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SAFETY AND SECURITY ASSESSMENT OF TOURIST DESTINATIONS: A FIELD STUDY IN A NIGERIAN GEOPARK

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ABSTRACT

In the travel industry, safety and security are imperative and any attraction sites which ignore these tasks stand to lose out on the intense competition for tourists. One way to ensure that safety and security are satisfactorily provided is to regularly assess and seek the perceptions of stakeholders. Studies that make such an attempt, particularly in a Nigerian Geopark are relatively underrepresented in the literature. This study therefore evaluates safety and security situations at a large geopark and one of the most visited tourist destinations in Nigeria. Through direct observation, an on-site assessment of safety and security measures was undertaken by experts. The assessment instrument was designed using an empirical adaptation of standards which have been suggested in the literature. In addition, members of the site management were interviewed on various outcomes of the field study. Generally, the safety and security architecture in the study area appeared to be insufficient as the management seemed restrained to be too proactive for fear of scaring wildlife and visitors. Besides, the management did not consider the site to be under any serious threat as no major accident and/or crime has been recorded in the last decade. The study concludes that safety and security approaches in the study area do not reflect standard measures but rather cautious approach and an overly dependence on a supposed good past record. The result of this study can facilitate standard practice for safety and security in tourist destinations. This study fills the knowledge gap by providing information on the Nigerian experience regarding safety and security of Geopark in the Global South.

Keywords: Tourist destinations, Safety, Security, Risk, Osun-Osogbo Geopark.

INTRODUCTION

From the formation and development of world tourism, it has just entered a period of steady development in the case of Africa (United Nations World Tourism Organization [UNWTO], 2020), particularly, Nigeria; the giant of Africa, and a country well-known for its richness in tourist attractions. In the last three decades, Nigerian tourism industry has shown significant advancements. Based on the UNWTO's 2015 evaluation, Nigeria is fast becoming a sensational destination for overseas vacationers. In 2017, tourism contributions to the nation's Gross Domestic Product (GDP) and employment extended up to 34% and 20% respectively (National Bureau of Statistics [NBS], 2017). However, the contributions of tourism to GDP and employment decreased substantially in the last four years and this has been attributed to

insecurities, poor tourism infrastructure development, and Covid-19 (SARS-CoV-2) among others (Premium Times, 2021: January, 28). In order to recoup and sustain the steady growth of tourism industry, some concerns must be given adequate attention (Khan, et al., 2020). One of such is insecurities (Badiora & Omoniyi, 2021).

For most tourists, particularly, foreign visitors, safety and security are important concerns (Spencer & Tarlow, 2021; Wang, et al., 2019). The 2020 report from UNWTO showed approximately 22% decline in arrivals in the first quarter of the year, as a result of increased violent crime rate and the SARS-CoV-2 lockdown in many countries, translating into a loss of sixty-seven million international arrivals and about eighty billion USD in exports from travel. Besides, the International Association of Tourists Safety (IATSS) showed evidence on a lot of concerns regarding insecurities in tourism destinations at both developed and developing countries (IATSS, 2020). Thus, the proof of tourism industry's sensitivity to adverse conditions is seen in the rapid declines in tourist patronage suffered by many nations in 2020 following recent surge in violent crime rate and global pandemic (UNWTO, 2020).

Prior to the outbreak of SARS-CoV-2 in 2019, the events of violent crime, hostage taking, and Boko-Haram insurgency have raised worries about the security and welfare of visitors to Nigeria (World Bank, 2016; United Nations [UN], 2015; UNWTO, 2017; TripAdvisor, 2018; Overseas Security Advisory Council [OSAC], 2018). For instance, the OSAC 2018 statistics showed that the country has an extremely high rate of violent crime. Accordingly, OSAC weighed Nigeria at "Level 3"; demonstrating that tourists should meticulously reflect on traveling to the country due to violent crimes. The effect of this assessment is that Nigerian destinations may be seen by many potential visitors as insecure and thus, tend to lose their appeal to other places observed to be more safe and secure.

Undoubtedly, insecurities remain one of the most important considerations by tourists (Mura, 2010; Boakye 2012). The substantial reliance of travel industry on security is seen in both the demand and supply aspects of the service (Boakye 2012, Mawby, 2014). As of the demand standpoint, travel is well-known to be a very complex consumption service and is logically the first to be knocked off when violent crime prevails in a destination (Boakye 2012; Mawby, 2014). From the viewpoint of supply, unsafe and unsecure destinations are known to instantly drop in their attractive and patronage pull (Cohen, 2019; Lisowska, 2017; Mawby, 2014). Research have revealed that concerns about violent crime have disadvantageous impacts on travel demand (Barker, Page, & Meyer, 2003; George, 2003, 2010). This is because perceived violent crime is a foremost issue in travelers' decision-making and visitors will opt for the nonthreatening one once given the opportunity to choose between two tourist destinations offering related services (Spencer & Tarlow, 2021; Wang et al., 2019).

The matter of safety and security remains a popular issue in the broader travel literature. So far, available literature on tourism and safety link has delivered worthwhile understanding into the pattern of the connection between these subjects (e.g. Drawve, et al., 2020; Mawby, 2014; Spencer & Tarlow, 2021; Wang et al., 2019). However, many of these studies have tended to assess safety and security regarding objective and subjective crime and paid extremely little attention to on-site assessment of environmental design, site planning, facilities and supplementary services to determine whether safety and security standards are actually meet. Besides, many of these studies focused on urban park and recreation centers and not destinations such as geoparks. Those that studied geopark in the academic circle (e.g. Adeniran, & Akinlabi, 2011; Azman, et al., 2010; Osaghale, Omisore, & Gbadegesin, 2014; Olatunji, & Ezenagu, 2016; Farsani, et al., 2017; Sumanapala & Wolf, 2020) mostly stress on their

aesthetics, and cultural and geological heritages, disregarding the exploration around safety and security.

The very nearly efforts were made by Getrude and Boakye (2021) and Chen, et al., (2021). However, their exertions were less comprehensive compared to this study in terms of safety and security specifications. For instance, Getrude and Boakye (2021) did not consider environmental planning and design as one of the dimensions of safety and security in tourist destinations, whereas, previous studies (e.g. Atlas, 2013; Armitage & Joyce, 2017; Armitage, 2016; Odufuwa, et al., 2019; Badiora, et al., 2021) have shown that, how a place is physically planned, designed, built, rebuilt, maintained, and managed contribute to its safety, security and vitality. Equally, Chen, et al., (2021) only focused on planning and design (Crime Prevention through Environmental Design [CPTED]) while neglecting other established dimensions such as communication and documentation, people (e.g. management) among others. So far, there is no study which has used the checklist in this study to assess safety and security and clarifies crucial dimensions from management perception. To the best of our knowledge, no study has attempted to appraise safety and security of destinations like Geoparks in Nigeria despite the country being labeled as unsafe for visitors (OSAC, 2019). For a country which benefits from travel industry, studies like this are essential.

