



## **THE HISTORIC TOWN AND ARCHAEOLOGICAL SITE OF GEDI MANAGEMENT PLAN**



**Management Plan 2022-2027**



## **Acknowledgements**

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## **Abbreviations and Acronyms**

ASF -Arabuko Sokoke Forest

BQs-Bill of quantities

DAHR-Directorate of Administration and Human Resource

IBA-Important Bird Area

KFS-Kenya Forest Service

KHETI-Kenya Heritage Training Institute

KTB-Kenya Tourism Board

KWS-Kenya Wildlife Service

NMK-National Museums of Kenya

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## **Preamble**

The National Museums of Kenya shall spearhead the implementation of this management plan by engaging key stakeholders who shall include the Gedi local community. The management plan period is five years spanning from 2022-2027. A mid-term review may be done to suit the prevailing situation.

## Chapter One

### 1.0 Introduction

The Historic Town and Archaeological Site of Gedi ( herein referred as Gedi ), is one of the largest vestiges of Swahili towns reflecting unique architectural style and wealth of many medieval Swahili towns of that Period. It is among the few places of its kind in the country that is maintained, displayed and presented to the public as a National Monument for education and leisure pursuits. It nestles in 45 acres of deciduous forest cover on coral rag, which is part of the Zanzibar-Inhambane Regional Mosaic phytochorion that is only represented in the region. Gedi falls within the globally defined Eastern Arc and Coastal Forest biodiversity hotspot and is thus a unique habitat of very high national and international significance . Together with the Arabuko-Sokoke Forest (ASF), which is closely located, Gedi Heritage sites Forest is classified as an Important Bird Area (IBA) because of its importance for a number of different endangered bird species; including the Spotted Ground Thrush (Bennun and Njoroge 1991) and the Elephant Shrew among other birds and animals.

#### 1.1 Location and description

Gedi is located on E 40.17329<sup>0</sup>, S-3.309863<sup>0</sup> at 26 m a. s. l elevation. It consists of the remnants of a Medieval Swahili town (Arab - African civilization), located along Mombasa – Malindi road approximately 16 kilometers south of Malindi and 100 kilometers north of Mombasa; two of the coastal resort cities in the region (Fig. 1). It consists of a coastal medieval Swahili settlement that flourished in the 14th/15th century and represents a good example of the Swahili towns that dot the East African Coastline.



*Figure 1. Gedi Site location on the Coast of Kenya*

The original town covered an area of about forty-five acres, but only part of this area was ever built. The town was surrounded by a town wall and later, probably at the time of the re-occupation in the sixteenth century, a new wall was built enclosing a much smaller area. This wall had more of a barricade character and is near the dated Tomb. It incorporates the walls of existing houses. Dwellings for the poor had mud and wattle walls, with palm-leaf or grass thatch roofs.

The main attributes of the site include an inner and an exterior town wall. During the site's occupation, both walls rose to about 3 meters above ground. The extant walls have gates enclosing former residential private buildings, eight (8) mosques – one almost complete with full ablution

facilities (Fig 2). Various forms of tombs, one with weather-beaten remains of an Arabic engraving on its tombstone and another with an engraving of a ship (Fig 3). The site has a remarkable palace and precincts covering an area of over two thousand square meters that still has a complete arrangement of a floor plan that cannot be compared with any other palace along the East African Coast (Fig 4 & 5).



*Figure 2. The Great Mosque*



*Figure 3. The Dated Tomb*

## 1.2 Values

Gedi site is a very important and unique archaeological site. Over time, the archaeological value has been entwined with natural values. It is a vital educational tool for scientific studies such as Anthropology and Archaeology. The local community recognizes the site as sacred over the years prompting this interaction to breed a spiritual value. It is a sacred site for traditional rituals for the surrounding community. In modern times, Gedi is a source of inspiration for Architecture, Ecology, Urban Planning, and Tourism.

### 1.2.1 Archaeological value

Gedi site has several archaeological remains of residential buildings, 8 mosques – one almost complete with full ablution facilities, varied types of tombs, town walls and a palace complex that has a complete arrangement of the floor plan that cannot be compared with any other palace along the East African Coast. The palace is the largest structure; its ground covers about 30 square metres entered through a stone archway over 6.5 metres high. Nearby is a tomb with a hexagonal shafting over 10 metres above the ground. There are four other tombs; one of them is different in terms of its design. It has no pillar but a tombstone with incised weather-beaten Arabic inscriptions

and an engraving of a ship dated to 1011 AH equivalent to 1601 AD. . Other important stone works that have defied the ravages of time, are - the wide and deep wells, sanitary pit latrines and water conduits. The wells are lined with dressed stone and at the top are stone water tanks with conduits to supply water to nearby buildings.

Most of the ruined building remnants appear to have been built at the same period, and by the same highly skilled workmen. They were constructed by dressed stone, coral rag and lime mortar. Additionally, substantial amounts of archaeological materials were unearthed during excavation work and significant finds are on display at the site museum.

#### 1.2.2 Biodiversity value

Gedi Heritage Forest has shrouded the monuments sheltering them for over 500 years. The Gedi Forest is the best-preserved forest fragment in the East African region of this type of habitat (Coral Rag Forest) with over 280 plant species that have been documented so far. Some of the plant species have a high medicinal value that attracts herbalists to the site. The Forest is also home to over 150 Avifauna species and is internationally recognized as an important Bird Area (IBA) . It is a sanctuary to a number of globally threatened birds and mammal species.

#### 1.2.3 Tourism value

Gedi is the fourth largest Museum establishment in Kenya, after Fort Jesus, Karen Blixen and Nairobi Museums that attracts high numbers of visitors. Its location in Malindi and within the Mombasa, Malindi and Watamu tourist circuit, affords it a high level of visitation. Gedi is the only one of its kind in terms of its size and mixed characteristics, of rich cultural and natural heritage that appeals to visitors with a diversity of interests.

