

CONTRIBUTION OF HOT SPRINGS TO COMMUNITY DEVELOPMENT IN
RUBANDA DISTRICT: A CASE STUDY OF NYAMASIZI HOTSPRINGS IN
HAMURWA SUBCOUNTY.

BY

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DECLARATION

I **Tahinduka Merisah**, solemnly declare that this research report is my work and has never been submitted to any University or institution for academic award.

Signature

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APPROVAL

I hereby certify that this research report by **Tahinduka Merisa** entitled "Contribution of hot springs to community development in Rubanda District. A case study of Nyamasizi hot spring" is done under my supervision and is now ready for submission

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(University Supervisor)

DEDICATION

This research is duly dedicated to my beloved parents, sisters, brothers and relatives for all material and spiritual support they rendered to me during my study. May the almighty God reward their efforts.

Above all to the almighty God for giving me wisdom and guidance in all I have gone through.

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My appreciation goes to the almighty God who has given me good health and life without Him I wouldn't have finished up this research report and where I have reached and Kabale University especially the department of tourism for their contributions of knowledge about this research process.

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LIST OF ABBREVIATIONS

SPSS	Statistical Packages for Social Sciences
UNESCO	United Nations Education Scientific and Cultural Organization
USA	United States of America
USP	Unique Selling Proposition
UTA	Uganda Tourism Association
UTB	Uganda Tourism Board
WGC	World Geothermal Congress
WTO	World Tourism Organization

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ABSTRACT

The study focused on the findings of the study which was to contributions of Nyamasizi hot springs to community development of Rubanda District. The objectives of the study included the following, to identify the local perceptions towards potentiality of Nyamasizi hot springs in terms of tourism business, to assess contributions of the hot springs towards community development and to identify challenges facing the local communities around the Nyamasizi hot springs. There was critical review of the issues that were explored and studied both theoretically and empirically in the existing literature on Nyamasizi hot springs as an independent variable, community development as the dependent variable and the methods of data collection were put into action. The research used 50 respondents as the sample size, both qualitative and quantitative methods and data analysis were employed. The researcher used simple random sampling techniques in collecting and analyzing data and was used to provide equal chances to the sample size. Purposive sampling was also used to collect data from respondents that participated in the study. Findings of the study were obtained from the field, interpreting the results analyzing basing on the specific objectives of the study and chapter five portrayed the summary of findings, the recommendations of the study were, there should be need to analyze the contributions (both positive and negative) of Nyamasizi hot spring towards economic development of Rubanda district and there should be involvement of local people in decision making and be consulted on policies regarding potential hot spring resources and their ability to influence these decisions.

CHAPTER ONE

1.0 Introduction

This chapter covered the background of the study, problem statement, objectives of the study, research questions, scope of the study, significance of the study and definition of the key concepts.

1.1 Background of the study

Geothermal resources such as hot springs have for a long time played a significant role in human societies worldwide (Cooper, 2010). Hot springs have also gained importance as tourist destinations in many countries (Cooper, 2010). For example, Pamukkale at Denizli in Turkey, Khir Ganga at Himachal Pradesh in India, Sochuan in China, Tuscany in Italy, Kyushu in Japan, Champagne pool in New Zealand, Blue Lagoon in Iceland, Niseko in Japan (P Erfurt-cooper, 2009). For the many years there have been increasingly rapid developments within the communities around different hot springs. For example, the Ischia hotel in Italy, Arlington hotel in the Central A venue in United States of America, Green Brier Hotel at white Sulphur spring in America that were established as a result of hot spring tourism in the area, (Tabbachi M, 2008). Similarly, Hotel Gellert in Budapest, development of spas in Reykjavik in Iceland, establishment of a geothermal power plant near Lake Myvatn, (P. Erfurtcooper, 2009).

In addition to being valuable tourist destinations, hot springs are also important in promoting/improving livelihoods of the local communities around them. For example, Lake Bogoria, Chemurekeu, Lake Magadi, Lake Turkana hot springs in Kenya. Different developments have taken place basing on the last years, looking at an example of Lake Bogoria hot spring where resorts and hotels have been put in place, that is Bogoria hotel and Lake Bogoria resort in Bogoria community, Kibamet town in Bogoria District. The flower drying machine at Eburu community, generation of geothermal electricity from Lake Bogoria hot springs, the sugar plate at Nyanza using

the electricity from the hot springs, (John, 2011). In addition, also other developments have taken place. For example, green house at Oserian Development Company in Naivasha, hot swimming pools at Bogoria hotel, (John, 2011).

Similarly, the Ken Gen power station has been established at Naivasha, and also the traditional systems at Eburu community where the local community tap steam and condense it for domestic use (Roselyne, 2014). Other hotels in Kenya that have been established as a result of hot springs include Afya Bora hotel meaning "good health", Tulia meaning "relax" and Maisha meaning "life" being established between 1997 and 2008 (Roselyne, 2014). Over 143 million clients in 2009 visited Kenya's hot springs and over 330,000 local people were employed in hot spring related facilities like hot swimming pools, hotels, resorts and in guiding services in 2010 (Roselyne, 2014). However, there has been a growing challenge in promoting hot spring tourism; Competition with other businesses offering beach massage, poor hygiene in the same facilities / hot spring sites, marketing challenges that are not fully dominating as compared to other tourism resources in the country (McNeil, Ragins, 2005). The most age group of people visiting most of Kenya's hot springs is between 35 and 55 years, most of them being the couples and families (Roselyne, 2014).