This study therefore seeks to evaluate safety and security standards at a large cultural landscape of undisturbed sacred forest and one of the foremost attractive tourist places in Nigeria: Osun-Osoybo and assess the managerial sentiments to safety and security at this destination. Consequently, this study responds to these questions: Does the site meet reasonable safety and security standards from various measures which have been advocated in the previous works and studies? What are the attitudes of the management regarding safety and security architecture on

the attraction site? To answer these questions, a safety and security valuation of the site was conducted and the objective opinion of the site management was asked regarding the outcomes of our expert's valuation. This study offers understanding into safety and security design for tourist destinations' managers. Through effective adoption of approaches used in this study, it is expected that this study will boost safety and security of geoparks. By providing the Nigerian experience on safety and security of Geopark, this study is of academic value by contributing to literature on tourist destination marketing in developing countries. Besides, this study is of professional values as findings are expected to facilitate standard practice for safety and security in geoparks and other destinations. The rest of this article covers a review of the literature, conceptual framework, and facts about the study area, research methodology, results and findings. The article concludes by highlighting issues that need to be addressed in the study area as well as future research tips.

Geopark, safety and security: A review

A geopark is a nexus of environmental heritage sites (Chen, et al., 2021) such as artifacts, archaeological, ecological, historical (Farsani et al., 2017), and cultural values (Sumanapala, & Wolf, 2020) that are protected by law. It absorbs its value mainly through a three-branched approach: conservation, education and tourism (Farsani, et al., 2011; 2017; Sumanapala, & Wolf, 2020). Geoparks play a vital role in conserving geological heritage sites (Azman et al., 2010). They also act as a network for sharing geo-scientific knowledge and bio-diversity preservation to the public (Chen, et al., 2021), and stimulate the local economic through tourism earnings (GGN Association, 2021; Wang, et al., 2019). Geoparks are common sites for tourism, excursion, recreation, and education experiences (Farsani et al., 2017). Besides, geoparks improve individuals' physical and mental health (Chen, et al., 2021). Nonetheless, geoparks

may also be an unsafe place (Chen, et al., 2021), and for this reason, people may avoid visiting them despite their numerous benefits.

Safety and security in geoparks are complex, covering wide-ranging components from public safety to getting accurate information (Kovari & Zimanyi, 2011; Zarezadeh, et al., 2018; Trogisch & Fletcher, 2020; Preko, 2021; Preko & Gyepi-Garbrah, 2021). Some scholars (e.g. George, 2003; Wichasin & Dounghummes, 2012; Wang, et al., 2019; Spencer, & Tarlow, 2021) have used the two concepts interchangeably, while others (e.g. De Nardi & Wilks, 2007; Michelberger & Labodi, 2012; Yang & Nair, 2013; Cheng et al., 2021) have argued that the two concepts are indeed different. The explanations provided by scholars largely refer to two types of distinctions. The first is related to the intentionality, with safety focusing on hazards and non-intentional or accidental risks as opposed to security that focuses on malicious threats and intentional risks (Ale, 2009; Smith, 2012). The second focuses on origins and consequences with safety being the ability of the system not to harm the environment, while security is the ability of the environment not to harm the system (Boholm, et al., 2016).

According to Michelberger and Labodi (2012), safety is to disarm risks factors to protect visitors from injury and/or death. Some tourism events that are vulnerable to safety risks include wildlife attack, infection, natural disasters and insecure travel conditions (Pizam & Mansfeld, 2006; Chen et al., 2021). In contrast, a situation of freedom from danger or risk is called security (De Nardi & Wilks, 2007). Scholars (e.g. Pizam, & Mansfeld, 2006) have highlighted terrorism, violent crime, war and civil/political unrest as insecurity situations that can adversely impact tourism. Thus, a distinction may be drawn between both concepts. While safety is protecting visitors against accidental costs of any unintentional risk, security is an act of protecting the visitors against anything that can potentially injure them. Following the

distinctions in the literature, this study assumes safety as a custom of security that emphasizes the protection of tourists from harms: accidents or crime. Cases of safety threats in geoparks may include: missing one's route in the forest, serpent or insect bite, among others (Gstatener, Lee & Weiler, 2020; Cheng et al., 2021).

Geoparks are highly susceptible to natural and man-made risks (Chen et al., 2021). They present a comparatively more than regular extent of risk compared to other categories of tourist destinations (Van den Berg & Ter Heijne, 2005; Chen, et al., 2021). Geoparks are particularly risk-prone and the literature offers reasons for this. First, geoparks may contain some potential dangers like dangerous wild animals, unseen obstacles, or criminals in hiding and falling branches (Bixler & Floyd, 1997; Van den Berg & Ter Heijne, 2005; Chen, et al., 2021). Second, uncertainties of losing right route in the forest may trigger tourists' sense of fear (Chen, et al., 2021; Maruthaveeran, & Van den Bosch, 2015; Andrews & Gatersleben, 2010). Third, enclosed, dark and dense forested areas may become more intimidating to tourists (Milligan & Bingley, 2007; Maruthaveeran, & Van den Bosch, 2015).

Risks at geoparks have been classified into social and physical dangers (Herzog, & Smith, 1988). The social danger is perceived as hazard from a social source (e.g. to be attacked by another individual). On the other hand, the physical danger is hazard from the physical structure of the milieu such as being attacked by wildlife, wounds from stumbling over obstacles and weather, among others (Maruthaveeran, & Van den Bosch, 2015; Coble, et al., 2003; Henderson & Bialeschki, 1993). Other hazards ranged from the risk of being pounced on by a criminal (e.g. Coble, et. al., 2003; Maruthaveeran, & Van den Bosch, 2015) to the fright of stepping on a serpent, scorpion, or get trapped in a thunderstorm or being pursued by a swarm of dangerous insects or creatures (Van den Berg & Ter Heijne, 2005).

The design of geoparks has been blacklisted (e.g. Herzog and Kirk, 2005; Maruthaveeran, & Van den Bosch, 2015) as contributing to concerns for safety among users. It is recognized that poor physical design is a contributing factor to concerns for safety in tourist destinations (Badiora, et al., 2021). Studies have submitted that tall, thick and poorly maintained plants are significantly linked with concerns for safety (Maruthaveeran, & Van den Bosch, 2015; Chen, et al., 2021). Moreover, graffiti and litter increase crime incidences in geoparks (Turkseven-Dogrusooy & Zengel 2017; Odufuwa, et al., 2019). Nevertheless, increased park activities in a destination and its surroundings are key features to help users have a sense of safety (Maruthaveeran & Van den Bosch, 2015; Badiora, et al., 2021). Studies have shown the relationship between the physical appearance, signs of abandonment and criminal activities in tourist destinations (Badiora & Bako, 2020; Chen, et al., 2021). Previous findings have shown that fences and existence of buffer zones that restrict users from leaving instantly when required, may provoke fear (Woosnam, et al., 2015; Chen, et al., 2021). Also, poorly applied lighting systems add to concerns for safety in a tourist destination (Odufuwa, et al., 2019). Likewise, Maruthaveeran & Van den Bosch (2015) found that security precautions such as human guards (e.g., police), security cameras and security signage are important spheres of safety and security in tourist destinations.

