



Rovuma
LNG

CULTURAL HERITAGE MANAGEMENT PLAN

ROVUMA LNG PROJECT

MZLN-EL-RPPLN-00-0007



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1. INTRODUCTION AND OBJECTIVES

MZLN-EL-RPPLN-00-0007 Rev 0 – Cultural Heritage Management Plan is an individual, topic specific plan comprising an integral component of MZLN-EL-RPPLN-00-0016 Rev 0 – Rovuma LNG Environmental and Social Management Plan (ESMP).

Information regarding the Project Overview, Objectives (of the ESMP), Scope, Project Components and Associated Facilities and other information regarding the context of the ESMP can be referenced in MZLN-EL-RPPLN-00-0016 Rev 0 – Rovuma LNG Environmental and Social Management Plan.

The principal objective of the ESMP is to facilitate the avoidance, reduction, and mitigation of environmental, social and community health, safety and security risks and impacts associated with the construction phase of the Midstream Project.

The ESMP sits within a broader Environmental and Social Management Framework, as illustrated in Figure 1-1 of MZLN-EL-RPPLN-00-0016 Rev 0 – Environmental and Social Management Plan.

This Framework comprises two overarching, system-level documents (Environmental and Social Management Plan and Environmental and Social Requirements for Contractors) and a set of theme and activity-specific documents that collectively describe how the Project will manage its environmental and social (E&S) risks. The listing of the ESMP set of documentation is contained below:

- MZLN-EL-RPPLN-00-0016 Rev 0 – Environmental and Social Management Plan (ESMP)
- MZLN-EL-RAZZZ-00-0001 Rev 0 – Requirements for Camps and Accommodation
- MZLN-EL-RBENV-00-0001 Rev 1 – Environmental and Social Requirements for Contractor (with Annexes)
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 1 Air Quality, Greenhouse Gases and Energy Efficiency
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 2 Effluent Discharges
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 3 Waste Management
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 4 Hazardous Materials
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 5 Site Development, Construction and Reinstatement
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 6 Road Traffic and Transport
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 7 Marine Operations
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 8 Water Use and Abstraction
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 9 Raw Materials and Aggregates
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 10 Dredging
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 11 Lighting and Visual Impact
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 12 Ballast Water and Biofouling
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 13 Weed and Pest Management
 - MZLN-EL-RBENV-00-0001 Rev 1 Annex 14 Wildlife Protection

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- MZLN-EL-RPLCP-00-0001 Rev 0 – Local Content Management Plan
- MZLN-EL-RPPLN-00-0005 Rev 0 – Community Development Support Plan
- MZLN-EL-RPPLN-00-0007 Rev 0 – Cultural Heritage Management Plan
- MZLN-EL-RPPLN-00-0008 Rev 0 – Supplemental Land Access Management Plan
- MZLN-EL-RPPLN-00-0009 Rev 0 – Project Induced In-Migration Management Plan
- MZLN-EL-RPPLN-00-0013 Rev 0 – DUAT Encroachment Management Plan
- MZLN-EL-RPPLN-00-0014 Rev 0 – Employment and Worker Relations Plan
- MZLN-EL-RPSEP-00-0001 Rev 0 – Stakeholder Engagement Management Plan
- MZLN-EL-RPPLN-00-0006 Rev 0 – Community Health Safety and Security Management Plan
- MZLN-EL-RPPLN-00-0004 – Biodiversity Strategy
- MZLN-EL-RPPLN-00-0011 – Biodiversity Action Plan

EMML desires to preserve and protect cultural heritage for current and future generations by avoiding, reducing, and where necessary, mitigating adverse impacts that the Project might cause to this heritage. The Project acknowledges that it can also play a role in promoting awareness of and appreciation for Mozambican heritage.

1.1. Scope

EMML's Cultural Heritage Management Plan, hereafter referred to as the Plan, encompasses all Project-related activities associated with the management of findings which are identified as Cultural Heritage items. The requirements of this Plan are to be followed by EMML, Contractors and subcontractors within the DUAT, the Marine Concession, and areas outside of the DUAT necessary for conducting work to complete the Project. This Plan is applicable to all known, as well as, not yet identified cultural heritage items that may be impacted, either directly or indirectly, by the Project activities. The Plan will be implemented during all phases of the Project.

The focus of this Plan is on impacts that can take place through physical disturbances. That said, this Plan does attempt to consider impacts to cultural heritage that can occur through indirect community exposure to disruptive behaviors, influences, non-native cultures, new forms of communication, new technologies, non-traditional forms of livelihood, and the anticipated influx of Project-induced in-migrants.

The Plan has been established in an attempt to minimize impact to the area's unique cultural heritage from Project activities. Potential risks and mitigation measures were compiled through the risk assessment process combined with experiences gained from recent projects in areas of unique cultural heritage.

For the purpose of this Plan's development, the definition of cultural heritage is aligned with the IFC Performance Standard 8 explanation of cultural heritage:

- Tangible forms of cultural heritage, such as tangible moveable or immovable objects, property, sites, structures, or groups of structures, having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values
- Unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls

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- Certain instances of intangible forms of culture that are proposed to be used for commercial purposes, such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles

1.2. Objectives

The objectives of the Cultural Heritage Management Plan are to:

- Avoid known cultural heritage sites (including both archaeological sites and oral tradition sites) where necessary and practicable
- Where avoidance is not possible, manage cultural heritage sites in compliance with the requirements of Mozambican laws and regulations and in consultation with relevant Mozambique Government officials and local stakeholders.
- Provide guidance compliant with the International Finance Corporation (IFC) Performance Standard (PS) 8 recommendations on how cultural heritage findings will be assessed, documented and managed;
- Establish an IFC PS 8 aligned Chance Finds Procedure (CFP) to minimize impacts to not yet identified cultural resources that may be discovered by Project personnel during the course of the execution of Project activities;
- Enhance relationships with affected communities and eliminate community grievances related to impacts to cultural items;
- Minimize Project delays by promoting compliance with national regulations and other Project requirements; and,
- Define the roles and responsibilities for implementing the Plan.

2. ACRONYMS AND TERMS¹

Term	Definition
AMA1	Anadarko Moçambique Área 1, Lda.
Archaeological Site	A cultural heritage site with physical evidence of past human/ cultural activity visible on or in the ground. Mozambican legislation ² states that archaeological sites over 100 years old qualify for National Monument status and may be subject to different mitigation activities than archaeological sites less than 100 years old.
AUV	Autonomous Underwater Vehicle
CCM	Centro de Conservação Marítima/ Maritime Conservation Centre
CFP	Chance Find Procedure
Chance Find	An archaeological site, which can include human skeletal remains, that was unknown prior to construction.
Cultural Heritage	All tangible and intangible assets created or assimilated by the Mozambican people throughout history and of importance in terms of the definition of Mozambican cultural identity. Cultural heritage consists of both tangible and intangible cultural assets.
Cultural Heritage Site	An archaeological or oral tradition site, the size of which is determined by the extent of cultural material and/or features. Where surface artefacts govern the size of the site, then a site extends for as far as there is cultural material where the distance between artefacts does not exceed 15 m.
DNPC	Direcção Nacional de Património Cultural/ National Directorate of Cultural Heritage
EIA	Environmental Impact Assessment
EMML (Midstream Operator)	ExxonMobil Moçambique Limitada (EMML) is the ExxonMobil Affiliate conducting Midstream Operations for MRV.
GIS	Geographic Information System
GPS	Global Positioning System
Human Skeletal Remains	Includes all of the bones and teeth that comprise foetal, neonate, infant, juvenile and adult individuals, irrespective of their state of presentation; i.e., they include fragmentary and isolated bones and teeth as well as complete and articulated bones and teeth, unless otherwise excepted.
IFC	International Finance Corporation

¹ Most definitions provided herein were taken from Mozambican Law for Protection of Cultural Assets (Law no. 10/88, dated December 22) and Regulation for the Protection of Archaeological Assets (Decree no. 27/94, dated July 15). Any additional definitions were taken from industry best practice.

² Law for Cultural Protection (Law no. 10/88 of December 22).



Term	Definition
Immovable Cultural Assets	Includes the following categories: monuments, complexes, locations or sites, and natural features.
Intangible Cultural Assets	Assets that are essential elements of the collective memory of the people, such as history, cultural knowledge, practices, oral literature, popular traditions, rites, folklore, the various national languages, as well as works of the human mind, together with all forms of artistic and literary creation, irrespective of the medium or vehicle through which they are expressed.
Inalienable property of the State	Cultural heritage assets, whether they are already known or are discovered at a future date in the territory of Mozambique, shall be deemed to be the inalienable property of the State if they are: <ul style="list-style-type: none"> • Archaeological sites and objects; • Rock paintings; • Constructions and other works representative of precolonial societies such as walled enclosures, zimbabwes, aringas, mining centers and centers of power, population centers, commercial warehouses and places of worship
Known Human Skeletal Remains	Relatively recent burials known to the local communities (through oral traditions or recent burial).
LNG	Liquefied Natural Gas
MICOA	Ministério para a Coordenação da Acção Ambiental / Ministry for the Coordination of Environmental Affairs (prior to January 2015)
MITADER	Ministério da Terra, Ambiente e Desenvolvimento Rural / Ministry of Land, Environment and Rural Development
MICULTUR	Ministério da Cultura e Turismo / Ministry of Culture and Tourism
NGO	Non-Governmental Organization
Oral Tradition Site	A cultural heritage site known by a person or people through their cultural historical stories
Plan	Cultural Heritage Management Plan
Project	The development of the onshore and nearshore facilities for Area 4 by EMMML, in conjunction with its nominated contractors
PS	Performance Standard
ROV	Remote operated vehicle
Tangible Cultural Assets	Immovable or movable assets which, owing to their archaeological, paleontological, historical, cultural, bibliographical, artistic, religious or scientific value, form part of the cultural heritage of Mozambique. Natural features, sites and landscapes which are protected by law owing to their cultural value, or which are liable to be so protected, shall be covered by the provisions of the present Law.



Term	Definition
UEM	Universidade Eduardo Mondlane / Eduardo Mondlane University
UNESCO	United Nations Educational, Scientific and Cultural Organization
Burial Site	A location containing complete or fragmented human skeletal remains excluding isolated teeth

3. PROJECT STANDARDS AND REQUIREMENTS

3.1. Legal Requirements

Contractor shall comply with applicable Mozambican Laws and Regulations, International Finance Institution requirements, and international Treaties and Conventions.