Uganda has hot springs in Kasese, Kabale and Rubanda among other districts looking at an example of, Kibinge hot springs in Base Camp Zone of Kyanjoki Ward in Central Division of Kasese District, that developed in association with volcanic activities through the geothermal activities beneath the earth's surface, as a result the rain water collects into the created depressions, as the hot rocks keep boiling the water due to high temperatures from the underground rocks, hence forming a hot spring. These hot springs also contribute to community development through, employment, infrastructure development, foreign exchange currency, (Mbaiwa, 2008).

According to the locals, Nyamasizi hot springs started with the beginning of the earth, however, geographers believe that it was formed as a result of volcanicity. According

to one of the locals Mr., Kabasekye, one of the residents says that it was discovered by the hunter named Kahigi who saw the steam released by the spring in the morning hours while hunting in 1904. To his surprise, it was hot water oozing from a water body, from then and on, the word "hot spring" started from there and spread in especially areas around the area. There are two points where people soak themselves for the spring waters to heal them.

Nyamasizi hot spring is a vernacular for "warmth", but because of the popularity of the place, the village and sub-county are called Nyamasizi community. The patients use the water from Nyamasizi hot springs twice a day to drink and bathe in the waters. The official hours being four hours in the morning and in the evening hours. According to Geresom, the leader and the guide at the hot spring, the morning session is shorter because when sun shines, it increases the temperatures of the waters and making the water un accessible.

People with ailments on the body dip their bodies in the waters to get healed, if someone is having stomach problems, they draw the water directly from the burble boiling point normally referred to as Agaratagata "meaning very hot boiling water" according the locals, that later cools and then they drink it, making it indeed a hospital to the local people. The area receives approximately 300 people every week, people of all ages and from different districts and countries. The local businesses like small restaurants, shops gaining a lot from these visitors or patients who visit this place by contributing to their economy. These hot springs areas are said to be containing a lot of mineral in these waters for example, sodium chloride, potassium chloride, lithium sulphate, magnesium chloride which are said to be important to people's health according to some doctors and researchers, (E, Patricia, Cooper, 2010).

This study investigates the potential / contribution of Nyamasizi hot spring to development of local communities in Rubanda District. For example, due to the presence of the Nyamasizi hot springs in Rubanda District, the communication networks have been eased like road a line which eases business transactions and the

general development of the area. With the multitude of tourists from all over the world, new ideas keep flowing in to the area, businesses are supported and boosted, roads are constructed and basic social services extended to the locals. For instance, the Nyamasizi hospital is being reequipped to sustain the growing numbers of the locals.

1.2 Problem statement

Nyamasizi hot springs has in the past years been mainly used by the local community for traditional practices. However, Nyamasizi hot spring is primarily known for bathing purposes and water drinking by the local communities around it. And this does not portray its full tourism potential and its contributions to community development, and hence is not yet fully exploited by these communities for them to benefit more from its uniqueness and other potentials around it. Despite its location near the main road that is the Rubanda-Kanungu road, the natural resource still receives a few visitors / tourists coming for health tourism. Nyamasizi hot spring receives over 200 tourists every month, most of them being the local people, as compared to Sempaya hot spring that receives approximately between 1 0000 and 12000tourists and Nyamasizi hot spring which receives 1300 tourists. This is supported by cheng et al .. , (2019) who pointed out that the hot springs resources have been known for their therapeutics. They can be used as a water resource for industry or energy, as well as for recreation or tourism, and feature as one of the oldest forms of water. Therefore, the intention of this research will be to establish how Nyamasizi hot spring can be more beneficial to the local communities around it. This is supported by hot spring thermal theory by Liu (2019) which supports ecosystem Hot spring tourism. that it is an experience-based tourism activity. Specifically, the on-site experience of hot spring tourism is an important experience. Tourists use hot spring pools as a therapy or for stress recovery and even for leisure and social purposes, which promote the emotional connection between hot spring tourists and the destination and affects their loyalty to that destination.

1.3 Objectives of the study

1.3.1 General objective of the study

The general objective of this study was to assess the contributions of Nyamasizi hot springs to community development of Rubanda District.

1.3.2 Specific objective

The study was guided by the following specific objectives;

1. To identify the local perceptions towards potentiality of Nyamasizi hot springs in terms of tourism business
2. To assess contributions of the hot springs towards community development
- iii. To identify challenges facing the local communities around the Nyamasizi hot springs.

1.4 Research questions

1. What are the local perceptions towards potentiality of Nyamasizi hot springs in terms of tourism business?
2. What are contributions of the hot springs towards community development?
- iii. What are the challenges facing the local communities around the Nyamasizi hot springs?

1.5 Scope of the study

1.5.1 Geographical scope

The study was carried out at Nyamasizi hot spring Rubanda district.

1.3.1 Content scope

The study focused on the contribution of Nyamasizi hot spring to community development in Rubanda district.

1.5.3 Time scope

The study focused on the period of five years that is from (2018-2022). This was because the researcher believed that the information for this period was needed to establish the relationship between the study variables.

1.6 Significance of the study

To the community level

The findings of the study may help community members neighboring Nyamasizi hot spring to know different tourism based activities that should be done around the hot spring for a better sustainable tourism development.

District level

The study findings may provide relevant information about tourism sector in Rubanda district and how community based tourism business are being done towards tourism development activities.

National level

The government of Uganda may understand different community based tourism activities needed by the community members and how to implement them for better sustainability towards tourism development around Nyamasizi hot spring.

1. 7 Definition of key terms

Tourism: The World Tourism Organization (WTO) defines tourism as the sum of activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes (WTO, 1993) and tourists as visitors who stay at least one night in collective or private accommodation in the place visited.

Tourist: A person who travels away from home, staying away for at least one night.

Community: A group of people living in the same defined area sharing the same basic values, organization and interests Rifkin et al, (1988).