Uniquely, geoparks are naturally more dangerous compared to other types of tourist destinations (Maruthaveeran, & Van den Bosch, 2015; Chen, et al., 2021). Thus, experts' assessment and managerial responses must be worthy of scholarly and empirical attentions, particularly in a country with perceived high level of violent crime and insecurity. This study will identify safety and security issues that are likely to heighten the actual and perceived susceptibility in the study area and thus, the potential challenges. It will also provide direction for further planning, design and development of the site.

Conceptual framework

There are several measures to ensuring safety and security of public places such as tourist sites. These tactics have been well-established in the literature. Some were originated from the professionals, while others are from the academics. Safety and security measures refer to the variety of actions that are employed by private individuals, organizations and all levels of government to target the various social and physical factors that increase the risk of hazards, criminality, disorder and victimization in a particular place and time (Lopez, 2007). There are different approaches to this, in terms of the focus, types, theory and the mechanisms that are applied. The conceptual framework (see figure 1) is derived from wide and all-time literature (e.g. Newman, 1972; UNWTO, 2015; Iqbal, & Ceccato, 2016; Chen, et al., 2017; Badiora, et al., 2021; Getrude & Boakye, 2021 Chen, et al., 2021). The framework serves as a guide to evaluate the safety and security architecture across its different domains at Osun-Osogbo. It also serves as a guide to the conversation with the management regarding safety and security situation of the geopark. This framework organizes destination safety and security into five domains as shown in Figure 1. These domains are interrelated, forming the mainstay of modern safety and security approaches in the literature, and which are further executed through a diversity of measures. When these domains are present, safety is enhanced on the site, while their absence degrades safety and, perhaps, increases insecurity or anxiety on the site.

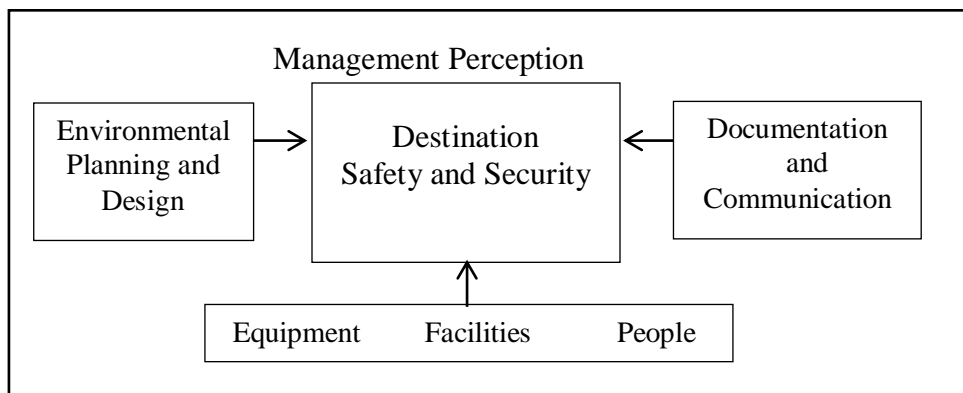


Figure 1. Conceptual framework of safety and security study in Osun Osogbo

Regarding documentation and communication, it is argued that a safe tourist destination needs to have recognized safety policies and a strong communication with patrons (Getrude & Boakye, 2021). This domain is expected to include the signage facility (clearly visible, easy to read and simple to understand by all socio-economic class), and enlightenment of holidaymakers on safety and security issues on the site. In this study, this domain was explored using gauges such as availability of crime and accident book of record, a safety/security policy of the site, and information about evacuation/exit points and safety signs. The gauges for the equipment domain comprise fire services (e.g. fire fighters, fire extinguishers and sand buckets), good lighting systems (e.g. brightness of the light, colour, height of the pole etc.) and security cameras, metal sensors at the entrance, ambulance, first aid package, protective utensils for visitors, tour guides, and security persons.

For the facilities domain, the following are expected to be present at the geopark: secured car parks, roads and pathways in good condition; concealment opportunities and sightlines, sitting places, sanitary amenities (e.g. washrooms and dustbins), a clinic with emergency ambulance and qualified medical personnel. People are the focus of any security architecture (Maple, 2017). That is, safety is of the people, for the people and by the people. Thus, the people domain was assessed using constructs such as leadership, local and ethnic tensions, well-resourced trip escorts, security escorts, safety officers and availability of personnel with first aid knowhow. Using CPTED principles, this study believes that apt design and active use of tourist destination could enhance safety and security. This implies that environment can be planned in such a way that moderates the likelihood of an accident and/or a crime occurring, by encouraging surveillance, promoting territoriality, and reducing areas of conflict by regulating access and improving overall perceived security (Ceccato, 2019, Badiora, *et al.*, 2021). To this end, the environmental design domain was gauged using CPTED constructs (Badiora, *et al.*,

2021; Chen, *et al.*, 2021) of access control, activity support, image and maintenance, surveillance as well as elements of territoriality.

DESCRIPTION OF THE STUDY AREA

The famous international Osun-Osogbo had been selected as the study area. Located in Osogbo, the Osun State capital, Southwest, Nigeria, the study area is about 75 hectares of rainforest vegetation along the bank of Osun river (*a river that flows southwards through central Yorubaland in southwestern Nigeria into the Lagos Lagoon and the Atlantic Gulf of Guinea*) and on a geographical coordinates of latitude 7°45 02"N and longitude 4°33 '08E (*see Figure 2*). The dense park is one of the massive, protected areas of land in Sub-Saharan Africa (Olatunji, & Ezenagu, 2016). It harbors over four hundred species of plant and animals; the site is a beauty to behold as it contains historical shrines, ancient palaces of Osogbo town, many sculptures and other works of arts (Osaghale, Omisore & Gbadegesin, 2014). The site is regularly visited by Osun worshipers and devotees, as well as tourists from all over Nigeria and the world (Osaghale, *et al.*, 2014). Abundant in classes and forms, various masterpieces, ancient history alongside distinctive custom of local Yoruba cultural group, all attract visitors not only to the site's natural beauty scenery, but also to the rich cultural deposits, and thus made it one of the most famous tourist attractions globally.