Table 3-1: Mozambican Laws and Regulations

Reference	Citation
Constitution of the Republic of Mozambique (November 16, 2004)	Chapter 3, Article 115 – establishes that the State promotes the development of national culture and character.
Law for Protection of Cultural Assets (Law no. 10/88, dated December 22 and amended by Law no. 13/2009, dated February 25)	<p>This Law establishes the legal protection for material and immaterial assets associated with Mozambican cultural heritage (existing or yet to be discovered).</p> <p>Article 13 stipulates the need to communicate any findings of buildings, objects, or documents that may potentially be classified as assets of cultural heritage.</p> <p>The purpose of this is to ensure the lawful protection of tangible and intangible cultural assets of Mozambique, e.g. monuments, buildings with historic significance, artistic and scientific sites, and natural elements of scientific and noteworthy aesthetic interest.</p>
Law that establishes the legal framework aimed at protecting, safeguarding and promoting the National Liberation Struggle heritage (Law no. 13/2009, dated February 25)	<p>Establishes the legal framework for protection and promotion of the National Liberation Struggle historical heritage. For the purposes of this law, National Liberation Struggle historical heritage means a collection with historical significance related to the National Liberation Struggle. The law applies to archives, (military) bases, deployments, and monuments of the Mozambique Liberation Front, assets belonging to the National Liberation combatants, pilot centers, and day care centers existing during the National Liberation Struggle as well as penitentiaries and barracks belonging to the colonial army and the assets thereof. The Council of Ministers is mandated by this law to proceed with classification of assets and sites which require protection in terms of this law.</p>
Regulation for the Protection of Archaeological Assets (Decree no. 27/94, dated July 15)	<p>These regulations establish the rights and protection of resources that have archaeological and historical value. It defines cultural heritage as including both physical and non-physical assets relevant to the definition and development of the culture of the Mozambican people.</p> <p>Article 20 stipulates that any public body or private person who discovers places, buildings, or objects susceptible to registration as cultural property must immediately notify, in writing, the State body responsible for the protection of the cultural heritage and the nearest local authority (District administration or Municipal Council) within 48 hours.</p> <p>Article 21 prohibits an excavation in Mozambique with the aim of making archaeological or historical investigations without authorization from the State body responsible for the protection of cultural heritage, which will have the right to supervise the operations.</p>

Reference	Citation
Regulation on the Management of Immovable Cultural Heritage (Decree 55/2016, dated November 28)	Establishes the legal regime for the management of the different categories of immovable cultural heritage, namely, sets of sites or sites, which for their historical, archaeological, and architectural value are assets of the cultural heritage of Mozambique. This Regulation shall apply to all immovable cultural assets existing throughout Mozambican territory.

3.2. Project EIA Requirements

A number of mitigation and management measures were identified in the Environmental Impact Assessment (EIA) with the objective of avoiding or minimizing Project impacts to cultural heritage, see Table 3-2.

The Project has received an EIA Approval Letter from the Ministry for the Coordination of Environmental Affairs (MICOA)³ in June 2014, outlining mitigation and management measures beyond those detailed in the EIA chapters and the appended Tabulated ESMP (ref.: Project EIA Report, Annex D). The Project also requested clarification on some of the measures relating to cultural heritage, which were issued in a letter from MITADER. This letter provided revised text to supersede the specific conditions in the EIA Approval Letter. This letter forms an addendum to the EIA Approval Letter.

Table 3-2: EIA Requirements

Reference	Item
EIA - 13.8.1	Adopt a participatory approach with communities directly impacted by Project activities to agree how archaeological and cultural heritage sites will be identified, sites such as burial grounds or areas with intangible but traditional significance are appropriately blessed before physical displacement, and chance finds communicated to traditional and appointed village leadership and religious leaders to respect sociocultural and faith-based traditions.
EIA - 13.8.1	The Project will develop a Chance Finds Procedure to define the processes aligned with relevant national laws and regulations, local customs and traditional norms that must be followed to ensure appropriate treatment of a chance find, and to minimize disruption to construction activities including: <ul style="list-style-type: none"> • Developing training and awareness material to educate Project staff and contractors in the identification of archaeological material. • Developing procedures for contractors to report chance finds to the Project.
EIA - 13.8.1	Undertake a detailed archaeological rescue investigation of Ngodje 1 (site 15) to determine the future archaeological management of the site. This should include the development of a 50 m-perimeter fence around the site, given its high archaeological significance.
EIA - 13.8.1	The Project will have an experienced archaeologist present for the duration of the construction period to advise on and monitor construction activities, to avoid damage to cultural sites and undertake training for all contractors regarding implementation of the Chance Finds Procedure

³ MICOA has since been restructured and replaced by the Ministry of Land, Environment and Rural Development (MITADER).



Reference	Item
EIA - 13.8.1	Create an awareness program for Project staff regarding tangible and intangible cultural heritage, to raise awareness of how to interact with different cultural environments within the Project context, thereby reducing the probability of conflict and cultural heritage destruction
EIA - 13.8.1	The Project will investigate methods for commemorating any artefacts or sites identified, including erecting and maintaining plaques with information on the sites.
LNG EIA Approval Letter (June 2014) Section 10, No 32	Permanent archaeological monitoring during earth movement activities (bush clearing, excavation, ground levelling, dredging, removal of submerged or buried objects) in affected areas, either in land or offshore. The monitoring must be implemented by a licensed archaeologist
LNG EIA Approval Letter (June 2014) Section 10, No 32	Undertaking awareness sessions to employees for the safeguard and enhancement of architectonic and archaeological vestiges, sacred places, and other items of Cultural Heritage, whose integrity may be under risk due to project activities
LNG EIA Approval Letter Addendum (May 2015) Topic #5: Archaeology: Section 10, No. 31	Develop maps illustrating archaeological findings in areas to be affected area by the project and make these available to relevant institution.
LNG EIA Approval Letter Addendum (May 2015) Topic #5: Archaeology: Section 10, No. 31	Meet with the National Directorate of Archaeological Heritage (Ministry of Tourism and Culture) to discuss procedures and shall maintain a permanent dialog.
LNG EIA Approval Letter (June 2014) Section 10, No 41	Preserve sacred places and predominant medicinal species in the project area

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3.3. International Guidelines and Standards

The UNESCO Convention on the Protection of the Underwater Cultural Heritage (2001) has not been ratified in Mozambique. However, the Project will seek to align with the basic principles and requirements of the Convention as appropriate for the management and protection of marine cultural heritage in accordance with best international practice.

3.4. Local Considerations

Mozambique is a large country comprised of a diverse cultural heritage. Whilst there are limited regulations that exist for cultural heritage protection and management within this country, the Project will consider non-regulatory aspects of local customs, practices, beliefs, and considerations when dealing with any identified cultural heritage properties or sites. The Project will engage communities for their input and advice on the identification of and how to manage cultural heritage. The learnings from these engagements will then be incorporated into how properties and sites are investigated, assessed, managed, salvaged, and communicated.

The key institutes with a role in cultural heritage management are:

- Ministry of Culture and Tourism (Ministério da Cultura e Turismo, or MICULTUR), specifically the National Directorate of Cultural Heritage (Direcção Nacional de Património Cultural, or DNPC)
- Ministry of Land, Environment and Rural Development (Ministério da Terra Ambiente e Desenvolvimento Rural, or MITADER)
- District Government
- Mozambique Historical Archives (Arquivo Histórico de Moçambique)
- Maritime Conservation Centre (Centro de Conservação Marítima or CCM)
- Department of Archaeology and Anthropology at Universidade Eduardo Mondlane (UEM)

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4. MANAGEMENT

EMML's responsibilities for the management of Cultural Heritage sites and features are associated with Project's activities.

The Project's activities, in particular those that alter the land surface or restrict access to areas, have the potential to cause direct impacts to both onshore and offshore cultural heritage. This applies to both onshore and offshore environments where physical disturbance of rock, soil, sediment, or surface features that result from Project activities, including (but not limited to):

- Vegetation removal
- Grading
- Excavation
- Cut and fill operations
- Dredging
- Trenching
- Road construction
- Use of heavy vehicles
- Soil boring
- Pile or pier driving
- Drilling of wells
- Installation of subsea pipelines and other offshore infrastructure

The Project's activities can also have the potential to cause indirect impacts to cultural heritage, including:

- Loss or limitation of community access to cultural heritage sites through installation of perimeter fencing or the creation of safety buffer and/or marine exclusion zones
- A change to the heritage item through exposure to new ways of living, technology, and/or Project-related influx of people
- Changes in livelihood practices resulting from impacts to ecosystem services

4.1. Assessing Cultural Heritage Resource Significance

The Project has adopted the same criteria utilized by AMA1 (Area 1) in assessing the significance of tangible cultural heritage resources as part of previous cultural heritage baseline studies and investigations in the Project Area as shown in Table 4-1. The criteria combine the following:

- Definitions of cultural heritage resource type in statutes and regulations established under Mozambique cultural heritage laws
- IFC PS 8 cultural resource categories of replicable, non-replicable, and critical cultural heritage
- Assessment of the importance of a resource to scientific, historical, or cultural significance to local, national, and international cultural heritage stakeholders

Table 4-1: Cultural Heritage Resource Significance Criteria

Significance	Criteria
Low	<p>Site is not protected under local, national, or international laws or treaties; site has limited or no cultural or scientific value to local, national, or international stakeholders; and/or site has been substantially impacted and has lost all or most of its scientific or cultural value.</p> <p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Materials are found on the surface or in disturbed soil (i.e., no evident stratification); and • Material is common in the region (and may have already been characterized by a previous survey); and • The variety of artefacts is limited and the number of artefacts is small; or, • A location used by the community but considered of minor importance. <p><i>Examples: Pottery; fauna bones; obsidian; shell materials; mid-late 20th century house sites or trash dumps; abandoned single-use ritual or medicinal sites; previously disturbed small archaeological sites; small modern sites used by families or community members for social, non-ritual events; demolished or ruined historic (pre-1920) buildings/structures.</i></p>
Medium	<p>Resources that qualify as Listed Assets under the Law for Protection of Cultural Assets (Law no. 10/88); resource can be moved to another location without substantial loss of cultural value or replaced by a similar resource; resource is of a type that is common in the surrounding region; resource has cultural value to local stakeholders but limited value to national or international stakeholders; resource has limited scientific value or similar information can be obtained at numerous other resources; and/or meets IFC PS 8 criteria for replicable cultural heritage.</p> <p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Materials are found on the surface (no evident stratification); and • Comprise at least one of the following characteristics: • Material that is rare in the region and that was previously characterized (e.g., cores, polished stone axe/adzes); • A limited variety but a large number of artefacts; or, • A location used by the community but considered of moderate importance. <p><i>Examples: Small, surface scatters of archaeological artefacts; stone axes or cutting tools; a location used by the community for medicinal treatment, community gathering or to offer gifts to spirits; family shrines; impacted or heavily modified historic buildings; isolated graves; offshore debris fields.</i></p>