Hot spring: Hot spring also thermal spring is a spring with water at temperatures substantially higher than the air temperature of the surrounding region. Most hot spring discharge ground water that is heated by shallow intrusions of magma (molten rock) in volcanic areas.

Development: Development is the process of improving the quality of all human lives with three equally important aspects.

Local people: This is a person who lives in a particular area, city, or town. Local People in relation to an area, means people who live or work in the area.

CHAPTER TWO

2.0 Literature Review

This chapter reviewed the related literature on the Contribution of Nyamasizi hot spring to community development in Rubanda District. A case study of Nyamasizi hot spring and the sub themes are; to assess the local perceptions towards potentiality of Nyamasizi hot springs in terms of tourism business, to assess contributions of the hot springs towards community development and to identify challenges facing the local communities around the Nyamasizi hot springs in Hamurwa sub-county Rubanda District.

2.1 The local perceptions of potentiality of Nyamasizi hot springs in terms of tourism business

Isingoma (2006) one of the locals, states that Nyamasizi hot springs would be famous than they are currently. This is because as a tourism resource, secondary benefits could be realized. He went on and outlines modifications, which would be done to turn Nyamasizi hot springs and the area around it as an accommodation center, transport services could be developed to support the community around the hot springs and shopping facilities can be improved. Hot springs have been long known for their fortifying powers and ability to rid the body of ailments. Morgan, (2004) maintains that the springs are a great place not only for a therapeutic bath, but also for recreation and sightseeing, 'many regular customers declare that enjoying a good soak in a steaming, silky-smooth hot spring set amid beautiful natural scenery one of the life's greatest pleasure.

Spa treatments are potential tool in the rehabilitation of people in the community with alcohol and drugs problems. This is a personal but beneficial perspective in a community development point of view, several leisure tourists would like to experience such an advantage of the detoxication healing especially after having had a

long night of alcohol before proceeding to other tourist activities, hence such view of Nyamasizi hot springs justifying its value towards community development, (Wright, 2006). Entrepreneur Graham (1845) was one of the first businessmen to see the benefit of hot spring, swimming pools can be built along the water area that can be used by the guests with intoxication problems and muscle cramp needs as a distinctive potential at Nyamasizi hot spring to benefit the community.

2.2 The contributions of the Nyamasizi hot springs towards community development

Towner (1996) stated that natural hot and mineral springs are an important resource for present day health and wellness tourism, as well as for recreational destinations. According to Hsieh, Lin & Lin (2008) for example in Taiwan hot-spring tourism has recently become one of the most important recreational alternatives with the potential to grow into the most important and profitable sector of Taiwanese tourism. A number of researchers including Deng (2007), Lee (2010), Lee and King (2006, 2008) and Lee et al (2009) have studied the Taiwanese hot spring tourism sector and commented on the considerable resources of natural hot springs; however, the main focus of their research papers is on topics such as quality measurement, destination competitiveness and performance analysis rather than on the role of hot springs itself as a natural resource for tourism. This focus is evident in the research by Morais and Lin (2010) who discuss the choice to visit a hot spring destination in Taiwan and find that this is primarily affected by a certain destination image which is anticipated to affect the visitors' intention to patronize a destination repeatedly by developing destination attachment.

Cockerell (1996) and Hall (2003) support the role of natural hot and mineral springs by saying that visitors who choose hot spring destinations do so primarily for the benefit of enhanced physical and mental wellbeing during a period of time away from home as well as treating themselves to some luxury and pampering.

Medical thermalism has a strong tradition in Europe (Mueller & Lanz Kaufmann, 2001) and the Middle East (Saman, 1999) and is rapidly growing in Asia and New Zealand. At the end of the Second World War (WWII) Eastern Europe's existing spas were extended and modernized as part of the former USSR's public medical treatment system. A similar process occurred in Germany and France, where the medical health resort and spa tradition based on natural hot and mineral springs still exists in the 21st century (Erfurt-Cooper & Cooper, 2009; Weisz, 2001). The integrated health and wellness concept typical for Europe's spa tradition is different to the leisure and beauty therapy-based concept of the Americas and Australia although the two concepts are now converging (Erfurt-Cooper & Cooper, 2009). Mueller and Lanz Kaufmann (2001) summarise the European view of health and wellness with a marked distinction between the two sectors. They argue that wellness tourism is a specific segment of health tourism and is designed for healthy people who want to prevent future illness by maintaining good health, while health is something that is pursued by people with certain medical conditions in need of treatment.

Recreational tourism based on the use of natural hot and mineral springs, although not examined in depth in this thesis, needs to be acknowledged for comparative reasons and as evidence for the important role of hot springs in health, wellness tourism and recreational tourism. Geothermal springs and their related features come in many physical forms; some emerge quietly from the ground to form bathing pools with water at pleasant temperatures, and others arrive at the surface with great noise and visual effect, overwhelming in their unique natural form (Erfurt-Cooper & Cooper, 2009). Geothermal manifestations like geysers, hot-water streams and waterfalls, boiling lakes and bubbling mud ponds are highly sought after must-see destinations for tourists and frequently these landscapes have been declared special cultural or natural (geological) heritage sites to control urban or industrial development in their vicinity. Protected sites with unique geothermal features include national parks and geo-parks as well as some UNESCO World Heritage Sites, all covered by special environmental laws and regulations. The United Nations Educational, Scientific and

Cultural Organization (UNESCO) describe such sites as '... cultural and natural heritage around the world considered to be of outstanding value to humanity ... ' (UNESCO,2011). These destinations could not wish for a more important endorsement, with some well- known examples being the City of Bath in England, the famous hot spring sinter terraces of Pamukkale in Turkey and the Yellowstone National Park in North America.