The destination was declared a world heritage site by United Nation Educational, Scientific and Cultural Organization (UNESCO) on 15th July, 2005. Like other geoparks, Osun-Osogbo encloses chains of heritage site with mostly important archaeological, ecological, historical, natural and cultural values. The site captures the power of Mother Nature in her fullest splendor (Adeniran, & Akinlabi, 2011). This is evinced by the uncommon species of the royal antelope

(*Neotragus pygmaeus*), the purple heron (*Ardea purpurea*), the common kestrel (*Falco tinnunculus*) and the mona monkey (*Cercopithecus mona*) and other interesting wildlife that can be seen swaggering around the forest, appreciating the presence of tourists who come to see the artistic beauty and also enjoy the traditional splendors of the park. The park is one of the few spots in the country where well-preserved, undisturbed forestry lies side by side with strong cultural, artistic and traditional values (Osaghale, *et al.*, 2014). The Osun-Osogbo cultural festival is two weeks long. During the festival, people all over the world worship the Osun goddess every day with different acts which include rituals, pounding of traditional drums, singing, and dancing among others. This festival is argued to be the largest annual traditional event of the Yoruba people, which are attended by overseas tourists (Badiora & Bako, 2020). Tourism experience at the geopark fundamentally focuses on nature, culture and offers activities such as excursion, recreation, education, esthetic experiences, canopy walk, nature walk, photography, stargazing, walking and hiking, and visiting religious buildings, historic monuments, ancient art works, cultural show and performance.

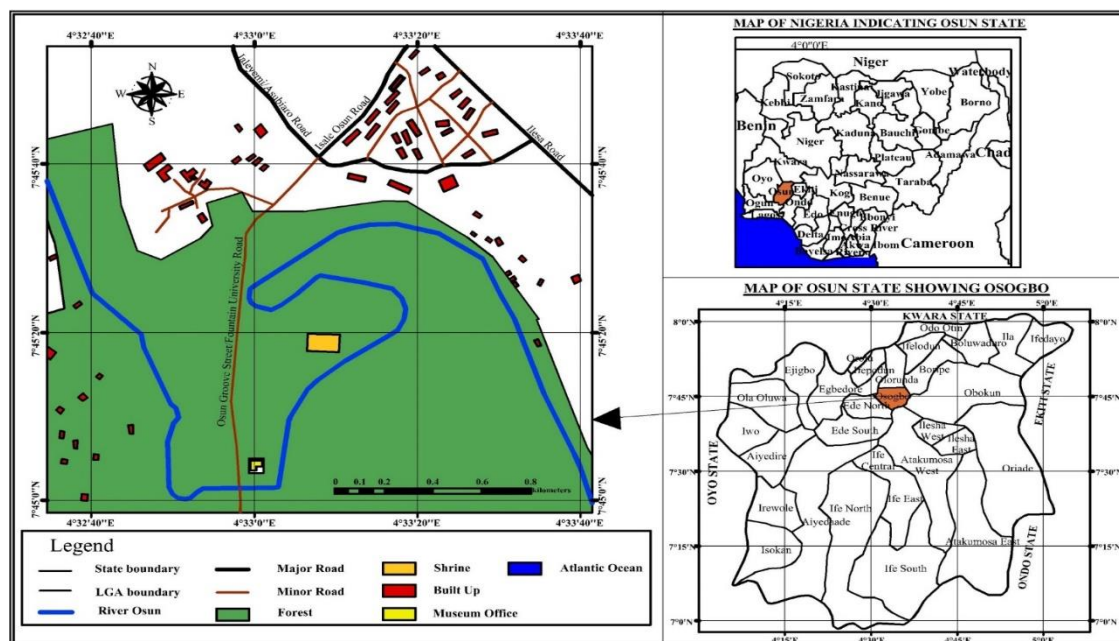


Figure 2. The study area in the context of Nigeria and Osogbo, Osun State

RESEARCH METHODOLOGY

A case study and descriptive research design (Dudovskiy, 2018) was adopted. The first approach is meant to investigate and analyze specific subjects within a particular setting, occurrence or condition (Getrude & Boakye, 2021). Hence, the case study design was used since it allows us to appraise, collect and analyze data regarding all the safety and security domains (*see Figure 1*) at the Osun-Osogbo geopark. The descriptive approach was considered so as to interpret what exists (Payne & Payne, 2004) and why it exists at the site (Getrude & Boakye, 2021). The descriptive design was suitable because the present study sought to determine the extent and condition of safety and security domains in the study area.

Data collection and instrument

To collect primary data, a safety and security assessment checklist was developed and adapted from related and relevant literature including but not limited to the World Tourism Organization's Manual for Security (1996); Approaches to Safety and Security in Tourism (Chiang, 2000); Attraction Safety and Security Architecture (Getrude & Boakye, 2021); CPTED (Jeffery, 1971, Newman, 1972; Cozens, 2008; 2014; Cozens & Love, 2015); CPTED assessment specifications for recreation and attraction sites (Iqbal & Ceccato, 2016; Odufuwa, *et al.*, 2019; Badiora, *et al.*, 2021) as well as fieldwork protocol and safety inventory tool in public places (Ceccato, 2019). Other stands about safety and security were obtained from relevant agencies in the tourism regulatory affairs in Nigeria - National Commission for Museum and Monuments (NCMM), Nigeria Tourism Development Corporation [NTDC], and Nigerian National Park Service and Wildlife Conservation Commission (NNPSWCC).

The instrument was authenticated at different stages. First was the fitting of the instrument into the literature and practice. Hence, the aforementioned literature and other relevant materials from tourism regulatory affairs in Nigeria were considered and modified into the contextual setting of the study area. Second, based on their expertise, two experts were selected to provide advice on the instrument. These experts included a private safety and security professional and a senior lecturer with specialization in community safety and security. Third, a pretest was carried out by an expert researcher other than the developers and suggestions for improvement were offered, particularly in terms of the length of the instrument. Thereafter, adjustments were made on the overall style and content of the instrument. Only relevant items were retained, mainly on the basis of the peculiarities of the study area. Participatory observation was used to collect data. This approach provides evidence for the safety and security items and reasons these items were omitted on the site. Through this approach, we engaged in some of the site activities and service such as nature walk, photography, stargazing, walking and hiking, and visiting religious buildings, historic monuments, cultural show and performance among others. Furthermore, our participatory observation in the 2019 Osun-Osogbo festival afforded us a wider outlook of the situation at the geopark during the festive period. The participatory observation approach was considered suitable for this study because it provided the primary view of the situation (Creswell, 2002; Getrude & Boakye, 2021). Moreover, members of the park management were engaged in friendly conversations to clarify findings of the field observation.

Sample and sampling procedure

As per the management consultation, participants were selected through convenient and snowball sampling techniques. The first respondent was selected from the authors' acquaintance while subsequent respondents were then referred by the previous respondents. Using this method, fifteen interviews were conducted. For qualitative research, a minimum of a dozen interviews is

required for data saturation (Vasileiou *et al.*, 2018). Thus, fifteen interviews were considered adequate for this study. The interviews were conducted under fairly good conditions on the site. The participants were engaged on their principles, motivations and practices regarding safety and security on the site. This study upholds avoidance of harm and confidentiality during interview. All respondents were acquainted as to the purpose of the study, and given the opportunity to withdraw their participation whenever they want. In the final sample, all the members of staff engaged were educated with at least a post-secondary school education. Besides, they were all experienced staff having spent at least ten years in the geopark service. None was below thirty-five years of age. Also, the participants were those who are either directly or indirectly involved in safety, security and general management of the site. Hence, the management respondents were based on their office portfolio, education and experience; knowledgeable of the truths that are essential to this study.

