ASSESSMENT OF SPATIAL ORGANIZATION FOR ENHANCED SECURITY AND SAFETY IN THE DESIGN OF GURARA TOURIST CENTRE, NIGER STATE

BY

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ABSTRACT

Generally, the importance of tourism keeps rising day by day and in all its ramifications, it is of significant importance to the economy, social, and environmental well-being of a country. Tourism is an increasingly important source of income, employment and wealth in many countries and its rapid expansion has been considered as an interesting possibility for sustainable development, including poverty reduction, in Nigeria. Nigeria is a country with very rich tourism potentials which is gradually becoming an essential part of the country's economy. The failure or the success of a tourist centre is dependent on its ability to be able to deliver a secure and safe environment for visitors and this is far more important than any other economic activity. Tourism is a human endeavour that can only flourish in a peaceful world. Nevertheless, the tourism industry experiences opposition as kidnapping, unrest, and most recently terrorism. Security issues continue to raise a threat to tourism development and this has caused several setbacks for tourism development within the country and as such security challenges should be evaluated and resolved as much as possible. This study assessed spatial organization for security and safety measures in the design of Gurara tourist centre, Niger State. Descriptive research method was employed for the assessment of this research. The first phase of the research included desk study of relevant literatures or materials on tourism as a whole including security and safety as it applies to it. This phase brought about the deduction of variables as; zoning for security, nature of site boundary, drop off procedure, hard landscaping for security, soft landscaping for security, number of entry points, availability of a tour guide and watch tower. Data was collected with the use of an observation schedule after selecting samples using the convenience non-random sampling procedure. Six tourist centres were selected across the country and the deduced variables were carefully observed across them. These data gotten via observation were analysed through content analysis and the findings showed that a planning for single route entry had the highest level of consideration 90 percent while the level of importance given to a definite site boundary, hard landscaping for security, soft landscaping for security had the least consideration with a percentage level 27.5 percent. A good drop off procedure had a percentage consideration of about 66.6 percent and an ideal zoning showed a percentage consideration of about 50 percent. In general security and safety measures have not been properly adopted in tourism development and most tourism centres have not been well developed and properly planned for thereby making them vulnerable to security threats. The research recommends that for a country as Nigeria yet to reach its full potential in the tourism industry, designing for enhanced security be considered and instilled as an utmost importance in the design of tourist centres by professionals and urges the government to look into the development of potential tourist centres within the country.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

LIST OF APPENDICES

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Study

All over the globe, the industry of tourism over time has been greatly affected by civil unrest threats, and issues of terrorism (Simplice *et al.,* 2019). The introduction of security and safety are crucial to delivering and ensuring a safe tourism. The failure or the success of a tourist centre is dependent on its ability to be able to deliver a secure and safe environment for visitors and this is far more important than any other economic activity (Nwokorie, 2014).

Tourism all over the world or in many countries have been a vital and crucial source of income, wealth and employment with an astonishing increasing rate. Its strong growth has indeed been hailed as a great opportunity for long-term development, including poverty reduction in Nigeria. Tourism is a human endeavour that can only flourish in a peaceful world. Nevertheless, the tourism industry experiences opposition as kidnapping, unrest, and most recently terrorism. Terrorism is an issue of concern with various views making it open to diverse interpretations as pertaining to motives and causes. However, it can be generally described as an intentional, politically driven violence against civilians by groups or agents (US Department of State, 2004).

Nigeria have been seen to have a limitation as regarding the facilities and conditions of tourist centres which in turn poses a considerable risk to travellers. Bankole, (2002) Pointed out the fact that one of the key variables that Nigeria has failed to look out for is that of safety and security. In his article, he explains how the US Department of State alerts US people about the risks of traveling to Nigeria because of violent crimes

committed by terrorists as well as persons in police and military uniforms. Kidnappings for ransom of people involved in the petroleum industry, including US citizens, are still popular in the Niger Delta, and using public transportation in Nigeria is risky and should be avoided, according to the US travel advisory. Kidnapping for ransom of person has been seen to pose a threat throughout the country leading to safety and security alarms within remote and tourist areas within the country.

Essential components of tourist centres or tourism product is the core feature that can distinguish between a good destination and a memorable destination (Candela and Figini, 2012). Essential components of tourist centres are crucial for tourism in any country and it is not encouraging in a general sense that these components are not properly organized in Nigeria which in turn has led to various problems. Transportation (transporting visitors), lodging (providing shelter, protection, and comfort), and sustenance (food and beverages) are all necessary components. Recreation facilities (swimming pools, tennis courts, indoor games); entertainment facilities (theatre, movie shows); historical and scientific sights, favourable climate, and retail facilities, on the other hand, are optional components (Okpolo *et al.*, 2008).

1.2 Statement of the Research Problem

As the incidence of violent crimes, robbery, and kidnapping continues to increase, security and safety needs to be planned and designed alongside building design. Today insecurity has become a global phenomenon especially in public buildings (Omoyibo & Akpomera, 2012). According to Adora, (2010) the security warning declared by international organisation towards its citizen as regarding tourism activity in Nigeria should not be argued but be seen as a genuine security alarm, propelling us towards

identifying, evaluating and providing adequate ways in reducing, eliminating, or coping with them. The guarantee of security and safety is very crucial to providing quality experience in the tourism industry and has also been an indispensable criterion for travel and tourism (Page & Connell, 2006). Today, security is not an issue for the armed forces alone but has become an issue that must concern the society at large. Although, not all of these threats can be stopped, it could be curtailed by using carefully organized spaces to allow for secured occupancy and easy evacuation in case of emergency, outbreak or other related circumstances; as well as controlling circulation of people and vehicles within and around the development. Based on all these, all available measures have to be looked into to handle this hostile situation that has befall our society.

1.3 Aim and Objectives of the Study

The aim of this study is to assess spatial organization for security and safety measures in the design of a tourist centre.

In other to achieve this aim, the objectives of this study are to;

i. Understand the basic principles of designing tourist developments or centres.
ii. Identify the various elements of design that affect security and safety which can be adopted in public buildings environments, specifically tourist centres.
iii. Assess the various security and safety measures employed in the design of existing tourist centres.
iv. Propose an appropriate design that integrate passive security and safety measures to enhance the design of tourist centres.

1.4 Justification of Study

Gurara waterfalls holds a very strong potential to be developed to a world class tourist centre due to its pleasant weather, captivating sceneries, and favourable vegetation; and can be believably developed to the standard of the Niagra Falls, and Victoria Falls. All these potentials have remained to be potentials that have not been harnessed to the fullest. An access road, a hut and an observation spot are the only developments existing at the falls over the years (Musa *et al*., 2018). The Gurara water fall is not developed, thereby making its potential as a tourist centre untapped. A well-designed tourist centre with security and safety in the design consideration at the Gurara falls will go a long way in harnessing the potentials of the tourist centre.

The tourism industry in Nigeria has a lot of untapped potential. Adeleke (2009) as cited by Honey and Gilpin (2009), Nigeria is basically spot-on for tourism. Nigeria's over 370 ethnic groups provides the land with a very rich cultural heritage also blessed with natural wonders, favourable climate and an exceptional wildlife. Nevertheless, very minute efforts have been put in place to see to it that this tourism destinations are properly planned for. The tourism industry in Nigeria has tremendous economic potential. Tourism is one of the industries in the world at large moving with a very great speed. It is a major source of revenue, prosperity, and job generation all over the world, and its rapid growth and globalization has been seen as a promising prospect for Nigeria's long-term development and poverty reduction. The tourism industry in Nigeria has enormous economic potential because it aims to diversify the country's monocultural economy.

1.5 Scope of Study

This research work explored the measures of safety and security and identify those that can be applied to the design of the tourist centre. The scope covers all aspects of security and safety design measures as it applies to tourist centre with regards to spatial organization. This thesis also involves the design of needed facilities for the Gurara waterfall tourist centre.

1.6 Contributions to Knowledge

This research lays down a guide to assist designers tackle security and safety in public areas. It outlines the diverse aspects of passive security control and safety measures that can be implemented in tourist centres. The rising incidence of terrorism is no longer what one person or agency can handle, neither will one measure of control effectively contain it at the design stage to ensure security and safety of life and property.

1.7 Study Area

Gurara Waterfalls is found in Gurara Local Government Area of Niger State with its Head office situated at Gawu-Babangida. Bonu, where Gurara Waterfalls is found, Diko, Gawu, Izom, Kabo, Kwaka, Lambata, Lefu, Shako and Tufa are the 10 wards of the Gurara local government area. It has an entire land area of about 1,126.3km^2 and an estimated Population of about 90,974 people in 2006 (Niger State Department of Budget & Planning, 2015). The waterfall is about 30 meters in elevation and lies on the Gurara river along the Suleja-Minna road. It is one of the natural habitats that the nation is blessed with and serves as a destination for travellers and fun lovers. The vegetation of study area is characterized by thick forest including broad trees, shrubs, and grasses of several species which serves as a good green space that supports biodiversity and

ensures neutrality of the environment without distortion. The Falls originated from river Gurara which is a huge tributary of the famous River Niger. It is located in Gurara Local Government Area at Latitude 70^0E and Longitude 90^0N. This remarkable waterfall, is located 2km off Minna-Suleja road, about 68km from Minna by road and 35km from Suleja by road (Niger State Culture and Tourism Corporation, 2015). The Niger State Government assigned a total of 1,105.759 hectares for the development of the Falls (Niger State Culture and Tourism Corporation, 2015).

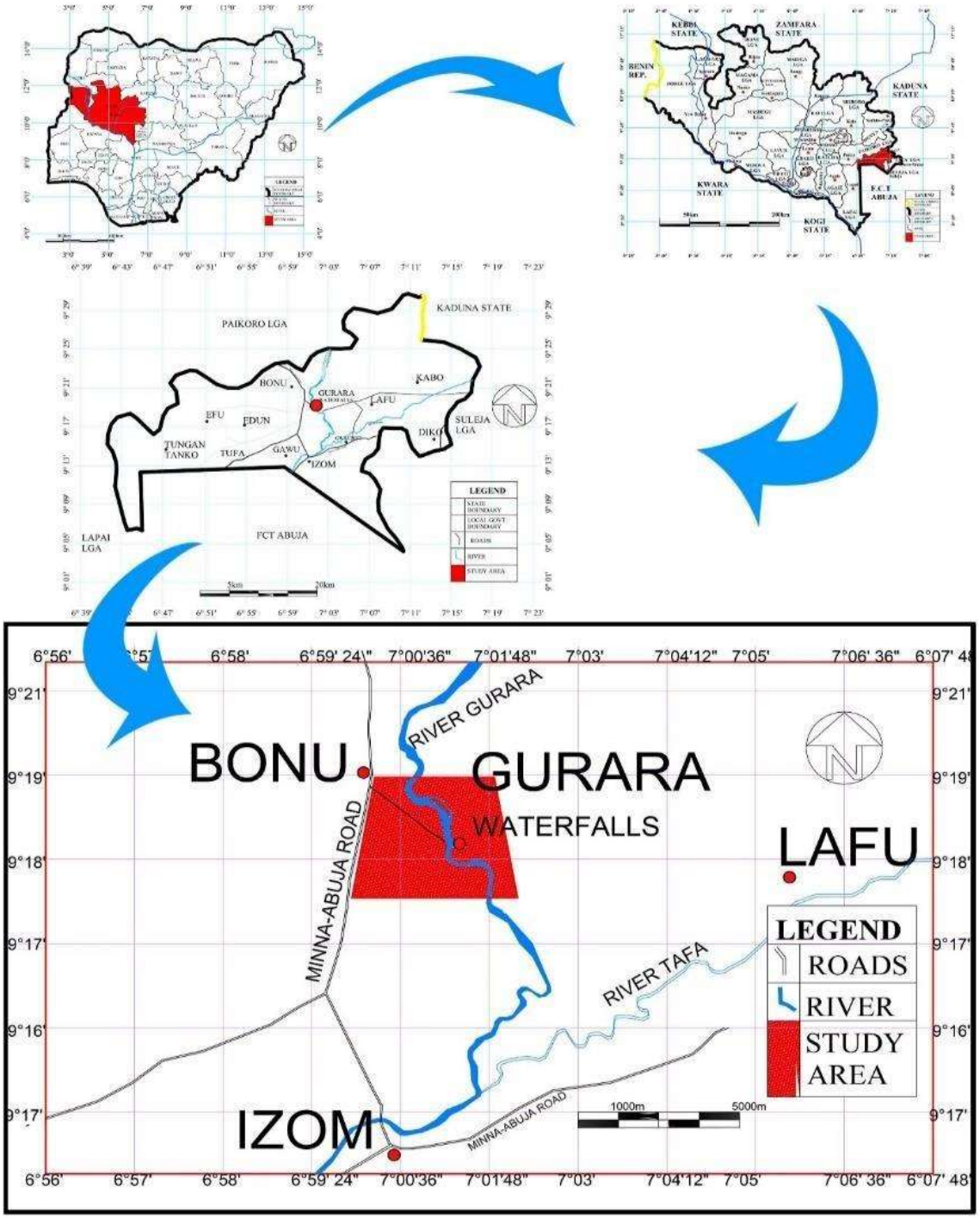

Figure 1.1: Locational Map of Gurara Waterfalls
Source: Niger State Ministry of Lands and Housing (2015)

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Concept of Tourism

The term tourism comes from the word "tour," which refers to a journey or a circular trip taken for company, leisure, or education that includes stops at different locations (Webster, 1961). Tourism" means the temporary short-term movement of people to destinations outside the places where they normally live and work, as well as their activities during their stay at these destinations (Sebahattin & Nur, 2018). Tourism, according to Ajayi and Lawal (2010), is something that has the inherent ability or potential to stimulate people in moving from one place to another. In addition, on March 4, 1993, the World Tourism Organization (WTO) describes tourism as, persons traveling to and living in areas other than their usual place of residence for not more than one year for recreation, company, or other purposes. The application of this broad definition allows for the identification of tourism between countries as well as tourism within a single country. The World Tourism Organization goes on to say that "tourism" applies to all visitor practices, including "tourists (overnight travellers)" and "same-day visitors." Tourism, according to Walton (2017), is the act and practice of using commercial facilities to spend time outside or away from home in pursuit of recreation, rest, and pleasure.

Tourism is regarded as the momentary mobility of persons to locations other than their usual location or normal habitat, as well as all of the operations they engage in during their visit there and the services built to meet their requirements.

2.2 History of Tourism

The analysis of history is the examination of the past as shown by current facts (John, 1991). While all disciplines are concerned with the accuracy of their records, historians are perhaps unique in that they are acutely conscious of the importance of the facts they must work with. This understanding, in turn, leads to a reluctance to deduce broad conclusions from their observations, and a focus on the difficulty of the subject they're studying. Tourism generally has been known, to have developed from the western Europe, specifically in the 17th century and as such has been termed as a result of contemporary social structures according to Walton. There have been different opinions among historians as regards the beginning of tourism (Ramjit, 2016).

Generally, historians are of the opinion that tourism has been long born with human being and that the beginning of tourism phenomenon started in the 12^{th} century. Tourism has been differentiated from exploration in the sense that tourism follows a beaten pattern as described by Walton (2005). By the early twenty-first century, international tourism has become one of the world's most important economic activities, and its popularity has spread across countries. The history of tourism began even before the word tourism was coined at the end of the 18^{th} century. Leiper (2004), emphasized the evident reality that the term tourist or tourism did not exist before sixteenth century. Coordinated travel with supportive services, sightseeing, and an emphasis on significant attractions and activities can be found in Ancient Greece and Rome, which can lay claim to the origins of both "heritage tourism" (aimed at the promotion and admiration of historic sites of recognised cultural importance) and beach resorts in the Western tradition. The categorization of tourism development has been generally classified into stages/eras. These stages are;

i. The Empire Era (B.C to 5th century)
ii. The Middle Age Era (5th to 14th century)
iii. The Renaissance Era (14th to 16th century)
iv. The Grand Tour Era (1613 to 1785 A.D)
v. The Mobility Era (1800 to 1944)
vi. The Modern Era (1945 to present)

From the period of the Egyptians to the time of the Greeks, the Empire Era began and ended with the collapse of the Roman Empire (Caguioa, 2009, and Harley, 2020). People started to move in great numbers for governmental, economic, educational, and religious purposes at this period. People travelled to survive as the seasons changed and animals moved, traveling on foot and confined to relatively small geographical regions. The Egyptian kingdom (4850-715 B.C.) was the first civilization to have organized state functions. Traveling by sea to these destinations was especially simple because travellers could take advantage of the Nile River, which drained northward but was constantly brushed by southerly breezes (Ramjit, 2016).

During the Middle Ages, traveling became risky and unstable, and it almost vanished. During this time according to Harley (2020), travelling became much more difficult than it had been and when people travelled, it wasn't for leisure. The following factors led to the decrease in travel during the Middle Ages: transportation and safety, currency approval and knowledge of popular languages, some crusader travel to the Holy Places, and Marco Polo's historic travel in the late 13th century (Ramjit, 2016). Following the crusades, traders such as Marco Polo travelled to locations far beyond those reached by the crusaders. During the Revival, a renaissance of travel started slowly, and other merchants began to explore places far beyond their boundaries. The Grand tour Era

brought about the trend of luxurious travel which was known to have started by the wealthy English. This method of travelling advanced as a status symbol and spread all over Europe. It became fashionable and well known among people who had time and money. Eric (2015) Opined that this era was characterized as an era depicting the expression of wealth.

The mobility era refers to the era in which technology made a shift in the transport system such as roads, railway, and steamship. Thomas Cook, labelled the "Father of Tourism" by several historians, created a number of tour packages. In 1841, Thomas Cook, the pioneer of the guided tour, arranged his first one-day rail trip, and in the 1860s, he organized his second one-day rail trip (Hasan & Arslan, 2019). Short-term stays and day trips became commonplace, taking advantage of modern transportation technology.

The new age of tourism runs from 1945 to the present, and in the early 1990s, paying holidays were added, making luxury travel accessible to both middle- and working-class people. During World War II, millions of people were exposed to foreign travel, which ushered in the era of mass tourism. Modernity influenced tourism as we know it, and it also contributed to the development of the modern world (Eric, 2015). New technology played a role in the development of modern travel, but evolving individual perceptions also played a role. Leisure travel sparked discussions about social identity, cultural similarities, and differences from other groups.

2.3 Types and Forms of Tourism

Typifying tourism was first in 1939 (Cornelia & Anca, 2008). Several styles and forms of tourism were identified by Huziker and Krapf (1941): travel for rest and care, pilgrimage, and scientific knowledge. There have been various opinions to the types, forms or categories of tourism that exits, some scholars have typified tourism to be based on travel and tourism itself. This has brought about types of tourism (domestic tourism and international tourism) and types of travel (leisure travel, business travel, visit friends and relatives). Aside from these, others have also said that tourism could be classified based on types and forms. Due to the study at hand, the different variations of tourism have been classified under types of tourism and forms of tourism.

2.3.1 Types of tourism

Tourism has several different forms that change over time. The needs of its goals, the degree of cultural and social services, and the current modes of transportation all influence the types of tourism that are offered during a given time (Cornelia & Anca, 2008). According to Tunde (2012), the types of tourism depends basically on the nature and cultural context. In general, after a careful examination of the various outlined types of tourism, one may distinguish six types of tourism:

i. Relaxing/ Leisure Tourism
ii. Relaxing and health Tourism
iii. Visiting Tourism
iv. Transit Tourism
v. Reduced Distance Tourism
vi. Professional Tourism

The very first five types of tourism are commonly done during holidays or free time, while technical tourism is closely associated with productivity. Some authors, such as Huziker and Krapf, remove professional tourism from the concept of tourism because it is related to a financial motive and therefore varies from conventional recreational activities or health care.

2.3.1 Forms of tourism

Unlike the types of tourism, the forms of tourism simply refer to the way in which the tourism is conducted reliant on the reasons and the external impacts. According to (2008), the various forms of tourism can be distinguished based on the following criteria: initial destination (domestic and international tourism), number of participants (individual and group tourism), organization (organized, unorganized and semi-organised tourism), season (continuous and discontinuous tourism), period of time (tourism of short, long and reduced duration), privacy (private and social tourism), transportation (tourism by train, air, water, cycling and walking), age and occupation (youth and adult tourism), and type of destination (mountain tourism).

These also gives insight on different forms of tourism and their linkages to the era or history of tourism. Other research shows that tourism in a broad and commonly used forms are simply; domestic and international tourism.

The United Nations classified tourism into two categories in 1994, as follows: Domestic tourism refers to travel within a specific geographical area that does not extend beyond the borders of the visitor's home country. Traveling to countries other than one's own is known as international tourism. Globally, world tourism has become a common and quickly developing trend.

2.4 Classification of Tourism based on Tourist Centres

A tourist attraction that draws tourists due to its intrinsic or displayed purpose, natural value, cultural value, historical significance, natural or built beauty, and provision of leisure and entertainment is referred to as a tourist centre. The different types of tourism based on tourist centres makes an integral part of the structure of the tourism industry (Harley, 2020). Archaeological tourism, pilgrimage tourism, adventure tourism, Agri-tourism, atomic tourism, bookstore tourism, earthquake tourism, hemp tourism, garden tourism, medicinal tourism, shark tourism, space tourism, eco-tourism, water tourism, wild life tourism, and wine tourism are all types of tourism that can be categorized by a visitor centre or attraction.