Natural hot springs are documented in the geothermal research literature by Cataldi et al (1999) and Lund (various publications from 1993 to 2010) and others (Pesce, 2002; Hodgson, 2004; Lund et al, 2005; Arya&Arya, 2010; Fekraoui, 2010; Kepinska, 2010; Lund, Freeston& Boyd, 2010) as well as in GeoScience Journals (e.g. *Kris*, Marton&Skultetyova, 1995; Lambrakis & Kallergis, 2005; Vylita& Zak, 2009). The geothermal literature does not focus on tourism use of natural hot and mineral springs, but mention frequently the potential of this natural resource for balneology, bathing, swimming and the development of health resorts and spas. In fact, the geothermal science community appears to be more aware of the role of hot springs for tourism in their literature than the researchers in the tourism sector. This is further evidenced in the frequent inclusion of special sessions about health tourism at conferences with an otherwise strict science focus such as the World Geothermal Congress (WGC) in 2005 and 2010. At the congress in 2010 a number of scientists presented their research, with considerable emphasis placed on the utilization of natural hot and mineral springs for the health, wellness and recreational tourism industry.

Geothermal manifestations such as geysers present a powerful visual display of nature at work and are natural laboratories for studies in geo microbiology, a recently established discipline which links mineralization to certain microbes that inhabit geothermal springs as explained by Renaut and Jones (2003). Some types of natural hot and mineral springs contain silica (e.g. Blue Lagoon, Iceland), carbonate or geysirites, which precipitate into mineralised crusts and terraces of travertine or calcite tufas when the fluids evaporate and cool (McGeary et al, 2001; Renaut, 2004). Well known examples are the Mammoth Hot Springs in the Yellowstone National

Park, USA and the sinter terraces of Pamukkale in Turkey as well as the now destroyed Pink and White Terraces in Rotorua, New Zealand. Such terraces are unique visual tourist attractions, which are also used as supplementary physical resources in health, wellness and recreational tourism to the geothermal resources themselves (Lee & King, 2008: 182) to attract more tourists to increase visitor numbers. Several authors including Towner (1996), Stein et al (1990) and Bennett et al (2004) have noted that ambience as manifested through natural surroundings is a significant attraction factor for particular health resorts and spas and is commonly used in the promotional literature as a unique selling proposition (USP). In conclusion it is noted that those natural hot and mineral springs, no matter in which form they emerge from the earth and how they are exploited, are important resources in the tourism industry of many countries.

2.3. Challenges facing the local communities around the Nyamasizi hot spring.

Income to material/ equipment suppliers and contractors. The scale of construction works is large and wide spread, including the areas of Rubanda - Hamurwa Town council and the township of Nyamasizi. Although some of the equipment and materials required for the project will be sourced nationally and internationally to ensure quality is achieved, a number of equipment and materials (such as gravel, bricks, lumber, steel reinforcement and cement for civil works) can be sourced locally. Local suppliers of materials and equipment involved in the project will benefit financially. This is a positive but short-term and reversible impact Cook et al (1998).

Employment. Construction will avail skilled and unskilled job opportunities for residents, especially youths, in the project area. Skilled labour will include artisans such as plumbers, carpenters, masons while unskilled labour will be required for excavation activities Begon, (2006).

Infrastructure. The community will benefit from an improved road network as the construction activities will necessitate roads to be graded in some cases to improve access.

Harper, (2006)

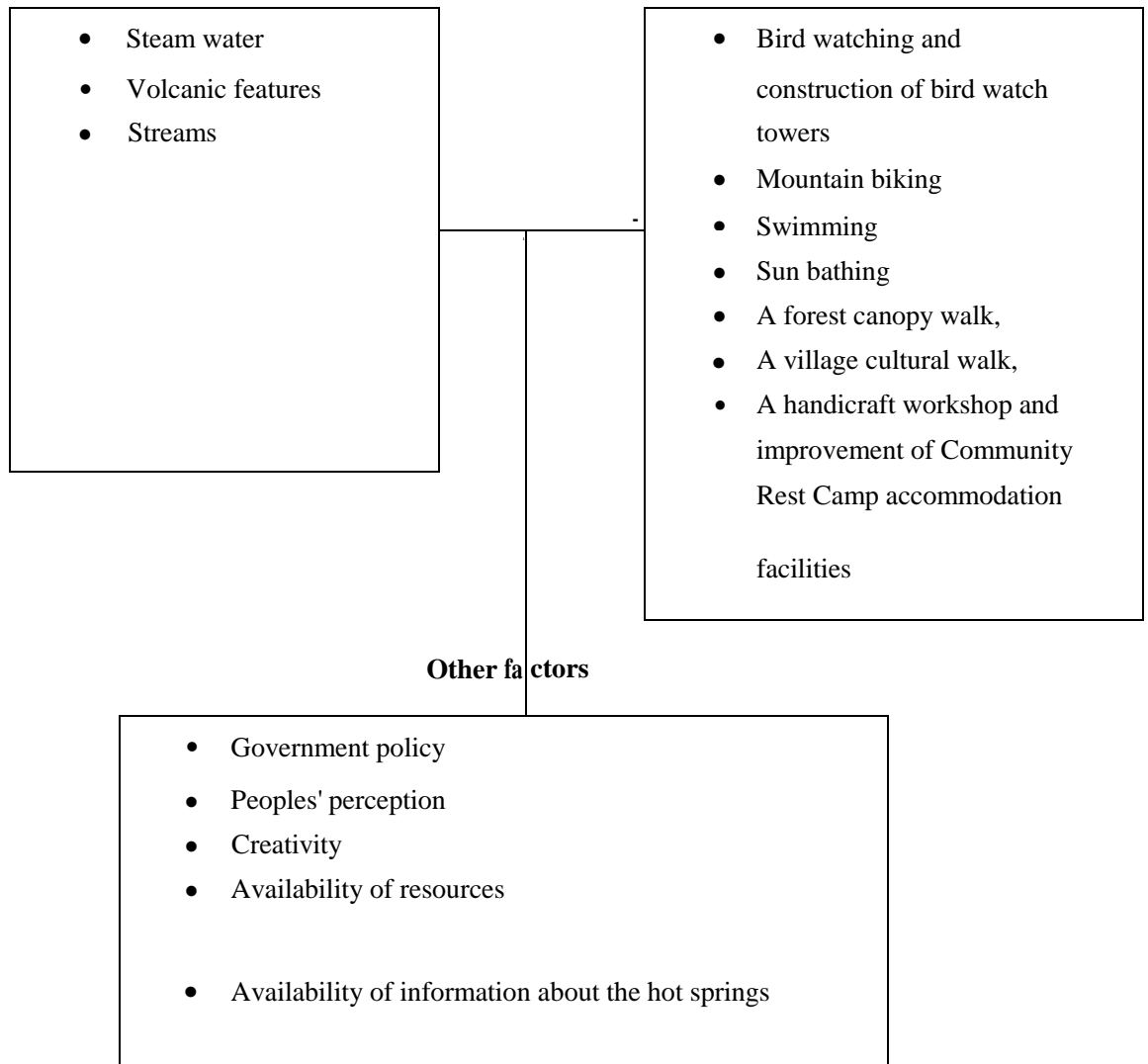
Soil degradation. The laying of water pipeline from the boreholes, water treatment structures and associated facilities, for example, contractor's camp, will result in direct disturbance of soil. Site preparation will involve clearing of strips of vegetation to allow for excavations to begin. Soils excavated may be heaped besides the trenches hence exposed to agents of erosion such as wind and storm water. However, prolonged storage of topsoil can lead to a loss in fertility of the soil as nutrients become leached out by rainfall. This process can lead to impaired vegetation growth once the soil is reinstated. In addition, prolonged topsoil storage can lead to the loss in viability of the seed bank contained within this soil. Also equipment engaged in activities might cause light contaminations of soil due to leakage of fuels and lubricants from equipment. Topsoil stripping during levelling and grading of the right of way (ROW) and the excavation of subsoil during trenching will break up the soil structure. Depending on the nature of the soil, this may lead to a temporary increase in erosion Australian Government (2004).