Data analysis

Regarding on-site assessment, each component of safety and security domains was assessed by experts as 'available' or 'unavailable'. Those elements judged as 'available' were further assessed as 'adequate' or 'inadequate'. A narrative technique of reporting was used in analyzing the views of management regarding safety and security situations at the site. Interviews with the management were analyzed using narrative techniques of reporting.

FINDINGS

The information presented in this section is as follows: First, findings from the field study are presented within the context of the conceptual framework (*See Figure 1*). Second, management

viewpoints are reported, except where otherwise stated, the results presented below are the outcomes of the direct participation in 2021 Osun-Osogbo festival and on-site assessment and interviews carried out in January, February, March and April, 2022. Generally, the safety and security architecture in the study area appears to be largely insufficient and not up to the standard of an international tourist destination. This narrative is evident by the fact that slightly above half (24/52.2%) of the 46 components for a safe tourist destination was completely not available while 15 (32.6%) were available but inadequate in terms of expected amounts and/or not being appropriate for such a tourist destination. Findings show that only 8 (15.2%) of the 46 safety and security components were available and adequate (*See Table 1*). Findings also highlighted internal relativeness across the various safety and security domains. The attraction site scored the highest in the domain of environmental design and facilities (3 each of 8 available and adequate indicators). Next to this is people (1 of 8 available and adequate indicators) while the attraction site documentation and communication as well as equipment domains were the most inadequate. Findings pertaining to each domain are presented and discussed in turn from the most to the least available and adequate as follows.

Environmental design

The geopark performed somewhat well in this category (*See Table 1*). A number of basic safety and security specifications in this category were available and of adequate quality on the site. However, some are just too appalling. For instance, the lighting system in the site is poor despite the arguments that the presence of good light system will embolden users of geopark to see suspicious happenings, intensify opportunities for surveillance, and act as a deterrent for criminal behavior (Getrude & Boakye, 2021 Chen, *et al.*, 2021). The entrances, exits, walkways, gathering areas, car parks and roadways were not lit at all. In fact, the site is not connected to any power supply. Meanwhile, findings show that the site is fairly monitored by various security teams. The

members of the management upheld the remark on the observed unavailability of good lighting system. Nonetheless, they discussed that its nonexistence is based on the site's mode of operation (*opening hours*) and previous experience with the wildlife (some of the lighting facilities endanger the animals):

"... aside the fact that the park's operation is not extended till late in the night, the site was connected to the national greed in the past. However, we have to do away with the service when some of our animals, especially, our white-throated guenons monkeys were being killed by the electricity cables. Those animals were unaware as per the danger of the electricity cables, and every so often jumped on the cables and got themselves killed or injured by electric shock. Nonetheless, we have seen the need to have lighting services here, so there is an on-going plan to reintroduce good lighting to the site but now with alternative energy source such as inverter and solar..."

(Male/49/Site manager)

Findings show that the location of the site may also pose challenges to safety and security. As a park located in the heart of a capital city, the site has become an intermediate porous space to various groups of users (e.g., pedestrians, motor-cyclists, pupils among others). The site seems porous to communities and neighborhoods adjacent to it. That is, non-legitimate users could access the site through these communities, thereby creating many opportunities for criminal activities. In fact, a major road leading to the adjoining communities was constructed from end to end of the site with accessibility to pedestrians, public and private vehicles (*see Figure 2*). Thus, with regards to access control, the planning and design of the study area was seen to be leaky, and this has made it challenging to superintend the whole site at times.

Findings from the on-site assessment further show that the design of the site is in such a way that conflicting land-uses are not well segregated. For instance, there is no proper delineation for pedestrian, vehicle and cyclist. Also, the tourists' area and that of the Osun deity and other gods' devotees are not well delineated. However, the site administrators argued that the design is to make interested tourists to also experience cultural and traditional milieu of the site. Nevertheless, the management upheld the remark about the vulnerability of the site but argued that the adjacent communities are not of any great disadvantage to the site:

"... we are aware of the communities and human activities around the site. To a greater extent, none of these is detrimental to our services. We have personal commitment and cooperation of these communities and many at times, they alert us on possible criminal and illegitimate activities. This public road on the site is well monitor by our security operations. But for optimal delivery of our services, the road will soon be diverted out of the site. It is part of the agenda of the current state government..." (Male/49/Site manager)

When it comes to activity support, findings show that the site is vibrant and well-used as it attracts many local and international users. The study area presents some activities continually, through the types of cultural and traditional amenities available on the site, such as shrines, traditional deities (which are represented in sculptural forms and part of what the tour escorts rested on in educating the visitors), and excursion facilities among others. For instance, the site receives an average of 180 visitors and Osun-Osogbo deity devotees daily. The geopark also renders some support for group activities during certain times of the year. For instance, the yearly Osun-Osogbo festival witnesses thousands of visitors all over the world. Nonetheless, as good as this may be, it may also pose challenges to safety and security if not properly complimented by other measures. As when this survey was conducted, Osun-Osogbo groove was fairly maintained.

There was neither elements of graffiti nor vandalism sighted on the site. Regarding territoriality, a perfect segregation between public and private (e.g. traditional deities) spaces was found and this significantly contributes to the overall sense of safety on the geopark. However, the car park and visitors' reception are inadequate and not well integrated with the site landscaping and planning.

Natural surveillance was witnessed because of the attendance of people during daytime in some places in the geopark (e.g. areas around the victors' reception, and the Osun-Osogbo deity shrine), whereas possibility for surveillance was practically absent in some other places on the site. Findings also show that prospective for natural surveillance was at variance during the day. For instance, the users' enumeration revealed that prospective opportunities for surveillance were mostly in the morning time towards some periods in the afternoon (*many visitors are received at this period*). Yet, the circumstances for natural surveillance are limited in part because of the site landscape: visibility is restricted, and there are a lot of unlawful escape paths and hidden places. In addition, some of the paths had lowly sightlines owing to dense vegetation and obstructions, so making natural surveillance problematic and providing favorable settings for misconducts.

Findings show that there are no provisions for immediate visitors' utilities such as ATMs, Quick banking among others. These observations were confirmed by members of the site management during the conversations. But then again, they made case for their shortage and non-availability. Reacting to the inadequacy of car park, the management believes that this is not necessary since there is a provision just outside the site territory. Also, the management opined that to incorporate some of these visitors' utilities, some florae and vegetation must go down; this, they believe may not promote the conservation ideology of the geopark. There is therefore some evidence of thoughtful conservation from the management. This type of ideology is being designed to protect

biodiversity and avoid many physical developments on the site. As perceived from their responses, management appeared cautious to be too proactive to include safety and security structures on the site.

