encompasses all the chimpanzees which regularly come into contact and congregate into parties in a particular area.

Male chimpanzees exist in a linear dominance hierarchy. Top-ranking males tend to be aggressive even during dominance stability (Moscovice, 2006). This is probably due to the chimp's fission-fusion society, with male chimps leaving groups and returning after extended periods of time. With this, a dominant male is unsure if any "political maneuvering" has occurred in his absence and must re-establish his dominance. Thus, a large amount of aggression occurs within five to fifteen minutes after a reunion. During these encounters, displays of aggression are generally preferred over physical attacks (Moscovice, 2006). While chimpanzee social structure is often referred to as patriarchal, it is not entirely unheard of for females to forge coalitions against males. There is also at least one recorded case of females securing a dominant position over males in their respective troop, albeit in a captive environment.

Chimpanzee diet

Chimpanzees eat a variety of wild plant species across the forest depending on both local and seasonal availability (Stanford & Nkurunungi, 2003). They are highly frugivorous, with ripe fruits feeding accounting for 50-80% of foraging time. They exhibit extensive dietary breadth, feeding on leaves for 11-23% of foraging time, 11-23% on other plant-parts (flowers, bark, pith, gum). Faunivory constitutes 0.1-4%. At various sites chimpanzees prey on vertebrates such as: colobus monkeys, duikers, bush pigs, baboons and rodents. Males hunt more often than females.

Chimpanzees' habituation initiative for sustainable Tourism development

The chimpanzees' habituation programme started in1996 and until now it is still being developed. The project was jointly undertaken by Tanzania National Parks (TANAPA) and Frankfurt Zoological Society (FZS) since 1996 to 2014 (Akiko, 2000). It aimed at developing chimpanzee viewing for photographic tourism (Akiko, 2000). Camps were built in the north and south of the island and habituation of chimpanzees was initiated in three blocks in the north and one block in the south. Since 2014 the project has been jointly operated by TANAPA and Honeyguide Foundation (HGF) a Non-Government Organization (NGO) based in Arusha.

Why Chimpanzee habituation?

Chimpanzees in Rubondo Island National Park represent a mixture of the subspecies *P. t. verus* and *P. t. troglodytes*, making this population unique because apes of West- and Central African origin survive in the wild in East Africa. As a flagship species the chimpanzees in Rubondo have demonstrated various attributes / opportunities including:

a) Adapting to the new environment from captivity to free ranging, survived, naturalized and multiplied in number.

b) Chimpanzees as part of the unique natural heritage have enhanced the national heritage. They have also become a flagship species for the parks conservation initiatives

c) Tourism promotion: livelihood and social-economic benefits provided by tourists (domestic and foreigners) who come to see chimpanzees (chimpanzees tracking).

d) Research: different researches on chimpanzees have been undertaken and are still ongoing that enhances knowledge and brings economic benefits.

e) Dense forest resources where chimpanzees dwell

- Indicate resources and cultural values that forests and respective products provide.
- Ensure stable watersheds: The role that natural systems play in availability of water while mitigating climate change, floods and landslides.
- Provide water for humans: The ecosystem services that forests and woodlands provide through the natural hydrological cycle.

Thus the efforts placed in protecting the chimpanzee habitats have not only benefited the conservation of the animals, but have also contributed to the provision of ecosystem services and other economic benefits including chimps' tourism.

Chimpanzees' Habituation Process

Habituation is a behavioral response decrement that results from repeated stimulation and that does not involve sensory adaptation / sensory fatigue or motor fatigue (Williamson and Feistner, 2010; Blumstei, 2016)'. It is a type of 'single-stimulus' learning that allows animals to avoid costly responses in situations where there is no benefit from responding to repeated stimulation (Williamson and Feistner, 2010; Blumstei, 2016). Therefore, it is a process that occurs over time and predicts changes in tolerance (i.e. the intensity of disturbance that an individual tolerates without responding in a defined way).

Habituation enables the observer to approach closely, allowing one to become familiar with individuals, and to observe fine-level behaviours such as subtle social interactions or food processing (Stanford and Nkurunungi, 2003; Williamson and Feistner, 2010). Many behavioural responses are taxon-specific, and these should be taken into account when habituating human-naive wild primates.

There is variation in the degree to which species tolerate humans and various associated stimuli (Blumstein, 2016). Tolerance is seen when animals permit closer approaches by humans without overtly responding or fleeing (Blumstei, 2016). This tolerance may emerge from habituation-like processes or from more tolerant animals settling in areas where they encounter humans, while less tolerant ones actively avoid humans. It may happen that some animals due to dwindling resources within the patch they live, lead to increased competition for the remaining resources and consequently to increased tolerance to disturbance. Thus, tolerance in these cases does not indicate habituation, so it is essential to understand when habituation occurs.

Common characteristics of habituation

Habituation process provides knowledge that assist in designing protocols to enhance or inhibit habituation and habituation-like processes. According to Blumstei, (2016) common characteristics of habituation are:

a) Repeated application of a stimulus results in a progressive decrease in some parameter of a response (such as response frequency, magnitude, duration etc.) to an asymptotic level. This change may include decreases in frequency and / or magnitude of the response.

b) If the stimulus is withheld after response decrement, the response recovers at least partially over the observation time (''spontaneous recovery").

c) After multiple series of stimulus repetitions and spontaneous recoveries, the response decrement becomes successively more rapid and / or more pronounced (this phenomenon can be called potentiation of habituation).

d) Other things being equal, more frequent stimulation results in more rapid and / or more pronounced response decrement, and more rapid spontaneous recovery (if the decrement has reached asymptotic levels).

e) Within a stimulus modality, the less intense the stimulus, the more rapid and/or more pronounced the behavioral response decrement. Very intense stimuli may yield no significant observable response decrement.

f) The effects of repeated stimulation may continue to accumulate even after the response has reached an asymptotic level (which may or may not be zero, or no response). This effect of stimulation beyond asymptotic levels can alter subsequent behavior, for example, by delaying the onset of spontaneous recovery.

g) Within the same stimulus modality, the response decrement shows some stimulus specificity. This characteristic is a critical aspect of habituation that can be used to distinguish it from more general sensory adaptation or motor fatigue (which should generalize across a broad range of stimuli within a sensory modality). This change reflects a shift in focus from stimulus generalization to stimulus specificity.

h) Presentation of a different stimulus results in an increase of the decremented response to the original stimulus. This phenomenon is termed ‘‘dishabituation.”

i) Upon repeated application of the dishabituating stimulus, the amount of dishabituation produced decreases (this phenomenon can be called habituation of dishabituation).

j) Some stimulus repetition protocols may result in properties of the response decrement (e.g. more rapid rehabituation than baseline, smaller initial responses than baseline, smaller mean responses than baseline, less frequent responses than baseline) that last hours, days or weeks. This persistence of aspects of habituation is termed long-term habituation.

Habituation process of wild animals has a number of benefits depending on the situation, purpose or the animal species involved. These benefits include:

a) Reducing human-wildlife conflicts through the use of animal repellents;

b) Habituating animals to anthropogenic activities; and

c) Managing transferability of habituation from humans to other potential predators, a behavioural strategy that, if common, could have unfortunate conservation outcomes.

Frequent contacts with the same primates are necessary to achieve habituation, thus locating a known group or individual daily is very important.

Factors for achieving habituation

There are factors that need to be taken into account for successful habituation. According to Williamson and Feistner, (2010) achieving habituation is contributed by the observer to avoid surprise contacts that frighten the animals as they will always have a negative impact; be seen as often as possible and always in a calm,

relaxed posture; initially be clearly visible at a distance greater than that which invokes alarm and flight (flight distance).

Thus, habituation can only be achieved when the primate sees the observer, but try to choose the moment. Once observer's presence is known, the animals are likely to leave, therefore a need to sacrifice observation to achieve progress. Many primates can identify human faces, so the same observers should contact the animals, at least during the initial stages of habituation. It is also helpful to be consistent in appearance (wear the same clothing, hat, rucksack, etc.). The observer is required to behave calmly and attempt to reassure animals by remaining still and / or mimicking natural behaviours, such as grooming or feeding.

It is often useful for the observer to adopt a signal that communicates presence and which the primates can learn to associate with. This signal should be a specific noise, which becomes identified with a non-threatening presence.

Factors affecting habituation

There are factors which the observer cannot control for habituation. These factors as given by Williamson and Feistner, (2010) include:

a) Species specific reactions in terms of:

   i. Diet: availability of food in larger patches so that more individuals can feed together and increased time is spent resting;

   ii. Home-range size: primates with large home ranges are more difficult to encounter consistently; and

   iii. Sex and age differences: responses also differ according to primate age and sex. In multi-male multi-female or one-male multi-female groups, adult males tend to be larger, more aggressive, and play patrolling or sentinel roles in groups. Thus they are more overt and often more exposed to observer contact than females carrying or protecting young, while juveniles generally respond with more curiosity than adults.

b) Habitat variables: Primates living in more open habitats (such as baboons) are easier to habituate than those living in dense forest (such as mandrills), both within and between taxa. In open habitats, such as savanna, you can gradually move closer as animals see you from a distance.

Ethical issues in chimpanzees' habituation process

Ethical issues can have implication in primate habituation process. These ethical issues can be looked at first on the risks which can affect the primates and secondly the risks that can affect humans. Williamson and Feistner, (2010) describes the two risks as follows:

a) Risks to primates

   i. Disease transmission between humans and non-human primates:

Close proximity with researchers increases the risk of disease transmission, particularly for terrestrial primates. Certain human pathogens, both respiratory (measles, herpes, pneumonia) and enteric (polio, salmonella), can infect apes; and deaths have occurred in wild populations (Butynski, 2001).

ii. Stress: Stress provoked during habituation could potentially reduce reproductive success or result in immunosuppression and increased susceptibility to diseases (Woodford et al., 2002).

b) Risks to humans:

i. Primates are highly intelligent, complex, socially manipulative animals, and over-familiarity with the observer may change the observer from being a piece of the furniture to a social tool, available for inclusion in their social relations (Hockings & Humle, 2009).

ii. During habituation, aggression initially increases -- then peaks – followed by diminishes (Blom e*t al*., 2004), thus, in the early stages, habituators may be subject to intimidating displays.

Skills Needed for Habituation

Provision of science based skills and capacity building on habituation methods, factors affecting the success of habituation, and associated ethical issues is very critical for habituation and were considered when undertaking the Chimpanzee Habituation Project in Rubondo Island National Park. The project is supervised by Shaibu Utenga Wetare a Conservation Officer II from TANAPA. According to his bio Shaibu Utenga Wetare attained advanced level secondary education, and later acquired both a Certificate and Diploma in Wildlife Management.

He was employed by TANAPA in 1997 as a Park Ranger IV and guide on walking safaris and mountain climbing. He was promoted to Park Warden II in 2007. In 2007 he was transferred to Gombe National Park and then to Katavi National Park in the same year.

In 2009, he was transferred to Mahale Mountains National Park. Based on his competence, commitment and integrity he was appointed by TANAPA to attend one year special training on chimpanzees' habituation in Uganda offered by the Uganda Wildlife Authority. In 2014 he was transferred to Rubondo Island National Park to head Chimpanzees Habituation Project.

Figure 2: Mr Shaib Utenga Wetare taking a challenge of crossing a river with his host while undergoing chimpanzee habituation training in Kibale National Park Uganda (Photo: Shaib Wetare)

Figure 3: From left is the chimpanzee project ranger Mr Dunia Lukongola, a tourist from USA) and Mr Shaibu Utenga Wetare tracking the chimps at Kasenye hills (calling point) (Photo: Shaib Wetare)

Chimpanzees in Tanzania are found in Gombe (35 km^2), Rubondo (456.8 km^2) national parks and Greater Mahale Ecosystem (GME 18,999 km^2) which includes Mahale National Park (1613 km^2) areas outside the park covering forest reserves and village land. The forest reserves outside the park where chimpanzees are found include Tongwe East FR (4441 km^2), Tongwe West FR (1684.2 km^2), Ntakata Village FR (in Mgambazi Village), but also open areas, settlements and a refugee camp in Mishamo Ward in Mpanda District Council (now Tanganyika District) (Mohamed Kibaja pers. Communication June 2021). Researchers report that at least 75% of the chimpanzees in Tanzania occur outside of national parks particularly in Tongwe East and Tongwe West forest reserves (Bonnin et al 2020, Nyambala 2014). The chimpanzees in Gombe stream were the first to be habituated by Dr Jane Goodall since early 1960s (Maasai 2014) and those in Mahale out of about 800 individuals only about 60 (M group) are semi - habituated mostly by the Japanese researchers (Kingdom, nd). There are no reports of Tanzanians taking the lead in habituating chimpanzees in either Gombe or Mahale. Habituation of chimpanzees is difficult and the longest among primates as it takes 5 – 15 years. There is also a notion that indigenous people are unable and cannot endure the long and difficult process of habituating the chimpanzees. It is on this background that the work of Shaib Utenga Wetare in Rubondo NP emerges as an exemplary case of serious and committed individuals in chimpanzee habituation in Tanzania. Shaib has managed to initiate and implement the chimpanzee habituation process from the start to the stage of selling the product in only 5 – 6 years.

Habituation of Rubondo Chimps Step by Step

There are two approaches used in habituating chimpanzees (Williamson and Feistner, 2010) namely food provisioning and neutral visit (no food provisioning).

In food provisioning approach the site where animals dwell is surveyed and the spots preferred by the animals are established. Trackers buy foods preferred by the chimps (e.g. ripe bananas, apples, sugar cane etc.) and place it at an open place where the chimps can easily see it then go into hiding nearby. When chimps come and start eating the food trackers show up in a manner that is not provocative so that chimps can see them. At first they will run away but slowly with time they will get used to the human presence. This is a shortcut method in habituating chimps and another advantage of the approach is that it is easy to treat chimps in case of a disease outbreak because medicines can be placed in the food and chimps will eat the food with the medicine and get cured. The disadvantage of the method is the cost of buying food items and easiness of spreading diseases to the chimps from supplied foods and contacts. It is a high risk approach as it may endanger the health of the chimps.

The second approach of neutral visit involves visiting the animals every day without providing them with food. The approach is based on the non-interference treatment of the animals in their daily routine activities. Animals are very shy or aggressive at first encounters but they slowly get used through strict observance of the rules

of engagement. This approach is good as it has less risks of disease transmission to the chimps but can be a challenge to treat the animals in the event of a disease outbreak. The other approach of food provisioning (used in Gombe and Mahale) is not recommended and is currently abandoned.

The chimps of Rubondo have been habituated using the neutral visit approach and it has been very successful under the leadership and supervision of the Tanzanian Shaib Utenga Wetare.

Team Members for the Project

The habituation of chimpanzees was enhanced in December, 2014 when TANAPA transferred Shaibu Utenga Wetare to Rubondo Island National Park to supervise the habituation project. Staffs involved in the habituation process are indicated in Table 3.

Table 3: Staffs involved in chimpanzees' habituation at Rubondo Island National Park

S/N	Name	Year Joined the Project	Employer	Role
1	Shaibu Utenga Wetare	2014	TANAPA	Head and Supervisor of the Project
2	James Mazezele	2014	HGF	Chimp's trainer
3	Mgwesa J. Mgwesa	2014	HGF	Chimp's trainer
4	Simon Nkuzi	2014	HGF	Chimp's trainer
5	Rotiken Mayanga	2015	TANAPA	Chimp's trainer and tourist guide
6	Amos Makindi	2016	TANAPA	Chimp's trainer
7	Salige Mafwimbo	2016		Chimp's trainer and tourist guide
8	Samu Ramadhani	2016	HGF	Chimp's trainer
9	Sylivester Silivand	2016	HGF	Chimp's trainer
10	Richard Bitulo	2016	HGF	Chimp's trainer
11	Daudi Michael	2019	TANAPA	Chimp's trainer and casual labour A
12	Thadeo Eliudi	2019	TANAPA	Chimp's trainer and casual labour A
13	Maricel Magesa	2019	TANAPA	Chimp's trainer and casual labour A
14	Bahati Joseph	2019	TANAPA	Chimp's trainer and casual labour A

Source: Rubondo National Park (2021)

All the project team members have the relevant skills for chimps' habituation, have been medically examined and have attended the induction training on habituation. Each team member is equipped with the relevant field gear and tools such as GPS, binoculars, note books, field data sheet and uniforms.

Location of sites where chimpanzees reside

Since December 2014 the project team members started surveying the park to identify the locations where the chimpanzees reside (Table 4, Figure 4). At least 80% of the Rubondo Island National Park is covered by dense Congolese lowland forest so it was not an easy task. Within three (3) months the team was able to identify locations for chimpanzees as indicated below.

Table 4: Sites identified for locating chimps in Rubondo National Park.

Table 4: Locations of chimpanzee sites and trails in northern zone

Zone	Site	Distance from HQ (km)
Northern zone	Kasenye	20
	Masekela	15
	Michikoko	5
	Kibandala	5
	Kamea	15
Southern zone	Nyakutukula	15

Source: Rubondo National Park (2021)

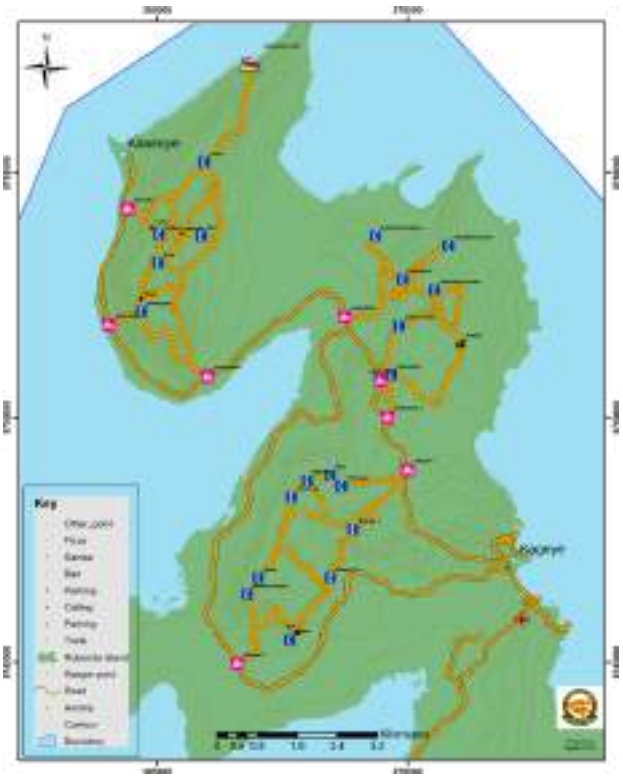

Figure 4: Locations of chimpanzee sites and trails in northern zone
Source: Rubondo National Park (2021)

On January, 1st 2015, at around 10.00 hours James Mazezele and Simon Nkuzi while surveying for the chimps at Kamea area they managed to see chimpanzees at a distance of about 40m behind them. The chimps were on trees and when they realized there are people around they came down fast and ran away. They could not see them again that day though they could hear their calls. This was the first encounter and the beginning of a long and ongoing process of habituating the chimps in the park. Later the team made a programme of making 5 surveys per month to locate the chimpanzees.

Following months of surveys, the team was able to establish calling or listening points for the chimps. Calling points are sites where chimps reside and by visiting these points the chances of spotting the chimps are very high. At least 23 calling points have been established in both northern and southern zones as indicated in Table 5.

Table 5: Chimpanzees calling points at Rubondo National Park

S/N	Area	Calling/Listening Points	GPS Coordinates
1	Kasenye	Calling ya zamani	0365402, 9752236
		Rotiken calling	0365042, 9753751
		Ficus calling	0364993, 9753157
		Calling ya kati	0365874, 9753717
		Dunia calling	0365895, 9755102
		Kakunguru calling	0364666, 9752170
		Altare calling	0366602, 9755842
2	Masekela	Masekela calling	0369900, 9752877
		Masekela kubwa calling	0369351, 9753712
3	Michikoko	Michikoko uwazi calling	0370541, 9752633
		Michikoko point calling	0370905, 9753875
4	Kibandala	Kibandala calling	0369668, 9750874
		Kanisa calling	0371067, 9750874
5	Kamea	Topeni calling	0370045, 9747331
		Milima 310 calling	0369166, 9747126
		Vitunguu calling	0368674, 9748584
		Box calling	0368405, 9748871
		Mgwesa calling	0367260, 9754098
		Jiwe kuu calling	0367693, 9748422
		Allan calling	0366797, 9746348
		Simon calling	0368083, 9746733
		K2 calling	0368462, 9746733
		Mto calling	0370016, 9748996

Source: Rubondo National Park (2021)

In the past Frankfurt Zoological Society (FZS) made unsuccessful attempts to habituate the chimpanzees in the park. Their records show that the monthly mean number of chimpanzees observed was 2.6-5.5 in 1997, 2.8-5.8 in 1998, and 2.4-5.9 in 1999, respectively (Akiko 2000). This suggests that the probability of sighting the chimps when making frequent field visits improves with time.

Stages implemented in chimpanzees' habituation in Rubondo NP

Habituation process has been implemented in three stages: establishing contact and making the chimps to get familiar with humans, engaging volunteers and lastly testing and selling the product (Table 5).

Table 5: Stages used in habituating chimps in Rubondo National Park

Stage	Start	Objective	Activities/Protocols
One	December 2014	To ensure chimpanzees are used and become familiar to humans	Maintain the same people, same dressing, same shoes and bags, behave accordingly.
			In 6 years the team was able to reduce the focal distance from 40 m to 10m in 2020. The chimps were first spotted at a distance of about 40m in January, 2015, after 12 months by December 2015 the focal distance was 30m, in 2016 it was 20m and by 2020 it reached 10m
Two	June 2016	Engaging volunteers	People of different race and gender started to be invited to trek the chimps
			At first male and later female white people were invited (maximum 3), the chimps first became confused but later got used to the new comers
			Chimps were not only exposed to new people but also different dresses and accompanied materials and packs
Three	September 2016	Test the product	It was launched as a Chimps habituation by guiding tourists in tracking chimpanzees. Tourists were invited to trek the chimps but in very small numbers. The chimps became used to the visitors and were able to watch the animals at a short distance of only 10m

Source: Rubondo National Park (2021)

Chimpanzees tracking – "chimps' tourism"

Chimp viewing/tracking is an activity that offers an opportunity for visitors to locate chimps in free ranging habitats through designated trails. It is an exciting exercise

while tracking chimps but requires observance of strict rules and protocols aimed at ensuring safety, security, maintain health standards, and maximum enjoyment and experience.

Security issues

According to the habituation project, for security purposes there are various aspects that participants in tracking the chimps are required to abide and they include:

a) Participating in a pre-briefing session
b) Maintaining a distance of at least 10m from the chimpanzees at all times in order to minimize risks of disease transmission
c) Wearing masks over the nose and mouth whenever chimpanzees are spotted
d) NOT to eat or drink whenever chimpanzees are spotted
e) NOT to leave personal belongings on the ground or where they are accessible to the chimps
f) Covering nose and mouth in the urge of coughing or sneezing to reduce chances of germs transmission
g) Not to track the chimps if affected with infectious diseases
h) To be older than 12 years of age to take part in tracking the chimps
i) To keep voices low while tracking
j) NOT to mimic the calls of chimps as this will disturb them
k) NOT to point at the chimps, make any sudden movements or have direct eye contact as they may perceive this as an act of aggression
l) To stay in a tight group when near the chimps, and try to sit or squat rather than standing, as this minimizes disturbance. Also be sure that your group does not completely surround the chimps
m) Moving to the nearest tree, stand up and hold on tightly to the trunk in the event that a chimp charges (don't panic or run)
n) Not to make any sudden movements if the chimps move closer than 10m (Simply back away slowly)
o) Not to use flash cameras.

Duration and maximum number of visitors

a) The group must not exceed 6 participants (including guide) at a time
b) Chimpanzees' habituation experience is between 0630 hours to 1830 hours
c) Three groups of participants per day are permitted.

Environmental and social considerations while in the national park

a) NOT to use perfume, smoke or spit during chimp viewing.
b) It is not allowed to:

- Cut or set fire to any vegetation or otherwise damage any object in the park
- Introduce any animal or plants in the park
- Remove from the park any animal or plants whether alive or dead
- Destroy or deface any object whether animate or inanimate. i.e. disturb other visitors.

Figure 5: The habituated Rubondo chimps seen at close quarters (Photo: Shaib Wetare)

Chimpanzee diet and other unique behaviors

More than 40 plant food items have been identified in Rubondo. Chimpanzees in the park rely mostly on fruits of lianas or climbing shrubs for food. In particular, they eat bananas, hunt sitatungas, eat termites, ants and grasshoppers. Based mostly on fecal analyses, it seems that the amount of leaf matter in chimpanzee diet is surprisingly low. However, strange leaf pellets were found in feces. It is necessary to determine more species which chimpanzees feed on the leaves and bark. Also the way of wadging food in Rubondo chimpanzees seems to be different from other populations (Moscovice, 2006).). It was found that some of the plants eaten by Rubondo chimpanzees have medicinal properties (Moscovice, 2006). Despite of habituation the feeding of chimpanzees in the park is prohibited.

Chimpanzee population in Rubondo NP (Figure 5) is currently estimated to be around 60 animals living in at least two distinct chimpanzee groups (plus one solitary male chimpanzee). It is estimated that chimpanzees on the island have extremely wide ranging areas varying from 45 -100 km^2 with overlapping home ranges of the distinct groups. It is possible that distinct chimpanzee groups have a temporal and not spatial method of disassociation.

Chimpanzee Habituation Project Achievements

Chimpanzee's habituation project in Rubondo National Park has contributed to the sustainability of conservation initiatives of the introduced animals. There are also a

number outputs that have been realized from the project activities. These include:

a) Establishment of a competent chimps habituation team;
b) Increase in number of chimpanzees from 17 in 1969 to around 60 in 2021;
c) The Rubondo chimpanzees and the park are of considerable interest to science and researchers. For example, studies on Chimps adaptation and coping mechanism to new environmental conditions may provide insights on the evolution of the early hominids.
d) Presence of chimps has turned Rubondo into a unique place for tourism both domestic and foreign
e) The unique chimps in the park provide invaluable economic, social and environmental benefits.
f) Various researches related to chimpanzees have been undertaken and there are opportunities for further scientific researches

Challenges on Chimps Conservation and Habitutaion

Chimpanzee conservation on Rubondo Island and the habituation process were faced with various challenges from the very beginning. These include:

a) Actual population of chimpanzees is not well determined. It is known that the number of chimps in the park has increased in the past 50 years. However due to chimps behavior, the landscape terrain and thick forests they occupy, their numbers have not been accurately determined. The number of 60 is an estimate from the experienced chimp trackers.
b) Difficult to treat chimpanzees in case of diseases outbreak. The approach used to habituate Rubondo chimps of neutral visit is good in preventing the spread of infectious diseases but it is a challenge in case the animals are infected and need treatment. It will be difficult to administer medication.
c) Poor infrastructure especially during the rainy season. The park infrastructure especially roads system and other facilities are inadequate. This poses a challenge in tracking the animals especially during the rainy season when most roads are almost impassable making chimps tracking process more difficult.
d) Marketing Rubondo National park. It appears that currently Rubondo NP, its potentials and attractions are not well known within the country and outside. Deliberate efforts need to be taken to advertise, promote and market the park to boost tourism with special focus on chimps tourism.

Future Plans on Chimps Tourism

Following the naturalization of the chimpanzees in Rubondo NP the species has become a flagship species for conservation plans of the park. Chimps have made

Rubondo NP an important tourist destination and they contribute much on promoting tourism business. The Park has therefore put in place plans to enhance chimpanzees' conservation and promote tourism. The park expects to:

a) Establish actual population of chimps. According to the International Union for Conservation of Nature (IUCN) redlist the chimpanzee is an endangered species (EN) and its conservation is of utmost importance apart from its high tourism value. Knowing its actual population size and structure will help to understand the population dynamics of the species and have proper species management plan in place.

b) Ensure sustainability of the chimpanzee project. The chimps habituation project has significance not only to tourism but also to the conservation of the chimps. Even in the absence of tourism the need to be familiar with the animals for conservation purposes remains a priority. This project needs to continue due to a number of conservation and economic benefits.

c) Enhance chimps' tourism. Great apes' tourism is a high value low volume tourism which if well managed it can generate the much needed revenue to be reinvested back into conservation.

d) Introduction of gorillas. Experience in Rubondo shows that many visitors coming to see chimps later move to Uganda or Rwanda to watch gorillas. It appears the tourists interested in great apes tourism wish to see both apes in a single visit. It also suggests that if Rubondo could harbor gorillas it will be more attractive to visitors and will increase the number of tourists, duration of stay and generate more revenue. Luckily the park is endowed with tropical rain forest which is a suitable habitat not only for the chimps but also for the gorillas. This is therefore a commendable plan that TANAPA should take the initiative to implement this proposal for broader benefits of conservation and tourism industry.

e) Ensure the park is adequately advertised and marketed to promote tourism in the park and of chimps in particular

Conclusion and Recommendation

The chimpanzees' habituation programme in Rubondo Island National Park is a conservation project that has been successful. The seventeen chimpanzees introduced to the island from West Africa between the years 1966 and 1969 have naturalized and increased in number to approximately 60 individuals and are in good status. The habituation team has demonstrated local capacity in identifying, locating and habituating the chimpanzees in the park.. This is a special credit to Mr Shaib Utenga Wetare and TANAPA in general to have first Tanzanian to take the lead in habituating the chimpanzees from the beginning to the level of selling the product. It was originally thought that local experts have no capacity to lead, supervise and implement this process to the required standards. The chimpanzees are very unique

with invaluable socio-economic and environmental opportunities. The knowledge gained from various chimpanzees' related researches will enhance capacity to excel in animal care and welfare as well as enhance conservation initiatives for the species.

The sustainability of chimpanzees' existence in Rubondo NP is important not only for conservation but also for the enhancement of tourism in the park and the lake zone as a whole. To achieve this, a number of actions need to be considered and implemented including maintaining the ongoing scientific research efforts. Also, understanding the park ecology and population dynamics of the chimpanzees in the park will help in having proper management strategies for the development of the species, enhance conservation efforts and improve tourism. Emphasis is given on the need to introduce another great ape the gorilla which will enhance tourism in the park and the lake zone in general. Furthermore, the park needs to be opened up without affecting the ecology of the forests to the level where accessibility to visit the chimp dwelling sites will be easy. Also infrastructure to cater for the tourists such as accommodation, transport, tour guiding and interpretation and other services need to be improved for maximum enjoyment of the visitors coming to the park.

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Untapped Wildlife Tourism Potential in the selected Lakeside Regions

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Abstract

This study aims to identify and map the existing and potential wildlife (and related) tourist products and attractions in three regions of Kagera, Geita and Mwanza. A survey of wildlife tourist products and attractions, which involved direct observation through site visits, interviews, and focus group discussions conducted from March to May 2021. Also, desk research included a variety of reports, documents and the regional and district profiles. The findings suggest that wildlife tourism in the western lake zone is manifested in three levels: state level, non-state level and traditional or community level. The state level wildlife tourism involves national projects like national parks, forest reserves and nature reserves. It is the most significant component as it attracts more visitors due to the presence of many attractions in the forests and protected areas. The non-state level wildlife tourism is mostly private undertakings including wildlife ranches and wildlife farms. This level is yet to be developed as currently only few people have invested in the business. The private sector level is also connected to the intangible products of tourism comprising mainly of the visitor services such as accommodation, transport and tour guiding and interpretation services. The third level of wildlife tourism is found in traditional groups and/or communities. Here we have people practicing cultural dances which often involve the use of wild animals such as hyenas, monkeys, porcupines, and pythons. The use of animals depends on the ethic line within specific clans. Also linkages between the three levels in the zone are poorly interconnected. There is therefore a need to develop the tourist products and attractions to marketable level and create linkages between different tourism levels and regions/districts in order to boost tourism and local businesses through the multiplier effect of the tourism business.

Keywords: Wildlife, Tourism, Lakeside, Mwanza, Kagera, Geita

Introduction

The World Tourism Organization (UNWTO) defines a "tourist product" as "a combination of tangible and intangible elements, such as natural, cultural and man-made resources, attractions, facilities, services and activities around a specific center of interest which represents the core of the destination marketing mix and creates an overall visitor. Likewise, a "tourist attraction" is a place of interest where tourists visit, typically for its inherent or an exhibited natural or cultural value, historical significance, natural or built beauty, offering leisure and amusement. Wildlife

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resource is one of the major tourist attractions in the world and for countries endowed with rich wildlife resource, wildlife based tourism forms a major base for their tourism industry. Tanzania is one of the mega biodiversity countries in the world and the World Economic Forum named Tanzania in 2011 as second only to Brazil in terms of the richness of its natural resources. The country has also set aside over 30% of its land as protected areas of different categories. Wildlife tourism therefore is a major attraction to most tourists coming to visit Tanzania.

Currently many visitors come to visit the north eastern parts of the country where tourism activities are relatively more developed compared to other parts of the country. Moreover, the western parts of the lake zone including Kagera, Geita and Mwanza regions are yet to be developed to exploit their full potential in wildlife tourism. Most tourist products and attractions in the Lake zone are not known, and for a long time the protected areas in the area were of lower category conservation and not advertised or marketed for tourism. The areas were also not developed to accommodate tourists despite their very high potential as important tourist destinations. This survey therefore attempted to survey the three regions to identify the available wildlife tourist products and explore ways in which these products can be developed and marketed to boost tourism in the zone and the country at large.

This study aims to identify the potential wildlife tourism attractions in the lakeside among the efforts to diversify and improve tourism industry in Tanzania. The study has a broader objective of contributing to the the regional plans to developing the tourism business, increase its products, institute value addition and market the products for consumption. The western part of the Lake zone (which covers the regions of Geita, Kagera and Mwanza) is one of the first areas to be covered in this phase as the area is rich in natural resources but also in history and culture. Nevertheless, compared to Mara region which hosts the Serengeti ecosystem, the research area is one of the least developed in terms of tourism products/attractions, infrastructure, promotion and marketing. Wildlife products and attractions were therefore among the high priority items for assessment in this survey due to their significant potential and contribution to the tourism industry in Tanzania.

Methodology

Lakeside zone cover six regions, namely, Kagera, Mwanza, Shinyanga, Mara, Geita and Simiyu. However, this study selected three regions of Kagera, Geita and Mwanza. We started by holding stakeholders' workshop in mwanza on 5th March 2021, which brought together the Deputy Minister of Natural Resources and Tourism, representatives of the three Regional Commissioners and tourism stakeholders from the industry. Thereafter, the study involved visiting protected areas, districts and projects that have a potential to provide tourist products and attract tourism activities in their areas.

The approach used to collect information included site visits where areas of interest

were surveyed and on site assessments were made including taking of photographs and GPS coordinates. Site visits also included guided tours with responsible officers who were also interviewed and provided details of the protected areas or tourist products and attractions of interest. Often focus group discussions and key informant's interviews complemented the site visit surveys. Information was also collected from literature review from published and unpublished reports, including regional and district profiles.

The regions' general landscape, water bodies and islands in Lake Victoria all add to the importance of the lakeside regions in wildlife tourism. For Kagera region the wildlife team was able to visit Rumanyika - Karagwe NP, Ibanda - Kyerwa NP, Minziro Forest Nature Reserve, Kabare Forest Reserve, Kyao islet and Burigi – Chato NP. Districts visited include Kyerwa, Karagwe, Misenyi, Biharamulo, Muleba, Bukoba Rural and Bukoba Town. In Geita region we were able to visit Rubondo NP, Geita town and Geita rural. In Mwanza region we were able to visit Saanane NP and Bujola Sukuma Museum.

Kagera Region

Kagera region is rich in biodiversity resources among the three regions and harbors a number of national parks and forest reserves including Rumanyika - Karagwe NP (255km^2), Ibanda – Kyerwa NP (234km^2), Burigi – Chato NP (4,707 km^2 found in Kagera and Geita regions), forests and nature reserve Table 1. The region also harbors the Kagera River a significant landscape feature of high importance in ecology, tourism, history, culture and international relations.

Table 1: Some forest reserves found in Kagera region

NO.	FOREST NAME	AREA (Ha)	DISTRICT	REMARKS
1	Mleme Kiiga Ruasina	4,598.10	Misenyi & Bukoba (R)	Found in two districts Misenyi & Bukoba Rural
2	Kyamawa	25.09	Bukoba vijijini	
3	Kikongoro	18.00	Misenyi	
4	Kantare	70.30	Misenyi	
5	Kankuma	93.90	Misenyi	
6	Ruchwezi	449.53	Misenyi	
7	Rubare-Ishozi	587.00	Misenyi	
8	Kiikuru	5,997.50	Misenyi	
9	Munene	5,997.50	Misenyi	
10	Nyantakara	29,332.00	Biharamulo	
11	Biharamulo-Kahama	134,680.00	Biharamulo, Chato & Bukombe	Found in three districts

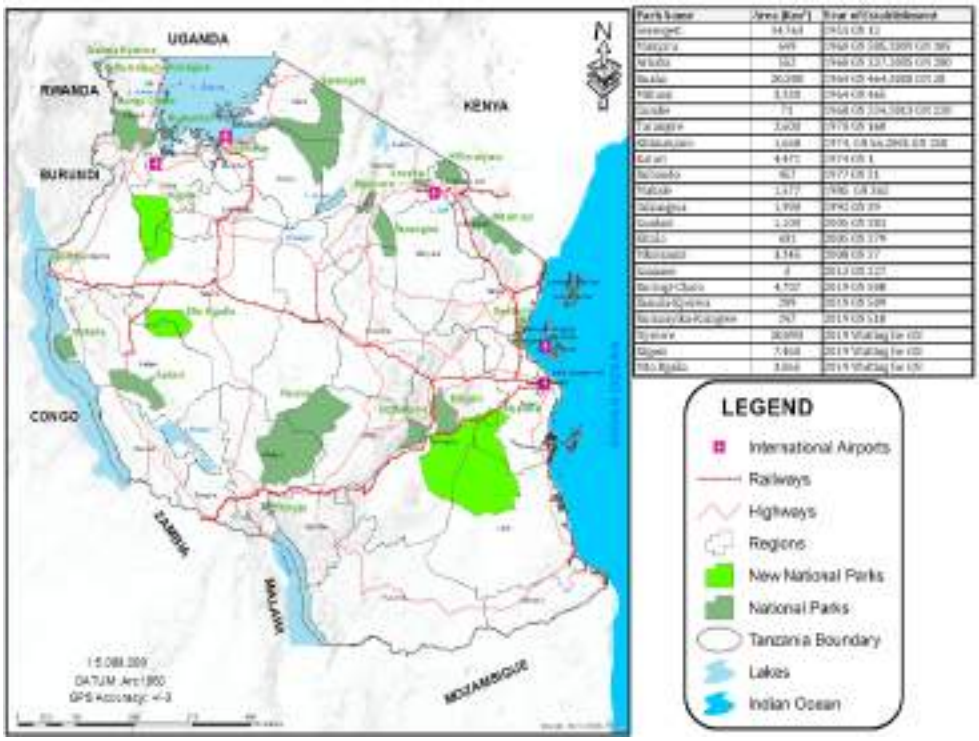
NO.	FOREST NAME	AREA (Ha)	DISTRICT	REMARKS
12	Minziro NR	25,716.65	Missenyi	**Nature Reserve**
13	Ruiga	104,704.00	Muleba	
14	Kyao Island	16.00	Bukoba Rural	

Source: TFS Lake Zone

Rumanyika – Karagwe National Park

According to Nahonyo (2002) Rumanyika Game Reserve (255km^2) is located approximately E30º42; E30º49' and S1º05'; S1º19'. The park originally occupied over 800 km^2 but encroachment has significantly reduced the area to the present size. It was gazetted as a Game Controlled Area in 1965 and was declared a Game Reserve in 1974. It was also under the regional administration until 1996 when it became a national project and managed together as the Ibanda-Rumanyika Game Reserves Project. Rumanyika is believed to be one of the sites which had some of the highest densities of black rhinos in Africa. Its name is derived from the name of the *Omukama* of Karagwe chiefdom named *Omukama* Rumanyika I Orugundu who ruled between 1850-1880. Chiefdoms were abolished in Tanzania in 1963 but the descendants of the royal family are still present within the district (Nahonyo 2002).

Most of the land in Rumanyika is hilly and well drained. The underlying rocks are of Precambrian age > 600 million years old. Low-lying plains of Kagera and Mwisa rivers are built by sediments from Tertiary times to the present. The Precambrian rocks belong to the Karagwe-Ankolean System (K-A System) consisting of metamorphosed sedimentary rocks that have undergone rather strong folding. The Kishanda valley system drains the central part of Kyerwa District and Rumanyika NP. This drainage system starts from the south of the district moving northwards to Kishanda valley in Rumanyika NP. It is joined by a number of tributaries before it joins the Kagera River in the north just east of Murongo village (Nahonyo 2002).



The areas of Ibanda and Rumanyika have a tropical climate. Rainfall distribution is bimodal with peaks falling between September to December and March to May. The period between January and February is relatively dry and June to September is a period of marginal or no rainfall. Generally rainfall decreases from east to west. The park has 13 lakes which retain water all year around and all of them have fish.

Rumanyika (and Ibanda) are among the few NPs in the country which are not covered by miombo vegetation. The vegetation of Rumanyika ranges from wooded grassland and medium height equatorial forest. Marsh/swamp and open water bodies occur in certain areas. The existing natural vegetation is mostly secondary; which has recovered from either recent or distant past human disturbances. Prior to 1974 when people still lived in the reserve a number of areas were under scattered cultivation. Only a few places remained untouched and some mostly at the periphery of the reserves even had intensive cultivation. When people were evicted in 1974 the cultivated areas were left to allow natural vegetation to regenerate and the remnants of previous agriculture can still be seen in a number of places where trees like Eucalyptus, mangoes, bananas and cattle fodder grass can be seen.

Forest is the dominant vegetation in Rumanyika and also occur on hill slopes making v-shaped valleys in undulating landscape often leaving the convex slopes with grassland. The forest in Rumanyika is composed mainly of the former Rumanyika Forest Reserve which remains only in Rumanyika NP as most of it outside the

park has been cleared for cultivation. The forest is basically equatorial montane in character and is the only one found in Tanzania. At an altitude of over 2,700m asl. The forest is dominated by *Markhamia lutea*, *Allophyllus* spp. *Gymnosporia bukobina*, *Sapium ellipticum*, *Celtis africana* and *Milletia dunabum*. The forest is mostly of medium height trees 30 -50 m high but in some places taller trees are found. The undergrowth is mainly dominated by lianes, climbers and some herbaceous plants. Canopy cover in many places is 100 percent, but lower canopy cover and glades are not uncommon. Dry leaf litter on ground covers about 80 percent. Under the forest soil is mostly black loam and the soil is fertile.

Some wildlife species found in Rumanyika NP include buffalo, leopard, blue monkey, tree hyrax, sitatunga, dik dik, olive baboon, vervet monkeys, side stripped jackal, galagos, bushbuck, hare, civet and banded mongoose. Although the park is known to have many bird species but no studies have been conducted yet. Some birds known to occur in the park include the African fish eagle, king fisher, kite, and guinea fowls.

Significance

The closed tropical montane forest with tall trees is one of the unique attributes of the park not found in other parks in the country. Also the hilly landscape covered by forest provides a rare scenic beauty not often seen elsewhere. The 13 lakes decorate the unique scenery of the park. The remoteness and wilderness of the park is a very a rare attribute in the modern world where most of the areas are frequently visited by people.

Wildlife tourism

Not much is undertaken at present due to limited accessibility of the park. But also the park is not yet adequately developed and opened up for tourism business. However, walking safaris, bird watching and camping are carried out by few tourists visiting the park.

Tourism facilities, Activities and Accessibility

The facilities need to be introduced and developed. Currently no accommodation or other tourist facilities to enable visitors stay for long in the park. Very few tour operators wish to operate here. The current tourism activities available in Rumanyika – Karagwe NP include game drive, night game drive, walking safaris, canoeing, and cultural tourism involving traditional food in villages surrounding the park. The park is located in a remote area and access is only by road from Kayanga (Karagwe) via Kyerwa to the park

Opportunities and challenges

There are a number of opportunities at the park including development of tourist facilities such as accommodation (camps, hotels), providing services such as transport and tour guiding. There are also provisions for establishing activities like

canoeing, kayaking and canopy walk. It is advised that infrastructure and facilities which are not costly may be implemented by TANAPA itself. However, the park is faced with encroachment problems, and poaching for timber, game meat and fish.

Future plans

- The park needs to be developed and opened up for tourism. Accessibility to the park needs to be improved to allow visitors easy access and comfortable travel.
- Open up the park by constructing roads system, trails, observation points and make shift camp sites
- Construction of visitor facilities such as camps and hotels need to be undertaken
- Adding more products such as sport fishing, canopy walk, canoeing, fly camping, mountain hiking, and kayaking.
- Exploit the rich culture of the Wahaya and Wanyambo tribes surrounding the park to create a consortium of wildlife, nature and cultural tourism

Currently only few tourists visit the park due to inadequate infrastructure including access roads, park roads and accommodation which are absent or poorly developed. The park also needs to be marketed. Below are some of the tourist products for Rumanyika - Karagwe NP which are in use or need to be introduced and developed or enhanced (Table 2).

Table 2: Summary of tourist product/attractions of Rumanyika – Karagwe NP

SN	Tourist product/ attraction	Status	Remarks
1	Nature trails/ Walking safaris	In use but partially developed	The park is yet to be opened to extend the existing nature trails and walking safari routes
2	Sport fishing	Not yet developed	With over 13 lakes in the park the activity has a high potential for development
3	Forest/Landscape (scenery)	Partially developed	This naturally occurring product needs to be protected. But it also needs to be developed through establishing vantage points where visitors can view the landscapes and appreciate the scenery
4	Mountain hiking	Not yet developed	This is one of the high potential products in the park due to the park's hilly landscape.

SN	Tourist product/ attraction	Status	Remarks
5	Canoeing	Not yet developed	The lakes in the park have all features ideal for canoeing
6	Canopy walk	Not yet developed	The thick highland montane forests in the park provide an ideal condition to introduce canopy walk.
7	Kayaking	Not yet developed	Nature and ecology of the lakes in the park is ideal for kayaking
8	Wilderness	Not yet developed	This is a product that banks on the remoteness of the park. Wild, isolated with very little or no human interference. Not many places have this attribute. The developed required is to protect the remoteness and isolation, continue to limit human access to the area. Visitors who enjoy solitude and recreation in remote areas this is an ideal place for that activity
9	Birds watching	Not yet developed	The park is known to have a variety of bird species particularly forest birds. No inventory has been conducted but the park has all the potentials for exciting bird watching activity
10	Butterfly watching	Not yet developed	Not butterfly inventory has been undertaken but reports suggest the presence of many varieties of butterflies for butterfly watchers to enjoy
11	Mineral tourism	Partially developed	Tin mines are already there just around the park in a place referred to as “Kyerwa syndicate”. What is required is to design and plan for how mineral tourism can be implemented may be in combination with cultural tourism
12	Cultural tourism	Not yet developed	The surrounding tribes to the park are rich in culture and can be included in the park packages for activities like food, cultural dances, housing, traditions, farming systems and cattle.

SN	Tourist product/ attraction	Status	Remarks
13	Fly camping	Not yet developed	The park is very ideal for fly camping due to the presence of thick forests and extensive wilderness which can be used for walking trails and makeshift camping as needed

Description of tourist products/attractions in Rumanyika – Karagwe National Park

Nature trails/Walking safaris: Rumanyika Karagwe NP is one of the remotest parks in the country and least developed. But this means it is a near perfect wilderness area due to very poor accessibility. Nature trails will provide visitors with a unique experience of being in an isolated remote area.

Sport fishing: The park has at least 13 lakes and 10 of them have fish. This provides an opportunity for introducing sport fishing in the park. Visitors will be able to fish large cat fishes available in park lakes.