#### 1.2.4 Educational value

The site possesses both educational and research values. It is still being studied and visited by all levels of educational cadres ; it receives the attention students and scholars from all over the world. The site is a source of inspiration for students of architecture, designs and town planning.

#### 1.2.5 Spiritual value

The local community regard the site with spiritual reverence. The Giriama, Waata, Swahili, and communities from as far off as Tanzania regard the site and in particular the Great Mosque as

sacred and have established a shrine in the Mosque. Rituals are performed and sacrifices given at the Mihrab of the Great Mosque to appease the spirits during ritual healing sessions at the site.

Hence, an integrated conservation model is needed to take care of the varied interests by different stakeholders and players. The integration will help accommodate all the values to take care of the cultural and natural aspects of the site. The built heritage itself being the main focus, is interlinked with biodiversity and that it has overran part of the built heritage. Conservation activities to be prescribed should also consider the daily use of the site. The preservation of the archaeological remains and the forest cannot be separated from these dimensions so as to ensure a successful and sustainable conservation program.

### 1.3 Draft statement of Outstanding Universal Value

#### **Brief Synthesis**

Gedi was one of the greatest and most important Swahili cities on the East African Coast and the only major Swahili city located 6.5 km away from the sea shore. The site is majestic in its architecture, size and spatial planning. The central residential area is the densest populated part of the city. The houses exhibit some of the best architectural features in a domestic house setting, planning, construction and amenities provided therein. The builders effectively utilized the local material such as coral rug, coral mortar and the abundant wood resources then, and introduced a new element in the building material, earth mortar to firmly bind the structural integrity of the walls. Water engineering in terms of proliferation of wells within a very small area, storage and the distribution networks through conduits and drainage of storm water at Gedi is an exceptional feature that stands out in its complexity compared to other towns of its time. It is rich in archaeological deposit and the research carried out since the 1940s has contributed immensely to the understanding of the development of and collapse of the Swahili complex and urbanised society.

#### **Justification for Criteria**

##### **Criterion ii**

The Historic Town and Archeological Site of Gedi exhibits an important interchange of values on architecture, technology and town-planning as a result of its interaction and participation in the Indian Ocean trading system between the East African coast and Asia. The settlement features socio-religious, economic, and residential setting which accentuates the important role that the town played in the Indian Ocean trade. The religious and residential buildings at the historic urban settlement demonstrate an interchange of ideas in the use of building materials and techniques between the East African coast and Asia. The architecture of Gedi in terms of form, design and building techniques bear strong influences to those of the Islamic lands in Persia and around the Indian Ocean due to shipping and trade connections. Gedi's water engineering is a rare feature in this part of the world with one of the most densely recorded wells in a city of its size, over 28 in number. Gedi exemplifies the importance not only of the technological know-how to locate, dig

and maintain these wells but also the role of water in sustaining a huge urban settlement of this nature and its teeming population over centuries of occupation.

### **Criterion iii**

The Historic Town of Gedi bears exceptional testimony to medieval Swahili culture and commerce along the East African coast from the 10<sup>th</sup> to the 17<sup>th</sup> centuries. It presents clear evidence of development of a rare architectural complex consisting of outstanding features in terms of forms, designs, planning, and materials. Some of the remarkable architectural features and forms that are unmatched include numerous sunken courts, houses and streets with sumps for rain water drainage. The town's design also included arched doorways for all houses, mosques, palace and toilets with urinals exhibiting the opulence and aesthetic tastes of the inhabitants of the town. Proliferation of wells, concentration of mosques and the associated intricate water engineering designs of the town are outstanding feature of a town of that time. The installation of talismans in many residential houses points to the town's strong ritual influences characterized by fusion of Islamic and indigenous African belief system. The elaborate town planning and water engineering design is a tradition that is not evident anywhere else in the Swahili coast of Africa.

### **Criterion iv**

Gedi represents an important stage of Swahili civilization from the 10<sup>th</sup> to the 17<sup>th</sup> century in terms of its location, town planning and building forms. Owing to its relatively broad footprint, Gedi is one the largest urban settlements on the Swahili coast of East Africa, out-sizing towns such as Lamu, Takwa and Songo Mnara. Gedi is also the best preserved of the abandoned Swahili Islamic settlements and contains the highest concentration of standing monuments of the time. The town was built 6.5 km off the shore of the Indian Ocean, unlike its peers that were built on the coast. The Swahili architectural complex consisting of exceptional features and forms, designs, planning, neighbourhood with an elaborate palace complex and a Grand Mosque inside two rings of irregularly running walls is the best example of extant and diverse features of Swahili architecture.

Gedi is the only Swahili city of the time with a complete urban centre comprising all the component parts including town walls, streets, public buildings and private dwellings that are preserved in time. In addition, the amenities within the private and public buildings in the Historic Town were

exemplary and sophisticated as outlined above. At the time when such towns had hardly any toilet facilities inside the residential houses anywhere in the world including in Europe, Gedi had self-contained residential houses fitted with toilet and bathroom facilities accompanied by an elaborate water supply system to provide and store water for the various uses. Water was supplied using etched stone conduits and stored in large jars and holding dugout storage tanks within the buildings.