2.5 Tourism Product

Tourist products are those that meet the needs of visitors and are the subject of exchanges between tourists and businesses. According to Neil, (1990) tourists, as visitors in an area or tourist centre for at least one overnight stay, need life-supporting structures such as shelter from the elements, a place to sleep, food and drink, and convenient facilities corresponding to their various tastes while at leisure. According to Dimitris, (2015) tourism products can be seen in two distinct levels which is termed as the total product and the specific product. This total product is made up of all the components that a visitor eats while on vacation. The specific product, on the other hand, is a subset or part of the total product that can be sold separately, such as lodging, transportation, attractions, and other tourist facilities. This product meets both the tourist's primary and secondary needs (Paul, 1977). The primary goal of the tourism industry is to serve visitors, and its progress is dependent on positive interdependence across all sectors (Camilleri, 2018). During their trip or visit, the tourism product

ensures that tourists' regular biological and social needs are met in accordance with their normal cost of life at their destination (Dimitris, 2001).

Despite the fact that goods are the most important or core aspect of the tourism industry, Jennifer *et al.* (2010) claims that sometimes, there is misunderstanding about what these products entail. Attractions, for example, are often confused with operations and utilities, but a product is more than these. Tourism according to Jennifer *et al., (2010)* can be thought of as six components aligned in logical sequence which as stated by her are; Attraction, Access, Activity, Services, Qualified personnel, and Promotion. Camilleri (2018) in his opinion has stated that the major sectors are; Transportation, Accommodation, Ancillary Services, and Sales & distribution. According to Argon *et al*., (2021) the tourism products are simply these; accommodation, transportation, food, and ancillary services. Tourism industry is categorized by a general product and this product consist of five rudiments; the physical plant, service, hospitality, freedom of choice and involvement (Smith, 1994).

An encompassing view as deduced by the researcher on tourism product has been further explained to include; All tourism products commence by means of an attraction, without which there is no further discussion. Attraction is the first major consideration among tourism products. Every attraction or tourist centre ideally should have an access. Access for a tourist centre may sometime mean the visitor capacity to arrive. Some attractions, such as desert areas and areas for adventure sports, are appealing because they are difficult to reach. In any case, access is critical for maximizing the value of such an attraction.

The activity refers to the experience derived by visitors or tourists and not just the experience alone but how. Any tourist experiences an attraction, but how they see it differs depending on the operation or activity they choose. A person can experience Gurara falls from the internet or they could also experience by visiting and viewing. Furthermore, they can also get this experience by swimming in water and having a touch of the fall (even though it should be by the regulatory or safety body). All these shows that it is therefore wrong to say Gurara falls offer a particular kind of experience, because the experience is dependent on the activity.

Many of the functions that a tourist or visitor might need or be unable to perform for themselves but wishes to have someone else do for them are referred to as services. Services include the actual fact of allowing the activity to take place, security, food, housing, transportation, communication, souvenirs, etc.

The provision of a service requires that a qualified individual or professional provides that service. It could be a chef, guide, driver, staff, police, or even a street juggler.

Regardless of how well-designed a tourism product is, if no one knows about it, it's all for naught. As a result, advertisements must be included in a tourism product.

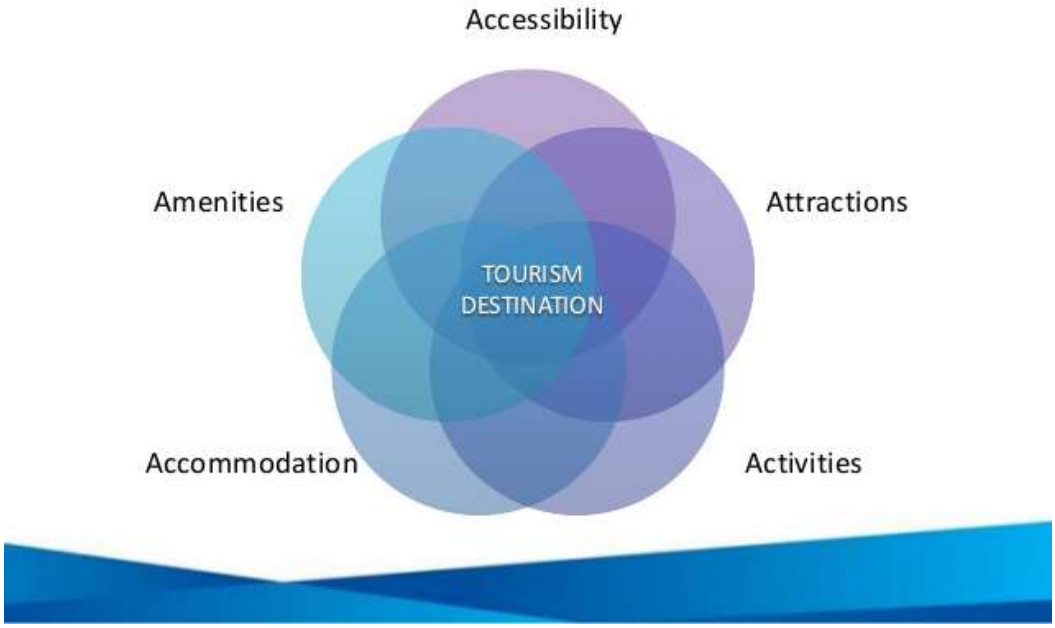

Figure 2.1: Tourism Product crucial for Tourism development
Source: Beon, (2020)

2.6 Tourism in Nigeria

According to Karibo, (1999) Nigerians have a reputation for being good travellers both inside and outside their traditional homes, as well as outside the country for recreation, commerce, and cultural requirements and ceremonies. This could be traced back to the earliest West African empires. In Nigeria, organized tourism began in 1962 with the creation of the Nigeria Tourist Attraction (NTA) by a group of tourism professionals (Ashikodi, 2010). In the year 1964, the NTA was well-known and a member of the International Union of Official Travel Organizations (IUOTO) (Research & Intelligence, 2013). The IUOTO was renamed the World Tourism Organization later on (WTO). The Nigerian Tourism Authority was decommissioned and replaced by the Nigerian Tourism Board (NTB). A Decree No. 54 of 1976 created the Nigerian Tourism Board (Research and Intelligence, 2013). The Nigerian Tourism Board took charge of the following responsibilities; Categorizing hotels in the country and provide tourism

information and advisory services, endorsing and carry out researches in the tourism sector, improving the provision of tourist amenities and facilities in Nigeria, and encourage people within and outside Nigeria to participate (Research and Intelligence, 2013).

In 1989, the Federal Government of Nigeria decided that the NTB's organizational capability needed to be supported, and restructured the NTB's governing body by commercializing the Board's operations. As a result of this, in 1989 the government reframed the Ministry of Trade into the Ministry of Trade and Tourism which later prompted the creation of the Department of Tourism in the Ministry (Research and Intelligence, 2013). United Nation World Tourism Organization has even applauded the Nigeria government to promote tourism as a way of improving the socio-economic conditions of Nigerians and diversifying the country's economic base. However, the success of Nigerian tourism will be determined in large part by its long-term viability and consideration of the variables that led to those developments. Tourist happiness and the degree of a visitor's trip experience are said to be strongly linked to the level, usage, or lack of facilities and technology in a destination (Smith, 1994). In addition, infrastructure is essential to a tourist's overall experience and impression of a destination (Crouch & Ritchie, 2000). Many Nigerian tourism experts agree that the sector has the potential to help reduce the accumulation of foreign exchange outlets while also contributing to foreign exchange earnings. Tourism in Nigeria has a lot of potential due to the multiple endowments of tourism resources such as vegetation, mountains, wildlife, waterfalls, valleys, and beaches located throughout the country (Munzali, 2011). According to the Nigerian Embassy, Nigeria has strong tropical weather, a wide selection of wildlife, awe-inspiring waterfalls, historical relics,

captivating beaches, and rolling hills, as well as a welcoming and culturally active community.

Nigeria is a diverse and contrasted tourism destination due to its weather, vegetation, and environment. The climate and weather are influenced by the semi-arid climate of the Jos plateau, the harmattan haze in the north, and the hot weather in the south. The country's flora ranges from sparse shrubs in the north to thick mangrove swamps in the south. In every economy, the number of tourist attractions is the prime determinant of tourism demand, regardless of the good weather and environment. Bankole (2002), Cliffs, plateaus, valleys, springs, lakes, waterfalls, beaches, temples, shrines, cultural events, parks, gardens, game reserves, and zoos are among Nigeria's tourist destinations, which are spread throughout the country's six geographical zones.

Tourism is primarily focused on natural geographical sites such as waterfalls, highlands, valleys, rainforests, fishing festivals, and the savannah in Nigeria, a country with a diverse cultural and ethnic group and an economy based primarily on agriculture and mining. Although there are a few man-made tourist attraction centers ranging from cultural activities to resorts, parks, and gardens, there aren't many. The following are some of Nigeria's tourist attractions: Argungu fishing festival, Yankari games reserve, Olumo rock, mambilla plateau, Durbar festival, Zuma rock, Cross-River national park, obudu cattle ranch, Gashaka-Gumti national park, Aso rock, Irin ijesha water falls, and Gurara falls. Others still are; Idanre hills, kajuru castle, awhum waterfalls, IITA forest Ibadan, Afi mountain wildlife sanctuary, Okomu National park, Millenium park, Chad basin national park, Wikki warm springs, Azumini blue river rose, silicon hill, Oguta lake holidy complex, and Nok village.

2.6.1 Terrorism as a problem of tourism in Nigeria

Terrorism is identified as the intentional use of, or threat of using, violence against civilians or civilian targets to accomplish political objectives (Ganor, 1998). While tourism tries to bring people (using various strategies) to destinations of different types for satisfaction of tourists and empowerment of economies, terrorism aims at scaring, scattering, harming and discouraging people from visiting targeted parts of a countries (including destinations) in other to destroy the economies of such places, thereby inflicting pains on the ruling government of the area. International terrorism and tourism are inextricably linked by similarities such as the crossing of national boundaries, the involvement of people from various nations, and the use of transport and communication technologies (Sonmez, 1998). Due to the intensity of both the tourism industry and the increased level of terrorism across the globe, as well as the fact that tourist locations stand as perfect marks for terrorist attacks in order to cause significant quantities of economic and social damage, the connection among tourism and terrorism is indisputable in the recent age (Ranga & Pradhan, 2014).

In the case of Nigeria many forests in Northern Nigeria serve as hiding places for insurgents, cattle rustlers, Indian hemp smokers, robbers and rapists. Boko Haram insurgents use the Balmo Forest in Bauchi and Jigawa States as a base and hideout for launching attacks (Ladan, 2014). Robbers have used the Falgore game reserve in Kano State to harass tourists and traders over the years (Madu-West, 2012). Part of the Kabakawa forest, which is situated within Katsina's residential quarters, runs parallel to Kano road, which poses serious security threats as it harbours thieves, ritual killers and rapists (Ladan, 2013). This consequential security challenges prompted the Katsina

State Government to reserve the Kano section of the forest in December, 2009 (Ladan, 2013).

Residents around Idu and Gwagwa Forest Reserves in Abuja FCT have complaint of high insecurity level due to the presence of these reserves (Aduge-Ani, 2014) as robbers hide in the forests to attack passersby and residents. Even when attempts are made by the police to arrest them, they still manage to get away without getting captured by escaping through the forest (Aduge-Ani, 2014). Boko Haram's latest rebellion in Nigeria's north and north-central regions, the bombing of Abuja's key cities, the United Nations capital, and the Police Headquarters, as well as numerous other planned attacks on places of worship, military formations, and government offices, has become a major concern for future visitors (Enemou *et al*., 2012). On March 21, 2014, over 40 armed insurgents hiding in the Kagoro forest of Kaura Local Government Area in Kaduna State attacked three villages in Kaura Local Government Area, shooting and setting houses on fire, killing 119 people (Bashir & Isuwa, 2014). The camouflage uniforms worn by the armed herdsmen enabled them moved freely through the forest without being easily noticed (Ladan, 2014).

2.7 Spatial Organization in Tourist Centre

A detailed definition of spatial organization necessitates a close examination of movement sequences, direction shifts, intersections between different directions, the existence of alternate sequences connecting the same two areas, the occurrence of convergence points or spheres of exclusion, and so on. The term "spatial organization," according to Peponis (1997), refers to the structure of possible movement as defined by the location of confines in space and the relations and

disconnections between areas that result from the existence of limits. The systems approach and sustainable development approach are the leading methodology in the planning of land use and environmental conservation on a territorial organization scale. Tourism spatial planning is needed for efficient use of tourism capabilities, as well as for achieving an appropriate spatial arrangement of tourism destinations, partnerships, and linkages, managing growth and development, and achieving long-term tourism sustainability (Mahmoud, 2014).

According to Philippe (2011), Tourism planning occurs on three levels or stages: global, local, and individual attraction or site levels. Specific tourist attractions, amenities, and infrastructure are planned, designed, and built at the site level to fulfil tourist needs. Tourist destination area planning and management, which involves the coordination and development of visitor attractions and facilities in and around destination communities, is a less well-known but equally significant field (Godfrey & Clarke, 2002). The community or destination stage of tourism planning is referred to as this. A systematic approach is a collection of variables that interact with one another and via material and energy flow with the environment. Every system is structurally and functionally complete. Therefore, when acting on a component of a system, its other components also change, leading to changes in the system as a whole (Truong, 2007). The territory of the study refers to a geosystem formed by a mutual relationship between natural factors (geologic, topographic, climatic, hydrologic, pedologic, and biologic factor), socioeconomic factors and forms of exploitation and use of natural resources (industrial, agricultural production). This system is structurally complete and functionally unified: economic, administrative, ecologic, social, and other functions (Truong, 2007). The sustainable development approach requires a harmonic

combination between socioeconomic development and environmental protection, in particular it requires to implement three objectives:

i Effective economic development,

ii Harmonic development of social aspects, improvement of living standards of the population and

iii Prevention of pollution and improvement of the ecological environment.

2.7.1 Concept of tourism space configuration

The best form of spatial concept in architecture is four vertical planes surrounding a field of space. The field's space is inherently introverted since it is totally enclosed. Only the surface of a wall can be seen from inside a room. The vertical boundary of the space is defined by this thin layer of material. Without openings in the enclosing planes of a spatial field, no spatial or visual continuity can be achieved between adjacent spaces. Architecture emerges when space is captured, enclosed, shaped, and structured by solid elements of mass (Rinbo, 2010). As a result of social activities, space becomes a location or place. Lefebvre (1991), This method, according to him, allows ‘space' to become ‘place’. Space appropriation gives the user's spatial experience personal significance. The essence of spatial meaning that adds value to this experience is influenced by a variety of factors. Soja (1996) identifies three factors that influence the development of place: spatiality, sociality, and history. This trialectic model depicts the context of space's elements as well as their relationship. These elements are all linked to one another, resulting in an integrated space production model. In other words, a space is the intervening contents of a volume or an area occupied by or intended for a person or a thing. Grobler and Schalk, (2006) believes that human habitation and interaction

spaces can be found all over the built world, including urban space. The rightful appropriation of space gives the user's spatial experience personal significance.

Generally, space configuration has to do with the organization of spaces. Organizational spaces illustrate how the physical world affects people's health, minds, and behaviour in and around organisations in order to protect them. It is a branch of science in which interdisciplinary collaboration is important. Architecture, organization, and management (Dale & Burrell, 2007) can be combined with expertise from environmental psychology (Evans & Mitchell, 1998), social medicine (Macintyre *et al*., 2002), or spatial science to create organizational space (Festinger *et al*., 1950). Essentially, it can be thought of as a branch of organizational studies and change management that has been extended to architecture. The expertise field is related to evidence-based design, which investigates the impact of the physical environment on patient wellbeing, recovery, and consumer satisfaction in health care.

2.7.2 Defensible space application in public areas

A defensible space works by separating vast areas of public space and passing them to individuals or small groups to manage and use as their own private spaces (Oscar, 1996). The concept of defensible spaces is such that the magnitude of public spaces should be broken down into smaller units so as to make this units accounted for (Pat, 1979). According to Oscar (1972), there exits four proposed elements of good design to reassure the social control network which have been eroded to a certain degree by urbanization. These constituents are; territoriality, surveillance, image and environment. Defensible spaces also can be beneficial not only in matters of security alone but also as regarding safety. In terms of fire protection, a defensible space is described as the area around a building in which brush, rubble, and other forms of

combustible fuels have been handled, cleared, or minimized in order to delay the spread of fire to and from the structure. One of the most cost-effective ways to protect a house from a wildfire is to construct a defensible zone, which can also be done by the land owner. A defensible space is the region surrounding a building where grass, debris, and other combustible fuels have been treated, cleared, or minimized in order to slow the spread of fire to and from the structure. Constructing a defensible space, which can also be accomplished by the land owner, is one of the most cost-effective ways to shield a house from a wildfire.

2.7.3 Types of spatial organization

Spatial Organization can be typified into centralized organization, linear organization, radial organization, clustered organization, and grid organization.

2.7.3.1 Centralized organization

A centralized organization is made up of a variety of secondary spaces which are clustered together around prominent, central space usually normal in shape and adequately wide to gather a number of secondary spaces around it (Ching, 1996). An interior or exterior space may serve as the central organizing space (Rinbo, 2010). The secondary spaces may be functionally, form-wise, and size-wise identical, resulting in a geometrically regular or symmetrical composition. To respond to individual role requirements, convey relative importance, or acknowledge their surroundings, secondary spaces may vary in size or form from one another.

2.7.3.2 Linear organization

A linear organization is basically a set of spaces position in a linear form. Such spaces can be connected straight or through a completely distinct linear space. They are linear because they are arranged in a single axis, not because of a prevailing unifying linear volume (Giovanni, 2018). A linear organization is made up of spaces that are all the same size, shape, and functionality. It may also be made up of a single linear space that helps organize a sequence of spaces that vary in shape, size or function across its length. Every space along the series has an external exposure in both cases. The directional linear organization denotes movement, extension, and development. A distinct space will end an organization's growth to limit it (Suheir, 2015).

2.7.3.3 Radial organization

A radial organization is made up of a central space from which a radial network of linear organizations extends. A radial organization, on the other hand, is an unreserved arrangement that spreads out to its background, while a centralized organization is a withdrawn scheme that focuses inward on its central space (Ching, 1996). A radial organization's central space is usually normal in shape. The linear arms, for which the central space serves as the centre, will vary from one another to meet the needs of different functions and contexts.

2.7.3.4 Clustered organization

Physical proximity is used by a clustered entity to connect the spaces. It's made up of a lot of duplication, cellular spaces with identical functions and a typical visual characteristic like form. Within its composition, a clustered organization can have

spaces that are different in size, form, and function but are connected by proximity or an organizing scheme such as symmetry or axis (Ching, 1996).

2.7.3.5 Grid organization

A clustered organization may also embrace spaces that are dissimilar in scale, shape, and purpose but are linked by closeness or an assembling system such as symmetry or axis within its composition. The grid design is converted into a series of repeated, integrated units of space when projected into the third dimension, under which spaces, discrete events or grid module repetitions exist (Rinbo, 2010). A grid may be rendered uneven in one or two directions, dislocated and rotated around a point in the general pattern to accommodate the exact dimensional requirements of its spaces, or split to describe a key space or accommodate a natural feature of its position.

2.8 Security and Safety in Tourist Centres

Travel and tourism have always needed a high level of safety and protection. However, it is undeniable that in the last two decades, protection and security considerations have become much more relevant in the tourism industry (István & Krisztina, 2016). Henderson *et al.*, (2010) stated that safety and security concerns, as well as political strife, are deterrents to both domestic and foreign visitors visiting tourism destinations and staying at hotels. Bankole (2002), stated that only one variable is of key importance in tourism planning and development in Nigeria which he stated as security and safety. Ejah, (2012) Security is of paramount importance in the tourism industry, and it must be viewed as a major variable to be looked into, he said. McCrie (2004) emphasizes that no organization, irrespective of background, can live or prosper lacking proper security measures in today's world. The fluctuation in Nigeria's international visitor receipts over

the years is undoubtedly due to local security issues. Security has deteriorated dramatically as a result of Terror threats, local wars, natural hazards, epidemics, and pandemics. These accidents have unavoidable negative consequences for the transport and tourism industries. Furthermore, some of these events highlighted the tourism industry's national and international weaknesses. As a result, this fact necessitates further analysis and investigation into the connection between security and tourism, as well as the construction of a new, up-to-date meaning of the term "security and safety in tourism". As a result of this, studying solutions for safety and security issues becomes crucial for the tourism industry.

Skavland and Mejdell (2000), Security is described as security from unplanned events. Random accidents are unintended events that occur as a result of one or more coincidences, while security is the prevention of planned events. Wanted events occur as a result of a deliberate and well-thought-out action. A tourist destination's image is normally tarnished by an unhealthy or endangered environment (Richard, 2003).

The word 'safety' implies freedom from risk, harm, or destruction, while the term 'safe' indicates liberty from danger (Hunter, 1992). Issues of safety within and around building entails occupant freedom from general hazards and risks. When the causes of often occurring, events are identified and recognized, they can be effectively monitored. Shuaibu, (2019) pointed out that, there have been death cases within the Gurara falls which the management have even failed to provide a precise statistic. This could be termed as failure to plan for safety around the Gurara water fall. Most atimes accidents under safe conditions or environment occur due to problems like bad or poor planning, poor construction, misuse, or an inadequate maintenance. Safety can be achieved through channelling of movements, directions, restrictions, fire safety measures,

demarcation, and even comfort as it relates to ergonomics. According to whole building design guide (WBDG), There are four fundamentals which are very important when designing for security and safety which should be considered. Plan for fire prevention, preserve occupant health and safety, mitigate natural hazards, and provide protections for building occupants and properties are the four fundamentals. Countermeasures to anticipate, prevent, postpone, and react to human attacks are enforced with an efficient and adequate building architecture. It's also crucial to understand how site stability affects the building's overall security.