Forest and landscape (scenery): Rumanyika Karagwe NP has a hilly landscape which provides unique breathtaking scenery. The landscape is covered by thick closed forest almost impenetrable. Watching the landscape and its forest cover alone provide one with an unforgettable experience of a lifetime.

Figure 1: Landscape features of Rumanyika NP near Kyerere village (36 M 0277978, UTM 0050050). Note the lakes and hilly undulating terrain covered with thick forest. Lakes have fish and are god for sport fishing and other water sports. Forests can be used for canopy walk and nature trails and hills for mountain hiking.

Figure 2: Weaver birds nesting on acacia tree at Rumanyika NP and right are the "Kyerwa Syndicate" area showing the Kakanja (or Lukulaijo, Merula, Kashanda River) as it meanders towards Rumanyika – Karagwe NP. The area is rich in tin minerals and there are a number of tin mines there. The minerals, agriculture, culture of the people provide a high potential for diversified tourism activities.

Mountain hiking: The hilly forested landscape provides an ideal place to introduce mountain hiking for visitors who love mountain climbing and hiking. There are many hills in the park where visitors can take the challenge of conquering the mountain tops available in the park.

Canoeing: The 13 lakes available in the park provide an ideal opportunity for visitors who love canoeing. The lakes are fairly deep with unobstructed open waters to allow for this sport to take place.

Canopy walk: The park boasts of thick closed forests with tall trees that allow for the construction of canopy walk platforms for visitor enjoyment.

Kayaking: The water bodies in the park provide opportunities to introduce the kayaking sport. This will be a good sport to attract visitors interested in water sports.

Wilderness: The wilderness of the park gives the opportunity for people who want to have a total isolation for retreat and meditation. The remote inaccessible areas with little disturbance from human activities are targeted for this purpose. People who want experience total isolation away from human activities have sites for this purpose.

Bird watching: Although the number of bird species is not known the park appears to be rich in avifauna. The park is very ideal for people interested in forest bird species for observation and research.

Butterfly watching: The number of butterfly species in Rumanyika - Karagwe NP is not known, but reports from park rangers suggest there are a good number of butterflies worth inviting people interested in butterfly watching to visit the park.

Mineral tourism: There is a tiny mining at "Kyerwa Syndicate" area. Areas near Rumanyika – Karagwe NP are rich in minerals including tin. There are a number of mines in operation around the Kyerwa Syndicate area. The area is also traversed by the Kakanja (or Lukulaijo/Merule/Kishanda) river which provides a magnificent view when watched from an elevated vantage point.

Cultural tourism: Mtagata ritual centre and hot springs: On the national park border there is the Mtagata hot water spring which historically is related to Chief Rumanyika. The waters from the spring are believed to have healing powers.

There is hot springs at Mtagata village just outside Rumanyika Game reserve. Water from the hotsprings is believed to have healing powers for people who take bath from it. H. M. Stanley while visiting the Karagwe Chiefdom in the 19th century he also visited the hotsprings on 1st January 1876 and it is reported that "…..*Stanley visited the Springs of Mtagata and found there many sick people who were hoping to be cured by a bath in the water. He followed their example, but as he explained, with marked negative success*". However, this is contrary to the local belief as people still visit the springs to get cured of various ailments.

Fly camping: A fly camp is a simple, mobile camp in a remote area. With the wilderness of Rumanyika – Karagwe NP fly camping would be an ideal activity for back packs and adventure loving tourists who would wish to spend a number of days shifting camps in the wild.

Ibanda – Kyerwa National Park

Ibanda Game Reserve (234km^2) is located approximately 29º26'E, 30º36'E and S10º4; S12º0'. The areas where Ibanda NP is located were previously under the Karagwe Chiefdom established in the 19th century by the Wanyambo, a section of the Wahaya tribe who migrated from Bunyoro in the north. The Chief known as "*Omukama*" had his headquarters at Bwehange. The *Omukama* used the area presently included in Ibanda Game Reserve area as his personal hunting site, and he distributed game meat from animals hunted to his subjects (Nahonyo 2002). The arrival of the explorer T. H. Speke in 1884 opened a way for other Europeans who visited the area in later years and some of them were involved in rhino hunting, giving the "horns" to the *Omukama* who then exchanged them with commodities brought by the Arab traders. The area was also involved in the caravan trade of ivory introduced by the Wanyamwezi from the south. Ibanda (and Rumanyika), national parks, therefore, have great historical and cultural significance to the indigenous population (Nahonyo 2002).

In 1959 the government declared the Ibanda a Game Controlled Area because of the high abundance of game which also made the area to be known as "Ibanda arena". In 1974 Ibanda was gazetted as a game reserve. From 1959 Ibanda was managed by the regional administration until 1989 when it was made a national project managed directly by the Wildlife Division. People continued to live in Ibanda until 1974 when

they were resettled. Evidence of this past settlement includes deforestation, and planted trees and trees crops like mangoes, *Eucalyptus*, and *Erythrina abyssinica* that can still be seen inside the park.

Ibanda (and Rumanyika) national parks are historically known to have harboured abundant wildlife and during the mid and late 19th century were commonly known as "the arena". At that time animals used to move freely between the two reserves and beyond. However, the present situation is rather different and various species have been seriously affected by hunting, physical barriers and closure of movement and migration routes. On the other hand habitat and migration routes corridors and dispersal areas have been affected by encroachment. Some species like black rhinos (*Diceros bicornis*) became extinct in the park in 1996 due to poaching. Species like lion (*Panthera leo*), buffalo (*Syncerus cafer*) hippo (*Hippopotamus amphibius*), warthog (*Phacochoerus aethiopicus*), topi (*Damaliscus korrigum*), roan antelope (*Hippotragus niger*), eland (*Taurotragus oryx*), impala (*Aepyceros melampus*), reedbuck (*Redunca* sp.), olive baboon (*Papio anubis*) vervet monkey (*Chlorocebus pygerythrus*), bushbuck (*Tragelaphus sylvaticus*), dik dik (*Madoqua* sp.), oribi (*Ourebia ourebi*), spotted hyena (*Crocuta crocuta*), bushpig (*Potamochoerus larvatus*) banded mongoose (*Mungos mungo*) aardvark (*Orycteropus afer*), duikers and hare are available in Ibanda.

The actual number of animals is not known because no census has been conducted. The area is rich in bird life including water birds and the Kagera River and other lakes, swamps and marshes in the area are among the important bird areas. Notable bird species include the crowned crane, African fish eagle, Kori bustard, helmeted guinea fowl and a high density of francolins. There is also a variety of other wildlife including reptiles, amphibians, fish and invertebrates.

Ibanda - Kyerwa national park can be reached through road and charter flights. The park needs to be developed through roads network and infrastructure to accommodate visitors and other facilities. Below are some of the tourist products in the park and surroundings. Some are already in use and others need to be introduced to enhance the park value.

Significance

The strategic location of the park by bordering three countries is very significant in tourism marketing and promotion. The park also has a landscape with vantage locations for panoramic view of the landscape and wildlife. The park is also evergreen an attribute which is uncommon for most protected areas. Additionally the presence of abundant wildlife makes the park an ideal place for game viewing while the Kagera river size, ecology and landscape, and its status as an international boundary is another feature which makes the park an attractive place to visit.

Wildlife tourism

Game viewing is underway but at a low scales due to remoteness of the park and poor accessibility. However for visitors which make it they are able to observe herds of wildlife such as roan antelope, impala, buffalo, topi, reedbuck, eland and hippos along Kagera River. Visitors will also enjoy watching birdlife including the abundant francolins. Apart from game viewing visitors can also participate in camping and nature walks.

Tourism facilities, Activities and Accessibility

At present there is only one hotel located near the park which can accommodate visitors. The park has a campsite at Kifurusa with 4 different plots where visitors can camp. No specific vehicles for serving visitor for game drives but can hire the available vehicles if need be. Plan is to construct cottages/bandas and hostel.

The current tourism activities available in the park include game drive, night game drive, walking safaris, and cultural tourism involving traditional food in villages surrounding the park.

The park can be accessed by road from Omurushaka or Kayanga through graded roads to Murongo. One can also reach the park by road through the Uganda/Tanzania border at Murongo. There is also airstrip where small charter planes can land.

Opportunities and Challenges

Due to poor infrastructure at the present there are a number of opportunities for development of visitor facilities at the park including hotels and camps for accommodation, camp sites, transport system and tour guiding. The park GMP has provided for 6 permanent tented camps, one lodge. People are also encouraged to invest in tour companies, transport, curio shops and traditional food. The park is considering introducing cultural tourism through the Ankole cattle, traditional food, traditional houses, traditional dances and agriculture.

The park management reported the problems of encroachment, poaching and poor infrastructure. The poor infrastructure and visitor facilities affect the number of people who wish to come to the park. But also the COVID-19 pandemic and destruction of the park infrastructure due to floods have exacerbated the problem.

There is also the problem of human wildlife conflicts especially involving elephants trapped at Mushabaigulu area (Kitengule wildlife corridor/reserve). Over 300 elephants have been trapped between Kagera River, Kagera sugar estate, farms and settlements. The river landmark and human activities have closed the corridor which enabled them to move between Ibanda – Kyerwa NP, Rumanyika – Karagwe NP and Burigi - Chato NP.

The park also is faced with the problem of inadequate staff, staff housing, working facilities and equipment to enable staff perform their duties efficiently.

Future plans

The park needs infrastructure development in terms of roads, airstrip, tourist camps and accommodation facilities in general. The roads system in the park needs improvement as well as establishment of camp sites and viewpoints.

Table 3: Summary of tourist products/attractions of Ibanda – Kyerwa NP

SN	Tourist product	Status	Remarks
1	Nchi Tatu viewpoint	Partially developed	This is a very good product which needs to be developed as a key attraction to the park due to its strategic location
2	Bird watching	Partially developed	Good infrastructure is needed to give access to visitors who wish to go to various locations in the park where they can witness the diversity birdlife in the park
3	Mlima Tohe	Developed	This is a location where one is able to see a variety of wildlife species and specifically one is assured 100% to see reedbuck
4	Landscape		The beautiful undulating landscape of Ibanda needs only being opened up for visitors to enjoy. Strategic viewpoints need to be identified and developed to provide visitor enjoyment
5	Evergreen vegetation		Ibanda experiences two rain seasons making its vegetation almost evergreen. There are very few parks with this characteristic. Green landscape is mesmerizing and soothes one's mind
6	Salt licks and springs	Not yet developed	These are key areas for wildlife observation as many animals tend to concentrate in these locations to obtain water, pasture and minerals. Accessibility need to be enhanced to allow for better visitor view of the wildlife
7	Tin mining site	Not yet developed	The caves once used for tin mining may be worth developing to allow for people visitation. This will involve admiring the caves but also listen to the local mythology about the caves
8	Kagera river	Not yet developed	Access to the mighty Kagera river need to be developed to allow for people to reach out and enjoy the many unique attributes of this important river.

SN	Tourist product	Status	Remarks
9	Rwanda refugee camp and escape route	Not developed	There is a need to mark the route which was used by Rwandan refugees fleeing genocide in Rwanda and also develop the area which used to host the refugees temporarily before they were shifted to permanent camps.
10	Ankole cattle		In Tanzania Ankole cattle are found only is a small area in the north west of the country. Their size and big horns are always an attraction to people. Interest to see these cattle combined with other cultural attractions like traditional food and dances, homestay in villages, would make a good opportunity for visitor enjoyment and recreation
11	Proximity to Rwanda and Uganda		The proximity of Ibanda to the other two east African states of Rwanda and Uganda give an opportunity for visitors to have a wide choice of travel options to experience a variety of cultures and traditions in a short period of time.
12	Sunrise and sunset		The park is endowed to have good and clear sunrise and sunset which can give a visitor an experience which cannot be obtained elsewhere. Moreover the sunrise and sunsets at Ibanda do not change with seasons as the location is close to the equator

Description of tourist products/attractions of Ibanda – Kyerwa National Park

Nchi Tatu Viewpoint: On the banks of Kagera river is a point known as "Nchi Tatu Viewpoint" where one is able to see three east African countries at one. From this point standing on the Tanzanian side one can see Rwandan countryside on the left showing land with farms, settlements and other human activities. Similarly, on the right one can see Uganda also with farms, settled areas and factories. The site also provides a good view of the Kagera River as it meanders along the international borders displaying open water body, wetlands and riparian forest. Hippos and crocodiles can also be seen from here.

Figure 3: The left photo shows a view of Rwanda to the left and Uganda to the right as seen from Nchi Tatu viewpoint (36 M 0218215, UTM 0001005). The right photo from the same point shows the Kagera River and its wetlands and riparian vegetation.

Bird watching: The number of bird species in the park is not known but a variety of birds can be seen when one makes a visit. Of special mention is the high concentration of francolins which is rarely seen in other places. Francolins are encountered every few meters when one drives along the park.

Mlima Tohe: This is a location where there are some high concentration reedbucks worth visiting. The park also many herds of topi, impalas, waterbucks, buffalo and eland. Other mammals that can be seen include leopard, the rare roan antelope, olive baboon, bushbucks, banded mongoose, dik dik, vervet monkeys, hyenas and warthogs.

Landscape: Ibanda - Kyerwa NP has a hilly undulating terrain providing a magnificent landscape with panoramic view. From a number of vantage points one can see large extent of the park and beyond. The vantage points allow one to enjoy the geomorphology and beautiful scenery of the park. At a distance hills in Rwanda and Uganda can also be seen.

Figure 4: Landscape features of Ibanda – Kyerwa NP as seen from Chumvi Chumvi area (36 M 0227435, UTM 0070750) inside the park. Note the ability to have a panoramic view of the park landscape

Evergreen vegetation: Ibanda - Kyerwa NP has evergreen vegetation which remains green almost all year around. This is because the area experiences two rain seasons. Few protected areas in Tanzania have this kind of vegetation.

Salt licks and springs: Salt licks and springs inside the park are a unique attraction to wildlife. Often animals congregate in these sites to acquire salt and water both important items for their nutrition and metabolism. One is almost assured of sighting animals when visiting these sites.

Tin mining site: Somewhere at Nyakanoni area at the edge of the park is a cave which used to be a mining site. There was commercial tin and wolframite mining inside Ibanda for many years conducted at Chamungina (Karugu) area by a German Hans Paulson. He stopped mining after the area was declared a game reserve and opened new mines outside the reserve at Murongo village. The tin and wolframite deposits are still present inside the game reserve. Since then the caves remain unattended as the mine was abandoned ever since. The caves can be an interesting site for mineral tourism but also people have the chance to hear about the mythology of the site.

Figure 5: Ibanda – Kyerwa NP experiences two rain seasons as such making its vegetation remain almost evergreen all yea around

Kagera River: Kagera River the source of river Nile and an international boundary between at least four east African countries is resource worth exploring. Its size, its role as an international boundary, the wildlife and fisheries contained in it and its role during the Rwanda genocide all make it a unique resource of interest. Tens of thousands pf massacred people were dumped in Kagera river and corpses were carried all the way to Lake Victoria. It was sometimes important to erect barriers across the river to "fish out" the corpses for burial.

Rwanda refugees camp and escape route: At Ibanda village close to Uganda border at a place called Mikinga (Murongo) a temporary refugee camp for genocide refugees was established. Tens of thousands of them crossed the Kagera River a point close to Nchi Tatu view point and tracked to Mikinga for their safety. Later

they were shifted to more permanent camps away from the border.

Ankole cattle: The Ankole cattle with their large horns are always fascinating to watch them. The Ankole cattle available in the area is an African breed belonging to the broad Sanga cattle group of African breeds. It was probably introduced to Uganda between five and seven hundred years ago by nomadic pastoralists from more northerly parts of the continent. The breed is distributed in much of eastern and central Africa, particularly in Uganda, the Democratic Republic of Congo, Rwanda, Burundi and parts of Tanzania. Sanga cattle are the collective name for indigenous cattle of sub-Saharan Africa. The Ankole cattle are preferred by the Bahima cattle herders in Tanzania and are only found in the north western part of the country. Visitors can have the opportunity to watch the cattle and even participate in herding the animals. Meanwhile visitors will also be able to appreciate the banana and coffee plantations common in most rural areas in the area.

Proximity to Rwanda and Uganda: The site being close to the two countries provides an opportunity for visitors to see and experience different cultures available in the three countries in a short period of time. With a well-coordinated plan, visitors can be able to visit the three countries in a short time and enjoy the cultural diversity in the countries.

Minziro Forest Nature Reserve

Minziro forest was declared a forest reserve in 1947 and was managed by the central Government through the Forest Division. The forest was faced with management problems which led to encroachment and illegal harvesting of timber until 1980s. The forest was later handed over to Bukoba Rural District for management. Tanzania Forest Services started to manage the forest in 2011. In 2015 the forest was promoted to a Forest Nature Reserve but the GN came in 2016 (GN No. 298 of 2016) under the assistance of UNDP. Nature reserve is the highest status of protected area conservation by IUCN standards. Nature reserve can be Category 1a or 1b. Minziro is in Category 1b. In this category very limited access is allowed for dry wood and medicinal plants collection only.

The mean annual rainfall in the Minziro wetland landscape is around 1,400 mm per year with average annual evapotranspiration of 800 mm in the forest area and 500 in the grassland and cropland areas. Minziro is characterized by epiphytes and mosses that capture mist and rainwater directly from the air. As such these forests are able to significantly capture more water than only the direct rainfall and therefore play an essential role in the amount of water that is captured and stored in the Minziro wetland landscape, as well as in regulating the micro-climate. Minziro forest has over 600 plant species that include rare and endemic forest swamp tree species, several of which are known to be relics of the Albertine Rift.

Significance

i. This is the only part of Tanzania with the Guinea-Congo lowland tropical forests extension. It is a groundwater forest which extends to Uganda

ii. Presence of endemic and rare species of plants, birds, wildlife and butterflies

iii. The reserve has an enclave with some villages where a number of sites associated with religious, culture and dark tourism

iv. The forest ecosystem is shared with Uganda and it accommodates an international boundary

Wildlife

A total of 23 mammals are known to occur in Minziro forest. These include the African Elephant (*Loxodonta Africana*), the African Buffalo, Angola Colobus (*Colobus angolensis*), Cyclops Leaf-nosed Bat Hipposideros Cyclops, Leopard (*Panthera pardus*), Tree Pangolin (*Manis tricupsis*), Hippopotamus (*Hippopotamus amphibious*), Sitatunga (*Tragelaphus spekei*), Northern Swamp Musk Shrew (*Crocidura maurisca*), Colobus Monkey (*Colobus guereza adolfi-friederici*) and a subspecies of the Blue Monkey (*Cercopithecus mitis doggetti*).The Minziro Nature Forest Reserve is the only locality in Tanzania where the two primates Thomas' galago (*Galagoides thomasi*) and Grey-cheeked mangabey (*Lophocebus albigena*) are found (Martin, 2019). Other species found in Minziro forest are the fire-footed rope squirrel, tree pangolin, giant pangolin ("scaly anteaters"), Golden cat (*Caracal aurata*) a Vulnerable medium-sized felid typical of the tropical rainforest environments, whose population generally belongs to the western part of Africa.

The forest also harbors 34 reptilian species from four orders (Chelonia, Sauria, Crocodylia and Serpentes), 15 families and 24 genera have also been recorded in the forest (Behangana 2019). Other species found in the forest are the Grass-top Skink, the East African Highland Grass Lizard, Olive Marsh Snake, Angola Green Snake and Variable Stiletto Snake.

The waters of the reserve also have fish species that are threatened mainly because breeding areas have been cleared for farming, settlement and development projects. Endangered species include Ningu (*Labeo* spp.), "Enkuyu" spp., Endera (*Barbus* spp.), tilapia, and Ngege (*Oreochromis esculentus*).

There are more than 600 butterfly species in Minziro NFR, surpassing any other forests in Africa (TFS 2019).

Birds

Over 300 species of birds have been recorded in Minziro forest and its surrounding habitats and the reserve contains significant number of Guinea-Congo biome restricted bird species (TFS 2019). Out of the 300 bird species 56 of them are known to occur only in Minziro forest in Tanzania (Nalwanga 2019). Minziro forest has

been classified as an Important Bird Area due to the presence of globally threatened species i.e. Forest francolin (*Francolinus lathami*) and Blue swallow (*Hirundo atrocaerulea*) species (TFS 2019).

List of birds found only in Minziro Forest Nature Reserve

Scientific name	Common name
Corythaeola cristata	Great Blue Turaco
Alethe diademata	Fire-crested Alethe
Spermophaga ruficapilla	Red-headed Bluebill
Neocossyphus poensis	White-tailed Ant-Thrush
Psittacus erithacus	Grey Parrot
Halcyon malimbica	Blue-breasted Kingfisher
Francolinus lathami	Forest Francolin
Tauraco schuetti	Black-billed Turaco
Camaroptera chloronota	Olive-green Camaroptera
Sarothrura pulchra	White-spotted Flufftail
Columba unicincta	Afep Pigeon
Cercococcyx mechowi	Dusky Long-tailed Cuckoo
Centropus monachus	Blue-headed Coucal
Corythornis leucogaster	White-bellied Kingfisher
Phoeniculus castaneiceps	ForestWood-hoopoe
Tricholaema hirsute	Hairy-breasted Barbet
Buccanodon duchaillui	Yellow-spotted Barbet
Trachylaemus purpuratus	Eastern-Yellow-billed Barbet
Campethera nivosa	Buff-spotted Woodpecker
Dendropicos xantholophus	Yellow-crested Woodpecker
Nicator chloris	Western Nicator
Andropadus gracilis	Little Grey Greenbull
Phyllastrephus hypochloris	Toro Olive Greenbul
phyllastrephus icterinus	Icterine Greenbul
Phyllastrephus xavieri	Xavier's Greenbul
Bleda syndactyla	Red-tailed Bristlebill
Bleda eximia/ bleda notatus	Green-tailed Bristlebill/ yellow-lowerd bristlebill
Ixonotus guttatus	spotted Greenbul
Sheppardia cyornithopsis	Lowland Akalat
Stiphrornis erythrothorax	Forest Robin
Cossypha cyanocampter	Blue-shouldered Robin-chat

Scientific name	Common name
Cossypha polioptera/ Sheppardia polioptera polioptera	Grey-winged Robin-chat
Stizorhina fraseri	fraser's rufous thrush/Rufous Flycatcher-Thrush
Phoenicurus phoenicurus	Common Redstart
Cercotrichas hartlaubi	Brown-backed Scrub-Robin
Acrocephalus rufescens	Greater Swamp Warbler
Phylloscopus budongoensis	Uganda Woodland Warbler
Hylia prasina	Green Hylia
Sylvietta virens	Green Crombec
Macrosphenus flavicans	Yellow Longbill
Bathmocercus rufus	Black-faced Rufous Warbler
Cisticola chubbi	Chubb's Cisticola
Camaroptera superciliaris	Yellow-browed Camaroptera
Apalis rufogularis	Buff-throated Apalis
Apalis jacksoni	Black-throated Apalis
Apalis binotata	Masked Apalis
Myioparus griseigularis	Grey-throated Flycather
Megabias flammulatus	African Shrike-flycatcher
Dyaphorophyia castanea	Chestnut Wattle-eye
Dyaphorophyia jamesoni	Jameson's Wattl-eye
Trochocercus nigromitratus	Dusky Crested-flycatcher
Illadopsis albipectus	Scaly-breasted Illadopsis
Cinnyris Superba	Superb Sunbird
Laniarius mufumbiri	Papyrus Sunbird
Dryoscopus gambensis	Northern Puffback
Oriolus brachyrhynchus	Western Black-headed Oriole
Lamprotornis purpureiceps	Purple-heade Starling
Ploceus castanops	Northern Browned- throated weavers
Ploceus aurantius	Orange Weaver
Ploceus weynsi	Weyns;s Weaver
Ploceus tricolor	Yellow-mantled Weaver
Malimbus rubricollis	Red-headed Malimbe
Nigrita fusconota	White-breasted Negrofinch
Parmoptila Woodhousei	Woodhouse's Antpecke

Vegetation

The Minziro forest is a large, biologically rich wetland forest that extends to SAMUKA wetland system in southwest Uganda. It includes the biggest tract of swamp forest, papyrus swamps, herbaceous swamps interspersed with palms and seasonally flooded grasslands, sandy, rocky and forest shores. The Minziro Forest Reserve is a groundwater-forest with extensive areas of grasslands, swamps and marshes and is the largest forested area in north-west Tanzania and is part of the Guinea-Congo lowland forests.

Minziro forest is home to threatened, rare and endemic forest swamp tree species, several of which are known to be relics of the Albertine Rift. For example, four out of 410 plants species recorded in the reserve are threatened and the list includes *Afrocarpus usambarensis* which is listed as 'endangered' (Namaganda, 2019). Others include *A. usambaransis* var *dawei*, an endemic variety, has been virtually wiped out due to intensified logging. Wild coffee *Coffea canephora*) is considered rare but found in several locations in Minziro (Nalwanga, 2019). There are medicinal trees, such as *Phoenix Africana*, *Prunus Africana*, *Rytigynia beniensis*, "Omunyabuliko" and "Olikwatango" which are well-known for their valuable ecosystem services by the local communities but are increasingly threatened by land degradation in the area. The ecosystem can be classified as a Baikiaea-Podocarpus seasonal swamp forest and is known for having a high biodiversity value.

Wildlife tourism

Limited at the present and although there is wildlife but their numbers are low. However, visitors can still do wildlife viewing for birds, butterflies and the few game animals present.

Tourism facilities, activities and accessibility

Tourism facilities need to be developed. Tourism activities include bird watching, nature trails, picnicking, butterfly watching, game viewing, and camping, religious, historical and cultural tourism. Minziro nature reserve can be accessed by road from Bukoba town as one drives via Kyaka towards Mutukula border town. Likewise, one can reach the reserve from Uganda via Mutukula or Kigazi border village.

Opportunities and challenges

Minziro Forest Nature Reserve which is under Category 1b is the highest status of protection in Tanzania. This means very limited activities are allowed in the reserve including research and ecotourism. For this reason, only developments and activities with minimal negative impact to the reserve and resources can be permitted. Therefore, opportunities that may be available could include developing nature trails, make shot camps and forest guiding

The reserve is faced with encroachment as it is surrounded by villages on all sides. There is also a problem of illegal harvesting of forest products and tree cutting.

Wildlife poaching is not pronounced due to small number of wild animals in the reserve.

Future plans

The reserve is in the process of being declared a Ramsar site in collaboration with Uganda. The process is at advanced stage. This will enable the forest and surroundings to enhance its protection status and hence preserve the rich biodiversity present in the area

The reserve plans to improve tourism by developing the roads infrastructure to enable easy access and to the reserve.

There are also plans to establish nature trails, camping and picnic sites to enable visitors explore the reserve in more detail

There is a need to market the reserve through various advertisement outlets such as artefacts, brochures, and e-media.

Table 4: Summary of Minziro Forest tourist products/attractions

SN	Tourist product/ attractions	Status	Remarks
1	Bird watching	Partially developed	Bird watching is one of the key tourist activities in Minziro. With over 343 species it only needs opening up of the nature reserve to allow bird watchers to appreciate the richness of the avifauna in the reserve
2	Butterfly watching	Partially developed	Minziro reserve has over 600 butterfly species a paradise for butterfly lovers. What is required is to open access to locations where during the boom season in July/August visitors will be able to observe as many butterfly species as possible
3	Tropical rain forest	Partially developed	Minziro is one of the very few places in Tanzania one can observe the tropical rain forests of Guinean - Congolian biome. There is need to open access to the forest to enable visitors to observe the forest but also have an information centre where among other things it will provide description of the forest and other attractions in the forest.
4	Rare wildlife	Partially developed	To have the opportunity to observe rare wildlife species is a unique attraction to the visitors
5	Endemic plants	Partially developed	At least two endemic plant species have been identified in Minziro forest. This has a special attraction to researchers and plant lovers.

SN	Tourist product/ attractions	Status	Remarks
6	Tree bark traditional clothes	Partially developed	As a product this is a well-developed traditional technology which just needs to be branded and sold as a product. The Wanyambo/Wahaya people have been using this technology since time immemorial and what needs to be done is to develop it to commercial level.
7	Dark tourism	Partially developed	There are many sites associated with the Kagera war which would be of interest to visitors as war memorials but also as lessons for countries to live in peace and harmony
8	Religious tourism	Developed	The Kishomberwa pilgrimage site is already developed by the Catholic Church Diocese of Bukoba and pilgrims gather at the site every last Sunday of January for pilgrimage. The centre needs advertisement.
9	Cultural tourism	Partially developed	Traditional dances, food, culture, lifestyles of the Wahaya/Wanyambo are one of the very interesting tribal traditions due to their very strong cultural affiliation. These needs to be further developed and integrated in form of tourist products for sale.
10	Ritual centre	Partially developed	The Kere Hill ritual site in Minziro forest is already in use by some clans from Uganda. Limited development is needed to make it a product worth selling to visitors

Description of tourist products/attractions found in Minziro Forest Nature Reserve (and enclave)

Bird watching: The Minziro Forest Nature reserve is an extension of Guinean - Congolese biome tropical rain forests. It's a lowland closed rain forest. With over 343 bird species it is an excellent place for bird watching. Bird species in the forest include birds endemic only to Minziro forest, birds endemic to Tanzania, birds which in Tanzania are only seen in Minziro, endangered species, rare species, Palearctic and intra African migrants. For example, the Forest francolin and Blue swallow are endemic to Minziro forest.

Minziro forest is also a wetland area. The International Waterbird Census (IWC) day on 16th and 17th January 2021 is also commemorated by the forest by conducting water bird count on the days. This is under the BirdLife International and in Tanzania it is coordinated by Nature Tanzania. Bird watchers can be encouraged to take part in the International Water Bird Census day is commemorated every year usually in January/February.

Butterfly watching: Minziro forest has over 600 butterfly species making it an excellent place for visitors interested in butterfly watching. The best place to watch butterflies is July/August when many species are in abundance and can easily be viewed.

Tropical rain forest: As a tropical lowland rain forest it's an uncommon vegetation type in Tanzania as it can be seen only in Minziro and Rubondo Island. The forest provides an opportunity for one to experience the large trees, cool under canopy weather and closed forest with some spots being dark even in the middle of daytime.

Figure 6: Minziro forest as seen from edge of the enclave (L) (36 M 0340856, UTM 000070) and as seen from Kigazi village on the border with Uganda (36 M 0340132, UTM 0000920)

Rare wildlife: Minziro forest is the eastern most extension range for the Golden cat a species available only in West Africa. Other wildlife species which can also be seen include elephants, buffalo, gazelles and blue duiker. Snakes like the rare Rhinoceros viper, bush viper and python can also be observed.

Endemic plants: Minziro forest has at least one endemic plant *Podocarpus doorway*. Another plant *Coffea Africana* is localized in the area and this species can be a good attraction for plant lovers and researchers. The coffee species could contain important germplasm for research as well as the development and sustainability of the coffee crop in the future.

Tree bark traditional clothes (Mulumba – Orubugo): The Wahaya/Wanyambo are one of the few ethnic communities with very deep and persistent culture and traditions. One of their culture is the making of tree bark clothes known as Mulumba – Orubugo. The two tribes like these clothes because they are soft and warm hence good to sleep on or wear in cold conditions. These tree bark clothes are made from a tree known locally as "omulumba" which scientifically is called *Ficus thonningii*. The clothes are made using special tools called "inshaimo" through beating up the bark until it softens. Already there are so many orders of the clothing in Europe. Visitors can buy the finished products and can also participate in the cloth processing exercise.

Dark tourism (Kagera war historical sites): In Minziro enclave there are a number of historical sites related to the Kagera war. Minziro forest is surrounded by 8 villages of which 5 are outside and 3 are inside the enclave. Those outside the reserve includes Kakindo, Mabuye, Igayaza, Byamtemba, and Mutukula. The three villages found inside the enclave are Kalagala, Minziro and Kigazi.

Figure 7: Mzee Eneriko Benedict Kamajura of Kishomberwa village displaying and explaining the tools (inshaimo) used to make orubugo and to the right is the ficus tree used to extract the bark at Kigazi village on the border with Uganda.

Mass grave: On a hill near the Minziro Parish Catholic Church is a mass grave of Ugandan soldiers killed during the war by a cannon allegedly fired from Kanyigo. The number of casualities is unknown but looking at the size of the grave covered with grass it was possibly big.

Figure 8: War casualities mass grave (36 M 338358, UTM 0005107) covered by grass on the left is near the Minziro village Parish Catholic Church to the right

Armoury: Down the hill on the road to Ugandan border (towards Kigazi village) the armory used during the war still remains intact. Mostly are made of iron sheets.

Mwalimu Nyerere house: At Bunazi Township the headquarters of Missenyi district in the Missenyi District Council compound is a house which was used by Mwalimu Nyerere whenever he came to visit the frontline forces. The house remains intact todate as a historical site.

Figure 9: Armory building made of iron sheets used by Tanzanian soldiers still stands intact at Minziro village.

Figure 10: Mwalimu Nyerere house inside Missenyi District Council compound at Bunazi (36 M 0322867, UTM 0000105). The house was used by Mwalimu Nyerere whenever he came to visit the frontline forces.

Bunazi heroes square: This site at Bunazi was used to assemble soldiers who were going to the frontline during the war. It was also used for the ceremony (parade) to declare the end of Kagera war. Currently there is an open ground and war monument. It is used annually to commemorate the end of Kagera war.

Figure 11: The Kagera war monument and heroes square (36 M 0322729, UTM 0000070) at Bunazi, Missenyi District.

Mutukula heroes' monument: This site is located a few kilometres from the Uganda – Tanzania border at Mutukula. The site is a place where Tanzanian soldiers were buried. The soldiers were killed by a bomb which exploded accidentally after the war ended. The soldiers were returning home after the war.

Kagera River Bridge at Kyaka: this a bridge which was bombed and destroyed by Iddi Amin forces during the invasion of Tanzania. The bridge destruction resulted into logistical challenges for Tanzanian forces to cross the Kagera River to launch the counter offensive.

Figure 12: Kagera River bridge at Kyaka. The reconstructed bridge was damaged by Iddi Amin forces during the Kagera war.

Catholic Church at Kyaka: The Iddi Amin forces also bombed and destroyed the Catholic Church at Kyaka. The church is located on a hill and was perhaps an easy target. The Catholic Church decided not to reconstruct the church for some reason. The church remains as a war memorial site. The ruins can easily be seen from a distance as one approaches Kyaka Township.

Figure 13: Catholic church at Kyaka which was destroyed by Iddi Amin forces.

Kishomberwa Pilgrim centre: One of the iconic sites in the Minziro enclave is the Kishomberwa Catholic pilgrimage centre where every last Sunday of January thousands of pilgrims gather to commemorate St. Yohana Maria Muzeeyi. St. Yohana Maria Muzeeyi was one of the 23 Christian martyrs killed by the Baganda King Kabaka Mutesa. St. Yohana Maria Muzeeyi was born of parents who migrated from Uganda and settled at Kishomberwa where St. Yohana Maria Muzeeyi was born. The area was at the time under the influence of Kabaka Mutesa. People were supposed to work in turns at the king's palace, and when the turn for St. Yohana Maria Muzeeyi's father came he decided to go to the palace with his son so that he can help him in the palace chores. At the palace St. Yohana Maria Muzeeyi was found to be very intelligent and clever. He was also secretly involved in religious teachings as the atheist king did not allow religious activities at the palace. St. Yohana Maria Muzeeyi first became a Muslim faith, then converted to Lutheran and finally converted to Catholicism. When the time tenure of his father to work at the palace ended he returned home but the King decided to retain St. Yohana Maria Muzeeyi as a palace worker. When the king discovered about people including his palace workers were engaging in the banned Christian teachings he persecuted them. Those caught were killed. St. Yohana Maria Muzeeyi fled from the palace but was later caught and beheaded. It is said the spot where his head fell a spring immediately emerged and its water has healing powers. The spring is present todate. For many years it was known that St. Yohana Maria Muzeeyi is a Ugandan.

The books in Kampala showed that St. Yohana Maria Muzeeyi comes from Kishomberwa which is in Tanzania. People therefore started to make a follow up of his origin; they included the Kasambya missionaries. After sometime one Joseph Mukasa Kironde informed Father Anthony Kurutembachi the Minziro Catholic

Parish Parochial that St. Yohana Maria Muzeeyi is the from Kishomberwa – Minziro Parish. This was officially followed up by the Church and when it was proven that it is true the Bishop of Kampala approved that St. Yohana Maria Muzeeyi is a Tanzanian. Following this decision, the then head of the catholic Church in Tanzania Laurean Cardinal Rugambwa erected a cross at home site of St. Yohana Maria Muzeeyi at Kishomberwa and pilgrimage was immediately started. Every year thousands of pilgrims from within and outside the country gather every last Sunday of January to commemorate St. Yohana Maria Muzeeyi. This is because St. Yohana Maria Muzeeyi was killed by Kabaka Mutesa I in the month of January. Kishomberwa is an important religious site worth development and promotion as a tourist destination.

Figure 14: Top left is a sign board along the road going to Kigazi village directing to the pilgrimage centre. Top right is the monument of St. Yohana Maria Muzeeyi (36 M 0339706, UTM 0000404). Bottom left is Mzee Andrew Ishengoma Luhinduka and Catechist Tryphon Godian of Minziro Catholic Parish narrating the history of St. Yohana Maria Muzeeyi. Bottom right is the Kishomberwa pilgrimage grounds.

Ritual site: At a place called Kere hill in Minziro forest is a site used for rituals. The site is used by one Ugandan clan who use the site for their rituals and sacrifices. The site has traditional huts and occasionally a leopard come to stay there but is not harmful. In the past the site was protected by traditional guards.

Kyao islet

This is a small islet measuring 18.3 Ha located in Lubafu peninsula, Lubafu ward in Bukoba district. The islet is close to the border with Uganda. Kyao is about 15 minutes' drive by boat from the Lubafu beach. The islet is well protected and its waters are fish breeding area. It has thick forest with small vertebrates, snakes and crocodiles. The islet is rich in birdlife and is a breeding and roosting site for water birds. The beaches are rocky or with gravel but no sand beaches. No studies have been conducted on the wildlife and ecology of the islet and no developments have been undertaken in the islet. The islet is managed by the Tanzania Forest Service (TFS). The future plans are to turn the islet into a tourist destination for activities like camping, bird watching, nature trails, sport fishing, picnicking, canoeing and lake excursions.

Table 5: Summary of tourist products/attractions at Kyao islet

SN	Tourist product	Status	Remarks
1	Water bird watching	Not yet developed	The islet is rich in bird life especially water birds. Water birds feed and roost on the islet making it a good site for bird watching
2	Sport fishing	Not yet developed	The area is a breeding site for Lake Victoria fish and as such it is a good area for sport fishing. Facilities need to be procured to enable the activity become operational
3	Lake excursions	Not yet developed	The waters around Kiyao islet are clear free of rocks and with none or moderate waves. This provides an ideal environment for boat drives around the islet and surrounding areas
4	Camping sites	Not yet developed	Although the islet is small in size the habitat, terrain and general environment has a special attraction for camping overnight and enjoy the lake breeze and stargazing
5	Picnic sites	Not yet developed	The islet has some beaches some of them rocky and others with sand/gravel which can form good picnic sites for those who like sun bathing or under the cool tree shades of the islet forests

Description of tourist products/attractions found in Kyao islet

Water bird watching: Kiyao islet is a roosting site for birds and bats. Birds roost at night and bats in daytime. For this reason, the site is an ideal place for water bird watching and those interested in bats watching. The islet also has snakes, small vertebrates and invertebrates.

Sport fishing: The Kiyao islet is a fish breeding area. For this reason, it is a good place for sport fishing as visitors have chances of getting good size Nile perch, tilapia or other fish species.

Lake excursions (Boat drive): The open waters surrounding the islet which are void of rocks and water weeds provides an ideal place for boat drives and excursions.

Camping sites: The islet has good places for camping where visitors can experience lake breeze and nigh time stargazing.

Picnic sites: The thick forest and rocky landscape and beaches provide a diversity of sites where people can have picnics and have experience depending on one's interest. Picnicking can take place in open air for those who like sun bathing or under tree shades for those like cool environment.

Rubare Forest Reserve

Rubare forest reserve has a total area of 6,374 Ha and is divided into two ranges. The Rubare Forest Maruku range and Rubare Forest Kajunguti range. The Maruku range forest covers 477 Ha while the Kajunguti range forest covers 5,897 Ha. The two ranges comprise of both plantation and natural forest. The natural forest in Kajunguti range is also called Bunene forest and is estimated to cover over 3,000 Ha.

The Rubare forest plantation/reserve was established by the German administration but was mapped in 1932 by Herning and in 1934 by Pitt Schenkle. The reserve was established for the purpose of supplying fuel wood, building materials to the inhabitants of Bukoba town. In 1958 the natural forest except riverine forest was cleared and from 1959 to 1968 planting of exotic tree species was implemented and 277 Ha were planted. In 1995 the forest was gazetted as a territorial forest reserve (Cap 132.1398) under the Forest Ordinance. In 1975 the plantation was handed over to the Forest and Beekeeping Division (FBD) and the planting of expansion area in Kajunguti range started in 2006 where 122 Ha were planted. Planting of trees was halted due to financial constraints but resumed in 2011 and over 2100 Ha have been planted todate.

The Rubare forest Kajunguti range harbors some wildlife species including buffalo, serval cat, bushbuck, genets, vervet monkeys and gazelles. There are also threatened species such as black and white colobus, African wild dogs and occasionally elephants. Elephants are reported to come to the area from Uganda through Katoro. Also lions may occasionally come to the area in dry season. The last time lions were

seen in the area was in 2017 when they also killed cattle. Other animals present in the area include pythons, puff adders and other snakes and reptiles. The forest is rich in birdlife but not report on the birds present in the forest was available. The Maruku range of the forest is reported to harbor only a few species including vervet monkeys, gazelles, pythons and other snakes.

Significance

Rubare forest is very close to Bukoba town and it thus provides an ideal site for recreation, relaxation and picnicking for town residents even for those with limited time such as weekends only. It is only 11 km from the town centre.

- Presence of threatened wildlife species such African hunting dog, black and white colobus and the African elephant.
- The mixture of natural and plantation forest is rarely seen in other forests and is a unique attribute which makes an exceptional forest compared to the forests
- The presence of rivers, waterfalls and caves provides the forest with additional attractions
- Kajunguti range of Rubare forest also has a ground water forest, some wildlife and water bodies which adds to tourist products that can be developed for tourism purposes

Wildlife tourism

Generally, the tourism is limited at present due to undeveloped infrastructure and presence of few animals particularly in the Kajunguti range of the forest. But has a potential of being developed especially tourism of threatened species such as African hunting dogs and black and white colobus.

Tourism facilities, Activities and accessibilities

Very limited facilities are available at present. Only the recently completed rest house at the reserve headquarters which can accommodate at least 20 visitors. The picnic sites at the two waterfalls along Kyamunene River are not yet up to standard. Other infrastructure such as roads, camping sites, trails luxury camps are yet to be developed. Nature trails visitors use to survey the forests and one of the trails leads to Kabwala beach on Lake Victoria.

Since the reserve is not yet well developed there are limited activities going on in the forest. These include picnicking especially at waterfall points, nature trails and visits to Kyamunene caves. The two forest ranges are accessible by road. To reach Rubare Maruku range one has to follow the Bukoba – Maruku road and will reach the forest after about 11km drive. For the Kajunguti range one has to follow Bukoba - Mutukula road and turn to the right to reach the forest reserve. However, there is a possibility to reach the Maruku range by boat from Bukoba town but this route is yet to be developed.

Opportunities and Challenges

The forest reserve has a high potential for development to attract visitors. Some of the opportunities available include construction picnic sites, improving the waterfall areas for better view of the river, establishing nature trails, make shift camps and forest guiding. Human activities and encroachment are the immediate challenges facing the forest.

Future plans

- Improve the infrastructure through construction of access roads to reach various key locations in the forest reserve for both ranges
- Identify locations and construct camping sites, tented camps and other necessary visitor facilities
- Design and develop nature trails in designated area
- Identify and develop picnic sites and improve the existing picnic sites for visitor use
- Develop Kabwala beach for recreation as picnic site and for water sports

Table 6: Summary of tourist products/attractions on Rubare forest

SN	Tourist product	Status	Remarks
1	Waterfalls	Developed	The two waterfalls along the Kyamunene river namely Maporomoko A and Maporomoko B are somehow developed though they need further improvement to enhance visitor enjoyment
2	Kyamunene caves	Not yet developed	The caves are yet to be developed and can be good picnic site with people enjoying the cool cave environment while looking at the Kyamunene river and plantation forest bordered by natural riverine forest down the valley
3	Canoeing	Not yet developed	At Kabwala beach on the shores of Lake Victoria there are opportunities to introduce canoeing among other water sports. The sandy beach is not contaminated with waterweeds and is not rocky hence making canoeing one of the water sports that can take place
4	River bank nature trails	Not yet developed	Kyamunene river banks harbor relatively dense riparian vegetation where nature trails can be developed to allow visitors make a walk through while enjoying the sound of flowing river water, waterfalls, birds and cool forest environment

SN	Tourist product	Status	Remarks
5	Picnic sites	Not yet developed	There are beautiful sites for picnic first under the pine plantations where the spiny fallen pine leaves have formed a natural carpet for people to sit on and enjoy the shades and recreation. Picnic sites can also be located at waterfalls and in the middle of the forests
6	Conference tourism	Partially developed	The reserve has already constructed a modern rest house which can host visitors and nearby there is a plot that has been set aside for construction of a conference hall, children playground, restaurant and swimming pool.
7	Forests	Partially developed	Rubare forest nature reserve has two components the Rubare forest - Maruku range and Rubare forest - Kajunguti range. The two forests have both natural and plantation forests and are traversed by rivers. These forests and their landscape features provide a unique attraction to nature loving people. In the two ranges visitors could also do bird watching and for the Rubare - Munene ground water forest in Kajunguti range one may also watch wildlife such as buffalo, black and white colobus, African hunting dogs, bushbucks, gazelles and occasionally elephants and snakes including pythons.
8	Kabwala beach	Not yet developed	A good site for recreation, picnic, canoeing. This is a beautiful beach which if developed would make a very important attraction among the reserve products. And before descending to the lake there is a vantage point at Rubare village where one can have a bird's eye view of Lake Victoria, islands and Bukoba town

Description of tourist products/attractions found in Rubare forest reserve

Waterfalls: The forest has two waterfalls along the Kyamunene River Maporoko A or also known as Kyamunene waterfalls and Maporomoko B downstream. Waterfalls are good sites for recreation, relaxation and picnic. Visitors will enjoy being at the sites and experience the sound of the falls and singing birds

Figure 15: Mapromoko B along the Kyamunene River is one of the good site for recreation

Figure 16: Sign board along Bukoba – Maruku road directing towards Maporomoko A (or Kyamunene waterfalls) and Kyamunene caves to the left and to the right is Kyamunene waterfalls

Figure 17: Left is the picnic and resting place at Kyamunene waterfalls and to the right is the entrance to the waterfalls

Kyamunene caves: Near the Kyamunene waterfalls there is Kyamunene cave overlooking the Kyamunene River. The caves have historical significance. Kyamunene caves were used by Chief Rugomola to sit and then hide against the colonial administration (Germans) in the past in late nineteenth and early twentieth centuries. The caves are also a site where the Commander in Chief Mwalimu Julius Kambarage Nyerere used to meet the frontline army commanders during the Kagera war.

Kabwala (Kirovera) beach: The reserve has a very good sandy beach located at Kabwala (Kirovera) Lake Victoria. It is about 4km from the reserve head office. The site is a very good recreation, swimming, picnic, water birds watching and relaxation. To reach the beach one has to descend past and gentle hill past pine plantations also with good sites for picnics. Before descending to the beach there is vantage point at Rubare village where one can have a beautiful view of the Lake Victoria, islands and Bukoba town. About a kilometer from the beach on the peninsula hill is a site suitable for hotel construction where visitors can be accommodated.