Significance	Criteria
High	<p>Resource is specifically or generically protected by local or national laws but laws allow for mitigated impacts; resources that qualify as Listed Assets and/or Inalienable Property of the State under the Law for Protection of Cultural Assets (Law no. 10/88); resource can be moved or replaced, or data and artefacts recovered in consultation with stakeholders; resource has considerable cultural value for local and/or national stakeholders; resource has substantial scientific value but similar information can be obtained at a limited number of other resources; and/or meets IFC PS 8 criteria non-replicable cultural heritage.</p> <p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Materials are found beneath the surface (below the topsoil); and • Material is rare in the region and has not been characterized previously; and • The variety of artefacts is extensive with a large number of artefacts; or, • A location used by the community but considered of high importance. <p><i>Examples: Small to medium sized, complex archaeological sites with intact, surface or subsurface features (mounds, pits, burials, etc.); iron smelting furnace; A location where ancestral spirits are housed or important sacrifices are made; small rock art sites; multi-family or village cemeteries; sacred groves or sites used by a community; intact historic buildings; FRELIMO base site or battlefield site; small shipwreck sites; shipwreck sites less than 100 years old; small to medium sized nearshore archaeological sites.</i></p>
Very High	<p>Resource is protected by local, national and international laws or treaties; resource cannot be transferred or replaced without major loss of cultural value; Legal status specifically prohibits direct impacts or encroachment on resource and/or protection zone; resource has substantial value to local, national, and international stakeholders; and / or resource has exceptional scientific value and similar types of resources are rare or non-existent; and / or meets the IFC PS 8 criteria for critical cultural heritage. Its modification or alteration is only possible with the authorization of the National Council of Cultural Heritage.</p> <p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Materials are found beneath the surface (below the topsoil); and • Material is rare in the region and has not been characterized previously; and • The variety of artefacts is limited with a relatively few number of artefacts; or, • A location used by the community that is considered of very high importance. <p><i>Examples: Regional pilgrimage sites; multi-community or regional cemeteries or sacred sites; Large, complex archaeological sites spanning various periods, on land and near the coast; Districts consisting of multiple intact historical buildings erected before 19205 (historic districts); Large rock art sites; Sites attributable to modern human hominids (human ancestors); Large intact wrecks; shipwreck sites over 100 years old.</i></p>

4.2. Community Consultation

Community consultation is an important means of identifying cultural heritage, documenting its presence and significance, assessing potential impacts and exploring mitigation options. EMMML has the primary ownership of relationships with stakeholder communities, but, Contractor is still responsible to engage and consult communities as it relates to the execution

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of its scope of work. Contractor is therefore expected to engage, with EMMML's participation, communities that are associated with lands that it needs to execute its scope in order to:

- Notify the community of how cultural heritage will be managed, the proposed treatment / management options or procedures for management of cultural heritage finds and to seek community support with this management
- Seek information from communities on known artefacts or sites of cultural heritage interest, including cemeteries, graves, known wrecks, spiritual and/or sacred sites, etc.
- Understand the background, nature, significance, importance, sensitivities and expectations on cultural heritage properties, artefacts, sites of interest, and family connections
- Gather guidance on ritual requirements, if any, that need to be followed for the removal or relocation of cultural heritage artefacts, sacred sites or graves
- Discuss the need to have community representatives involved in cultural heritage management and select appropriate community representatives

Community consultation will also be used to provide stakeholders access to submit grievances that could result from Project activities in relation of loss of cultural heritage.

4.3. Consultation with Relevant Authorities

EMML shall engage with all relevant governmental agencies as relates to the management of cultural heritage properties e.g. MICULTUR, DNPC, and CCM. These engagements are necessary to gain alignment on the procedures and processes detailed in this Plan. In addition, EMMML needs to establish communication procedures between the Project and government agencies responsible for regulating and managing cultural heritage related activities, including:

- Clearly defining which ministries or governmental bodies have regulatory authority over different types of cultural heritage and cultural heritage activities
- Identifying points of contact within each ministry or governmental body
- Establishing clearly defined roles and responsibilities for external consultations between the Project and the government and internal government consultation and communication

Contractor will support EMMML engagements with relevant authorities by providing any forms, reports and any other documents as requested and making available any further assistance as may be requested from time to time.

4.4. Support Facilities

Contractor shall provide an appropriate repository for movable cultural heritage resources collected as a result of its activities which are compliant with Appendix A in this Plan. Contractor will provide a short-term facility which can be used to assess, catalogue, conserve, and store movable cultural heritage resources recovered from the Project area. At a date and time mutually agreeable between EMMML and Contractor, Contractor shall hand over all conserved resources following the requirements of Appendix C.

4.5. Cultural Heritage Investigation

This Plan considers two types of cultural heritage: tangible and intangible. Potential examples of tangible and intangible cultural heritage items that may be present at the Project site include those in Table 4-2.

Table 4-2: Tangible and Intangible Cultural Heritage Examples

Tangible	Archaeological sites including locations in the landscape that present evidence of past human activity (structures, stone tools, shell middens, ceramic scatters, grave/cemeteries ⁽²⁾ , rock art, shipwrecks)
	Cultural sites including human made structures (churches/mosques, graves/cemeteries) or natural landscape features which have significance to local communities and may embody cultural values as part of a living cultural tradition (sacred bushes/trees/groves, sacred water bodies, sacred landforms).
Intangible	Customary traditions and traditional knowledge, rites and folklore, local languages, expression through music, dance, arts and crafts, oral history, and traditional livelihood practices.
Notes:	
(1) Mozambican legislation states that archaeological sites over 100 years old qualify for National Monument status and may be subject to different mitigation activities than sites less than 100 years old. The Mozambican legislation also considers immovable cultural assets, all monuments, archaeological elements, buildings, and structures erected before the year of 1920.	
(2) Graves that are more than 100 years old are considered to be archaeological sites.	

Based on previous surveys conducted within the Project area, the types of tangible heritage that may be directly impacted by Project activities fall into two main categories; archaeological sites and cultural sites.

4.6. Cultural Heritage Survey

In 2011, an initial Cultural Heritage Survey was undertaken for the entirety of the Project-required footprint and vicinity to identify all potential cultural heritage properties and sites as well as to reconfirm customary and traditional practices.

This Cultural Heritage Survey was conducted as part of the site's Environmental Impact Assessment (EIA) process and as part of a community or household awareness consultation program carried out jointly by the Project's Environmental and Community Relations Teams.

The 2011 Cultural Heritage Survey provides guidance for the sites identified. This guidance and associated commitments were contained within the EIA and provide an initial LNG Industrial Park surface level assessment to be used by the Project's Contractors to establish mitigation strategies (avoid/reduce/mitigate) for identified sites. The Project Contractors may need to develop updated management plans once more detailed assessments of the identified sites are performed.

The objectives of the 2011 Cultural Heritage Survey were to:

- Conduct ground surveys to identify and map cultural heritage sites that can be seen on the ground, with brush cutting and clearing having taken place where practicable
- Estimate the mitigation and management measures for each cultural heritage site identified
- Adopt a participatory approach with communities directly impacted by Project activities to agree how archaeological and cultural heritage sites will be identified, sites such as burial grounds or areas with intangible but traditional significance are appropriately blessed before physical displacement, and chance finds communicated to traditional and appointed village leadership and religious leaders to respect sociocultural and faith-based traditions

The 2011 Cultural Heritage Survey included:

- A list of potential cultural heritage properties, sites and important customary / traditional practices
- An understanding of each identified property, site or practice
- GPS coordinates for the identified cultural heritage properties and sites
- An indication of the identified constraints / sensitivities and how potentially to avoid impacting the property/heritage location

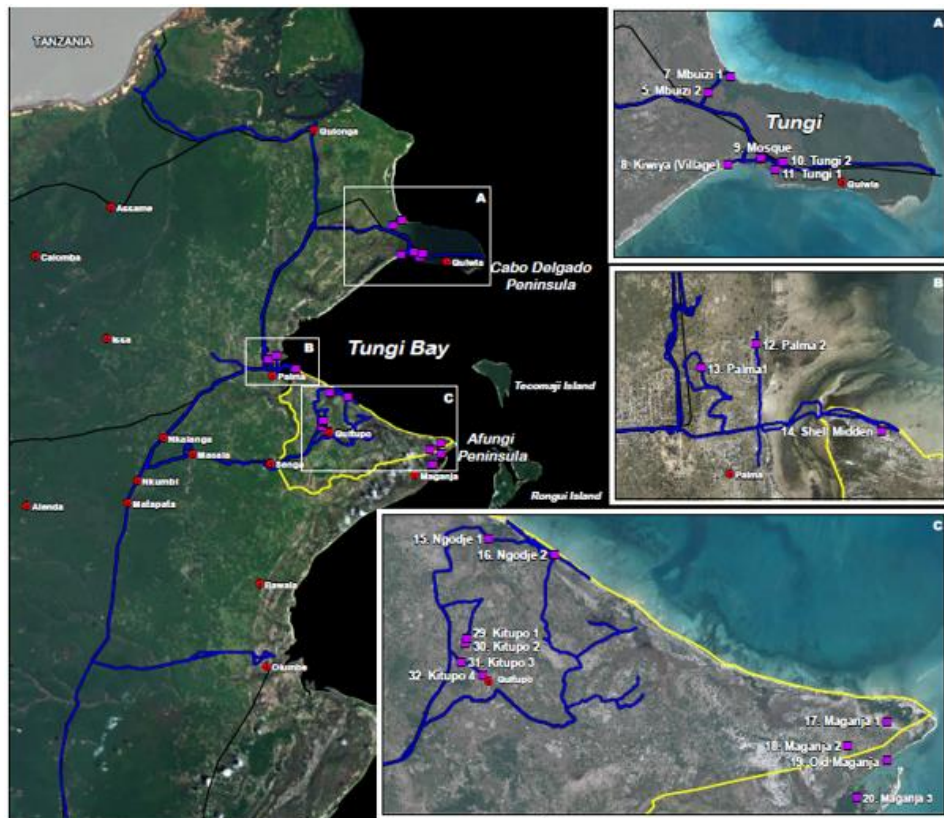
The 2011 Cultural Heritage Survey (in the framework of the EIA development) identified nine assets within the LNG Project Site and Maganja. Most of these sites have been affected by extensive cultivation, and those closer to the coast have been influenced by sea erosion. Among the collected finds were beads, shells (notable for their quantity and diversity), fish bones, and potsherds.

Table 4-3: Summary of Archaeological Assets within the Project Site Identified in the Cultural Heritage Survey of 2011

Asset Number	Estimated Asset Date
14. Shell Midden (E04)	Late Iron Age
15. Ngodje 1 (E12)	Late Iron Age
16. Ngodje 2 (E1425)	Late Iron Age
29. Kitupo 1 (E29)	Late Iron Age
32. Kitupo 4 (E32)	Late Iron Age
30. Kitupo 2 (E30)	Late Iron Age
31. Kitupo 3 (E31)	Early and Late Iron Age
17. Maganja 1 (E2)	Early and Late Iron Age
18. Maganja 2 (E3)	Late Iron Age



Figure 4-1: Map of the Project Area Archaeological Sites Recorded during the Cultural Heritage Survey (2011)



Of the nine identified sites, site 15 has been recommended for further mitigation. The other eight sites were assessed during the Survey and there is no further requirement to mitigate these sites. For site 15, the Survey recommended that:

- If possible, preservation in situ by fencing off and area 50m around the asset
- If preservation in situ is not possible, the site should use the evidences of the detailed archeological survey recommended in the general mitigation measures of EIA to evaluate, collection/relocation of findings

Prior to the clearing of the site or disturbance of the ground, Contractor is required to conduct a pre-construction cultural heritage survey in an attempt to identify cultural heritage sites. Any new sites identified during this preconstruction survey will be assessed for its significance by Contractor's Archaeologist and/or appropriately trained personnel. These sites will be managed following Project Cultural Heritage Management Plan archaeological salvage procedures.

The basis of the management for all identified cultural property and heritage will align with the measures outlined in Appendix A.

4.7. Landowner Agreement for Management Approach

For the LNG Industrial Park DUAT, a site clearance authorization has been achieved through the Environmental Impact Assessment (EIA) as well as the Resettlement planning scopes. Any sites outside of the DUAT, where applicable and possible, EMMML and Contractor will obtain a site clearance authorization from the affected stakeholders.