Contamination of water resources. There is a potential for pollution from chemical contaminants at all stages of the project. Spillage of fuel, lubrication oil or wastewater is potentially important at the watercourse crossings, pump station, and block valves during construction and testing. Contaminants introduced by construction could migrate into key receptors such as the Nyamasizi stream/ swamp. Activities associated with construction have the potential to produce groundwater and surface water contamination. The principal potential contaminants associated with the construction activities Akite, (2008).

2.4 Conceptual frame work

Nvamasizi hot springs (Independent variable)

Community development (Dependent variable)



Source: Researcher, 2022

From the conceptual frame work above, contribution of Nyamasizi hot sprmg as independent variable is identified by various features which include steamed water which is ever on evaporation stage, flowing stream from the spring and other volcanic features around the hot spring. These have led to the community development indicated by the use of mountain biking, bird watching, construction of roads, swimming, sun bathing, construction of the rest camps and village cultural walks. Such developments have led to increased number of tourists who visit Rubanda district. However, other factors like government policy, Peoples' perception, Creativity and Availability of resources affect either community development around Nyamasizi hot spring and this has increased tourism development in Rubanda district.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presented the methodology that was used in the study; it gives a description of the study area and the methods that were used to collect data from the field. It gives a summary of the research design, study population and sample size, data collection instruments, data type, data processing and presentation and the problems that were encountered during the process of data collection and analysis.

3.1 Research design

The researcher used descriptive survey design because of the findings needed to be generalized over a large population. A survey design is a self-report study that required the collection of quantifiable information from the sample by interviewing or administering questionnaire to a sample of individuals, (Kothari, 1985: Orodho, 2003: Mugenda and Mugenda, 2008).

3.2 Area of study

The study was conducted in Hamurwa sub county-Rubanda District, Nyamasizi hot spring is located approximately 8 kilometers from Rubanda district headquarters and 0.8 kilometers from Nyamasizi trading center.

3.3 Study Population

The population comprised of 100 respondents who includes; tourists, tour guide, political leaders and local leaders and community members.

3.4 Sample size and sampling technique.

Simple random sampling design was adopted and this provided equal chance to all respondents. A total of 50 respondents were selected randomly from Rubanda district and they included; tourists, tour guide, political leaders and local leaders and

3.

community members. The sample size was selected to cater for all categories of respondents and this helped to avoid bias among the study participants.

3.5 Research instruments

According to Kombo and Tromp (2006), data collection refers to gathering specific information aimed at proving or refuting some facts. The source of data that were adopted in this study was both primary and secondary data. Primary data was the information gathered directly from respondents by use of questionnaires.

3.5.1 Questionnaires

A questionnaire is a special document that allowed the researcher to ask a number of standard questions to a large number of people in order to gather information from them. According to White, (2000), a questionnaire is an instrument with open ended or closed ended questions or statement to which respondents must respond. The study involved collection of data through the use of questionnaires on evaluation of tourism potentials of Nyamasizi hot springs in Rubanda district. Questionnaires were preferred for this category (tourists, tour guide, political leaders and local leaders and community members) of respondents as it limited the amount of information and gave only the relevant information that the study required.

3.5.2 Interview guide

An unstructured interview schedule which contained open-ended questions was used as a guide to obtain qualitative data from tour guides. The interview schedule was used because they had a high completion rate compared to other methods. Interviews were guaranteed an immediate feedback.