Figure 18: Kyamunene caves at Kyamunene area Rubare forest

Figure 19: Kabwala (Kirovera) sandy beach in Rubare forest is a good site for recreation, relaxation, picnic, and water sports

Figure 20: Vantage point at Rubare village as one descends to Kabwala beach. One can have a good view of Lake Victoria, islands and Bukoba town

i. Canoeing

The Kabwala (Kirovera) beach is sandy and is also a good place for canoeing and other water sports to give visitors an exciting experience. This is a potential activity which needs to be introduced and developed

Figure 21: Lake Victoria at Kabwala beach Rubare Forest Reserve. This is a suitable area for water sports

River bank nature trails: Rubare plantation forest reserve has extensive areas with natural vegetation including the Kyamunene River and valley which retains its natural riparian vegetation. Nature trails can be constructed along the river bank and give visitors a unique experience of the natural forest, plantation forest, flowing river, birdlife and few wild animals like monitor lizards and monkeys present in the forest.

Picnic sites: The plantation and natural forests both have sites which can be developed into marvelous picnic sites under pine plantations or natural vegetation. These are sites where visitors can dine, have fun and relax.

Figure 23: Potential picnic site under pine trees in Rubare forest near Maporomoko B along Kyamunene River

Conference tourism: Rubare forest reserve management has constructed a good rest house near the reserve head office located at Rubare village and adjacent to the rest house is a large plot set aside for construction of conference hall, swimming pool, children playground and other visitor facilities and services.

Figure 24: A completed rest house (left) and a plot (right) for construction of conference hall, restaurant, and recreation centre and children playground at Rubare forest head office

Forests tourism: Rubare forest has two forest patches the Rubare forest – Maruku range and Rubare forest – Kajunguti range. Both forest patches are composed of plantation and natural forest. The Kajunguti forest range harbours a ground water natural forest. Walking through plantation forest and closed natural forest will provide unique experience to visitors. In Kajunguti range one may be luck also to see buffalo, black and white colobus, African hunting dogs, serval cat, bushbuck, genets, vervet monkeys and gazelles. One may also chance to see occasional visitors such as elephants and lions. Elephants come to the area from Uganda via Katoro. Other wildlife that can be seen include birds, pythons, puff adders and other snakes and vertebrates.

Figure 25: Rubare forest reserve combined natural forest (left) and plantation forest (right)

Other tourist products/attractions in Kagera region

As a region Kagera has many tourist products in wildlife protected areas, forest reserves and outside protected areas in communities. Most of the products occurring in protected areas have been described separately. The products which appear outside of protected areas are briefly described below though there may be some slight overlaps.

Islands network: Kagera region has a total of 44 islands and 39 of them are inhabited. Over 90% of the islands are in Muleba district. The archipelago provides an opportunity for special excursions of touring the islands in turn and experiences the culture, food, fishing and fisheries, island lifestyles, beaches and environments. Some key beaches include the Maruku white sand beach, Bunena stone beach, Karovela beach and Bugabo natural beach. Musila island a viewpoint to see the whole of Bukoba town. Other sites are the Nyabesiga bird watching and fishing island and the Ntungamo panoramic view point of Lake Victoria.

Forests: The whole region has over 14 forests which are protected either by TFS, District Council, villages or private people. Records show that at least 38,481 Ha of forest in the region are privately owned. Four of the have been described above but the remaining 10 forests with various potentials for tourism can be developed. Some of these include the Kantare rain forest where one can watch birds, poisonous

snakes, colobus monkeys. There are also Luasina swamps and Kagera River with its wetlands and riparian vegetation.

Mushonge huts: These are traditional Wahaya and Wanyambo huts which are a good attraction to visitors which can rest or stay in such houses for amusement

Ntunganirwe ritual site Rubondo Island: This site is located in Rubondo island NP and was used by the Wazinza who are the natives of the island for rituals.

Bugonzi waterfalls (Kamachumu): About 10 km from Biharamulo – Bukoba road at a village called Ruhanga there is a magnificent Bugonzi waterfall. Water falls for about 100m over a steep cliff and provides an exciting view of falling water and mist as water hits the rocks along the way and at the bottom. At the bottom water is tapped for hydropower generation and domestic use at the village. The Bugonzi River empties into Ngono River. The site if developed is suitable for recreation, relaxation and picnics.

The steep cliff starting from Bushagara village at the top to Bugonzi village at the bottom may also be considered for introducing Zipline tourism as there appears to be sufficient height for that purpose.

Figure 26: Bugonzi waterfalls at Kamachumu are a potential tourist attraction worth development.

Figure 27: The rocky cliffs at Bushagara Village are also good for Zipline sport. There appears to be enough gradient for the sport from the top of the cliff to the Ngono River down the valley

i. Bukoba Town Council – several attractions including -

SN	Product/Attraction	Remarks
	Maruku bats cave	
	Maruku white sand beach	Beautiful and unique in shore of Lake Victoria
	Maruku tea plantation and tea factory	
	Bunena stone beach	
	Musila Island	A view point on Bukoba town in a whole
	Nyabesiga island	Ideal for bird watching and fishing
	Karobela beach	Recreation, relaxation and picnicking
	Kitendaguro view point	
	Ntungamo panoramic view point	The Ntungamo viewpoint in Bukoba municipal is located along the Lake Victoria shores and it can easily be climbed through rocks. Once on top, a panoramic view of the whole Bukoba town comes into sight.
	Coffee industry (Tanica, Amimza)	Coffee farms and factories for coffee processing
	Bugabo natural beach – 3 of the best	
	Ishozi hiking hills and panoramic view	
	Vanila farm in Maruku	
	Mugeza, view of V- Shaped to lake Victoria	

ii. Muleba district

SN	Product/Attraction	Remarks
	Lake ikimba (the lake of miracles)	A large inland body of standing water covering an area of 12,500 ha. According to the Buhaya folklore the lake has a mythological beginning involving the bride (*mgole*), bridegroom and the mother of the bridegroom. They believe that the lake emerged after *mgole* entered a restricted room in the house prompting a water spring which formed the lake. In the process the mother-in law turned into a marabou stork bird. As such the Buhaya around Lake Ikimba associate the bird to the origin of the lake and also they fear the bird. The marabou stork birds are abundant in Lake Ikimba.
	Ntungamo Viewpoint	
	Bugonzi waterfalls	Bugonzi waterfall is located in Kamachumu and its waters are used to provide hydro-power to Ndolage hospital in the area. The falls are spectacular with its water spreading out like an open dam whose banks have burst.
	Forest reserves	There are five forest reserves in the district covering 51,725 ha. Ruiga is a national forest under TFS and the rest Nyamishemele, Nyambugwe, Kashengwe and Rwamahungu are village forests.
	Swamps of Ngono river	This is an important river with significant ecological and social impact in the region
	Aquaculture (indigenous approach)	In Lake Victoria there are places where local people have introduced aquaculture which takes place in the lake and involves the lake water and fish. In this system no construction of ponds or introduction of fish is done. The fishermen just construct an enclave which confines the fish and are nursed until they are harvested.

iii. Additional Attractions

	Product/Attraction
Biharamulo	Bisbo basota cave
	Byamungu campsite
Misenyi	Kantare rain forest
	Luasina swampy
	Kagera river
Ngara	Kagera river confluence - The meeting point of river Kagera from Rwanda and river Ruvuvu from Burundi, to form a huge Kagera river in Tanzania.
	Rusumo waterfalls at the border of Rwanda
Karagwe	Kitengule game reserve
	Kagera river swamps at Murongo
	Organic farms under Kaderes

Burigi – Chato National Park

Burigi – Chato National park is one of the new national parks established in July 5th 2019 and has an area of 4,707 km^2. The new park has combined areas which were under Kimisi, Biharamulo, Burigi game reserves plus other areas added when the new park was being designed. The park spreads into five districts namely Ngara, Karagwe, Biharamulo, Chato and Muleba. The park boasts of diversity of habitat areas and landscape making it one of the most natural and attractive parks in the country. Landscape features found in the park include wetlands, miombo forests in Biharamulo, short and tall grasslands in Burigi, Msitu wa Tembo, Mbuga ya Tohe and mbuga ya Lwiza places where many animals can be seen. The park also harbors the rare Uganda red colobus a primate with disjunct distribution in Burigi - Chato, Uganda and Rwanda. The park has five lakes including Lake Burigi which is the largest and is about 50km long. Other lakes are Ngoma, Kasinga (Nyarwambaire), Nyamalabe and part of Lake Victoria.

The park is well known for its abundance of wildlife and unique records the biggest trophy animals of buffalo and leopard in Tanzania. This suggests that the area has

not only abundant wildlife but also the animals are large. Some animals that are known to occur in Burigi – Chato NP include elephants, buffalo, sable antelope, roan antelope, sitatunga, oribi, bushbucks, impala, eland, zebra, waterbucks, bushpigs, reedbucks, topi, and leopards among others.

The park is also rich in birdlife and with special significance is the presence of the endangered shoebill stork and other birds such as wattled crane and African fish eagle.

The diversity of landscape types, habitat types, lakes, river system including Kagera River, miombo woodlands, short and tall grassland plains and diversity and abundance of wildlife makes Burigi – Chato to have unique attributes as a tourist destination.

Figure 28: Meeting with Burigi – Chato park management discussing on tourist products and attractions available in the park.

Burigi – Chato NP is endowed with unique attributes making it of high significance. The park boasts of high biodiversity of fauna and flora and for wildlife it is reported that some species like buffalo and leopards are bigger than in other places. The park also has expansive wetlands, lakes, and harbors a substantial stretch of the Kagera River. The park landscape which includes hills, short and tall grassland plains, miombo woodland and wetland ecosystems provide a unique attribute of the park.

The forests, apart from acting as catchments areas, they also moderate the microclimate of the area. The park has habitats for rare and important wildlife like sitatunga, sable antelope, roan antelope, oribi and bird species like the endangered shoebill stork and other high montane species. The high biodiversity of the area provide opportunity for research, training and education.

The park resources can have significant economic contribution at national, regional and district level through activities like fishing, tourism including cultural tourism, beekeeping and creation of employment. Inside the park some sites have cultural significance as worship areas for indigenous communities. People also depend on the forests for medicinal plants.

Wildlife tourism

Game viewing is one of the ongoing activities in the park though poor access roads limit the extent at which visitors can tour different parts of the park. A variety of animals of interest can be sighted including elephants, topi, buffalo, the rare Uganda red colobus, sable and roan antelopes, sitatunga, oribi, bushbucks, impala, eland, zebra, waterbucks, bushpigs, reedbucks, and leopards.

While in Burigi – Chato NP visitors are also able to enjoy scenic attractions including landscape features (mountains, valleys, rivers, plains), Vegetation types ranging from miombo woodlands, savannah plains, short and tall grassland plains, wetlands, riparian forests and Kagera river system as a special attraction, due to its size, wetland systems, waterfalls, rapids and an international boundary.

Tourism facilities, Activities and accessibility

There are limited camp sites, nature trails which cater for visitors coming to the park. Game drive, walking safaris and camping are some activities which currently take place in the park

Burigi - Chato NP can be accessed by road from almost on all directions. One can reach the park from Mwanza straight to Biharamulo via Bwanga, or from Chato through rough road to Biharamulo. One can also reach the park from Bukoba town and drive straight to Biharamulo via Kyamnyorwa. Another access route is from Nyakanazi or Rusumo on the border with Rwanda one can drive direct to Biharamulo. Access by air can be done through small charter planes to the park (at Nkonje or Ruhita Gate) Biharamulo or by scheduled flights to Chato airport or Bukoba then drive to the park.

Opportunities and challenges

Based on the natural resources and other attributes endowment of Burigi – Chato NP the park is bound to grow to one of the biggest and most important wildlife tourism destination in the future. This means there are many opportunities to participate in developing the park in terms of resources and infrastructure development, visitor facilities, transport and tour guiding, visitor services, access roads and leisure and recreation.

The park is only two years old and TANAPA has inherited a number of challenges which they need to address while developing the park. These include encroachment, poaching, livestock grazing in the park and human wildlife conflicts. The latter has developed into a serious conservation problem as it has resulted into retaliatory killings of lions and hyenas by pastoralists and consequently many vultures have died by feeding on poisoned carcasses.

Future plans

A comprehensive General Management Plan (GMP) need to be developed to plan for proper development of the park and ensure that all its potentials are fully exploited to boost wildlife tourism in the park and the surroundings. Future plans should consider improving accessibility to the park, establish and improve tourist circuits, improve park infrastructure, install visitor facilities, have in place tour companies for transportation and tour guiding, staff development, staff facilities, marketing, information centre and community engagement for historical and cultural tourism.

Table 7: Summary of tourist products/attractions for Burigi – Chato NP

SN	Tourist product	Status	Remarks
1	Landscape features and habitat types	Note yet developed	Being a new park most of the resources and products are not developed. However, for landscape and habitat types what is needed is mostly access to enable visitors have a panoramic view of the resources from different locations for their appreciation and enjoyment
2	Wildlife	Partially developed	The park is rich in wildlife and with records which suggest that the wildlife in this park is unique from other protected areas in the country. More roads network is needed to enable visitors have full enjoyment of the present wildlife
3	Guided night nature walk	Not yet developed	There are many nocturnal animals to watch at night through guided night walks. Best sites for this purpose are known they just need to be developed
4	Night game drive	Not yet developed	Like night walks, night game drives will provide the opportunity for visitors to see more animals at night through long drives. Most of these animals can hardly be seen in day time.
5	Bird watching	Not yet developed	Apart from being rich in bird life the park harbours the endangered shoebill stork which is a very big attraction to bird watchers. There are also other birds of interest like the wattled crane and song birds

SN	Tourist product	Status	Remarks
6	Kagera river and Rusumo waterfalls	Not yet developed	Kagera river is a landscape feature which represents one of the largest rivers in East Africa but also the source of river Nile. Most of the stretch the river forms international boundary between east African countries. But it also has waterfalls like Rusumo and rapids which in totality form a unique attraction to visitors
7	Water sports	Not yet developed	There are a number of water sports which need to be introduced and developed in the park including

Description of tourist products/attractions found in Burigi – Chato National Park

Diversity of landscape features and habitat types: Burigi National Park established on 5th July 2019 has an area of 4,707 km2 has natural features including a diversity of landscapes and habitat types providing a unique attraction of the park. These include undulating hills and plains, miombo forests in Biharamulo and Burigi, tall grassland, short grassland, *mbuga ya Tohe*, Lwiza plains and *msitu wa Tembo*. The park has five lakes namely lake Ngoma, Kasinga (Nyarambairwe), Nyamalabe, Victoria and the largest (for lakes found wholly in the park) Lake Burigi which is 50km long and is shared with Muleba district communities. The lakes are an opportunity for introducing water sports and sport fishing. All these features provide a variety of attractions for visitor experience.

Wildlife tourism: In Burigi - Chato one has a chance to see large herds of eland up to 200 animals and zebra herds of over 300 animals. Along the lake shores there are so many waterbucks though appear in small groups of about 10 to 20 animals. Impalas are also common everywhere and can be seen in herds of up to 60 to 120 individuals. In Kimisi and Msitu wa Tembo one is certain to see elephants in large breeding herds of up to 60 to 100 individuals. Reedbuck and topi are also very common and appear in herds of 10 to 20 individuals. At mbuga ya Tohe it is certain to see many animals every time one makes a visit there. The park also has historic records in that a buffalo with largest horns in the country was hunted in Kimisi and the largest leopard was hunted in Burigi. This suggests that animals in the area attain large sizes compared to other places.

Guided night nature walk: The park is ideal for guided night nature walks where visitor's nocturnal animals like civets, nightjars, leopards and galagos.

Night game drive: The park is also ideal for night game drives in the miombo woodlands where a number night moving animals can be observed. This will provide a unique experience to guests rarely seen elsewhere

Bird watching: Burigi - Chato National Park is rich in wildlife resources which makes it unique in its own respect. The park harbors the shoebill stork an endangered species which by itself is a very important attraction for bird watchers. Other birds include the threatened Wattled crane, the African fish eagle and a large density of francolins which are observed everywhere in the park. There are also many other songbirds to keep the visitor busy.

Kagera River and Rusumo waterfall: Kagera River is one of the big rivers in east Africa. But it is also an international boundary among at least four East African countries including Tanzania, Burundi, Rwanda and Uganda. The river has a number of waterfalls including the Rusumo waterfall on the border between Tanzania/Rwanda and Burundi. The river size, ecology, waterfalls and its status as an international boundary, poses as a unique attraction that draws visitors to come to watch the river.

Water sports

a) Canoeing - The five lakes in the park provide an opportunity to introduce canoeing sport which liked by many visitors.

b) Kayaking - Kayaking is the use of a kayak for moving across water. A kayak is a low-to-the-water; canoe-like boat in which the paddler sits facing forward, legs in front, using a double-bladed paddle to pull front-to-back on one side and then the other in rotation. The lakes in the park provides an ideal opportunity for introducing this fun activity for interested visitors

c) Sport fishing - The lakes in the park have fish varieties which can be of interest for sport fishing. Since the lakes are protected no illegal fishing is practiced as such fish grow to good size to make sport fishing an excitement for visitors.

d) Floating restaurant - The lakes in Burigi - Chato have open and calm waters that are suitable for introducing floating restaurants to give visitors a unique experience of the park and enjoy taking meals on restaurant floating on the lake

e) Dhow competition - Some of the lakes in Burigi - Chato like Lake Burigi which 50km long are good sites to launch dhow competition on an annual basis. Dhow competition is usually conducted in seas but with the lakes of considerable size in the park it is a good venture to explore should the companies organizing the competition approve the site and that it is logistically and economically viable.

f) Parasailing - Parasailing that is also referred to as parascending or parakiting, is a recreational kiting activity which involves a person is towed behind a vehicle (often a boat) while attached to a specially designed canopy wing

resembling a parachute, known as a parasail wing. This is an activity which can take place in three lakes including Burigi, Ngoma and Victoria.

g) Aquabike - This is an activity which combines water sports and cycling. It involves the use of high speed aqua bike. It is an activity which can take place in Lake Burigi, Lake Ngoma or Lake Victoria which have waters ideal for this sport.

h) Makanisa ya Nyarugugu - These are structures with Church like features which draw one's attention on first sight. They are located at a place called Ruhita inside the park. They are also used for rain cover.

i) Kisuma waterfalls: At Katerera village in Biharamulo district on the park border there is Kisuma waterfall along Kisuma River which is beautiful site for recreation, relaxation and picnic.

Figure 29: Makanisa ya Nyarugugu a landscape feature that resembles church candles

Figure 30: A series of structures that look like church candles

Figure 31: Kisuma waterfalls at Katerera village, Biharamulo district

Geita Region

Geita region harbors Rubondo island NP (457 km^2) and part of Burigi – Chato NP. It also has a number forest reserves some of them are shared with other regions or are shared by more than one district Table 8.

Table 8: Forest reserves found in Geita region

NO.	FOREST NAME	AREA (Ha)	DISTRICT	REMARKS
1	Biharamulo-Kahama	134,680.00	Biharamulo, Chato & Bukombe	Found in three districts and two regions Kagera and Geita
2	Geita	47,700.00	Geita	
3	Usindakwe	409.55	Geita	
4	Rwamgasa	27,544.89	Geita	
5	Mkweni Hills	15,770.00	Mbogwe & Kahama	Found in two districts and two regions of Geita and Shinyanga

Source: TFS Lake zone

Rubondo Island National Park

Rubondo Island at an altitude of 1,100 m.s.l. was previously a forest reserve. In 1965, the Island was declared a game reserve for the purpose of creating a sanctuary where species threatened with extinction could be introduced and protected. The Island was deemed appealing as a game sanctuary based on its wide variety of habitats and absence of large predators. It was decreed a National Park on 10th February, 1977 through GN 2.

Figure 32: Map showing the location of Rubondo island National Park

Rubondo Island NP is one of the 22 national parks in Tanzania. It has a total area of 456.8 km^2 of which 236.8 km^2 is land and 220 km^2 is water. The park is located in Southern corner of Lake Victoria (2° 18′S, 31°50′E). The park is comprised of an archipelago of 12 islands among the 11 are small and the large main island is called Rubondo. The 11 small islands include Rubiso, Mizo, Chitebe, Chitende, and Nyamitundu to the west, Izilambuba to the south, while Makozi, Manyira, Chambuzi, Iroba and Kalera are to the east.

It consists of a partially submerged rift of four volcanically formed hills, linked by three flatter isthmuses. The highest point is Msasa Hills in the far south at 1,486 m (350m above the level of the lake). North to south, the island measures 28 km. It is nowhere more than 10 km wide.

The park is rich in natural resources including wildlife, forests and aquatic resources. Most of the Rubondo main island is covered by the Congolese tropical lowland forest which covers about 80% of the island.

Wildlife

Species of wildlife currently identified in the Rubondo National park include 14 species of mammals; 194 species of birds; 19 species of reptiles; and 11 species of amphibians. Species of wildlife are detailed in Tables 9, 10, 11 and 12 below.

Among the wildlife species found in the park include the introduced and now naturalized species which are the chimpanzee, elephants, giraffe, suni, black and white colobus, and grey parrots. Black rhinos were also introduced but are now extinct.

Table 9: Species of Mammals at Rubondo Island National Park

S/N	Common Name	Scientific Name	S/N	Common Name	Scientific Name
1	Sitatunga	*Tragelaphus spekei*	8	Cane rat	*Thryonomys gregorianus*
2	Bushbuck	*Tragelaphus scriptus*	9	Velvet monkey	*Cercopithecus aethiops pygerythrus*
3	Suni Antelope	*Neotragus moschatus*	10	Black and white colobus monkey	*Colobus absyssinicus*
4	African Elephant	*Loxodonta Africana*	11	Chimpanzee	*Pan troglodytes*
5	Maasai Giraffe	*Giraffa cemelopardis*	12	Bush Pig	*Potamochoerus larvatus*
6	Large Spotted/ Blotched genet	*Genetta tigrina*	13	Spotted necked otter	*Hydrictis maculicollis*
7	Marsh mongoose	*Atilax paludinosus*	14	Hippopotamus	*Hippopotamus amphibious*

Source: Rubondo Island National Park, (2021)

Table 10: Species of Birds at Rubondo Island National Park

S/N	Bird	S/N	Bird	S/N	Bird	S/N	Bird
1	White breasted Cormorant	50	Common moorhen	99	Madagascar bee-eater	148	Scarlet-chested sunbird
2	Long tailed cormorant	51	Grey-crowned crane	100	Blue-cheeked bee-eater	149	Green-headed sunbird
3	Darter	52	Denham's bustard	101	Eurasian roller	150	Scarlet-chested sunbird
4	Great white pelican	53	Kori bustard	102	Scimitarbill	151	Variable sunbird

S/N	Bird	S/N	Bird	S/N	Bird	S/N	Bird
5	Pick-backed pelican	54	Jacana	103	Hoopoe	152	Olive-bellied sunbird
6	Dwarf bittern	55	Water dikkop	104	Crowned hornbill	153	Eastern double-collared sunbird
7	Night heron	56	Wattled plover	105	Trumpeter hornbill	154	Red-chested sunbird
8	Squacco heron	57	Long-toed plover	106	Black-and-white casqued hornbill	155	Yellow-white-eye
9	Cattle egret	58	Whimbrel	107	Yellow-fronted tinkerbird	156	Red-backed shrike
10	Green-backed heron	59	Greenshank	108	Red-fronted barbet	157	Grey-backed fiscal
11	Little egret	60	Green sandpiper	109	Black-collared barbet	158	Brubru
12	Great-white egret	61	Wood sandpiper	110	Greater honeyguide	159	Drongo
13	Yellow-billed egret	62	Common sandpiper	111	Cardinal woodpecker	160	Pied crow
14	Grey heron	63	Grey-headed gull	112	Flappet lar	161	Violet-backed starling
15	Goliath heron	64	White-winged tern	113	White-headed roughwing	162	Red-billed oxpecker
16	Hamerkop	65	Laughing dove	114	Lesser striped swallow	163	House sparrow
17	Yellow-billed stork	66	Red-eyed dove	115	European swallow	164	Grey-headed sparrow

S/N	Bird	S/N	Bird	S/N	Bird	S/N	Bird
18	African open-billed stork	67	Emerald-spotted wood dove	116	Angola swallow	165	Slender-billed weaver
19	Abdim's stork	68	Blue-spotted wood dove	117	Yellow wagtail	166	Black-necked weaver
20	Saddle-billed strok	69	Tambourine dove	118	African pied wagtail	167	Spectacled weaver
21	Marabou stork	70	African green pigeon	119	Yellow-throated longclaw	168	Northern-brown-throated weaver
22	Sacred ibis	71	Eastern grey plantain-eater	120	Yellow-vented bulbul	169	Masked weaver
23	Hadada ibis	72	Jacobin cuckoo	121	Black cuckoo shrike	170	Vitelline masked weaver
24	Egyptian goose	73	Cuckoo	122	Grey-winged robin chat	171	Vieillot's black weaver
25	Spur-winged goose	74	African cuckoo	123	White-browned robin chat	172	Village weaver
26	Knob-billed duck	75	Emerald cuckoo	124	Red-capped robin chat	173	Yellow-backed weaver
27	Yellow-billed duck	76	Red-chested cuckoo	125	White browed robin chat	174	Golden-backed weaver
28	Black kite	77	Levaillant's cuckoo	126	Red-capped robin chat	175	Cardinal quelea
29	Fish eagle	78	Black cuckoo	127	Snowy-crowned robin chat	176	Red-billed quelea
30	Palmnut vulture	79	Klaas's cuckoo	128	White-browed scrub robin	177	Red-collared widowbird

S/N	Bird	S/N	Bird	S/N	Bird	S/N	Bird
31	Hooded vulture	80	Didric cuckoo	129	Red-faced crombec	178	Grosbeak weaver
32	Brown snake eagle	81	Yellowbill	130	Tiny cisticola	179	Green-winded pytilia
33	Western banded snake eagle	82	Black coucal	131	Tawny-franked prinia	180	Green-twinspot
34	Bateleur eagle	83	White-browed coucal	132	Yellow-breasted apalis	181	Red-billed firefinch
35	Gymnogene	84	Palm swift	133	Grey-backed camaroptera	182	African firefinch
36	Montagu's harrier	85	White-rumped swift	134	Grey-capped warbler	183	Fawn-breasted waxbill
37	an goshawk	86	Speckled mouse bird	135	Pale flycatcher	184	Crimson-rumped waxbill
38	African Common buzzard	87	Narina trogon	136	Swamp flycatcher	185	Waxbill
39	Wahlberg's eagle	88	Malachite kingfisher	137	Ashy flycatcher	186	Black-crowned waxbill
40	Long-crested eagle	89	Pygmy kingfisher	138	Dusky flycatcher	187	Bronze mannikin
41	Crowned eagle	90	Chestnut-bellied kingfisher	139	Chin-spot batis	188	Black-and-white mannikin
42	Martial eagle	91	Woodland kingfisher	140	Brown throated wattle eye	189	Pin-tailed whydah
43	Osprey	92	Striped kingfisher	141	Crested flycatcher	190	Paradise whydah

S/N	Bird	S/N	Bird	S/N	Bird	S/N	Bird
44	Grey kestrel	93	Pied kingfisher	142	Paradise flycatcher	191	Yellow-fronted canary
45	Eurasian hobby	94	Blue-breasted kingfisher	143	Red-belied paradise flycatcher	192	Streaky seedeater
46	African hobby	95	Giant kingfisher	144	African hill babbler	193	Golden-breasted bunting
47	Harlequin quail	96	Little bee-eater	145	Collared sunbird	194	Grey parrot
48	Black crake	97	Blue-breasted bee-eater	146	Western olive sunbird		
49	Purple gallinule	98	White-throated bee-eater	147	Green headed sunbird		

Source: Rubondo Island National Park, (2021)

Table 11: Types of Reptiles at Rubondo Island National Park

S/N	Common Name	Scientific Name	S/N	Common Name	Scientific Name
1	Smyth's water snake	*Grayia smythii*	11	Tropical house gecko	*Hemidactylus mabouia*
2	Emerald snake	*Hypsidophrys smaragdina*	12	William's hinged terrapin	*Pelusios williamsi*
3	Large eyed snake	*Telescopus dhara*	13	Speke's hinged tortoise	*Kinixys spekii*
4	Jackson's tree snake	*Thrasops jaksoni*	14	Water monitor	*Varanus niloticus*
5	Lineolate blind snake	*Typhlops lineolatus*	15	Nile crocodile	*Crocodylus niloticus*
6	Variable skink	*Trachylepis varia*	16	Boomslang	*Dispholidus tpyus*
7	Speckled-lipped skink	*Trachylepis maculilabris*	17	Chevron-throated dwarf gecko	*Lygodatylus gutturalis*

S/N	Common Name	Scientific Name	S/N	Common Name	Scientific Name
8	Stripped skink	*Trechylepis striata*	18	Spotted bush snake	*Philothamnus semivariegatus*
9	Central African rock python	*Python sebae*	19	Dwarf gecko	*Lygodactylus spp*
10	Side-striped chameleon	*Chamaeleo bitaeniatus*			

Source: Rubondo Island National Park, (2021)

Indigenous species on the island include sitatunga, bushbuck, hippos, baboons and vervet monkeys, pythons, crocodiles and other species. It is estimated that currently there are about 60 chimpanzees, 60 giraffes and about 100 elephants.

Table 12: Species of Amphibian at Rubondo Island National Park

S/N	Common Name	Scientific Name
1	Mascarine-ridged frog	*Ptychadena mascareniensis*
2	Guttural toad	*Amiephrynus gutturalis*
3	Red-backed toad	*Schismaderma carens*
4	Eastern-grooved-crowned bullfrog	*Hoplobatrachus carens*
5	Lake Victoria clawed frog	*Xenopus victorianus*
6	Common reed frog	*Hyperollius viridflavus bayoni*
7	Kivu reed frog	*Hyperolius kivuensis bituberculatus*
8	Kivu reed-frog	*Hyperolius kivuensis*
9	Common reed-frog	*Hyperolius viridflavus variabili*
10	Common reed-frog	*Hyperolius viridflavus destefanii*
11	Common-reed frog	*Hyperolius glandcolor*

Vegetation

According to the Park Management there at least 40 plant species that have so far been identified. These include *Annona senegalensis; Bridelia micranta; Trichilia emetic; Phoenix reclinata; Ficus mucoso; Croton macrostachyus; Albizia glaberrima; Kigelia africana; Ficus thonningii; Bersana abyssinica; Antidesma venosum; Sideroxylon inerme; Trichilia roka; Haplocoelum foliosum; Paveta abyssinica; Celtis zenkeri; Markhamia acuminata; Bersama abyssinica; Celtis africana; Ficus sycomorus; Rapanea rhododentroides; Meyna tetraphylla; Euphorbia candelabrum; Milicia excels; Combretum molle; Diospyros mespiliformis; Olea africana; Psychotria* sp.*; Maclura africana; Canthium* sp.*; Grewia bicolor;*

Teclea simplicifolia; Syzygium guineense; Pseudospondias marcocarpus; Acacia gerrardii; Parinari curatellifolia; Combretum collinum; Albizia petersiana; Vitex sp.*; and Clorophora* sp.

Fish

Based on the data provided by the park management, over 15 species of fish have been identified within the park waters aquatic systems. These include *Tilapia esculenta; Tilapia variabillis; Tilapia zilli; Tilapia nilotica; Haplochromis haplochromis* spp; *Labeo voctolianus; Barbus rabediffi; Bargus bargus; Mormyrus* (declined sp.); *Alestes sadleri; Synodontis synodontis; Clarias mossambicus; Protopterus aethiopicus; Lates niloticus* (exotic sp.); and *Rastrineobola argentea* (silver cyprinid).

Significance

Ecology of this national park encompasses a large area of aquatic and terrestrial habitats. The aquatic ecosystems provide potential aquatic resources including fish breeding grounds that serve the sustainable fishing industry for economic, tourism and social benefits.

Significant and unique characteristics of the park include:

- At least 80% of the terrestrial ecosystem is dominated by dense Congolese lowland forest which in Tanzania is found only in this park
- Possesses the deepest point (80 m deep) in Lake Victoria at Irumo;
- Introduction of 16 black rhinoceros (*Diceros bicornis*), 12 giraffes (*Giraffa camelopardalis*), 5 roan antelope (*Hippotragus eguinus*), 14 suni antelope (*Nesotragus moschatus*), 17 chimpanzees (*Pan troglodytes*), 25 colobus monkey (*Colobus abyssinicus*), and 6 African elephants (*Loxodonta Africana*). All species have increased in numbers for example currently there are more than 60 chimpanzees; more than 60 giraffes and more than 100 elephants. The black rhino became extinct in 1996 due to poaching
- Captive chimpanzees have successfully naturalized in the park and their numbers are increasing.

Wildlife tourism

Non-consumptive wildlife tourism carried out in this national park involves a wide range of species and entails both terrestrial and aquatic environment (due to the location of the park). the main wildlife tourism activities include game drives, bird watching, nature trails and chimp trekking. In aquatic environment visitors can watch hippos, crocodiles, pythons and monitor lizards.

Tourism facilities: In providing tourism services, the park has 6 vehicles with a total carrying capacity of 44 tourists at a time; 4 boats that can serve 58 tourists at a time; 12 guilders (in three groups) for chimp trekking (for 6 tourists). There are also nature trails, camping sites, airstrip and rest house.

Tourism activities: The national park offers various tourism activities and most common ones at present include game drives, walking safaris, camping, lake excursions, bird watching, sport fishing, cultural tourism and the most exciting of all the chimp trekking.

Accessibility

The National Park can be easily reached through Chato airport; airstrip within the national park (Plane with carrying capacity of 12 people), roads from nearby regions (Kagera and Geita) and boats such as MV Rubondo which has the capacity of 60 passengers and 4 vehicles. For entry in the park, there are two major Gates namely Kasenda Gate which is 38 km from Chato and Nkome Gate, 63 from Geita. Boats are situated at entry in order to ferry tourists to the park.

Opportunities and Challenges

Rubondo NP is endowed with a number of resources and attributes that provide a potential for tourism investment and promotion. These include strategic and unique geographical location consisting of a partially submerged rift of four volcanically formed hills linked by three flatter isthmuses with the highest point at Msasa Hills. This protects the other 11 small islets. The park also has an increased number of translocated chimps that provide invaluable economic, social and environmental benefit in addition to the diverse species of habitats and wildlife. Also the dense forests provide habitats for wildlife prevent soil erosion and mitigate climate change.

These resources therefore create a potential for tourism investment in a number of avenues including transportation, tour guiding and interpretation, luxury and permanent camps, lake excursions, swimming pool, water sports and other visitor facilities and services among others.

The park is experiencing various challenges including poor nature / resource interpretation that make visitors not to be aware or realise the full potential of the park. The park is also faced with poor road conditions particularly during the rainy season making movement of visitors and staff difficult and consequently this influence visitor attitudes and satisfaction. The problem of inadequate accommodations for

tourists adversely affects the number visitors coming to the park as well as revenue collection. Due to the rich fisheries resources the park experiences illegal fishing within the park waters and this is also associated with destruction of fishing breeding sites. Another challenge facing the park is inadequate marketing of the park and its respective tourism products. Thus for being poorly known only few visitors come to visit the area despite its high potential for tourism.

Future plans

The Park expects to

a) Raising awareness and enhancing market of the National Park and its respective tourism segments in particular products and activities.
b) Ensuring increased suitable accommodations for tourists.
c) Increasing tourism attractions by introducing lowland gorillas into the park in order to capture the tourists interested in great apes' tourism who currently visit the neighboring countries to see gorillas.
d) Operating MV Rubondo commercially to increase income.

Below are descriptions of the tourist products/attractions both potential and that in use in Rubondo island NP (Table 13).

Table 13: Summary of tourist products/attractions in Rubondo island NP

Figure 34: Rubondo Island as seen from Kasenda Village. It is 15 minutes' drive by boat to the park. Note the clear and relatively calm waters which are good for water sports.

Description of tourist products/attractions found in Rubondo Island NP

Rubondo archipelago: Rubondo island National Park has a total of 12 islands with Rubondo as the biggest and second largest island in Lake Victoria after Ukerewe

Island. The archipelagos provide a unique opportunity for one to survey the islands and witness the landscape features and vegetation which are composed of tropical rain forests on the eastern most edge of the Guinean - Congolian biome. Visitors will also have a chance to visit Ilumo close to Kalera islet which is the deepest point (80m) in Lake Victoria.

Bird watching: Rubondo has over 200 species of birds which makes it attractive to bird watchers and ornithologists. There are many water birds and forest birds. The climax of bird watching would be at Selera islet which is also known as "Kisiwa cha ndege". This an important bird area in that it is a feeding site, roosting site and refuge for migratory birds including Palearctic migrants. It is also known as "Kisiwa cha mamba" as it is a breeding site for crocodiles due it sandy beaches needed for laying eggs.

Figure 35: Selera islet in Rubondo NP. This a good area for bird watching as it is a roosting and feeding site for water birds including migratory birds. It is also a breeding area for crocodiles. Note the sandy beaches and birds roosting on trees.

Figure 36: Water birds flying over Selera islet. Note the sandy beaches mixed with gravel.

Sand beaches: Many islands making the Rubondo NP archipelago have beautiful sand beaches which are good for recreation, relaxation and picnicking. This resource is yet to be developed for visitor enjoyment.

Chimpanzee habituation experience - CHEX (Gorilla): Chimpanzees were introduced in Rubondo Island in the 1960s from Germany though they originate from West Africa. Since then they have been naturalized. With the current population estimated at 60 individuals the chimpanzees in Rubondo have become a major tourist attraction in the park. Chimpanzees are among the very few species of great apes which remain in the world and are found only in few countries around the great lakes region. Many tourists especially from America are fond of great apes' tourism. Rubondo offers two products of chimpanzee tourism. One is "Chimp tracking" where one has the opportunity to stay with the chimps for one hour. The second product is "Chimp Habituation Experience" (CHEX). Under this product a visitor has the opportunity to de-nest and nest the chimps. One may stay with chimps for the whole day so becoming part of the chimp habituation process. The most interesting thing with chimp tourism in Rubondo is that unlike the chimps in other parks, these are the chimps that have been habituated by a Tanzanian Shaibu Utenga Wetare.

Figure 37: Rubondo island Np and its other islets have beautiful beaches for recreation, relaxation, picnicking and water sports

Future plans of the park include introducing gorillas to enhance the tourist products in the park. This will attract tourists especially those interested in great apes' tourism as they will now have a chance of seeing two ape species in one park.

Figure 38: Chimp habituation experience in Rubondo island NP. Tourists observing chimps and taking photographs at relatively short distance from the animals.

Figure 39: Discussion with Mr. Shaibu Utenga Wetare (L) on Rubondo chimp habituation experience

Game drive: Rubondo is a large island where game drive is one of the product s for visitors to the park. Game drives will allow one to a variety of wildlife especially forest species. These include sitatunga, elephants, giraffe suni, bushbuck, hippos. Due to the vegetation type with tall trees most of the roads will pass under tree canopies where one will be able to see primates' mates including black and white colobus and vervet monkeys.

Figure 40: Rubondo NP wildlife the chimps (L) and Impala (R)

Figure 41: Hippopotami and crocodiles in Rubondo NP

Figure 42: Photographic game viewing in Rubondo island NP

Night nature walk: Night nature walks are ideal especially for visitors who wish to sleep late. This provides the opportunity to see nocturnal animals such as civets, galagos, nightjars and other animals that are active at night. Quiet, cool night weather with dark skies decorated with stars is an exceptional experience one can get from Rubondo.

Canopy walk: The forests in Rubondo Island are an extension of the tropical rain forests of the Guinean - Congolian biome. Most parts of the have therefore closed forests with tall trees providing the opportunity to introduce canopy walk activity.

Sport fishing (aquaculture in the lake): Sport fishing is one of the most exciting activities in Rubondo Island. There is already a record of an 80kg Nile perch fished by one of the tourists visiting the park. Being a breeding area for the lake fisheries more records can be expected.

On the shores of the lake in Muleba district there are local people who have designed aquaculture activities taking place within the lake and using the same lake fish. They have constructed cages in the lake which has trapped some fish which are nurtured until they grow to maturity then fished. It is an interesting activity for people interested in aquaculture.


Figure 43: Rubondo Island harbors tropical rain forests characterized by closed forests with tall trees. An ideal habitat for great apes.



Figure 44: Sport fishing in Rubondo island waters

Night game drive: Night game drive will provide the opportunity to explore the island and observe nocturnal animals at a greater extent than night nature walks.

Canoeing: The waters surrounding Rubondo Island are clear and not infested with waterweeds. This gives a chance for visitors to conduct canoeing and possibly make round trips through some nearby islands comprising the archipelago.

Kayaking: Kayaking is a possible activity in Rubondo waters as most of the time water is calm or have moderate waves making it possible for visitors to do kayaking. This can be a very interesting activity for visitors sailing near island shores enjoying the ride but also having a good view of the islands beaches, vegetation and bird life.

Walking safaris: Rubondo Island is a very ideal place for walking safaris. Being isolated place with high canopy forest cover, trails will pass under the canopy of the fairly closed forests will provide visitors an opportunity to walk through the forest shade under cool environment. This will allow them to watch forest birds, wildlife including primates and butterflies.

Figure 45: Visitors participating in walking safaris in nature trails in Rubondo

Lake Excursion: Lake Excursion is one of the most exciting activities a visitor can participate in Rubondo. With lake waters mostly calm or with moderate waves, excursion through the lake is thrilling. One can also move around visiting various islands comprising the park system

Figure 46: Lake Victoria excursions around Rubondo islands archipelago
Cultural tourism (food, fish, traditional dances, Mushonge huts – Bahaya, Sukuma)

Other products/attractions in Geita region

Wildlife Farm (Zoo): Along the road from Chato to Geita there is JS Hotel and Wildlife farm a private enterprise where a number of animals are kept including camels, buffalo, impala and giraffes. The farm already has a hotel where visitors can stay and visit the wildlife farm for game viewing and other activities like camping.

Gallows tree: Near the TFS office in Geita town there is a tree which was used by the German administration to hang people. Unfortunately, even now people who commit suicide tend to go and commit suicide on the same tree.

Figure 47: Gallows tree near TFS offices in Geita town. The tree was used by the Germans to hang people

Court building for seven Sukuma chiefdoms: Within Geita town close to the *mtaa* office along Sophia Street there is a building which was used during the German rule by seven Sukuma chiefdoms as a court house.

Figure 48: Court house in Geita town which was used by seven Sukuma Chiefdoms to hear cases. The building is intact todate

Hospital for German officers: A small detached room behind TFS premises stands a structure reported to be a hospital which was used to treat German officials during their rule. The room remains intact todate.

Figure 49: A room near TFS premises in Geita town which was used as a hospital to treat German officials during the German rule

Beekeeping: Miombo woodland forests which favor bees in making honey in some parts of Bwanga, Muganza, Chato and Geita district

Mining activities: Presence of Geita Gold mine and other small scale mining exploration in Nyarugusu, Lwamgasa, Nyamtondo, Mtakuja, Nyakabale, Nyankanga and other parts of Geita attracts tourists and visitors from outside and inside Tanzania

Mwanza Region

Mwanza is relatively more populated and hence has few wilderness areas remaining as forests. Currently there are at least five forests (Table 14) in the region which can be considered for some nature activities. The region also has Saanane island NP which is a big attraction in Mwanza city. The Bujola Sukuma Museum is also

located in Mwanza and it is an icon for the Wasukuma culture and traditions.

Table 14: Forest reserves found in Mwanza region

NO.	FOREST NAME	AREA (Ha)	DISTRICT	REMARKS
1	Igwata	132.85	Kwimba & Maswa	Shared between two regions of Mwanza and Simiyu
2	Sayaka	5,421.00	Magu & Busega	Found in 2 districts and shared between two regions of Mwanza and Simiyu
3	Kome	2,487.07	Sengerema	
4	Maisome	12,890.00	Sengerema	
5	Malya Stock Farm	109.20	Kwimba	

Source: TFS Lake zone

Saanane island National Park

Saanane Island was named after its previous owner, *"Mzee Saanane Chawandi"*, a fisherman who turned into a farmer and later shifted to another island (after being compensated) to pave the way for conservation efforts in the early 1960's. It was established as the first Zoo in Tanzania in 1964 with 0.5 Km^2, only dry land through Government Notice 567/64. Various species of Wild animals from different areas were introduced in the park by the Government. These animals included: - buffaloes, bushbucks, dik diks, duikers, elands, elephants, impala, reedbucks, black rhinoceroses, topi, warthogs, wildebeest, Burchelli's and Grevy's zebras, patas and vervet monkeys, giraffes, porcupines and crocodiles.

In1991, the Island was given the status of Game Reserve and then declared as a National Park since July, 2013 through *GN 281*. It comprised of one Island and two islets namely Chankende Kubwa and Chankende ndogo and aquatic environment

The park which is the smallest National Park in both Tanzania and East Africa, covers an area of 2.18 Km^2 is located at Capri point peninsula, 2km Southwest of Mwanza City Centre, lies in the Gulf of Lake Victoria (Latitude 2.5 S and Longitude 32 W).

Significance

Importance of park is demonstrated through conservation and ecology as well social-economic aspects. The island acts as a water filtration system through wetland treatment systems by removing heavy metals, regulating nutrients and chemical oxygen demand (COD) for water quality improvement. The park ecosystem is also

part of the carbon sequestration process through removal of Carbon Dioxide (CO_2) from the atmosphere or divert CO_2 from emission sources (human activities) and store it in the lake, terrestrial environments (vegetation, soils, and sediments), and geologic formations. The ecological processes also act as Environmental pollution deterrent by minimizing pollutants or contaminants in the environment through water filtration). The park is also a breeding site for a variety of species including fish and birds and hence does support and interlink life forms.

Wildlife tourism

The park offers various activities related to non-consumptive wildlife tourism beginning with park promotion and marketing and tour guiding and Interpretation. Other activities include game viewing, hiking, sport fishing, lake excursions, bush meals, picnics and kids plays. Other activities are walking nature trails, camping, observation points and sports and fun.

Accessibility

The Park can be reached by flight, road, water and rail within Mwanza City, 15 minutes-walk to Head Office of Park from the City center fish monument, and 5 minutes by boat from Park Head office to Saanane Island.

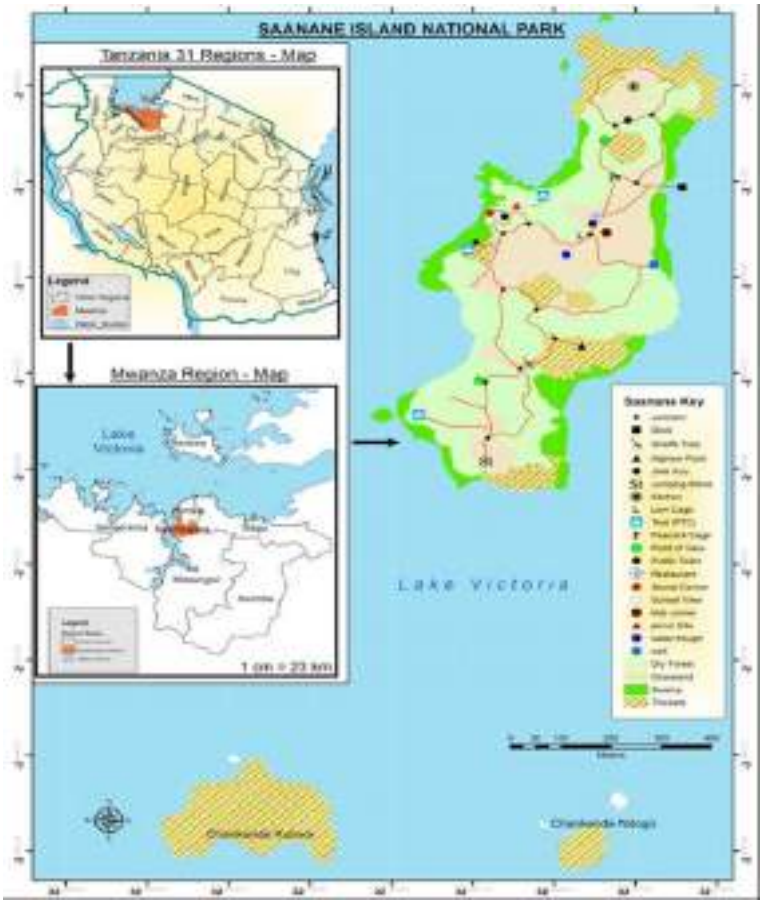


Figure 50: Map of Saanane Island National Park

Opportunities and Challenges

Wildlife tourism at the Saanane Island National Park has realized benefits based on a number of opportunities including the park being in the City so making access to the park being easy. The presence of many businesses, schools, colleges industries and institutions has been a big advantage. Also the infrastructure and easy accessibility by air through Mwanza or Geita airports or by tarmac roads has been advantageous by simplifying travel to visitors coming to the park. The park is also in the vicinity of the lake zone mine fields with many expatriates and other workers which tend to boost the park market. Additionally, the park being in Lake Victoria environment it offers several *tourist* activities such as fishing and a variety of water sports.