Gedi flourished between the 12<sup>th</sup> to 15<sup>th</sup> century, a period referred to as the “Golden Age of the Swahili Civilization”. During this period, Gedi had the highest degree of opulence in wealth and standard of living of its people in the Swahili world. Each house had within it a storage or strong room for keeping valuables, a feature so far recorded only at Gedi

### **Statement of integrity**

Gedi is a well-protected national monument under the National Museums and Heritage Act 2006 of the Kenya laws. It was one of the earliest national monuments to be gazetted during the colonial time having been a protected heritage since 1927. Since then successive law have been enacted to protect it. The condition of archaeological elements of the site remains largely intact due to the minimal and systematic archaeological excavations at selected localities within the site. The archaeology has contributed to a better understanding of the site and so to its conservation. The rich architectural structures have received constant maintenance since the site was first opened for research in 1948. This has been done through well thought out and deliberate mitigation measures and management practices that are respectful of the integrity and authenticity of the site including in material, form, style and traditional building practices. Despite the climatic and ecological changes that have been experienced over the years and that are often accompanied with various challenges Gedi remains intact as it was over 75 years ago,

The nominated area measuring 20.81 hectares contains all the town’s historical features, including the wells, tombs, mosques, private houses, streets and alleys, sunken courts, palace, courtyards, inner and outer walls that are still intact. These are well mapped and documented for the purposes of conservation. The buffer area measuring 22.61 hectares encompasses some of these features plus one of the remaining remnants of African coastal forests. This indigenous forest which

dominated the townscape after its abandonment in the 17<sup>th</sup> Century has created a natural buffer to the site, serving as wind, sun and rain breaker. In the 1990s, an outer perimeter chain-link wire fence was installed along the demarcated buffer zone to enhance the protection of the site's attributes. In addition, access to the site is through one gate entrance manned by security officers of the National Museums of Kenya who also frequently patrol the site. The site's administration offices, visitor centre, parking yard and other facilities are located slightly away from the historical and archaeological site. No physical development has been carried out near or within the inner or outer wall of the nominated area.

The buffer zone characterized by a thick indigenous forest has remained as a refuge to regional endemic floral and faunal species. The presence of the natural forest offers protection to the continued existence of the cultural attributes that has also become a place of high spiritual significance to the local communities. The forest is well managed with the support of the Kenya Forest Service. The boundaries of the nominated site are well demarcated and the ancient stone town wall clearly delineates the original settlement.

### **Statement of Authenticity**

The Site of Gedi still portrays its original architectural design, with same building materials, techniques and urban structure. The houses were designed as inward looking self-contained complexes with a plan organised around a courtyard. Opposite the entrance from the courtyard are series of wide parallel spaces of which the width (about three metres long) were determined by the optimum span of the mangrove ceiling beams. Roofs were constructed with flat pieces of coral laid on top of mangrove joists on which a layer of coral rag set in lime mortar was laid. The walls were built of coral rag bonded in lime and sand mortar which at times was mixed with local red clay. The town buildings were juxtaposed to each other creating a labyrinth of narrow street patterns. All these are still clearly represented at Gedi where all the maintenance work adheres to the original form, material and workmanship.

The original water sumps found in courtyards of buildings and streets are well preserved and functional, while most of the arched openings in the structures are still intact. The property has undergone regular minimal repair works to some of the buildings since the National Museums of Kenya took over its management in the 1960s. All the conservation works are done under the supervision of trained conservators using qualified, knowledgeable and skilled traditional

craftsmen experienced in traditional building techniques. The repair works have not affected the character of the designs and materials used. All the work carried out are documented and archived for reference. Youthful apprentices with interest in traditional building techniques who were trained by the NMK in Lamu and Mombasa cultural training centres are engaged in the conservation works to ensure continuity of the Swahili construction skills.

The thick forest cover after the abandonment of the site around the 17<sup>th</sup> century has provided the site with protection against climate change induced impacts such as intense direct sun and erratic rainfall contributing also to the preservation of the archaeology of the site.

## Chapter two

### 2.0 Physical condition of the site

The interaction of nature and culture, climate change and human activities have an impact on the condition of Gedi monument. The interactions will need to be managed to protect the integrity and authenticity of the site at present and in the future.

#### 2.1 Factors affecting the site

Despite the long history of legal protection, Gedi is affected by several challenges which can be categorized as; human factors, environmental and resource constraints. The main negative human factor is uncontrolled visitors' pathways at the site and vandalism particularly on the installations. The perimeter fence that secured the site from malefactors has been vandalized in some sections. This vandalism has exposed the site to illegal entry by people who engage in poaching game meat. The fence has not been repaired due to inadequate resources.



*Figure 4. Broken sections of perimeter fence*

Environmental challenges include rain water damage on the walls of the monuments, rapid growth of vegetation that damages the stability of the coral rag walls and microorganism attacks on the

monuments and the modern facilities at the site. The reality of climate change has affected the Gedi site. The rate of deterioration due to environmental factors is experienced at a more rapid rate.

The foundations of the original town walls are still intact and the remains of the walls of the palace and the mosques are structurally stable. Some walls were stabilized from the effects of humidity in 2010. Ninety-seven per cent (97%) of the outer wall surrounding the town stone wall is intact. 1.2% has been restored after collapse due to heavy rains. Corresponding traditional materials and building techniques have always been used for restoration

The most anticipated challenge is that of tree roots undermining foundations of the monuments, falling trees, vegetation growth on the walls, humidity and rain water. The proposed mitigation measures include:



*Figure 5. Vegetation growing on walls*



*Figure 6. A section of wall inclining off the vertical axis*

- i. regular pruning of tree branches overhanging the walls,
- ii. regular removal of vegetation growing on the walls,
- iii. stabilizing the walls where necessary,
- iv. periodic monitoring of the monuments.

The threat occasioned by human interaction with the site is the uncontrolled visitors' pathways at the site. Some access paths lead visitors to jump over walls. The trampling causes wear and tear on the walls and weakens the walls. The proposed mitigation measure is the reorganization and redirection of the access circuit through the site with clear signage. Access to the monuments ought to be only one common entrance that is supposed to be followed by all visitors. The threat of vandalism shall be controlled by engaging more security staff and installation of CCTV cameras for continuous surveillance..

Though the challenges are known, resource constraint is a major drawback to preventive and proactive intervention as a means to manage the site.