3.6 Data collection method

The study made use of both primary and secondary data and this was done through utilization of quantitative methods of data collection. In quantitative research, the design was developed at the beginning of the research and deviations of any kind of

deviation was not permitted as such deviation was thought to cause problems. Communication and interaction objectively define the fashion. Data analysis took place only when the process of data collection was complete. The data collection methods were standardized and fixed leaving no options for correction and adjustment.

3.6.1 Key Informant Interviews

Face to face interviews were carried out with tour guide, chairman LCIII and community members to cross check the response from the questionnaire. They were designed in a way that more specific and truthful answers were got. This helped to capture information, not provided by the questionnaires. The researcher used Interview guide to capture the respondents' views. This method was preferred because of its flexibility and ability to provide new ideas on the subject (Kothri, 1990).

3.6.2 Documentary review

The study also used secondary data that included written documents such as notice, journals, text books, administrative and public records, magazines and internet. The reason for using secondary information was mainly to help the researcher to place the findings with in a more general context by comparing and integrating the research finding to the existing literature about the study problem.

3.7 Data Quality Control

Validity: Instruments are supposed to measure accurately what they are supposed to measure. Therefore, before instruments were administered, they were examined by colleagues taking the same programme as the researcher's. They were examined by the supervisor as these ensured that the terms to be used in the questionnaire and interview guides were accurately defined and properly assumed.

Reliability: An instrument is reliable if it measures consistently what it is supposed to measure. Even if other researchers administer it, it could produce the same results. In this study, the test re-test methods were used to establish reliability. The tools of data collection were experimented more than once on different instances to the same

sample by different data gatherers and they produced the same results meaning the instrument were reliable.

3.8 Ethical consideration

When human beings are used as study participants in research investigations, care were exercised in ensuring that the rights of those respondents were protected. The researcher respected human dignity by not revealing the identity of the respondents in the study. To this, a letter of introduction was got from Kabale University seeking permission to conduct the study after being directed by the supervisor to do so. This letter was presented to the respondents in the study area for permission to conduct the study. Once the permission was granted, the researcher distributed questionnaires to the respondents in addition to interviewing them and the next stage after was to analyze the data collected from the study respondents for writing the report.

3.9 Data analysis and management

The reason for carrying out data processing is to prepare raw data for statistical analysis and presentation. According to,(Kothari,2004:Mugenda and Mugenda, 1999), this step is essential in scientific and social science research in ensuring that all relevant data are captured for making comparison and analysis. After all data was collected, the researcher conducted data cleaning, which involved identification of incomplete or inaccurate responses which were corrected to improve the quality of response. After data cleaning the data was coded and entered into computer for analysis using excel. This research yielded both qualitative and quantitative data. Qualitative data was analyzed qualitatively using data analysis based on analysis of meanings and implications emanating from respondents' information and documented data. As Observed by Gray, (2004) qualitative data provided rich descriptions and explanations that demonstrate chronological flow of events as well as often leading to chance findings

Data analysis was done after collecting the raw data from the field, editing and checking for accuracy of information, consistency and uniformity. The collected data 19

was analyzed both quantitatively and qualitatively. Quantitative data was grouped and statistical description such as tables showing frequencies and percentages and piecharts were developed for better representation of the study findings. Qualitative data refers to the data collected from respondents that cannot be easily presented in numerical form and the researcher analyzed this type of data by only identifying the responses from respondents that was relevant to the research problem at hand (Stergios1991; Vlahos, 1984). Mainly such data was analyzed in way of explaining the facts collected from the field under which the researcher was in position to use themes developed from the study objectives as the researcher was in position to quote respondents responses.

3.10 Expected limitations of the study

During the process of data collection, the following limitations were encountered by the researcher.

Being the first research, the researcher was faced with the problem of not having researcher skills during the process of undertaking this study. However, the researcher tried to work hand in hand with the supervisor to successfully finish her research study in time.

The study was limited with funds in form of transport as distance from the university to the study area was a bite long. However, the researchers solicited funds from her friends and relatives during the process of undertaking his study.

The researcher could at times not find all respondents in the study area especially Chairman LCIII as at times they had fixed programs in doing their works.

The researcher however arranged with them to fix appropriate time in order to collect reliable and valid information.

CHAPTER FOUR

DATA ANALYSIS INTERPRETATION AND PRESENTATION OF FINDINGS

4.0 Introduction

The study was about the contribution of Nyamasizi hot springs to community development in Rubanda district. The findings from the study are presented and analyzed chronologically in accordance to the objectives of the study as they were formulated. This chapter presents issues related to the contribution of Nyamasizi hot spring to community development in Rubanda district, to identify the potentiality of Nyamasizi hot springs identify challenges facing the local communities around the Nyamasizi hot springs and the background characteristics of such respondents that were involved in the study are presented here under in their respective categories.

4.1 Background information of the respondents

4.1.1. Gender of respondents

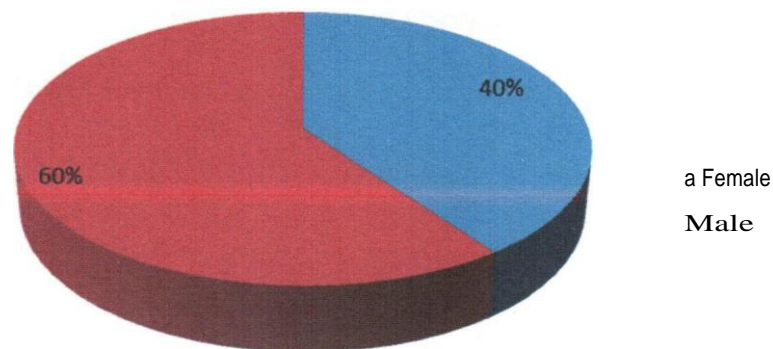


Figure 4.1: Pie chart showing gender of respondents

As shown in figure 4.1 above, majority of respondents (60%) were males. This was because the study was voluntary and thus more male respondents compared to female

ones were much more willing to participate and express their views comfortably. However the female respondents in the study also were crucial in revealing information that the study used to generate this report.