The Park is experiencing various challenges including illegal off-take of fish resources from the park (poaching) and use of bad fishing methods such as using poison or condemned fish nets leading to environmental degradation. There is also the problem of pollution, siltation and littering of the lake shore and Saanane

Islands system by sewage, solid wastes and plastics. Over time the park has been experiencing encroachment especially in the lake fishing areas. The park vegetation composition shows that there are exotic and invasive species in the park which may in a long run affect the park ecology. The park also reports of inadequate resources (manpower, funds and equipment) for park operations.

Future plans

Saanane NP intends to take some actions to improve protection and promote tourism through introducing more animal species especially antelopes of small to medium size found in our protected areas and this action is expected to attract more tourists and use the park as a sanctuary for vulnerable species.

The park also plans to introduce new tourist products including star gazing tower with telescopes and this will attract visitors but also enhance park security. It is also planned to construct a swimming pool in order to meet the current demand for most of the park visitors who often ask for swimming activity. Other new product under consideration is Zipline. The physical environment of the park and its surrounding appear to be conducive for the activity. Zipline will combine the City environment to the wildlife tourism attractions of Saanane in an adventurous way and also capture the geographical highlights of Saanane including the rocky habitats and water features, views; and provide tourists an overwhelming and unique experience of intense adrenaline.

Parasailing will offer adventurous individuals an opportunity to experience sun and lake in an exciting and visually interesting way. Parasailing gives customers the freedom of flight and the exhilaration of skydiving in an accessible medium

Table 15: Summary of tourist products/attractions in Saanane National Park

SN	Tourist product	Status	Remarks
1	Scenic features		Saanane NP has scenic features that are unique in the Mwanza city metropolitan and provide exceptional experience for visitors to the area. Viewing the park islands from the city, or from the lake one gets beautiful view of the park main island and the islets. Likewise from the park one can have a beautiful view of the Mwanza city which cannot be experienced from anywhere else

SN	Tourist product	Status	Remarks
2	Wildlife	Partially developed	Saanane island has both indigenous and introduced wildlife. Indigenous species include vervet monkeys, rock hyrax clawless otter, rodents, python, crocodiles, and agama lizards. Introduced animals include zebra, impala, wildebeest, De-brazzas monkeys (naturalized), one can also engage in bird watching especially water birds.
3	Hiking	Not yet developed	Saanane island though relatively small in size has diversity of microhabitats which enable one to do hiking on the island. The rocky terrain, slopes, closed thickets may provide exciting experience for adventure loving visitors
4	Sport fishing	Partially developed	Lake Victoria is rich in fisheries resources and the waters surrounding Saanane island are also fish breeding areas. This provides an opportunity for conducting sport fishing
	Lake excursions	Partially developed	The lake area around park islands is comprised of open waters mostly free from rocks or water weeds except for some areas very close to the beach.
	Sports and fun	Partially developed	There are many sports and games that can take place on the island and surrounding waters
	Children playground	Partially developed	Saanane island is an ideal place for children fun. Its closeness to the city where there are many schools and colleges, children play will be a big attraction to this group
	Bush meals	Partially developed	There are a number of sites on the island where people can enjoy having meals on rock kopjes, tree shades or beach area overlooking the lake

SN	Tourist product	Status	Remarks
	Walking nature trails	Partially developed	The park is ideal for conducting nature trails and enable one to see different parts of the island but also experience the diverse features the park is endowed including rocky landscape, thickets, observation points and wildlife
	Camping site	Partially developed	The island has good camping sites that can provide visitors with unique experience of camping on a small island. The sites provide campers with cool night lake breeze, stargazing and an option to have a night view of Mwanza city and the Lake Victoria. Camp sites can also enable couples to have a honeymoon
	Picnic sites	Partially developed	Mwanza city with over 1.2 million residents plus visitors can effectively enjoy picnicking on Saanane island. Being close to the city only 15 minutes' drive by boat people wishing to celebrate birthdays, religious events, family gatherings, graduation and other events can use the picnic sites on the island for that purpose.
	Observation points	Partially developed	The terrain of the park is hilly and has a number of elevated points that can be used as observation points to view the island, surrounding islets, Lake Victoria and Mwanza city at large.

Description of tourist products/attractions found in Saanane NP

Scenic features: Saanane Island and islets of Chankende Kubwa and Chankende Ndogo which make Saanane NP are only 15 minutes' drive from the park head office at Kapri Point. The other island of Gabalema is in the process of being annexed into the park system. The characteristic land form of Saanane Island is mainly granitic kopjes and inselbergs interrupted by few flat or gentle to steep sloping areas. The rocks on the island are mainly granitic of pre Cambrian origin. The topography of the island ranges from gentle slope of 2.5% to hills with a slope of 15%. The characteristic vegetation of the island is open grassland, small patches of dry forest or clumps of tree stands characterised by various species of *Ficus, Haplocoelom* and

Trema species. Large part of the rock hills is covered by *Combretum* woodlands degrading to thicket covers on the kopjes and swampy vegetation in areas touching the Lake Victoria. These features provide scenery which is unique and for visitors preferring site seeing and nature viewing can have an experience that can hardly be obtained elsewhere.

Figure 51: Birds eye view of Saanane Island and islets. Note the kopjes, inselbergs dryland thickets vegetation and Mwanza city on the background

Figure 52: Closer view of kopjes and inselbergs of Saanane Island

Wildlife: Saanane NP has both indigenous and introduced wildlife species. Visitors can enjoy game viewing in the park including the species that are confined mostly for security reasons.

Figure 53: Zebra and Lion in Saanane NP. Most local visitors are interested to see lions and is the biggest attraction at present.

Figure 54: Wildebeest and Impala in Saanane Island

Figure 55: Water birds (cormorants) and Peacock in the Saanane Island

Hiking: One advantage of Saanane NP is that no vehicles can enter the park hence all movements are done on foot or if around the island then by boat. Hiking is an activity which could be very exciting in the park as visitors are able to hike through the park terrain in adventurous trekking through the rugged island landscape and enjoy the natural environment.

Sport fishing: The waters around Saanane NP are highly protected and are also fish breeding ground. This makes the area to have many fish and of relatively large size. The waters are also suitable for fishing activities. As such sport fishing is one of the products which can be exploited to cater for visitors interested in fishing experience.

Lake excursions: The areas around the park islands, the Mwanza coastline and waters beyond the park provide a very ideal opportunity for lake excursions. The rides will enable visitors to appreciate the park scenery, the islands surrounding the park, Mwanza city metropolitan as seen from the lake and the lake itself. Visitors will also be able to see water birds and fishing activities in Lake Victoria.

Walking nature trails: Although Saanane NP is within the Mwanza city metropolitan, it isolated from the busy city activities. Once in the park there is a feeling that one is

in an isolated place which is quiet, calm and cool, a rare experience that one cannot get in the city. Nature walking trails will enable visitors to further enjoy the isolation and calmness in the island. This is a good activity for people wishing to have a place where they can relax or meditate in solitude.

Camping sites: Island camping is one of the most exciting experience. Saanane has at least three camping sites where visitors can camp and enjoy the lake breeze, watch wildlife, birdlife and stargazing at night. A luxury tent under construction will enable people on honey moon or other couples and families wishing to spend time on the island.

Picnic sites: The island environment is very ideal for picnicking. Currently there is two sites established for picnics but the camping sites as well can also cater for picnics for over a million Mwanza residents and those coming from outside the city and tourists. The sites need further improvement to accommodate more people and enhance comfort for the visitors.

Observation points: Standing on an observation point on the island and have a panoramic view of the island surroundings, the lake, Mwanza city is one of the climax activities one can experience in Saanane NP. The sites need to be improved for safety and more enjoyment for the visitors.

Zipline: This a new product which the park authorities wish to introduce due to requests from visitors. There appears to be enough gradient for the game to allow visitors who like adventure games to enjoy their visit to the park. Initial consideration is to have the Zipline between the main island and one of the smaller islets depending on the maximum distance required for the game.

Parasailing is another sport which can be introduced at Saanane National Park. The waters around the park are ideal for the game and will allow visitors to enjoy the ride in the lake while also having a good view of the park islands, the city and surrounding waters.

Swimming pool: Many visitors coming to Saanane have been asking for swimming. Unfortunately, the lake environs at the park are not recommended for the activity due to safety reasons. The water is infested with crocodiles and beaches are muddy or rocky. Constructing a swimming pool will attract more visitors who wish to see other product in the park but would also like to swim.

Luxury boat: There are visitors who wish to spend more time in the lake for recreation and relaxation. Such an activity need a facility which can enable them stay long in the lake without the need to come offshore for services like food, drinks and sanitation. Having a luxury boat will attract visitors who wish to participate in this activity for increased enjoyment of their time in the park.

Other attractions in Mwanza region

Bujola Sukuma Centre (Use of wildlife in culture/Traditional dances): The Sukuma tribe found in the lake zone has a tradition of using wildlife in their culture and traditional dances. This habitat has several meanings. First it shows that people and animals are friendly and can coexist. It also shows the need for conservation of biodiversity (wildlife). Additionally, it calls for people to search for anti-venoms to treat snake bites in case one is bitten by a poisonous snake.

Animals used in culture and traditional dances include snakes (python, cobra and *chambandinho*), hyena, porcupine and baboon.

The use of these animals depends on the cultural group within the Sukuma tribe. There are two groups which often compete in traditional dances. These are Bagalu and Bagika. Under each group there are smaller groups which are affiliated with these big associations. But there are also small groups which are not affiliated to either of the two associations.

Under the Bagalu association there are Bacheyeki, Bagobogobo and Banungule. Indeed, it is the Banungule which use hyenas and porcupines in their traditional dances.

Under Bagika there are Bacheyeki, Bakomyalume and Bayeye or Bazwilili. It is the Bazwilili which use snakes in their dances.

Wildlife is the biggest attraction for people visiting the centre. During the traditional dances competition, it is the number of people which come to watch a group which determine the winner. Therefore, each group tries to do things which attract more people so that they can win. The use of the animals in this respect plays a big role.

The Sukuma chiefs often liked to place their headquarters in hilly sites with caves. Most of these caves now are used by animals like hyenas, bats and pythons. They are good attractions for historical, cultural and wildlife viewing.

Figure 58: Mr. Marco Charles of Bujora Sukuma Museum playing with a python/ Figure 59: African rock python at Bujora Sukuma Museum

Ngitiri wildlife landscapes: "Ngitiri" or indigenous silvopastoral systems are characterized by the integration of trees, pasture and grazing animals occurring simultaneously or at different stages. These systems represent a type of land use in which forestry and livestock activities are combined to generate complementary production through the interaction of their components. They are a valuable alternative for sustainable land use because they ensure: protection against erosive agents, water conservation and re-supply of underground waters, maintenance of the hydrological cycle and improvement of soil physical and chemical properties.

In Sukumaland extensive landscapes were degraded due to overgrazing and vegetation clearance but most have been restored through the silvopastoral traditional fodder banks or *ngitiri.* The restored landscapes do not only cater for livestock and landscape restoration, but in some areas they have enabled the restoration of wildlife which were previously locally extinct or remained in very small numbers. This has revived the areas and once again become viable for wildlife tourism. The *ngitiri* system can be seen in districts like Kwimba (Bugomba village), Magu, Geita and Sengerema. In *ngitiri* system visitors will be able to see how effective the indigenous ways of restoring degraded landscapes work but also watch wildlife gazelles, hyraxes, agama lizards, pythons, puff adders and other reptiles and small vertebrates and birds. Apart from *ngitiri* system contributing to wildlife populations restoration they also provide lessons on indigenous approaches to environmental and biodiversity restoration and conservation.

Conclusion

Observations from this survey suggest that wildlife tourism in the western lake zone is manifested in three levels: state level, non-state level and traditional or community level.

At state level wildlife tourism can be witnessed in national projects like national parks, forest reserves and nature reserves. This may be the most significant component as it attracts more visitors due to the high presence of wildlife and forests in protected areas.

The non-state level wildlife tourism is mostly private undertakings including wildlife ranches and wildlife farms. These are developed by private entrepreneurs and with time may also provide a good contribution in promoting wildlife tourism in the area. Private sector is also involved in investing in providing accommodation, transport and tour guiding and interpretation for visitor engaged in wildlife tourism.

Figure 60: Organogram showing relationship between state, non - state and community tourism levels in western lake zone

The traditional or community level wildlife tourism is found mostly in Sukumaland. Here we have people practicing cultural dances which often involve the use of wild animals such as hyenas, monkeys, porcupines, and pythons. The use of animals depends on the ethic line within the Sukuma clans. They even have annual events where the clans compete in dancing and animals are used. These competitions attract many people and can as well attract tourists. In developing the product, it may be advisable to promote these cultural dances and make them more organize/formal to enable tourists to watch them in a planned manner.

The survey also observed that there is no direct collaboration/linkage in terms of connecting tourist activities available in one region/district with other activities happening in other regions to create a network (tourist circuit) which will be more meaningful in terms increasing tourist products and ensuring the duration of stay for visitors is increased as they will have more products to experience. This will also boost local businesses as visitors will be able to visit many areas and create the multiplier effect of the tourism business.

The survey has observed presence of significant wildlife tourist products/attractions in the zone and unfortunately most are yet to be developed. The zone especially Kagera region is very rich in wildlife, forestry and natural resources but need heavy investment to develop the potentials.

To accelerate the development of the wildlife products to the level of being marketable and usable by tourists it may require the public private partnership (PPP) approach. The Government and its institutions may also select some of the products for development especially those that do not require heavy investment. There is also a need for investing in advertisement and marketing for those wildlife products which can readily be used by visitors while plans are underway to develop other products. This may be coupled with providing conservation education and opportunities among the communities on how they can participate and benefit in the

tourism sector.

In ensuring effective tourism business in the zone there is a need to create a strong linkage between the differ levels of tourism that is the state, non-state and community so as to assure a maximum exploitation of the potentials available in the zone. Combining the activities of the three levels will make the tourist products in the zone to be more attractive and marketable. It will also make visitors to stay longer due to the presence of many activities to attend but also will have more enjoyable and diversified experience of their visit to the zone. The linkages of the wildlife tourism activities should involve the regions and other zones in the country since Tanzania is rich in the diversity of not only wildlife resources but also other tourism products and attractions.

The major wildlife tourism products/attractions in the zone may be summarized as follows:

SN	Product/ attraction	Detailed products	Remarks (Examples)
1	Wildlife biodiversity	Wildlife species richness	The zone is rich in wildlife species due to the diversity of habitat types and its closeness to the Albertine rift system. over 350 bird species, 600 butterfly species, and at least 50 mammal species
		Wildlife abundance	The vast landscapes in the zone provide an ideal environment for existence of high abundance of wildlife. For example high density of francolins and reedbucks (Mlima Tohe) in Ibanda – Kyerwa NP and Burigi – Chato NP, Agama lizards and rock hyraxes in Mwanza districts, buffaloes, eland, zebra, impala, waterbucks, elephants (msitu wa Tembo), reedbucks (Mbuga ya Tohe/mbuga ya Lwiza), and topi in Burigi – Chato NP, Karera Kisiwa cha mamba/Kisiwa cha ndege in Rubondo island NP are examples of abundant wildlife worth development and promotion for wildlife tourism
		Threatened/ endangered wildlife species	A number of threatened species are found in the zone including the Shoebill stork and Wattled Crane in Burigi – Chato NP, Crowned crane, Kori Bustard, and stripped hyena in Ibanda- Kyerwa NP, Wild dogs and Black and White colobus in Rubare forest. The Forest francolin and Blue swallow are found in Minziro forest

SN	Product/ attraction	Detailed products	Remarks (Examples)
		Endemic wildlife species	
		Rare wildlife species	Golden cat a west African species found only in Minziro in Tanzania, Rhinoceros viper, Giant pangolin Grey-cheeked Mangabey, Tree Pangolin and African Palm Civet are rare species in Minziro Forest Nature reserve and Palearctic migrants including Grey Headed Gull. Thomas' galago (*Galagoides thomasi*) and Grey-cheeked mangabey (*Lophocebus albigena*) are found in Minziro forest and nowhere else in Tanzania. Other species like African fish eagle and Uganda Red colobus monkey are found in Burigi – Chato NP
		Iconic wildlife species	Chimpanzee in Rubondo island NP
		Wildlife and culture	Fish culture, use of animals such as hyenas, pythons, monkeys and porcupines in traditional Sukuma dances, Bujola Sukuma Museum
		Wildlife and folklore	Lake Ikimba and marabou stork in Muleba district
		Wildlife sports	Sport fishing
2	Plant biodiversity	Plant species richness	The area has over 600 plant species recorded making it one of the richest plant communities in the country
		Endangered plant species	
		Endemic plant species	*Afrocarpus usambaransis* var *dawei* is endemic to Minziro forest
		Ethnobotany	*Ficus thonningii* used to make bark clothes "orubugo" and a number of other plant species are used as medicinal plants such as *Phoenix Africana*, *Prunus Africana*, *Rytigynia beniensis*, "Omunyabuliko" and "Olikwatango

SN	Product/ attraction	Detailed products	Remarks (Examples)
3	Vegetation communities	Forests	Miombo woodlands in Burigi- Chato NP, Guinea-Congo closed lowland rain forests in Minziro, closed tropical montane forest in Rumanyika – Karagwe NP, and Congolese tropical lowland forest in Rubondo Island NP
		Wetland systems	Wetland systems are available in Burigi – Chato NP, Kagera river system, Minziro Forest nature reserve, Munene forest in Rubare Forest Reserve and Ngono river system, Luasina swamp
		Grassland systems	Short and tall grassland plains are found in Burigi – Chato NP
4	Landscapes	Island systems	44 islands in Kagera region, 12 islands in Rubondo NP and 4 islands of Saanane NP, Nyabesiga birds watching and fishing island (Bukoba municipal). Kyao islet is a bird roosting and breeding area, bats roosting area, and fish breeding ground
		Landscape features	Hills and valleys in Rumanyika –Karagwe NP, Burigi – Chato NP, Kagera river system and areas surrounding the protected areas like the Kyerwa syndicate area. Undulating landscape terrain in Ibanda –Kyerwa NP, Kopjes on Saanane island and Mwanza districts.
		Lakes systems	15 satellite lakes in Kagera region,13 lakes in Rumanyika – Karagwe NP, 5 lakes in Burigi - Chato NP
		River systems	Major rivers with associated systems include Kagera, Ngono, Kyamunene
		Waterfalls	waterfalls include the Bugonzi waterfalls along Bugonzi river Muleba, Rusumo waterfalls Kagera river, Kyamunene waterfalls along Kyamunene river in Rubare forest, Kisuma waterfalls at Katerera village Biharamulo

SN	Product/ attraction	Detailed products	Remarks (Examples)
		Beaches	Beaches on lake Victoria e.g. Kabwala beach Rubare forest, Kirovera beach Bukoba, Nkonje beach Lake Burigi, Maruku white sand beach, Bugabo natural beach, Bunena stone beach, Rubondo island NP
		Observation/ vantage points	Ntungamo panoramic view point in Bukoba town, Ishozi hiking hills, Mugeza view of V-shaped Lake Victoria, Musila island, a view of the whole Bukoba town
		Open water bodies	Lake Victoria, 5 lakes in Burigi –Chato NP, 13 lakes in Rumanyika – Karagwe NP
		Caves	Maruku bats caves, Malira cave at Minziro village (used during World War II), Kyamunene caves used by Chief Rugomola to sit and then hide against the colonial administration (Germans) in the late nineteenth century. The caves were also used by Mwalimu Nyerere to meet the frontline army commanders during the Kagera war. Caves on rocky hill bottoms which were used by Sukuma chiefs as their headquarters now remain as wildlife sanctuaries for animals like hyenas, bats and pythons
		Scenery	Mountains/Hills, valleys, water bodies (lakes and associated islands and beaches), forests (miombo woodlands, tropical rain forests) undulating landscape, grassland plains, river systems, wetlands
5	Agro pastoral systems	Ngitiri	Landscapes rehabilitated by indigenous technology and accommodate wildlife in Mwanza districts (Kwimba, Magu, and Sengerema) and Geita.
		Ankole cattle	Large herds can be Karagwe, Kyerwa, Misenyi, Ngara, Muleba districts
		Coffee and banana farms	Can be found in Karagwe, Kyerwa, Misenyi, Ngara and Muleba districts. Home stay villages in Missenyi district

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Potential Cultural Tourist Attractions in Geita, Kagera and Mwanza

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Abstract

Tanzania is one of the countries with abundant cultural heritage, yet a few cultural aspects have been considered to be part of tourism products especially in the lake side tourism circuit. The lake side tourism circuit of Tanzania contains greatly potential cultural tourism products which are at the moment not scientifically identified. This paper aims to identify potential cultural tourism attraction in the Geita, Kagera and Mwanza Regions. The study collects its data through site interviews with the responsible site personnel and with some local tour guide to obtain necessary information about the attractions. In addition, focus group discussion and observation technique were also employed. Site pictures and GPS location points were also taken to provide evidence of the attractions and their potentiality in tourism industry. Thereafter, descriptive analysis was employed to present the identified potential tourism attractions. The findings indicate several highly potential tourism attractions in Geita, Kagera and Mwanza. These are historical sites, sports fishing, Lake Excursion, rock painting, bird watching, festivals, Art, Craft & Fish markets, agro-tourism in the coffee, banana, and paddy and the fantastic cultural centers. The study offer among others potential contribution in tourism development process in Tanzania, by identifying market based potential tourism attractions from the lake side of Tanzania. In which the study findings can be used as catalyst for policy makers and government bodies in tourism to consider these attractions in the overall tourism development plan. Furthermore the study contributes tourism products diversification and development literature.

Keywords: Cultural Tourism, Lakeside, Geita, Kagera, Mwanza

Introduction

Cultural tourism has been identified as one of the most important areas for global tourism demand and marked as the world most emerging trend of tourism (UNWTO, 2018). This segment has a variety of products that help diversify tourism activities in many areas. The fact that each society has its own culture makes it easy to develop tourism activities across various regions. Around the world, it is estimated that four out of ten tourists choose their destination based on its cultural offering (UNWTO, 2018). As a result many destinations choose to develop strategies and use their tangible and intangible cultural assets as means to enhance competitiveness in the globalized tourism market (OECD, 2009). Generally cultural tourism appears to be advancing, and growing massively through its consumption

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and by its significance. There is no doubt that culture is an important tourism resource and that maintaining its competitiveness is vital.

Cultural tourism involves movements of persons primarily for cultural motivations such as performing arts and cultural tours, travel to festivals and other cultural events, visit to sites and monuments, travel to study folklore or art, and pilgrimages (McKercher & du Cross, 2002). It also includes visits to cultural heritage assets such as archaeological sites, museums, castles, palaces, historical buildings, famous buildings, ruins, art, sculpture, crafts, galleries, festivals, events, music and dance, folk arts, theatre, ethnic cultures/communities like the Maasai and Hadzabe in Tanzania, churches/cathedrals/mosques, and other things that represent people's culture (Lwoga, 2011). Indeed, this form of tourism is directly connected to the local communities and bears very significant benefits including, strengthening identities, improving intercultural understanding, preserving the heritage, and providing direct income to the local communities.

Based on the previous literature, the wellbeing of cultural tourism has been a concern of many nations. Strategies and policy efforts have been enacted to enhance the growth and its sustainability as it provides regions, countries and even continents with distinguished and unique tourism experience. It was recognized as a distinct product category only in the late 1970s' when tourism marketers and tourism researchers realized that some people travelled specifically to gain a deeper understanding of the culture or heritage of a destination (Tighe, 1985). Travelling for cultural reasons had become the oldest tourism activity traced back by ancient Romans visiting Greece and Egypt (Perrottel, 2002); yet cultural tourism remains to be the field of tourism with highest debates for its identification and promotion in many countries. Indeed, cultural tourism products are bipolar in nature with both tangibility and intangibility characters. This means, different approaches are required to enhance their visibility, promotion and marketability. Despite all the necessary benefits and prospects, cultural tourism still faces a number of challenges including lack of recognition and awareness. The whole value chain and its potentials are hidden and by-passed such challenges as a result unable to utilise its greatest potential to use it as cash cow by the local communities.

In Tanzania, cultural tourism activities are popular in the northern circuit whereas the Maasai society has tapped and embraced their culture in tourism. The Maasai culture has been recognised as part and parcel of tourism products among all other products. Their household, clothing, food, dances, and all about their way of living has impressed and improved tourists' satisfactions in the northern circuit. The remaining of tourism circuits in Tanzania (western, southern, central, and eastern) are either abandoned or underdeveloped. Not engaging in cultural tourism products accounts for the missing opportunity since cultural tourism constitutes a major element of international tourism consumption by over 39% of all tourism arrivals around the world (UNWTO, 2018).

Despite this knowledge in the lakeside of Tanzania still such forms of attractions have not been fully identified and recognised for such benefits. For instance, the Sukuma tribe is among the biggest tribe in Tanzania, yet its cultural wealth which includes the Sukuma food, Bulabo festival; historical sites and others are neither widely consumed nor largely promoted. The lakeside of Tanzania contains rich cultural heritage with great potential to attract a wide number of tourists yet the case is not so. The objective of this study is to address the unidentified cultural tourism attractions in the lakeside order to capture the missing opportunity but also to provide tourism industry a diverse pool of products which will foster tourism growth while improving the lives of the local communities. Holistically the study aims at connect the cultural attractions with the rest of the tourism activities and sell them in one package to enhance diversification and the ultimate goal of advancing employment opportunities, improving the quality of life and eradicate poverty.

To address the study objective, three lakeside regions were surveyed to identify and describe the cultural attractions. Researchers conducted face to face interviews with key informants from tourism based government institutional such as municipal offices, and direct attractions visits under the guidance of local tour guides and communities. To complement and adequately describe focus group discussions (FGDs) and observation technique were also used to collect the data. Site pictures and GPS location points were taken to provide evidence of the attractions and their tourism potentials. Descriptive analysis was employed to examine and present the data. The findings indicate that; the lakeside of Tanzania is rich in several many cultural tourism attractions. These are historical sites, sports fishing, Lake Excursion, rock painting, bird watching, festivals, Art, Craft & Fish markets, agro-tourism in the coffee, banana, and paddy and the fantastic cultural centers. The study offers among others potential contribution in tourism development process in Tanzania, by identifying market based potential tourism attractions from the lake side of Tanzania. In which the study findings can be used as catalyst for policy makers and government bodies in tourism to consider these attractions in the overall tourism development plan. Furthermore, the study contributes tourism products diversification and development literature.

Conceptualization of Cultural Tourism

Cultural tourism has, today, become an umbrella term for a wide range of related activities such as historical tourism, ethnic tourism, arts tourism, museum tourism, dark tourism, rural/farm tourism, urban tourism, gambling tourism, sports tourism, cultural heritage tourism, archaeology tourism, festival tourism, religious tourism, traditional health tourism, film tourism and many others. This is because such types of tourism involve experiencing human culture in one way or another. In Tanzania, according to Lwoga (2011), cultural tourism is practiced in two scenarios. Firstly, there is cultural tourism which involves people visiting the cultural heritage sites, which are formally preserved and managed by either the government or private entrepreneurs to see and learn their history and cultural values. This involves

the visit to museums, world heritage sites of Kilwa Kisiwani and Songo Mnara, Zanzibar Stone Town and Kondoa Rock Art Site, other sites such as the Bagamoyo historical site, Kunduchi ruins, Olduvai Gorge, Laetoli footprints and many others. Secondly, there is cultural tourism which involves people visiting the rural villages to experience the live culture of local communities in their villages. Here, tourists get opportunities to experience, share and practice local cultures with the community such as dancing, singing, eating traditional foods, visiting traditional healers, making and purchasing handicrafts and many other traditional activities. In most cases, the tourist attractions are owned and managed by local communities themselves, sometimes in collaboration with the government, Non-Governmental Organizations (NGOs) or tour operators. This involves visits to areas such as the Ilkiding'a village, Maasai cultural bomas in the Ngorongoro Conservation Area, Marangu and Mamba village, Longido, and many other designated villages.

Historical sites

Historical sites are official locations where the remains of the past are stored and preserved. These include any pieces of political, military, cultural, or social history depending on their cultural heritage value. Historic sites are usually protected by law, and many have been recognized with the official national historic site status. Most of these places give us a clear picture on how our ancient cultures were, with such "primitive" tools; manage to make things like Stonehenge or the rock paintings which they made purposely for their survival. Tanzania is one of the countries with a variety of cultural heritage. The most famous historical sites are Olduvai Gorge, Kaole Ruins, Bagamoyo town, and a number of cemeteries, Amboni Caves and many others. Given their differences in appearance and their historical purposes these sites can grouped as follows in Table 1;

Table 6 : List of Historical sites in Tanzania

SN	Category	Places in the category
1	Archaeological or Paleontological sites	Olduvai Gorge, Laetoli Footprint, Isimila Stone Age site, Engaruka Ruins
2	Historical sites	Kaole Ruins, Kunduchi Ruins, Kilwa Kisiwani Ruins, Songo Mnara Ruins
3	Historical towns	Bagamoyo, Kilwa Kivinje, Mikindani
4	Traditional Settlements	Kalenga in Iringa and Bweranyange in Kagera
5	Historic Buildings	Colonial Administrative Buildings (BOMAs) in many Districts in Tanzania
6	Sites with special memories	Colonialists Cemetery, Cemeteries of World War I and II and Defensive Walls

7	Natural Features and Structures	Mbozi Meteorite, Amboni Caves and Kondoa Rock Art Shelters

Museums

Museums are institutional buildings that preserve art, and sculptures for the betterment of society. They contain collection of objects of artistic, cultural, historical, or scientific importance. They have in particular the power to create unity on both a social and political level, but also on a local one (Scott, 2011). According Crooke, (2006) local museums provide a sense of community and place by celebrating a collective heritage, offering a great way to get to know the history of a particular area. They are important for the improvement of society, not only for general educational purposes, but also to probe specific issues. They are a rich source of historical information, entertainment areas, and provide a link between the past and present. Generally, they preserve and promote our cultural heritage and furthermore they act as storage facilities of old artefacts, sculptures, objects, history and culture to symbolize a particular community. According to UNESCO, there are about 95 thousand Museums by 2020. However, in Tanzania, there are still few museums compared to the total number of regions available. Many regions are yet to be historically conserved; Table 2 below indicates the list of Museums in the country.

Table 7: List of Museums in Tanzania

SN	Category	Status	Location
1	National Museum of Tanzania	National Museum	Dar es Salaam
2	Village Museum Tanzania	National Museum	Dar es Salaam
3	The Arusha Declaration Museum	National Museum	Arusha
4	MajiMaji Rebellion Museum	National Museum	Songea
5	Mwalimu Nyerere Museum Centre	National Museum	Mara
7	Olduvai Gorge Museum, Ngorongoro Conservation Area	Natural History	Arusha/Manyara
8	Olpopongi Masai Cultural village and Museum	Regional Museum	Moshi
9	Regional Museum	Regional Museum	Singida
10	Sukuma Museum	Regional Museum	Mwanza
11	Iringa Boma Museum & Cultural center	Regional Museum	Iringa

12	Shinyanga Mazingira Museum	Regional Museum	Shinyanga

Monuments and Landmarks

Monuments are statue, building, or something else made to remember a person or important event. They are artistic in nature to improve the look of a city or place. Just like historical sites, they carry specific history or cultural symbol. In Tanzania there are several of them such as the askari monument in Dar es Salaam and the samaki corner in Mwanza. The Askari Monument was erected in 1927defining the historical role of the African troops during the First World War in 1914 to 1918. While the Samaki corner monument reflects the main economic activity in Mwanza. Monuments and landmarks offer reflection and symbolize history, culture and any of the famous and significant matters accepted.

Figure 1: Askari Monument in Dar es Salaam

Figure 2: Samaki Corner Monument in Mwanza

Festivals, events and exhibitions

Festivals, events and exhibitions are now important and prolific areas of tourism attractions. They can be understood as 'formal periods or programs of pleasurable activities, entertainment, or events having a jovial character and openly celebrating some concept, happening or fact (Yeoman et al., 2006). Their main role is to provide authentic and unique leisure and cultural experience. Getz, 1997, identified events and festivals as attractions, image makers and catalyst for destination management. Their significance in tourism also include, increasing tourist stay time, and increasing tourism products. To the communities, these activities produce direct impact to the local communities and facilitate community participation, cooperation and hence improved social and environmental qualities (Yeoman et al., 2006). Tanzania is among the countries that offer a wide range of world class festivals organized in different parts of the country. The country is known as the melting pot as each and

every festival brings authentic and unique tourist experience with a great taste. Table 4 below provides a list of some of the festivals and events happening in Tanzania.

Table 8: A list of Festival, Events and exhibitions in Tanzania

SN	Category	TIME	Location
1	Zanzibar International Film Festival	July	Zanzibar
2	Serengeti Cultural Festival	July	
3	MwakaKogwa Festivals	July	Zanzibar
4	Bull Fighting	August	Zanzibar
5	Karibu Travel and Trade Fair		
7	The Four Corners Cultural Programme Festival		Haydom
8	Zanzibar Cultural Festival		
9	Kilimanjaro Marathon		
10	Sauti za Busara Festival		
11	Bulabo Festival	June	Mwanza

Cultural Tourism Enterprises, sports Fishing, Agriculture and Livestock keeping

CTE are small scale business entities in the tourism industry whose main product is sharing people's way of life. CTE's adopt a community-based tourism approach in which the people are directly involved in designing, organizing tours and showing tourists aspects of their lives in the area they live in. It is people tourism that enables tourists to experience the local people's way of life, offering insights into the values, beliefs and traditions in the host communities' own environments. As they do so, CTE's gain the economic benefits. The presence of CTE in Tanzania has promoted and added value to the local involvement and enhanced sustainable pro-poor tourism. The CTEs have provided employment and income opportunities to local communities in most rural areas of Tanzania.

Despite such community impact, CTE's are still concentrated in the northern tourism circuit where around thirty cultural tourism enterprises are registered to the cultural tourism association. Other CTE's are in Mbeya (2), Tanga (3), Morogoro (1), Mara (5), Manyara (2), Lindi (1) and Dodoma (1). The map below depicts the distribution of CTE's in Tanzania and one of the tourism experience event in Arusha. Among services offered at CTEs' include, home stay, local food excursion, water fall visits, farm visits, cooking experiences, traditional dances, etc.

Art, Craft and Gallery

The art and craft are hand-based activities which involve making artistic products with local raw material while using simple, non automated tools such as scissors, hooks, strings, and carving implements. These products are decorative in nature. By art, most craft activities are generated by transforming idea/imaginations into material products. That is to say, Art is all about creative designing which can be represented in various forms such as drawing and painting, making handcraft products as well as creation sculptures. The art and craft are significant activities in tourism as they create authentic shopping experience as well as help share the cultural values of places (Yashu, 2020). As cultural traders, artisans have the ability to transform and redefine regions with their craftsmanship pursuit (Kapp, 2017). However, Nyawo and Mubangizi, (2015) argue that the prosperity of the art and craft activities depend on the Local Economic Development (LED) initiative. That is to say, the involvement of various stakeholders is at stake to ensure the growth and sustainability of the activities.


Restaurants & Local Food Markets

People easily remember what they eat everywhere, especially during trips that aim to provide experience. This is because food gives unique experience as it is part and parcel of culture. Every nation and continents have their own way of living this including what they eat. Local food and Tourist interest in different food cultures is a factor for local development in the fields of agro-food whilst also contributing to the enhancement of food culture and heritage. Thus, local markets provide a market place for visitors to shop various items and experience different market approaches while at food contexts, restaurants provide massive culinary experience for most tourists visiting places as a result of contributing to food tourism value chain. Restaurants and local markets in Tanzania are full of local food and this is important as eating local cuisine is a way of breaking with standardised, everyday routine. However, there are also restaurants that provide international dishes for specific cultures. Generally the local markets can be in range from food markets, fish markets, and Maasai market specific for cultural items etc. Figures below depict samples of food and fish markets in Tanzania;


Methodology

Following the aim of the study which was to identify potential tourism attractions in the marginalized areas, regions in the lake side of Tanzania were identified to be overlooked in terms of tourism activities despite their potential. The Lake side

of Tanzania has six regions namely, Geita, Kagera, Mara, Mwanza Simiyu, and Shinyanga.

Study Area

Out of six lakeside regions, Mwanza, Kagera and Geita were selected to thoroughly identify their tourism attraction potential. The choice of these regions was based on their geographical connectedness and natural resources advantage which include great coverage of water bodies, natural and human resources; strong institutional framework in terms of infrastructures, education facilities, and the coverage other support services as described hereunder;

Mwanza

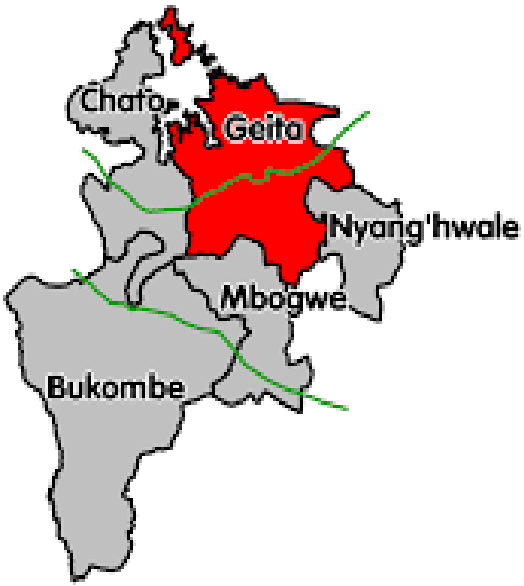
Geographically, Mwanza region lies in the Northern part of Tanzania, located between latitude 1.30 degrees and 3 degrees south of the Equator. Longitudinally the region is located between 31.45 degrees and 34. 10 degrees East of Greenwich. The region is also located on the southern shore of the Lake Victoria. The city is about 1325 KM^2 by which 900KM^2 is covered by water. Mwanza city lies at an altitude of 1,140 meters above the sea level.

Culturally, Mwanza region is composed of four tribal groups namely wasukuma, wakerewe, wakara and wazinza. The Sukuma tribe is the major tribe occupying Mwanza region. The Sukuma are Bantu ethnic group; they are the largest ethnic group in Tanzania with an estimated 16% of the country total population. Sukuma means "NORTH" and refers to people of the north". The Sukuma refers themselves as Basukuma (plural) and Nsukuma (singular). The spoken language is Sukuma, which belongs to Bantu branch of the Niger-Congo family. Historically Mwanza region is one of the regions with strong traditional leadership known as Watemi/ Chief kingdoms and there were about nine chief kingdoms in the region.

Mwanza is basically endowed with a lot of tourism attractions, be it natural, manmade and cultural. Lake Victoria gives Mwanza an added advantage since tourists can travel to five different countries within few hours and also it is an easy way to the wonder land "Serengeti National Park" two hours' drive from Mwanza.

The region offer unique and memorable experience based on its historical, cultural, wildlife and festivals endeavors. Generally, Mwanza is a land of unparalleled diversity of scenery, fauna, flora, minerals, historical sites and huge share of natural and cultural attractions. Lastly Mwanza region is well equipped with tourism related networks and facilities such as roads, airport, boats, beautiful hotels for perfect accommodation, excellent and well-designed restaurants, smart shopping places, local food markets etc.

Geita



Geita region is located just at the south of Lake the Victoria forming what used to be known as Sukumaland. It makes part of the lake zone in the Western part of Tanzania. In the Eastern part, the region boarders with Mwanza region, to the South boarders with Shinyanga, to the West boarders with Kagera while to the North the region is surrounded by the Lake Victoria.

Culturally the region is mainly occupied by the Sukuma people due to its historical reasons. It was created in March 2012 from three regions namely Shinyanga, Mwanza, and Kagera regions. Currently the region has five municipals these are, Bukombe, Chato, Geita, Mbogwe and Nyang'hwale. Off all regions in Tanzania, Geita is the most famous region for Gold production and makes it the highest produce of Gold across the country. Meanwhile the region has a very beautiful and potential tourism Island known as Rubondo Island. In addition, the region has sufficient infrastructures that can support tourism activities such as airport, road, hospitals, hotels and other.

Kagera

Kagera region is located in the extreme north-western corner of Tanzania. The region includes a large part of the waters of Lake Victoria. The region has a common border with Uganda to the north, Rwanda and Burundi to the west, Shinyanga and Kigoma regions to the south. To the east of the region lie Lake Victoria waters of Mwanza and Mara regions. Bukoba town is one of its famous cities located in the heart of Africa just next to the equator on the Tanzania western shore of Lake Victoria. One of the natural attractions in Kagera is Lake Victoria and its scattered islands. The Lake vastness (400 km long and 280 km wide), its bluish waters and extensive white sand shores are awe-inspiring. Its Islands archipelago, each with its unique beauty and enchantment makes Kagera a must see-visit destination.

Culturally the people of Kagera are relatively homogenous whereas the Haya make the largest tribe. Nyambo, Subi and Hangaza are also indigenous ethnic groups of the region but in small dominions. These people engage mainly in agricultural activities where as about 90 percent of the regional population in the production of food and cash crops. Important food crops are banana, beans, maize, cassava and sorghum. Important cash crops in the region grown at subsistence level are coffee, cotton and tea and Sugar cane at the Kagera Sugar Estate.

The region is well accessible by water, air and road. The roads are concentrated along the lake shore and the southern border. The marine transport makes the main means open to the region of handling cargo and passengers within the neighbouring regions as well as neighbouring countries of Uganda and Kenya. The Bukoba Airport and several other air strips are alternative means of transport to and from Kagera region.

Research Design

A descriptive research design was employed to answer the key question. Identifying and describing the tourism attractions in the regions was on stake. This method helps to portray accurate situations at the ground and provide a clear picture on the phenomenon under the study. The method allows for diverse data collection methods and also provides abundant information for the research question (Saunders *et al.*, 2009). In addition, the identification process of tourism attractions requires

Sample and Data Collection

The sample for this study includes various tourism stakeholders in the lake side of Tanzania. To obtain a clear representation and building a common understanding and initial meeting of all tourism stakeholders was conducted on the 5th of March 2021 in Mwanza region. In this meeting fifteen institutional stakeholders were invited in the following representation, the ministry of tourism and natural resources, the regional commissioners, district commissioners, stakeholders from universities, municipal officers in charge of tourism issues, practitioners, tour operators, & guides, TANAPA, travel agents, TFS, TTB, TAWA, and hoteliers. The aim was to bring all stakeholders and introduce the identification of tourism attractions motive among them. This would easy out the data collection process as all the stakeholders who were to meet would have been introduced to the research objective. The media coverage was also in place to ensure wide information coverage. As a result, during the meeting all the potential tourism attractions were clearly identified and some relevant documents were also shared to us to provide the current and the available information at hand. Table below indicates participants by number from various institutions

Table 9: Participants in the Tourism Stakeholders Meeting In Mwanza

SN	Stakeholders	No.
1	Ministry of Tourism And Natural Resources	1
2	Regional Commissioners	3
3	District Commissioners	3
4	Cultural tourism officers	10
5	Travel Agents	5
6	Tour Operators	10
7	Tanzania Tourist Board	3
8	Hoteliers	5
9	Tour Guides	10
10	TANAPA	10
11	TAWA	5
12	Tanzania Forest Services (TFS)	5
13	The National Institute of Tourism	5
14	St. Augustine University-SAUT Mwanza	5

After the initial meeting actual data collection was conducted by actual site visit to the appointed tourism attractions. Interview method was the data collection method in which the researcher upon visiting the site met with the key informants who are the people responsible for the tourism attraction dealing with handling and managing the sites. The interviews were carried out at the site, accompanied by pictures and GPS location points were noted to provide the actual global positioning of the attractions. These points were taken by an application know as GPS essentials.

In each region before site visit, focus group discussions (FGD) were conducted with the government officials and other available tourism stakeholders at the municipalities for each region. This was for the introduction purpose but also for the identification of the tourism attraction reasons so that the researchers know the available attractions and how to access them. In deed site visits were very interesting and in each site a team of three researchers visited in order to provide sufficient and detailed information and have a proper judgement of the tourism attraction potential.

Information was collected by taking notes, taking videos and pictures from all the tourism attractions. But also to complement the information where there were some documents (achieves) the official shared the documents through emails.

Data Analysis and Presentation

After successful data collection, proper documentation was carried out by the researchers. Individual researchers' prepared the description taken from the sites independently, and then this information was shared to all and later, all researchers met for sorting and clarifying the descriptions in order to come up with detailed approved description of the tourism attractions. Descriptive analysis was thus used as the method of analysis, supported by pictures, and GPS locations points. With this method we are able to portray accurate situations at the ground and provide a clear picture on the phenomenon under the study.

Reliability and Validity

The systematic research design adopted in the study explains the reliability of the findings, in which the use of multiple data collection methods complements the information. Taking pictures, collecting available information at various stakeholders, the GPS points all further explain the reliability of the study. In addition, credibility, transferability and confirmability as argued in Lincoln and Guba (1985) was assured by prolonged engagement in the data collection process, focus group discussions with various stakeholders and among researchers. Credibility was assured by both conducting the first stakeholders meeting and systematic data collection procedures.

Cultural Tourism Attractions in Mwanza

Historical sites

Kageye historical site

Kageye site is popular for the history of Sukuma Kingdom, Missionaries, Arabs and the Slave trade. It is about 40 kilometres North-East of Mwanza in the village of Kayenze. Kayenze is a well-known fish zone which marks the good name for the village as it turned into a calm fishing village. The site is owned by the Sukuma society, however it appearance does not compensate for its popularity and the rich history held by the site.

From the lake zone, Kageye historical site is rich in Sukuma chiefdom history, the Arabs with their slave trade and the Europeans for their missionaries' activities. These three nations worked in this place and their remains are still present.

Figure above ***shows the entrance of the historical site with three poles to reflect the three nations who worked in this area i.e. Africans, the Europeans and the Arabs.***

Origin

This site was once the stage of slave trade, until in 1878 missionaries put slavery to an end. The site consists of a meadow with trees and a mixture of monuments, graves and remains from different areas can be found, such as remains of one of the oldest Sukuma chiefdoms, Arab establishments, remains of slave markets and graves of missionaries and travellers. In general, Kageye site forms a wonderful historical location, as it was found in 1800s. It is a small village which then formed part of the Sukuma Kingdom, formerly made up of 52 separate and autonomous kingdoms, also known as chiefdoms.

Challenges

Despite its rich history, the site is greatly underdeveloped and unexploited. The graves and other remains are not being taken care of and many have fallen to a state of unrecognisable debris. Given the fact that the site carries the beautiful history of slave trade, whose slight history is still missing, the site requires considerable attention and care. Kageye site connect with the rest of slave trade history whereas slaves from various Island in the Lake Victoria were all transported to Ujiji in Tabora and finally connected to the most famous slave trade market in Bagamoyo. As a result Kageye site was one of the main routes of slave trade from the lake side.