## Chapter three

### 3.0 Management of the site

#### 3.1 Legal and Administrative framework

Gedi is among 27 regional sites and Museums in Kenya all under the Central Museum in Nairobi. The National Museums of Kenya's main functions and responsibilities are defined under the National Museum's Act, Cap 216 and the Antiquities and Monuments Act, Cap 215 of 1983, now merged under the Museum and Heritage Act 2006. The Museums and Heritage Act sets out a Board of Governors with the Director General of the Museums as secretary. Its mandate is to undertake exhibitions, research and collections at both the central and regional levels. It is also responsible for the conservation and management of various sites and monuments around the country that are considered significant to the nation. Gedi National Monument is therefore among the hundreds of similar sites under the National Museums of Kenya (NMK) with the headquarters in Nairobi.

As a public institution it is constituted under the State Corporation Act of (1987 revised). This arrangement gives the National Museums of Kenya a certain degree of autonomy from the rest of the civil service where it is expected to have reached financial self-sufficiency to manage its activities independently and sustainably. However, due to the considerable decline in the tourist-dependent revenue the National Museums of Kenya (NMK) depends on grants from the government and from donor organizations for the restoration and conservation of the cultural heritage.

#### 3.2 Management and resources

The National Museums of Kenya (NMK) and development partners are currently the financiers of activities at the site. NMK provides and pays the salaries of the regular staff and provides funds for the upkeep and general maintenance of the site. It also provides equipment and other facilities for local community development programmes such as bee keeping and butterfly farming which encourages the communities to conserve forests. The NMK also organizes and coordinates educational programmes for learners. The site has in the past enjoyed support from well-wishers such as Friends of Malindi, the government of the United States of America and Mombasa Cement

company. The County Government of Kilifi contributed funds towards the management plan of the site.

### 3.3 Stakeholder analysis

Gedi site has a diversity of stakeholders. The main stakeholders include:

- i. National Museums of Kenya
- ii. Local community;
- iii. Tour Operators;
- iv. Nursery, Primary and Secondary schools in Kenya;
- v. Tertiary institutions of higher learning both national and international
- vi. Abercrombie and Kent (Bird Watchers)
- vii. East African Ornithology Safaris.
- viii. Public and Private Institutions that hold seminars at the site;
- ix. Malindi Museum Society;
- x. Herbalists;
- xi. Hotels.

Their roles in the current management of the site vary considerably but mainly form a consultative body in the management process rather than the executive or decision-making body.

#### 3.3.1 National Museums of Kenya (NMK)

This is a parastatal that acts on behalf of the Government of Kenya by holding the property in trust for both the Government and the community as well as the other stakeholders. Maintenance and all forms of conservation, research, marketing and promotion of the site are the responsibility of the NMK. The institution plays host to all other stakeholders and plans to collect revenue that will be pumped back into the management of the site.

#### 3.3.2 Local community

The local community are classified into various categories bee keepers, butterfly farmers, neighbouring landowners, business people, local tour guides, herbalists, community-based organizations and non-government organizations. These stakeholders with their diverse interests play a crucial role in sustainable management of the site. The National Museums of Kenya contributes to the sustenance of the economic development of the community especially the bee keepers and butterfly farmers by directly linking them to the market and promoting their products

locally and internationally. The major beneficiaries in the local community therefore are bee keeping project and Kipepeo project members who directly earn their livelihoods from the interaction with the National Museums of Kenya.

### 3.3.3 Tourism industry

The tourism industry is among the stakeholders due to the interest of tour operators in the potential of the site as a visitor attraction in the coast of Kenya. The attraction translates into economic benefits for the local community and awareness of modern society about the urban origins in Eastern Africa. Growth of tourism would benefit other stakeholders and help boost the economic status of the locality.

### 3.3.4 Educational institutions

Educational institutions are key users of the site. The site satisfies the country's schools syllabus that requires children to learn about the history and prehistory of Kenya. Most of the youthful visitors therefore visit the site through organized school educational tours which demand dedicated educational staff to transmit knowledge of the site to the learners in a language they can understand. The site is also a source of inspiration for learners in higher institutions such as architects, botanists, ornithologists, archaeologists, historians among other disciplines .

### 3.3.5 Current management structure

#### ***Gedi Site Museum***

Gedi has a two-tier staff management system and a four-tier ticketing system – one for the archaeological site, snake-park, tree house and the Kipepeo (butterfly) Farm. The archaeological site is under an administrative curator who deals with the day-to-day management activities. However, important decisions, especially on conservation techniques are coordinated with the office of the Keeper Coast Region based in Mombasa, who provides guidance on the running of the site museum.