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For new finds of high significance, the findings will be presented to EMMML for review and a joint assessment with Contractor's Archaeologist and EMMML will determine the appropriate mitigation and management approach.

4.8. EMMML Role

EMMML's SSHE Department will provide review and direction (as needed) to assist Contractor with their assessment of the sites identified during the previous Cultural Heritage Survey and Resettlement planning exercises. Site 15 of the nine sites identified in the 2011 Cultural Heritage Survey has been identified as needing to be excavated prior to construction.

Undertake a detailed archaeological rescue investigation of Ngodje 1 (site 15) to determine the future archaeological management of the site. This should include the development of a 50m-perimeter fence around the site, given its high archaeological significance.

EMMML's Socioeconomic Team will engage with the landowners previously identified as associated with this site and keep them informed of the findings from the archaeological excavations. Contractor will assist with these engagements as required.

EMMML's Socioeconomic Team will assist as required, with the following tasks during Contractor pre-construction surveys, and, if there are Chance Finds made during the construction activities in particular for sites located off of the LNG Park DUAT:

- Identify communities and landowners who may have cultural heritage ties to the survey area
- Assist Contractor to notify identified landowners of the objectives of the Pre-construction or Chance Find surveys
- Request local involvement in interviews regarding known cultural heritage sites, explaining that such interviews will involve:
 - Identifying and documenting known cultural heritage sites that exist within the Project area
 - Identifying and documenting mutually agreeable management measures for each cultural heritage site recorded.

4.9. Contractor Pre-construction Cultural Heritage Surveys

Unless agreed in writing by the EMMML, prior to undertaking work scope all Contractors shall conduct a preliminary desktop assessment of the entirety of their work sites to determine if cultural heritage sites may be located within them. This assessment will consider:

- Previously identified cultural heritage properties and sites; and,
- Through engagement with the former land users / owners of that area, an identification of other potential cultural items.

All engagements with former land users / owners will take place with the participation of EMMML personnel.

Based on the results of the preliminary desktop assessment, Contractor's Archaeologist will develop a work plan for a pre-construction cultural heritage survey of the site. This survey has been conducted in such a manner to reconfirm the location of known sites and attempt to identify any new tangible or intangible cultural heritage assets or locations. Surveys will take place prior to mobilization of personnel, materials, or equipment to ensure that Contractor is prepared to manage all previously known or newly identified cultural heritage sites. Contractor is responsible to ensure Contractor's Pre-construction Cultural Heritage Surveys are

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conducted prior to, or at least in conjunction with, other engineering surveys in order to ensure that any significant findings are considered, and potentially incorporated, in the final facility layout.

Contractor will utilize qualified personnel, approved by EMMML, to undertake surveys and record the results. The results of these surveys will be provided to EMMML as a Site Clearance Form(s) (see Appendix A) accompanied by raw data (field notes, photographs, measurements, etc.). Site Clearance Forms shall be provided by Contractor even if no cultural heritage sites have been identified as a means to document this finding. EMMML may at its discretion provide specialty discipline personnel to accompany Contractor's survey team.

Ground disturbance will not commence until Contractor's Pre-construction Cultural Heritage Surveys have been drafted, (reviewed & approved by EMMML) completed, the associated Site Clearance Form(s) and raw data have been submitted, and EMMML has given written approval to proceed.

4.9.1. Onshore

In the onshore environment, the pre-construction survey will take place by walking the entirety of the work site trying to identify the exact locations of known as well as any undiscovered cultural heritage resources within the site. The survey will be designed to collect sufficient data to develop a pre-construction archaeological / cultural heritage baseline of the work site.

If the survey identifies a cultural heritage resource(s) in the work site, Contractor's Archaeologist and/or team will document the resource(s) using the Project Site Clearance Form (see Appendix A). GPS coordinates delineating the boundaries of the site will be collected, digital photographs of the site and its immediate surroundings, any necessary measurements and field notes shall all be captured. Contractor's Archaeologist will assess the site significance using the cultural resource significance criteria described in Section 4.1 of this document.

The assessment of resource significance may require community involvement and / or attendance during the survey to:

- Assist in identification cultural heritage sites that exist within the work area or are important within the community and may be affected by the Project activities
- Understand cultural heritage issues / concerns and specific customs or requirements related to particular sites
- Assist in identification of mutually agreeable management measures for cultural heritage sites within the work area (e.g., identification of continued access to cultural heritage sites, or provide an alternative access route where Project will likely interfere with existing routes)

If the site is determined by Contractor's Archaeologist to be low significance or medium significance Contractor's Archaeologist will collect any additional information he/she deems necessary and the work site may be approved for clearance by EMMML typically with the following requirements:

- For areas within the RBLL DUAT, EMMML will verify that all associated Household Agreements have been signed and compensated and that clearance has been provided by the relevant Team.
- For areas outside of the RBLL DUAT, EMMML conduct final verification of the consent from local community representatives. The consultations conducted to obtain consent should be well documented by the EMMML and Contractor's Community Liaison Officers.

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- Contractor has executed the removal and/or relocation of any cultural sites and provided adequate documentation showing all actions undertaken and community approvals provided as part of these activities. This work will be monitored by EMMML and potentially monitored by representatives of the local community. Contractor is to ensure the removal is done in an appropriate and culturally acceptable manner.
- For archaeological sites, Contractor shall monitor all ground disturbing construction works within the work site in the event that previously undiscovered components of the site may still be present.
- Contractor may conduct limited surface collections of artefacts at low significance sites as part of site documentation if deemed necessary by Contractor's Archaeologist.
- If the resource is determined to be a resource of high to very high significance, Contractor's Archaeologist will implement the Project Cultural Heritage Salvage Protocol (see Appendix A).

4.9.2. Near-Shore

There are potentially two types of cultural heritage resources that need to be considered in the near-shore environment:

- Cultural sites consisting of spiritual beliefs and rituals associated with fishing and foraging activities from the local communities
- Archaeological sites consisting of items that have settled to the sea bed

Contractor is required to identify how they will affect and interface with any cultural sites associated with their work scope. Under "EMML's direction the Contractor and EMMML personnel will engage with the affected stakeholders to understand the impacts being created by Contractor's work scope and come to an agreement with the stakeholders on how best to manage these impacts.

Areas of the seabed which may be disturbed by Project activities (e.g., dredging), and/ or where subsea infrastructure is to be installed (e.g., pipelines, land reclamation, pier/ pile installation, etc.) may need be surveyed either through divers or through remote sensing technology, such as side scan sonar, sub-bottom profiler and/or multi-beam echo sounder. The pre-construction surveys will seek to identify potential underwater cultural heritage resources. Survey methods will be reviewed by Contractor's Archaeologist and approved by EMMML prior to commencing the survey. Pre-construction offshore remote sensing surveys will be conducted using internationally recognized survey standards (which must be approved by EMMML prior to commencement) to ensure they are fit-for-purpose for identifying offshore cultural heritage resources. Examples of internationally recognized survey standards include:

- English Heritage Marine Data Standards
- The United States Department of the Interior, Minerals Management Service Notice to Lessees and Operators of Federal Oil, Gas, and Sulphur Leases and Pipeline Right-of-Way Holders in the Outer Continental Shelf, Gulf of Mexico OCS Region: Archaeological Resource Surveys and Reports

Should potential cultural heritage resources (anomalies) be detected through the remote sensing efforts, Contractor's Archaeologist will evaluate the anomalies to determine if they are likely to represent underwater cultural resource or a natural feature. If Contractor's Archaeologist determines the anomaly likely represents a cultural heritage resource the anomaly will be investigated further by the use of divers or a ROV/AUV. The objective of these investigations will be to determine if the anomaly represents a cultural heritage resource and

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to collect sufficient data to evaluate the significance of the resource in order to develop plans to avoid, minimize, or mitigate potential Project impacts. Unless approved in writing, EMMML reserves the right of review of all Contractor investigations before proceeding with construction activities.

If the site is verified as an underwater resource, such as a shipwreck, then it will be assessed in terms of its significance. Although the Project's stated objective is avoidance over all other potential management activities, if the resource is determined to be low or medium significance Contractor's Archaeologist will collect all of the available data on the resource, complete the Site Clearance Form(s), provide all raw data, and propose to EMMML a clearance of the area for construction. EMMML will review all data provided and will approve / reject the recommendation as applicable. If the resource is determined to be a resource of high to very high significance, Contractor's Archaeologist will implement the Project Cultural Heritage Salvage Protocol (see Appendix A).

4.10. Pre-construction Cultural Heritage Mitigations

EMMML's preferred management approach for cultural heritage resources is avoidance. Cultural heritage resources can be avoided through a number of techniques, including:

- Redesigning or relocating of Project components to avoid resources;
- Reduction in horizontal or vertical extent of work areas to minimize impacts by avoiding portions of resources; and
- Engineering controls during construction to avoid and/or minimize impacts, such as the use of mats, temporarily burying sites, or directional drilling underneath resources.

For those cultural heritage resources that cannot be avoided and are determined to be of high to very high significance, appropriate mitigation measures will be developed by Contractor's Archaeologist and consulting parties in a resource treatment plan with final approval by EMMML.

4.11. Chance Finds

Cultural heritage resources that are discovered as Chance Finds during construction activities will be managed compliant with Appendix B.

4.12. Site Clearance

Once Contractor has identified, assessed, and documented its findings, Contractor shall submit its findings and proposed management/mitigation approach to EMMML for approval. In the situation that EMMML approves the documentation and proposed management/mitigation approach, Contractor's Archaeologist will proceed with its execution. Contractor will complete the documentation to demonstrate that it has adhered to the proposed plan and will submit an updated version to EMMML for final review and approval. At this time EMMML will authorize Contractor to release the location for ground disturbing activities.

In the situation that EMMML does not approve the documentation and proposed management/mitigation approach, Contractor's Archaeologist will need to rectify the proposed approach to EMMML's comments. Contractor will not be able to access this location until resolution is achieved.

4.13. Analysis and Curation

Resources and artefacts collected during Contractor's investigations will be managed as described in Appendix A and Appendix C. Contractor's Archaeologist will be responsible for the safe handling and transport of the artefacts to Contractor's temporary facility, as well as

the costs for the preparation of materials for long term storage as appropriate (appropriate processing, cleaning, packaging, labelling, and preventive conservation when appropriate, and cataloguing in an inventory/catalogue). The artefacts shall be maintained together with the investigation records generated during the evaluation and/or salvage excavations.

Contractor's Archaeologist will ensure that the results of all Project sponsored archaeological investigations will be published in a final report technical report.

4.14. Cultural Heritage Resource Management Planning

Contractor will have the important lead on determining the sensitivity of each identified cultural heritage resource. This information will be reviewed and endorsed by EMML. For cultural heritage resources classified as High and Very High Significance, Contractor will need to develop specific Management Plan(s) for these resources that details how Contractor will manage each specific find.

These site specific Management Plan(s) shall incorporate management measures deemed required by Contractor's Archaeologist for heritage a specific site aligned with international best practices. The requirements for implementing management measures are presented in Appendix A. These site specific Management Plans shall be approved by EMML.

Contractor shall ensure that all sub-contractors performing Project work scope adhere to this Project Plan as well as to Contractor's Site Specific Plan.