4.1.2 Age of the respondent

Table 1: Showing age distribution of respondents

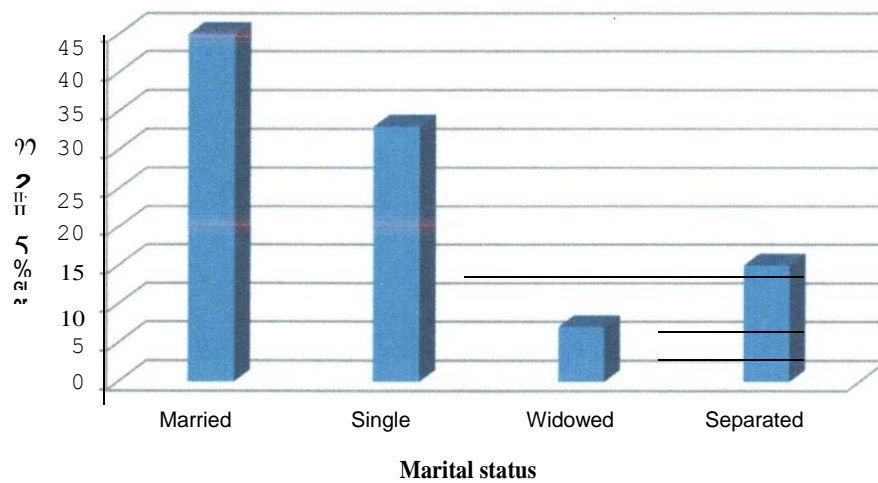
Age (years)	Frequency	Percentage of respondents
18-24	17	34
25-35	20	40
35 and above	13	26
Total	50	100

Source: **Field data 2022**

Table 4.2 shows the age distribution of respondents. The study shows that 17 (34%) of the respondents were between the age of 18-24 years, (40%) of the respondents were between the age of 25-35 years and 13 (26%) of the respondents were between the age of 35 and above years. The study revealed that majority of respondents was between the age of 25-35 years and therefore had the knowledge on the contribution of hot spring in the area.

4.1.3 Marital status of respondent (bar graph

Figure 4.2: Bar graph showing marital status of respondents



Source: **Field data 2022**

Figure 4.4 shows marital status of respondents. The study considered the marital status of respondents as married, single, widowed and separated/divorced persons were interacted with while in the field. The study found out that 19 (38%) of respondents were married, 16 (32%) of the respondents were single, 05 (10%) of the respondents were widows and 10 (20%) had separated. The study shows that the majority of respondents were married. However the marital status of respondents had no bias as far as influencing the responses and understanding of study variables were concerned.

4.1.4 Level of education.

The respondents were asked about their level of education and their responses are indicated in the table below.

Table 4: Showing education level of respondents

Education level	Frequency	Percentage
Primary	08	16
Ordinary	12	24
Advanced	10	20
Tertially education	11	22
University	09	18
Total	50	100

Source: **Field data 2022**

The study found out that 08(16%) of the respondents had primary level 12 (24%) of the respondents had ordinary level, 12 (24%) had advanced level, 11 (22%) had tertiary level and 9(18%) had university level. The study indicates that majority of the respondents had attained ordinary level of education and therefore had knowledge on the contribution of hot spring to the economic development.

4.2 Local perceptions towards potentiality of Nyamasizi hot springs in Rubanda district

Table 2: Local perceptions towards potentiality of Nyamasizi hot springs in Rubanda district

Potentials	Frequency	Percentage
Rehabilitation of tourists	06	12
Healing powers	14	28
Tourists attractions	18	36
Business development	12	24
Total	50	100

Source: Field data 2022

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From the table above, Local perceptions towards potentiality of Nyamasizi hot springs in Rubanda district with 12%, healing powers 28%, Tourists attractions with 36% and Business development with 24%.

4.3 Contributions of the hot springs towards community development Table 3:

Contributions of the hot springs towards community development

Contribution	Frequency	Percentage
Income	12	24
Health and wellness of tourists	08	16
Mental well being	04	08
Recreation of tourism	11	22
Infrastructure development	09	18
Market for art crafts	06	12
Total	50	100

Source: **Field data 2022**

From the table above, all the respondents interviewed suggested the contributions of hot springs towards community development include; Income generation with 24%, Health and wellness of tourists with 16%, Mental well-being of people with 08%, Recreation of tourism with 22%, Infrastructure development with 18% and Market for art crafts with 12%.

4.4 Challenges facing the local communities around the Nyamasizi hot spring. Table 4: Challenges facing the local communities around the Nyamasizi hot springs in Rubanda district.

Challenge	Frequency	Percentage
Low revenue sharing	07	14
Competition from the neighboring hot spring	13	26
Unemployment to local community	06	12
Soil degradation challenge	09	18
Low foreign exchange earnings	05	10
Contamination of water source	10	20
Total Source: Field data 2022	50	100

Research findings indicate local community face different challenges Nyamasizi hot spring in Rubanda district as they include; Low revenue sharing with 14%, Competition from the neighboring hot spring 26%, Unemployment to local community 12%, Soil degradation challenge with 18%, low foreign exchange earnings with 10%, and Contamination of water source with 20%,

CHAPTER FIVE

DISCUSSION OF THE STUDY FINDINGS, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter includes discussions, conclusions and recommendations. The findings are discussed basing on the study objectives.