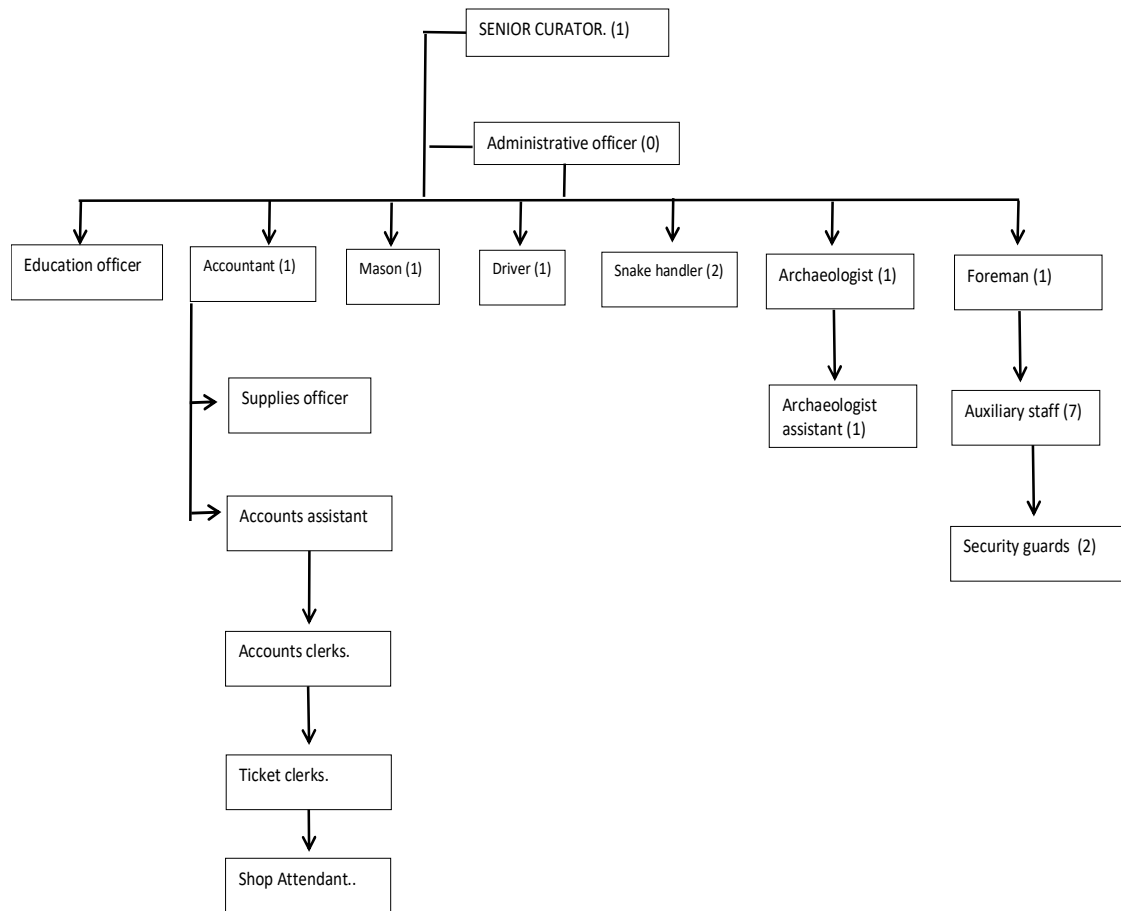
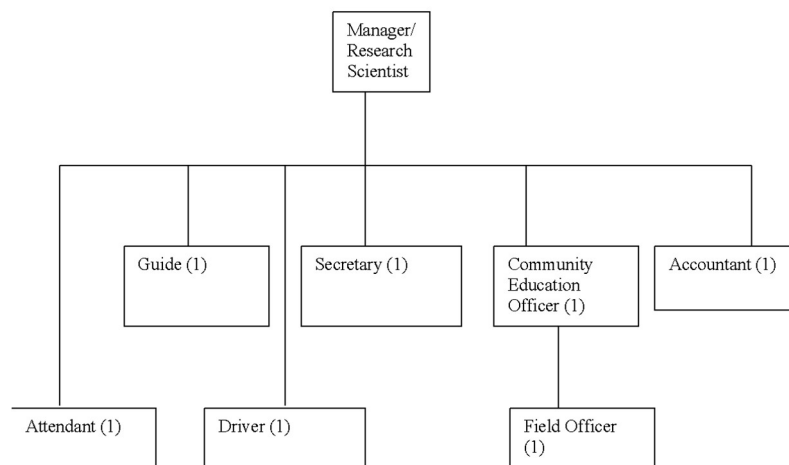


Figure 7 Organizational structure of staff at Gedi

### ***Kipepeo project (Butterfly farm)***

The Kipepeo Farm is under a Manager/Research Scientist. Others in the establishment are as shown in the organigram below.



## Chapter Four

### 4.0 Climate change and disaster risk preparedness

#### 4.1 Monitoring of impact of climate change

Climate has been a big contributor to deterioration of heritage resources. Increasing extreme weather events associated with climate change is a major concern in management and conservation of cultural heritage globally . More so, Coastal heritage sites are especially threatened by increased erosion and flooding, rising sea level, increased water acidity , increase in precipitation, and frequent strong winds. Research conducted by archaeologists indicate that the climate of the eastern African was warmer and wetter than today between ca .11000 and 5000 BP, likely owing to a change in the earth's axial rotation around the sun triggering a phase of maximum monsoon intensity throughout the Indian Ocean. In Late Holocene, significant alternating fluctuations between wetter and drier conditions have been recorded. The trend from c. 2000 BP was wetter in much of inland East Africa and these wetter conditions were followed by a period of high rainfall during the early decades of European conquest and colonial rule. There is a shortage of current data to monitor how Gedi has been affected by climate change. However, Gedi is located on the tropical coast which is faced by an increasing threat of sea rise as a result of global warming phenomenon, increased rain and the associated increase of humidity that may potentially negatively impact the monuments. The available information on climate change indicates that the historic city deterioration has accelerated in the twenty-first century (Chemeli et al (2021).

All the historic structures within Gedi are roofless, hence very vulnerable to impact of climate change that speeds up the rate of weathering. The main areas such as the king's palace and mosques have developed cracks on the wall linings caused by expansion and contraction during high temperature, direct rainfall, high humidity, and acidic rains. Other vegetation and parasitic plants have grown on the ruins, and these weaken the building materials, hence the collapse of some parts. The structures are surrounded by 35 hectares of coastal forest with over 50 indigenous tree species . Strong coastal winds act as agents of destruction in that they break the branches of trees that fall on the ruins causing destruction.

Gedi may need to rely on climate change mitigation models developed for assessment of change by other sites across the world such as Kilwa, Kisiwani and Songo Mnara World Heritage site in Tanzania. The choice of site is based on similarities of the site typology and setting which makes the threat of climate change between the two sites almost similar.

To mitigate against the challenge of climate change, an assessment of the impacts of climate change will be done with the collaboration of the Msabaha Meteorological Station which is located 10 km from Gedi Site. Data on humidity fluctuations, temperature and aerosols will be taken and the condition of the built heritage monitored against the data to understand and predict vulnerability to the built heritage. Customised mitigation measures will be designed to enhance resilience of the heritage in the wake of climate stress.



*Figure 8. Wooden signage affected by rot due to harsh tropical climatic conditions*



*Figure 9. deteriorated walk way due to weather effects*

#### 4.2 Disaster risk preparedness

Gedi archaeological site is believed to have been probably abandoned due to an unprecedented irreversible change. The site location and setting, places it in a challenging situation in terms of its human and non-human vulnerabilities.