Accessibility

Tourist arriving in the site may enter the site, but they will have always consulted the guide who is the villager. This guide from the village who only speaks Swahili can provide visitors with a tour around the site. However, the story is incomplete and inarticulate, which is only worsened by the fact that a translator is needed to make sense of it all.

Recommendations

- Kageye historical site requires several conservation and rehabilitation measures. This can be done in collaboration with the Catholic Church which has always been in need to conserve the area.
- Also there is need to hire/employ permanent and knowledgeable conservator who

will preserve the history of the area. Currently there is a man who is holding up the history of the area without any official agreement or acknowledgement.

- Also in all the historical items within the site, self-explanation information/details can be placed to conserve the history but also avoid the loss and misinformation from generation to generation.
- In order to enhance its conservation, Kageye historical site should be also linked with the indigenous by associating the museum such as schools, dispensaries and other social services.
- Meanwhile at present the site keepers can be provided with facilities that would help to clean and conserve the environment.

Gunzet House (Robert Koch House)

It is a German historical building built before the First World War for Medical Research. However, the building was not used for that purpose instead it was used by the British and Tanzanian governments for administration. It is located at the hill high above all other areas which contains a view of all the nearby areas in Mwanza city. The location was strategic for security reasons as at this place you can view all the nearby area and experience a nice view of the city of Mwanza

The house is also known as Robert Koch House. Robert Koch was a German physician, famous for his contributions to the isolations of bacteria and awarded with the "Noble Prize in Physiology or Medicine "for his tuberculosis findings in 1905.

The Gunzet house offer tourist's impressive and enjoyable viewpoint of Mwanza city while having a drink on the terrace or in one of the rooms. Also it's a place the tourists can experience beautiful sunset around Mwanza.

Recommendation:

The house has been renovated and is in good condition, additional details and marketing aspects can be done to promote this attraction. Also the main history of the area can be preserved and be documented within the building and by the Mwanza municipal.

The German Gallow Tree (The Hanging Tree)

During the German colonial rule in 1890's and 1916, all opponents to the German rule were sentenced and hanged to death. This monument is a representation of the tree where this act was conducted. The opponents referred here include the traditional healers such as Ng'wana Kaliyaya and all other criminals. However, it was impossible to hang Chief Makongolo Muhaya and Manju Igulu (Ng'wana Malundi).

For tourism purpose the tree caters the German history that is also linked with all other Germans activities. The monument is in very good condition. Tourists visiting Mwanza can bear the memories of this huge monument together with its history along.

In general, the monument is in good condition and well preserved.

Gandhi Hall

The Historical Hall is located to the east of the roundabout lies the Indian Quarter of Mwanza. At the entrance of the Gandhi Hall stands a sculpture of the founder of modern India who lived for several years in South Africa. We read that the last British Governor of Tanganyika, Sir Edward Twining, opened the hall in 1957.

On the inscription to the right, we read that it was built by Patel's from Bombay or Mumbai who were then living in Mwanza.

Currently the building has remained in no use however it is sometimes referred as a museum which depicts the history of the Indian leadership. However, on the outside there is an open garden for public use.

European Cemetery

In a corner of Capri Point, the first European Cemetery of Mwanza can be found. It is a Tanzanian tradition to bury the dead within the homestead of the family. In this way ancestors are kept close and can protect the family. Therefore, when German colonists arrived in Mwanza, there was no cemetery yet. The first European cemetery was built in 1890 by the Germans, later taken over and expanded by the English and finally by the Indians. Nowadays also some African names can be found on the cemetery. Graves and goats at the European Cemetery

Museums

Handebezyo Museum

Origin

Handebezyo Museum is located at Halwego village in Ukerewe district a top several granite hills in the center of the island. This is natural made environment with big rock intermingling one another. The place was discovered by ancient hunters in 1830s. There are caves that divided into three parts. The first was used as veranda, the second part was used as a fire place to smoke meats after hunting and the last cave was used as a bank for storing surplus whereby people buried their cooking pots full of money. It was sacred place that respected by all community therefore the money was safe at the place.

Features

The Museum also, constituting four peaks. Names of the peaks are meat processing peak where hunters used to process their hunting, the "View Point Peak" where you can overview Ukerewe Island, the court peak for holding judgment and discussing societal matters and the last peak is selected by the community as the last point to visit and recapping the whole tour. Concrete steps have been built all the way to the top 172 m above the lake surface and Ukerewe's highest point giving a view over much of the island.



Recommendations

Currently, the place is managed by the community under patron of Ukerewe local government. Sustainability of the place depends on visitors' contributions. More support is needed to for daily management of the site especially at this time when the site does not receive tourists. For further conservation of the site the government of Tanzania should gazette the site to give national heritage status.

Bujora Museum

Origin

Bujora Museum is a Sukuma historical museum found in Kisesa, 13 kilometers from the city centre. The Sukuma remains to be the largest tribe in Mwanza and in Tanzania. Thus the museum contains the history, culture and the tradition of the Sukuma tribe. It is a well-developed cultural centre under strong support of the Catholic Church.

Bujora Cultural centre was established in November 22nd 1968 under the custodian of David Clement (Swedish) who lived with the Sukuma people and was named as "Fumbuka".

The Museum does several activities including preserving the art and the culture of the Sukuma people, preserving the Sukuma. From 1973, the museum has been

working in collaboration with the Scandinavian people who learn the Sukuma traditional dances, livestock keeping and ironsmith activities. The center is involved in research activities in collaboration with various higher learning institutions on Tanzania.

Tourists visiting in this place enjoy the history and the cultural products of the Sukuma people. It is an open-air museum in Kisesa that holds a collection of different Sukuma attributes and buildings. Tourist can also enjoy the Sukuma Festival known as Bulabo.

Tourists visit the Sukuma Cultural house, may also experience the iron smith activities used in the Old Sukuma Age, Bujora Church built in 1958 containing the modern and cultural architect, get the History of the Sukuma Chiefdoms and visit the grave of the founder of this Museum known as David Clement, a Former Canadian Priest.

Bujora Museum is unique for its nature whereas Christianity collaborates with the Sukuma Traditions. There is need to uplift the exhibition to meet desirable standard of ethnographic museums. The Museum has a potential to attract more people from many places in Tanzania and across the borders.

Monuments and Landmarks

The German Gallow Tree (The Hanging Tree)

During the German colonial rule in 1890's and 1916, all opponents to the German rule were sentenced and hanged to death. This monument is a representation of the tree where this act was conducted. The opponents referred here include the traditional healers such as Ng'wana Kaliyaya and all other criminals. However, it was impossible to hang Chief Makongolo Muhaya and Manju Igulu (Ng'wana Malundi).

For tourism purpose the tree caters the German history that is also linked with all other Germans activities. The monument is in very good condition. Tourists visiting Mwanza can bear the memories of this huge monument together with its history along.

In general, the monument is in good condition and well preserved.

Churches, Mosques and Temples

Scattered in and around Mwanza lie many churches, mosques and Hindu temples, some of them more impressive than others. However, none of these has the capability or aim to attract mainstream tourists, nor do they have people to guide tourists around.

Tanzania is one of a few countries where people of different religions live closely together in harmony. The various houses of faith could become part of an interesting religion tour through the city.

Anglican Church and one of the mosques in Mwanza

Jiwe Kuu

Jiwe Kuu (pronounced as Djeeweh Koohoo) is an amazing viewpoint towering over Lake Victoria. To get to the viewpoint, visitors have to make a stroll through the neighborhood of Bwiru and beyond and walk through wooden settlements where Mwanza residents feed their kids and dry their laundry. It is a beautiful walk, slowly (or at some spots rather fast) ascending to one of the most beautiful rock formations in the city. Jiwe Kuu itself is a gigantic flat boulder, on top of which little pools have formed and other smaller boulders are lying around in fascinating formations.

Among the stones, there is one which carries some features of the Music sound. This stone happens to be similar to the stone in Serengeti which is known to be the only musical stone (Gong Rock) which means when tricked by a metal material it gives sound. Currently the area is used for drying up the small pelagic, and for video shooting by musicians.

Conservation of the area is required by maintaing the roads and restricting destructive

actitives to be carried to the stone area. Also if necessary to provide the details about the stone, its characteristics and any oher necessary detail.

Lake Victoria

Lake Victoria is the precious symbol of Mwanza region. The lake was discovered by John Speke in the year 1858 and named after Queen (Victoria) who was at the reins of England that time. The lake rests between three counties namely, Tanzania, Kenya and Uganda and is approximately 68,800 km^2

Regarded as the Africa's largest tropical lake, it is also boasted as the second largest fresh water lake in the world and headwater reservoir of the popular Nile River. The volume of Lake Victoria is approximately 2,760, which merely 15% of the overall volume of Lake Tanganyika.

From the lake Victoria, tourists can enjoy a number of activities, such as boat cruizing, beaches, fishing and Island visits. Apart from the beautiful beaches from the hotels such as Malaika and others, beaches along the Lake Victoria could be left free for public use. Yet there is minimum effort need to maintain the cleanness of the lake shore.

Bismarck Rock

Historically, the name refers to the "iron man "himself, Otto Eduard Leopold Von Bismarck (1815-1898), the Chancellor of the German Empire in 1871. Rightly so, as Mwanza was part of the German East Africa territory, and a largest statue of Bismarck himself, who was also the foreign minister, was said to be erected on the

rock

The Bismarck Rock has become an iconic symbol of Mwanza. Located in water front by the Kamanga ferry harbor, it is the Sunday evening meeting sport for many locals, as they wave goodbye to the setting sun.

When the British took over after World War One, the statue was pulled down, and is still allegedly swimming with the fishes somewhere around the outcrop – but the name remains. If you wonder around the area you will find local courts and the old post office around the corner, and the Chinese waterfront restaurant on the other side.

Recommendations.

There is need to conserve the rock nearby areas, at the moment the areas so said are not clear and are being used for rubbish dumping which distorts the state and perfection of the lake itself and the view of the rock.

It may be of importance to establish a park near by which may facilitate the conservation of the so said areas.

Festivals events and exhibitions

Makasia Festival

This is a festival that begins and ends from the Kirumba fish market port. The festival aims at seeking the best sailor in the Lake Victoria. It is organized and sponsored by the Tanzania brewing Company Limited (TBL). TBL conducts the festival for the purpose of promoting their products but also as joint marketing strategy to attract tourist in the lake zone.

Bulabo Festival

Bulabo means “Harvest season”, the festival takes place every year between June–

July. The Festival contains the old Sukuma dancing and drumming traditions. Different Sukuma dancing groups enter a three weeks lasting competition in which they battle against each other using different instruments and even animals like pythons, porcupines and hyenas. The group that attracts the most spectators wins the battle. The festival attracts a lot of Tanzanian salesmen and small businesses, who sell their products and food to the visitors. In each year the festival bears a special theme to educate the society.

Cultural sites, sports fishing Agriculture and Livestock keeping

Kisesa Cultural Tourism Enterprise

Kisesa Cultural Tourism enterprise was established by Rev. Daniel Bulidese who was inspired to support the neighboring community through tourism. It is found 17 kilometers from the city centre. The centre displays the Sukuma tribe Cultural activities to tourist such as Sukuma traditional houses, performances of Sukuma traditional dances and preparations of Sukuma traditional food. Thus activities offered by Kisesa cultural centre are community based whose activities are solely shared by the community.

Tourists visiting the centre get an opportunity to learn from the women groups various activities such as sewing, pot making, dancing, traditional herbals and foods. In addition, the centre as well coordinates special city tours which are linked with other attractions around Mwanza such as the visit to the Bismarck rock, fishing, and the Gunzet houseboat trips at Kayenze Village etc.

To support the formalization of the cultural centre, in order to have a well-coordinated and formalized centre that can operate throughout. Training and experience based awareness campaigns which may increase their exposure.

Ukerewe Cultural Tourism Enterprise

Ukerewe cultural tourism is located in Hamukoko; a 7-minute walk from Nansio habour. Ukerewe is the largest island within Lake Victoria with a land area of approximately 530 square kilometers. Ukerewe Island is known for housing a large population of Africans with albinism. Albinism is a genetic condition whereby people are born with little or no pigment in their skin, hair or eyes (which often appear red). It affects a quarter of a million Tanzanians. Across sub-Saharan Africa the condition has been viewed as a curse or a bad omen for centuries; some believe

albinos, who are susceptible to disfiguring skin cancers and nearsightedness, to be sadistic, or to have evil powers. Meanwhile, some witchdoctors believe that parts of albinos' bodies, when mixed with a potion, can make people rich.

In the past, elderly women with red eyes have been killed after being accused of witchcraft, and newborn albinos have sometimes been killed shortly after birth. In 2007 the number of albinos being killed rose sharply. This happened mostly in the areas of Mwanza, Shinyanga, Mara and Arusha. Because of poverty, it has been known for family members to collude with the killers - for money. Many albino children were abandoned on Ukerewe Island by their families.

The Island has attracted cultural tourism activities in which tourists visiting the Island get an opportunity to experience way of life of the Ukerewe people through Ukerewe Cultural Tourism. Ukerewe Cultural Tourism Enterprise owns a bar and a garden, offers home stay. Tourists get to experience the local meals, norms and local dances. Also Tourists get to discover the various area, and enjoy from cycling activities.

The Sukuma Kingdom (The Leadership of Chief Kaphipa)

Mwanza is well known for the traditional leaders who ruled the Sukuma society even before the colonial rule. The Chief Kaphipa leadership is well known in the southern part of Mwanza in the Bukumbi and Misungwi areas. The current chief Kaphipa is the 23rd leader and the only chief in leadership. The Chiefdom is still well known and preserving the history of all the leaders, graves and all other historical materials in this area. It is in this area and leadership; the first white fathers arrived and were hosted by Chief Kiganga on the 13th of January 1883. In this chiefdom their useful historical remains include:

- The Six graves of previous Chiefs and their wives
- Rock paints near the graves
- A rock immersed by water can be viewed here, whereas it has a history as how it was immersed in water
- The remains of the Chiefdom Palace whose main building collapsed in 1964.
- The Chiefdom Meeting area which is on the big flat stone in which there was a

very big tree which provided for the shade

- To recognized this area and the chiefdom as one of the historical site
- Then, since the leadership is still prevailing and is under power, there is need to preserve the area and given its history it worth establishing a historical site (Museum) in this area.

The family members of the chiefdom have also taken initiative to propose for the renovation and conservation of the history of the chiefdom to the local authorities but also have collaborated with the religious leaders (Catholic Church) for the support. The plans and initiatives are still under negotiation.

Art, Craft and Gallery

Rock Painting in Gabalema Island

Gabalema Island is the closest island next to Mwanza city and is located in Mwanza, Tanzania. Gabalema Island has a length of 3.17 kilometers. The Island has a hidden beauty of rock paints, beautiful caves and contains rare species of fish named Otters. Tourists visit this Island by boat easily organized by MV Bismarck one of the tour operators found in Mwanza city. In the old days, the Island was used by the people of Mwanza to damp any baby born disabled where no one lived in it. Even Now the Island has people living there, its only visitors who visits

Souvenir Market in Mwanza

In Mwanza one cannot come and go empty hands, always tourists will find something to bring home from this place. Maasai Market in the city center is well known for Maasai products also the art and galley shops near Ryan's Bay hotel provide tourists with beautiful souvenir at affordable prices.

SN	NAME	LOCATION	SERVICES
1	Maasai Market	City centre	The area is great for Maasai products.
2	The art and Galley Market	Station road near Ryan's Bay Hotel	The place is great for cultural souvenir items. They reflect the mark of Tanzania obtained at an affordable price

Souvenir shops

Art and craft markets/ souvenir shops; along station road and nearby Rynar hotel there are a number of souvenir shops which sell very artistic products. Tourist can enjoy the art and craft work from Tanzania and take with them home. The souvenirs are sold at an affordable price and are in a very good condition.



Recommendation: ***The Shops are just along the road, the municipal may opt to design a collective market for souvenir that can easily be reached by the tourists.***

Local Markets & Restaurants (culinary activities)

Kirumba fish market (Mwaloni)

Kirumba fish market also is known as Mwaloni fish market. Mwaloni means the part of the lake with shallow waters and special area for fishing. The Market was constructed in 2005, and serves as a central point for Dagaa (small pelagic) and fish trade in the region. The market receives fish and other fishery products from different fish landing sites located in and around Mwanza, including the nearby islands, Geita, Kagera, and the Mara Regions.

It is the biggest fish market in Mwanza and second biggest in Tanzania for the exportation of Dagaa (small pelagic). The market has fish processing units namely salting, drying and selling units. The processed fish related products are sold to different markets within and outside the country, namely to Uganda, DRC Congo,

Burundi, Rwanda, Kenya, Zambia and Malawi.

Tourists visiting the market get the opportunity to learn the Fish processing activities named above. Also Tourists have an opportunity to buy, and taste the fish products fresh form the market area.

The current state of the market is good and well organized however, some recommendations and hereby suggested; improve the market sanitation process and overall awareness to the fish processors.

Kirumba fish Market depicting the market place, fish salting area, and the small pelagic

Mlango mmoja Market

Mlango mmoja; is a second hand market, well off composed. Locals and foreigners can acquire very classic cloth, shoes, and bags all available in an affordable price. It is a calm market with varieties. Mlango mmoja is a Swahili word that means "single door". The origin of the name comes from the fact that the place was previously used as a local bar in which people had to use a single door to ensure sellers from missing payment after consumers get drunk. So, the area was famous since then and all people had to enter and leave using the same door for control reasons. Tourists can use Mlango mmoja market as a place to buy some of the accessories they need at an affordable price but also learn how the African second hand markets operate.

The market can be made better by improving some of the infrastructures such as the pathways; since they are just on soil during rainy season the market cannot be accessed easily

Other Markets and Supermarkets

Several markets are also available in Mwanza. Tourists can buy fresh food, vegetables, and fruits these include

NAME	LOCATION	Description
Milongwa Fresh Food Market	Mwanza	Operates daily. Mainly Food market, Sellers here sell all kinds of fresh food and fruits Not
Buhongwa Fresh Food Market	Mwanza	Operates daily. Mainly Food market, Sellers here sell all kinds of fresh food and fruits
Makoroboi Market	Mwanza city centre	Operates daily. Sellers here sell all kinds of accessories, cloths electronics and all other items. It is not a main food market
Soko Kuu	City centre	Food, fruits and garments
Mlango Mmoja	Located in Uhuru Street	Second hand Clothes
Buhongwa	Located in Buhongwa	Fresh food, vegetable, fruits and second hand clothes
Rock City Mall	It is a business complex located near Furahisha Bridge	Big Supermarket in Mwanza, you will find Supermarkets, Offices, Shops, Banks, Conference Halls, Cinema Halls, Boutiques, Salons, Taxi Services, Travel Services, Indoor and Outdoor Children zones, Bars and Restaurants, Spacious parking area, Business agencies and many more
U-turn Store	Is located between Nkrumah and Machemba street	It is a profound departmental store variety of products can be bought here.
Sita Supermarket	Located near fish monument	Supermarket in Mwanza

Restaurant and Night life by Mwanza

Mwanza city as beautiful as it is, it has many enjoyable and exquisite places for local food, foreign food and night clubs which makes the social life elegant. Tourists will always enjoy the food and clubbing in the following places;

SN	NAME	LOCATION	SERVICES
1	The Cask Br & Grill	In the Rock city Mall	Restaurant, barbecue and bar with Karaoke
2	Kuleana Pizzeria	City center	Oriental and local Cuisine restaurant

3	Hasfu Deity Empire	City centre	Indian and local Cuisine restaurant
4	Kemondo Garden	City center	Restaurant, barbecue and bar with Karaoke
5	Mali kusema	City center near Mlango mmoja market	Restaurant, barbecue and bar with Karaoke
6	Diamond Bar and Grill	City center	Restaurant, barbecue and bar
7	Almuzamir	City center	Indian and local Cuisine restaurant
8	City centre Igoma	Igoma	Restaurant, barbecue and bar with Karaoke
9	Bonasera	City center	Restaurant, barbecue and bar with Karaoke
10	Malaika (Elevate)	Malaika Hotel	Restaurant, barbecue and bar with Karaoke
11	Rock bottom Gold Crest	City center	Restaurant, barbecue and bar & Night Club
12	Cassino- Mwanza Hotel	City centre	Restaurant, barbecue, bar & Cassino and Night Club
13	Delux	City centre	Restaurant, barbecue and bar

Selected Tourism Facilities

Reknowned Hotels and Lodges in Mwanza

Accommodation stands as one of the important element in Tourism Industry, Mwanza there are 69 Hotel, Lodges and Guest House with more than **1,717** beds and **1,457** Rooms ranging from Single rooms to luxury suite, price from **23 U$D** up to **250 U$D** for Luxury Suite. The following are among the hotel in Mwanza.

SN	NAME	DESCRIPTION
1	Gold Crest Hotel	Centrally located in Mwanza and offering views of Lake Victoria, has 3 restaurants, concierge services and a 24-hour front desk. Free Wi-Fi access is available
2	Tilapia Hotel	Located in Mwanza, 1 km from Saanane Island National Park, provides accommodation with a restaurant, free private parking, an outdoor swimming pool and a bar.
4	Malaika Beach Resort	Situated along the shores of Lake Victoria, offers a complimentary airport shuttle and features an outdoor swimming pool, spa and restaurant
5	Adden Palace Hotel	Situated in Mwanza, 2.1 km from Rock City Mall, features accommodation with a restaurant, free private parking, an outdoor swimming pool and a fitness centre.
6	Ryna's bay hotel	Located in Mwanza, 1 km from Saanane Island National Park, provides accommodation with a restaurant, free private parking, and a bar.
7	Lesa Garden Hotel	11 km from Saanane Island National Park, offers accommodation with a restaurant, free private parking, a bar and a garden.
8	Isamilo Lodge and Spa	Located in Mwanza, 2 km from Rock City Mall, provides accommodation with a restaurant, free private parking, an outdoor swimming pool and a bar.
9	Charming Bungalow	Offers accommodation with free private parking. Guests at the bed and breakfast can enjoy a continental breakfast.
10	Blue Sky Hotel	Blue sky Hotel is set in Mwanza, 8 km from Saanane Island National Park. Among the various facilities of this property are a bar and a garden.
11	Waghill Lodge	With lake views, Waghill Lodge is set in Butimba and has a restaurant, a 24-hour front desk, snack bar, garden, outdoor pool and sun terrace.
12	Vizano Hoel	Within the city center provides accommodation with a restaurant, free private parking
13	St. Dominic Hostel	It is the most distinguished hostel in Mwanza and is situated at Nera Area, and it is just 8kms from Mwanza Airport. Has excellent accommodation services, outdoor garden, restaurants and conference services

Banks

The Financial system is well structured and there are a variety of banks that operate in Mwanza to cater for different user groups. For the tourism purpose five main banks were identified to be commonly used by the tourists, these are NMB, CRDB, KCB EQUITY BANK, and NBC. These banks have bank branches in the city center and a number of ATM machines which makes services accessible.

SN	NAME	LOCATION	SERVICES
1	NMB	City center	VISA, MASTERCARD accepted
2	CRDB	City center	VISA, MASTERCARD accepted
3	KCB	City center	VISA, MASTERCARD accepted
4	EQUITY	City center	VISA, MASTERCARD accepted
5	NBC	City center	VISA, MASTERCARD accepted

Hospitals and healthcare facilities

The Health care system in Mwanza has been a priority to all. Bugando Medical Centre is a Mwanza number one well known hospital which is well equipped with facilities and does all major healthy issues such as major and minor operations, with ability to handle emergency cases. For tourists, it is a well prepared city that can handle various medical cases in case they happen. This makes Mwanza the safe zone to be. In addition, there is another nearby referral hospital in Geita which is close to begin its operation. This is another very big hospital in the lake zone. Other hospitals in Mwanza include The Ag Khan Hospital, Mwanza hospital, Sekou Toure Hospital, Hindu Hospital, Royal Hospital etc.

Security and Safety services

Security of tourists is among the most essential item for any tourism destination. To facilitate the security, the police stations act as a custodian and central point of the society security. Mwanza has a number of police stations which stands for the safety of the citizens and visitors. Most of the police stations are well informed about the tourism activities in the region and are aware of various security matters to tourists. Regardless of these general services, tourism stakeholder recommends for a special tourism desk to be introduced in some main police station. This will save visitors specific issues but also it is easy to refer case by case mark the history of the events happening for the tourists.

Cultural Tourism Attractions in Kagera

Historical sites and Museums

German WWI Cemetery

Adjacent to the Kagera Regional Commissioner's bloc there is a graveyard with the remains of Germans who fought in the First World War. The cemetery reveals that part of the WW1 was fought near the area, making it one of the Sites linked to researches and tourists. The existence of the war-graves also, reveals the remains of the 1880s historical scramble for the colonies in Africa. The site draws a number of visitors, some of them journalists and researchers

Kagera Museum

This Museum is located just north of the airstrip. The Museum displays collection of tools used by the natives in the last millennia, such as baskets, long wooden tree trunk used for the brew of local beer. Other artifacts on display includes; Ensimbi (a form of money used by natives to transact), trumpet horns (used to call the community for gatherings), Ekirumiko (end of cow horn, drum (Lugaju), the Ensimba used by women to boil water for their spouses, fish traps, grinding stone and more. Visitors gain knowledge to the Haya culture and tradition. Display of beautiful framed photos of different flowers, various spices of birds and butterflies

Current the museum is looks like a cupboard of curiosity; it lost the sense of being a museum due to the nature of its display. In the Museum objects are placed on tables and others on the floor. Those few in the cases are seen as if are shelved in the storages. If immediate curation measures will not be taken, we subject the valuable collections into deterioration.

The museum exhibitions should be re-exhibited used modern display techniques and furniture for prosperity and pride of Kagera people.

Monuments and Landmarks

Bukoba Ferry Monument

The MV Bukoba was a Lake Victoria steamer ferry that carried passengers and cargo between the ports of Bukoba and Mwanza. On the 21st of May in 1996, just thirty minutes before reaching Mwanza port, the MV Bukoba sank some 56 kilometers off the coast of Mwanza. Though the vessel had turned over, it had remained on the surface, partially buoyant. However, rescuers, who could hear trapped passengers screaming and banging, ignored the pleas of fishermen and decided to drill a hole into the hull to rescue those trapped inside. The effect was the air which had kept the hull afloat was released and shortly after the boat sank. Only 53 people survived. The president of Tanzania at the time, Benjamin Mkapa, declared three days of national mourning for almost 700 victims who were drowned that day. The monument was built to commemorate what is considered to be East Africa's worst ship disaster.

This Monument carries a history that need to be remembered and shares. Thus, it is important to maintain the area, conserve, and provide self details (captions) for the people visiting the place.

Roman Catholic Cathedral in Bukoba

The Catholic Diocese of Bukoba is located in Bukoba in the ecclesiastical province of Mwanza in Tanzania. December 13, 1951 was established as Apostolic Vicariate of Lower Kagera from the Diocese of Bukoba. March 25, 1953 was promoted as Diocese of Rutabo. June 21, 1960 was renamed as Diocese of Bukoba. The famous and attractive large catholic cathedral located at the city centre of Bukoba town. The stylish architecture of the church with independent high protruding bell tower makes to be unique in Bukoba. The church also houses several graves. The grave of the late Cardinal Rugambwa within the Cathedral compound make many people visit that church as pilgrim all year around.

Nyakijoga Lourdes of Bukoba- The Lourdes of Africa

Possibly one of Kagera's best-kept secret, the research team explored the ancient rock paintings close to Bukoba and one of the first religious shrines built in the whole of East Africa.

Nyakijoga is World famous for its miracle powers its healing waters blessed in the name of the Virgin Mary. Every year thousands of pilgrims from all over the world convene at the Lourdes of Africa. Nyakijoga, a shrine of Our Lady of Lourdes, is a place of pilgrimage in Mugana Parish, Bukoba Catholic Diocese, where the faithful may obtain, through the intercession of the Blessed Virgin Mary, God's benefits like the pilgrims who go all the way to the shrine of Our Lady at Lourdes in France. The shrine, under the jurisdiction and care of the Diocese of Bukoba and the Parish of Mugana respectively, is a grotto beautifully situated at a small Nyakijoga stream. This holy place lies about 29km north-west of Bukoba town the capital of Kagera region in the north western part of Tanzania.

During the Marian Year by Pope Pius XII in 1954, to mark the centenary of the definition of the Dogma of Immaculate Conception, the parish priest of Mugana Msgr. Melchiades Kazigo, seeing the similarity of this grotto to that of Lourdes, decided to build a shrine there and used it to promote devotion to Our Lady especially the rosary.

The celebrations of the Golden Jubilee of Mugana Parish in 1955, and the visit of Father Patrick Payton, the American family rosary crusader, greatly popularized the position of the shrine in Marian devotion. That same year bishop Laurean Rugambwa, later cardinal blessed and installed the statue of Our Lady of Lourdes in the grotto. With that, pilgrimages to the grotto started.

In 1958, bishop Laurean Rugambwa requested the Holy Father to grant plenary indulgences of Lourdes to those who would make their pilgrimages to this Nyakijoga as it were at Lourdes on the occasion of the 100th anniversary of Lourdes.Pope Pius XII granted the permission; and on February 11, 1958 Nyakijoga was officially inaugurated.

From that day many pilgrims have travelled to Nyakijoga and many favors and miracles have been reported granted through Our Lady. Now every year the last Sunday of October is the day of pilgrimage to Nyakijoga. People come from all over the world to pray to Our Lady of Nyakijoga. The motto of the place is "*Weyoleke okwo oli Muzaire*" meaning "Show yourself as our Mother."

Mugana parish is also home to Nyakijoga, a shrine of our Lady of Lourdes. Nyakijoga is world famous for the miraculous powers of the healing waters blessed in the name of the Virgin Mary. Every year thousands of pilgrims from all over the world convene at this Lourdes of Africa.

Festivals, events and exhibitions

Senene Festival

The Haya ethnic group of the Kagera Region wants to introduce the Tourism Day to be solely the period in which the region celebrates and cherishes her rich and diversified cultural heritage. The celebrations will be known as the "*Senene Festival*". The stakeholders of the Festival will be all individuals in one way or another involve in Senene chain – from harvesting, processing to consumption. The festival will take place in Bukoba Town. Senene Festival will attract people of all cadres and different walks of life across Tanzania and beyond. Senene Festival will be an annual event expecting to start December 2021. The festivals aim to entice tourists to cherish the Haya culture and traditions.

Cultural sites, sports fishing Agriculture and Livestock keeping

Gera Traditional Life Experience

The indigenous Haya people of this area invite you to the centre of the ancient Kiziba kingdom at Gera. Here you can sample local foods, learn first-hand how to cook Bahaya food. From harvesting to kitchen; cooking, testing hence eating while view tribal dancing and listen to the traditional music of this tribe. Sample traditional favourites of cooked green bananas, yams, local fruits, staple green vegetables and fresh fish from Lake Victoria, after math take a glass of smooth banana fruits local brew.

To support the women who practice cultural tourism in Gera village to formalize, provide them with training on tourists needs but also, install a sign post in the village to indicate that cultural tourism activities are conducted in their home environment.

Rural agricultural practices & rural life

This is a very broad area encompassing the full culture of the people of this land. Rights of passage are very elaborate and people are closely knit in grief and in joy. Kagera Region's inhabitants are mostly peasants tending small patches of land. Agriculture in rural regions mainly involves cultivation of banana plants, beans, maize and root plants as well as cash crops like coffee, cotton, sugar – cane, tea and vanilla.

Some people raise few cows for milk and manure. People are keeping some goats and chicken. Still the region has wide opportunity to invest in agro-tourism.

Art, Craft and Gallery

Mugana Rock Painting

A beautiful drive from Bukoba, passing smallholder farms full of banana trees, villages, hilly and swampy areas leads to ancient rock paintings in Mugana presumably unknown to foreign visitors and majority Tanzanians. The rock paintings are found in the rural area called Bwanjai village which is surrounded by sprawling agricultural villages.

The paintings depict presence of early life of human activities in the location. So far, there is scant information on the paintings. The paintings similar to the current day graffiti make an interesting discovery to some of the hidden natural attractions available in the Tanzanian remote villages. The paintings show simplified figures; images that depict fish species and fishing gears.

The whole area has a great landscape good for hiking and rock paints however the way to the paints is not clear, and the original paints are also destructed by additional paints. Thus there is need to clear irrelevant paints and prepare the area for hiking activities.

Local Markets & Restaurants (culinary activities)

Edible insects (Senene) Market

Edible insects are an important source of food to many African populations. The Longhorn Grasshopper, *Ruspolia differens*, commonly known as Senene in Kagera is one of the most appreciated edible insects by societies around Lake Victoria crescent. Senene is primarily an essential treat for the Kagera ethnic groups. Harvesting for household consumption was mainly done through wild collection. Traditionally made traps are mostly used for commercial harvesting of Senene. Deep frying is the most preferred processing method while smoking is the most preferred preservation method, with shelf-life of up to 12 months.

Interesting traditions and taboos associated with Senene consumption; were men monopolizing the insects as food by declaring the insects taboo for women and children. Deep fried Senene in locally packed containers were mostly sold by street vendors, but also available from a variety of stores and supermarkets.

Beyond being just an important traditional delicacy, Senene is becoming increasingly popular, providing opportunity for local businesses. Indigenous technologies for harvesting, processing and preserving Senene exist, If never tasted Senene. You never visited Kagera

As we know that tourists are very fragile in terms of health issues. Thus, in order to capture the market this place need to be well maintained in terms of cleanness as well as the booths appearance.

Other Markets

SN	NAME	LOCATION	SERVICES
1	Soko Kuu	Bukoba Town	Food, fruits and garments
2	Fododido	Bukoba Town	Small supermarket
3	Ujirani Mwema	Bukoba Town	Souvenir and gift shop

Tourism Facilities

Accommodation facilities

SN	NAME	LOCATION
1	Kolping Hotel	Bukoba Town
2	Transit Hotel	Bukoba Town
3	Sky Motel	Bukoba Town
4	Fortel Motel	Bukoba Town
5	Smart Hotel	Bukoba Town
6	ELCT Bukoba Hotel	Bukoba Town
7	The walk Guard Hotel	The Hotel is located in Bukoba town, karume road. It is very good and comfortable all the times
8	Victorious Perch Hotel Bukoba	Located in Bukoba Town. The hotel is a pleasant with clean, comfortable rooms at an affordable price.
9	Bukoba Hotel	Bukoba Town
10	Bukoba Orient Hotel	Bukoba Town

Night life by Bukoba

SN	NAME	LOCATION	SERVICES
1	Sky Motel	Bukoba Town	Restaurant, bbq and bar
2	The Mint	Bukoba Town	Restaurant, bbq and bar
3	Stone Beach	Bukoba Town	Restaurant, bbq and bar

A summary of the potential attraction in Kagera

NAME	LOCATION	Points		Ownership	
		X	Y		
Fortel Motel Farm	Bukoba Town	368148	9857028	Private	
Senene Market	Bukoba	367301	9853052	Community	Not
Kagera Museum	Bukoba town	369134	9852772	Private	Not
Mugana Rock painting	Nabiokwa	357970	9865588	Community	Not
Roman Catholic Cathedral	Bukoba	357970	9865588	Community	Not
Gera Traditional life Experience	Gera	360242	9861268	Community	

Geita Cultural Tourism Attractions

Chato Museum

The Geita Region is finalizing the concept of establishing Chato Museum at Chato in the Primary School used by the Fifth President of the United Republic of Tanzania, Late Dr. John Pombe Joseph Magufuli. The Museum is expected to be at Chato District. The museum will be located at the birth place of Dr. John Pombe Joseph Magufuli (1959-2021). The Museum will house a library of science references; a theatre to craft, stage and showcase Chato ethnic groups in a contemporary manner and archival depository of his long service of the Late Dr. John Pombe Joseph Magufuli documents and manuscripts.

Cultural sites

Before being a national park, there lived people in the Rubondo Island. The people were known as Wanyarubondo. The people of Rubondo by then had their cultural beliefs, therefore there are some cultural remains in the Island which are Ntungamirwe", "Maji Matakatifu", "Altare" and "Solo" which explain the life of natives who once stayed in the park.

Ntungamirwe, known as Pongo view point, it is high point in one of the hills. Offers a beautiful view of the island but also was used as a ritual place.

First, to increase products density at the Island, it is important to complement the chimps tracking with Gorilla. The Gorilla forms the major attraction of many tourists visiting our near-by countries such as Rwanda and Uganda. The Management/ Government may think of importing Gorilla from Congo (less competitive country to us in terms of tourism) so as to increase the product density at the island. With this measure, the Island can gain its competitiveness over the nearby countries. Thus increase the tourist's base and need to visit Tanzania by offering

Second, in order to improve customer satisfaction, it is advised to prepare the Island travel maps and insert sign post at the Island which will indicate the points of travels in each stage that the tourist will be expecting to visit in the Island.

The Magic Well (Kisima cha maajabu)

The magic well is a traditional water well which carries some myth within it. The well is located in Buzirayombo village is a few kilometers from Geita-Chato airport. The well contains fresh flowing water and there live certain species of fish. The people of Buzirayombo fetch the water for home use strictly in the evening rather than any other times. When fetching the water people put off their shoes and fetch water without fishing. It is believed that, fish from this well never get cooked. The well is under the supervision of the local supervisor and in good condition.

In order to improve the well and use it as an attraction details about the well can be published somewhere near the well by placing a sign post indicating the presence

of the well and its magic features. Also, a car parking area could be marked since at present cars need to park just by the side of the road. The area needs to obtain a conservator who will be recognised and be responsible for the conservation of the area for its history and its status for its sustainability.

Bird Watching

At Rubondo national park visitors will experience a variety of water birds, Eurasian migrants and introduced African grey parrots. High density of African fish eagles distinctly seen when seated at some hill land points such as at the Pongwe view point.

Chimps tracking are quite well arranged through tour operators. Two families of chimps are found in the northern and south part of the park. Visitors can join chimp's habituation crew and experience how chimps are habituated in their nature state.

Fishing Safari, the lake is rich of fish and its water is brilliant for excursion. Fishing in the Lake Victoria is fantastic, enjoyable and luxuries. It is the most exciting recreational activity in which there is a great possibility of getting a big catch to make a wonderful and challenging record of catches among others.

Local Markets & Restaurants (culinary activities)

Kasenda International Fish Market

Kasenda International Fish Market is located at Nyabugera village Mganza 37 kilometer from Chato. This is the second largest market in the lake regions following the Kirumba Fish Market in Mwanza. The market is in the Lake Victoria show, also is another gateway to Rubondo National Park.

Kasenda Fish Market in widely known for trading on lake Dagaa-the small pelagic fish (Rastrineobola argentea).This species of fish is an incredible source of nutrition and economic benefit to the people throughout the great lakes region of Africa.

Of all the species in Lake Victoria, R. argentea is the most prolific and contributes to a very large industry in the region for local consumption but also for trade from Zimbabwe in the south to Nigeria in the west. Regionally DR Congo is by far the largest market, but also Rwanda and Sudan offer important markets for the traders. Kasenda currently stands as an international fish Market in Tanzania.

Interestingly, Dagaa fishing is based on attraction by use of artificial light. The fishers use kerosene pressure lamps attached to a floater for the purpose of attracting fish. The fishery is still artisanal with locally made boats using traditional fishing methods and gears. The fishers use different types of gear for catching fish. The commonly used gears and fishing methods include; a) beach (Dagaa) seine nets mostly operated on sandy beaches, b) scoop nets, c) lift nets introduced from Lake Tanganyika and mostly used in Catamaran boats locally known as 'Kipe', d) encircling nets operated in deep waters and similar to purse seine nets (also known as 'hurry up'. During night at Kasenda you will see lighting in the lake spreading a wide area of the lake.

The Boat parking area (Ship dock) is immersed in water due to the increase of the water level in the Lake Victoria, reconstruction of a new ship dock is recommended in order to facilitate the cargo off loading activities which at the moment, the men doing cargo loading exercise have to step in the water to reach the ship cargo.

Mwalo wa Magoma

This is a former fishing area used by the indigenous of Chato district. This area carries the origin of the name Chato. Chato comes from the word "Ikyato" which means Boat (In Swahili Mtumbwi). The fishing activities of the indigenous were carried out here and the area facilitated the economic activities of the people from the main land and from the Island. At present the area is not use for boat and fishing activities rather just for a few activities such as washing, and feting water.

First, since the area carries the history of the name Chato, a monument that present the sign of the meaning and history of the name Chato could be designed. E. g creating a ***Boat and fish*** at this place would help to preserve the history. At the moment the place is just bear (empty carrying no any symbol for the origin of the name) and not clean at all which make it lose the quality to be called an attraction.

Tourism Facilities

Accommodation facilities

SN	NAME	DESCRIPTION
1	Marine Hotel	It is located in Chato Town with 12 beds capacity.
2	Chato Beach Resort	Located in the beach
3	Morning Star Inn	It is located in Chato Town with 8 beds capacity.
4	J'S Hotel	Is located near Chato Airport, has total of 40 rooms very classic at presidential status
5	GM Hotel	Located in Chato Town
6	Kidimbwi J's	Located in Chato Town
7	Roda Lodge	Located in Chato Town
8	ANEJ Hotel	The Hotel is located in Bukoba town, karume road. It is very good and comfortable all the times. With 10 beds capacity
9	Asilia Camp	Located in Rubondo Island with 16 bed capacity
10	Rubondo Rest House	Located in Rubondo Island with 6 beds capacity
11	Hostel Rubondo	Located in Rubondo Island with 20 beds capacity

Restaurants and Night life by Chato

SN	NAME	LOCATION	SERVICES
1	Giraffe Pub	Chato town	Restaurant, bbq and bar
2	Kidimbwi J's Hotel	Chato town	Restaurant, bbq and bar
3	Glory Fast Food	Chato Town	Restaurant
4	Chato Beach Hotel	Chato	Hotel, Restaurant, bbq and bar

Conclusion

Cultural tourism has remained to be important for many reasons. Possibly the most well-known reason is the social impact that it brings to the local community and states in general. Without this acknowledgement, many of the cultural tourism attractions may/have remained unrecognized as a result of their disappearance. Establishing cultural tourism attractions require multiple stakeholders' efforts, who

can take initiative and major role to develop, preserve and appreciate their value. This study has taken initiative to identify potential cultural tourism attractions in the lakeside of Tanzania for the purpose of recognising them and initiate/accelerate cultural tourism activities in this zone.

The findings indicate massive cultural value in the lake side of Tanzania that need to be equally shared by not only international tourist but as well as the domestic tourists.

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Education and Health as Components of Inclusive Tourism Development in Mwanza, Geita and Kagera: The Use of Geographical Information Systems

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Abstract

This study applied Geographical Information Systems (GIS) to identify potential tourist attractions, facilities and services and determine spatial accessibility of health facilities and academic institutions in connection with tourist hotels. The study examines the practicality, possibly, suitability, desirability and compatibility of education and health as integral components of inclusive tourism development in the Lake zone while focusing on Mwanza, Kagera and Geita Regions. Data were collected through interview, focus group discussion, field observation, handheld GPS, mobile GPS and satellite imageries provided by Google Maps TM and Open Street Maps. The target group were training providers, key stakeholders in health industry as well as tour operators. Both spatial and non-spatial techniques performed by software such as Microsoft Excel, SPSS–and GIS were used to analyze data while tables, boxes and maps were used to present the findings. The results of this study reveal that education availed under various levels lacks essential soft skills that's needed on the ground such as language proficiency, customer service, display of professionalism and lack of in-depth understanding of the existing products in marketplace. Still, most curricula do not have entrepreneurship as one of core subjects in their modules. Therefore, graduates lack skills to use their education for self-employment within the tourism industry and beyond. The mode of education delivery is still old fashioned as innovation and use of ICT are key in the changing tourism industry are quite limited if not absent. Medical Tourism in the Lake Zone is a delayed venture given the tourist attractions in the area. There is still a need for mobile private healthcare facilities within the zone that can play a role in medical tourism industry.

Keywords: Education, Health, Inclusive Tourism, Lake zone

Introduction

This paper discusses the value of including health and education components in tourism industry development. Many scholars have written many articles on the sustainable development of tourism industry (Richards, 2011; Sie et al 2016). Sustainable development seeks to balance the protection of the environment, the promotion of economic growth, and the maintenance of social and cultural

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integrity (Tashlai, 2014). Much attention has been directed toward the economic and environmental sustainability of the industry (Nugroho, and Soeprihanto, 2016). Less has been focussed on health and education sectors. There is a need to more fully consider and integrate the wider benefits of health and education sectors on the development of the industry. Integrating health care component in tourism industry will improve the quality of services and hence attract number of tourists in the destination areas (Shanmathi et al., 2017).

Tourism accessibility has become fundamental factor in tourism quality. It is no longer possible to conceive responsible, sustainable and quality tourism when it is not within everyone's reach. Improvement of physical and service infrastructure with a focus on accessibility also encourage a more multigenerational focus in development planning and create more demand to tourists and could attract many visitors. To ensure that accessible tourism is developed in a sustainable manner, tourist destinations are required to go beyond on what they have on paper and ensure all tourist services are accessible and reliable, and ensure that all persons, regardless of their physical or cognitive needs, are able to use and enjoy the available amenities in an equitable and sustainable manner (Regina and Robin, 2017). Definitely, making basic alteration to a health facilities and education programs through improving the accessibility of tourism services can result in increasing visitors, as well as improving quality of life to the local communities.

Precise spatial information on health care location, distance and time from tourists' accommodation to health care facilities, their accessibility by road linkages and capacity of each in term of infrastructure and services they offer is very essential. Visual maps produced through geospatial technology unquestionably assist in managing, planning and bring alternative solutions to health challenges. This will support policy makers in their efforts to mitigate the potential harms of tourism while, at the same time, responding to the needs of the citizens they serve. According to Minnaert (2014) and Cazes (2000), tourism as a complex phenomenon, should allow participation of disadvantaged persons. Thus accommodation and health information should be as close as possible and fully accessible to a person in a wheelchair without assistance (UNWTO, 2005). Health services information and education system should be designed in a way that allow all users to carry out the actions of moving, grasping, locating, and communicating easily and independently (UNWTO, 2005).

In addition, integration of tourism industry and educational programmes for students is very crucial. Providing customer care and professional training to the staff who are capable on informing and advising to tourists about facilities and services accessibility issues is also vital. Provision of tourism education will be a good way of preparing the human resources to be able to work professionally in the developing the tourism sectors in the tourists' destinations (Sabrina et al., 2020). More educated people who take a part in destination tourism development would depict the better quality of life, for both tourists and local people at the destination (Nugroho, and

Soeprihanto, 2016). The argument is that good tourism education foundation will enhance tourism activities and better performance to the industry (Elly, 2014).

There are many countries including Indonesia and Malasia who have established a tourism education institution, developed curriculum modules on principles of sustainable tourism and specific management techniques, and applied such knowledge (Jurowski, 2002). The aim was to train the students to understand problems existing in sustainable tourism development. Tourism education has been developed to balance the tourism development demand for fulfilling the broader perspective of managing tourism and meet the requirement of tourism industry of sustainable development. Zagonari's (2009) and Hjalger"s (2003) has argued that "closer links between tourist stakeholders and educational institutions is a step towards the professionalization of the entire sector, improving the knowledge base and innovation, and economic capabilities.

Baltaretu (2012) emphasize that education-tourism is increasingly becoming a point that should be considered in the tourism curriculum because in developing tourism we need to educate the tourists, the community, the private sector, even the government in isolated area. In this context, the education can actively facilitate relationships between tourists and local stakeholders at the destination and improve the sustainability of the local economy (Sabrina, 2020).