4.15. Tracking

The objective of inspection and verification is to provide assurance that the Plan is being implemented appropriately and effectively. Contractor will implement a formal tracking system that will identify all finds, any respective corrective actions required for each find, the assignment of actions, the designation of action timings/completion dates, and an indication of the status of the actions. This tracking system will ensure an aligned and coordinated approach between EMML and Contractors. Unless approved in writing, Contractor will submit to EMML a report of finds on the 15th of every month.

Table 4-4: Management and Monitoring

Source of Impact	Potential Impact and Relevant Management Plan Objective	Mitigation and Management (Design Feature/Specific Measure)	Monitoring	Monitoring Frequency	Responsibility
On-ground works and movement of people and vehicles within the direct disturbance areas	Damage to, or destruction of, cultural heritage sites. Disconnection of communities from cultural heritage sites and loss of sites from oral tradition.	Conduct Cultural Heritage Survey by systematically recording and mapping cultural heritage sites in all areas designated for disturbance during construction, including any areas that were characterized but not surveyed for the EIA.	DUAT area complete—reference EIA	Before Construction	EMML
		Conduct further research of appropriate archives as part of site pre-construction surveys, where relevant and required. Reference Site 15 from the Cultural Heritage Survey.	N/A	Before Construction	Contractor
		Develop and share with the District authority the Chance Finds Procedure for disturbance activities.	N/A	Before Construction	EMML



Source of Impact	Potential Impact and Relevant Management Plan Objective	Mitigation and Management (Design Feature/Specific Measure)	Monitoring	Monitoring Frequency	Responsibility
		<p>Prepare a Site Specific Cultural Heritage Management Plan for each potential disturbance area which provides:</p> <p>Maps of disturbance areas showing locations of cultural heritage sites and buffers around those sites requiring avoidance.</p> <p>The specific measures required for each known cultural heritage site, such as, avoidance, salvage, community ritual, documentation, etc. as specified by cultural heritage specialist.</p> <p>Ensure that significant cultural heritage findings are interpreted, documented and reported to the District authority.</p>	Verification	Ongoing	Contractor
		<p>Consult with community representatives on matters concerning the management of cultural heritage sites to be impacted by activities. Develop protocols in consultation with the District authority and ensure these are included in Contractor's Site Specific Cultural Heritage Management Plans.</p>	Verification	As required	EMML
		<p>Implement cultural awareness before activities commence to induct personnel in:</p> <p>Importance to communities of oral traditions and associated sites</p> <p>Types of cultural heritage sites that exist within the disturbance areas and that trigger the implementation of the Chance Finds Procedure, which includes measures for dealing with skeletal material.</p> <p>Locations of known cultural heritage sites and requirement to avoid all sites not authorized for disturbance.</p> <p>Process for clearing and salvaging cultural heritage sites before undertaking activities</p> <p>Procedures for responding to chance finds of cultural heritage sites, including skeletal material.</p>	N/A	Before Construction	Contractor
		<p>Establish a procedure for salvage in consultation with the District authority and ensure this procedure is detailed in Contractor's Site Specific Cultural Heritage Management Plans. The procedure is to cover the salvage of known sites prior to the commencement of works where required and the salvage of unknown sites, where required as part of the Cultural Heritage Chance Finds Procedure (Appendix B)</p>	N/A	Once off	EMML



Source of Impact	Potential Impact and Relevant Management Plan Objective	Mitigation and Management (Design Feature/Specific Measure)	Monitoring	Monitoring Frequency	Responsibility
		Engage appropriately-qualified archaeologists and cultural heritage specialists to coordinate and direct salvage of known sites prior to disturbance – in consultation with the District authority, as required – and to make sure that any previously unknown sites are treated appropriately and according to measures stipulated in the Cultural Heritage Investigation and Salvage Procedure (Appendix A) and Chance Find Procedure (Appendix B) of the Contractor's Site Specific Cultural Heritage Management Plan.	Verification	As required	Contractor
		Identify on site plans and create buffer zones, where necessary, to allow for the management of cultural heritage locations.	N/A	Before Construction	Contractor
		Salvage known significant cultural heritage sites, where appropriate, at direction of EMMML	N/A	Once off	Contractor
		Implement the Cultural Heritage Chance Find Procedure (Appendix B) for the appropriate treatment of any potential cultural or archaeological sites identified during salvage work (for skeletal material) and construction activities.	Verification	As required	Contractor
		With support of EMMML, consult relevant community representatives and cultural heritage specialists to identify oral tradition sites during the Cultural Heritage Surveys and before obtaining community consent for the damage or destruction of cultural heritage sites.	Verification	Ongoing	Contractor

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5. ORGANIZATION, ROLES AND RESPONSIBILITIES

Implementation of this Plan requires coordinated efforts between EMMML and Contractors' personnel.

Contractor shall ensure sufficient resources are allocated on an ongoing basis to achieve effective implementation of this Plan and any Site Specific Management Plan(s) that Contractor must develop to manage High or Very High Significance cultural heritage finds. Contractor's Site Specific Management Plan(s) shall describe the resources allocated to and responsible for the execution of each task and requirement contained therein, and shall describe how roles and responsibilities are communicated to relevant personnel.

Contractor is required to have a Mozambican-licensed Archaeologist on site during the activities noted at the beginning of Section 3 of this Plan. Contractor's Archaeologist shall, at a minimum, be consulted during the Pre-construction Cultural Heritage Surveys but shall lead the assessment, excavation and reporting of any cultural heritage sites identified upon approval by EMMML.

5.1. EMMML Roles and Responsibilities

The implementation of the provisions and procedures outlined in this plan is ultimately the responsibility of EMMML. EMMML's onsite Environmental Lead is responsible for managing implementation of the Plan. The Environmental Lead, or designee, will:

- Ensure that Contractor has provided a Mozambican Licensed Archaeologist who will have to hold the archaeological prospecting and excavation license of the Project Area. This Licensed Archaeologist will be responsible for monitoring soil and seabed disturbance activities during the construction phase in accordance with the conditions set out in the EIA Letter of Approval. The Licensed Archaeologist will provide support to EMMML's Safety, Health, and Environment (SHE) Manager and will be responsible for the day-to-day implementation of this Plan and preparation of reports to implement the Plan
- Coordinate and facilitate communication between the EMMML and Contractor's personnel
- Review, endorse and approve all reports, Site Specific Management Plans, training programs and other documents generated as a result of implementing the Plan
- Ensure the Plan activities are aligned with Project health and safety standards and procedures and all other contractual requirements
- Conduct regular audits/reviews of Plan implementation and reporting
- Participate in and/or facilitate consultations with cultural heritage stakeholders including government agencies/regulators (e.g., MICULTUR, DNPC, and CCM), community leaders, and other cultural heritage stakeholders

When necessary, the Environmental Lead and Contractor's Licensed Archaeologist will be supported by the EMMML and Contractor's Community Liaison Officers and other staff.

EMMML shall ensure sufficient resources are allocated on an ongoing basis to achieve effective implementation of EMMML's responsibilities in this Plan, including but not limited to:

- Community engagements and relationship building
- Governmental agency interfaces
- Review and approval of Contractor's Site Clearance Forms
- Review and approval of Contractor's Site Specific Management Plans

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- Transfer of artefacts from Contractor to EMMML
- EMMML will retain the support of additional cultural heritage technical specialists to assist with documents, evaluations, and the development of management/mitigation plans for specific finds.

EMMML will undertake inspections and assessments of its and Contractors' activities to ensure conformance with the requirements of this Plan. This inspection and assessment will include inspection of Contractor's documentation to verify the required measures or procedures have been implemented.

5.2. Contractor Roles and Responsibilities

Contractor(s) are required to implement field-based inspection programs that will demonstrate implementation of, and in some instances the effectiveness of, the requirements found in this Plan. Contractor is also required to conduct monitoring of their sub-contractors.

Contractor is responsible for supporting the implementation of the Plan and following its provisions. As part of these requirements, Contractor shall:

- Provide cultural heritage awareness training to staff with the potential to encounter tangible or intangible cultural heritage resources during their day-to-day activities. This training shall be provided as part of general site induction training.
- Follow instructions provided by EMMML's Environmental Lead and/or Contractor's Licensed Archaeologist to avoid and/or protect known cultural heritage resources
- Provide specific cultural heritage training for those non-cultural heritage specialist designated as monitors or 'spotters' who shall observe activities with the objective of identifying any artefacts or cultural heritage sites
- Utilize cultural heritage monitors or "spotters" to observe construction activities
- Identify and report potential chance finds to Contractor's Licensed Archaeologist;
- Regularly communicate planned construction activities to EMMML's Environmental Lead to allow for cultural heritage monitoring activities

5.2.1. Contractor's Licensed Archaeologist

Contractor's licensed Archaeologist will be responsible for the following:

- Be responsible for all prospecting and excavation operations
- Provide full support to the competent authorities or their representatives for the supervision of work, including the taking of notes, copies, photographs and films, drawings and other excavation registration data
- Submit to EMMML immediately after completing archaeological work a summary report of the results of the archaeological work carried out
- In the course of prospecting and excavation work, compile an up-to-date register of archaeological works carried out, recording all operations data, including inventorying all archaeological elements and monuments and their cataloguing, including their in situ design and photographs, design of the main elements and their photographs, description of details of inscriptions and other data preserving the scientific and historical value of the excavated material
- As a depository of assets discovered during prospecting or archaeological excavations, take responsibility for their conservation, ensuring that elements enclosed for many years



in the interior of the earth or water do not disintegrate or deteriorate when removed. The Archaeologist is also responsible for creating the conditions necessary for its preservation "in situ" or in adequate storage as the assessment plan dictates

- Present a final report, with the characteristics described in paragraph 12 of article 5 of Decree 27/94 of 20 July 1994
- Monitoring construction activities to avoid damage to known cultural heritage resources
- Monitoring construction activities to identify and evaluate finds per the provisions of Chance Finds Procedure (Appendix B)
- Delivering training to EMMML and Contractor personnel in the identification of finds and implementation of the Procedures appended to this Plan
- Documenting and evaluating the significance of finds and determining the appropriate Project response (e.g., avoidance, documentation and removal, relocation, salvage excavation, consultation with cultural heritage stakeholders)
- Developing cultural heritage treatment plans to avoid, minimize, or mitigate Project impacts to cultural heritage resources
- Directing cultural heritage investigation and documentation activities including pre-construction surveys, archaeological evaluations, and salvage excavations
- Drafting and finalizing technical reports detailing the results of cultural heritage investigations
- Coordinating monitoring activities with onshore and offshore Contractors staff
- Communicating and coordinating activities with Contractors' cultural heritage monitors
- Leading or participating in community consultations regarding cultural heritage management
- Coordinating with EMMML's Community Liaison Officers to engage local stakeholders during the assessment of cultural heritage resource significance and development of treatment or mitigation plans
- Tracking the progress of cultural heritage consultations and mitigations and providing regular reports to designated EMMML staff
- Providing information for and assisting in the maintenance of the Project's cultural heritage GIS database
- Documenting implementation of the Plan through daily, weekly, and monthly reports to be submitted to a designated EMMML representative
- Ensuring that all Plan activities comply with Project Health and Safety standards and procedures and all other contractual obligations
- Reviewing Contractor remote sensing and/or video recordings of ROV/AUV surveys to evaluate the significance of known or previously undiscovered cultural heritage resources
- Responding to requests for onshore and offshore chance finds support from Contractor and EMMML

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6. TRAINING, AWARENESS AND COMPETENCY

EMML and Contractor shall ensure that all personnel responsible for the execution of the tasks and requirements contained within this Plan as well as any Site Specific Management Plan(s) are competent and have received the necessary levels of education, training, and experience.