A variety of vulnerabilities include; severe weather, earthquakes and forest fires. Some sections of the palace, the centre piece of Gedi are still intact, timber frames still on the doorways although rapidly decaying due to exposure to rain and high humidity. As a mitigation measure, the timber parts shall be treated with natural wood preservative ingredients such as linseed oil to keep out timber pests and water infiltration.

The site has been overgrown by a forest which despite having gradually developed into a part of the Gedi site, poses grave danger to the stability of walls and other structures. Some of the old giant trees fall on the built heritage particularly during heavy storms destroying sections of the walls. These will need to be monitored and overhanging branches pruned to eliminate the likelihood of collapsing on walls and to reduce litter collecting on the walls.

Unmitigated and recent human activities, especially archaeological excavation have posed stability challenges on the built structures of the site. The most urgent practical actions to safeguard the site include backfilling of an excavated section of the site near a mosque which was left open after an excavation carried out in 2010.

Gedi has no history of forest fires occurrence. This is however a possible threat to both the built heritage, the biodiversity and to the visitors. The immediate proposed mitigation measure is to create a buffer area between the forest area and the built heritage. In the event of trees falling during severe storms or in a fire disaster, the impact on the built heritage will be minimal.

Challenges related to visitors at the site, the major identified risk is the threat of accidental falling into the deep wells found at the site. Though all of the wells at the site are guarded with metal grills, many of the grills have rusted. to a point that they cannot hold substantial weight. To eliminate the risk of accidental falls into the wells, all the metal grills will be replaced with sturdier grills to ensure safety of visitors and particularly; children.



*Figure 11. One of the drilled deep wells at Gedi*

As a measure of sustainability of these interventions, more research, training and education, and raising awareness will be conducted on the Gedi Monument staff to achieve consistency and practical skills to undertake the mitigations periodically. In addition, a detailed disaster risk

preparedness plan outlining standard operating procedures will be factored in the activity plan to entrench a standard of action to be reviewed periodically.

## Chapter Five

### 5.0 SWOT analysis

A Strength, Weakness, Opportunity and Threat analysis was carried out for the Gedi site resulting in details presented in the table below.

<i><b>Strengths</b></i>	<i><b>Opportunities</b></i>
- The site has important archaeological and biological values.	- The site has a great potential to attract large-scale tourism if properly marketed and site condition improved
- The site is gazetted as a national monument and therefore protected under the Antiquities and Monuments Act, 1983	- The site has high educational potential for all learners.
- The site is well known both nationally and internationally through publications and social/electronic media, Kenya Tourism Board (KTB), Malindi Connection and NMK website.	-There is a strong will among stakeholders to have the site better promoted.
- The site is authentic. It has all the qualities of a wealthy, unmatched medieval Swahili settlement.	- There is a strong will in the local community to participate in conservation activities – the butterfly farm project is a very good example.
- The site is one of the most visited archaeological sites in the country due to its ideal location within Mombasa, Malindi and Watamu tourist circuit.	- There is a strong will among tour operators and the hoteliers in Malindi to market Gedi jointly with other heritage resources in Kilifi County as a package.

- The experience of the site is reinforced by the nature trail, snake-park, tree house and the butterfly farm	- The Museum Complex in Malindi can greatly help in the promotion campaign of the site.
The devolved system of Kilifi County Government supports the NMK initiative to get Gedi nominated to the World Heritage List and participates in the management planning and nomination processes.	Gedi scenery could be used as a filming destination for films/documentaries making, if properly marketed.
The new NMK management has already planned to build a five-star cottages at its various sites, including Gedi	Providing a facelift to the frontage of the site, just outside the gate could improve the first impression and attract more visitors
Some of the guides in place have considerable knowledge of the site and can present that knowledge in 4 foreign languages, Italian, German, French and English.	Future collaboration with the County Government in infrastructural development for Gedi (e.g., improving the access road), in marketing of Gedi using their proposed radio, and assisting the community put up a cultural centre to showcase their intangible heritage etc.
Goodwill from the community for the conservation of the site.	Tented Camping facilities and food courts could be developed at the site to generate revenue and employment to the locals

	Organizing temporary exhibitions and cultural shows at the site
<b><i>Weaknesses</i></b>	<b><i>Threats</i></b>
No emergency medical arrangement (Dispensary) for visitors to the site in case of accidents or any other life threatening happening.	A community that is not well informed about World Heritage and don't understand or appreciate its benefits are likely to destroy the site.
Lack of clean eatery for visitors at the site.	Local communities do not see the benefits they get from the site so far and feel cheated out of their heritage.
No accommodation for overnight visitors within the site.	No conflict management plan/structures in place; incase of wild animal-human conflicts.
Insufficient interpretation material; few information panels at the site and signage to the site.	The fence around the site has been pulled down in many places, allowing for easy access by people with dubious intentions
Site not properly presented and displayed for public consumption.	Vandals from the immediate neighborhood still put snares to catch mammals and cut trees for timber and poles
The site is not adequately marketed and promoted as a cultural tourist destination.	- Heavy tropical rain and the specific conservation problems attached to it (growth of plants, microorganisms, and trees etc.) causes slow decay to fabric.

The Interpretation plan of 1999 has not been fully implemented more so, it needs review.	- Inadequate maintenance funds allocated to the National Museums of Kenya from the treasury.
For more than 20 years the site has been without a mason to deal with the day-to-day maintenance work.	
Access to the site from the main motorway has deep-water puddles during rainy season.	
Lack of museum education programs that have an interface with education programs in schools.	
Lack of public awareness programs	
Lack of museum guides and confusing ticketing system to visitors.	

## Chapter Six

### 6.0 Action plan

The following is an activity plan of a list of actions that will be taken to maintain or restore the site.