2.9 Discussion on Safety and Security Measures

Nunes-Vaz, *et al*. (2011) describe security measures or controls as a physical, psychological, procedural, electronic, or other structure that executes or contributes to one or more security functions by dividing physical space into zones. Most safety and detection measures, according to the entire building design guide (WBDG), have to do with a balance of organizational, mechanical, and physical safety approaches. A primarily operational approach, for example, would emphasize the round-the-clock deployment of guards; a primarily electronic approach would emphasize video monitoring and warning sirens; and a primarily physical approach would emphasize closed doors and vehicle barriers to secure a given facility from unwelcome intruders. It is critical to implement certain specific security measures outside and inside the facility in order to minimize danger. Trees, thick plantings, heavy structures such as huge sculptural objects, giant boulders, and concrete shapes could be used as defence precautions.

Passive measures for a working protection infrastructure, according to the National Capital Planning Commission (2002), are a permanent protective function provided by both the location and the structure that necessitates the effective application of architecture and engineering to increase protection by removing potential threats. According to Randall (2003), protective precautions can be addressed using words like perimeter and exterior security, entrance security, interior security, security preparation, and crime reduction by urban design (CPTED). His steps included both passive and active methods, as well as the types of plants to be used during the design process. Parking areas and monitors, CCTV surveillance, lighting with emergency backup, and physical barriers are all part of perimeter and exterior protection. Perimeter protection is the most important first line of defence in a facility's physical security strategy (Clifton & David, 2017). Intrusion warning systems, upgrades to existing life protection requirements, video mail, individual and parcel inspection, entry control with CCTV and electronic door hits, and high-security locks are all examples of entry security. According to Brown, (1995) property crimes has been less due to the impact of CCTV. Employee ID, visitor control, control access to services, provide emergency power to vital systems, and determine the location of day-care centres are all handled by interior protection.

Zahner (2017) stressed the importance of building for protection without losing aesthetics. He clarified that landscaping sculpture, secondary structures, and camouflage barriers could all be used to do this. Security is so important in building design that it reminds us why we began building in the first place; security is so important in building design that it should be taken seriously. Passive security is about using good design strategy to incorporate a layer of protection, secrecy, and security, rather than existing as a product to be defined. According to Zahner, the most effective passive

interventions are: Landscape art should be used to protect structures. Protection and artistic perforation are added by secondary building annexes, and lastly Art can be used to mask obstacles. Perforated metal with designs and artwork will include a lot of security details that aren't obvious. People are less likely to note that a wall or divider is being used to block entry when it is rendered artistically, and are more likely to believe that it has a primary artistic purpose. Physical obstacles are so important in general that they explain why natural geological characteristics like rivers, mountains, and thick forest were once seen as barriers between humans and the outside world (Stuart, 2004). Soft landscaping can also be used to soften, reinforce, and give a pleasing effect to perimeter fences and other hard security elements (FEMA, 2007). Thorny hedges and tall hedge rows can be used as a perimeter fence in these soft environments. Security techniques such as proper identification of employees at tourist location, protective barriers, surveillance and alarm system are essential as a remedy to security threats (Nwokorie, 2014).

Security measures mainly passive measures are static bollards, elevated concrete planters, walls and trees of ample girth, standoff zone distance, integrated in the architecture from the stage of inception, according to the Physical Security Design Manual (2007) for veteran's affairs facilities. According to Art Council England (2013) on a practical guide for security, key security measures have been deduced and listed for the purpose of the intended study.

i. Since the building's shell is also considered the security perimeter, the number of openings should be reduced to those required for entry, ventilation, and natural light.

ii. All doors, windows, and roof lights must be secured during the quiet hours to reduce the chance of significant volume failure and to withstand a concerted physical assault for as long as it takes for responding forces to arrive.

iii. The presence of pipes, ledges, and buttresses may provide an attacker access to windows, roof lights, and doors.

iv. Emergency escape routes that are not guarded internally during closed hours or properly covered during open hours will often make access/exit simpler.

v. Good design will also reduce the likelihood of criminals hiding inside premises during open hours in order to sneak in after closing time. By eliminating empty rooms, dead ends, vulnerable ducts, and panels where anyone might conceal threats to the collections from theft, threats to the collections from theft may be limited.

vi. A protected division between areas that are open to the public and those that are inaccessible to the public must be made, with an intruder detection device planned accordingly.

vii. Paying attention to the outside will help you avoid hiding places like vegetation, porches, heavily recessed doors, and neighbouring houses.

According to the whole building design guide (WBDG), it is possible to strike a balance between security and safety priorities and the facility's other design requirements and needs. Establishing an organized planning process in which all members of the design team are aware of each other's objectives will help overcome these obstacles and contribute to the implementation of a solution that meets all of the criteria. Early in the design process, understanding the interrelationships with the other WBDG design goals such as Sustainability, Aesthetics, Cost-Effectiveness, Historic Preservation,

Accessibility, Functionality / Operationality, and Productivity is critical to addressing the challenges that often arise in the pursuit of a secure and safe building.

The most effective and commonly used controls, according to Karam (2015), are linked to two dimensions: "Detectors and Access Control." He also stressed the importance of medical preparedness, guest room security, and emergency preparedness, which he believes has been overlooked in certain cases.

2.9.1 Zoning for security

An application of zoning concept simply entails a proper control of human movement in terms of security. The main idea behind zoning is to allow for visitors, vendors, and others to reach their respective destinations or points without any hindrance and simultaneously prevent them from entering areas where they have no business (Randall, 2003). This can go long way in reducing congestion and also helping in spotting unauthorized persons. According to Nunes-Vaz, *et al.*, (2011) Security layers around a sphere may be used to zone for defence, and these layers lead to the installation of a series of controls that can theoretically avoid or completely prevent the dangerous occurrence of a given incident. According to Droge and Hopper (2004), a comprehensive site management scheme considers fundamental principles that determine the security requirement and protect against a range of threat scenarios. Zoning for security is achieved by site security (usage of certain vital elements and factors that helps to restrict space). This can be achieved through setbacks, physical barriers and perforation, and landscaping.

i **Setbacks as a security measure**

Terrorism attacks focus on explosive devices concealed in vehicles near target buildings in around 80% of cases. This is why many site security designs emphasize maintaining a minimal gap between the target building and possible bomb sites, such as a vehicle or a static feature on the premises. This is referred to as a "standoff" or "setback" gap. Setbacks, also called "standoff" zones, are specified distances between a "target" object, such as a house, and the nearest point of attack (Droge & Hopper, 2004).

ii **Physical barriers and perforations as a security measure**

To enforce setbacks, physical barriers are any mixture of built elements that delay or prevent persons or items from approaching a specified "perimeter" area. Barriers range in height from 0.15 to 4.2 meters and can be made up of moveable or permanent components. Some barriers can survive the effect of a moving car, while others can be quickly relocated to meet shifting crowd control requirements (Droge & Hopper, 2004).

iii **Landscape as a security measure**

Landform protection, water component blend, raised grower, foliage, improvements in cleared area lift, fences, a wide range of road furniture, site materials, and comforts (bollards, kerbs, benches, flagpoles, and booths) can all be used to improve security. This site design features may be used to restrict and monitor pedestrian and vehicular distribution and entry, as well as to prevent unwanted inspection. They should be placed so that they do not obstruct walker access to accessible passageways, disrupt the flow of people on foot at the edge walk, or prevent disaster vehicles from entering.

The use of soft landscape however must be properly positioned and selected ensuring that they do not block important sightlines or create hiding places (Adedayo *et al*., 2017). Their creative application can result in environments that are responsive to the needs of the people who use them, resulting in diverse open spaces brimming with constructive activities. As a passive protection measure, arranging is an incredibly effective tool, especially in the area of buffering the building from a possible threat.

Figure 2.2: Bollard placement as a blockage against vehicle trespassing
Source: Zahner, (2017)

2.9.2 Access control for security

Procedures for blocking, identifying, and/or searching individuals trying to obtain access to a building are known as access controls (Droge & Hopper, 2004). Designing for protection, according to Bulla (2004), is similar to peeling an onion: it is done layer by layer. Mechanical and electronic structures, operating protocols, and natural and architectural features are used to create a sequence of overlapping layers of security defences. They provide the basic foundation of any effective defence infrastructure: deterrent, detection, and delay, as all of these functions together. At any of these layers, access control is a factor in ensuring security and safety. You will reduce the

likelihood of crime by limiting entry. True barriers, such as fences, or symbolic barriers, such as low-growing landscaping trees, height changes, or even changing the texture of the sidewalk, can all be used. People entering or exiting a room are driven by the location of doors, exits, walls, landscaping, and lighting. The attractiveness of a low Hawthorn hedge does not compensate for the debilitating punctures caused by its thorns. As a result, it's a perfect alternative to unsightly barbed wire fencing. Stop trees and shrubs that could serve as scaling aids for the deck or higher story windows (Bulla, 2004).

2.9.3 Crime prevention through environmental design (CPTED)

Professor C. Ray Jeffery invented the term "crime deterrence by environmental design" in 1971, and Architect Oscar Newman built on it in his book "Defensible Space". CPTED can be described as a multi-disciplinary approach towards designing for security (Randall, 2013). It involves designing the built environment in such a way that it reduces the fear of, and opportunity for, disorder and crime. Natural surveillance, natural access control, territorial reinforcement, and maintenance are the four components of CPTED. According to Cozens, (2015) a critical look into CPTED can bring into focus the realization of seven key concepts; territoriality, surveillance, image management, activity support, access control, target hardening, and geographical juxtaposition. Droge and Hopper (2004) According to the author, nonviolent crimes like burglary can be deterred by providing adequate illumination, monitoring, and visual access to the location, as well as programming the site for active purposes that deter offenders.

The CPTED principles are a great collection of tools for preventing antisocial behaviour and encouraging community ownership of public spaces. It also gives the impression that outdoor space planners and architects have some control over the final group of potential risks and violent crime. Many of these risks occur outside the building, where site protection architecture principles will prevent and/or mitigate harm while also allowing for the creation of high-quality public spaces.

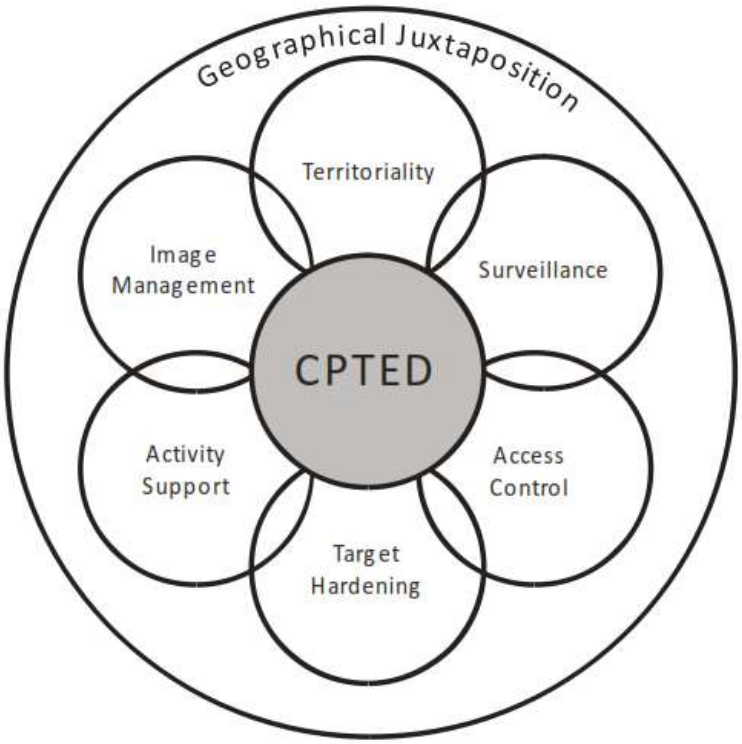

Figure 2.3 CPTED and its component concept
Source: Cozens (2014).

2.10 Layered Approach to Security

A successful security approach can be achieved by an active implementation of multiple geographic layers. Facilities' physical defence necessitates the use of concentric and parallel lines for defences in order to have a gradually increased degree of security whilst maintaining a good standoff gap in the event of attacks (Alexander, 2016). Layered approach to security involves the following;

i. District level

ii. Site level

iii. Threshold level

iv. Asset

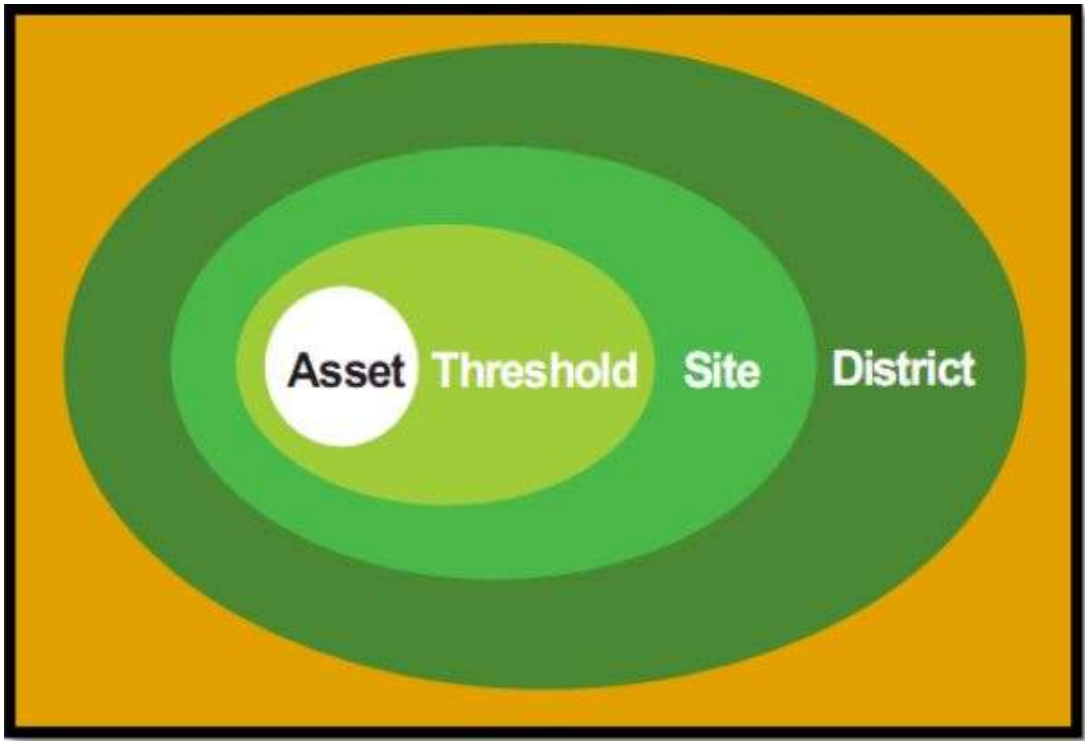

Figure 2.4 Different layers of protection
Source: Centre for the Protection of National Infrastructure.

i. District level

From the figure above, this refers to the outer level protection and as the name implies, is offered at the district level which must include considerations for a wider site planning, access control and traffic management. The asset is best protected when security is implemented on a wider scale (Centre for the Protection of National Institutes).

ii. Site level

The site level of protection involves considerations for site planning, traffic management and control of access into the site as well as the physical characteristics of the surrounding area, building types and the nature of activities will be scrutinized as they relate to the security of the facility to be evaluated. Sometimes, these factors have positive security implications and at other times, it might be negative (National Institute of Building Sciences, 2014). Through effective site planning, vehicle approach could be directed away from the building to reduce impacts from hostile vehicle approach speeds and also maximize stand-off distances through careful site planning.

iii. Threshold

This typically describes the last line of defence before the asset, it is the zone that lies immediately around the asset. It must be designed to prevent and, in some cases, control vehicular access and minimize blast effects in the event of an explosive attack (vehicle borne). Factors such as topography and level changes, fences, walls, hedges, bollards could be employed in the building's landscape design to achieve this. Blast stand-off is also an important consideration at the threshold layer of security (NIB, 2014).

iv. Asset

This refers to the interior parts of the building. It includes people (staff and users) as well as physical components i.e. building structures, equipment and other sensitive materials.

2.11 A General Summary and Comparison on Tourism Products as Observed in Literature

The tourism product as observed from literature varies from one author to another. According to Neil, (1990) these products are shelter, food, and comfortable amenities. Argon et al., (2021) showed a singular addition to the tourism product as listed by Neil, which he called transportation. Transportation, accommodation, attractions, and facilities or amenities are the products to be considered in tourism (Dimitris, 2015). Camilleri (2018) had a similar view to Dimitris, only that his own view neglected attraction as a tourism product and incorporated sales and distribution. Furthermore Jennifer *et al.,* (2010) provided an encompassing view that covers the tourism product as listed by Neil, Dimitris, and Camilleri. According to her Tourism product are six in components; attraction, access, activity, services, qualified personnel, and promotion. Smith, (1994) on the other hand, had a slightly different view such that this product according to him consist of five elements; the physical plant, service, hospitality, freedom of choice, and involvement. In general, it shows that tourism products include; attraction, access, and services.

2.12 A General Summary and Comparison from Discussion of Security Measures as Observed in Literature.

Security measures as discussed by various authors in building design and public spaces have been discussed under various themes, principles, and theories based on their individual views. Nevertheless, the elements or measures in these theories remains similar and alike, indicating the fact that these measures may have different theories but geared towards achieving the same purpose. According to various security bodies, departments, programs and even guidelines these measures were defined in details. Zoning according to Randall, (2003) is the first point for security implementation as it

defines areas even before other elements of security designs are considered. From literature security measures such as physical barriers, use of landscape elements, escape routes, nature of perimeter fencing or site boundary, availability of tour guide and even ensuring that homes of residents are designed such that occupants have a sense of responsibility towards the property have been established (defensible space theory). Zahner emphasized that in addition to designing for security with all these measures, beauty should not be sacrificed and hence, his measures revolved mostly around the use of landscape art.

Security measures can be grouped in two dimensions which are "Access Controls and Detectors" (karam, 2015). The demarcation or division of space in other to achieve security as defined by Nunez-Vaz, *et al.* indicates the fact that security has to do with restraining or allowing of movements. Access control indicates or describes the use of these measures for channelling of movements and Detectors refers to measures that creates platform for observance and monitoring.

2.13 Deductions

Based on the listed objective one and two of this research, the research has done an in-depth research and after a careful examination of the literature has summarized the following deductions.

i. Researching into the basic principles of designing a tourist centre the researcher has deduced that in designing a tourist certain product are vital such as: Attraction, Access, and Services
ii. Also concerning the security and safety measures in a tourist centre the researcher has deduced variables which can be categorized into two headings:

The Access Control and Detectors. This study seeks to analyse measures that can be implemented in architectural design and so access control is fully taken into cognizance for analysis and only watch tower as a means of natural surveillance from the detectors is considered and analysed.

Table 2.1 General deductions of security and safety measure

ACCESS CONTROL	**DETECTORS**
Zoning for Security	Watch Tower
Nature of Site Boundary	Metal Detectors
Drop off Procedure	Alarm Systems
Hard Landscaping for security	Fire Detection
Soft Landscaping for security	Intrusion Detection System
Escape Route	
Availability of Tour Guide	

The variables considered as it relates to passive design includes; zoning for security (ZS), the nature of the site boundary (SB), drop off procedure (DP), hard landscaping for security (HL), soft landscaping for security (SL), number of entry points to the site (EP), availability of tour guide and watch tower (WT).

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Research Method

To meet the objectives as stated in the chapter one of this research, this work adopts a descriptive research method. A descriptive research method simply involves observing and describing the nature and behaviour of a subject mostly accompanied with an observation or survey tool.

3.2 Data Type and Sources

3.2.1 Primary source of data

The most important or fundamental method of gathering data for this study was observation, which was followed by an observation schedule as the research instrument. Observations were made during case studies, field surveys, and visits to various tourist destinations.

i. Case study

This approach involved an in dept research of existing tourist centres in the country thereby achieving the goal of objective three as stated in chapter one of this research. Relevant information as regarding the safety and security measures were acquired through the use of an observation schedule. Elements or variables considered in structuring the observation schedule as deduced from the literature were categorized into two. The access control as the first category included; Zoning for security, nature of site boundary, drop off procedure, Hard landscaping for security, Soft landscaping for security, number of entry points, and availability of a tour guide. The Detectors as the second category included; watch Towers, metal detectors, alarm system, fire detection,

and intrusion detection system. These elements where further selected based on their passive relevance and are listed as; Zoning for security, nature of site boundary, drop off procedure, Hard landscaping for security, Soft landscaping for security, number of entry points, availability of a tour guide and watch tower. These elements were observed through both covert and overt observations across the selected samples.

3.2.2 Secondary source of data

These data are gotten from journals, textbooks, internet and publications taking into consideration proper citations and references.

i. **Literature review**

The first phase of the research included desk study of relevant literatures or materials on tourism as a whole including security and safety as it can be applied to it. The desk study of the research covers review of relevant literature, reports, journals and manuals on tourism, spatial organization, safety and security by security bodies. This review also included literary works from experts on safety and security. The secondary data gotten are elements of design that affect security and safety which answers the objective 2 as stated in chapter one of this research. They include; zoning for security, nature of site boundary, drop off procedure, hard landscaping for security, soft landscaping for security, number of entry points, availability of a tour guide and watch tower.

3.4 Data Collection Instrument

Based on the qualitative nature of this research, the usage of observation schedule was considered as the instrument for data collection. The observation schedule contains list

of checklists that were used by the researcher to collect vital information about security and safety measures adopted or considered in exiting tourist centres.