Table 1

Safety and security checklist at Osun-Osogbo geopark

Domains of safety and security	Measures	Available	Unavailable	Adequate	If Available	
					Adequate	Inadequate
Documentation and Communication	Written safety and security policy (on-line or print)	--	X	--	--	
	Display of safety and security policy to tourists and staff	X	--	--	--	This was generally insufficient and typically concentrated on how tourists and staff ought to relate with the wildlife, archaeological, ecological, arts, historical, natural values and culture on the site.
	Accident record book	--	X	--	--	--
	Crime record book	--	X	--	--	--
	Safety and security orientation before site tour	X	--	--	--	Briefing was largely scanty focusing on what to expect by way of the site landscape and potential hazards and how to comport oneself on the park.
	Safety signage and codes (no less than 5 signage).	X	--	--	--	Only 1 signage was sighted at the main reception and this has already faded, and placed incongruously.
	Designated emergency evacuation	--	X	--	--	
Equipment	Conspicuously designated emergency exit points (no less than 5 points)	X	--	--	--	Only 1 emergency exit point was sighted at the site
	Fire extinguishers (at least 5 placed in the tourist center)	X	--	--	--	Only 2 extinguishers were sighted.
Equipment	Sand buckets (at least 5 placed in the tourist center)	X	--	--	--	Only 2 sand buckets were sighted.
	Fire outbreak alarms (at least 4 placed	--	X	--	--	--

	in the tourist center)				
	Vandal resistant materials	--	X	--	--
	Security locks and panic alarms or emergency telephones (at least 4 placed in the tourist center)	--	X	--	--
	Security cameras (at least one camera for the tourists' reception area, car park)	--	X	--	--
	Metal sensors on the site (no less than two at the entry and/or before going on tour)	--	X	--	--
	A well-equipped ambulance service (a minimum of one)	--	X	--	--
	First Aid services (no less than two first aid boxes) on the site	X	--	--	Only one first aid box was sighted in the general office
	Protective tools for tour escorts (e.g. costumes, helmets, and communication tools)	--	X	--	--
	Protective tools for security staffs (e.g. uniforms, helmets firearms, communication tools)	--	X	--	--
	Patrol vehicles and motorcycle for security personnel (at least two patrol vehicles and four emergency motorcycles)	--	X	--	--
	Tourist sheds	X	--	X	--
	Tourist seats	X	--	X	--
Facilities	Rubbish and recycling bins (at least 5)	X	--	X	
	Functional toilets (no less than 4 and separate by sex and for physically challenged visitors)	X	--	--	Only 2 were sighted. There were separate for both male and female. Persons living with disability were not considered. Besides, the toilets were not well-maintained.
	Health post (a small clinic with at least a trained medical personnel)	--	X	--	--
	Police post (at least 1 to aid the grove security)	--	X	--	--

	Quality restaurant, bars and food sources	--	X	--	--
	Secured holiday accommodation and employment	--	X	--	--
	Convenience retail and personal service shops (e.g. car wash, lubrications)	--	X	--	--
	Tour escorts (no less than 10 of them on a daily shift)	X	--	--	There were only 4 tour guides. This is not sufficient for this kind of attraction.
	Safety and security safeguards (no less than ten on a daily shift)	X	--	--	There were only 4 safety and security guards. This is also not enough for this kind of attraction.
People	Designated safety and security personal (at least a staff with a desk designated to handle safety and security duties)	--	X	--	--
	Personnel with first aid/ emergency medicine training (no less than four staff designated as emergency treatment team)	X	--	--	There is only 1 staff designated as the first aid team. The staff has received formal training.
	Management attention to needs of person living with disabilities (e.g. interpreters for the deaf and dumb, movement of wheel-chairs etc.)	X	--	--	Persons living with disabilities are yet to be fully integrated. Although the terrain and design of the site is suitable for movement of wheel-chairs, interpreters for the deaf and dumb are absent.
	Management insurance scheme for staff and visitors.	--	X	--	--
	Adequate car park and satisfactorily integrated with the sacred grove landscaping	X	--	--	The car park is inadequate and not well integrated with the grove landscaping and planning.
	Users' utilities – telephones, ATMs, Quick banking, public transportation services.	X	--	--	The telecommunication services are very good. Also, public transportation and bus stops services are provided. However, there are no provisions for immediate tourists' utilities such as ATMs, Quick banking.
Environmental Design	Access control: the physical guidance of people and vehicles such as fences and gates or plants, and other way-finding essentials such as caution-light, signs, and artworks.	X	--	--	While the plantings, sculpture and art works are well represented, the caution lighting and signage is not adequate. For instance, caution-light and good signage are not

				available on the site.
After opening hours surveillance of the sacred grove by guards.	X	--	X	--
Surveillance (e.g. Natural surveillance like presence of people and artificial surveillance like lighting	--	X	--	--
Good image of the site.	X	--	X	
Only legitimate users have access to the site	--	X	--	--
Separation of conflicting uses (e.g. pedestrian, vehicle and cyclist, cultural/ worship aspects of the site)	--	X	--	--
Territorial Reinforcement — the use of physical attributes to delineate space (e.g. the use of artworks, sculptures, landscaping, and the orientation and strategic placement of structures)	X	--	--	--
Activity support — the arrangement and assignment of safe activities to increase the number of people visiting the study area.	X	--	X	--
Law enforcement patrol (at least 3 patrols in a day)	X	--	X	--

Facilities

Just like environmental design, Osun-Osogbo performed fairly well in this domain (*See Table I*). Interestingly, most of the domain's basic measures for safety and security were on the site and also of acceptable quality except health post, police post, quality restaurant, bars and food sources, secure holiday accommodation and employment as well as convenience retail and personal services. For instance, sufficient tourist shed covering all seating areas were sighted for daily visitors received at the site. Besides, there was enough seating area with fairly good benches on the site. During the field valuation, there were two tourists' sheds and about seven visitors' benches (*sighted under trees*). Some six more visitors' benches were sighted at eat-outside area of the destination. Besides, more than fifteen rubbish and recycling bins were sighted at different places within the site.

In terms of sanitary facilities, the attraction site was below standard as only two partly functional toilet facilities were sighted. The toilet facility had two compartments partially equipped with washing hand bowls, but without soaps and looking glass at each side. While these were separate for both male and female, persons living with disability were not considered in the design of these sanitary facilities. Besides, the toilets were not well-maintained, particularly during the day and on weekends as well as on public holidays and during Osun-Osogbo festival when more visitors were received. During these periods, the toilets are left with appalling awful smell. Perhaps, this could be because of many guests received during these periods. The management agreed with the remarks about sanitary facilities on the site and granted that that its present condition could be detrimental to the park services. Hence, it is making arrangements by way of improving the sanitary facilities before the 2022 Osun Osogbo festival:

“... we are aware of the toilet situation. The condition is not the best. We just have not given it a priority in the past years. But, we saw its urgency when an international dignitary visited this place and requested to use our toilet. The refurbishment plan is on-going and it is expected to be neater, fully functional separate washrooms for males, females and persons living with disability before the 2022 Osun-Osogbo festival. The toilet will have eight cubicles furnished with bowls, sanitary rolls, soaps and other toiletries...”