#### 6.1 Key issues and planned activities

No	Key Issue	Activities			
		Short-term July 2022- June 2023	Mid-term July 2023- June 2024	Long-term July 2024- June-2026	Resources
1	Staffing		Recruitment of more staff specifically traditional stone masons, guides and security personnel		NMK Budget
2	Staff training		Capacity building of staff in management and conservation of heritage		KHETI
3	Site promotion	Placement of signage along the major coast road network , for marketing	Development of a travelling exhibition on Gedi to be showcased in local and international trade fairs		NMK, Development Fund, Kilifi County Culture Fund, KTB, virtual exhibits, 2 D and 3D media, audio-visual media
			Fundraising to enhance site management		Tourism Trust Fund

4	Community sensitization	Periodic engagement of community on site's management progress  Annual Community engagement on diverse issues of the site			Kilifi County Culture Fund
5	Demolition of deteriorated and flaking contemporary archway and refurbishment of the interpretation centre	-Assessment structure deterioration, analysis of intervention necessary and preparation of bill of quantities  -Award of tender and construction			Tourism development Fund, contractor
6	Repair of broken section of the perimeter fence	Assessment of damage	Budgeting in the financial year	Repair works by resident Gedi maintenance staff	Youth and Sports fund
7	Repair collapsed sections of walls	Assessment of damage	Preparation of Bill of quantities, Budgets Repair works		NMK development fund, local community artisan with the requisite traditional masonry skills
8	Re-routing of visitor access path	Remapping of the circuit,			NMK development

		relocation of signages Development and installation of new signage.			fund, Gedi staff, Local tour companies
9	Climate monitoring	Collaboration with the meteorology department in weather conditions at the site and impact on the heritage	Should be a sustained activity through time		Keeper Coast Region, Msabaha Meteorological Station
10	Tackling poaching menace	De-snaring and removal of illegal bush meat traps	-Should be a sustained activity through time. -installation of motion cameras	- Sensitization workshops with the local community	Gedi staff KWS staff Local community scouts, Local tour guides and scout
11	Removal of trunks on walls	Sawing off collapsed trees on walls	Physical removal of growing vegetation on walls		-Gedi staff -Cutting implements -community wage labour

12	Risk preparedness	Preparation of a comprehensive disaster risk preparedness plan			NMK staff, KFS, KWS, NMK Development Fund
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## 6.2 Monitoring

Issue	Activity	Key indicators	Responsible	Time-frame
Staffing	Recruitment	3 traditional stone masons recruited 2 Resident guide 4 security personnel	NMK-DAHR	By end of year 1
Training	Capacity building of staff	On site trained of managerial staff in management of the site	KHETI	1 month
Site promotion	Installation of signage on Gedi	At least 3 installed sign posts on Gedi on Mombasa-Malindi-Garsen-Garissa Road	NMK-Marketing Dep /Exhibits section	6 months
	Development of a traveling exhibition on Gedi	i) At least 1 exhibit showcased in a local fair	NMK marketing department	By end of year 2
		ii) At least 1 exhibition at an international trade fair	NMK in collaboration with KTB	By end of year 4

Community sensitization	Periodic meetings	<ul style="list-style-type: none"> <li>-Reports</li> <li>-Minutes of annual meetings with recommendations from the community</li> <li>-Group Photos</li> <li>-List of attendants</li> </ul>	Curator, Gedi	Yearly
Visitor facilities refurbishment	Demolition of archway and refurbishment of the interpretation centre	<ul style="list-style-type: none"> <li>-Approved designs</li> <li>-Finalized BQs</li> <li>-Tender documents</li> <li>-Signed contract</li> <li>-Photos</li> <li>-Certificate of completion</li> </ul>	<ul style="list-style-type: none"> <li>-NMK tender committee</li> <li>-NMK Board</li> <li>-Curator</li> </ul>	By end of year 5
Perimeter fence	Repair of broken sections of the perimeter fence	<ul style="list-style-type: none"> <li>-Fence assessment report</li> <li>-Finalized BQs</li> <li>-Photos of repair works</li> <li>-photos of mended sections</li> <li>-Completion report</li> </ul>	Curator	By end of year 3
Collapsed monument walls	Repair collapsed sections of walls	<ul style="list-style-type: none"> <li>-conservation architect's assessment report</li> <li>-Finalized BQs</li> <li>-Budgets</li> <li>-photos reinstated walls</li> <li>-Final repairs report</li> </ul>	Curator, -NMK conservation Architect	By end of year 3
Visitor access	Re-mapping of the circuit and relocation of site signages	<ul style="list-style-type: none"> <li>-New signage installed on the new access gate</li> <li>-Old access route barricaded</li> <li>-New site map and brochure on Gedi</li> </ul>	<ul style="list-style-type: none"> <li>-Curator</li> <li>-GIS expert</li> </ul>	By mid-year 1

Climate change	Weather monitoring	<ul style="list-style-type: none"> <li>-MOU between NMK and the Kenya Meteorological Department</li> <li>-Installed weather equipment</li> <li>-Daily weather recordings</li> <li>-Annual analytical reports</li> </ul>	<ul style="list-style-type: none"> <li>-Curator</li> <li>-Msabaha Meteorologist</li> </ul>	By end of year 3
Poaching menace	De-snaring and removal of illegal bush meat traps	<ul style="list-style-type: none"> <li>- Reports on installed motion cameras</li> <li>-Reports of de-snaring exercises</li> <li>-Number of sensitization meetings with communities</li> <li>-Graphical presentations on the sensitization impacts</li> </ul>	<ul style="list-style-type: none"> <li>Curator</li> <li>KFS</li> <li>KWS</li> </ul>	By end of year 2
Vegetation impacts	<ul style="list-style-type: none"> <li>-Periodic removal of trees on walls</li> <li>-Periodic clearing of vegetative growth on walls</li> </ul>	<ul style="list-style-type: none"> <li>-Power saw purchased</li> <li>-pruning saws purchased</li> <li>-additional staff hired</li> <li>-wall section cleared of vegetation</li> </ul>	Curator	By end of year 1
Disaster Risks	Development and finalization of a disaster risk preparedness plan	<ul style="list-style-type: none"> <li>-list of vulnerabilities</li> <li>-mitigations in place</li> <li>-SOPs</li> <li>-Number of disaster prepared drills</li> <li>-installed safety information at the site</li> </ul>	Curator	By end of year 3