The observation schedule contains two sections namely; part A and Part B. Part A of the schedule gives a general description of the observed centre which includes; the name of the tourist centre, location of the building, type of the tourist centre, list of available facilities on site, type of design adopted for the accommodation as a product, and number of accommodation units provided. Part B gives the design methods or measures adopted for ensuring security and safety which includes; site zoning for security, nature of site boundary, drop off procedure, landscaping for security (type of hard and soft landscaping elements used on site), nature of route into the centre, and availability of a tour guide and a watch tower. All these were outlined in a checklist format and also allowing for further description of data as observed.

Table 3.1: Observation checklist for assessing the sampled tourist centres

S/N	Variables
1	Zoning for Security
2	Defined site boundary
3	Well established Drop off procedure
4	Use of Long stem trees, bollards, and barricade
5	Use of watch Towers
6	Designing of residential apartments in units to further enhance the defensible space theory

3.4 Sample and Sampling Technique

In this thesis, samples were obtained using a convenience non-random sampling procedure, which involves collecting or choosing samples depending on a specific interest and subjective judgment. These samples were chosen for case studies from a list of well-known tourist destinations in Nigeria based on their importance to the research at hand. Seven Tourist centres were observed, they are; The Obudu Mountain Resort in Cross river state, the Yankari Game Reserve in Bauchi state, the Irin Ijesha Water Fall in Osun State, the Olumo Rock in Ogun State, the Gurara Water Fall in Niger State, and the Tinapa Resort in Cross River State. The table below shows the various sampled tourist centres as well as their location within Nigeria.

Table 3.2: List of sampled tourists centres in Nigeria.

S/No	Names	Location
1	Obudu Mountain Resort	Cross River State
2	Yankari Game Reserve	Bauchi State
3	Irin Ijesha Water fall	Osun State
4	Olumo Rock	Ogun State
5	Gurara Water Fall	Niger State
6	Tinapa Resort	Cross River State

3.5 Methods of Data Analysis and Presentation

Data gathered form the observation guide or checklist was analysed through content analysis. It entailed the researcher quantifying and analysing the meaning of words or text and making deductions from it. The data was organized with the use of excel spreadsheets and results were presented using tables and charts in conjunction with

plates to further buttress points made by the tables and charts. These plates were used to describe the environment in the sampled tourist centres indicating security and safety measures observed in the centres.

Furthermore, plates and tables were also used to describe the integrated security and safety measures in the proposed Gurara tourist centre as stated by objective 4 of this research.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

Case studies are established research design that involves an indebt study of a specific subject or subjects within a real world. The basic importance of case studies is that it provides a platform for critical analysis of existing structure which are similar to the proposed design. In this proposed design seven existing tourist centre in Nigeria were examined and studied. Case studies were conducted and the deductions gotten have been analysed using Microsoft excel software, based on the following variable; Zoning for security, nature of site boundary, drop off procedure, hard landscaping for security, soft landscaping for security, physical barriers, escape route, availability of tour guide and watch tower.

4.1 Case Studies

The observed case studies are discussed below;

4.1.1 Obudu mountain resort in Cross River State

The Obudu cattle ranch resort, which was founded in 1951 by M. Mccaughley, a Scot who was the first to visit the mountain in 1949, was formerly known as the Obudu mountain resort. The resort is located in the north-eastern part of Cross River State, on the Obudu plateau, close to the Cameroon border. The Obudu Mountain Resort offers and has; an admin section, conference centre, international and local restaurant, water park and a gym, golf course club, bonfire, indigenous hotel of 30 rooms, presidential villa, 20 units of 3-bedroom mountain villa, chalet, an interesting winding road, cable car and a canopy walk. This resort is been considered as a jewel of the state with an elevation of 1600 metres (5200 feet).

The Obudu mountain resort covers a very large expanse of over 40 square miles making it one of the biggest and finest tourist Centre in Africa. This large expanse of land has been zoned into segments based on the attraction within such segments. The site offers attraction as; mountains in the cloud, natural pool, Holy mountain/Cameroon border viewpoint, Becheeve nature reserve, and the Igaga water fall. All these attractions are at different locations thereby making the zoning nature in segments. The site is zoned from public to private areas. The resort is bordered to the north by Benue Province, on the east by the Republic of Cameroon, and on the south by the Boki Local Government District of Nigeria's Cross River State. The site boundary of any facility is first line of defence indicating a restriction and giving a keep off warning to passer-by. This boundary could be done with block fencing, metal fencing, wood fencing and with the use of vegetation. A definite perimeter all around the site does not exist, only at some areas or points were metal barricade used.

A drop off procedure ensures or prevents encroachment of any sort without proper identification or protocol. It ensures that visits by tourists are fully coordinated and arranged, such that provisions and directions are made towards a general parking after which transportation throughout the site is done via shuttles. This creates a level of restrictions and protocols to deter or restrict attacks, including generation of fund for the centre. The Obudu Mountain Resort has a drop off procedure in play making the centre more sensitive to entry and exit of personal in and out of the centre.

The use of both hard and soft landscape in the design for security is of utmost significance and importance. The hard landscape includes; floor coverings, sitting units, lighting elements, sign and information plates, bollard, water elements, shelter items

(pergolas, shade, gazebo, and bus stop), and art objects (sculptures). The soft landscape involves the usage of all kinds of vegetation from flowers and trees to shrub and ground cover appropriately for achieving safety and security. Clearly defined paths or walkways, pavements, sign and info plates, bollard, shrubs, and ground covers were clearly used in the Obudu Mountain resort. Also, the use of narrow trees which give clear sightlines as compared to broad leaved trees were considered at certain areas such as palm trees. Nevertheless, there were several usage or presence of broad-leaved trees around the site which hinders sightlines and hence affect observation, monitoring, and surveillance leading to security issues.

The Obudu mountain resort has only a single route for entry and exit. However, the site has no definite boundary indicating that any passer-by to a considerable level can manoeuvre his/her way into the site. Tour Guides are available as assistance to help Tourist navigate their ways through the site. Also, the usage of watch tower or any other passive 24-hour surveillance was found totally absent.

Plate I: Clear sightlines around the admin facility at the Obudu mountain resort
Source: Trip adviser, (2021)

Plate II: The zig zag road that leads to the mountain
Source: Trip adviser, (2021)

Plate III: The mountain villa with carefully planned and maintained vegetation
Source: Trip adviser, (2021)

4.1.2 Yankari game reserve in Bauchi State

The Yankari game reserve is an enormous wildlife park that is located in Bauchi State, in north eastern Nigeria covering about 2,244 square kilometres. Numerous natural warm springs, as well as a diverse range of flora and fauna, can be found in the Reserve. Yankari was established as a game reserve in 1956, but in 1991 it was designated as Nigeria's largest national park. It is managed by the Bauchi state government and is one of West Africa's most popular eco-destinations. The Yankari game reserve offers and has; wikki warm springs, marshall caves, dukkey wells, safari game viewing, museum, restaurants and accommodations.

The effective use of zoning laws for security offers a first form of defence to the facility which makes zoning a number one criterion for the security of any property. The site has been zoned with clear separation between the residential facilities and the wild life areas.

The Reserve has two gated entrances once approaching the Reserve. The second entrance is about an hour drive from the main gate and it leads to the accommodation and other living areas. The approach has a fence line, and only on this path does the site has a definite boundary. Due to the large expanse of the land, and the wildlife existing within their natural habitat the reserve does not have a definite boundary. Nevertheless, security and safety issues continue to be on the increase as poachers and Fulani herdsmen continue to trouble the reserve. The facility has a general parking serving as the first point for visitors and tourist. A drop off procedure ensures or prevents encroachment of any sort without proper identification or protocol. It ensures that visits by tourists are fully coordinated and arranged, such that provisions and directions are made towards a general parking after which transportation throughout the site is done via shuttles.

The use of landscaping elements both soft and hard for achieving safety and security is of utmost importance. Mostly the use of soft landscaping elements within and around the facility has not been done in respect to designing for security. The usage of shrubs as a security measures for channelling and restricting movements has been employed to a considerable level. Trees on the other hand have not been planned and considered carefully as dense and broad-leaved trees are found around various facility causing a hindrance or blockage to clear sightlines and also serving as a harbour for potential

threats. Clearly defined paths or walkways, pavements, sign, info plates, and bollard, have been incorporated in other to achieve safety and security.

The Yankari game reserve has only a single route for entry and exit. However, the site has no definite boundary indicating that any passer-by to a considerable level can manoeuvre his/her way into the site. Tour Guides are available as assistance to help Tourist navigate their ways through the site. Also, the usage of watch tower or any other passive 24-hour surveillance was found totally absent.

Plate IV: The first and main gate to the Yankari game reserve
Source: Author's work, (2021)

Plate V: The second gate to the Yankari game reserve
Source: Author's work, (2021)

4.1.3 Erin Ijesha waterfall in Osun State

The Erin Ijesha waterfall also known as the Olumirin waterfalls is a tourist attraction that is located in Oriade local government area, of Osun State. Erin Garden is a thick forest that houses the Erin Ijesha waterfalls consisting of seven layers of rocks and seven falls. The stream follows a course over several rocks before crashing down with tremendous force on the surrounding evergreen foliage. With such a cool and refreshing breeze at the waterfall, mountaineering exercise is such a great experience and fun. The Erin Ijesha Waterfall is a cascading waterfall surrounded by majestic mountains that provides a sense of biodiversity combined with serenity as you take in the natural beauty.

The effective use of zoning in a design offers the first form of organization to a space, indicating common areas, personal areas, confidential areas or asset areas. The waterfall does not possess a standard zoning criterion as the centre and its facilities are still poor and the reach to its potential is still backward. Therefore, it is easy to say that this centre does not fall conveniently, with either the public to private zoning or the noisy to Quiet Zoning as the case maybe.

As one approaches the Erin Ijesha waterfall it is first observed that there is an approach fence line of block wall with a gate. Although this fence does not go completely around but still achieves an adequate level of security in conjunction with the rocky areas and vegetation helping to demarcate the site. The centre drop off procedure is simply poor owing to the fact of poor defined parking areas. A drop off procedure ensures or prevents encroachment of any sort without proper identification or protocol. It ensures that visits by tourists are fully coordinated and arranged, such that provisions and

directions are made towards a general parking after which transportation throughout the site is done via shuttles or leg movement.

The use of landscaping elements both hard landscape and soft landscape is very poor. Already from the fence line, there exist very dense trees with broad leaves that can easily harbour threats and can serve as a channel for scaling the wall very easily. The selection of trees has not been carefully considered and even though there exist trees of good characteristics such as palm trees for clear sightlines, yet the planning is still poor altogether. Clearly defined paths or walkways, and pavements in channelling and restricting movement for security and safety have been poorly done. The Erin Ijesha waterfall has only a single route for entry and exit making the movements of tourist and visitors easily monitorable. Tour Guides are available as assistance to help Tourist navigate their ways through the site. Also, the usage of watch tower or any other passive 24-hour surveillance was found totally absent.

Plate VI: The first entrance to the Erin Ijesha waterfall
Source: Author's work (2019)

Plate VII: The main entrance to the Erin Ijesha waterfall
Source: Author's work (2019)

4.1.4 Olumo rock in Ogun State

The Olumo rock is a mountain in Nigeria's southwest. It is located in Abeokuta, Ogun State, and was originally used by the Egba people as a natural fortress during inter-tribal warfare. The Olumo rock in Abeokuta is a classic and a captivating embodiment that stands out among other tourist attractions in Ogun State with a height of 137 metres above sea level. The Olumo rock has a museum, restaurant, a garden, water fountain and an ancient Itoku market, and an elevator that leads to the top of the rock but broken. The rock is accessed from four different layers having about 128 steps to get to the first layer. From the approach, the rock gives a view of being naturally suspended thereby making the sight interesting.

The Olumo rock has a compact site in nature as compared to the other tourist centres and has been easily zoned as facilities on site are minimal without even a consideration on accommodation. The site boundary is defined by rocks and vegetation with the approach having an entrance with a minimal block wall construction. The centre has a well-defined boundary in terms of security and the site is surrounded by nearby houses,

making it open for detection and observation of threats. The facility has a general parking and a well-positioned check in, serving as the first point for visitors and tourist. It ensures that visits by tourists are fully coordinated and arranged, such that provisions and directions are made towards a general parking after which transportation throughout the site is done via shuttles.

The use of soft landscaping elements in regard to safety and security was poorly done. Also, Hard landscaping elements as walkways and pavements were carefully positioned, but the use of rails and barricade were poorly done especially in the top most part of the rock. The Olumo rock has only a single route for entry and exit making the movements of tourist and visitors easily monitorable. Tour Guides are available as assistance to help Tourist navigate their ways through the site. Also, the usage of watch tower or any other passive 24-hour surveillance was found totally absent.

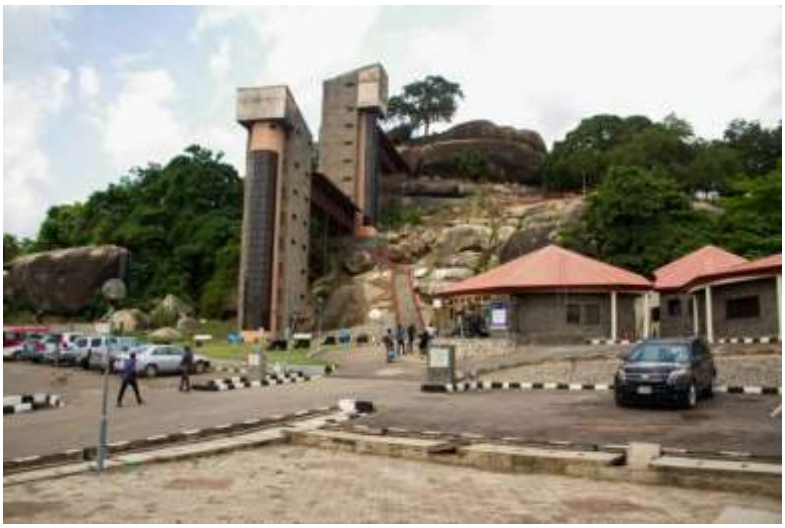

Plate VIII: The Olumo rock tourist centre with the general parking in view and also showing the paved areas and walkways
Source: Travelwaka.com, (2019)

Plate IX: The use of metal rails for safety along the steps to the first level of the rock
Source: Travelwaka.com, (2019)

4.1.5 Gurara waterfall in Niger State

Gurara is a local government area in Niger State, Nigeria, where the Gurara waterfall can be found. The Gurara river water fall is located along the Suleja-Minna road and is approximately 30 meters high. The waterfall is so interesting, thrilling and captivating such that as one begins to get close to the parking area, the sound of the water cascade becomes enormous and places a thrill in mind of the visitor or tourist. An access road, few parking, a hut, an observation spot, and a poorly done path to the base of the fall are the only present development on site.

Zoning laws have been barely considered at this centre making every part of the centre accessible and opened for any movements without proper restrictions. There exists no definite perimeter around the centre. The Gurara waterfall drop off procedure is simply poor owing to the fact of poor and very minute defined parking areas. A drop off procedure ensures or prevents encroachment of any sort without proper identification or protocol. It ensures that visits by tourists are fully coordinated and arranged, such that provisions and directions are made towards a general parking after which transportation

throughout the site is done via shuttles or leg movement. The use of landscaping elements both hard landscape and soft landscape is very poor throughout the site. The Gurara waterfall has only a single route for entry and exit but nevertheless since there is no definite site boundary it makes the centre accessible by trespassers from various angles. The centre has a provision for tour guide taking tourist round the centre. Also, the usage of watch tower or any other passive 24-hour surveillance was found totally absent.

Plate X: Poorly done barricade
Source: Author's work, (2019)

Plate XI: The access to the site with no site boundary at all. This access leads straight to the fall
Source: Author's work, (2019)

4.1.6 Tinapa resort in Cross River State

The Tinapa resort is located north of Calabar municipality, Cross River State, Nigeria. The resort has a two wing which are the Business and Leisure resort wing. The resort is positioned on a two set of 5 hectares of land and is close to the Calabar port and trade fair zone. The recreation area features a casino, immersive theatre, children's arcade, bars, a mini amphitheatre, a nightclub, a water park, and an underwater tidal pool. An open exhibition area for trade shows, a movie recording facility known as Tinapa Studios, a truck terminal, and a 243-room international three-star hotel are all part of the business wing.

The site has been zoned into two wing the leisure wing and the business wing making a clear distinction from business and leisure resort since it offers both to its visitors. The resort is zoned based on noisy areas to quiet areas. The site has a block wall serving as the site boundary. The Tinapa Resort has a well-planned drop off procedure having a general packing space of about four thousand in a relation to a welcoming building that stand as the admin. The employment of both hard and soft landscaping has been carefully planned and designed meeting security and safety issues. Only a few issues of wrong tree placement were observed as noted in plate xii.

The Tinapa Resort has two routes for entry and exit causing a higher demand on monitoring and controlling around the site. The centre has a provision for tour guide or staff personnel taking tourist round the centre. Also, the usage of watch tower or any other passive 24-hour surveillance was found totally absent.

Plate XII: The Tinapa hotel with poorly planned trees that could harbour threat close to the building.
Source: Tripadvisor, (2021)

Plate XIII: Clear sightlines at the water park due to usage of slender trees like the palm trees
Source: Tripadvisor, (2021)

4.2 Summarized Observation of Variables Across Case Studies

As established earlier the listed variables for the implementation of safety and security can be grouped into access control and detectors. The access control emphasizes on the passive means, which is the focus of the design. These variables include; zoning for security, the nature of the site boundary, drop off procedure, hard landscaping for security, Soft landscaping for security, number of entry points to the site, availability of tour guide and natural surveillance.

4.2.1 Zoning for security

The tourist centres observed showed that three (2) had a public to private zone consideration which best suites security, one (1) had a noisy to quiet zone and 2 had no zoning what so ever as shown in Table 4. The observation across the tourist centres showed that the elements were implemented on a percentage level of 50 percent.

Table 4.1 Zoning for security

Names	Public to private zoning	Noisy to Quiet Zoning	No Zoning
Obudu Mountain Resort	✓		
Yankari Game Reserve	✓		
Irin Ijesha Water fall			✓
Olumo Rock	✓		
Gurara Water Fall			✓
Tinapa Resort		✓	

Source: Author's work, (2021)

4.2.2 Nature of site boundary

A well-defined perimeter demarcates the first line of defence while still serving as a deterrent to passers-by. The tourist centres observed showed that two (2) had a site demarcation and five (5) had no site boundary what so ever as shown in Table 4.2. The observation across the tourist centres showed that the elements were implemented on a percentage level of 33.3 percent

Table 4.2 Nature of site boundary

Names	Rocks and Vegetation	Block wall	No Definite Boundary
Obudu Mountain Resort			✓
Yankari Game Reserve			✓
Irin Ijesha Water fall			✓
Olumo Rock	✓		
NOk Settlement			✓
Gurara Water Fall			✓
Tinapa Resort		✓	

Source: Author's work, (2021)

4.2.3 Drop off procedure

A drop of procedure ensures or prevents encroachment of any sort without proper identification and protocol. Drop off procedure ensures that tourist upon visit to any developed attraction and being directed where to park and usually are been transported via shuttles which in turn generates fund for the tourist centre. This is also a line of defence or a good security strategy that goes a long way to control accessibility and in turn ensures security. The Tourist Centre observed showed that four (4) had a planned parking procedure and three (3) had an unplanned parking procedure as shown in Table 4.3. The observation across the tourist centres showed that the elements were implemented on a percentage level of 66.6 percent.

Table 4.3 Drop off procedure

Names	Planned General parking Dropoff	Unplanned General Parking Dropoff	Availability of transport Shuttles
Obudu Mountain Resort	✓	X	X
Yankari Game Reserve	✓	X	✓
Irin Ijesha Water fall	X	✓	X
Olumo Rock	✓	X	X
Gurara Water Fall	X	✓	X
Tinapa Resort	✓	X	✓

Source: Author's work, (2021)

4.2.4 Hard landscaping for security

The proper usage of Hard landscape goes a long way to provide perimeter demarcation, good sightline, channelled movements and blockages. The tourist centre observed showed the common form of hard landscaping employed for security and safety were commonly signs. Three (3) out of the observed centres had planned walkway for channelling movements and offering restrictions as shown in Table 4.4. The observation across the tourist centres showed that the elements were implemented on a percentage level of 37.5 percent.

Table 4.4: Hard landscaping for security

Names	Signs	Concrete/Metal Bollards	Planned Walkways and Pavement	Sleeper/retaining walls around building
Obudu Mountain Resort	✓	X	✓	X
Yankari Game Reserve	✓	X	✓	X
Irin Ijesha Water fall	✓	X	X	X
Olumo Rock	✓	X	X	X
Gurara Water Fall	✓	X	X	X
Tinapa Resort	✓	X	✓	X

Source: Author's work, (2021)

Table 4.5: Percentage value of the observed elements in Table 4.4

Names	Signs (%)	Concrete/Metal Bollards (%)	Planned Walkways and Pavement (%)	Sleeper/retaining walls around building (%)
Tourist Centres	100	0	50	0

Source: Author's work, (2021)

4.2.5 Soft landscaping for security

Barriers for channelling trends have evolved from simple obstacles to artistic and decorative art features that can add visual value to a space. The tourist centres observed showed that only one (1) of the centres employed three elements out of the four soft landscaping elements and another employed two elements out of the four soft landscaping elements for security and safety. Furthermore, two out of the observed centres employed a single measure and the rest had no measure employed at all as

shown in table 4.5. The observation across the tourist centres showed that the elements were implemented on a percentage level of 27.5 percent.