(Male/44/Site Asst. manager)

The exceptions related to health post, police post, quality restaurant, bars and food sources, secure holiday accommodation and employment as well as convenience retail and personal services were confirmed by the management. Regarding the unavailability of a health post, the management claimed that its nonexistence is not of any noteworthy disadvantage to the site since it had made alternative arrangements with the state hospital (*sharing boundary with the site*) for a similar purpose. While confirming the non-existence of police post, the management argued that the site security guard and state police patrol services are more than enough for the site. Even at patrols:

“...the sighting of weapons such as guns scares our animals away. Some visitors even became more apprehensive. And all these may be detrimental to human-wildlife relations on the site ...” (Male/51/Head, Security unit).

The management did not see the need to provide quality restaurant and bar, holiday accommodation as well as convenience retail and service outlets on the site since all these are available at a close distance to the site. Again, the management emphasizes that the provision of

these facilities may harm some florae and vegetation, thereby not ready to lose some plants to installing safety and security structures. It is thus evident that the management seems to prioritize biodiversity conservation more than visitors' sense of safety and security on the site. From their responses, management appeared wary to be excessively proactive to include safety and security structures for fear of cutting down some florae on the site.

People

In this dimension, the attraction site only performed at its best in the area of law enforcement patrol. This is satisfactorily present as patrol teams of the Nigeria Police Force (NPF), Nigeria Security and Civil Defense Corps (NSCDC) and the Department of State Security (DSS) were sighted on the site. In term of the tour guides, the site is insufficiently equipped. The same situation was found regarding safety and security guards. There were only four tour guides and four trained security personnel. This is also not enough for this size of attraction site. However, the site has a staff (*as against the minimum of four*) designated as first aid team. The staff has been given formal first aid training. While confirming the dearth and absence of security guard and a dedicated safety and security desk officer, the management attributed this to the reduction in employment quota, frequent assistance they receive from state police and the belief that all the staff are safety and security officers:

“...besides safety personnel, employment generally has not been regular in the last two decades. We are understaffed. Nevertheless, safety and security are not a problem here. Uniformed men from the military, NPF, NSCDC and the DSS patrol this site regularly. We always get their attention in just a call. Besides, we believe that safety and security duty fell equally to all personnel, including those in account section. We attempt to train all our workers on safety and security issues from time to time so it should be possible for all of

them to act in a safety and security emergency situations...” (Male/44/Site Asst. manager)

From the interview, it was emerged that the site’s law enforcement team (*including the site security guard, staff, uniformed men from the military, NPF, NSCDC and the DSS*) focused its activities on preventing poachers and possible criminal and drug hideouts including protecting the site boundary and preventing people to advance beyond established or proper limits of the site. Furthermore, findings show that persons living with disabilities are yet to be fully integrated into the site landscape. Although the design of the site is fairly (*not at best*) conducive for movement of people on crutches and wheelchairs, interpreters for the deaf and dump are absent.

There is also no insurance plan in place for staff and visitors as at the time this survey was conducted despite the fact that this has been applied in the literature with some positive impacts on safety and security. To the management, they were of the opinion that the National Health Insurance Scheme (NHIS) for all public servants should apply in this case but, regarding the visitors, the management was skeptical if they are responsible to provide insurance plan for them. They however, advised that visitors may consider insurance plan:

“...of a truth, I am not aware of any insurance plan for visitors. It is good that you raised this issue with us. I will find out. Meanwhile, it is a wisdom that visitors (especially, international) get themselves insured different from insurance at their home country. That of home will likely not cover their safety and security needs in the short-term...” (Male/49/Site manager)

Equipment

Findings from the field study show that Osun-Osogbo performed below par in this domain compared to those domains discussed earlier. We detected a wide-ranging unavailability of equipment at the site as nine of twelve parameters of this dimension were absent. These include fire outbreak alarms, vandal resistant materials, security locks, and panic alarms. Others are emergency telephones services, CCTV cameras, metal detectors, patrol vehicles/motorcycle and ambulance service. An interesting issue is whether the use of security cameras, such as CCTV, can increase surveillance during the most difficult and troublesome times (for example, during the Osun-Osogbo festival when hundreds of people are received). But at the time of this field investigation, no security cameras were seen in the park. Management agreed with our assertion regarding the overall lack of equipment. Regarding unavailability of an ambulance for instance, some members of the management discussed that its nonexistence has not in any time be of a significant disadvantage to the site operations as staff's private vehicles serve a similar purpose:

"...even though we do not have an ambulance, all our staff are aware that their private vehicle could serve similar purpose. Thus, most time, staff vehicle has been made available to send emergencies to the state hospital. The hospital is also nearby. Just at the main gate of the site. However, during the period of Osun-Osogbo festival when we normally have crowd of visitors and busy days, we arrange with the state hospital for nurses to come to the site as backup for any health or safety cases..." (Male/49/Site manager).

Regarding available equipment, findings show a general inadequacy at the site. For instance, only two fire extinguishers were available at the time of this field study. Even one of them has expired. As backup, only two sand buckets were sighted. In reaction to these observations, the

management did not see the need since they can access emergency fire service from the state fire office located within the facility of the state hospital next to the site. Furthermore, the only emergency medical treatment box was seen in the site manager's office near the visitors' reception. The box was found to contain some useful items such as inhaler for asthmatic visitors, some sachets of paracetamol, anesthetic spray/lotion, gloves, plaster, a jug of spirit, adhesive tape and adhesive bandage, non-adhesive pads, ace bandages, sterile gauze pads, exam gloves and a pair of scissors. Since, the only first aid box is in the site manager's office, visitors who suffered any injury while engaging in the site activities were brought to the manager's office to receive the first aid, accompanied by the tour guide. In some occasions (e.g. group excursion or tourism), first aid box is brought along with the visitors.

Findings indicate that tour guides lacked any equipment to ensure their safety and the security of tourists when on tours. We also observed that the security escorts had no other tools apart from the wooden rod. Some members of the management agreed to these observations but also offered some explanations. Responding to the deficiency of tour escorts and security tools, a participant remarked that:

"...even though this site is safe and secure, a tour guide cannot go on a tour without a protection. But, we are also careful of the kind of weapons available to our tour guide. They all have a rod as a weapon. This is to protect them in the case of any attack or to drive away intractable visitors. They do not have the right to hit any visitors with it. They have mobile phones and can easily get co-workers or police for backup. Sometimes, carrying excessive weapon like firearm scares wildlife. It might scare tourists too..." (Male/51/Head, Security unit)

The management opinions above are what Getrude and Boakye (2021) described as cautious security. This type of security is being deliberate in order to avoid scaring wildlife and forming unnecessary fear in the tourists. As perceived from their opinions, management seemed cautious to be too proactive by arming their security escorts for fear of scaring wildlife and tourists. Over the years, the travel industry has faced a foremost impasse of matching the demand of being hospitable and stern competence (Crick, 2011; Kaufman & Ricci, 2014; Mawby, 2014; Getrude & Boakye, 2021). One reason provided in the literature for this status quo is the anxiety of the negative impact of being too security conscious on the visitors. Too much emphasis on crime, ammunitions and extensive warnings about insecurity has at times leaned towards the unintended effect of scaring rather than protecting visitors and wildlife (Pizam & Mansfeld 2006).