Ritchie (2009) and Bourdieu (1984) argued that "to understand and appreciate tourist cultural products, people must have a competency cultural capital that allows them to recognize these products and this ability could be gained through "growth, education and other forms of socialization". Thus, the growing number of activities and demand of education-tourism has encouraged the enhancement of tourism occupational competency. This skill would be incorporated in tourism education system. As indicated earlier, many studies including Sabrina (2020) and Popescu and Baltaretu (2012) show the significance of education-tourism, which are; place-based activities, increased tourism business, and economic and social benefits to the host country which are related to the sustainability of this form of tourism in the destination.

Many studies have been conducted in Africa and Tanzania on tourism aspect; however, much of these valuable scholars have been dominated by a philosophy of promoting established attraction and service facilities (Gunn 1994; Gunn & Var 2002) while others focus on particular forms of medical tourism in specific contexts (Edensor, 2015 and ughes, 2016). Despite the striking interest in tourism researches in Tanzania, still many ambiguous questions remain to fully integrate the health and education components in the tourism development researches. Geographical Information Systems (GIS) has been credited by bringing significant positive effects in terms of relevance, usefulness and sustainability in research endeavours (McCall, 2004, 2008). Despite the increased use of GIS in tourism planning in the developing world, there are few examples in Tanzania that have integrated conventional GIS, education and health care components in tourism planning and development. This

situation demonstrates the need for integrating conventional GIS, education and health care components in tourism plan.

Since the success of any tourism business is determined by tourism planning, development research and marketing, the only solution is to apply geospatial techniques for tourism planning. Both tourism and IT are increasingly providing strategic opportunities and powerful tools for economic growth, redistribution of wealth and development of equity around the globe. For example, GIS technology offers great opportunities for the development of modern tourism applications using maps. This technology integrates common database operations such as query with the unique visualization and geographic analysis benefits offered by maps. Today adequate, equitable and easy access to health care facilities by local communities in a specified geographic area is an important issue of human service provision to the individuals living in that area. It is also a challenging issue for both public policy makers (Wang and Luo 2005; Burns and Inglis 2007) and urban planners (Geertman and Van Eck 1995; Hewko 2001) something that can be managed and well planned through GIS technology. Indeed, GIS technology if put in place will add more value to tourism sector and local community and ensure that a wider range of visitors participate in and benefit from tourism sector.

In this paper, elements of both tourism and geo-information sciences are integrated to demonstrate a new GIS-supported approach for sustainable tourism infrastructure planning. This can be achieved by ensuring integrated planning of attraction (natural, cultural, man-made), service accommodation, shops, restaurants, visitor information, tour and travel operations, money exchange, medical facilities, postal services, entry and exit facilitation) and transportation facilities both the physical infrastructure including trails and transportation services).

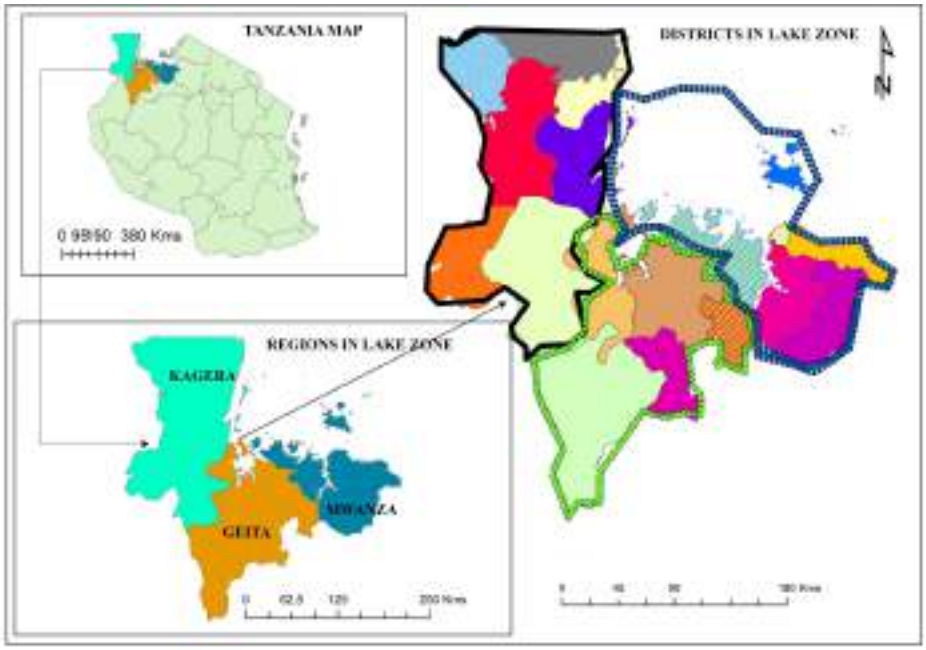
Materials and Methods

Location of the Study Area

The research was conducted in Mwanza, Kagera and Geita Regions. Mwanza region lies in the Northern part of Tanzania, located between 1° 30' and 3°00' S and 31°45' and 34°10' E. It is bordered by Kagera to the West, Shinyanga to the South and Southeast and Mara to the North East. The Northern part of Mwanza is surrounded by the Lake Victoria which is nearly 69000sq kms. and the African largest tropical lake and the second largest fresh water Lake in the world. It is the source of the great Nile River. Mwanza is relatively small region occupying 2.3 percent of total land area of Tanzania mainland and it is the second largest city in Tanzania. It is located in the extreme northwestern part of Dar es Salaam, the commercial capital of Tanzania, and it is host to a number of least known attractions. Beyond this beautiful region which lies on the southern shore of Lake Victoria at 1.134m above sea level, is an altitude that provides the city in particular, and the region in general, with a wonderful view of little Kageye, an historical site that was found in 1800s.

Kagera Region is situated in the northwestern corner of Tanzania. The regional capital is Bukoba Town, which is about 1,500 km from Dar Es Salaam by road. Kagera Region shares borders with Uganda to the North, Rwanda and Burundi to the West, the Kigoma and Mwanza Regions to the South and Lake Victoria to the East. It is located South of the equator between 1° 00' and 2°45'S and 30°25' and 32°40' E. Kagera Region covers a total area of 40,838 sq. km. Out of the total area, 28,953 sq. km. is land and 11,885 sq. km. is covered by waters of Lake Victoria and other water masses such as Lakes Ikimba, Burigi, and Ngono and Kagera rivers.

Geita Region is located in northern west of Tanzania and lies between latitudes 2°8' and 3°28' S and longitude 310 15' and 32° 48' E. The region is 1,100 to 1,300 metres above sea level and shares borders with five regions, namely Kagera Region to the west and north west; Tabora and Shinyanga regions to the south; Shinyanga Region to the south east; Kigoma Region to the south and south west; and Mwanza Region to the north and north east. The region is also bound by Lake Victoria in the north. 2.1.2Administrative UnitsGeita Region, established in March 2012 from parts of Shinyanga, Kagera and Mwanza regions, is one of 31 administrative regions of the United Republic of Tanzania. It comprises of five districts and six councils, one of which (Geita) is a town council.



Source: Author, 2021

Target group

The target group of the study constitutes all key stakeholders from six different sectors: Local communities, local government, Central government, NGOs, Academicians and Tourist guide.

Types and Source of Data

The study used both primary and secondary sources of data. Primary data collected through OpenStreetMap, Field observation and key informant interview methods. Different types of data were acquired including census report; administrative boundaries shape files, roads network, airports location and tourists' services such as hospitals and hotels names, locations and their status. Secondary sources comprised of review of books, journals, reports, files, publications, unpublished materials, statistics and internet sources. Secondary data was collected from documents and records from several relevant institutions and organizations including local, national and international organizations. These include published and unpublished working documents at all levels. Most of the secondary data were based on what has been done or known in relation to the people perception on tourism industry development, challenges and solutions. Information from secondary sources helped to create a state of knowledge on the subject and enable to determine the gap about the subject.

Table 1: Types of data, sources and their purpose

No	Data Set	Type of data	Source of data	Purpose
1.	Detailed Road Network	Primary (Spatial data)	OSM	To measure distance from airport to hotels, from hotels to tourists' health and educational facilities in relation to travel time during peak and free flow hours
2.	Spatial Layer of the Study Area	Secondary (Spatial data)	NBS	To get the extent and delimitation of the area concerned (study area)
3.	Location of airports; hotels; health and educational services	Primary (Spatial)	Field data & OSM	To determine the real location of these services and how their spatial distribution influence accessibility to these services; Data validation
4.	Documents Review	Secondary (Non-Spatial)	Various	To get in depth information on this study from similar studies related to tourists' facilities and accessibility
5.	Latest Census Report	Secondary (Spatial and Non- Spatial)	NBS	To compare the population size with the existing services
6.	Respondent's perception	Primary (Non-Spatial)	Field data	To get the real picture from the study population

Source: Field data (2021)

Data Collection Methods

Primary data were collected thorough three methods namely field observation, key informant interview, digitization of OpenStreetMap.

Field observation method

Under the field observation method, the information was sought by the researcher through direct observation in the field without specifically addressing questions to the respondents. The researcher was guided by a set of definite items through Field Observation Sheet. These were: Potential tourist attractions, education centres, health and accommodation facilities, and services airports locations, roads network and assess their current conditions; discovering new tourist attractions and determining the geographical accessibility to tourist facilities and services in the lake zone Regions. This information is quite useful for sustainable tourism planning for national development. This would have also been of much help in providing solutions to tourist services and facilities use planning in our country.

The technique was employed throughout the fieldwork exercise in order to get information beyond what key informants said. This was particularly useful as key informant interviews were conducted at respondents' homes/office, therefore observing and taking notes augmented on what was said. It also helped to bridge the discrepancy between what people said and what is in actual ground. The researcher took some important points by using handheld GPS, mobile GPS and digital camera in each region. The points were useful in the analysis process as it was possible to establish a link between GPS points and information on the photographs. The observation process was documented by photographs and accurately recording the data obtained.

Semi-structured interviews

Semi-structured interviews were conducted with Municipality town planning officials and selected staff tourism management, tourism officers, community members, local business leaders, local companies, activists, office of director department of tourism. An interview was conducted in each region to gather perception from key stakeholders on different issues related to tourism industry strategic plan, implementation, and achievements, challenges and facilities location. Informants were asked to provide information on perceptions on importance of integrating education and health sectors on tourism development, the importance of practical training in tourism education, improving education, skills, hospitality in education training centers and infrastructure planning and development. Also, the interview provided an insight on how they view health services and education centers accessibility as well as different standards that they consider in planning of services especially commercial and socio-services and its supporting services like transport infrastructure.

OpenStreetMap/Google Earth

Some data that were not found in the field, Google earth and OpenStreetMap were used to supplement the missing data. Google Earth provides the ability to view the earth. It also offers tools for creating new data and a growing set of layers of data, such as hospitals and other tourist attractions. Satellite imagery through Google earth was used to create a base-map and mapping locations of hospitals, commercial services, and education centers, digitizing Lake Victoria and roads network.

Data Preparation and Processing

Sufficient time was used in checking data inconsistencies, errors and incomplete data. The spatial layer of the study area that was obtained from NBS and Open Street Map were verified for accurate analysis. The point locations of health services, education centers and other tourist facilities and services were added into excel spread sheet in form as X-Y coordinates. Spatial reference (Universal Transverse Mercator WGS, Zone_37 S) was added to the shapefile for simplifying spatial analysis. Other spatial points attained from Google Earth were also verified and converted to the selected coordinate system.

Road Network error correction and cleaning

The road network that was used in this study was obtained from OpenStreetMap through QGIS plugin. Due to voluntary collection of OSM data inconsistencies, errors and misinterpretations were observed in OSM roads. Thereby, prior to the analysis OSM data were thoroughly cleaned to avoid errors that would have influenced the results negatively during the analysis. After first road network creation attempt the ArcGIS topology was run to check for potential errors like dangles, pseudo nodes and overlapping. The observed errors were corrected to create a precise and accurate roads network.

Data Analysis

Points spatial data for tourist services, health facilities and education centers were analysed using GIS. Firstly, the shape file point 'feature class type' were placed on the working space of GIS ArcMap for managing and data analysis. In the AcrMap via data view was likely to view and interact with the map. Data view provided a geographic window for map displaying and querying the mentioned data on the map. To query the data for preparing the map, property layer allowed the researcher to use appropriate tab in the Layers Properties dialog box that was opened to incorporate the changes. Under Categories field, the unique values were selected for layer display. This allowed setting layer categories example 'type of 'services' and assigned symbols based on this field. For example, on the map concerning on facility types, each facility type was displayed using specific color and symbol then, the roads network was overlaid. The layout view was used to allow the use of the map layout elements such as titles, north arrows, and scale bars, along with the data frame for map visualization. Thereafter, the maps were exported and saved in JPG format. The map showed tourist facilities and services and identified potential areas

for tourist attraction development.

GIS network analysis O-D cost matrix was used to measure accessibility and proximity (distance-time) from hotels to tourist facilities and services. It was also used to determine the average, minimum and maximum distance from these two points.

Findings and Discussion

The discussion that follows will first and foremost highlight a number of policy documents related to tourism education and health, before the investigator goes down into details on narratives of the variables under the study, so as to ensure a natural flow of the sequence of events as they unfolded during investigator's field experience while exploring issues pertaining to education and health.

Education

Constitution regards education as a constitutional right not a privilege (Ministry et al., n.d.). The constitution of the United Republic of Tanzania of 1977 gives every Tanzanian citizen the right to quality education and decent work. Section 11 (2) spells out that every person has the right to access education, and every citizen shall be free to pursue education in a field of his/her choice up to the highest level according to his/her merit and ability. Section 22 (2) provides that every citizen is entitled to equal opportunities and to equal terms to hold any office or discharge any function under the state authority. This implies that the government has the responsibility to ensure that a conducive environment is created for people to pursue educational programmes up the level of their learning ability and engage in work activities that are commensurate with their competence. Many benefits flow from making training and the opportunity to acquire skills accessible to all women and men. Special measures can help overcome the difficulties some groups face in accessing training – for example, people with disabilities, members of minority groups, or those in need of a second chance (Urt, 1998).

The Tanzania Development Vision 2015 also highlights that "Education should be treated as a strategic agent for mindset transformation and for the creation of a well-educated nation, sufficiently equipped with the knowledge needed to competently and competitively solve the development challenges which face the nation" (pp. 9) (TZA 1999 National Development Vision 2025.

The NSGRP II or MKUKUTA II (2010) strongly highlights on skills development in terms of Improving human resources capacity in terms of skills, knowledge and their efficient deployment and fostering a change of mind-set regarding hard work, patriotism, and self-reliance are among the key objectives of the NSGRP II. Skills development is thus recognized as having the potential to drive economic growth. The low level of local human resource development in terms of quality and skills to serve in more sophisticated undertakings is identified as one of the bottlenecks

to economic development and poverty alleviation among Tanzanians. An improvement in human capital is thus thought to be one of the strategies for unleashing the potential of investing in different sectors. Therefore, the Strategy is aimed at improving the quality of education, and the development of knowledge and skills and ensuring that education and training systems produce the skills demanded by the labor market (MKUKUTA Secretariat, 2010)

National Tourism Policy (1999) sheds some light on how significant tourism education is of paramount importance through its goals which reflect; (i) promoting the provision of formal training in the tourist industry which is occupationally specific and practical oriented; (ii) creating more employment opportunities and ensuring self-sufficiency with regards to human resources in the tourist and hospitality industry; (iii) encouraging and facilitating training in tourism and hotel management for the development of the sector; and (iv) regulating and monitoring institutions that offer hotel and tourism education. Being service-oriented, the tourism and hospitality sector is dependent on human resource development. The shortage of appropriate and specialized core and skilled personnel and poor comprehensive planning of human resource development are recognized as among the constraints facing the tourism and hospitality sectors (MNRT, 1999).

Public Private Partnership policy fosters provision of training to meet labor demand in the tourism market. Due to limited resources especially in terms of human capital it is unrealistic to expect the public sector to be able to put in place the institutional and economic infrastructure required to enable meaningful take-off of the private sector and hence sustainable development (Ministry et al., n.d.). One way that strategies can address this limitation is through a PPP, whereby a government service or private business is funded and/or operated through a partnership with the government, a private sector company (or group of companies) or a private business association. PPP further refers to arrangements, typically medium to long term, between the public and private sector whereby some of the services that are the responsibility of the public sector are provided by the private sector, with a clear agreement on shared objectives for the delivery of public infrastructure and/or public services. (Prime Minister's Office, 2009).

The Education and Training Policy (2014) guides the provision of education and training in the country. Its aim is to ensure that better education and training will fuel innovation, investment, economic diversification and competitiveness, as well as social and occupational mobility, leading to the creation of more but also more productive and rewarding jobs. The promotion and development of human resources and their effective utilization in bringing about individual and national development is one of the major aims of the Policy. This goal is relevant for the development and upgrading of skills in the country which may indicate that the policy is good (Ministry et al., n.d.). In many studies that have been conducted to assess human capital in different sectors a mismatch has been established between the skills required in the labor market and those supplied by the education system.

Tourism education and training institutions in the selected Lakeside regions

The study in education intended to discover as to whether training across the board in tourism sector, provided by institutions under TCU, NACTE or VETA address the market demands broadly in particular lakeside regions namely; Mwanza, Kagera and Geita.

St. Augustine University of Tanzania (SAUT)

The University was established in 1998. It is the successor of the Nyegezi Social Training Institute (NSTI) founded in 1960 by the Catholic White Fathers (currently known as the Missionaries of Africa) under the initiative of Bishop Joseph Blomjous of the Mwanza Diocese. The University extends to over 600 acres in the Nyegezi- Malimbe area 10 km south of Mwanza City. It lies 4 km off the Mwanza- Shinyanga road on the shores of Lake Victoria. As part of Tanzania's central, the area to the south of Lake Victoria is noted for its moderate temperatures. The Institution which is under TCU accreditation among others, offers a Bachelor of Science Degree in Tourism and Hospitality Management (BScTHM). Their syllabus for BscTHM, does not have a course in entrepreneurship, in that regard, graduates won't have knowledge and skills in entrepreneurship; However, the department of Tourism and Hospitality Management, pushes their students to establish tour companies as part of training. The investigator finds this initiative albeit excellent, it is deprived of back-and-forth linkages to their curriculum, therefore it is not sustainable (See Appendix I). In the course of discussion following questions and answers session, a myriad of issues surfaced such as enhanced number of graduates, for instance in the year 2020 a number of students that graduated was 80 and in 2021 academic year the number anticipated to graduate is 140. Moreover, issues of Tour Guide Certification, Establishment of a Board that regulates certification matters, innovative tourism for millennials, Dos and DONTs in Tourism, Ethical matters, unemployment for tourism industry graduates were discussed.

National College of Tourism Mwanza Branch

The National College of Tourism (NCT) Mwanza Branch is a government-owned institution, is under the Ministry of Natural Resources and Tourism, which began its academic operations in the year 2020. Currently the college has 45 students whose 50 per cent of tuition fee is covered by the government. By and large, this college offers Tour Guide operations, Travel and Tourism operations at certificate levels (NTA 5) and a Diploma in Travel and Tourism operations (NTA 6). This institution is one among other sister campuses across the country all of which having accreditation by the National Council for Technical Education (NACTE). The best practice that NCT has, is the inclusion of entrepreneurship in their syllabus. However; the challenge that faces the graduates from institutions such as this is poor mastery of English language as a medium of communication, this causes poor engagement with tourists on the ground due to language or rather communication barrier, eventually tourists miss the opportunity to understand

better about our natural endowment, therefore, they opt to visit a neighboring country whereby, their tour guides are both knowledgeable about the industry with excellent communication skills and a good command of English language. We discussed about the way forward in both short- and long-term basis.

VETA Mwanza RVTSC

This is a Regional Center under the auspices of VETA which is located in Nyakato near Mwanza Textile (MWATEX) in Mwanza City. The college offers vocational training in a number of courses such as Electrical Installation, Food Production, Welding and Fabrication among others. The college is run by VETA. However, despite of enormous tourist attractions available in the region, and in neighboring regions with world class tourist attractions such as Serengeti National Park, this center does not provide training in tourism as opposed to VETA Hotel and Tourism Training Institute (VHTTI) in Arusha, which specifically provides training in Food Production, Food & Beverage Services and Sales, Front Office Operation and Tour Guide. These areas of expertise are essential ingredients in tourism industry (See Appendix II)

Pasiansi Wildlife Training Institute

The Institute under NACTE is located in Pasiansi, within the Mwanza City. The college was established in 1966 as National Resources Institute with the primary purpose of offering game scouts training. Until the mid of 1970s, the primary roles of game scouts were to control problematic animals and in the same vein undertaking anti-poaching activities. Their obligations kept on changing in line with the changing objectives of wildlife conservation. The college offers training in Wildlife Management and Law Enforcement at NTA levels 4 and 5 respectively, with the following admission requirements; holders of Advanced Certificate of Secondary Education Examination (ACSEE) with One Principal Pass and One Subsidiary Pass including Credit Pass in Biology and Geography at Certificate of Secondary Education Examination (CSEE). Other studies which have been done in tourism industry show that, having CSEE or ACSEE certificates does not guarantee one's mastery of spoken English, an ingredient that practically lacks across our products in tourism industry. In my humble opinion the institution must include a credit in English language as one of the prerequisites in addition to Biology and Geography as per their website: https://udahiliportal.com/nacte/registered-colleges/nacte-agriculture/vyuo-vya-kilimo/pasiansi/.

Figure 1: Tourism Education Centres

Source: Author, 2021

VETA Chato

This is a Chato DVTC built under the assistance of the Chinese government. Chato DVTC is the best college under VETA across the country in terms of Iinfrastructures and training tools. We need to leverage the massive investment that has been laid here by the government of China. Chato is endowed with tourist attractions such as Chato Burigi National Park and Rubondo Island National Park both of which, are under the supervision of Tanzania National Parks Authority (TANAPA). However, in spite of such endowment with natural resources and the presence of Chato DVTC, the college does not provide some core training in the value chain of tourism industry, such as Tour Guide Operations or Travel and Tourism Operations apart from the courses currently available, among others, such as Food Production and Food and Beverage Services & Sales.

VETA Ndolage VTC

This is located in Kamachumu, Bukoba. It offers a diverse training in Secretarial Courses, Masonry and Bricklaying, Design Sewing and Clothing Technology and Welding and Fabrication. Despite of tourist attractions in Kagera Region the college does not provide training course in tourism industry. Kagera Region is endowed with a myriad of tourist attractions that need skilled workforce to be able to leverage revenues from the industry. Therefore, it is high time VETA considered to explore the opportunities that would later improve the skilled workforce in the Region.

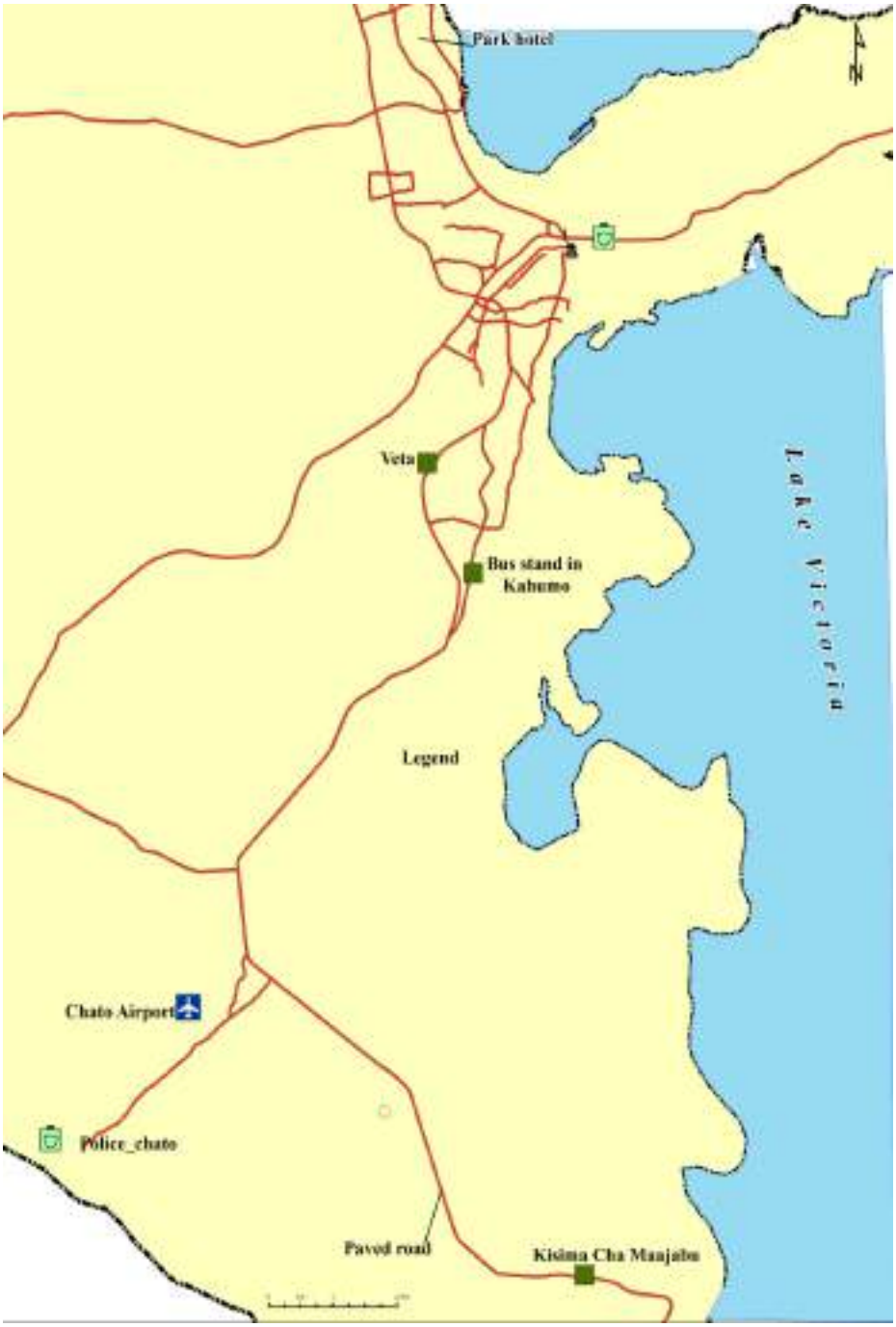


Figure 2: Education Centres

Source: Author, 2021

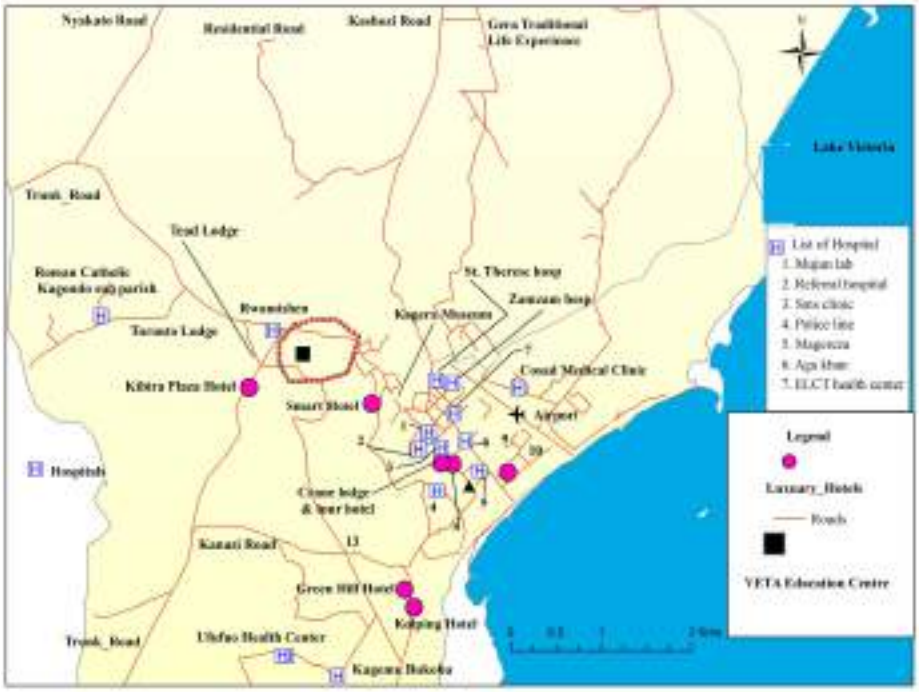


Figure 3: Tourism Education centre and other facilities
[Source: Author, 2021]

After evaluating and assessing the education system that offered to tourism industry. It seems there is a growing need of education inclusion for tourism studies to address the major global challenges and market demand, this also supported by (Cladera et al., 2017) that education would generate significant benefits for tourism industry as it has positive results on business productivity (Belhassen & Caton, 2011). Inclusion of education in tourism sector is very important and fundamental pillar for development (Boyle, Wilson, & Dimmock, 2015). Tourism education has a role in directing tourism towards sustainability awareness, and influencing critical thinking that can help tourist service provider overcome the challenges facing society and encourage sustainable business practices that also stimulate tourism success (Belhassen & Caton, 2011; Slocum et al., 2019). The acquisition of knowledge and skills enable services provider to solve problems and make decisions based on reflection and analysis (Cladera et al., 2019; Connolly & Begg, 2006). Professional skills essential for overcoming crisis situations and students need to be sufficiently qualified so as to address the challenges required in the tourism sector to deal with current global crises

From group discussions that have been conducted in the study area, more than 60% of respondents gave their opinion regarding the education programmes that offered in Tourism sectors by showing that there is a deficiency in the training in

all aspects related to sustainability. One respondent said "fieldwork, use of real cases and practical experiences" are missed in the education system. Problem of languages and advanced technology are also the problems in the universities. The contents of the curriculum are perceived as outdated and not relevant to the global crises. E-learning style and sustainability are mentioned as important components in tourism industry development.

During the group discussions, one respondent mentined that some practical activities conducted in the classrooms, case studies, digital knowledge, Information and Communication technology system and innovative fieldwork activities are not adequately and satisfactory and lack of professionalism. It also observed the travel and food and beverage dimensions of tourism education is often lacking since these require more expensive laboratories and workshops, standards offer little practical specializations, and the literature are largely outdated. According to OMT, (2020) innovation, creativity, co-creation and knowledge acquired through the big data generated and analyzed by ICT are fundamental for the reactivation of the sector, with sustainability as the foundation. The students," tourist guide" and "tourism planner" (Huete, 2007) requires a reinforcement of the knowledge of transversal competencies that enable a better adaptation to the labour market, making the students more versatile.

Providing appropriate destination related tourist information to the right visitors at the right time and the right place is still a challenge and much is needed for next generation of information technologies for tourism industry development in Lake Zones. Recent technology developments based on Geographic Information System (GIS) and satellite images have provided a new way of accessing location-based information. Web Map can provide interactive mapping services as well as realistic satellite images it allows thousands of programmers to tap into the powerful Web mapping service by connecting it with various types of data, (Darlin, 2005). Combined with destination-specific tourist information, Web Map could provide a new way of trip planning and tourist information accessing. The Universities should develop web-based destination information tools for tour guide and an online interactive trip planner. GIS will be used to link the tourism industry and other sectors, by pinpointing synergies that can complement each other. This information will play a vital role to tourists in planning their travel from one place to another, and success of tourism industry.

There is limited systematic record of where the tourists' facilities are, who uses them, how intensively are these facilities used, what is their current state, which areas need facilities upgrade, and which areas no longer need the facilities. Had this information been available on a longitudinal basis, more efficient and optimal planning of park services and facilities could have been possible, thus reducing the need to make management decisions. Tourist's guides should be trained on how to develop geospatial database. This comprehensive database will allow several types of analyses including facility supply analysis, equity analysis, site suitability

analysis, and connectivity analysis. Facility supply analysis will define a geographic region and using the database to show the supply of facilities in that region. Having this knowledge, the tourists service providers will be able to make connectivity analysis explores the linkages of park facilities with other natural and man made features, for example recreation sites within river and stream corridor, bicycle trails, and potential for greenway corridors. This comprehensive inventory allows database users queries of recreation use at different scales.

Table 2: Opinions from Respondents on Teaching Content in Tourism Education Centres

Opinions	Grade
Lack of practical real-life training (resolution of conflicts, crisis adaptation, international experiences, policy learning)	1
Insufficient language training	5
Little and/or out-of-date technological training that needs to be updated	2
Lack of transformational learning strategies (in ethics, empathy, emotions, creativity and critical vision)	4
The contents are not connected or integrated with Information Communication Technology	3
Lack of laboratory and teaching infrastructure	6

Source: Fieldwork, 2021

Majority of respondents who interviewed said 'Tourism degree should focus much more on the professional activity, learning should be more practical and curriculum should be reviewed to meet the market demand. Tourism sector should be integrated with information Technology system (IT). There is a lot of theoretical material which is completely outdated and is still taught."

The objective of establishing the Tourism Degree in any country is to acquire the necessary knowledge to be employed as professionals in the sector (Ceballos Hernández et al., 2010). However, the findings reveals, the effectiveness of this aspect is being questioned almost in all education centers in the lake zons for the reason that the curricula is lagging behind the current needs of sustainability. There is a perception that skills taught at universities and professional institutions are poorly aligned with the needs of students and world demand (World Bank 2016). In order to be benefited from this industry and meet market demands, the changes on curriculum and pedagogical style for higher education in tourism sector are highly required. The crisis of shortage of staff and outdated curriculum in tourism institutions sector require a response from the higher education Institutions, which must include them in its research agenda but also in the training of future professionals of this sector. The impotance of changing curricula has also highlighted by (Zenker & Kock, 2020) and (Ayikoru, Tribe, & Airey, 2009). New pedagogical techniques that

contemplate online education or e-learning.and reviewed curriculum are required to provide flexibility, to meet current laboour market and develop students' capacity to solve complex problems as a part of a future path towards sustainable tourism and education (Edelheim, 2020); (Hales & Jennings, 2017). Old curriculam and pedagogical style should be replaced with market-oriented learning (Ayikoru et al., 2009; Pearce & Lee, 2005; Slocum, Dimitrov, & Webb, 2019; Tribe, 2002a). As a result, these curricula place an emphasis on job-skills, entrepreneurship and industry training in order to address the preferences and expectations of students as customers (Slocum et al., 2019),

In wide interpretation, findings reveal that, the tourism degree offered is not only fails at teaching a value-based education towards sustainable tourism as it has been shown in the syllabus, but also it is not giving students the practical skills they need to enter the labour market. Therefore, the governments need to support the revision of educational standards for tourism development and the introduction of updated and revised curricula. Education reforms are needed in higher education institution in lake zones. Theoretical education, practical and entrepreneurship courses could be offered at the Universities on a full time basis, a part-time basis and E-learning style to extend access especially to the working population. Also, a short course for re-skilling and up-skilling of tourism skills, such as training of ecotourism tour provision, sports, lifelong learning experience and hospitality are required. In addition, language certificates could be offered such as Test of English as a Foreign Language or Cambridge Assessment English. While entrepreneurial skills and capacity building in tourism are crucial aspects of the sector's functionality and traction, effective governance and leadership are also fundamental to inspire the leaders of tomorrow, inform the thinking of political and business players and ensure sound policy and strategy-making in the future. The Akilah Institute opened in Kigali (Rwanda) in January 2010. It offers a unique model of market-relevant education that enables young women to achieve economic independence and obtain leadership roles in both the workplace and society. Aside from the technical abilities in business, technology and hospitality, leadership development, public speaking, and communication are among the skills that the young women are imparted with. The institute started with only 50 students, one programme and seven staff, but it has since grown to 355 students on campus, 145 graduates in 2015, 88 percent of which launched their careers within six months of graduation, earning nearly twelve times the national median income.

Infrastructure in colleges also needs to be looked at very closely and given priority. Teaching facilities need to be constructed and rehabilitated to improve practical instruction and training. Besides provision of modern classrooms and dormitories, laboratories and, workshops for practical tourism education need to be equipped. Such laboratories and workshops should include school hotels in which hospitality training could take place; school restaurants and bars in which food and beverage training could be practically provided, information and communication technology laboratories to train tourism-relevant computer programs, simulate call centers,

conduct tourism research, etc.; language laboratories to intensively train students in English and other languages relevant for tourism sector, adventure and ecotourism laboratories and gymnasiums to train students in first aid, outdoor equipment. The aim is to increase core technical and vocational education and training, and lifelong learning and development of skills which will help to achieve the full social, economic and cultural potential of the tourism sector. In addition, this will set tourism on the right path to ensure its maximum contribution through more equitable access to natural resources, economic growth, national progress and a destinations' global competitiveness all under the umbrella of sustainable development.

According to the World Tourism Organization (UNWTO), "a well-trained and skillful workforce is crucial for tourism to prosper. The sector can provide incentives to invest in education and vocational training and assist labour mobility through cross-border agreements on qualifications, standards and certifications. In particular youth, women, senior citizens, indigenous peoples and those with special needs should benefit through educational inclusion, where tourism has the potential to promote inclusiveness, the values of a culture of tolerance, peace and non-violence, and all aspects of global exchange and citizenship" (UNWTO, 2015).

Apart from infrastructure development, in order to improve tourism sector and people enjoy the fruits from tourism industry, the quality primary; secondary and tertiary education should include a set of multifaceted programmes and initiatives, which creatively span across all the programmes. The tourism programmes should be embedded within each stage of the educational system – from primary, to secondary and tertiary level.

Educating children and young learners about tourism is very crucial for many reasons. It provides the opportunity to expose and enable them to distinguish bad from good at an early stage of their education, but also to recognize the direct impact tourism has on their lives. Tourism can also be a vehicle to enhance children and youth awareness about the natural environment within which they live. Appreciating indigenous wildlife, children and youth may become better equipped to grasp the importance of conserving certain species.

Quality education and training will shape and enable a better business environment grounded in local business, management and finance skills whereby public and private sectors' employees will become capable of learning from the past, reflecting on the present, building resilience and managing change for the future, without the need of constant external technical assistance and/or funding (Novelli, 2016).

Tour operators, airlines and others involved in the supply chain have also an opportunity, to informally educate tourists and community members through information in their brochures and web sites, videos on the flight, training camps, interaction with their employees and younger generations in the communities affected by tourism, before during and after the visit.

Promoting "medical tourism" as a complementary product

Medical Tourism is one of the hottest global phenomena and is an important emerging segment of Tourism. Medical Tourism refers to a vacation that involves traveling across international borders to obtain a broad range of medical services. It usually includes leisure, fun, and relaxation activities, as well as wellness and health-care service (Gaines & Lee, 2018). The prior arrangement and eventually arrival at the destination of choice creates an entire satisfying experience for the patient or guest which can lead to loyalty, if performance in the entirety of the process, is done at the highest degree of excellence. Hospitality and Healthcare services working in harmony and rhythm will play a critical role for success (Healthcare, 2017). However, there is a difference between Medical Tourism and Health Tourism. Medical Tourism means a necessary medical treatment, but Health Tourism includes spa facilities, wellness and beauty care (Borg et al., 2017). Medical tourism can be defined as the provision of cost-effective medical care to patients in collaboration with the tourism industry. This process is usually facilitated by the private medical sector, whereas both the private and public sectors are involved in the tourism industry (Gaines & Lee, 2018).

"Public-Private Partnerships (PPPs) concept entails an arrangement between public sector and private sector entities whereby the private entities renovate, construct, operate, maintain, and/or manage a facility in whole or in part in accordance with output specifications. The private entity assumes the associated risks for a significant period of time and in return, receives benefits/financial remunerations according to agreed terms; which can be in the form of tariffs or user charges. PPP is therefore a cooperative venture built on the expertise of each partner that best meets clearly defined public needs through the most appropriate allocation of resources, risks and rewards" pp 1. (Prime Minister's Office, 2009)

The Tanzania Public Private Partnership (PPP) policy document clearly sets a tone that Tanzania will pursue partnership with different stakeholders in her search for development and wellbeing of her people. However, the Tanzania National Health Policy of 2017 (MHCDGEC, 2017) does not address the matter of Medical Tourism, however the PPP policy provides the room for partnership between Public and Private Sector (Prime Minister's Office, 2009). Having that said, the investigator did a survey on the possibility of establishing Medical Tourism in one of the Lakeside regions on the basis of Public Private Partnership.

What drives Medical Tourism

There is an increasing number of folks seeking healthcare management beyond their country of residence. More mobile populations that seek access to information about international medical treatment alternatives have influenced a booming medical tourism industry (Borg et al., 2017) The propensity for Medical Tourism is mostly motivated on the concepts of push and pull factors according to a number of studies (Gaines & Lee, 2018). The push factors are related to the cognitive process

and internal socio-psychological motivation of the individual to travel (Borg et al., 2017). Most often the push factors originate from the intangible or intrinsic desires of human beings, including the desire for escape, novelty seeking, adventure seeking, dream fulfillment, self-exploration, rest and relaxation, health and fitness, prestige, and socialization (SAIPRASERT, 2011). On the other hand, pull factors are the external forces emerging from the attributes that attract the individual to a specific destination and establish the actual specific destination choice. Moreover, pull factors have been characterized in terms of both tangible and intangible features such as natural and historical attractions, physical environment, infrastructure, sport and recreation facilities, food, people and the marketed image of the destination (Allison, 2015; SAIPRASERT, 2011). In Tanzanian context, there are world class conservations under TANAPA, TAWA, TFS and NCAA just to mention a few. In contrast to the perspective of explored push and pull factors separately, researchers have suggested that push and pull factors should not be viewed as being entirely independent of each other but rather as being as fundamentally related to each other (Bruwer et al., 2018).

Medical Tourism is important because of foreign earnings that medical tourists bring to the economy and experiences the tourists encounter. However; with the growing presence of much focused social media platforms which provide relevant information about the medical tourism destinations, medical procedures with their associated costs, and tourism attractions, the decision making regarding their trip for potential medical tour will become much more facilitated. Therefore, medical tourism potentials have a good cause to seek out care far from home (Healthcare, 2017).

Medical Tourism in Tanzanian Context

Most recently, major investments in healthcare in Tanzania have enhanced the availability of specialized services transforming the country into a minor destination for Medical Tourism. Investment in specialized services has reduced the number of patients seeking medical treatment abroad. The Ministry of Health used to refer 200 to 300 patients abroad annually, but this number has dropped to less than 60. The number of individuals paying for treatment abroad now is believed to be small.

Before the services were introduced at home, the government spent billions of shillings to cover the cost of medical treatment for Tanzanians, who were referred abroad. major improvements in the health sector could enable the country to become a minor medical tourism destination in public hospitals and earn the government revenue. For example, the Jakaya Kikwete Cardiac Institute (JKCI) can now handle complicated cases that were being referred abroad. JKCI serves patients from across all the regions in Tanzania and the island of Zanzibar, who are referred from regional referral and designated district hospitals for tertiary level cardio-vascular medical care.

Health Facility in Chato

In Chato District the investigator found the new infrastructures still under construction meant to be a zonal referral hospital. After its completion the facility will be very close to tourist attractions within the locality namely Rubondo Island National Park, Chato Burigi National Park and other tourist attractions within the lakeside regions. Chato district is accessible by a tarmac road, water and air. The lakeside regions under this particular study involved Mwanza, Kagera and Geita Regions. The investigator visited facilities with the potentials in terms of establishing PPP in its operations namely Bugando Medical Center, Sekou Touré Hospital, Geita Regional Hospital, Chato District Council Hospital, Rubondo Island TANAPA dispensary, CF Hospital. Potential hospitals that were not visited were Tanzanite (aka Uhuru Hospital and Waja).

Chato is fortunate to have a large lake region referral hospital. The main goal is to improve health service delivery reduce the gap of health professionals in public hospitals. This also will provide the relief to Lake Zone dwellers who incurred by travelling to Dar es Salaam seeking medical treatment. A lot of people from Kigoma, Kagera, Mwanza and Geita who had been travelling miles in the search of health care treatment can easly access services at Chato.