Table 4.6: Soft landscaping for security

Names	Use of Raised Hedges as Bollards	Spiky and Thorny Shrubs Before Cill Of Windows	Avoidance of Heavy Dense Tress Around Facility	Usage of Conifers and Long Stem Trees Around Facility
Obudu Mountain Resort	✓	x	✓	✓
Yankari Game Reserve	✓	x	x	x
Irin Ijesha Water fall	x	x	x	x
Olumo Rock	x	x	✓	x
Gurara Water Fall	x	x	x	x
Tinapa Resort	x	x	✓	✓

Source: Author's work, (2021)

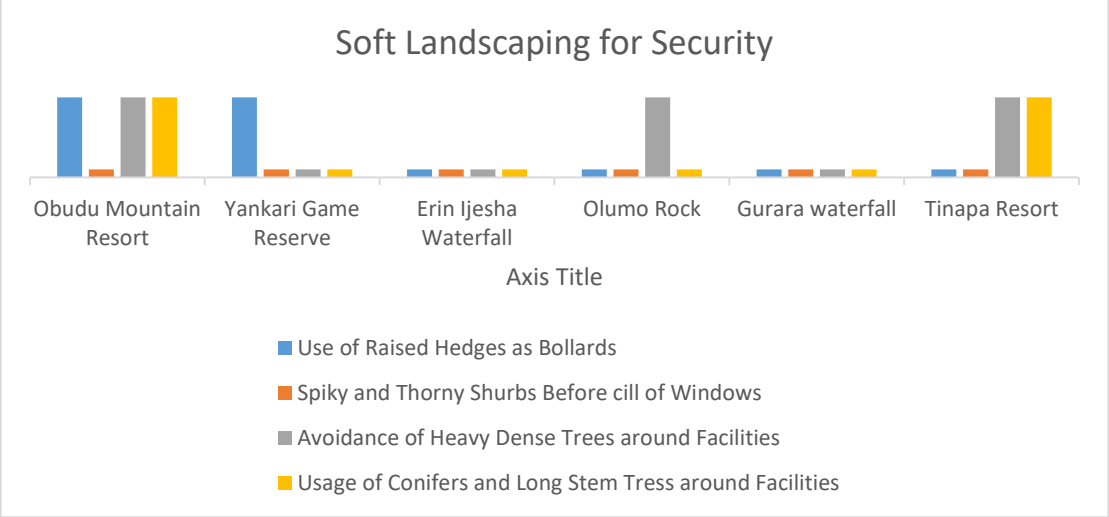

Figure 4.1: A chart representation of soft landscaping for security and safety
Source: Author's work, (2021)

Table 4.7: Percentage value of the observed elements in Table 4.6 and Figure 4.1

Names	Signs (%)	Concrete/Metal Bollards (%)	Planned Walkways and Pavement (%)	Sleeper/retaining walls around building (%)
Tourist Centres	33.3	0	50	33.3

Source: Author's work, (2021)

4.2.6 Number of entry point to the site

observation of the tourist centres showed that all had a single route for both entry and exit of the site, making surveillance, observation, access and restrictions carried out effectively.

4.2.7 Availability of tour guide and watch tower

Tour guides are also very essential and necessary in tourist centres as they help guide tourist or visitors coming for the first time, helping them make their way through the attraction. This reduces accident occurrence and help keep a close monitor on individuals visiting for the first time. Tour guide as well as security personnel ought to be position at strategic points on site through design. The usage of watch tower as outlined by CPTED is a good passive security measure that can be adopted for general overview in a large gathering or large space. This can go a long way in identifying threats and even accidents around the site.

All centres had a form of tour guide either readily available or partially available. The provision or design of watch towers along the site for natural surveillance was not

considered at all as observed throughout the site. The observation across the tourist centres for both the tour guide and the watch tower showed that the elements were implemented on a percentage level of 50 percent.

Table 4.8: Percentage value of the variables observed over the tourist centres.

	ZS (%)	SB (%)	DP (%)	HL (%)	SL (%)	EP (%)	WT (%)
Observed Tourist Centres	50	33.3	66.6	37.5	27.5	90	50

Source: Author's work, (2021)

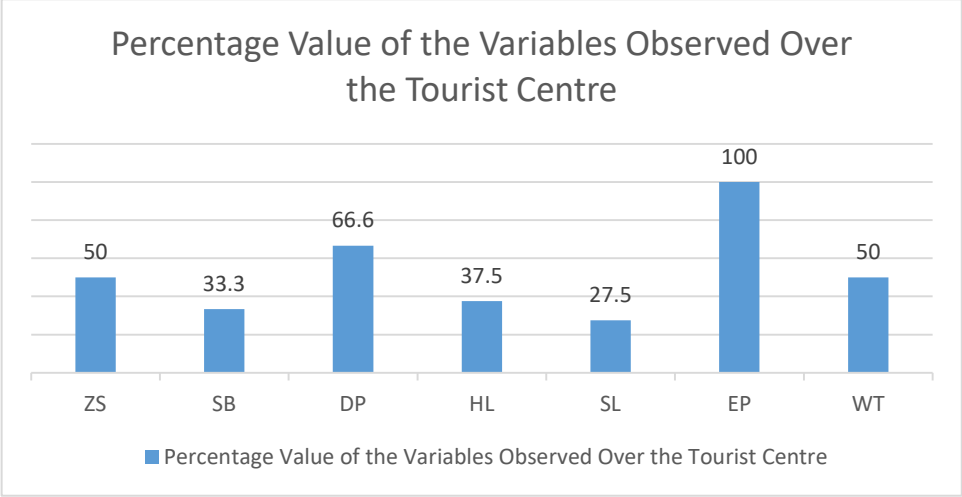

Figure 4.2: percentage value of the variables observed over the tourist centres.
Source: Author's work, (2021)

4.3 Summary of Findings

The importance of security and safety in tourist centres cannot be over emphasized. Tourism in general if well-handled and managed can go a long way in boosting the economy of any country.

i. The findings showed that a planning for single route entry had the highest level of consideration.
ii. The design consideration for the drop off procedure has been considered and planned to a considerable level of 66.6 percent.
iii. Zoning for security showed an implementation of 50 percent across the case studies while natural surveillance for security through mediums like a watch tower was completely absent.
iv. Also, the level of importance given to a definite site boundary and landscaping for security was really poor.

CHAPTER FIVE

5.0 PROPOSED GURARA TOURIST CENTRE

5.1 The Study Area

5.1.1 Proposed site and its location

The Gurara Falls in Gurara, Niger State, is the proposed location. Gurara Waterfalls is located in Niger State's Gurara Local Government Area, with its headquarters in Gawu-Babangida. Bonu, where the Gurara Waterfalls are located, Diko, Gawu, Izom, Kabo, Kwaka, Lambata, Lefu, Shako, and Tufa are among the ten Wards that make up the Gurara Local Government Area.

Figure 5.1: Google earth image of the proposed site
Source: Google Earth (2019)

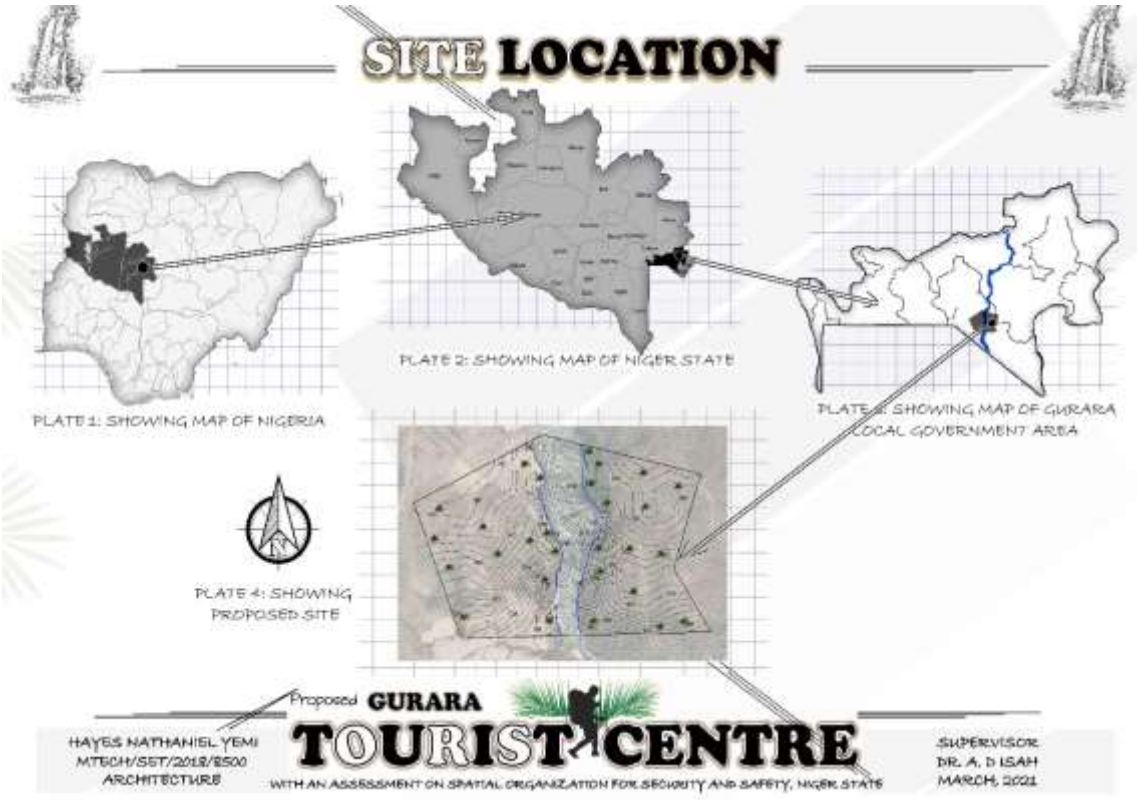

Figure 5.2: Site location
Source: Authors's work, (2019)

5.1.2 Site selection justification

Because of its good weather, spectacular scenery, and hospitable flora, Gurara Falls has the potential to become a world-class tourist destination; and can be conceivably developed to the standard of the Niagra Falls, and Victoria Falls. These have remained potentials and not harnessed. An access road, a hut and an observation spot are the only developments existing at the falls over the years till present (Musa *et al*., 2018). The Gurara water fall is not developed thereby making its potential as a tourist centre untapped, a well-designed tourist centre with security and safety in the design consideration at the Gurara falls will go a long way in harnessing the potentials of the tourist centre. Other sites were also considered for selection, which are; the Erin Ijesha waterfall in Osun, Kainji National Park in Niger State, and Matsirga Falls in Kaduna

State. They all had an attraction only that the Kainji National park had a considerable level of development followed by the Erin Ijesha waterfall as compared to all the sites considered. The Matsirga and the Gurara waterfall had similar attributes only that it had a low turn up in terms of visit as compared to the Gurara waterfall. Also, the Gurara waterfall had a more significant attraction than the Matsirga waterfall which is the major and first factor in selection of tourist sites.

Figure 5.3: Site selection criteria
Source: Author's work, (2019)

5.1.3 Site characteristics

The site measures an area of 389830 square metre with a site perimeter of 2551 metre. The proposed site characteristics include the following under the listed headings:

Site topography: The site is sloppy in nature, with the slopes pointing in the direction of the waterfall.

Vegetation: The site is densely covered with trees and shrubs. Clearing of proposed building perimeter, pathways, open spaces, and places that depict or can harbor threats will be done.

Services on site: The layout of the site has a good communication network, electricity, and a good road network that gets to and terminate at the site.

5.1.4 Site analysis and evaluation

The site has been carefully examined and analysed with the access facing the north west direction. The site has been zoned in terms of public to private zones. Due to the sloppy nature of the site, the residential units are being raised on piers for safety. Also, trees considered for planting has been chosen as conifer trees and trees generally with long stems such as palm trees and masquerade trees due to clear sight lines they offer for security purposes.

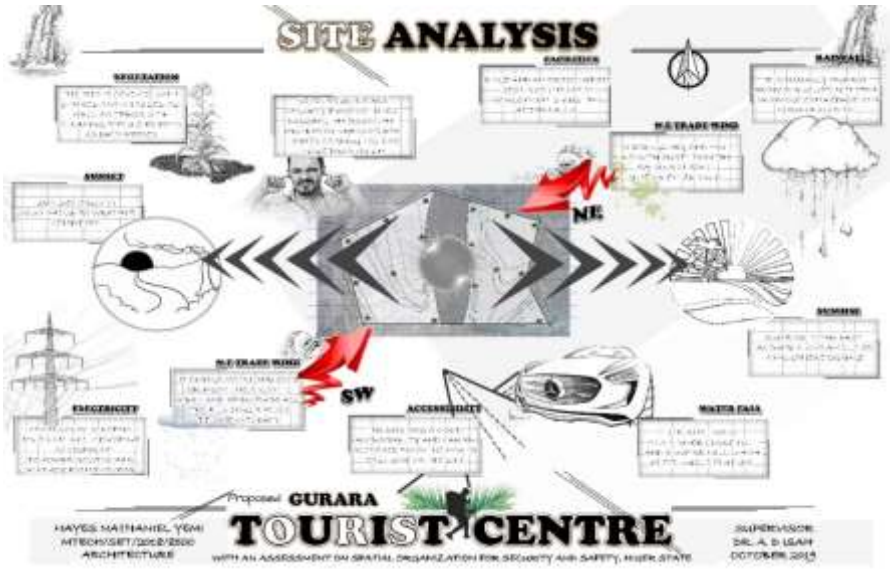

Figure 5.4: Site analysis
Source: Author's work, (2019)

5.2 Design Report

5.2.1 Design brief

The task of this design is to develop a tourist centre with an assessment on spatial organization for security and safety. The design seeks to implement security and safety measures in its fullest, by a careful and analyzation of space organization. In the middle of the site lies the attraction which is the waterfall falling at a height of 30 metres and having a spanning distance of about 200 metres. A well-planned zoning consideration will go a long way in achieving the overall function of security and safety. The Design should incorporate and maximize the proper use and planning of;

i. landscaping elements,
ii. security and tour guide stations,
iii. means for natural surveillance,
iv. movement procedure in and out of the site.

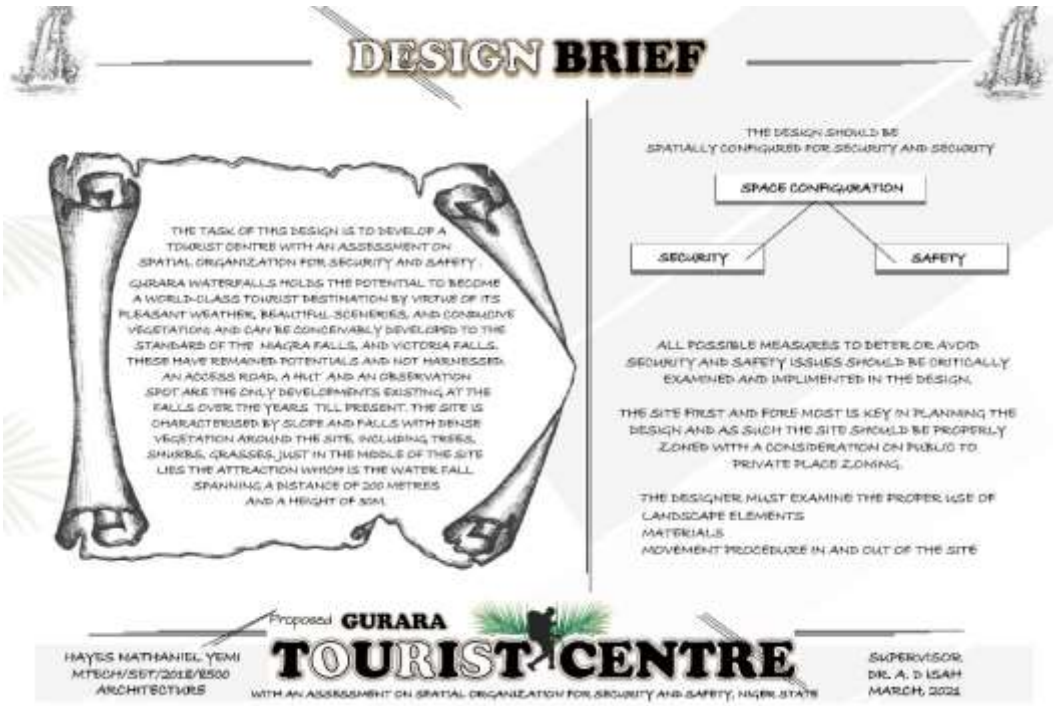

Figure 5.5: Design brief
Source: Author's work, (2019)

5.2.2 Design concept of the proposed Gurara tourist centre

5.2.2.1 Site concept of the proposed Gurara tourist centre

The site design is first of all conceived based on the onion philosophy for security layering. The first layer is the onion's outer membrane, which corresponds to the property's site perimeter. The first layer is the onion's outer membrane, which corresponds to the property's site perimeter. The next layer is the architecture's construction skin. Deeper levels of the building's sensitive areas require security, and specific person's details or property may require point protection, or the onion's center. The site perimeter is the first and not the last thing to consider.

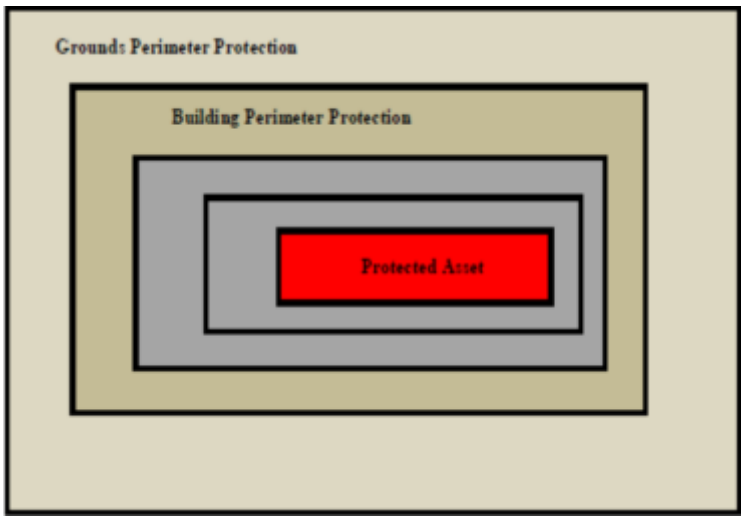

Figure 5.6: Traditional onion ring model of protection in depth
Source: Fisher and Green, (2003)

5.2.2.2 Building concept of the proposed Gurara tourist centre

The theatre and the museum are designed as the major facility on site with an idea of making the buildings replica of themselves. The idea behind the design is simply a water bubble or water droplet. The twin building is placed side by side of the river bank with an open banquet at both ends to embrace the rushing and astonishing fall of the water. The roof is designed to depict wave movement of water. The roof moves in an undulating manner.

5.2.3 Construction

The frame structure building system is the structural system suggested for the twin design. Professionals must be hired to provide professional works such as architectural sketches, bill of quantities, mechanical, and engineering working drawings for a successful construction and realization of this plan.

5.2.4 Criteria for landscape design

The following soft design components were used in the planned project to landscape the surrounding areas of the residences: long stem trees (palm tree), shrubs, ground covers, vines, and pond. Hard Landscape Elements such as Retaining walls, Pavement, Pedestrian walkway, Vehicular lane, artful fences, use of bollards and a fountain were included in the planned project's hard landscape features. The criteria used in the selection and placement of landscape elements are divided into two categories; Selection and location requirements.

Selection criteria refers to the conditions for choosing landscape components to be used in the proposed design, they include: visual appearance of the elements, density and texture of the elements, maturity period of the tree and other plants, size of the foliage and the root structure of the trees. Location criteria are criteria that were considered in locating the landscape elements which are: soil characteristics of the location of the element, spatial definition and character of the elements.

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5.2.5 Design considerations and planning principles

Various consideration has been made at the design stage such as zoning for security, drop off procedure, artful barriers for security and safety, security and transport shuttle

points within the centre, Landscaping for security, perimeter demarcation, party walls, well planned emergency routes, watch towers.

Table 5.1: Security and Safety elements adopted in the proposed design

S/N	Passive elements adopted
1	Zoning for security
2	Defined site boundary
3	Well established drop off procedure
4	Use of Long stem trees, bollards, and barricade
5	Use of watch towers
6	Designing of residential apartments in units to further enhance the defensible space theory

Source: Author's work, (2021)

5.2.5.1 Integration of proper zoning laws and a defined site boundary

The first hand approach to the design of the tourist centre was to ensure that a proper zone design was considered and planned accordingly. The site is zoned in order of public to private spaces. The design adopted a bridge as a central division between the most sensitive areas and the less sensitive areas serving as clear distinction and positioning of facilities around the site. Proper zoning plan serves as fundamental law in ensuring security and safety as other elements are dependent on it and it stand as the second line of defence after a proper definite site boundary. Also, an electric fence as a

definite boundary around the site Perimetre was considered as this offers the first line of defence to the facility.