Contractor shall describe and document the training and awareness requirements necessary for its effective implementation.

EMML shall ensure that all EMML personnel responsible for the execution of EMML's tasks and requirements in the Project Cultural Heritage Management Plan are adequately trained. Contractor shall ensure that all Contractor and sub-contractor personnel responsible for Contractor's tasks and requirements in the Project Cultural Heritage Management Plan are adequately trained.

Contractor will develop cultural heritage awareness training materials, including training specific to the identification of chance finds and the implementation of this Plan. EMML will review and endorse all training materials. Two categories of training by Contractor shall be provided:

- Awareness training for all personnel with the potential to encounter tangible or intangible cultural heritage resources during their day-to-day activities. This training shall be provided as part of general site induction training. Examples of personnel who should receive this training include environmental and health and safety staff, construction plant operators and flaggers, and construction laborers. Training awareness materials shall be developed to:
 - Raise awareness of tangible and intangible cultural heritage, local customs, and traditional norms, including how to behave within different cultural environments.
 - Provide a basic understanding of known finds in the Work areas and explain cultural heritage find identification, stop work, and notification and reporting procedures as per the Chance Find Procedures.
- Specific cultural heritage training for those non-cultural heritage specialists designated as monitors or "spotters" who shall observe activities with the objective of identify any artefacts or cultural heritage sites.

Training shall be provided by competent personnel.

The goal of the training will be to develop a basic understanding of known sites in the areas of work and explain cultural heritage find identification, stop work, and reporting procedures as per the Chance Find Procedure. Training will also raise awareness of tangible and intangible cultural heritage, local customs, and traditional norms, including how to behave within different cultural environments.

7. PERFORMANCE INDICATORS

Contractors shall capture and report data relevant to understanding the Project's impact on Cultural Heritage. Key Performance Indicators (KPIs) should be able to demonstrate the Project's performance related to the management of these impacts. The Project has identified the following KPIs:

Table 7-1: Performance Indicators

Area	Performance Indicator
Cultural Awareness Training	<ul style="list-style-type: none"> • Number of cultural induction conducted. • Number of personnel trained on specific cultural heritage scope, i.e., "spotters"
Implementation of Pre-construction Surveys	<ul style="list-style-type: none"> • Number of Pre-Construction Surveys conducted • Number of Cultural Heritage Sites Identified • Number of Chance Finds avoided
Chance Finds	<ul style="list-style-type: none"> • Number of Chance Finds identified
Investigations and Salvages	<ul style="list-style-type: none"> • Number of investigations conducted • Number of salvages conducted • Number of artefacts recovered • Number of artefacts transferred to EMMML • Number of artefacts transferred to the Government
Grievances	<ul style="list-style-type: none"> • Number of community grievances recorded related to tangible and intangible cultural heritage. • Number of registered grievances closed.

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8. REPORTING AND NOTIFICATION

Contractors shall complete Site Clearance Forms for each cultural heritage site identified previously in EMMML's Cultural Heritage Survey or during Contractor's Pre-construction Surveys. The Form is provided in Appendix A. Location information from the Site Clearance Form will be captured in Contractor's GIS database.

Contractor's Archaeologist and/or trained personnel will determine the nature and significance of individual sites.

Contractors will develop maps illustrating archaeological findings in areas to be affected area by the project and which will be made available to relevant institution, which will be updated quarterly during the Project phase.

All documentation will be supplied to EMMML. A final report will be prepared once any archaeological salvage programs (including analyses) are complete. The final report will include maps illustrating archaeological findings in areas affected by the project and which will be made available to relevant institution.

Contractors will support EMMML in the development materials and reporting to support Project meetings with Government agencies to discuss procedures and ongoing engagement.

Contractor shall also notify EMMML immediately if any sites marked for preservation are disturbed.

8.1. Reporting of Contractor Cultural Heritage Surveys

Contractor shall report to EMMML the results of Contractor Pre-construction Surveys and integrate the results into its Site Specific Management Plan(s), including:

- Cultural Heritage assessments
- Recording and mapping of archaeological, historical, and oral traditional sites and how they have been included in the GIS mapping database
- If deemed a High or Very High Significance archaeological find, a discussion of further assessments that may be required
- If deemed a High or Very High Significance archaeological find, an engagement of necessary specialists
- Preparation of Site-Specific Management Plan(s) for all proposed disturbance areas in consultation with EMMML

Contractor's monthly Cultural Heritage report to EMMML will include a summary of:

- An update of the Key Performance Indicators
- Incidents of disturbance to known cultural heritage sites
- All cultural heritage sites identified, distinguishing between known and chance finds
- All Chance Finds, etc., as detailed below

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8.2. Reporting of Chance Finds

Contractor shall immediately notify EMMML as per Appendix 2 should any sites be discovered as a "Chance Find." Contractor shall follow-up this immediate report with the submittal of a completed Chance Find Report Form as provided in the Cultural Heritage Chance Finds Procedure. If Contractor conducts any analytical testing of a "Chance Find" site, Contractor shall amend the Chance Find Report with the findings once they are received.

All chance finds deemed by Contractor's trained personnel to be cultural heritage sites shall be included in Contractor's Monthly Cultural Heritage Report.

Contractor will provide any necessary data, documents and reports to enable EMMML to:

- Prepare monthly and quarterly reports summarizing the results of monitoring and evaluation of archaeological resources and cultural heritage and any treatment measures applied;
- Communicate the implementation of the Chance Find Procedure to MICULTUR, DNPC and CCM, as necessary;
- Provide affected stakeholders with information on the cultural heritage findings;
- Disseminate findings to the cultural heritage community (i.e., various institutes, museums, universities, and other interested parties) in a timeline agreed with the MICULTUR. These findings will be made available through materials developed with DNPC.
- In the case of chance finds EMMML will ensure that its findings will be handled in accordance with Decree 24/96 and communicated to the competent authorities.

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Appendices

Appendix A Cultural Heritage Investigation and Salvage Procedure

A1. Introduction

The purpose of this Cultural Heritage Investigation and Salvage Procedure is to define the steps, methods, and standards for the management and mitigation of potential impacts arising from the Rovuma LNG Phase 1 Project (Project) to cultural heritage sites and materials.

This Procedure applies to all Project Contractors and Subcontractors and at all worksites. It is to be applied to areas required for the Project, both on and off the LNG Park DUAT. The Procedure is to be implemented by the Project's EPC Contractor (Contractor) on all areas on the LNG Park DUAT allocated to it, areas within the Marine Concession, as well as to areas outside of the DUAT that the Contractor identifies as necessary for it to execute its scope.

This Cultural Heritage Investigation and Salvage Procedure includes the following:

- Methods for surveys and pre-construction management of cultural heritage sites.
- Cultural heritage salvage methods, which prescribe standards and procedures for archaeological salvage, (through surface collection and excavation) before and during construction.

This Cultural Heritage Investigation and Salvage Procedure should be read in conjunction with the Project's Cultural Heritage Management Plan as well as the Cultural Heritage Chance Finds Procedure.

A2. Cultural Heritage Salvage Procedure

A2.1. Introduction

This section defines the procedures, methods, and standards to be observed in the salvage of cultural heritage (archaeological) materials during the pre-construction and construction phases of the Project.

This Procedure applies to terrestrial as well as near-shore marine cultural heritage sites.

Archaeological salvage may be in the form of surface collection or excavation, or, marine salvage. Both of these will, under normal circumstances, consist of sample salvage of a site⁴, however, where deemed appropriate by EMLL or the District authority, a complete salvage may on some occasions be warranted.

Excavation salvage will follow established standard international archaeological procedures and will be supervised by Contractor's Archaeologist.

The decision to conduct salvage excavation shall rest with EMLL. Any and all material must be transferred to EMLL as per EMLL's procedure.

⁴ Samples will be collected to characterize the site. The number and location of samples will be determined by EMLL archaeologist and approved by the District competent authority.

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A2.2. Typical Project-Wide Archaeological Salvage Method

A2.2.1. Surface Collection Salvage

The location of cultural items collected during surface salvage will be systematically mapped in relation to other identified sites during salvage. Where the collection of surface artefacts is considered to be appropriate, the following method should be followed when completing the site clearance form:

- Accurate mapping of surface artefacts prior to collection. This should be done using GPS coordinates and include the location of individual artefacts (where overall density is < 1 per square meter) as well as the extent of the site and the location and size of all relevant topographical, environmental and associated cultural features. Where GPS co-ordinates are unable to be obtained (e.g., due to dense vegetation, poor satellite reception etc.) the site shall be marked on a topographic map.
- Where overall artefact density exceeds 1 per square meter, a sample count should be undertaken of a representative area (e.g., a 1 m x 1 m square) to determine an approximate surface artefact density.
- Artefacts are to be photographed in-situ to show archaeological context.
- Where there is a high density of artefact material, individual photos are unlikely to be feasible and after EMML's endorsement has been received, photos should be representative of the site and type of material present.

A2.2.2. Salvage Excavation

Excavation techniques shall be the same for 'test pits' and full-scale excavations, in the sense that excavation must follow a high degree of care and control irrespective of its size.

Archaeological salvage applies in one or both of the following situations:

- Where information is required to assess a site's or area's significance for purposes of site or landscape management
- In order to obtain archaeological materials at a threatened significant site prior to its disturbance.

The decision as to the size and location of an excavation is to be made by EMML and may follow vertical and/or horizontal excavation methods befitting the aims of that excavation.

All archaeological excavations are to follow standard international archaeological procedures that include:

- Excavations typically proceeding in <10 cm thick Excavation Units following sub-surface site stratigraphy.
- Excavated materials sorted under controlled conditions.
- Systematic mapping of the boundaries of each site.
- All excavated material is to be screened through 2.1 mm sieves.

Contractor will ensure that:

- Sediment samples are to be taken from each Excavation Unit.

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- Significant sites will be subject to basic sediment analysis including particle size analysis and consideration given to perform a radiocarbon-dating assessment, which typically necessitates one radiocarbon date for every approximately 20-25 cm depth where datable material is present.
- Significant finds, which may be charcoal for radiocarbon dating, special ceramic/lithic artefacts, or unusual finds are to be recorded in three dimensions and individually bagged.
- All excavated materials are to be sorted and catalogued in a report, including: taxonomic identification of faunal remains (vertebrate, shell); basic characterization of ceramics; basic characterization of beads, shell adzes, bone tools and other rare or unusual items; basic analysis of stone artefacts by raw material type; basic analysis of human skeletal remains.

See the Chance Finds Procedure for additional information on the excavation of human skeletal remains.

Contractor is to prepare a salvage site report for each site excavated, which will include completed recording tables that together with site descriptions, site maps, section drawings (including section drawings and XUs plotted over section drawings), general summary of results, and photographs will constitute the Final Report. Minor modifications to these tables may be made to suit local conditions and finds. This Final Report is to be submitted to EMMML for final approval.