5.1 Discussion of the study findings

5.1.1 Local perceptions towards potentiality of Nyamasizi hot springs in Rubanda district

The study findings indicates that all the respondents interviewed shows that local perceptions towards potentials of Nyamasizi hot spring in Rubanda district include; Rehabilitation of tourists, healing powers, Indigenous cultural communities, Tourists attractions, and Business development and events. Most of the respondents agreed that tourists' attractions are the most potentials of Nyamasizi hot spring as presented by 36% of the respondents.

5.1.2 Contributions of Nyamasizi hot springs local people towards cultural tourism development

Findings of the study indicate that the Nyamasizi hot spring towards community development include; income, Health and wellness of tourists, Mental well being people, recreation of tourism, Infrastructure development and Market for Art crafts. Most of the respondents revealed that Nyamasizi hot spring contributes to income

which was noted by 24% of the respondents reported that they get income from tourists they are hosts.

5.1.3 Challenges facing the local communities around the Nyamasizi hot spring.

The study findings shows that local community face different challenges towards the economic development of Nyamasizi hot spring in Rubanda district as they include; Low revenue sharing, Markets for cultural products, Competition from the neighboring hot spring, Unemployment to local community, Soil degradation challenge Low foreign exchange earnings, and Contamination of water source. Competition from the neighboring hot spring in Rubanda district is a major challenge. Majority of the respondents with 26% argued that competition from the neighboring hot spring reduce on number of tourists visits which resulted on low revenue sharing.

5.2 Conclusions

Basing on study objectives, the study included that, Nyamasizi hot spring is one of the dynamic economic activities in creating socio-economic changes in Rubanda district which has been increasingly important. In the district present circumstances, soil degradation, low revenue sharing, unemployment, low returns, competition from the neighboring hot springs including the challenges facing the community. However potential tourism resources which includes; Rehabilitation of tourists and healing powers, Tourists attractions, and Business development and events are the important aspects in the district. Therefore the people's perceptions of a situation play an

important role in determining its authenticity, but also that people's needs or demands for authenticity vary.

5.3 Recommendations

The study recommends that;

There should be need to analyze the contributions (both positive and negative) of Nyamasizi hot spring towards economic development of Rubanda district.

There should be involvement of local people in decision making and be consulted on policies regarding potential hot spring resources and their ability to influence these decisions.

There should be training, workshops and seminars regarding potential tourism resources on how they affect the society on development.

There should be policies introduced to ensure that potential cultural tourism resources are protected in the area so as to avoid destruction by the people and these policies will hopefully contribute to increasing the income and employment opportunities amongst the local community.

There should be support and advice offered to the local communities in order to develop the potential hot spring resources.

5.4 Further areas for future research

Assessment of the contributions of hot springs towards tourism development in Rubanda district.

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APPENDICES

P.o Box 317

Kabale-Uganda

APPENDIX I: QUESTIONNAIRE FOR (TOURISTS, TOUR GUIDE, POLITICAL LEADERS AND LOCAL LEADERS

Dear respondent you have been selected to participate in the study that seek your opinion on "**The contributions of Nyamasizi hot springs to community development within Rubanda district**". You are required to respond to the questions accordingly, so as to enable the researcher get the required information about this topic. The research is purely for academic purposes and therefore your information will be treated with confidentiality.

SECTION A: Bio data

I. Names (optional)

2. Age

a) 15-24 yrs ☐

b) **25** 35 yrs ☐

c) 35 yrs& above ☐

3. **Sex** ☐

a) Male ☐

b) Female ☐

4. **Education level** ☐

a) None ☐

b) Primary level ☐

c) Secondary level ☐

d) Tertiary level ☐

☐

5. Marital status

- a) Single ☐
- b) Married ☐
- c) Separated ☐
- d) Divorced ☐

SECTION B: The potentiality of Nyamasizi hot springs

6. Mention any four importance of the hot spring.

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7. Give four business types that can be developed around this area.

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8. Give at least 4 roles of the local people in protecting and conserving the hot spring.

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Mention some of the benefits got from the hot spring to the local community.

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11. As a guide, is the development of Nyamasizi hot spring important?

Yes

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No

Give reasons for you answer,

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12. Are you seeing any developments in your area as a result of the presence of the hot spring in your area?

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Give reasons for your answer

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spring.

12. What are the challenges facing local community around Nyamasizi Hot spring?

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13. What measures can the government use to reduce on the challenges faced by local community around Nyamasizi Hot spring?

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Thank you for your participation and time

APPENDIX II: INTERVIEW GUIDE FOR COMMUNITY MEMBERS

Dear respondent you have been selected to participate in the study that seek your opinion on "**The contributions of Nyamasizi hot springs to community development within Rubanda district**". You are required to respond to the questions accordingly, so as to enable the researcher get the required information about this topic. The research is purely for academic purposes and therefore your information will be treated with confidentiality.

- I. What are the four importance of the hot spring?
2. What are business types that can be developed around this area?
3. What are the roles of the local people in protecting and conserving the hot spring?
4. What are some of the benefits got from the hot spring to the local community?
5. How have the locals/ you used the hot spring to improve on the community in relation to its development?
6. As a guide, is the development of Nyamasizi hot spring important?
7. Do you agree that the alternative use of Nyamasizi hot springs for tourism can be beneficial to the local community?
8. Are you seeing any developments in your area as a result of the presence of the hot spring in your area?
9. What is your view on the development of Nyamasizi hot spring as a tourism resource?
10. What are the challenges facing local community around Nyamasizi Hot spring?
11. How can the government of Uganda reduce on the challenges facing local community around Nyamasizi hot spring?