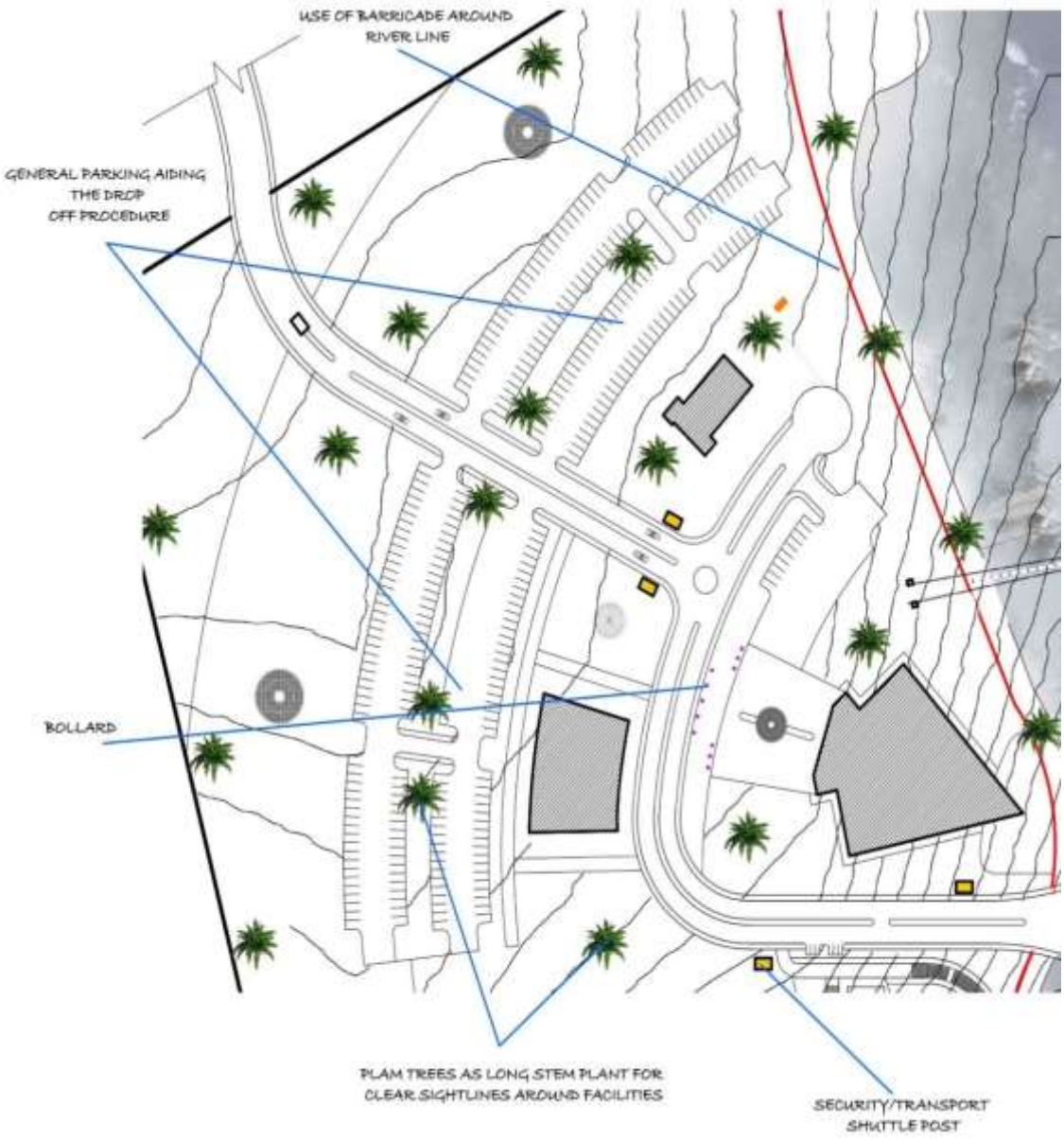

Figure 5.7: A close view of certain security measures employed around the proposed site
Source: Author's Design, (2021)

5.2.5.2 Well established drop off procedure, use of long stem tress, bollards and barricade in the proposed design

A drop off procedure ensures or prevents encroachment of any sort without proper identification or protocol. It ensures that visits by tourists are fully coordinated and arranged, such that provisions and directions are made towards a general parking after which transportation throughout the site is done via shuttles. This design ensured a proper parking arrangement away from facilities as well as providing transport and security stations to ensure the conveying of individuals throughout the site. Also, the use of long stem trees for clear sightlines, bollards to withstand forceful hits form vehicles and barricade for restrictions, safety and channelling movements were carefully planned along the site.

5.2.5.3 Positioning of towers and designing of residential apartments in units to further enhance the defensible space theory.

A Natural Surveillance system is key for proper observation and monitoring, the proposed design employed the use of watch tower for proper surveillance throughout the site. The concept of the defensible space theory is to ensure that individuals own up to spaces as their own through the configuration of designed space. A defensible space works by separating vast areas of public space and passing them to individuals or small groups to manage and use as their own private spaces (Newman, 1996). Blocks of Residential units further enhances this theory in such public space as this, thereby improving and creating a sense of awareness and defence to each occupants of these units.

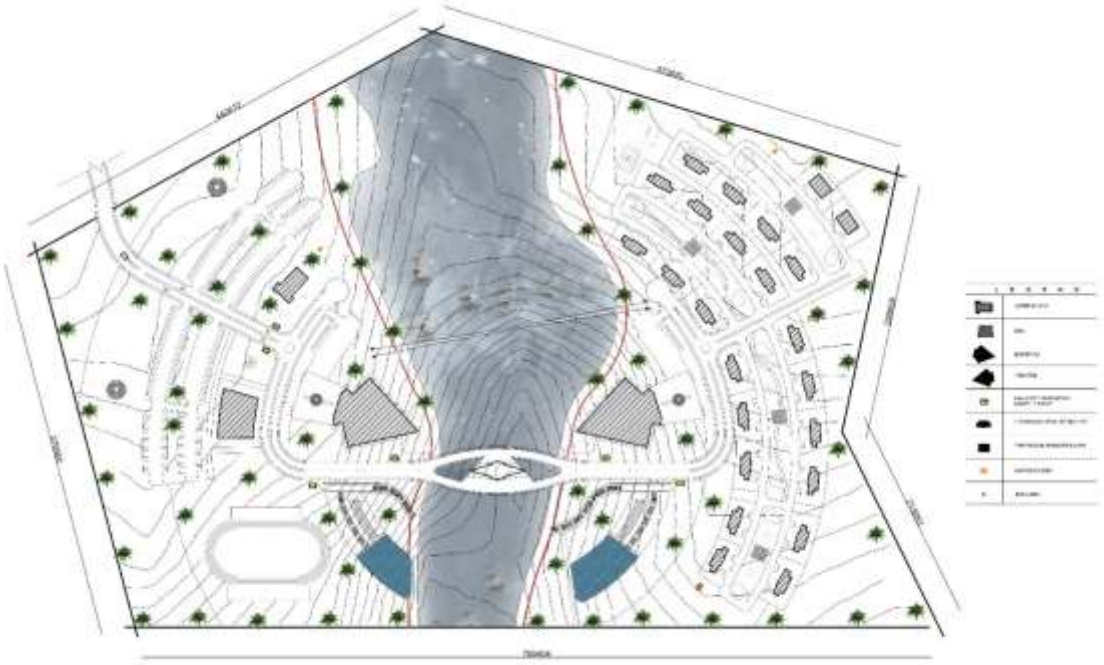

Figure 5.8: Proposed site plan
Source: Author's work, (2021)

Figure 5.9: Proposed residential units on site
Source: Author's work, (2021)

Figure 5.10: Use of palm trees around the Museum
Source: Author's work, (2021)

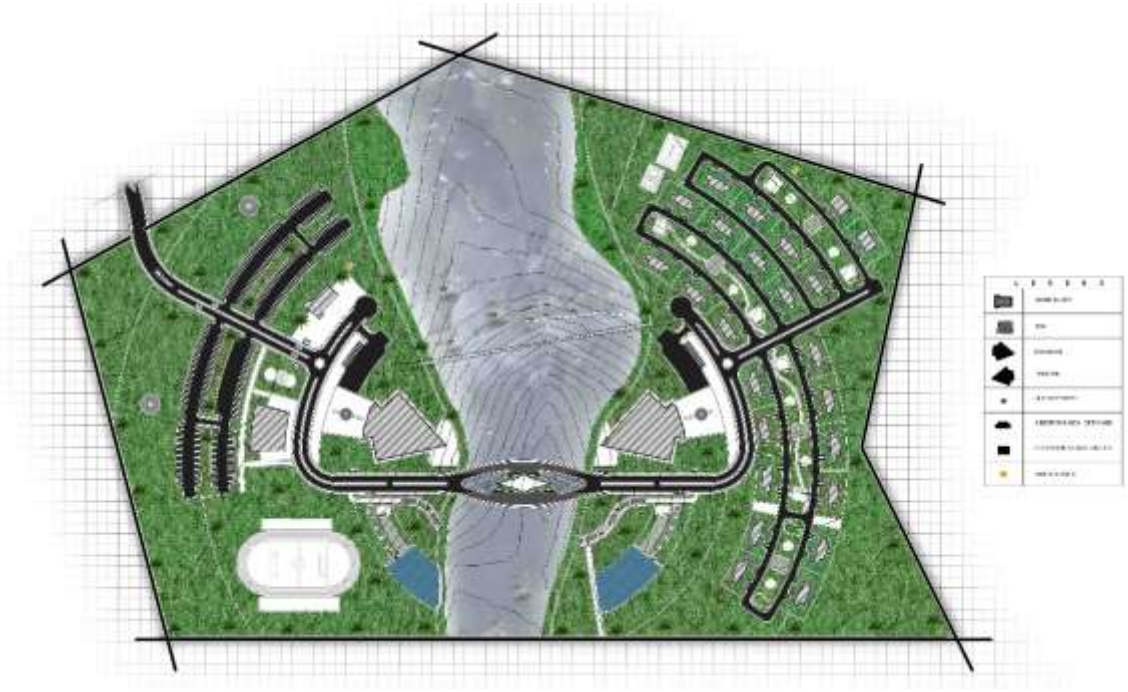

Figure 5.11: Proposed site plan for the Gurara tourist centre
Source: Author's work, (2021)

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The increasing issues of terrorism, violent crimes, robbery, kidnapping in the country is becoming alarming and disturbing as it continues to rise, going a long way to affect even the patronage of tourist (both domestic and international tourist) to tourist centres. During the cause of this research the researcher discovered that the major issues of security can be minimized through zoning for security, definite site boundary, a proper drop off procedure, landscaping for security, a single-entry point, and presence of a natural surveillance system. The findings showed that most tourist centres in Nigeria have not been fully designed with consideration on security and safety. A definite site boundary, landscaping for security and the presence of watch towers for natural surveillance were poorly considered in the development of these centres.

Enhanced security and safety should be approached through the implementation of these deduced measures. Although, all of these threats may not be stopped, but it can be curtailed, delayed, or reduced by using carefully organized spaces to allow for secured occupancy and easy evacuation in case of emergency, outbreak or other related circumstances; as well as controlling circulation of people and vehicles within and around the development. It is of utmost importance that all these measures be highly considered and designed alongside tourist centres.

6.2 Recommendations

As a measure to improve the security of properties and safety of lives of tourist particularly in Nigeria, the following is been advocated:

Professionals in the built industry should take a keen look at designing with respect to security for tourism development in Nigeria by implementing it as a criterion in the design of a tourist centre. Defining the site boundary should be placed in high consideration once a centre is to be developed as a tourist centre. There is also a need to provide clear signage indicating exit routes, footpath treatment, safe road crossings, assembly points. This signage should be made of materials which glows even in the dark. Design of watch towers for natural surveillance should be incorporated even in existing tourist centres.

Also, it is important that the government look into the development of existing tourist centres with great potentials within the country, in respect to the deduced measures from this research.

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APPENDICES

Appendix A: An observation schedule on assessment of spatial organization for enhanced security and safety in the design of Gurara tourist centre, Niger State

PART A- ABOUT THE CENTRE

1. Name of the Tourist Centre…….....
   …….
2. Location of the building…….....
   …….
3. Type of Tourist Centre……...
   …….
4. List of available facilities on site……..……..…
   …….……
   ..……
   ……..…
   …….
5. Type of design adopted for the accommodation product…….……
   …….
6. Number of accommodation units provided……...

PART B- DESIGN METHODS FOR ENSURING SAFETY AND SECURITY

Site Zoning for Security

- What type of zoning has been adopted in the site design

a) Public to Private Zoning……..

b) Noisy to Quiet Zoning……..

c) Zoned based on Attraction/Property……..

d) Indicate if there is any further detail……

……..……

……...……..

Nature of Site Boundary

Type of Site Boundary	Mark
Sand Crete Block fence	
Rocks and Vegetation	
Wooden Fence	
Barbed Wire Fence	

Further observation on Nature of Site Boundary if the above does not fully explain the nature……..

……

…..……..

Drop Off Procedure

Drop off Procedure	Mark
Planned General Parking Drop Off	

Unplanned General Parking Drop Off

Landscaping for Security

- Type of landscaping adequately employed

Type of Landscaping	Mark
Hard Landscaping	
Soft Landscaping	
Both	

- Type of hard landscaping elements used on site……
  ……
- Type of Soft Landscaping elements used on site……..……...
  ……
- Are there dense and broad-leaved trees around used spaces?
  a) Yes ☐ b) No ☐
- Are paths clearly defined and planned? a) Yes ☐ b) No ☐

Nature of Route into the Centre

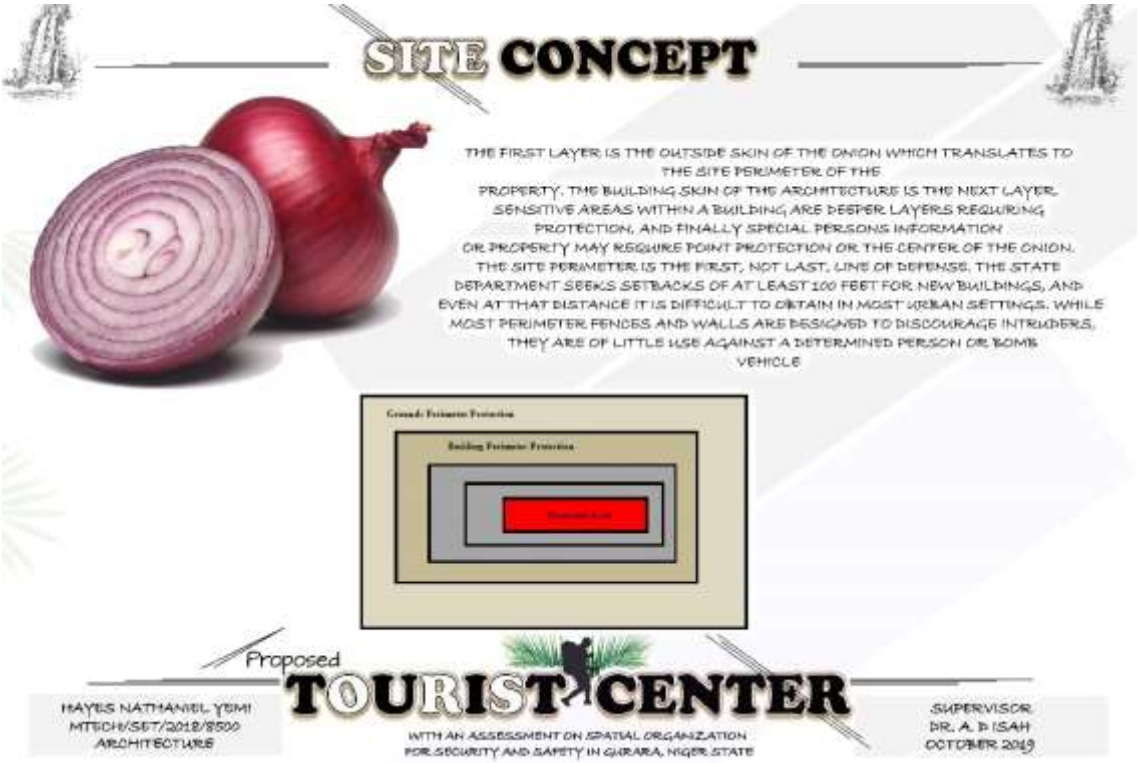
Single Access for Entry and Exit	Mark
Double Access for Entry and Exit	
No Defined Entry	

Availability of Tour Guide and Watch Tower

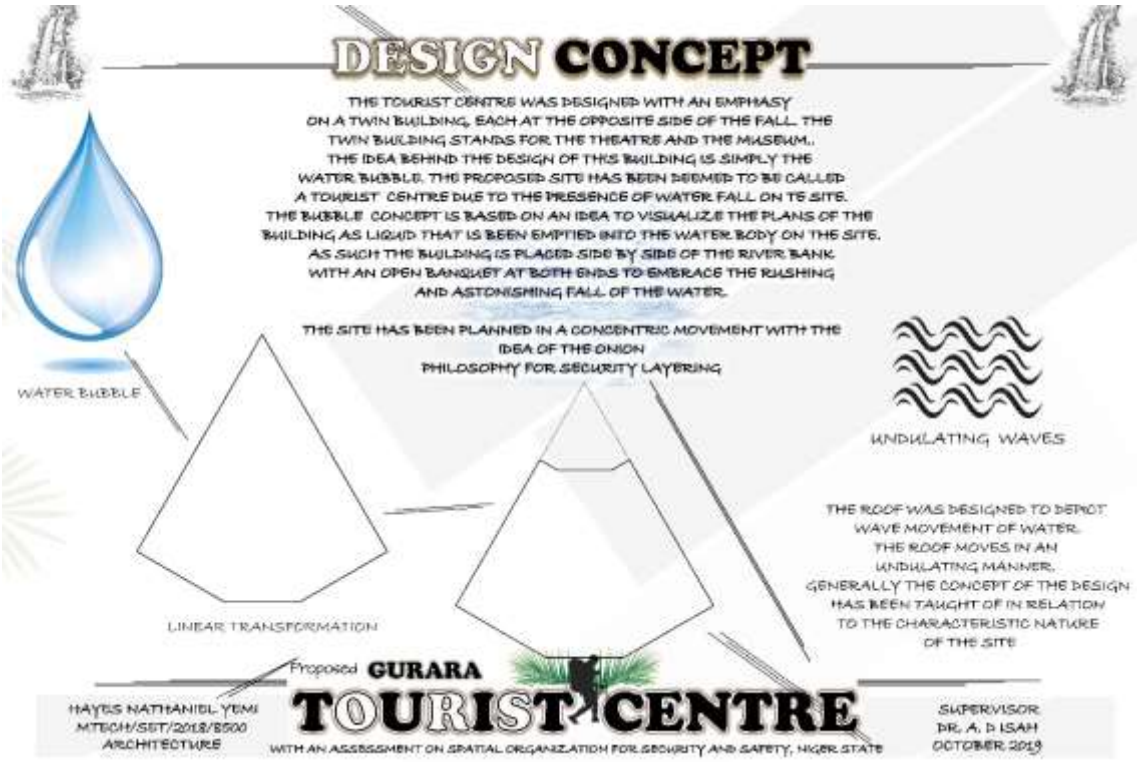
Availability of Tour Guide	Mark
Readily Available	
Partially Available	
Not Available	