Documentation and communication

Findings show that the site did poorly in this domain. For instance, there is only one accessible and official entry and exit point at the site. Nevertheless, there are several unofficial and “unsafe” exits created by trespassers and stubborn visitors, particularly during the Osun-Osogbo festival. In addition to the above, the only safety signage was at the visitor reception. The signage was mainly warning visitors as to how to relate with the wildlife, shrines, sculptures and arts decorations on the site. It also warns about maintenance and personal hygiene behavior on site as well rules and regulations regarding smoking and drinking. We also saw that the tour escorts offered some briefings before the tour on the nature of the site, assuring visitors of their well-being. During the briefing, tour escorts also make inquiries as per special ailment or health conditions of the tourists. These detailed briefings took place all the time except during Osun-Osogbo festival when most group tours were only partially oriented.

During the field survey, we detected that there was no written policy on safety and security either printed or made available for visitors through on-line platforms. Besides, there is no display of safety and security policy to visitors and staff. Findings show that the site has neither accident nor crime record book, which could help monitor safety and security incidents on the site. While members of the management agreed to our observations, they offered some clarifications:

“...we don’t have personal policy but that which is provided by UNESCO, NCMM, NTDC, and NNPSWCC. I can emphatically tell you that we make sure that all our visitors are protected to the best of our ability. Also, we don’t usually have major accident and crime issues at the site. So, the idea of an accident and crime record books has not been given significant attention. Although there may be some trivial and unreported cases, but to the best of my knowledge, since I was transferred to this place some ten years ago; there has never been any accident or crime that required serious hospitalization or criminal investigation attention except a case of one asthmatic visitor and phone theft during one of the Osun-Osogbo festivals....” (Male/49/Site manager)

From the above, it is evident that the management opined that the trivial accidents and insecurity events did not reflect poorly on the park’s reputation. Thus, the management based their risk perceptions on perceived statistical figures. Such a picture presents two unattractive ends: the exaggeratedly emotional fear and, the false sense of security based static numerical evidence (Hu, & Jiang, 2014; Paek & Hove, 2017; Getrude & Boakye, 2021). The findings suggest that such may be clarified by two aspects: mindset of the management and past experience (Ferrer, & Klein, 2015).

The mindset here deals with the notion of passiveness (Getrude & Boakye, 2021). This is evident from the open pledge: (“...*I can emphatically tell you that we make sure that all our visitors are protected to the best of our ability...*”) given by the site manager. This reflects a mentality which seems to query the importance of some safety and security documentation and communication on the site. Besides, the management response suggests the adoption of the phrase, “just get it done now, we’ll worry about documentation and communication later”, yet, having a safety and security handbook is one of the compulsory measures according to UNWTO (Getrude & Boakye, 2021). Therefore, a written policy is necessary to guide measures to be implemented and ensure visitors’ safety.

Regarding the past experience, the management opinion is all about faith on a “hypothetical” noble previous record. The administration seemed to have confidence that the site was under no reasonable danger because no hazard or crime incident was recorded or reported in the last decades. This fact informed their sense of invulnerability of the site to accident or crime victimization. Hence, they found no reason to provide some safety and security measures. However, there is a question that requires to be answered. Is the management right to make this assertion, especially when they know that there may be some unreported cases, and particularly, when they did not keep a record of accident and crime incidents? Such erroneous stance mirrors Stanko’s (2000) oddity of anxiety where honest fears are ignored and false ones are recognized and, in the course of time, takes consideration away from the need to sustain and continually prevent any likely incidences. It is likewise an excessively naive dependence on unreported and non-registered good record and declines to consider the fact that security threats are continually changing and more and more directed towards tourists (Mawby, 2014; Badiora, *et al.*, 2021).

CONCLUSION

The study evaluates safety and security at Osun-Osogbo geopark and engages management of the site on the outcomes of the assessment. Findings show that safety and security architecture in the study area appear to be largely insufficient. It emerged that the site performed better in the environmental design, facilities and people compared to equipment, documentation and communication dimensions of safety and security architecture. Despite the general inadequacy of safety measures, Osun Osogbo administration has embraced an intentional assessment of hazard which causes them to see the risk from a cautious view and an overly dependence on a supposed good past record. There is a different perspective of risk between managers and the direct observation exercise of this study. The differential perspectives of risk reflect the Risk Perception Theory's (Slovic, 1999) principles where the administrators tend to base their risk opinions on more difficult evidence (e.g. figures).

As shown, members of the management felt that there are hardly any recorded crime or accident cases, which did not constitute stain on their security record. All these findings provide a basis for providing targeted solutions as follows. First stride would be to re-orientate the management on the minimum safety and security measures expected on a geopark and an international tourist destination such as this, regardless of their bias assessment towards biodiversity conservation, wildlife and visitors' feelings of apprehensions. The management needs to know that these elements are compulsory and non-negotiable regarding their data and bias. They also need to be turned on the overly naive dependence on supposed good safety and security record, especially when there may be some unreported cases, and particularly, when they did not keep a record of accidents and crime incidents. The management needs to know that insecurity is always

changing and ever more targeting attraction sites. Hence, the management needs to broaden their perceptions of threat and adopt a more proactive attitude towards it.

The second stride is to provide the basic safety and security requirements like patrol vehicles, good lighting, uniforms/identification for visitors and tour guides, and metal detectors that are currently unavailable. Their unavailability could be fertile grounds for kidnappers, criminals and other crooks. Besides, target safety and security solutions should focus on equipment, documentation and communication dimensions such as provision of accident and crime record book. This could help security intelligence gather over a period of time. Nonetheless, some missing elements of environmental design, facilities and people dimensions should also be given adequate attention. The responsibility lies on private investors and travel industry stakeholders like the Ministry of Information and Tourism, NCMM, NTDC, and NNPSWCC in partnership with the management to come up with a standard safety and security course of action that caters for the peculiarities of the site and its location.

Despite the novelty of this study, it does have some shortcomings that could be explored in future research. First, the assessment checklist used may not be considered as comprehensive. Despite that, it was gathered from renowned literature and reviewed by security authorities in academic and practice; the findings are only limited to the domains explored. Thus, future research should consider producing a more comprehensive universal standard for attraction site. Another area to expand this exploration is the development of more study areas. This single study area does not allow comparative analysis. The comparison of two or more cases in different geographical settings will provide a superior understanding of this issue. In tourism, key stakeholders include visitors, management, the government, and residents. The current study only considered the views of one of the stakeholders - management. Future studies should

consider safety and security perceptions from more tourism stakeholders. Since safety and security measures are inadequate, it may not be surprising if individual visitors engage in some personal measures. Thus, future studies can consider the precautionary, avoidance and adaptive actions visitors take while on tour and/or when they meet accidents and crime on the attraction sites.

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