The chato referral hospital is located very close to the guest houses and tourist hotels. The distance from Park hotel to the hospital is about 6.1 kms, from Chato beach hotel is 5.2 kms and JS hotel is 17kms

Table 3: Distance from Chato to Referral Hospital

Name of the Hotel	Distance (in kms) to Chato Referral hospital
Park hotel	6.1
Chato Beach hotel	5.2
New star hotel	2.2
JS Hotel	17.2
GM	1.9
Bus Stand	5.7
Airport	14.8
Police station	0.5

Source: Fieldwork, 2021

Plate 1: Chato Referral Hospital

Plate2: Chato Referral Hospital

A part from this large hospital, Chato also has small hospitals, dispensary and medical shops which can provide medical services to visitors and locals see figure

In terms of tourist accommodation and essential social services, Chato has a large luxury hotel nearing completion (Park hotel). It also has small hotels that are safe and have tourist status which are all located close to the referral hospital, police station and social services. Large parts of the city have paved roads and night lights which are an indicator of the safety of people and their property

Table 4: Geographical Location for Tourist Hotels in Chato

S/N	x	y	Hotel Name	Status
1	362889	9708176	Marine hotel chato	Standard
2	361618	9707341	GM Hotel	Standard
3	361749	9707126	New star lodge	Standard
4	361436	9707373	lubimbi lodge	Standard
5	360897	9707571	jaj lodge	Standard
6	360628	9707608	tz house lodge	Standard
7	360011	9708570	king davis lodge	Standard
8	360307	9708340	witness lodge	Standard
9	359838	9709305	life lodge	Standard
10	360937	9710531	Chato beach hotel	Luxury
11	359752	9695398	JS Hotel	Luxury
12	362262	9708586	Glory lodge	Standard
13	362626	9708638	ludomya lodge	Standard
14	362647	9708275	SK Classic lodge	Standard
15	362665	9708120	Jabutur lodge	Standard
16	362676	9708037	Itisan health center	Standard
17	362679	9707953	ludomya lodge	Standard
18	362864	9707974	JJB lodge	Standard
19	362995	9707971	Roda lodge	Standard
20	363013	9708105	Kagudule lodge	Standard
21	363024	9708257	Magufuli guest house	Standard
22	362891	9708341	Sunlight modern hotel	Standard
23	362835	9708490	New dian guest house	Standard

S/N	x	y	Hotel Name	Status
24	363421	9708344	ELCT Nyumba ya vijana	Standard
25	363896	9708748	SF Lodge	Standard
26	360054	9711425	jiwe la msing park hotel	Standard
27	360201	9711312	park hotel nyota 3 tampa	Luxuary
28	361059	9707823	JJA Lodge	Standard
29	361097	9707808	Maratha lodge	Standard
30	361399	9707278	RA Lodge	Standard
31	361125	9707352	Energy hotel chato	Standard
32	362528	9708288	Jengo la Magufuli shule ya msing	Standard

Source: Fieldwork, March, 2021

Table 5: Geographical Location for Bank service in Chato

S/N	x	y	Bank Name
1	362711	9708350	TPB BANK CHATO
2	361131	9707449	NMB BANK
3	359954	9708733	CRDB BANK
4	359784	9708802	NMB BANK
5	362906	9708444	BANK OF ABC

Source: Fieldwork, March 2021

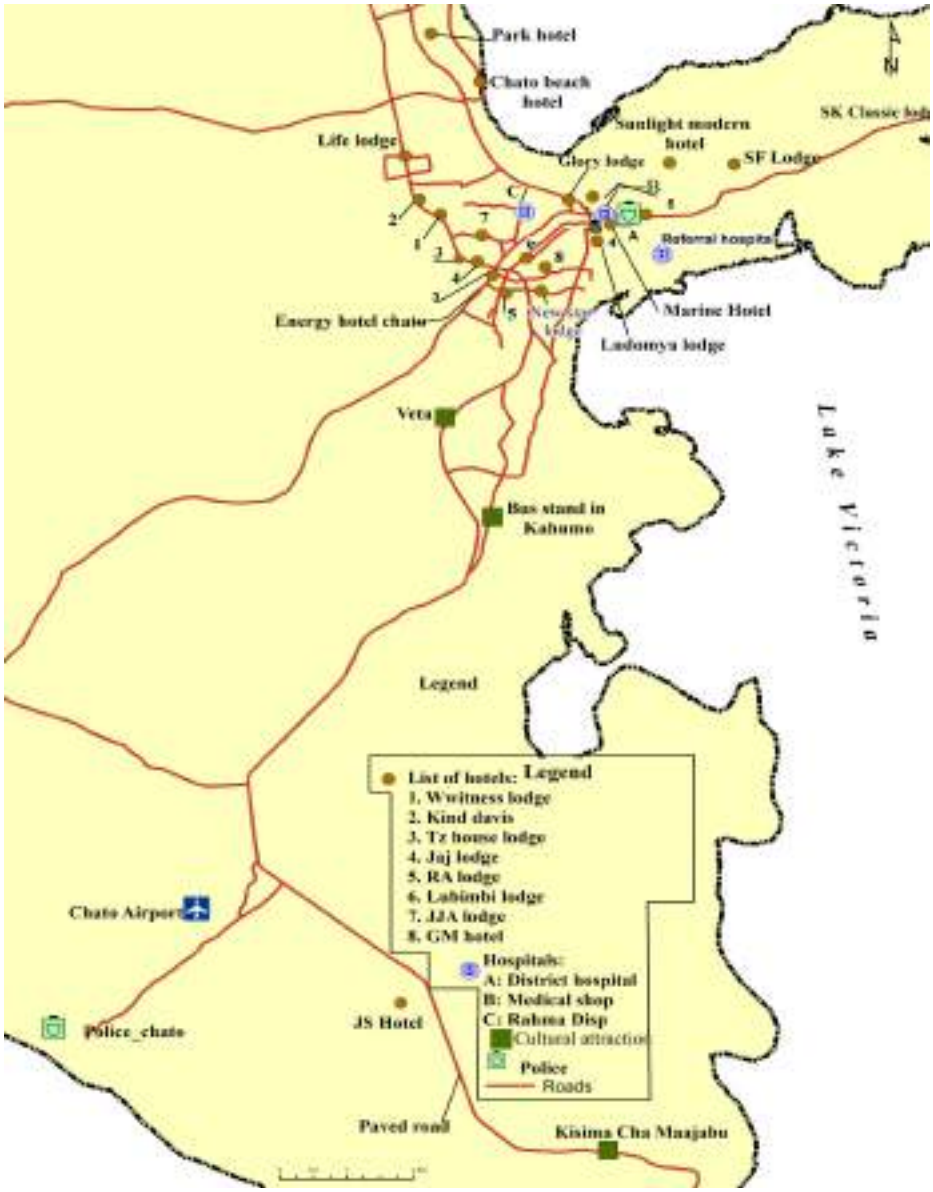


Figure 5: Healthcare Facilities in Chato
Source: Author, 2021

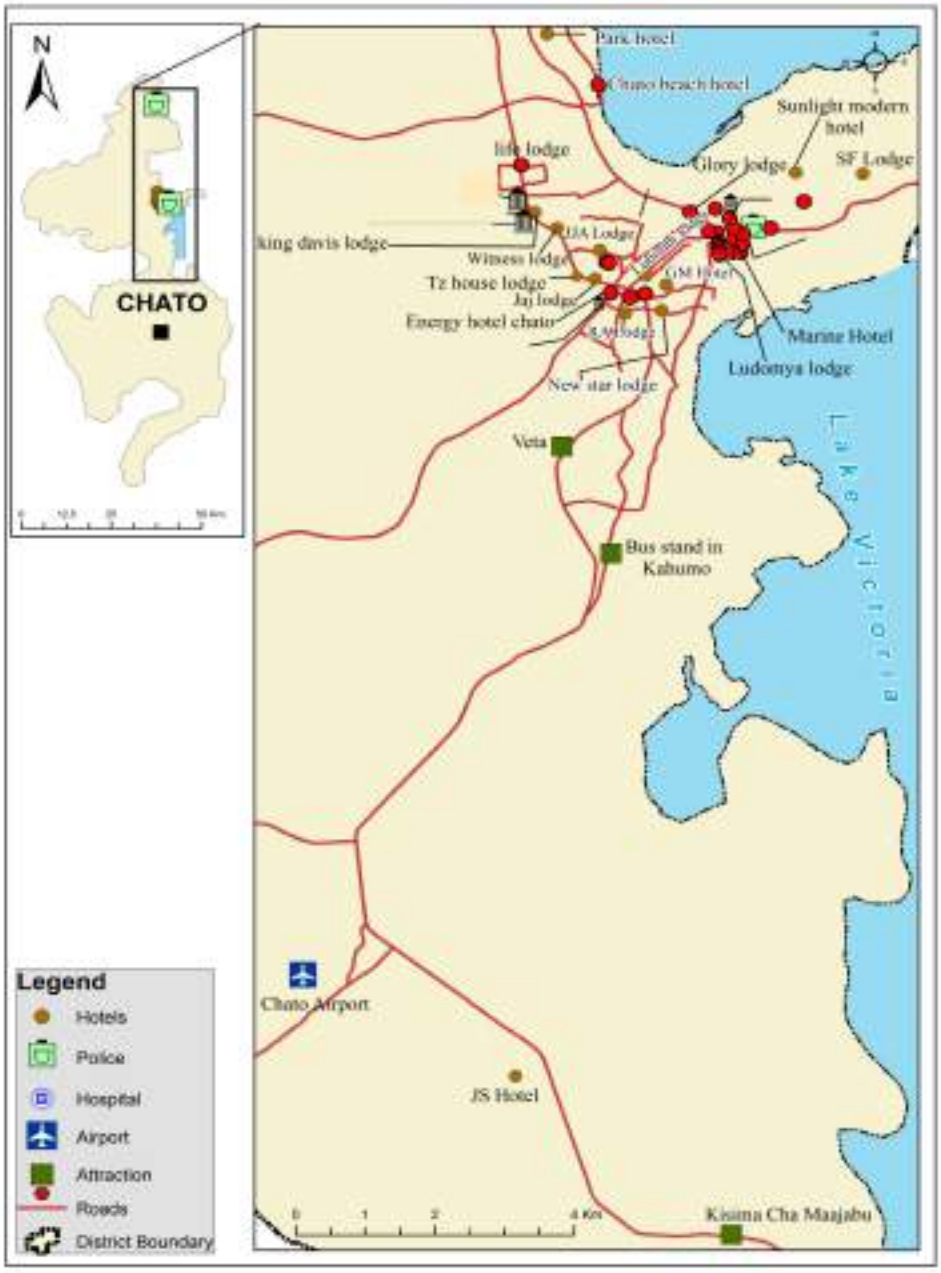


Figure 5: Healthcare and Hotel Facilities in Chato [Source: Author, 2021]

In Kagera

Kagera is one of Tanzania's 31 administrative regions. The region is located in the north-western corner of Tanzania on the western shore of Lake Victoria. The region neighbours Uganda, Rwanda, and Burundi and lies across the lake from Kenya. The region was known as West Lake before June 1979. The regional capital is the city of Bukoba.

Bukoba is a district that has many medical services facilities which include hospitals, health centers, Drugs/Chemists, medical stores, pharmacies, clinics and dispensaries which are run by the central government, BMC and by private sector operators. The main goal of these health facilities are to provide holistic quality health care to the community of Bukoba District Council whereby physical, emotional, mental and spiritual needs are met and balanced peaceful and joyful life. Bukoba has many health facilities that provide services to residents, districts and neighboring regions as well as visitors. These health facilities are located very close to guest houses and tourist hotels. However, only some of the health facilities located near the guest houses and tourist hotels are shown on the map.

On average, tourists travel 2.3 kms from homes to Bukoba Referral hospital to get health services. Victoria and Crane Tour hotel seem to have their services a bit closer to homes (0.6km) compared to Kibira Plaza hotel who travel about 7.5 kms to the facility. But by looking at just the health facility, the tourist will not walk more than 870m from the hotel, there are those who will walk no more than 150 m to get health care. On average no tourist will walk more than 550 m without access to health care and treatment

Table 6: Distance from Hotels to Bukoba Referral Hospital

Name of the Hotel	Distance (in kms) to Bukoba Referral hospital
Smart Hotel	1.2
crane lodge and tour hotel	0.6
Victoria perch	0.6
ELCT Hotel	1.5
Green hill hotel	2.4
Kolping hotel	2.5
Kibira plaza hotel	7.5
Airport	1.7
Police station	0.7

Source: Fieldwork, 2021

Table 7: Geographical Location for Health services in Kagera

S/N	X	Y	Description
1	362855	9851659	ST John dispensary
2	368244	9852297	Magereza
3	367953	9852903	ELCT Health center
4	367680	9852664	Bukoba districtl Hospital
5	367762	9853255	ST Therese bukoba
6	367934	9853230	Kituo cha afya zamzam
7	365954	9853787	kituo cha afya rwamishen
8	367773	9852091	Line police dispensary
9	366676	9850128	Zahanati ya kagemu bukoba
10	366114	9850334	Ufufuo health center
11	366065	9850338	Othodox hospital
12	367820	9852540	Bukoba sms clinic
13	368088	9852615	The Aga khan poly clinic bukoba
14	367681	9852708	Mujuni medical laboratory
15	367568	9852526	bukoba regional referral hospital
16	364064	9853938	Roman Catholic church kagondo sub parish
17	362295	9856910	katoma hospital
18	354906	9865819	Mugana hospital
19	359640	9838026	kanazi health center
20	273587	9808607	Nyakaiga hospital
21	274460	9810754	Nyakaiga hospital
22	293195	9822665	Nyakahanga designated district hospital
23	328699	9828160	Izimbya designated district hospital
24	265006	9836259	Nkwenda health center
25	295893	9835242	Karagwe district hospital
26	242677	9858883	St Mary's hospital Isingiro
27	242825	9858975	Saint Mary Isingo hospital
28	308082	9865842	Kagera sugar hospital
29	240454	9882310	Murongo health centers
30	323702	9889357	Emmanuel machimbya
31	360150	9880444	Kabambilo hospital
32	354905	9865817	Mugana hospital
33	367343	9857760	Zahanati ya buhembe
34	362295	9856909	katoma hospital
35	367568	9852526	Bukoba provincia hospital
36	355859	9828918	kagondo hospital
37	356431	9829012	st joseph hospital kagondo

S/N	X	Y	Description
38	328574	9828165	izimbya hospital
39	364064	9853940	roman catholoc church kagando parish
40	367681	9852709	Mujuni medical laboratory
41	368660	9853175	cosad medical clinic
42	297443	9836603	kishoju village dispensary
43	294957	9830410	Family dispensary
44	349345	9822588	Ndolage hospital
45	346596	9806304	Rubya disignated district hospital
46	338805	9804153	Rwantege health center
47	350804	9796393	Muleba hospital
48	338803	9804158	Rwantege health center
49	238087	9724297	Murgwanza hospital
50	2382218	9723930	Nyamaiga hospital
51	240835	9723734	Nyamaiga district hospital
52	240822	9723744	Nyamaiga hospital
53	239385	9721962	Amen private dispensary
54	236742	9699084	Rulenge hospital
55	236723	9699081	Rulenge district hospital
56	358049	9737838	Mganza kituo cha afya
57	315973	9708767	Biharamulo disignated distrct hospital
58	312412	9708804	Biharamulo health science training college BHSTC)
59	312650	9708750	Mission hospital teule
60	312570	9708711	Chato hospital
61	330401	9691014	Kikomakoma health center
62	275973	9687069	Nyakahura health center

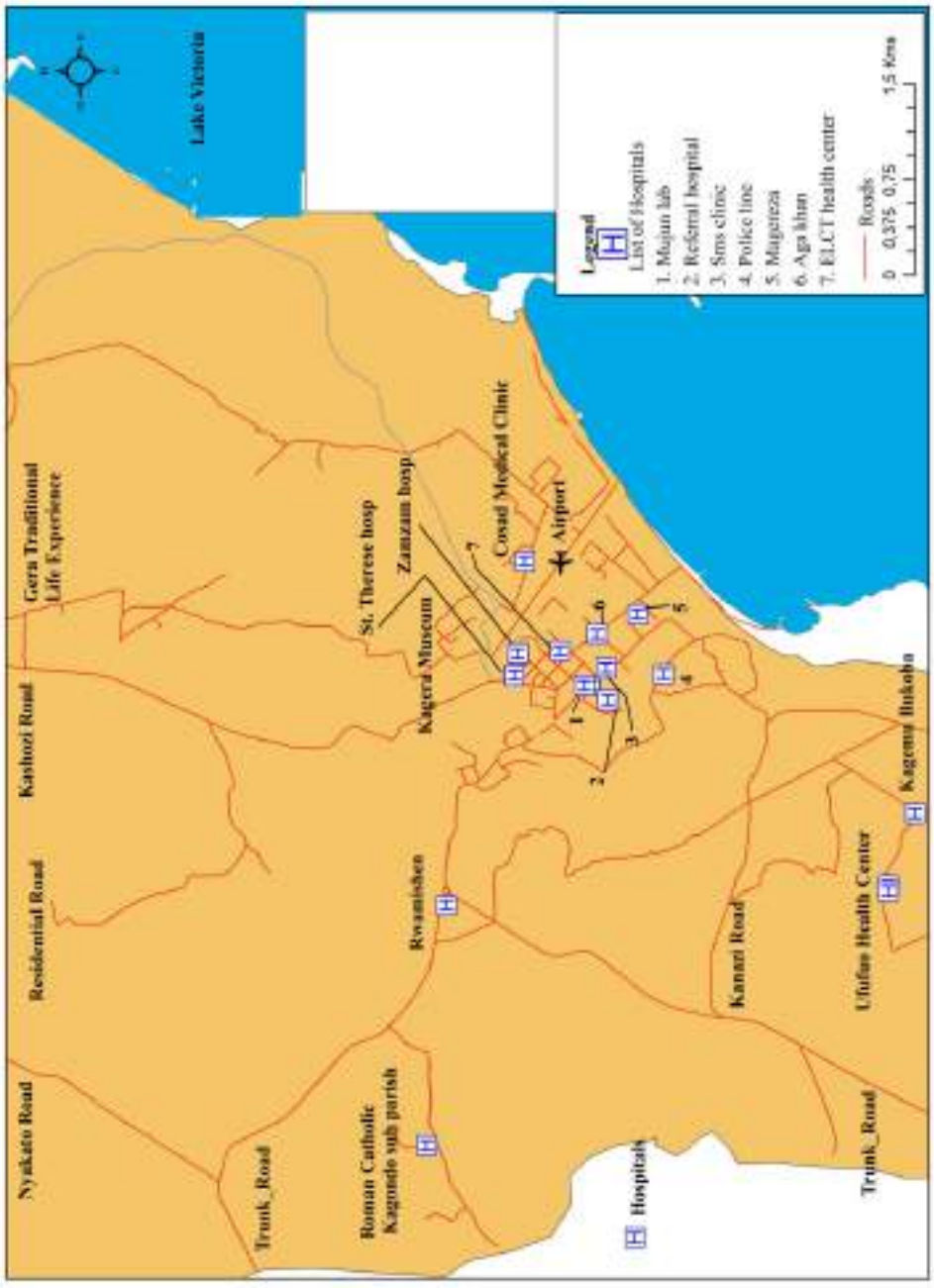


Figure 7: Health Facilities in Bukoba [Source: Author, 2021]

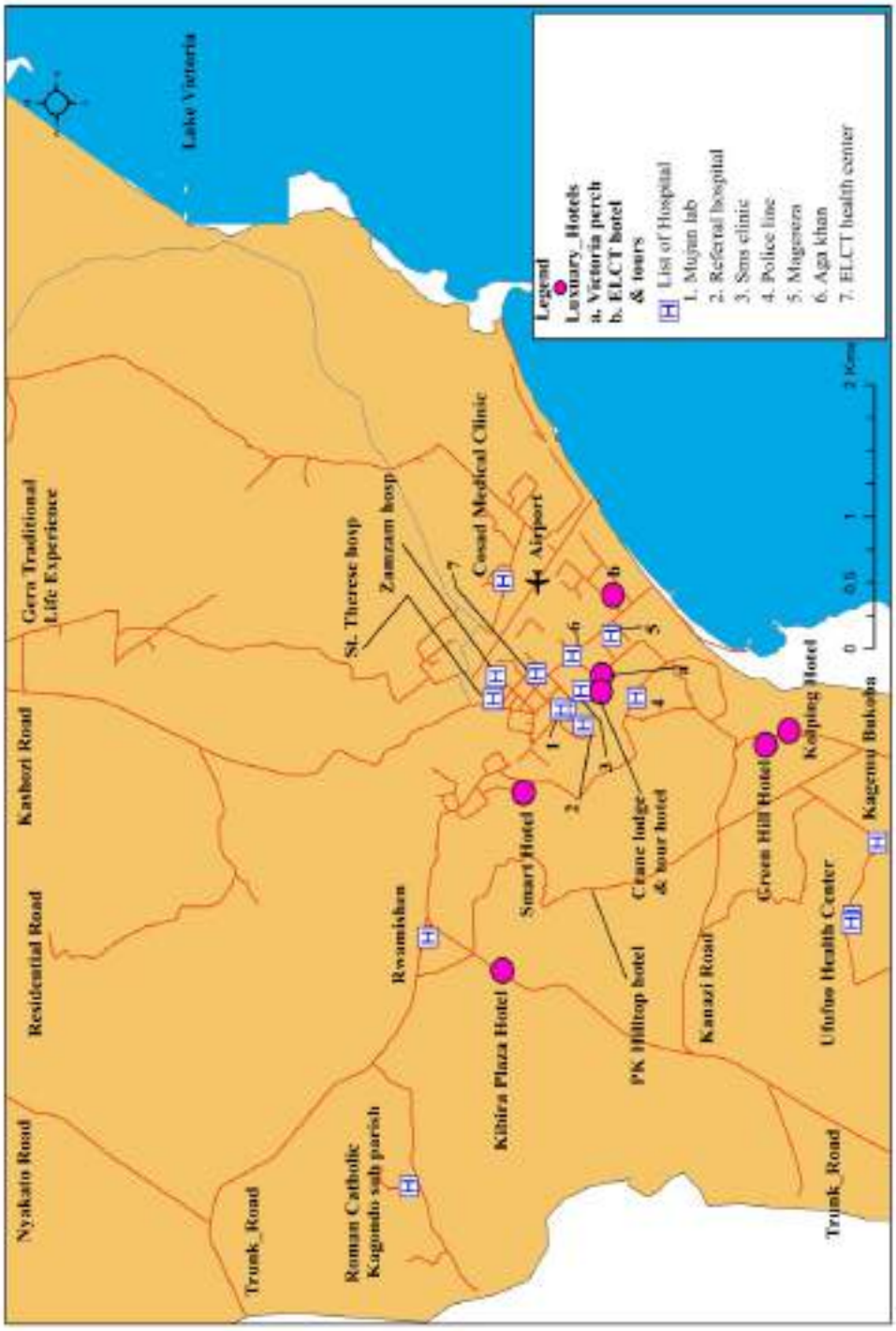


Figure 7: Health and Hotel Facilities in Bukoba [Source: Author, 2021]

Bukoba District also has large luxury hotels for locals, districts and neighboring regions but also for local and foreign tourists. Hotels especially the luxury ones have a good environment inside and outside the hotel, all services are available including food services but are also surrounded by essential social services such as banks and police stations so even security is high level

Table 8: Geographical Location for Hotel services in Bukoba

Id	X	Y	Description	Status
1	368106	9851292	Bukoba Coop hotel	Standard
2	367523	9850848	Kolping hotel	Luxury
3	368221	9852220	Fios hotel	Standard
4	368046	9852312	Walkgard Aannex	Standard
5	368128	9852361	New upendo hotel	Standard
6	367945	9852367	Victorious Perch hotel	Luxury
7	367919	9852389	The walkgaed transit hotel	Standard
8	368553	9852279	ELCT Bukoba hotel and tours	Luxury
9	366358	9852473	PK HillTop hotel ltd	Standard
10	365888	9852573	Annex Smart hotel	Standard
11	367417	9851037	Green hill hotel	Standard
12	367744	9853092	Ruabizi hotel bukoba tanzania	Standard
13	367870	9819369	bukoba orient hotel	Standard
14	368137	9852678	lake hotel	Standard
15	368710	9852509	ELCT Bukoba hotel and tours	Luxury
16	364670	9853922	Toronto lodge	Standard
17	365701	9853175	Kibira plaza hotel	Luxury
18	368345	9852968	Airport transit	Standard
19	367824	9852393	Prince motel	Standard
20	367819	9852374	Prince lp motel	Standard
21	368271	9852395	Coffee tree hotel	Standard
22	367939	9852445	CMK Lodge	Standard
23	367810	9852365	Cranes Lodge and tour hotel	Luxury
24	367797	9852565	FK Double lodge	Standard
25	367695	9853171	Bugabo house hotel	Standard
26	367293	9853164	The sky motel	Standard
27	367227	9853320	Michigan guest	Standard
28	367134	9853431	New super star	Standard
29	366868	9853480	Hamuegembe new lodge	Standard
30	365785	9853472	Tead lodge	Standard
31	367069	9853033	Nyota guest house	Standard
32	367053	9853004	Smart hotel	Luxury

Id	X	Y	Description	Status
33	368621	9852616	smart hotel airport	Standard
34	368899	9853095	smart hotel airport	Standard
35	226796	9760934	Kibungo center st joseph	Standard
36	238250	9723947	Guest house kibungo	Standard
37	239073	9722138	KGB lodge	Standard
38	239346	9722940	Amahoro hotel	Standard
39	239656	9723083	Ngara guest house	Standard
40	217800	9707392	Tumaini letu hotel	Standard
41	204984	9685644	Green hill hotel	Luxury
42	204593	9685464	Hotel icezanye	Standard
43	288737	9684140	Lvender lodge	Standard
44	311556	9709010	Boma guest house	Standard
45	312323	9708698	Annex lodge	Standard
46	312249	9708264	Giraffe lodge	Standard
47	312694	9708051	Bindo lodge	Standard
48	313289	9707751	The new aspect hotel	Standard
49	313470	9708032	Star light bar and hotel	Standard
50	312278	9707546	Pamlo baswage and philipatha mulenda	Standard
51	342735	9814116	Augustine B&B	Standard
52	349985	9796250	Nalphin hotel and night club	Standard
53	323655	9889421	RK hotel	Standard
54	265098	9836785	New Passion hotel	Standard
55	265406	9835475	New passion hotel	Standard
56	265410	9835481	Lotionizer park hotel	Standard
57	265314	9835025	New garden modern hotel	Standard
58	366702	9851454	Umura rock	Standard
59	367948	9852895	Perfect motel	Standard
60	366978	9853656	Praise lodge	Standard
61	367114	9853552	Lantana classic hotel	Standard
62	367006	9853562	Oasis lodge	Standard
63	367141	9853049	New Deira lodge	Standard
64	367495	9850892	Bukoba kolping hotel	Standard

Table 9: Geographical Location for Bank services in Bukoba

S/N	x	Y	Bank Name
1	368068	9852645	Mkombozi commercial bank
2	367971	9852853	NMB ATM
3	367937	9852788	NBC BANK
4	367900	9852751	Finka bank
5	367867	9852741	Western union
6	367989	9852517	NMB KAITABA
7	367662	9853024	CRDB BANK
8	367478	9852918	Western union
9	367495	9852933	TPB BANK

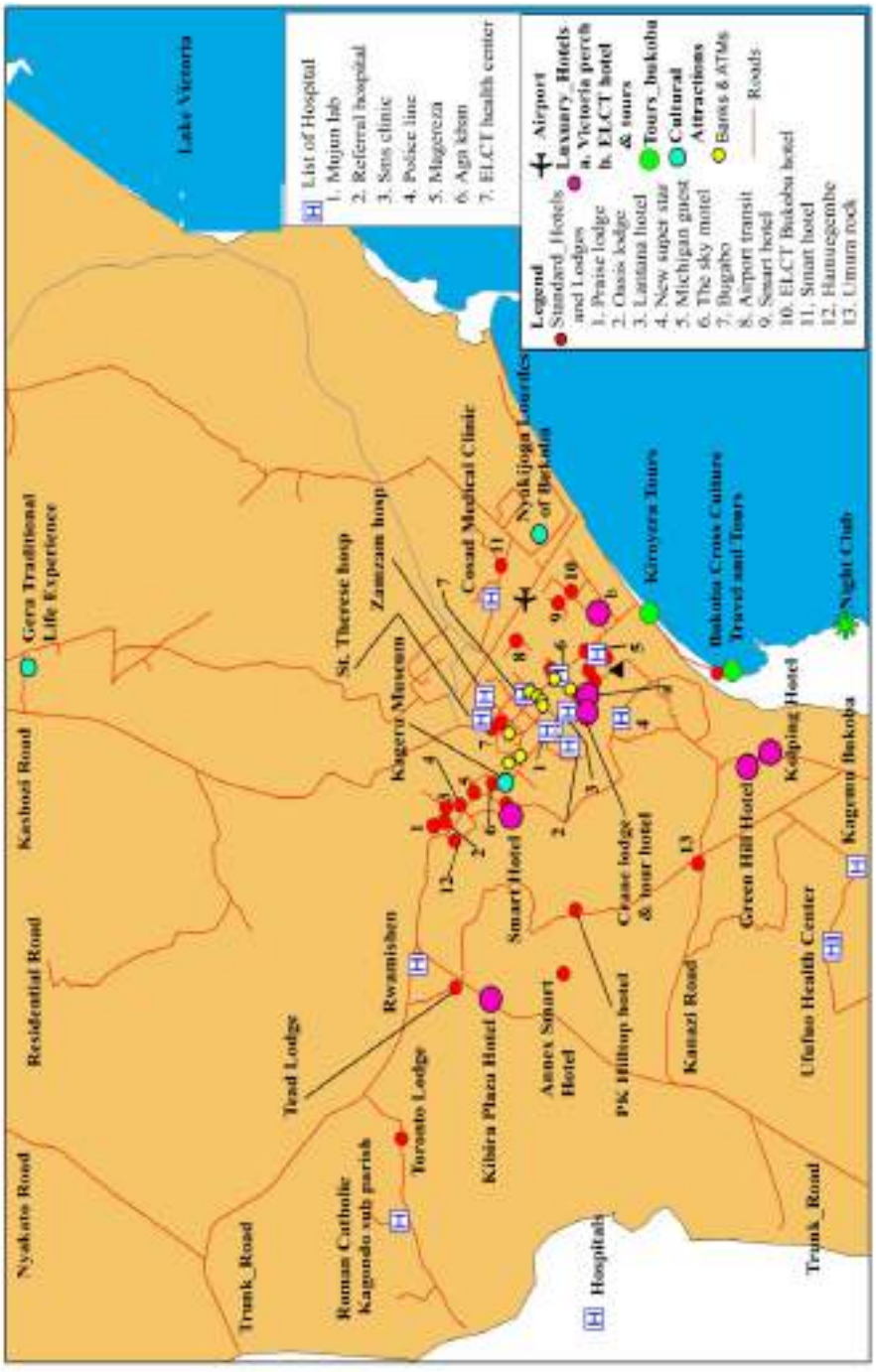


Figure 8: Health and other social services in Bukoba [Source: Author, 2021]

Mwanza

Mwanza Region is one of Tanzania's 31 administrative regions. The regional capital is the city of Mwanza. Mwanza region is home to Ukerewe Island, the largest lake island in Africa as well as Saanane Island National Park, the smallest national park in Tanzania. The neighboring regions are Geita to the west, Shinyanga to the south, and Simiyu to the east. Furthermore, Lake Victoria borders the region's north frontier.

Sekou-Toure' Hospital in Mwanza is a Regional referral hospital for the entire northern Tanzanian Lake Victoria region serving a population of more than 13 million. Sekou Toure Hospital is a hospital in Tanzania. Sekou Toure Hospital is situated southeast of Pansiansi, close to Nyakabungo Primary school.

On average, tourists travel 11kms from homes to Sekou Toure Referral Hospital. Rock beach garden seems to have referral hospital a bit closer to homes (0,2kms). Distances to the referral hospital are longest in rock bay lodge (36kms), Rock bay resort and camping (34kms) and Royal sunset (15kms). On the contrary, in Rock beach garden (0,2), Isamo hotel (0,4ks) and New Mwanza hotel (0,7kms) distances to Regional Referral hospital are shortest.

Apart from this big hospital, Mwanza is also have District hospitals, dispensaries, primary health centres, medical centres, community health centres, clinics and laboratories providing diagnostic, inpatient and outpatient services, outpatient care centers, specialized care centers, such as birthing centers and psychiatric care centers, Ambulatory surgical centers, Clinics and medical offices, Diabetes education centers, Mental health and addiction treatment centers, Orthopedic and other rehabilitation centers, urgent care clinic--government and private hospitals that can provide quality health care with specialized staff which operate for 24-hours service.

Mwanza is also surrounded by many guest houses and tourists hotels. Excellent and affordable housing and security surrounded by police stations. The best social services are everywhere, the best banking services and transportation.

Table 10: Geographical Location for Healthcare Facilities in Mwanza

Id	x	y	Description
1	490090	9726089	Mwanza adventist medical center
2	489724	9721601	Mwanza hospital
3	489627	9721192	Aga khan hospital mwanza
4	488714	9721342	CF hospital
5	490127	9721367	Uhuru hospital
6	489912	9722332	UMC hospital mwanza

Id	x	y	Description
7	488947	9721484	Mwananchi hospital
8	488963	9722271	Hindu hospital
9	4890079	9724279	Uhuru hospital mwanza
10	489175	9724613	Royal hospital
11	489754	9720545	Bukando medical center
12	489132	9723361	Makongoro clinic
13	489406	9722425	sekou toure hospital
14	489112	9722417	Nyakahoja dispensary
15	489326	9721916	Makongoro health center
16	489670	9721377	Salaaman health center
17	490879	9720949	Hurumia watoto hospital
18	488892	9722155	Red cross
19	490346	9716639	Nyamagana district hospital
20	494475	9718665	Msamaria hospital
21	548109	9713309	Magu district hospital
22	546937	9712940	Kitima house
23	549536	9713453	Joseph medicare service
24	549484	9713484	Joseph medicare dispensary
25	562582	9737535	Bulima dispensary
26	597344	9741921	mkula hospital
27	525475	9695895	sumve disignated district hopital
28	568670	9698443	kabila health center
29	510591	9685266	Misungwi district hospital
30	536716	9672602	Ngudu District hospital
31	491522	9713407	Kamanga medics hospital
32	491262	9700010	bukumbi hospital
33	510993	9629672	kikubiji dispensary
34	557705	9652804	malampaka health center
35	557140	9652477	malampaka health center
36	461683	9708261	Sengerema disignated district hospital
37	460505	9707404	Sengerema mission hospital
38	502694	9793148	Bwisya health center

Id	x	y	Description
39	503766	9775637	Ukerewe island
40	510552	9768860	Nansio district hospital
41	492824	9719643	Mwanza eye center
42	495660	9717494	Mhandu Sda Church mwanza
43	489404	9722363	Sekou toure regional referred hospital

Table 11: Geographical Location for Bank services in Mwanza

S/N	X	Y	Bank Names
1	488667	9721669	CRDB
2	488793	9721557	Equit bank mwanza
3	488799	9721499	NMB
4	488767	9721430	DTB
5	489145	9721631	NBC MWANZA
6	489508	9721573	IDIL MPESA MWANZA
7	488854	9721291	CRDB
8	488923	9720971	POSTA BANK
9	488997	9720848	FINCA MICROFINANCE MWANZA
10	487796	9721013	CRDB MCROFINANCE
11	489123	9723606	CRDB
12	489125	9723582	FNB
13	489251	9722596	CRDB
14	490302	9722478	BANK OF TANZANIA
15	489012	9721851	AZANIA
16	489146	9721628	NBC BANK MWANZA
17	489461	9721581	I& M BANK MWANZA
18	489494	9721353	DIAMOND TRUST BANK
19	549309	9713336	NMB MAGU
20	549645	9713102	CRDB BANK
21	549642	9713068	MAGU DISTRICT COUNCIL OFICE

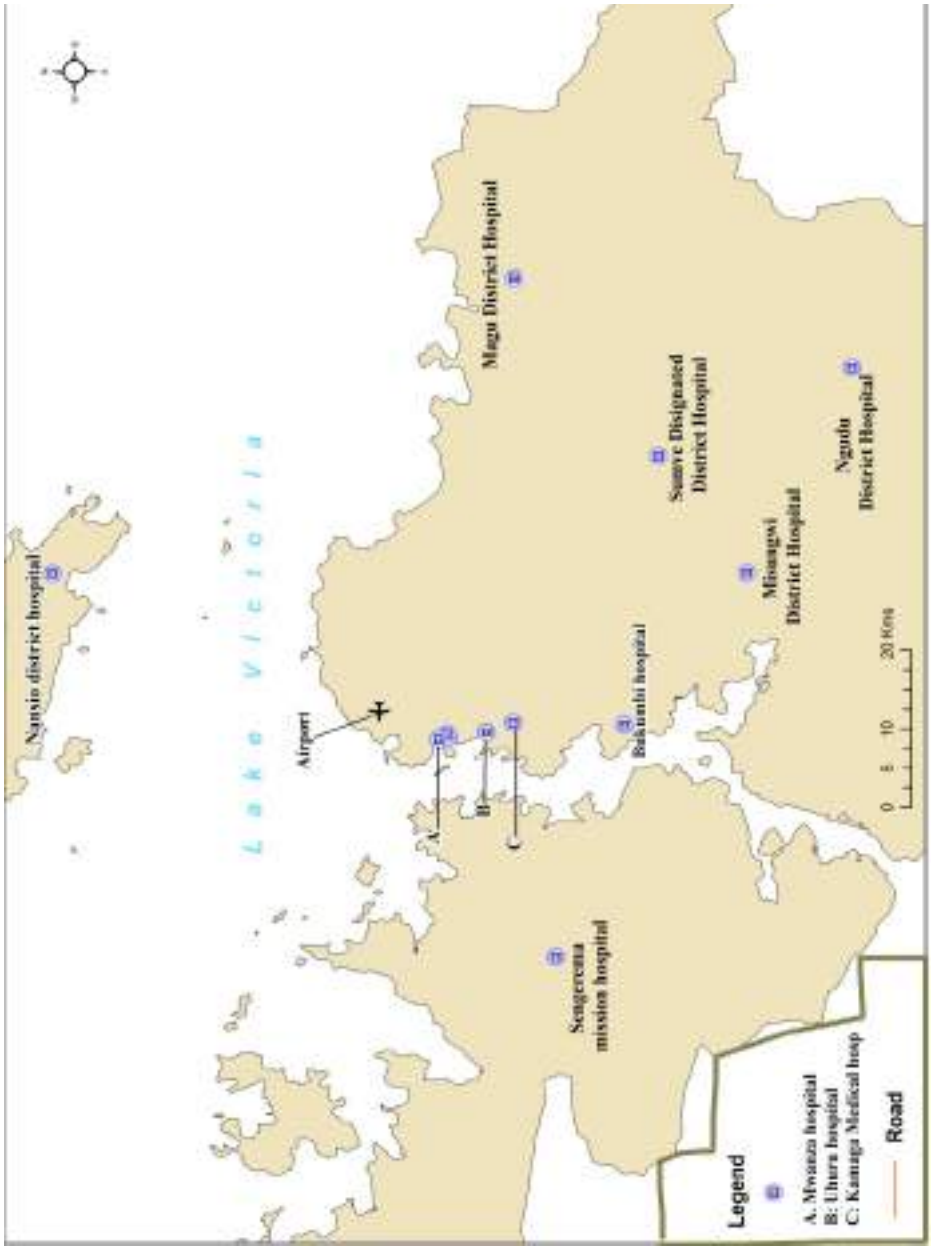
S/N	X	Y	Bank Names
22	537859	9672403	NMB NGUDU BRANCH
23	538166	9672414	CRDB
24	489698	9720446	CRDB BANK BUGANDO BRANCH
25	493342	9719674	CRDB BUZURUGA
26	497584	9718766	CRDB IGOMA
27	491657	9713394	NMB ATM NYEGEZI
28	508574	9687012	NMB MISUNGWI
29	497255	9722251	CRDB BANK BUSWELU
30	488874	9721675	MKOMBOZI COMMERCIAL BANK
31	488753	9721455	EXIM BANK
32	488439	9720988	BANK OF TANZANIA TRAINING INSTITUTE
33	509622	9767166	NMB NANSIO
34	489090	9723547	AZANIA BANK ROCK CITY
35	489123	9720928	NMB
36	489306	9721178	TPB BANK
37	489339	9721191	ACCESS BANK
38	489557	9721334	HABIB AFRICAN BANK LTD
39	489530	9721356	DTB BANK
40	489293	9721453	ACB BANK
41	488682	9721663	KCB
42	488714	9721628	
43	488712	9721596	NMB
44	488673	9721529	TADB BANK
45	488754	9721457	NMB
46	488778	9721435	DTB
47	488930	9721033	BANK OF BARODA
48	488935	9720999	TPB BANK

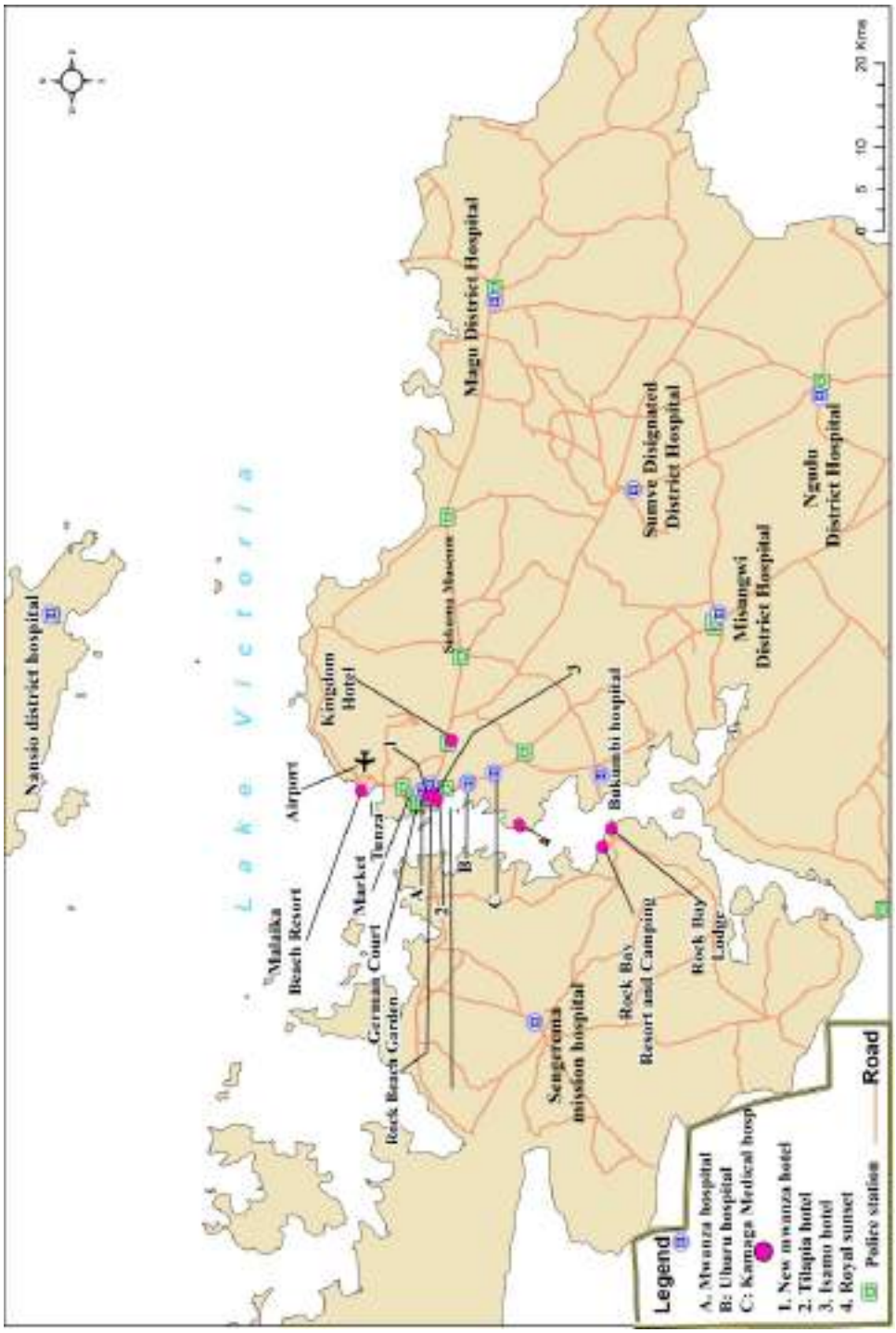
S/N	X	Y	Bank Names
49	488997	9721089	LETSHEGO UMOJA BANK
50	489169	9721229	AZANIA BANK
51	489038	9721228	BANK OF FRICAN
52	488855	9721258	NBC
53	488840	9721286	CRDB
54	488825	9721335	ECO BANK
55	488818	9721360	AMANA BANK
56	488787	9721582	EQUITY BANK
57	488886	9721552	FBME BANK
58	489158	9721595	NBC MWANZA
59	489251	9722596	CRDB BANK
60	488392	9722966	NBC
61	489083	9723572	CRDB IN ROCK CITY MALL
62	489125	9723582	FNB IN ROCK CITY MALL
63	489123	9723606	CRDB IN ROCK CITY MALL
64	489131	9723666	NMB IN ROCK CITY MALL

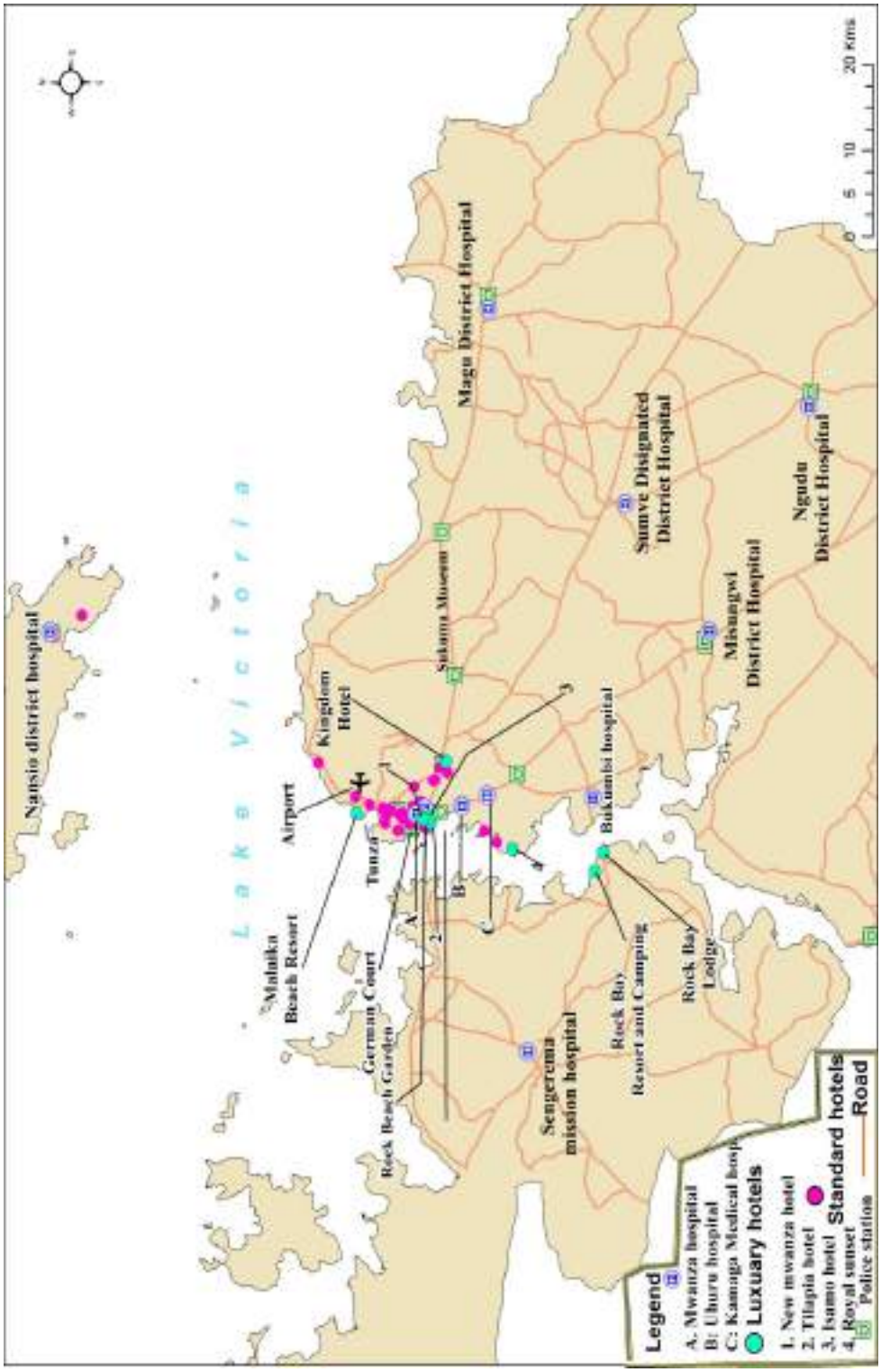
Table 12: Distance from Hotels to Referral hospital in Mwanza

Name of the Hotel	Distance (in kms) to Sekou Toure Regional Referral hospital
Malaika beach resort Hotel	6
Rock beach garden	0.2
Tilapia hotel	0.7
Isamo hotel	0,4
Royal sunset	15
Rock bay resort and camping	34
rock bay lodge	36
New Mwanza hotel	0,7
Kingdom Hotel	7,3

Name of the Hotel	Distance (in kms) to Sekou Toure Regional Referral hospital
Airport	7,3
Police station	0.1




Lake Victoria
Nansio district hospital
Malaika Beach Resort
Airport
Kingdom Hotel
Market
Tanza
German Court
Rock Beach Garden
Sekuma Museum
Magu District Hospital
Sumve Disignated District Hospital
Misungwi District Hospital
Ngudu District Hospital
Bukumbi hospital
Rock Bay Resort and Camping
Rock Bay Lodge
Sengerema mission hospital
0 5 10 20 Kms
Legend
A. Mwanza hospital
B: Bugando hospital
C: Kamanga Medical hosp
1. New mwanza hotel
2. Tilapia hotel
3. Isamo hotel
4. Royal sunset
Police station
Road


Lake Victoria
Nansio district hospital
Kisumu Airport
Kingdom Hotel
Tanza
Malaika Beach Resort
German Court
Rock Beach Garden
Sengerema mission hospital
Rock Bay Resort and Camping
Rock Bay Lodge
Bukumbi hospital
Sukuma Museum
Mwanza District Hospital
Sumve Disigated District Hospital
Misungwi District Hospital
Ngudu District Hospital
0 5 10 20 Kms
Legend
A: Mwanza hospital
B: Uhuru hospital
C: Kamanga Medical hosp
Luxuary hotels
1. New mwanza hotel
2. Tilapia hotel
3. Isamu hotel
4. Royal sunset
Standard hotels
Police station
Road

According to the World Health Organization (WHO), 15% of the world's population (1 billion people) lives with some form of disability. Accessibility for all to tourism facilities, products, and services should be a central part of any responsible and sustainable tourism policy. Accessibility is not only about human rights. It is a business opportunity for destinations and companies to embrace all visitors and enhance their revenues.

UNWTO suggested in July 2020 a set of practical steps to ensure accessibility for all and provides recommendations for destinations and service providers to accommodate customers with disabilities and specific access requirements, including health care facilities, hotels, restaurants, attractions and available tourism packages are offered by travel agencies, tour operators or other intermediaries (Buhalis, 2000). Accessible tourism is about making it easy for all people to enjoy tourism experiences (Accessible Tourism in Australia 2011).

Due to the ageing population in the industrialized countries, the rate of disability among people with the capacity to travel is also increasing, adding to the demand for an accessible environment, transport and health care services (Rahman, 2005). Accessibility refers to how easy it is for everybody to approach, enter and use buildings, outdoor areas and other facilities, independently, without the need for special arrangements. Providing information on accessibility and improving access benefits a wide range of people who want to travel, but who may find it difficult (Office for Official Publications of the European Communities, 2004).