Watch Tower Design	Mark
Available	
Not Available	

Appendix B: Site concept

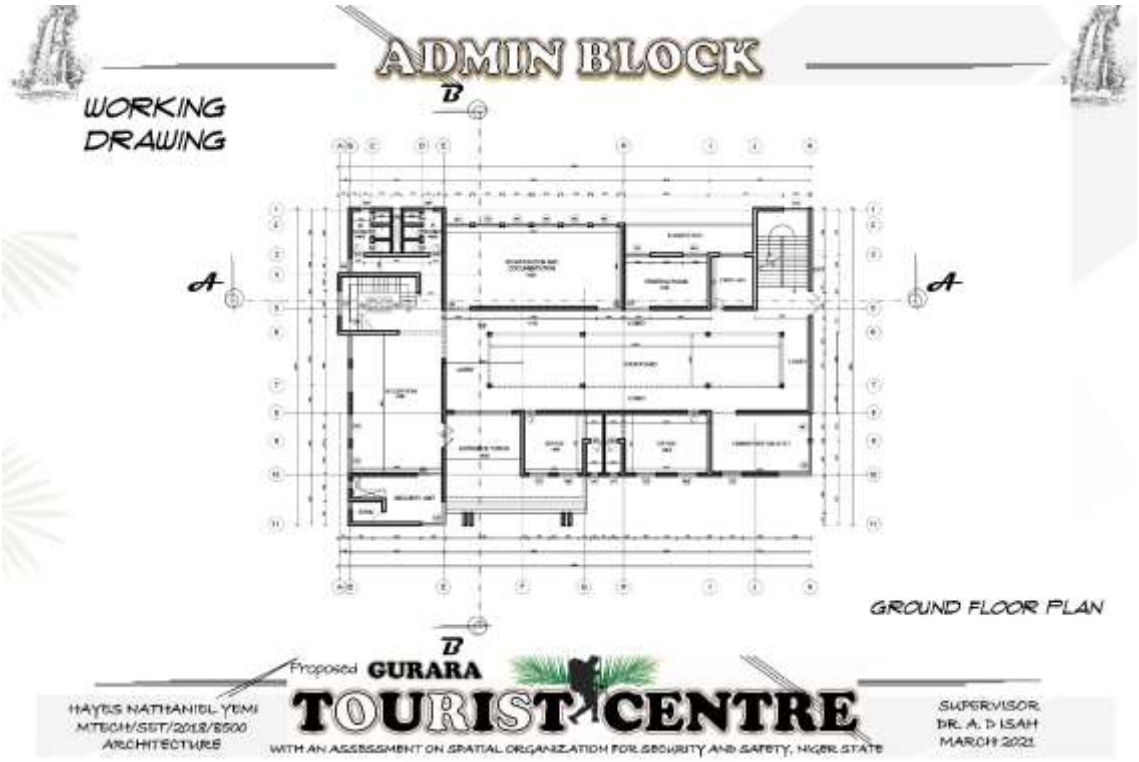


Appendix C: Design concept

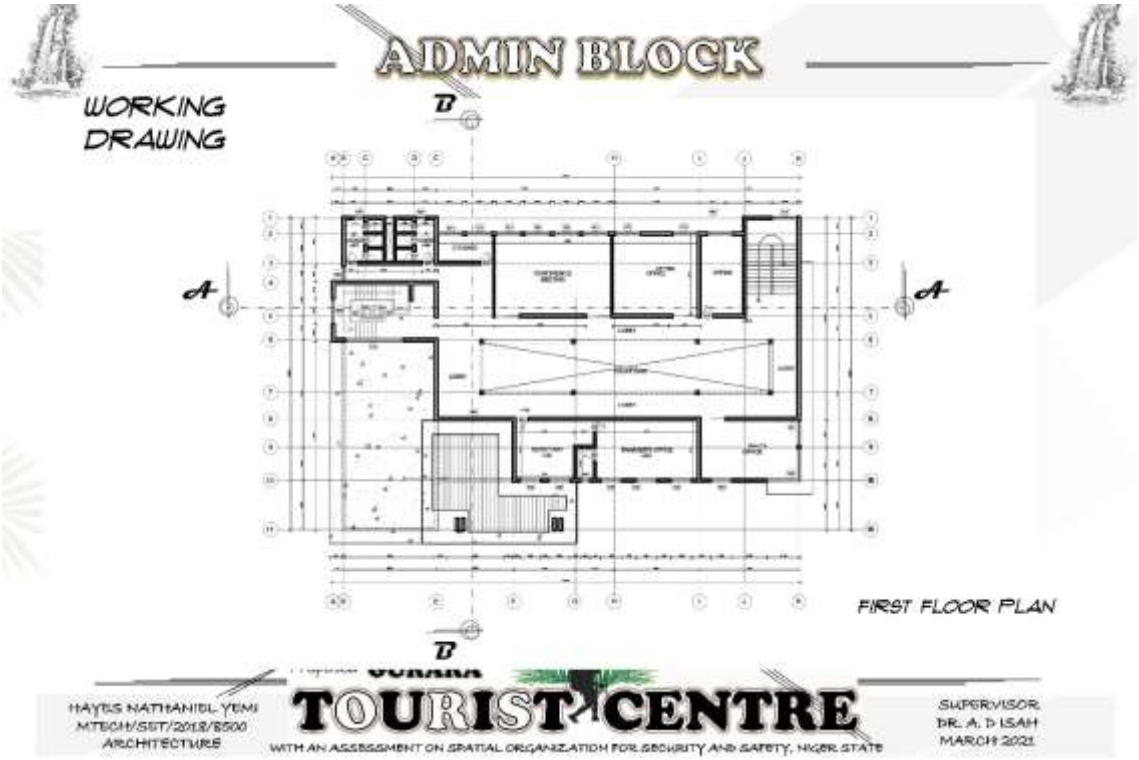


Appendix D: Site plan

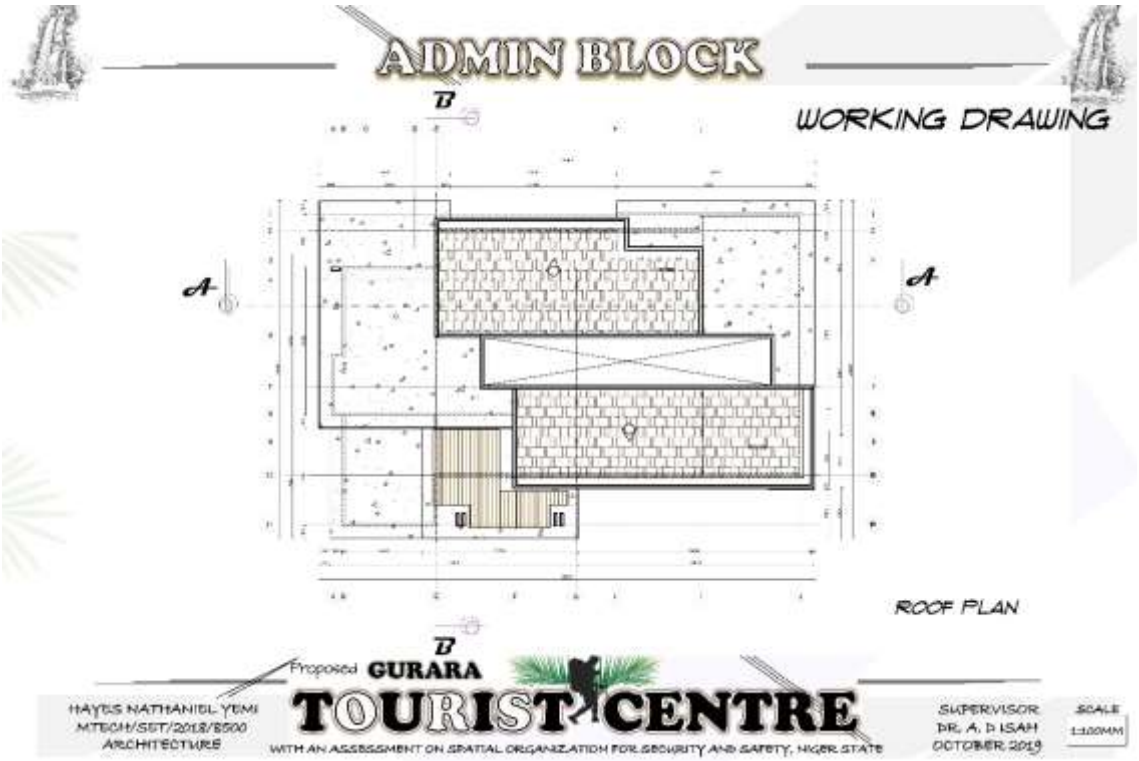
Appendix E: Admin block (ground floor)



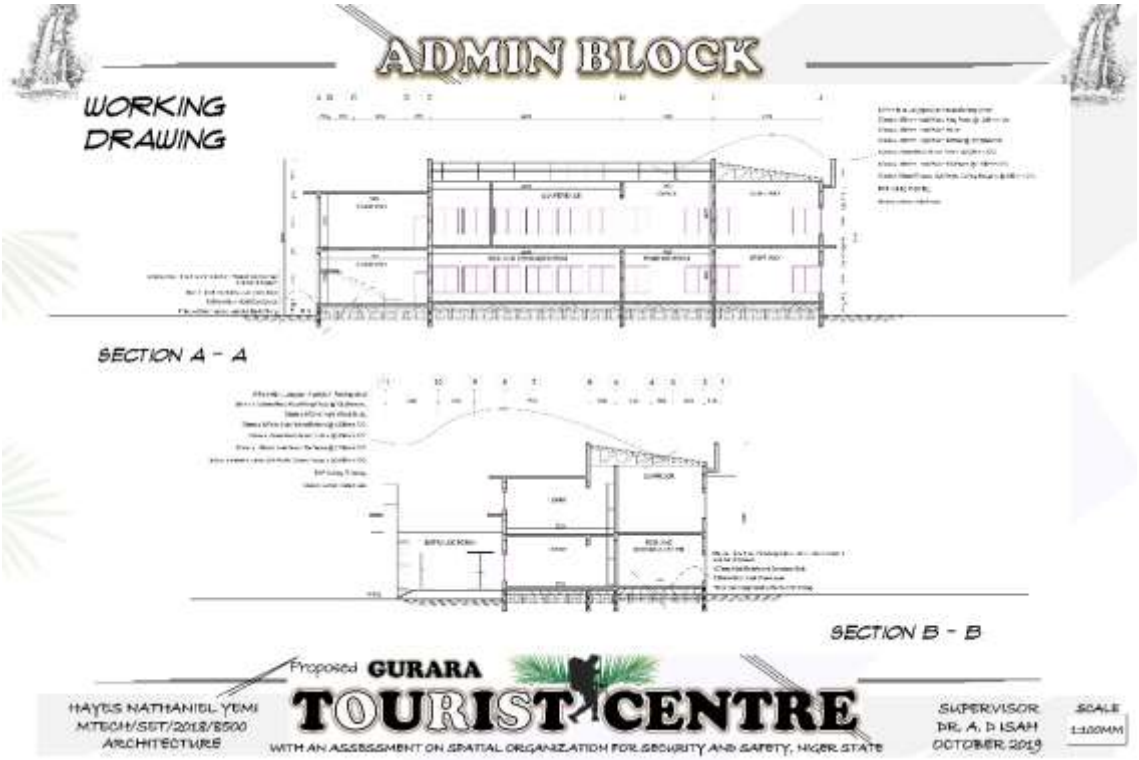
Appendix F: Admin block (first floor)



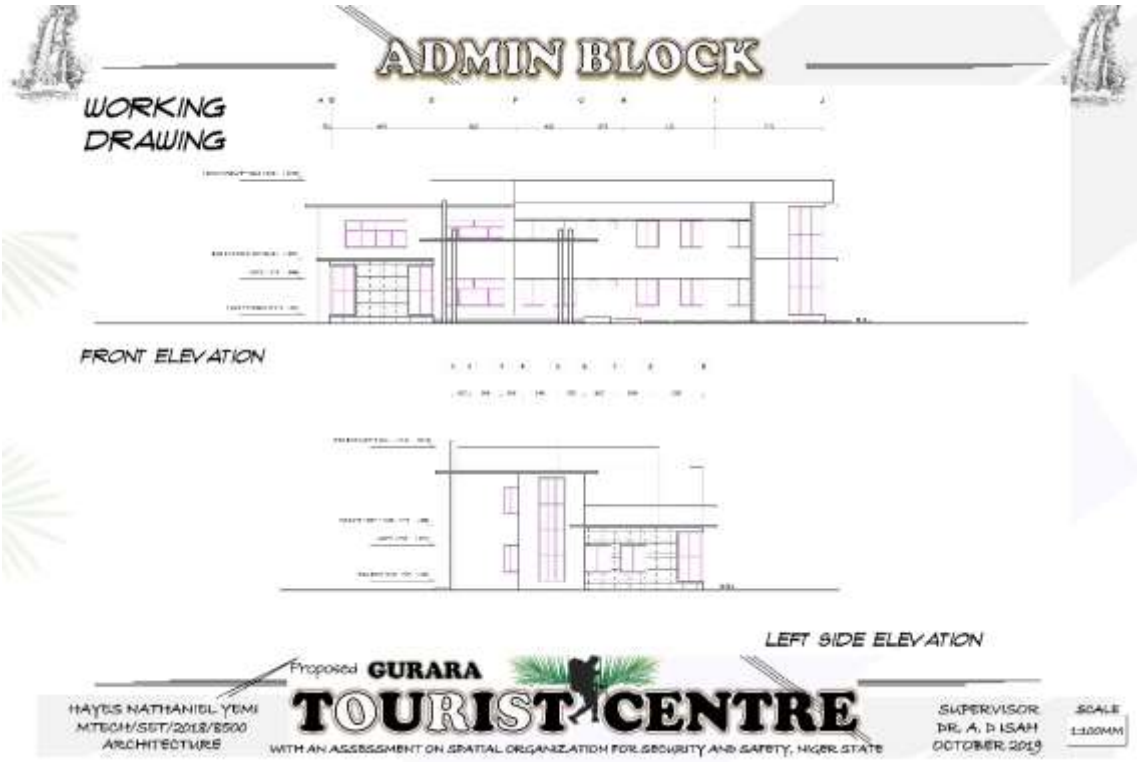
Appendix G: Admin block (roof plan)



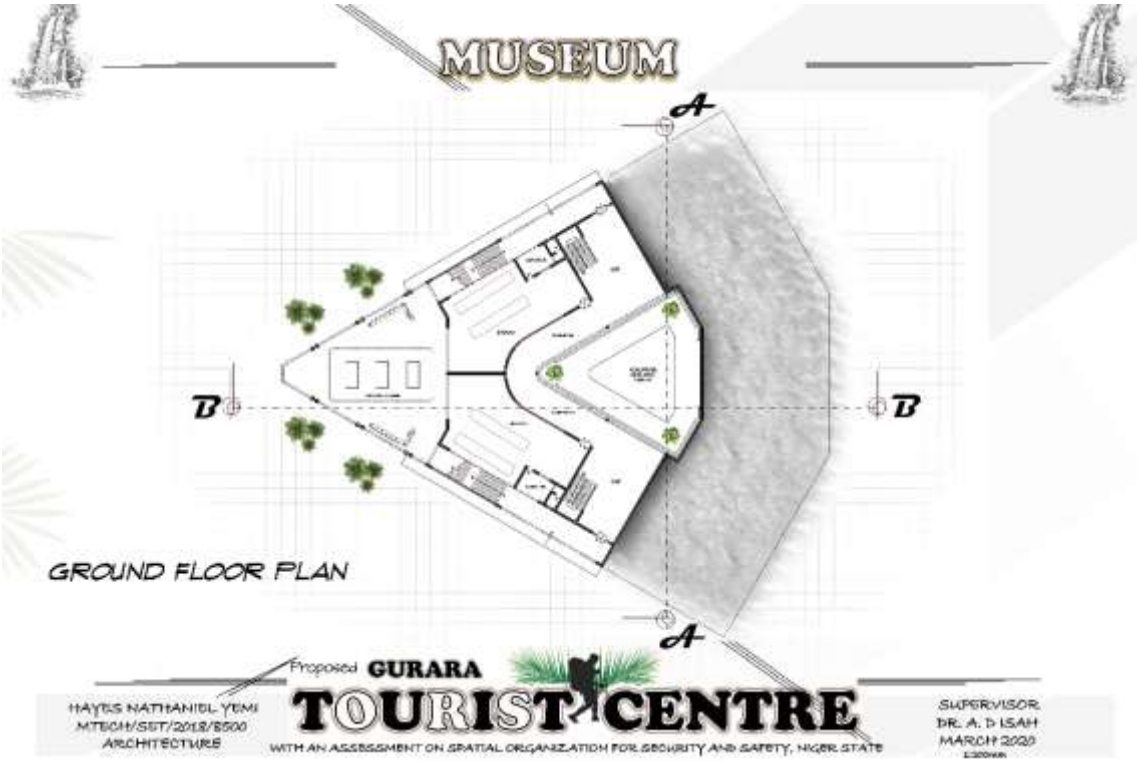
Appendix H: Admin block (sections)



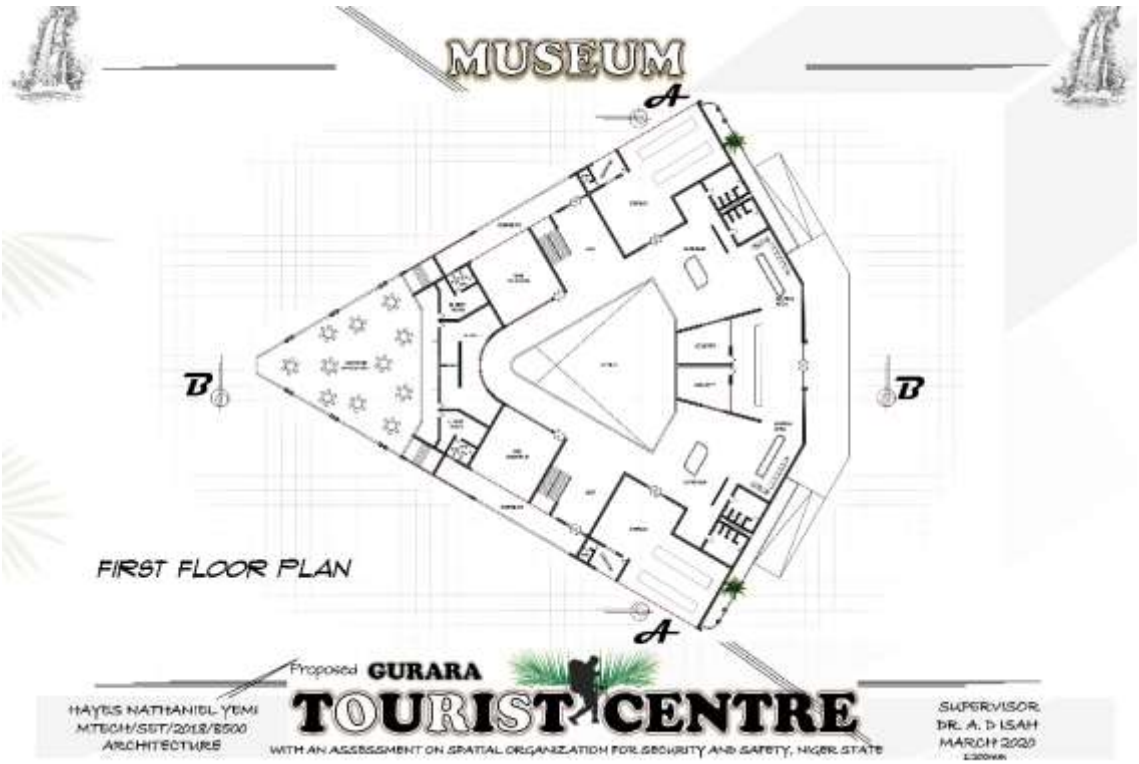
Appendix I: Admin block (elevations)



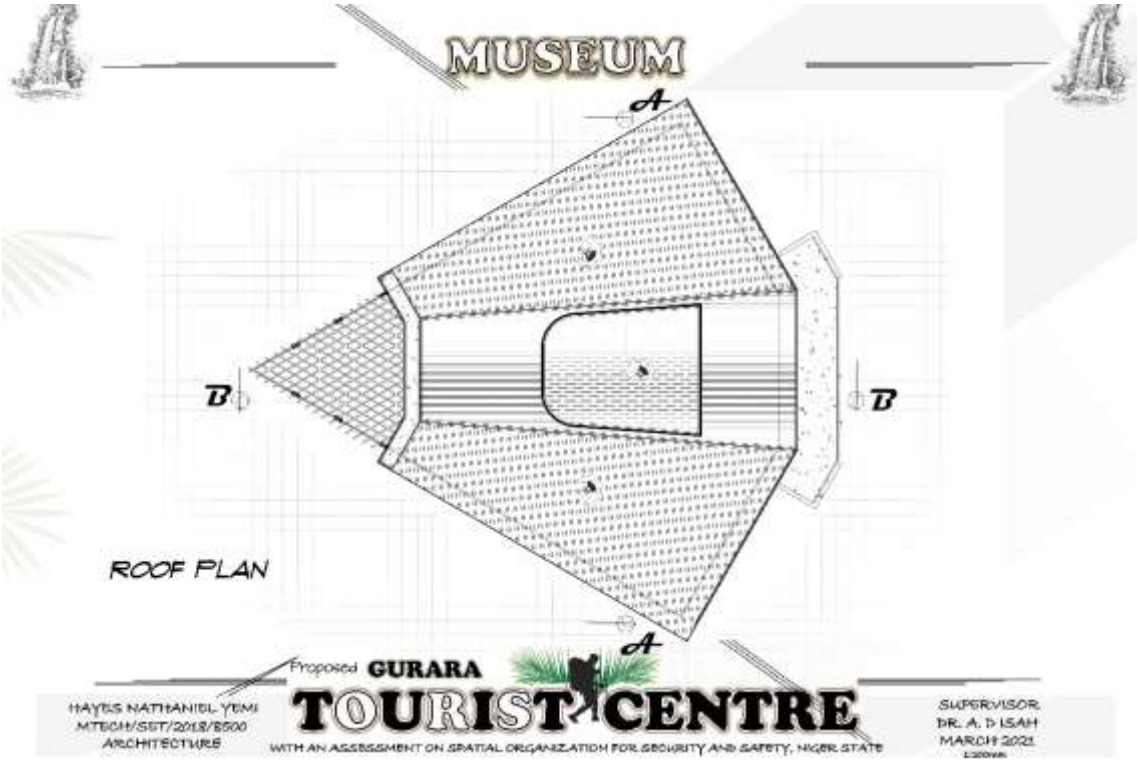
Appendix J: Museum (ground floor plan)



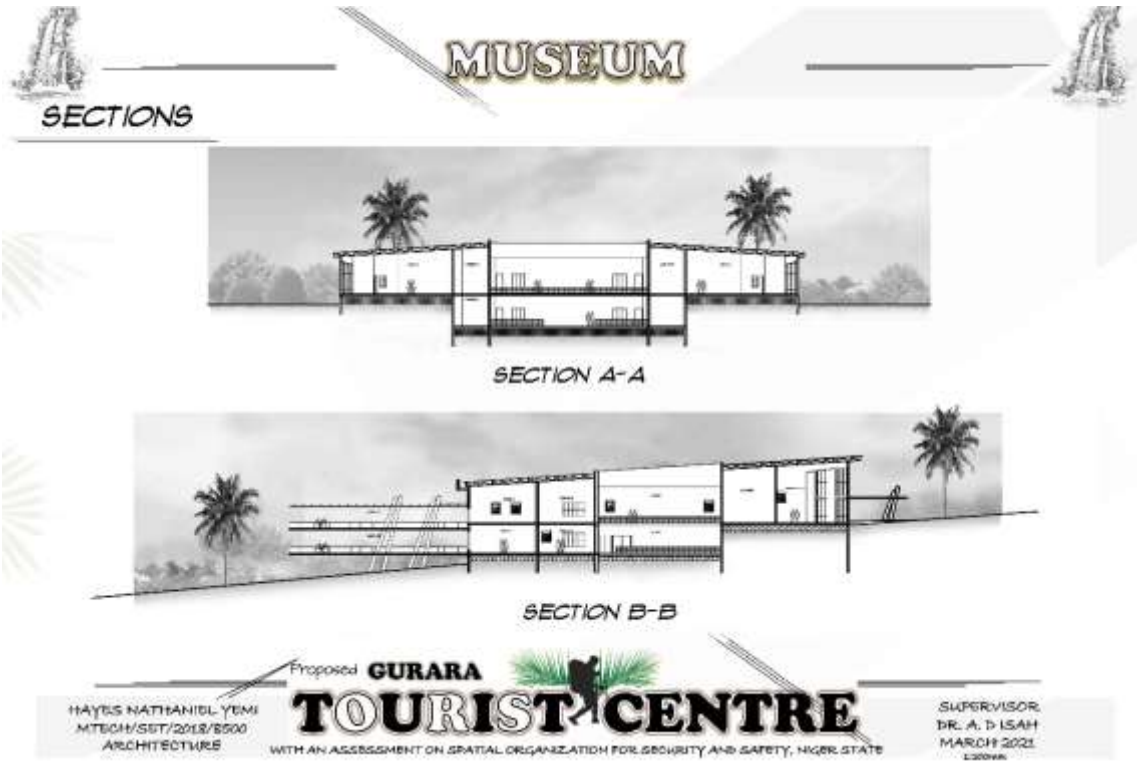
Appendix K: Museum (first floor plan)