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Pradin, S.                    “ Mission Arceaologique Francaise de Gedi, Kenya” Nyame Akuma 2002  
Rising from the Depth (RftD) website ( <https://risingfromthedepts.com/> )

## **Annexes**

## Annex 1: The National Park Ordinance, 1945

GOD SAVE THE KING

SCHEDULE

DESCRIPTION OF BOUNDARIES – GEDI NATIONAL PARK

“Commencing at a beacon situated on a true bearing of approximately 302 24 and at a distance of about 4,064 feet from the trigonometrical beacon “Gedi;

thence by a straight line on a true bearing of approximately 260 19 for a distance of about 2,099 feet to a beacon;

thence by a straight line on a true bearing of approximately 343 39 for a distance of about 1,134 feet to a beacon;

thence by a straight line on a true bearing of approximately 6 58 for a distance of about 1,447 feet to a beacon;

thence by a straight line on a true bearing of approximately 86 50 for a distance of about 1,296 feet to a beacon;

thence by a straight line on a true bearing of approximately 166 15 for a distance of about 269 feet to a beacon;

thence by a straight line on a true bearing of approximately 146 35 for a distance of about 1,459 feet to a beacon;

thence by a straight line on a true bearing of approximately 176 12 for a distance of about 765 feet to the point of commencement.

The boundaries of this National Park described above are delineated approximately, edged purple, on Boundary Plan No. 204/3 deposited in the Survey Records Office, Department of Lands, Mines and Surveys, Nairobi.”

**(Cited in Government Printer Proclamations, Rules and Regulations 1949: Pg. 95).**



Annex 2. List of participants in management plan meeting

**LIST OF PARTICIPANTS MANAGEMENT PLAN STAKEHOLDERS MEETING 26TH FEBRUARY 2022**

<b>NO</b>	<b>NAMES</b>	<b>PHONE NUMBER</b>	<b>INSTITUTION</b>
1	Eric Iha	0721477168	Tour Operator
2	Goerge Baya	0717692483	Mbaraka chembe
3	Alex Thoya	0723422610	Mida Creek conservation
4	Riziki Mwapalu	0727555260	KEFRI-Gedi
5	Justin Kitsao	0716284083	Watamu Marine Asso.
6	Boniface Momanyi	0711643377	Bio-KEN Ltd
7	Andrew Warrah	0724794785	Gedi Guide
8	Hajji Mohamed	0722558228	Lamu Museum
9	Bernard Maundu	0722282350	KCB Malindi
10	Jonathan charo	0729491979	Arocha Kenya
11	Kalama Ali	0726263346	Gedi Sykes monkey project
12	Jambo Haro	0722326313	NMK
13	Zablon Kahindi	0724514728	Gedi polytechnic
14	Anthony Githitho	0722487249	NMK/CFCU
15	Okwaro Peter	0722890179	CHDA
16	Mohamed Mwenje	0721141906	NMK –Lamu
17	Philip Jimbi	0735512797	COBA
18	Prof Abdalla Hajj	0722393691	Malindi Museum society
19	Yussuf Mwilo	0705875817	Community
20	Mwarora Hassan	0723359652	NMK-Gedi
21	Hussein Aden	0720552266	NMK-Kipepeo
22	Kingstone Mghenyi	0712340875	Mlilo Association
23	Athman Hussein	0721472005	NMK-Coast
24	Aisha Fadhil	0718296391	NMK-CHDA

25	Kahindo Fondo	0722900230	KFS-GEDI
26	Badi Hamisi	0724955119	Guide Gedi
27	Abbass shariff	0704480391	CFA-Gedi
28	Rev.Silas Ndune	0722568669	ACK
29	Julius Mambo	0720430765	NMK-GEDI
30	Ken Ombok	0725624492	Turtle Bay resort- Watamu
31	Omar abdalla	0722328785	NMK-Malindi
32	Kassim Mohamed	0707688968	NMK-Gedi
33	Luke Omondi	0722495609	Survey of Kenya
34	Mohamed Ali	0725169331	NMK-Gedi
35	Julius Katana	0710290359	ASFADA
36	Ustadh Ali Hassan	0729631247	Madarasa Gedi
37	Abdalla Allausy	0722305378	NMK Heritage Warden
38	Saida Omar	0720885724	NMK-Gedi
39	Peter Munyithya	0713143787	Medina Palms Hotel
40	Kana Mwendwa	0718152999	Medina Palms Hotel
41	Arafa Salim	0717986182	MCA –Kilifi County Assembly
42	Elias Kimaru	0724255314	WWF-Ukunda
43	Christine Pekeshe	0727756327	Kilifi County Government
44	Emmanuel Kenga	0724409257	NMK Gedi
45	Mohamed Lugogo	0724031594	NMK-Gedi
46	Kombe Shdrack	0712972202	NMK-Gedi
47	Katana Ndurya	0722481802	NMK-Gedi
48	Paul Gitau	0722400982	KTN Standard
49	Patrick Mwatseka	0712111279	Community



### Annex 3. List of Contributors

Hussein Aden-Curator Gedi Site Museum

Matthias Kalama-Kipepeo Butterfly project

Mbarak Abdulqadir-Former Gedi Curator

Jimbi Katana -Former Gedi Curator

Khalfan Bini -Archaeologist

Doris Kamuye-Librarian-Malindi Museum

Mohammed Mwenje-Curator Lamu Museum

Prof George Abungu-OAHC

Dr, Purity Kiura-Archaeologist

Athman Hussein-Keeper Coast Region

Dennis Milewa-GIS and Cartography

Hoseah Wanderi-Anthropologist

Gedi Community Members