Attachment 1 – Site Clearance Form

SITE CLEARANCE FORM

Site Code: _____ Site name: _____

Other site name(s): _____

Local Informant(s): _____

Recorded by: _____

People present: _____

Date: ____ / ____ / ____ (DD/MM/YYYY)

Site Typology:

- Oral Tradition/Cultural Site
- Archaeological Site

Archaeological investigation:

- Observation only
- Surface collection only
- Test pit dug
- Major excavation

Archaeological Site type:

- Open Shell Midden
- Rock-shelter
- Cave
- Stone Arrangement
- Shell Arrangement
- Isolated Shell
- Grinding Stone
- Isolated Stone/Ceramic
- Cultural Materials Scatter
- Quarry
- Rock-art
- Burial/Ossuary
- Garden
- Temporary Encampment
- Village
- Mound
- Ritual/Spirit/'Sacred' Site
- Fishing/Hunting Site
- Food Processing Site
- Tree
- Other: _____

Cultural materials/features present:

- Ochre
- Hearth/earth oven
- Charcoal/Ash
- 'European'/Asian Contact Materials
- Bottle Glass
- Metal Items
- Ceramic
- Stone Artefacts
- Quartz 1-10 11-50 50+
- Volcanic 1-10 11-50 50+
- Metamorphic 1-10 11-50 50+
- Sedimentary 1-10 11-50 50+
- Coral rag 1-10 11-50 50+
- Shell MNI: 1-10 11-50 50+
- Ceramics 1-10 11-50 50+
- Animal Bone 1-10 11-50 50+
- Human Bone
- Wooden Structures/Posts/Post-Holes
- Macrobotanical remains: _____
- Culturally Altered Tree
- Other: _____

Stratification:

- Surface Site
- Stratified/Buried Site
- Site Exposed by Disturbance
- Unknown



Human skeletal remains:

Skulls MNI: 1-10 11-50 50+
Mandibles MNI: 1-10 11-50 50+
Postcranials MNI: 1-10 11-50 50+

Shells:

Modified Shells: 1 2-5 5-10 11+

Vertebrate remains

Birds Reptiles Monkeys Rodents Fish
 Ungulates Bone implements Other: _____

Site Landscape

Site Vegetation	Ecotone	Hill Top	Hill Slope	Base of Hill	Cliff	Rocky Outcrop	Sinkhole	Waterhole	Spring	River/Creek	Freshwater Swamp	Mangrove	Saltwater Swamp	Plain/Savannah	Floodplain	Beach	Other
Vine-Thicket																	
Grassland																	
Secondary Forest																	
Primary Forest																	
Mangrove																	
Garden																	
Other																	

Surface sediment type at site:

Clay Silt Sand Loam Gravel
 Rock Freshwater Saltwater Other: _____

Ground surface visibility at site:

Bedrock: Exposed Not exposed
Type: Limestone Other: _____
 0% 1-25% 25-50% 50-75% 75-100%

Distance to nearest freshwater source:

Closest Permanent Water: _____ m
 Swamp River Creek Waterhole/Lake Other: _____
Closest Temporary Water: _____ m
 Swamp Creek Waterhole/Lake Other: _____



Cultural Site Type

A. Sacred sites:

- Ancestral settlement / ritual site
- Sacred stone site
- Spirit sacrificial site
- Earth spirit site
- Water spirit site
- Spirit ditch / channel
- Myth site

B. Ceremonial sites:

- Cult site
- Medicinal site
- Performance site
- Dance ground
- Divination site

C. Settlement sites:

- House
- Guardhouse
- Cemetery / grave
- Walkway
- Clan boundary

D. Economic sites:

- Foraging location
- Garden site
- Lime making

E. Archaeological sites:

- Archaeological site
- Surface artefact(s)
- Artefact(s) held by landowner(s)

F. Other sites:

- Other (describe):

Site area: _____ m²

Site length (max): _____ m **Site Width (max):** _____ m

Related information recorded:

- Photos: How many? _____
- Drawings: What? _____
- Audio: Who? _____

Site description:

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Additional notes/comments:

Site Condition:

- Destroyed
- Poor (0-20% intact)
- Fair (20-50% intact)
- Moderate (50-80% intact)
- Good (80-100% intact)

Possibility of destruction/damage:

(Could construction impact this site?)

- No
- Yes (please explain):

Substantial deposits present?:

- No
- Yes
- Unknown

Site Significance:

- Not significant
- Local significance
- Regional significance
- National significance
- International significance

Recommendations for further action:

Tick and describe any further action that is needed at this site and why:

- Further interviews with landowners required
- Further survey and / or detailed recording required
- Archaeological testing or excavation recommended
- Site cleared for impact, conditional consent form attached
- Other – specify

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Appendix B Cultural Heritage Chance Finds Procedure

B1. Purpose, Objectives and Scope

Construction of the infrastructure and facilities which comprise the Project has the potential to disturb or alter as yet unknown or unrecorded cultural and archaeological sites. These unknown sites, including objects containing spirits, skeletal remains, or archaeological artefacts, discovered during construction earth-moving activities or subsequent archaeological salvages are referred to as Chance Finds.

The Project has developed this Chance Finds Procedure to define the steps on how Chance Finds will be managed once they have been discovered. It is important that construction personnel be familiar with the possibility that they may discover previously unknown finds, and, once uncovered how to manage them.

The objectives of the Chance Finds Procedure are to:

- Define the steps which must be followed to manage the discovery of previously unknown sites, including the preservation and appropriate treatment of these finds, while minimizing any disruption to the construction schedule
- Enable compliance with all relevant national laws and regulations and other requirements.

This Procedure applies to all Project Contractors and Subcontractors and at all worksites. It is to be applied to areas required for the Project, both on and off the LNG Park DUAT. The Procedure is to be implemented by the Project's EPC Contractor (Contractor) on all areas on the LNG Park DUAT allocated to it, areas within the Marine Concession, as well as to areas outside of the DUAT that the Contractor identifies as necessary for it to execute its scope.

B2. Procedure

B2.1. Planning

B2.1.1. Consultation

EMML shall consult with all relevant parties, including the District authority, in order to agree to this Chance Finds Procedure.

B2.1.2. Laboratory and Other Support

EMML shall make arrangements for suitable laboratory and other necessary facilities at a District or National depository.

B2.1.3. Training and Awareness

Contractor shall develop and implement a Cultural Heritage Training and Awareness Package. The Cultural Heritage Training and Awareness Package will include basic training in the identification of archaeological materials relevant to the area, including human skeletal remains. Contractor shall deliver the Cultural Heritage Training and Awareness Package to all relevant Contractor, sub-contractor, and designated EMML personnel prior to their participation in works activity.

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B2.2. Implementation

B2.2.1. Monitoring

As required, EMMML and Contractor shall jointly conduct engagements with potentially affected communities prior to executing ground disturbance works. Besides providing an explanation of the work that will be undertaken, the community will be consulted on any cultural heritage sites potentially located within the footprint of the work scope.

During the execution of the site preparation and civil excavation works, Contractor shall monitor ground disturbance works using Contractor's awareness-trained equipment operators, Archaeologist(s), and/or other appropriately trained personnel.

Monitoring shall require the Contractor's Archaeologist and/or appropriately trained personnel to determine the significance of a chance find in accordance with the definitions provided in the Project's Cultural Heritage Management Plan and the Chance Find Flowchart provided in Attachment 1. Once the potential level of significance (i.e., low, medium, or high) of a cultural heritage chance find is assessed, Contractor's Archaeologist and/or appropriately trained personnel shall proceed in accordance with the Chance Find Flowchart depending on where the cultural heritage chance find site is discovered.

B2.2.2. Stop Work

Once a potential cultural heritage site is identified, Contractor shall immediately stop works within an approximate distance of five meters of the site. Contractor's Archaeologist and/or appropriately trained personnel shall be called to the location to make a rapid determination of the significance of the find.

Contractor shall, in the event that a site of potentially high significance or containing human remains is discovered, demarcate and secure the area.

B2.2.3. Evaluation

Contractor shall evaluate sites in accordance with Attachment 1. EMMML should be consulted for materials/sites already characterized by past salvage.

B2.2.4. Notification

In all cases, Contractor shall notify EMMML of a chance find and the stoppage / restart of work. In the case of a site of high significance or containing human skeletal remains and the area has been demarcated and secured, Contractor shall immediately notify EMMML of the work stoppage providing the type of find.

Once notified, and upon alignment with Contractor on the significance of the discovery, EMMML shall either:

- In cases of low and medium significance or non-human skeletal remains, EMMML will request Contractor to document the findings and upon completion give Contractor the authorization to proceed with the construction; or,
- In cases of high significance or human skeletal remains, EMMML will notify the District authority and seek authorization from this authority to conduct any necessary archaeological evaluations, which will be shared with Contractor.

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B2.2.5. Management of Chance Finds

B2.2.5.1. Cultural Chance Finds

Should Contractor's Archaeologist, appropriately trained personnel, and/or community relations team determine that the chance find site is a highly significant cultural site, Contractor shall work with EMMML's Socioeconomic Team to determine any requirements for community engagement. EMMML's Socioeconomic Team will seek out and consult with the affected stakeholder and establish the appropriate action.

B2.2.5.2. Archaeological Chance Finds

Should Contractor's Archaeologist determine that the cultural heritage site is a highly significant archaeological site without skeletal remains, Contractor's Archaeologist shall consult with EMMML to determine the best and most appropriate management action.

B2.2.5.3. Management Options

The following management options will be considered as per Attachment 1:

- **Avoidance:** This option minimizes the impact to the site through partial or complete project redesign or relocation. This is the preferred option from a cultural resource management perspective.
- **Salvage Excavation:** This data recovery option is site destructive and can delay construction. If required, salvage excavation shall be conducted in accordance with the requirements of Project's Cultural Heritage Investigation and Salvage Procedure.
- **In-situ Management:** This option includes the application of site protection measures, such as fencing or barricades, or capping the site area with fill. Appropriate protection measures will be identified and agreed between Contractor, EMMML, and the District authority on a site-specific basis. If this option is the best but likely to involve some damage to a significant site (e.g., in process of capping site area with fill), it may be combined with limited salvage excavation.
- **Surface Collection:** If a site is assessed as having limited salvage excavation potential but contains significant surface archaeological items, those surface finds may be individually mapped and collected in accordance with Project's Cultural Heritage Investigation and Salvage Procedure.
- **Destruction:** If a site is assessed as having limited archaeological significance, it may be destroyed once a complete photographic record has been made and the Chance Finds Report Form has been completed (see Attachment 2).

B2.2.6. Skeletal Remains Chance Finds

Contractor shall immediately stop work upon discovery of skeletal remains and notify EMMML.

Contractor's Archaeologist and/or appropriately trained personnel shall photograph and document the find⁵.