Accessible accommodation and health care facilities should be as close as possible and on the ground floor where possible. A reasonable number of rooms in an accommodation establishment should be fully accessible to a person in a wheelchair without assistance (UNWTO, 2005).

To this end, the space and technical aids needed to allow any manoeuvre to be carried out easily and safely shall be taken into account. The needs of persons with impaired dexterity, blind persons, and deaf persons shall be taken into account in the design of all devices and actuators (UNWTO, 2005). Such rooms in an establishment should be fitted with alarm systems suitable for deaf visitors and a system of communication between the reception desk and the room that is suitable for such persons (UNWTO, 2005). A suitable telephone, alarm or other means of calling for help must be available. Corridors and passageways should be of a width to allow the passage of two wheelchairs so they are not blocked in normal traffic; otherwise, crossing zones should be provided (UNWTO, 2005).

Also hotel catering possibilities as restaurant, café, lobby bar should by adapted for disabled visitors as well as other services e.g. swimming pool, wellness centre, sauna or garden. Restaurants, cafés and bars in the hotel should provide accessible facilities which take into account ease of exterior access, furniture designed to enable their utilization by users in wheelchairs, bars at different heights, menus in Braille and with easily readable type, accessible bathrooms, etc. Such establishments

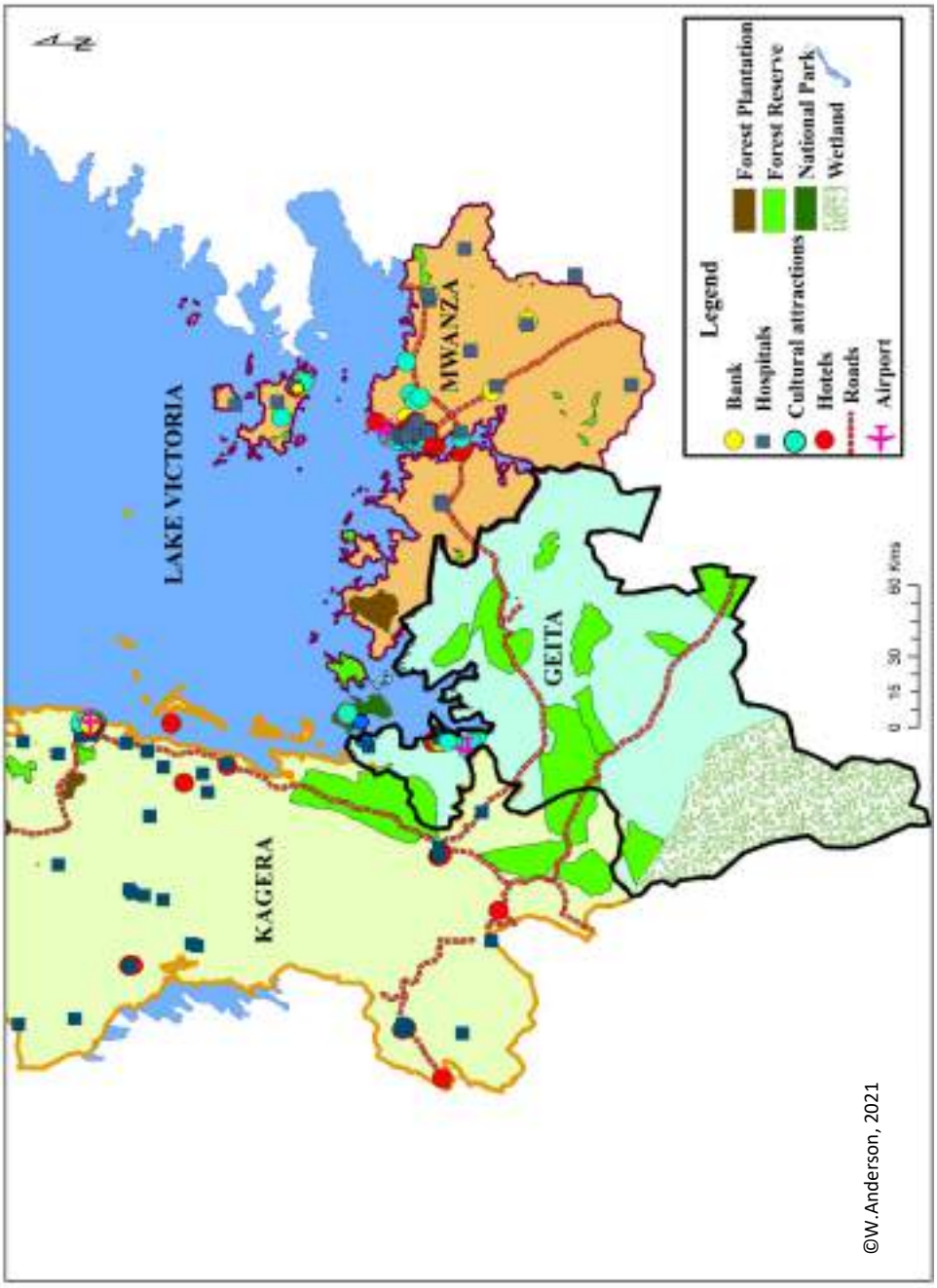
should be clearly marked to make them easy to find (UNWTO, 2005).

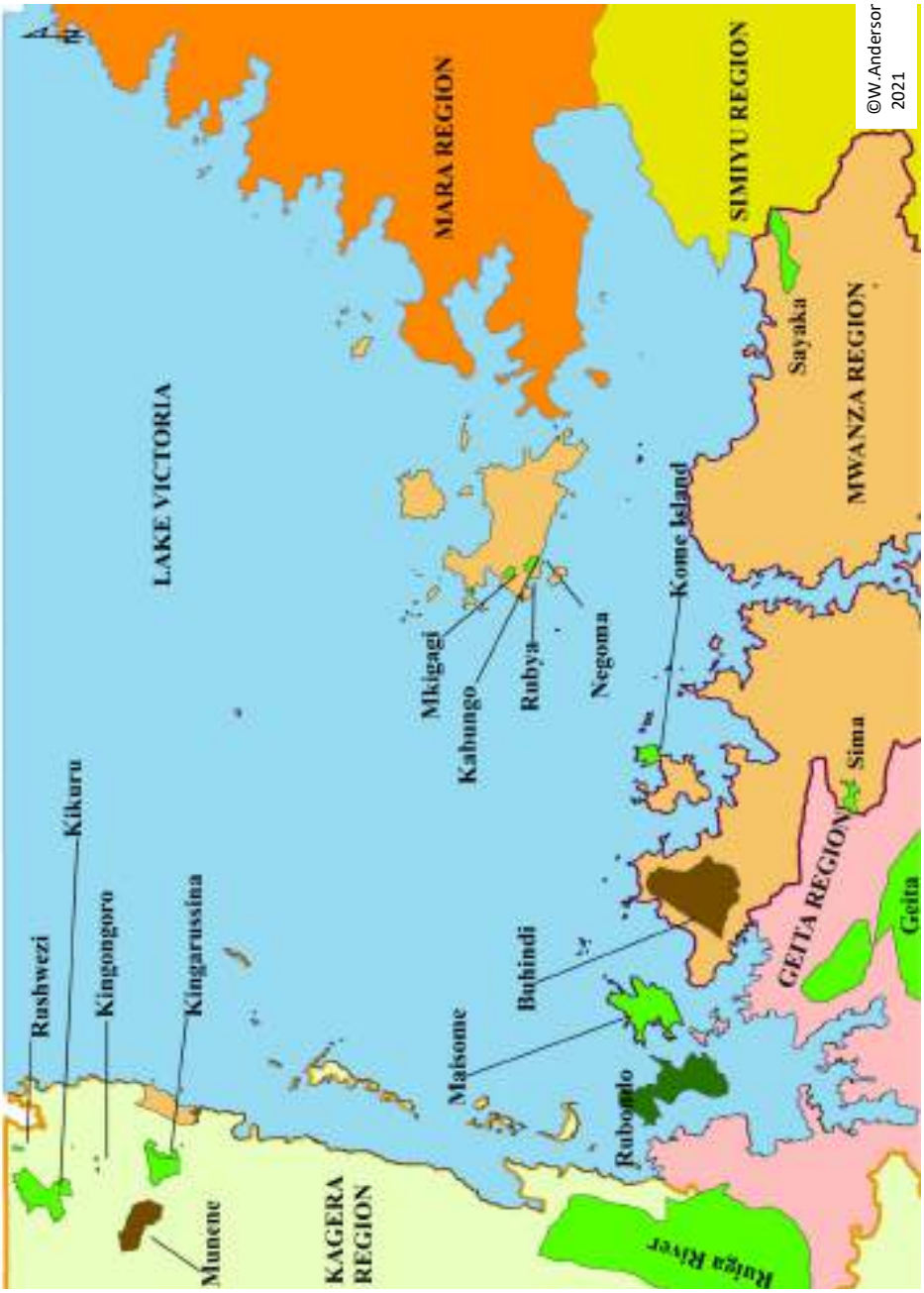
Today, health care tourism is the highest growth world's tourism industry and in global scale is higher than oil and gold industry and is called as the third industry of the world and some countries such as Spain are living through this industry. Health care is one of the most important facility and it helps to improve the quality of life and social welfare of modern society. Recent advances in the field of health geography have greatly improved our understanding of the role played by geographic distribution of health services in population health maintenance.

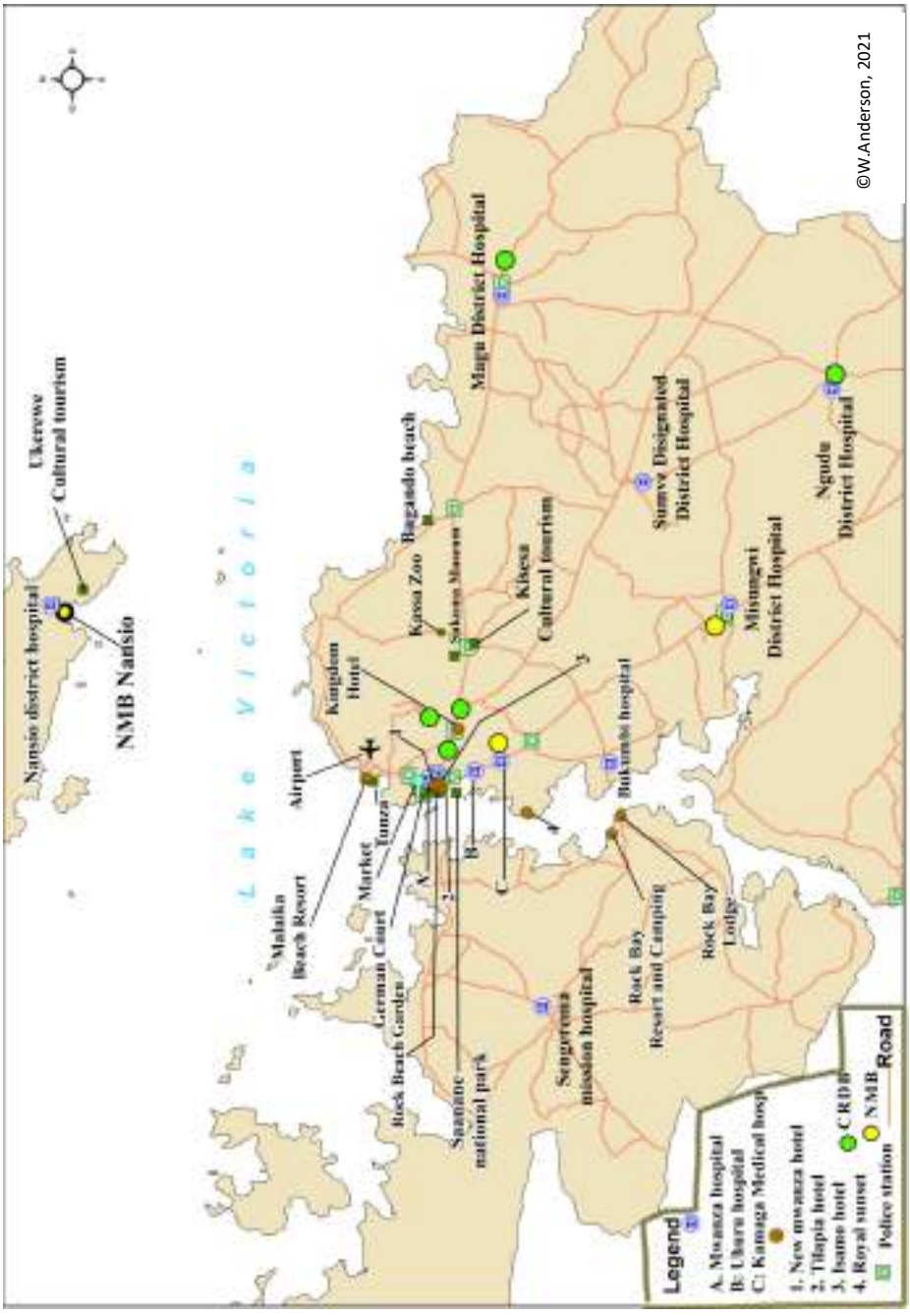
Health care access is a major concern for policy makers globally. Although these facilities were meant to provide high-quality services in public health, they failed to do so due to lack of health care professionals and staff (Sengupta and Prasad, 2011; Ministry of Health and Family Welfare, 2012). Presence of Health care facility alone doesn't solve all problems of having a healthy community but in addition the easy access to these facilities does.

Healthcare facility inclusion in tourism development is very important whereby the visitors can locate health facilities easily, and provide some particular needs at any point in time so as to reduce mortality thus, improve human health and safety. Identify types of infrastructure and service provision in each facility in accordance with appropriate service and operational guidelines. This will enable all health facilities to locate or discover what health facilities exist in which location, along with the services and resources provided.

MAPS


LAKE VICTORIA
MWANZA
GEITA
KAGERA
Legend
Bank
Hospitals
Cultural attractions
Hotels
Roads
Airport
Forest Plantation
Forest Reserve
National Park
Wetland
0 15 30 60 Kms
©W.Anderson, 2021


LAKE VICTORIA
MARA REGION
SIMIYU REGION
MWANZA REGION
KAGERA REGION
GEITA REGION
Rushwezi
Kikuru
Kingongoro
Kingarussina
Munene
Mkigagi
Kahungo
Rubya
Negoma
Kome Island
Sayaka
Sima
Geita
Bubindi
Maisome
Rubondo
Ruliya River
©W.Andersor
2021



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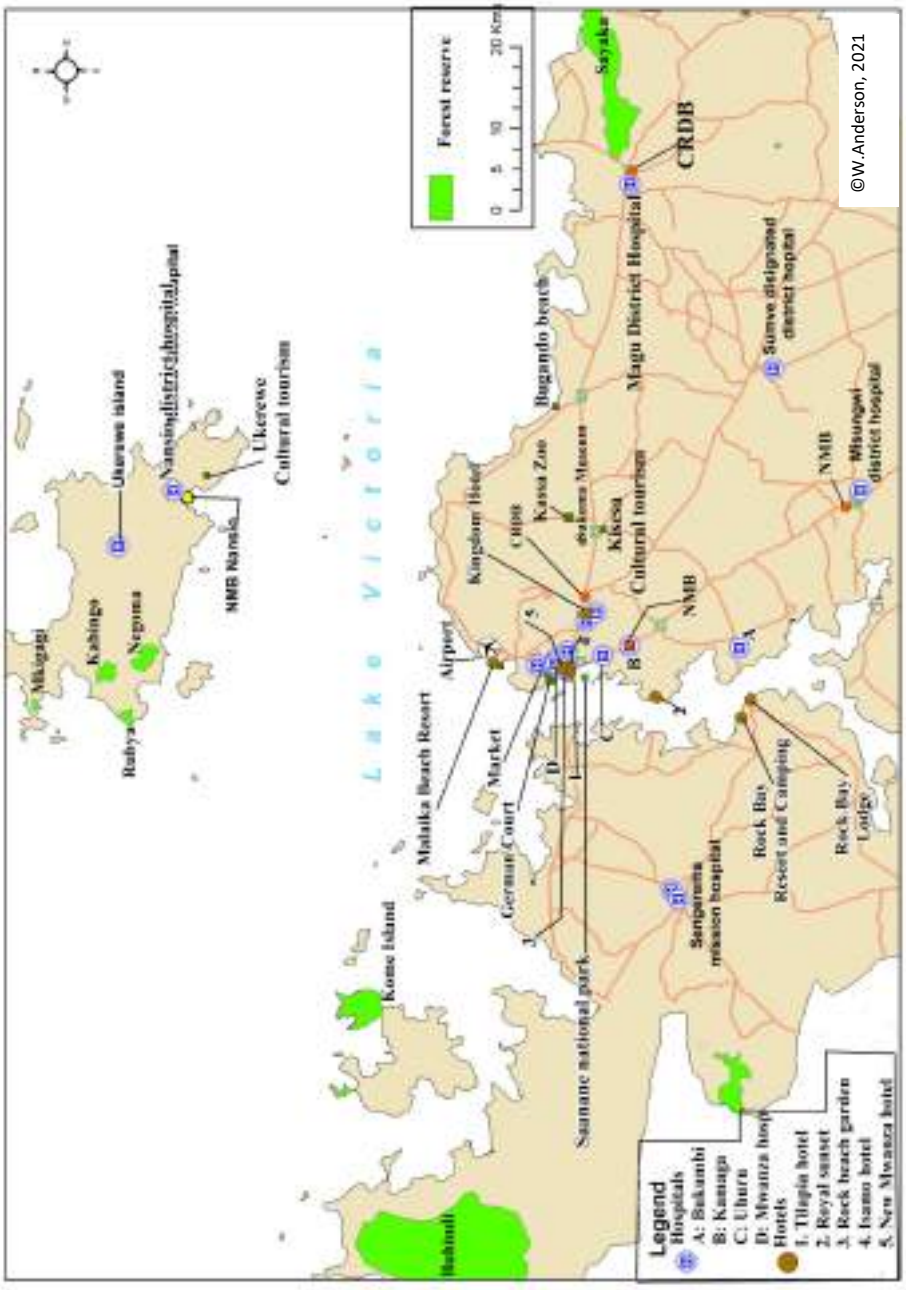

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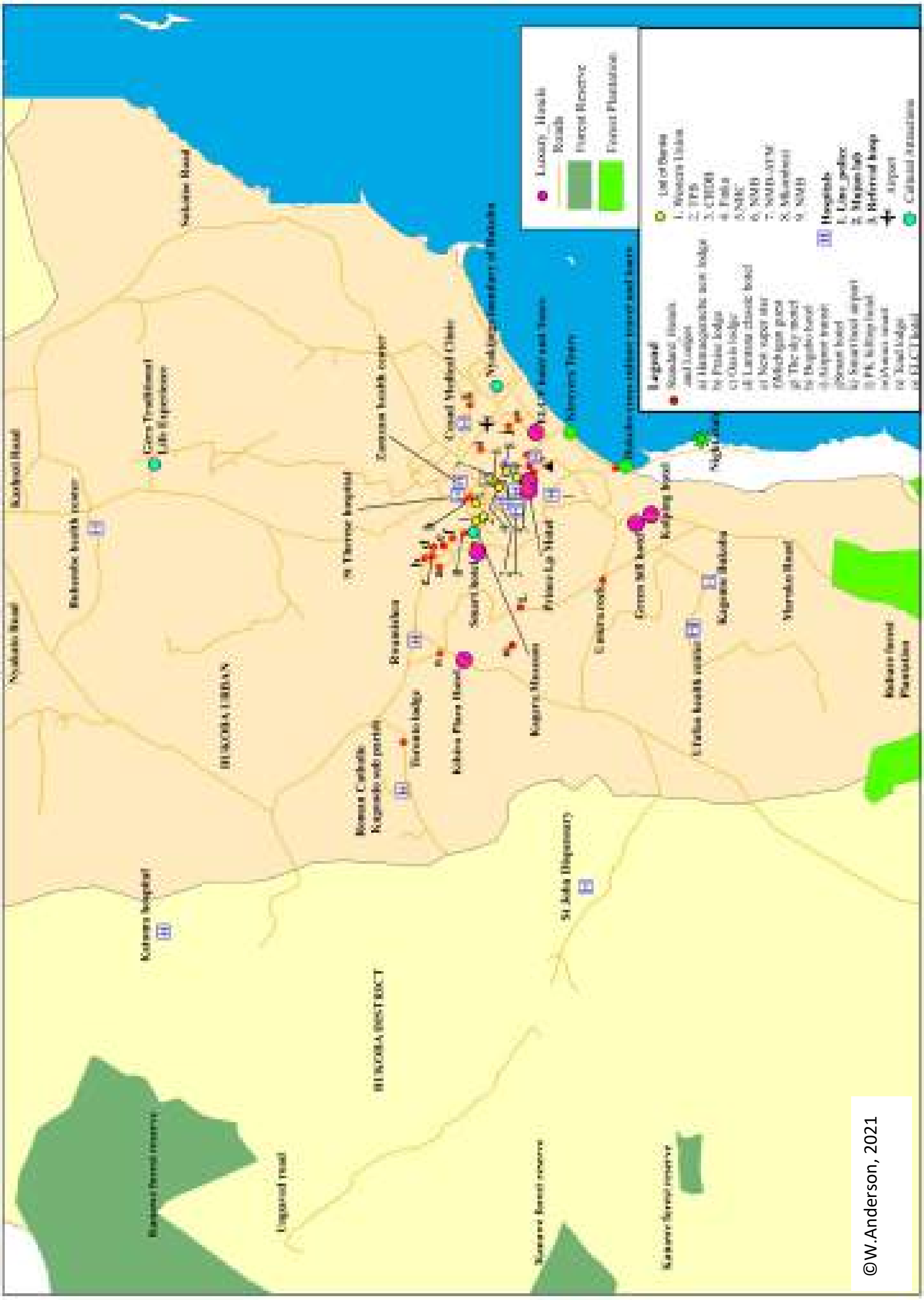
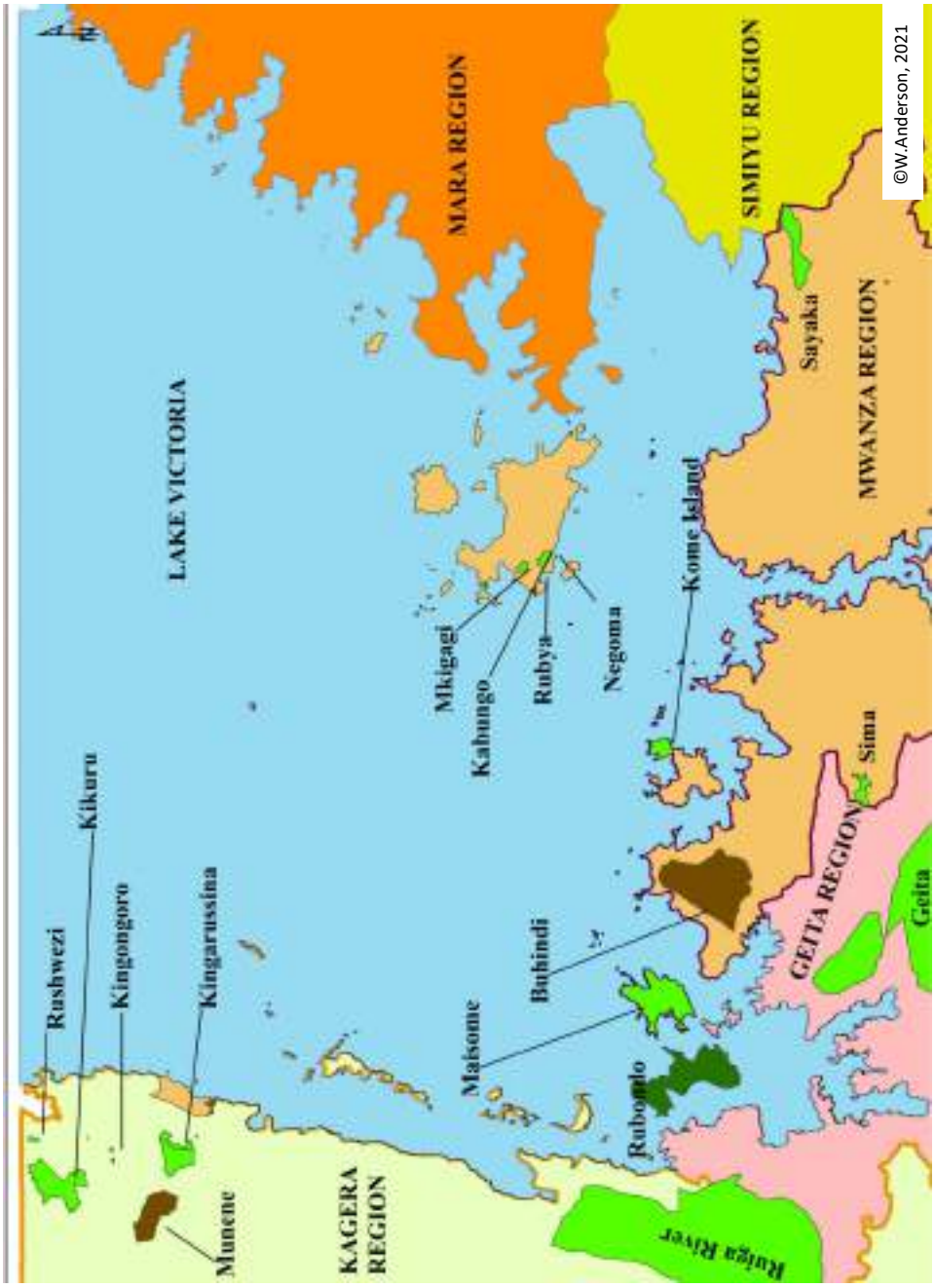

©W.Anderson, 2021


N
Legend
Police_chato
Banks_chato
Roads
Hotels
0 1.753.5 7 Kms
Geita District
Rumande forest reserve
LAKE VICTORIA
Rubondo Island National park
Headquater
Airstrip
Ferry
Ferry
Market
District hospital
Referral hospital
Bus Stand
GS Hotel
Kisima Cha Manjaba
Chato District
Park hotel
Vetta
Chato beach hotel
Airport
Raiga River forest reserve
©W.Anderson, 2021


LAKE VICTORIA
MARA REGION
SIMIYU REGION
MWANZA REGION
KAGERA REGION
GEITA REGION
Rushwezi
Kikuru
Kingongoro
Kingarussina
Munene
Mkigagi
Kabungo
Rubya
Negoma
Kome Island
Sayaka
Sima
Geita
Bubindi
Maksome
Rubondo
Ruiga River
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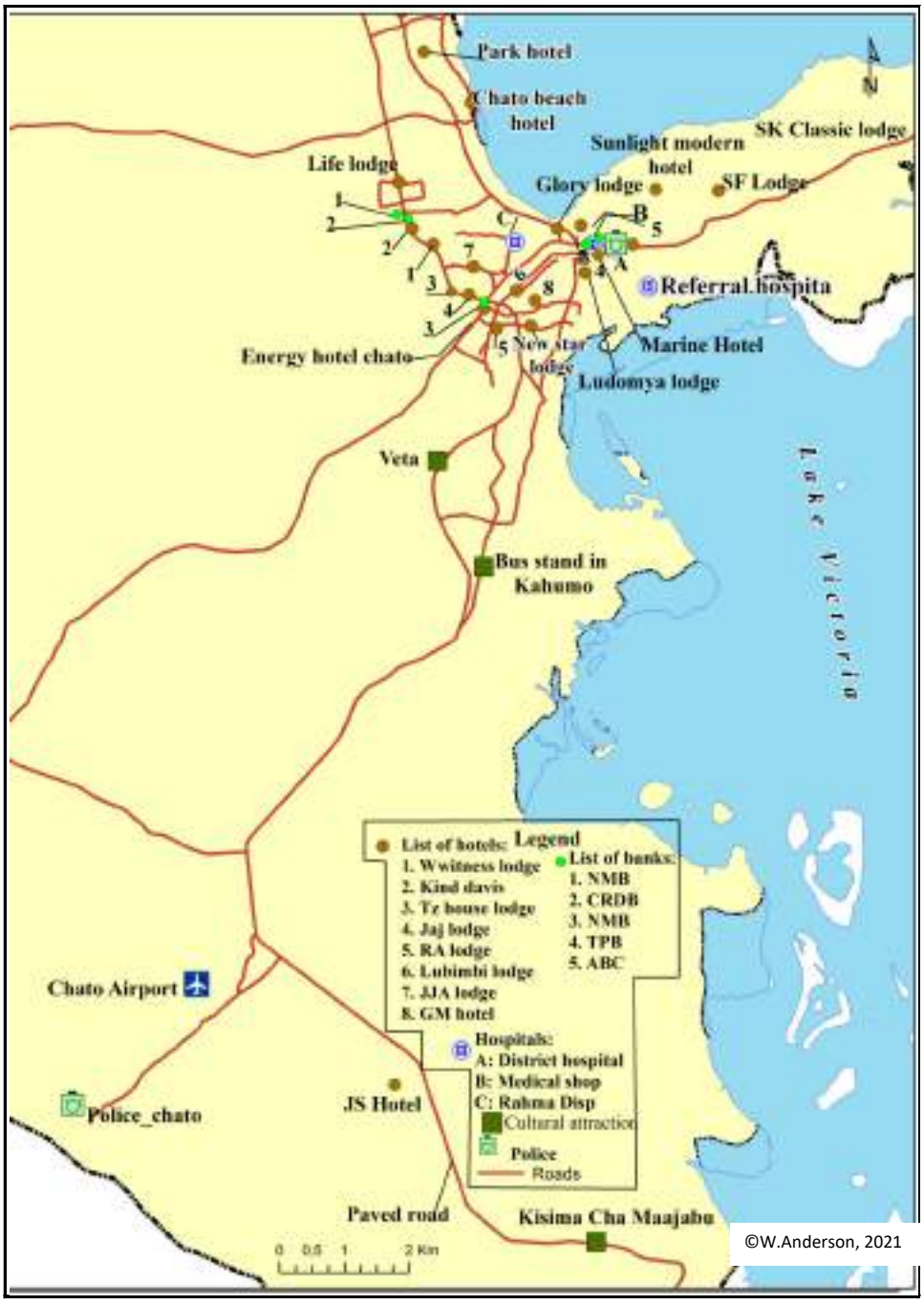
Park hotel
Chato beach hotel
Sunlight modern hotel
SK Classic lodge
Life lodge
Glory lodge
SF Lodge
Referral hospital
Marine Hotel
Ludomya lodge
New star lodge
Energy hotel chato
Veta
Bus stand in Kahumo
Lake Victoria
Chato Airport
Police_chato
JS Hotel
Paved road
Kisima Cha Maajabu
Legend
List of hotels:
1. Wwitness lodge
2. Kind davis
3. Tz house lodge
4. Jaj lodge
5. RA lodge
6. Lubimbi lodge
7. JJA lodge
8. GM hotel
List of banks:
1. NMB
2. CRDB
3. NMB
4. TPB
5. ABC
Hospitals:
A: District hospital
B: Medical shop
C: Rahma Disp
Cultural attraction
Police
Roads
0 0.5 1 2 Km
N
©W.Anderson, 2021

A Summary of untapped Tourism Potentials in the Six Lakeside Regions: Mwanza, Geita, Mara, Kagera, Shinyanga and Simiyu

S/N	Attraction : MWANZA REGION	Hints
	CITY TOUR:-	
1	Bismarck Rock	▪ The logo/symbol of Mwanza ▪ Named after German Chancellor(1815-1898) ▪ Under whom Mwanza started as GEA (1890)
2	Fish Monuments	▪ Present huge economic activity in Mwanza
3	Gallows tree/ hanging tree	▪ Located at the center of Mwanza City ▪ The historical tree where Germans used to hang criminal slaves who has been sentenced to death.
4	Uhuru / Nyerere Monuments	▪ A monument of The Founder of the country of Tanzania and the First President of the United Republic of Tanzania.
5	Furahisha Bridge	▪ It is located near Furahisha Grounds and connected to Rock City Mall. ▪ The beautiful place for photographic activities and having the good view of Mwanza City.
6	German Boma/ Gunzert House	▪ Historical German Residence in Mwanza (100 yrs old). ▪ German District Commissioner of Mwanza Residence (1907-1916).
7	Rock City Mall	▪ Famous place for shopping tourism while you are in Mwanza City.
8	Kemondo Garden/City Garden	▪ Picnic place ▪ Place for recreation ▪ Suitable place for taking photos.
9	MWAUWASA BUILDING (The Office of Tanzania Tourist Board-Lake Zone Office is located in this building)	The First Prison in Mwanza

10	Ras Curio Shops and Art Gallery	▪ A famous place where tourists buy cultural and handicraft products for souvenir.
11	Kamanga -Fish Selling Point	▪ Local fishermen and fish sellers sell fish to tourists or ▪ display the retail trade of selling fresh fish ▪ Fresh fish from Lake Victoria are obtained here near Kamanga Ferry Station.
12	LADHA MEGHJI (INDIAN PUBLIC LIBRARY)	▪ The first Library in Mwanza ▪ This library was a venue where the first meeting of Pan African freedom movement of East and Central Africa was held at May, 1958.East African leaders met at this historical library. These leaders were Mwl J.K Nyerere, Jomo Kenyatta and Mobutu Sesekou met at this historical library with a commitment to use Pan Africanism as the tool for fighting for liberation and independence of their countries.
13	Kamanga and Busisi Ferries	▪ Tourists climb up to the Captain's steering cabin and get a wide view of Lake Victoria and the City of Mwanza while heading to Sengerema Island.
14	Temples-Hindu, Swamisarayan, Sikh, Ariyan temple	▪ Tourists visit inside these Temples and have the view of the religious activities and worship rituals of the Hindu religion. ▪ Sikh Temple – inside of the Temple at the altar lays the Holy Book of Guru Nanak who wanted to unite Hindus and Moslems.
15	Saanane Island National Park	▪ Tourists visit a Museum containing ruins of some animals such as several spices of birds and reptiles. ▪ Boat tours to different points are offered to tourists. ▪ The Island presents scenic beauty, walking safari, birds watching, game viewing oat excursion, picnic sites and Lake views

16	Bujora /Sukuma Museum	▪ A famous Museum in a pleasant countryside that has preserved the history, culture and tradition of the Sukuma tribe. ▪ It is about 17 kilometers from the city centre. ▪ Tourists see the Sukuma cultural products used in the houses and for decorations ▪ Tourists visit the Sukuma Cultural house, the iron smith activities used in the Old Sukuma Age, Bujora Church built in 1958 containing the modern and cultural architect, get the History of the Sukuma Chiefdoms and visit the grave of the founder of this Museum known as David Clement, a Former Canadian Priest. ▪ Performance of Sukuma Traditional Dance can be done as per advance request. ▪ Entrance Fee: Tanzanians – T.shs 3,000 pp Foreigners (Residents) –T.shs 8000 pp Foreigners -T.sh 15000 pp ▪ Sukuma Traditional Dance – T.shs 100,000 per group.
17	Ukerewe Cultural Tourism	▪ Display of the Kerewe Tribe Cultural activities to tourist such as Kerewe traditional houses, performances of Kerewe traditional dances and preparations of Kerewe traditional food. ▪ Visit a Famous Dancing Stone at Ukara Island ▪ Fishing tours, ▪ Visit the Old Catholic Church aged more than 100 years ▪ Walking safari in Rubya forest. ▪ Visit to the Chief palace-The first store building in East Africa ▪ Visit Buzegwe coconut plantations. ▪ Mob: +255 686987045/0759313731 ▪ Email:ukereweculturaltourism@yahoo,com
18	Kisesa eco & Cultural Tourism	▪ 17 kilometers from the city centre. ▪ Display of the Sukuma tribe Cultural activities to tourist such as Sukuma traditional houses, performances of Sukuma traditional dances and preparations of Sukuma traditional food. ▪ Visit to Kageye Historical Site ▪ Visit Kayenze B each to see fishing activities ▪ Cyclig trips within Kisesa Sukuma village ▪ Display /sale of the handicraft Sukuma products to tourists for sale ▪ Visit the Traditional Doctor to learn about different Sukuma traditional medicine ▪ Mob: + 255 655 349348 or +255 757 729816 ▪ Email:kisesaculturaprogram@gmail.com

19	Big Rock {"Jiwe Kuu"}-	▪ Located at Kitangiri and it is surrounded by caves ▪ One can see a mysterious foot prints of Mwanamalundi; a Famous Sukuma Witchdoctor ▪ Imprints of a ''Bao'' Game. ▪ Video shooting acitivites for musicians during the preparations of their music albums. ▪ Tourists climb at the top of this ''Big Rock'' and view the several parts of Mwanza City.
20.	Lake Victoria	▪ The largest Lake in Africa and World 's second largest freshwater Lake. ▪ Chief Reservoir of the Nile. ▪ Nile perch and tilapia are being fished in large quantities. ▪ Boat tours for tours are done in this Lake.
21	Memorial- M.V Bukoba Ferry Accident	▪ A Memorial Tower has been built for the memory of multitude of people who died when the M.V Bukoba Ferry sank and killed a great number of people in 1996.
	BEACHES	
22	Rocks and Shore of Lake Victoria	▪ Around the city one will find many and big rocks including Bismark Rock, the one named after the German chancellor (1815-1898) during the German East Africa Administration.
23	Malaika and Tunza Beaches	▪ These are beautiful and famous beaches located at Ilemela Districts near two famous beach resorts namely Malaika and Tunza Lodge attract many tourist for accommodation, boat tours, conference facilities, wedding activities , video shootings and resting on beautiful gardens for resting
24	Beaches along Luchelele/Sweya Village	▪ There are beautiful beaches namely Jembe ni Jembe, Charcoal Ribs, Tamali, Shafik Beach, Gamba lodge and Gonzale. They offer several facilities o such as food, music and boat tours to different points.

25	Kageye Historical Site	▪ The Residence of the Ancient Local Sukuma Chief called Kaduma. ▪ First Harbor in East Africa that received slaves brought from Uganda, Ukerewe and Bukoba. ▪ Slave Market for Muslim Arab traders ▪ Residence for Stanley, a famous Explorer and Anglican together with Catholic Missionaries ▪ Beautiful beaches for rest and relaxation ▪ This Historical Site resembles that of Bagamoyo ▪ The First Church building in Mwanza is found there. ▪ Famous graveyard for missionaries who abolished Slave Trade.
	GEITA REGION	
1	Rubondo Island National Park	Tourist activities: ▪ Spot fishing ▪ Boat excursion ▪ Walking safari ▪ Game drive ▪ Bird watching Fees: ▪ NEA=US$ 30 + 18% VAT ▪ EAC=Tshs 5000 + 18% VAT Accommodation: lodges,, camp and youth and family hostel Accessibility: by charter or by tarmac road from Mwanza to Geita 4hrs drive and from Geita to Nkome a maximum of one and half hour cruising in the boat
2	Moyowosi-Kigosi game Reserve	▪ Game viewing including animals like impala, water bucks , Buffalo, Elephants, Zebras, Giraffes, Leopards ,Hippos and Crocodiles. ▪ This game reserve covers parts of Tabora, Shinyanga and Kigoma Regions.
3	Beekeeping	Miombo woodland forests which favor bees in making honey in some parts of Bwanga ,Muganza, Chato and Geita district
4	Mining activities	Presence of Geita Gold mine and other small scale mining exploration in Nyarugusu, Lwamgasa, Nyamtondo, Mtakuja, Nyakabale, Nyankanga and other parts of Geita attracts tourists and visitors from outside and inside Tanzania

	MARA REGION	
1	Butiama Cultural Tourism and Mwl J.K Nyerere Museum	▪ Entrance fee for Mwl J.K Nyerere Museum -foreign adult T.shs 6500/=foreign student T.sh 2600/=.Tanzanian adult 1500/ and a Tanzanian student T.shs 500. ▪ One can see the most famous Mwl Nyerere Museum that has a lot of historical things concerning the late Mwl J.K Nyerere. It also contains the library with many books that he wrote by famous scholar and co-founder of the African National Liberation from colonialism .J.K NYERERE ▪ Butiama Cultural Tourism is located in Butiama and it offers historical tours within the Residence where the late First President of Tanzania, the Founder of the Nation of Tanzania Mwl Julius Kambarage Nyerere was born in 1922. Tourists can see the house where Mwl Nyerere was born, the house he was living soon after his retirement and the new big house built by the Government of Tanzania where he lived for 21 days only. Also visitors from different countries and tourist visit the grave of the late Mwl J.K Nyerere. ▪ Butiama Cultural Tourism display the culture of Wazanaki tribe to tourists by performing traditional dances for Wazanaki tribe, serving Wazanaki traditional food and displaying the Wazanaki traditional houses.
2	Beaches	▪ Beach tourism activities can be done in Mara, there are several beaches like Makoko Beach and Rukuba beaches. ▪ Sport fishing , speed boat racing and diving
3	Lake Victoria	Fishing activities, canoeing, sport fishing, boat tours and visiting famous tourist Islands such as Rukuba Island.
4	Serengeti National Parks	Getting there Scheduled and charter flights from Arusha, Lake Manyara and Mwanza. Drive from Mwanza or Arusha regions. Tourism Activities Hot air balloon safaris, walking safari, picnicking, game drives; bush lunch/dinner can be arranged with hotels/tour operators. Maasai rock paintings and musical rocks. Accommodation lodges, luxury tented camps and campsites scattered through the park. Fees: NEAC=US$ 60 + 18% VAT,, Expatriates US$ 30 + 18% VAT. T.shs 10,000 + 18% VAT for Adult Tanzanians.

5.	Serengeti Cultural Tourism Enterprises	Located at Mugumu, Serengeti and they have different cultural activities to tourists together with camel rides. This enterprise organize Serengeti Cultural Festival in the month of July of each year
	KAGERA REGION	
1	Historic sites	Adjacent to the Kagera Regional Commissioner's Bloc there is a graveyard with the remains of Germans who fought in the First World War. The cemetery reveals that part of the WW1 was fought near the area, making it one of the Sites linked by researches and tourists. Close to the City centre visitors can visit the Millennia Old Radio and Air Traffic Control Towers believed to have been used during the German Colonial Rule and thereafter.
2	Kagera Museum	This Museum is located just north of the airstrip. The Museum displays the collection of tools used by the natives in the last millennia, such as the baskets,long wooden tree trunk used for the brew of local beer. Other artifacts on display includes; Ensimbi (a form of money used by natives to transact), trumpet horns (used to call the community for gatherings), Ekirumiko (end of cow horn, drum (Lugaju), the Ensimba used by women to boil water for their spouses, fish traps, grinding stone and more. Visitors gain knowledge to the Haya culture and tradition. Display of beautiful framed photos of different flowers, various spices of birds and butterflies. Outside the Museum there is a veranda preserved for the disabled people who make the Haya traditional handicrafts products for sale to tourists and other visitors.

3	Kyamunene Caves and Waterfalls	The two attractions are safely protected by the Kyamunene Pine forest Authority and permit for visit are granted from their office. Kyamunene caves were used by Chief Rugomola to sit and then hide against the colonial administration (Germans) in the past millennia, but were also used during the war in which Tanzania forces fought Ugandans forces then under the former President Amin Rule in 1978. Kyamunene waterfalls. Its magnificent views offer great entertainment for nature lovers and bird watchers. Trees surrounding the area help to portray a mountain view and give visitors the chance to see the wide range of unique fauna and flora along the route.
4	Ntungamo Viewpoint	Bukoba town has several viewpoints in the vicinity, but Ntungamo situated along the Lake Victoria shores has paved ways and easily climbed through huge stones. Once on top the nice view of the whole Bukoba town comes into view, like a postcard with the lake in the backdrop.
5	Meet the King in his Palace	To complement the visit, Zamadamu (Ancient) Katuruka offers a detailed sequence of another traditional Bahaya rich story with the royal Bahinda court, the kingdom of Kyamutwara, Nyaruju, a royal palace house of King Rugomora where visitors are asked to remove their shoes before entering. Visitors also have a glimpse of the traditional house (Omushonge), see the remains of the large iron furnances along with debris that accompanies iron smelting, get to see the shrine trees and species considered sacred by the locals.
6	Historical Kamachumu tour	Take a journey through the ancient history of this region and see real Bahaya life! An easy hike will bring you at the top of an escarpment and see breathtaking views, visit a traditional grass built dwelling “the Mushonge house” plus visit to religious sites and marvel at the Bugonzi Waterfalls
7	Mugana Rock Paintings	The rock paintings are found in the rural area called Bwanjai village surrounded by sprawling agricultural villages. The village has a placid and laid back feel. The journey to the rocks passes through a bush and rocky places. The paintings show simplified figures; images that depict fish species and fishing gears.

8	Bugonzi waterfalls	Bugonzi waterfall is located in Kamachumu and its water are used to provide hydro-power to Ndolange hospital in the area. The falls are spectacular with its water spreading out like an open dam whose banks have burst. There are several hotels in town to cater for many pockets, which includes: ELCT hotel, Colping hotel, Baramaga hotel, Victorious Perch hotel, Coffee Tree hotel, Perfect hotel, Smart hotel, Fios Mimi hotel, Walkgard hotel, Dolphin hotel, Lake hotel and more. Website: www.kiroyeratours.com.
9	Burigi –Chato National Park	It is inhabited with wild animals such as Zebra, Impala, Water buck, Buffalo, elephant, Giraffe, Leopard, Hippos and Crocodiles can be found. It is located in Geita Region mainly at Chato and Kagera regions.
10	Rumanyika-Karagwe National Park	It located at Karagwe in Kagera regions.
11	Ibanda –Kyerwa National Park	It is located at Kagera Region
	SHINYANGA REGION	
1	Mining activities	Presence of the famous Buzwagi Gold Mine and Mwadui Diamond Mines. Also there are and other small scale mineral exploration provides a good opportunities in tourism
2	Uzogole Natural Spring Water	▪ Shinyanga Region has a site that discharges hot natural water formerly called Uzogole located in the Shinyanga Municipal about 16 km ▪ The hot spring water believed to have kind of power that make a number of traditional healers

3	Cultural tourism enterprises	▪ Usanda/Tinde Caves these historic caves located at Tinde area which formerly was used by Arabs as a stopover for slave trade caravans from either Bukoba or Mwanza. ▪ Ng'wanamalundi Footprints (At Kishapu) A Sukuma Chief with supernatural powers called Ng'wanamalundi left a footprint on the stone at Wishiteleja in Kishapu District. ▪ Busiya Kingdom at Negezi which is under Chief Makwaia. ▪ Iboja Slave Trade Caves (Kahama) these are slave caves that are located at Iboja in Dakama Division, the place where chief Milambo of Nyamwezi tribe was captured and killed by the Germans 20km from Kahama Town ▪ Chela German Man made cave (At Msalala) these are manmade slave caves found in Msalala District which attracts many people nowadays. ▪ Dr Williamson Diamond Grave (At Kishapu) this was discovered by Dr John Thoburn Williamson in 1940 he used to camp around a baobab tree which is still standing today and close to this tree is where his sculpture was erected by his family.
	SIMIYU REGION	
1	Maswa Game Reserve	Maswa game reserves makes the region a better destination for tourist, wild animals like Hippo, Lion, Zebra, Buffalo, Elephant, Wild dog, Bush buck, Impala, Giraffe and Baboon Activities Permitted Game viewing, Photographic Safaris, Research and Training activities
2	Kijereshi Game Reserve	There is a variety of Animals and tourist activities like game viewing, photographing and walking safari.
3	Mwiba Wildlife Reserve	Private owned wildlife reserve with animals migrating from Maswa game Reserve, Serengeti Game reserve and Ngorongoro Conservation Area
4	Makao Wildlife Management Area	Wild animals like Hippo, Lion, Zebra, Buffalo, Elephant, Wild dog, Bush buck, Impala, and Giraffe are found in this WMA. Simiyu region also cover a large part of Serengeti National Park
5	Datoga Cultural Tourism	Cultural tourism found in Meatu District, Makao village preserved the culture, traditions and customs of the indigenous

TANAPA