Appendix L: Museum (roof plan)

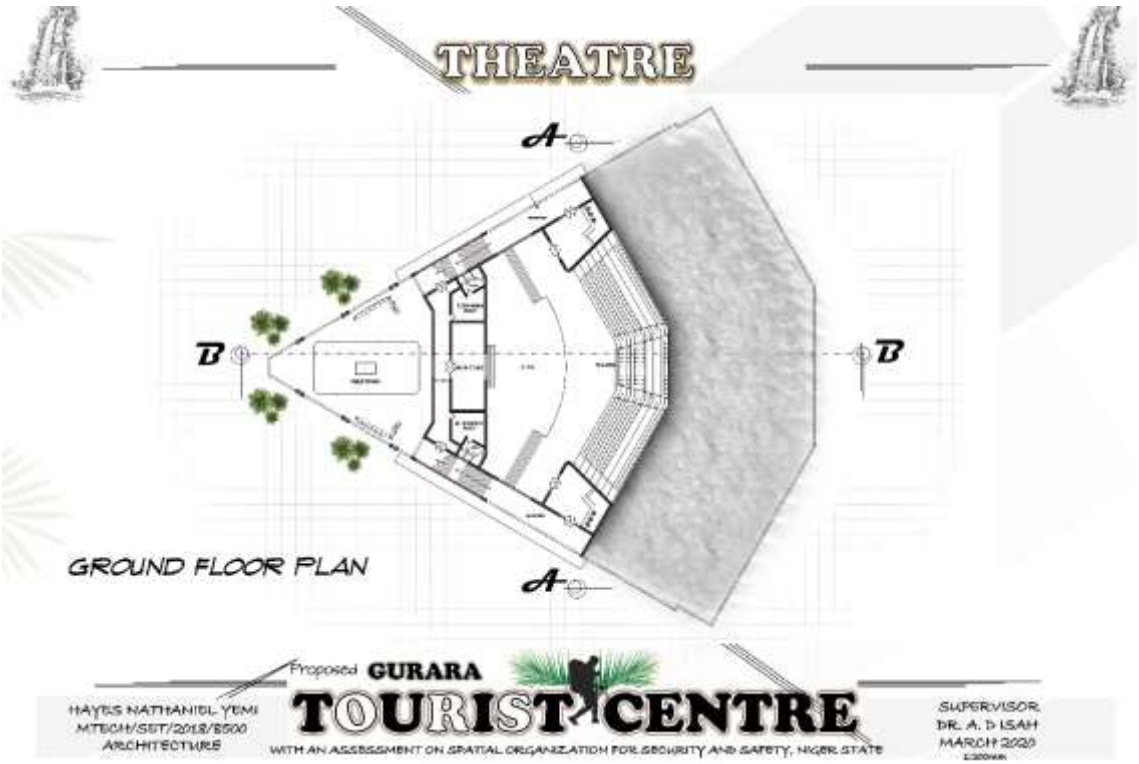


Appendix M: Museum (sections)

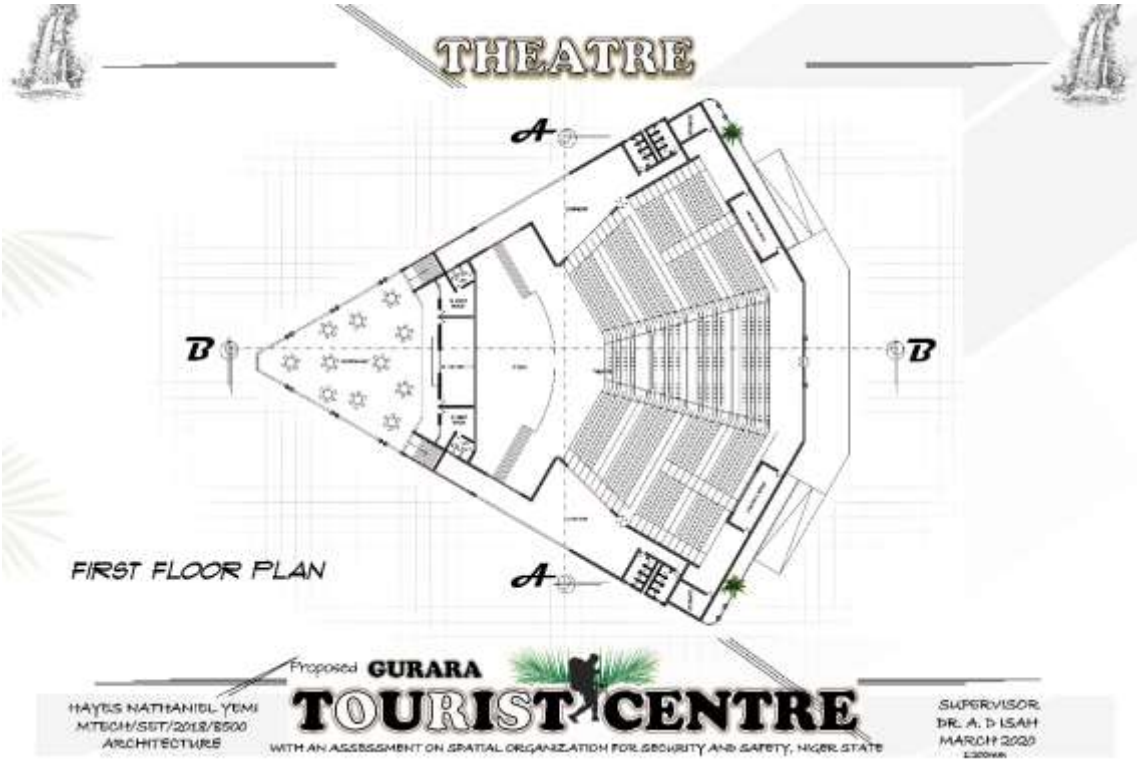


Appendix N: Museum (elevations)

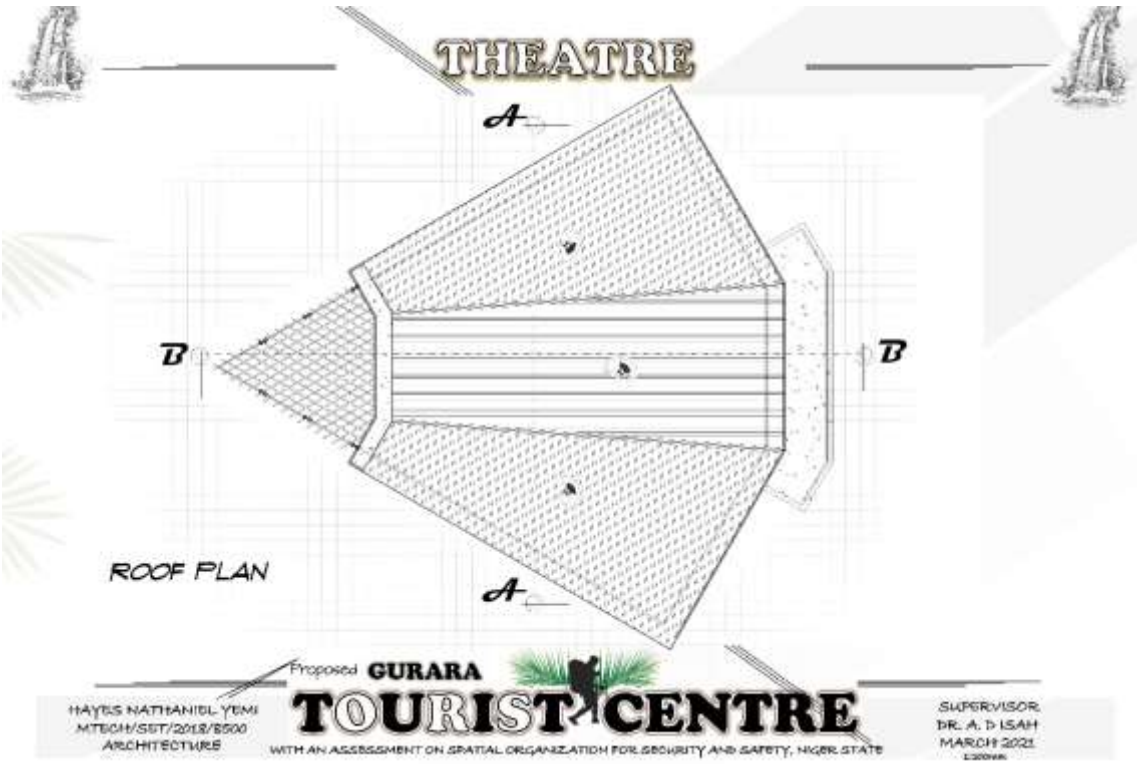
Appendix O: Theatre (ground floor plan)



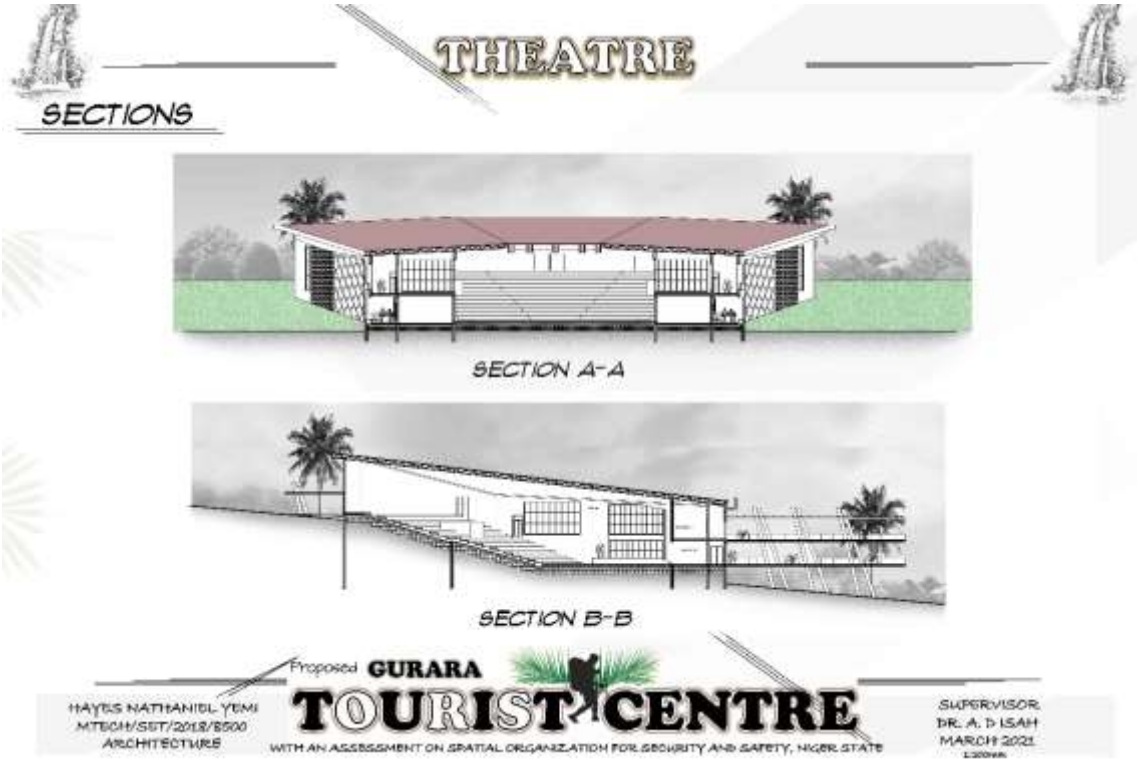
Appendix P: Theatre (first floor plan)



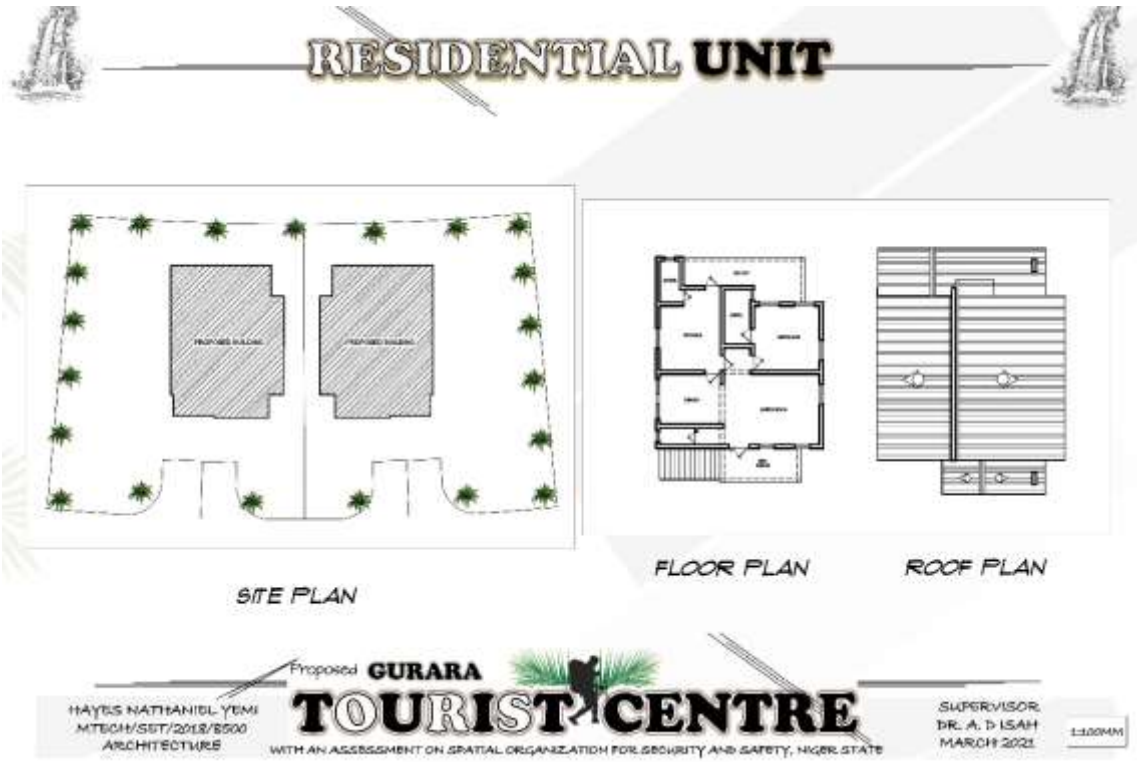
Appendix Q: Theatre (roof plan)



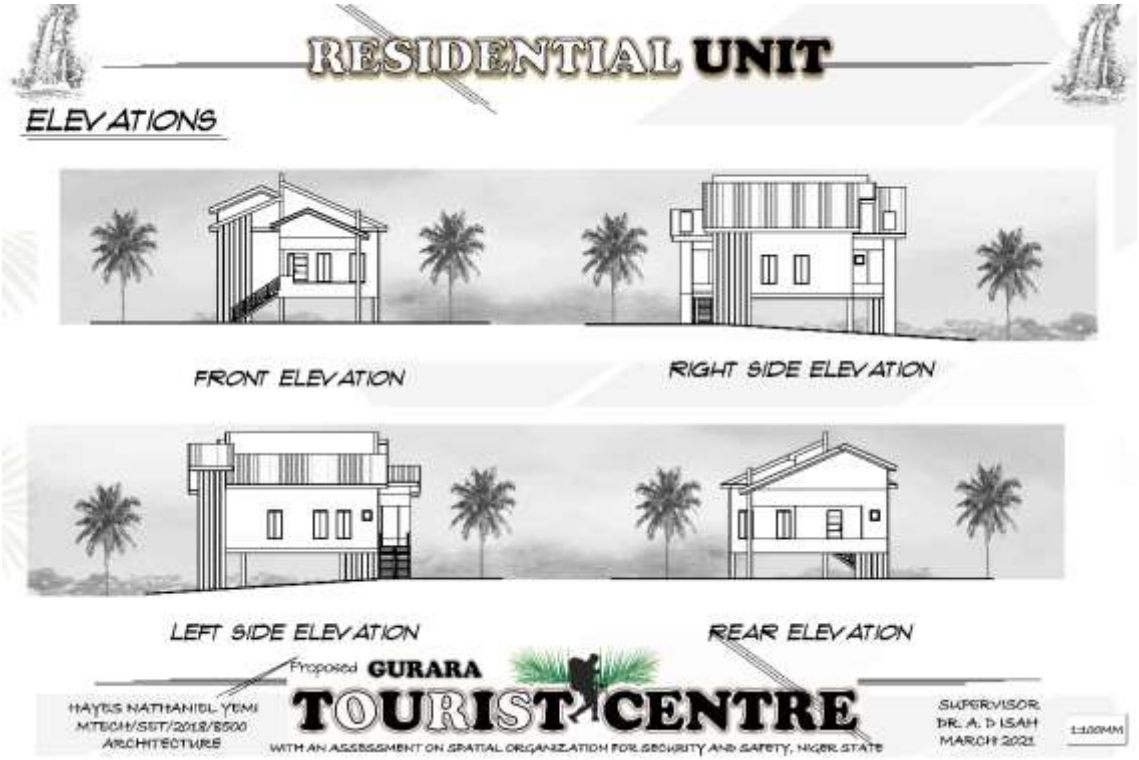
Appendix R: Theatre (sections)



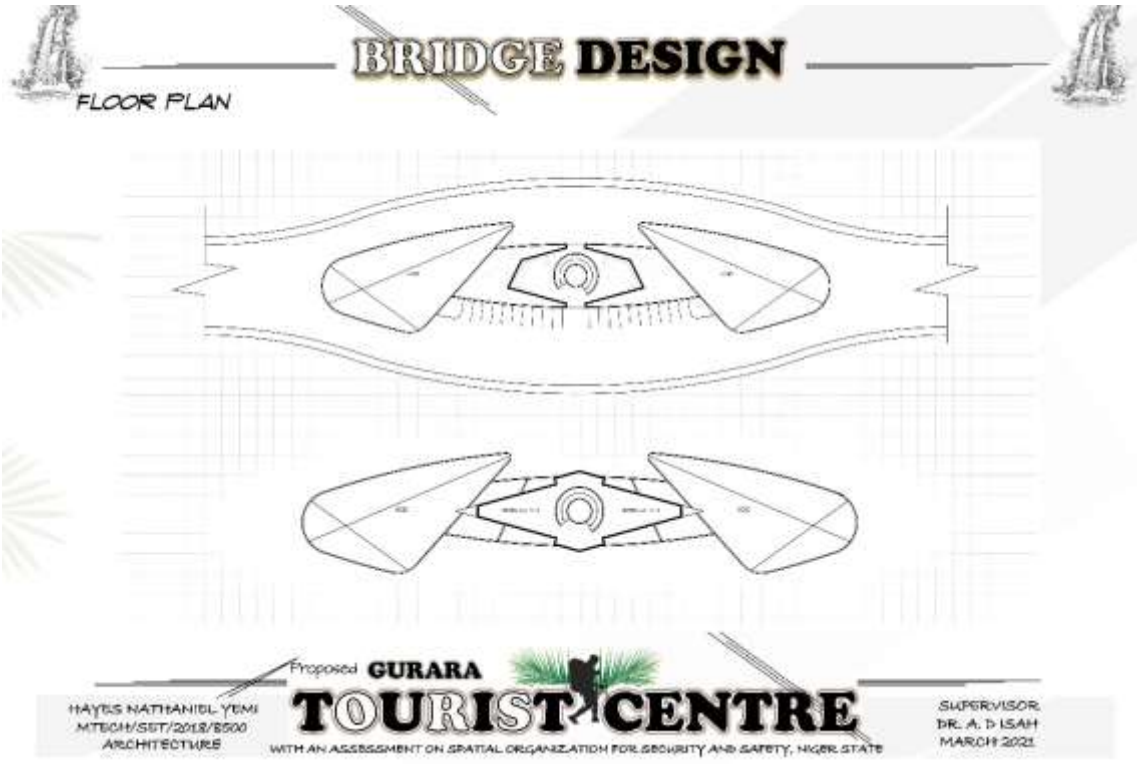
Appendix S: Residential unit (floor and roof plan)



Appendix T: Residential unit (elevations)



Appendix U: Bridge design



Appendix V: 3D views

Appendix W: 3D views (sheet 2)

Appendix X: 3D views (sheet 3)

Appendix Y: 3D views (sheet 4)