⁵ Documentation may include standard skeletal recording forms for all skeletal elements, along with written notes. Agreed standard metric and non-metric observations recorded on the remains must follow the recording procedures developed by the Australian National Provenancing Project (Bennett & Pardoe, 1998). Documentation shall include the quality of preservation, intactness, morphology and pathology. Documentation shall be undertaken in accordance with best archaeological field practice, including plotting each bone or bone fragment and grave goods on an X-Y coordinate, full photography in situ, and the preparation of a site diagram to a Cartesian grid indicating the presence of each bone or bone fragment. Depending on that stage of ground

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All remains shall be fully documented and managed as follows:

- Contractor shall immediately notify EMMML
- If deemed by Contractor's Archaeologist to be a suspicious death (e.g., involving criminal activity), the following steps shall be taken:
 - EMMML will notify District authority who must issue an authorization to EMMML for retrieval of the human remains by Contractor's Archaeologist.
 - Work shall stop until Coroner provides the authorization and additional instructions.
 - Contractor shall resume work following EMMML approval.
- If deemed by Contractor's Archaeologist to be a non-suspicious death (i.e., remains are ancient and not suspect of criminal activity), the steps below shall be taken. If there is any doubt as to whether foul play is associated with the remains, then the default action will be to treat the remains as suspicious.
 - EMMML shall notify the District authority of the find. The District authority may determine the subsequent appropriate course of action.
 - Once approved, Contractor Archaeologist may exhume the human remains and associated grave goods.
 - Retrieval of the remains shall be undertaken in such a manner as to reveal the stratigraphic and spatial relationship of the human skeletal remains with other archaeological features in the excavation (e.g., grave goods, hearths, burial pits, etc.). A catalogue and bagging system shall be utilized that will allow ready reassembly and relational analysis of all elements in a laboratory. The remains will not be touched with the naked hand; all Contractor personnel working on the excavation must wear clean cotton or non-powdered latex gloves when handling remains in order to minimize contamination of the remains with modern human DNA.
 - EMMML shall transfer custody of the remains to the District authority.
 - EMMML shall notify Contractor when work can resume.

B2.2.7. Monthly Reporting

All cultural heritage sites will be reported to EMMML as part of Contractor's Monthly Socioeconomic Report (see Section 9.0 of the Cultural Heritage Management Plan).

disturbance works at which the remains are observed, it is possible that the remains may not be present in their original spatial context (i.e., the remains may be observed in stockpiled soil rather than in their original location).

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Appendix C Transfer of Archaeological Materials Procedure

C1. Objectives

As part of Project Cultural Heritage Management Plan, EMMML has developed this Procedure for the transfer of archaeological materials in order to ensure this is performed in a controlled and structured manner. The objectives of the procedure are:

- To outline steps for the appropriate collection and storage of artifacts identified during cultural heritage surveys and Chance Finds monitoring at construction sites within LNG Park DUAT, the near shore, and for any additional sites outside the DUAT required by Contractor.
- To prescribe the appropriate way in which artefacts are transferred to EMMML, who in turn will transfer custody to the District authority?
- To provide the necessary chain of custody and reporting templates.

C2. Background

As the removal of artefacts from a site invariably results in the damage or destruction of the cultural heritage integrity of that object at that location, EMMML's preferred management approach is **Avoidance**. Where avoidance is not possible, any disturbance to a site, including the assessment and collection of artefacts, should be undertaken consistent with the techniques outlined in the Project Cultural Heritage Management Plan. Collection should be by a Mozambican-licensed archaeologist and/or an appropriately trained individual. Contractor will ensure all information collected during the assessment and salvage is documented following the formats provided by EMMML as per the Cultural Heritage Investigation and Salvage Procedure.

C3. Archaeological Material Transfer Process

This procedure will be undertaken utilizing the steps described below and will involve a field inspection and verification of related documentation by EMMML on site prior to the commencement of transfer. EMMML will work with Contractor's Archaeologist to schedule a convenient time for the transfer to occur taking into account a courtesy advance notice period to be provided to EMMML to enable participation. The Contractor will have the following in place:

C3.1. Packing and Labelling

In preparation for the transfer of the archaeological material to EMMML, Contractor's Archaeologist will undertake the following:

- All collected artefacts should be bagged / boxed on-site according to material (e.g., stone, shell etc. - see below for further details) and clearly labelled according to details recorded in the inventory.
- An Inventory of all the archaeological items will be prepared.
- A label or tag with the details of the items will be placed in the packed boxes.
- All items are to be bagged separately and must include the following details and be cross referenced to the information in the inventory:
 - Date
 - Site ID / name



- Name / Initials of the person collecting the artefacts
- Number of artefacts in the bag/box
- Type of artefacts (e.g., stone, ceramic, animal bone, shell)
- The sequential Field Number of the archaeological material
- Spatial information such as GPS coordinates or distance and direction to a GPS coordinate
- In general the following storage precautions should be taken for various types of archaeological materials:
 - **Stone, ceramic, damp/wet robust bone and shell artefacts**—Bagged in Zip-lock-type polypropylene bags (Note: larger artefacts may need to be individually labelled using waterproof labels tied on with string or placed in a box (sturdy cardboard or plastic).
 - **Low-fired ceramics**—Not be washed or allowed to dry out and shall be bagged / boxed separately, preferably with damp polyether foam, to avoid damage (Watkinson & Neal 1998: 55).
 - **Small metal artefacts (iron, copper)**—Placed in zip-lock-type, polypropylene bags and kept ventilated (i.e. poke a couple of holes in the bag). All metal should be dried out as soon as possible except when recovered from waterlogged conditions.
 - **Waterlogged metal**—Kept immersed as thoroughly as possible (Watkinson & Neal 1998: 37). Items recovered from marine conditions should be kept immersed in marine conditions; while material recovered from freshwater waterlogged conditions should be kept immersed in freshwater.
 - **Dry bone/shell**—Shall be placed in paper bags and be kept as dry as possible (Heritage Victoria 2004: 19).
 - **Glass from damp/wet contexts**—Shall be kept damp or corrosion may occur, place fragments etc. in zip-lock-type, polypropylene bags or watertight boxes with a small amount of water or damp cotton wool (not paper).
 - **Dry glass**—Shall be kept dry when being bagged/boxed (Watkinson & Neal 1998: 61).
 - **Leather recovered from damp/waterlogged deposits**—Shall not be allowed to dry out and will be placed in zip-lock-type, polypropylene bags or watertight boxes with a small amount of water (Watkinson & Neal 1998: 67).
 - **Other fragile organic material such as feathers and fragile animal bone**—Shall be kept in as close condition as to their original context.

In summary and as a general rule:

- If the artefact is from a damp context, **keep it damp.**
- If it is from a dry context, **keep it dry.**
- The label with the details of the item is to be placed in another smaller plastic bag, sealed, and placed inside the larger bag containing the archaeological material.

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- The individually bagged items will then be packed into boxes for dispatch in the following manner:
 - If these are small to medium sized stone items each individually weighing not more than 5 kilograms each, a number of these can be packed into one box with a total weight not more than 20 kilograms. (Examples of these are stone axe blades and wasted / tanged blades.)
 - If the items are single stone items each weighing 20 kilograms or more, these must be individually bagged and packed. Examples of these are stone mortars and large grinding stones (Note: that total weight of item to be displayed on the outside of the box).
 - The boxes in which the items are to be packed must be sturdy and able to bear the weight of the items, making sure that the bottom and sides of the boxes are reinforced with extra strength masking or packing tapes if and when required.
 - A copy of the Archaeological Material Inventory List must be placed inside the box with the packed items.
- After packing the boxes must be clearly labelled, with the following details:
 - Rovuma LNG Phase 1 Project, SSHE Department
 - Contact Address of the sender with Contractor Contact & Contact Phone Number
 - Weight of the box
- Labelling must be covered in transparent durable plastic covering, visible, legible, and waterproof.

C3.2. Handover to EMMML

EMML will take charge of the archaeological materials in the field from the Contractor on a regular basis and following the signing of the Archaeological Material Field Inspection, Verification and Transfer Form indicated in Attachment 1. Contractor will ensure that the artefacts are kept in a secure space until handover to EMMML.

C3.3. Dispatching and Tracking by EMMML

In general it is the responsibility of EMMML to ensure the archaeological material is transferred in accordance with guidance from consulting archeologist from their point of departure to their final destination in EMMML's facility (or designated alternative). A chain of custody form will be used to track the movement of the materials from the Contractor to storage as shown in Attachment 2.

C3.4. Archaeological Material Storage

EMML will store the transferred materials and accompanying paperwork in EMMML's facility (or designated alternative) in preparation for transfer to the District authority. EMMML will sign a Condition Report Form for storage of any Chance Finds items in EMMML's facility as shown in Attachment 3. EMMML will be responsible for the safe keeping of all of the boxes, materials, and paperwork, ready for dispatch to the District authority.

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C3.5. Delivery of Archaeological Material to District Authority

In preparation for the handover of the material to the District authority, EMMML will undertake the following:

- Prior to the handover, EMMML will invite the District authority to inspect the materials in EMMML facility (or designated alternative) as a preview of the materials and handover documentation that are ready for delivery. EMMML will make any corrections or clarifications that come from the preview.
- EMMML will inform the District authority, and confirm, the date for formal handover of the materials
- EMMML will transport the materials from their storage location to the agreed-to handover location place with 2 copies of the handover documentation already signed by EMMML (see example in Attachment 4). The District authority will sign the handover documentation acknowledging the delivery of the materials.
- EMMML will provide one copy to the District authority and retain one copy for EMMML records.



Attachment 1 - Field Inspection, Verification, And Transfer Form

- Bound copy of Chance Finds Report Forms presented to EMMML representative
- Visual verification of each Chance Find Report Forms to Chance Finds items completed.
- Chance finds appropriately packed and labelled
- Inventory of Chance Finds Items placed inside packed boxes
- Outstanding issues relating to any or all of the above have been resolved
- EMMML representative accepts transfer of Chance Finds items from Contractor to EMMML

Contractor Representative	EMML Representative	EMML Site Lead
Name	Name	Name
Signature	Signature	Signature
Date	Date	Date



Attachment 3 - Condition Report for Storage Of Chance Finds at EMMML Facility

Condition Report upon Arrival

Number of boxes/packages: _____

Description of contents

Inventory Attached: Yes No

Date of arrival/storage at warehouse

Storage Location (Name and location of EMMML Facility)

Condition upon Receipt.

(Here note the condition of the boxes/packages, external labelling, and the condition of the contents upon receipt at warehouse)

EMML Personnel Receiving items

Name: _____

Signature: _____

Date _____

EMML Representative.

Name: _____

Signature: _____

Date _____

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Attachment 4 - Receipt for Chance Finds Handover by EMMML to District Authority

Date:

Director
District of Palma
Palma Town
Cabo Delgado Province
Attn:

Subject: Chance Finds Hand over by Rovuma Phase 1 LNG Project

Dear Sir,

In accordance with **XXXXXXXXXX**; the Rovuma LNG Phase 1 Project hereby hands over to the designated District Authority chance finds materials collected during the construction of the Rovuma LNG Phase 1 Project in line with agreed procedures defined in the Chance Finds Procedure.

Please sign below to acknowledge receipt by Palma District that this handover of recovered cultural heritage materials completes the formal process as agreed in the Cultural Heritage Management Plan (CHMP). It includes the associated assessment and excavation documentation to complement the handover.

Chance Finds Protocol Forms (Number of Forms)
List of Cultural Materials Being Handed Over (Number of items)

Sincerely,

Signature

Name

Socioeconomics Manager

Signature

Name

Designated District Authority