دائرة الثقافة والسياحة
DEPARTMENT OF CULTURE
AND TOURISM

Culture & Heritage Sites

SUSTAINABILITY GUIDELINES

Practical Guide to Implementing Sustainable Practices

FOREWORD

The guidelines have been developed to provide best practice recommendations for sustainability initiatives in key sustainability areas. These are recommendations and the sector is responsible for assessing the feasibility of adopting each initiative and making progress to develop their individual sustainability strategy and policy.

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1. Introduction

The world is changing, and so are the needs of tourists and travellers. Sustainability has become a significant concern for many. According to Booking.com, in the published Sustainable Travel report 2022[1], 71% of global travellers want to travel more sustainably. In addition, the United Nations World Tourism Organization's (UNWTO) vision for its 2030 Agenda firmly prioritises the need for sustainable tourism. Harnessing tourism's contribution to sustainability will be instrumental in fulfilling this vision.

The United Arab Emirates (UAE) has joined the global shift towards sustainability. Key examples include: the UAE Strategy for Domestic Tourism, the UAE Circular Economy Policy and the UAE Net Zero 2050 Initiative, as shown in Figure 1.There are many national and local sustainability strategies and initiatives driving the change towards countries' sustainable development.

According to United Nations Educational, Scientific and Cultural Organization (UNESCO), cultural heritage includes artefacts, monuments, a group of buildings and sites, museums that have a diversity of values including symbolic, historic, artistic, aesthetic, ethnological or anthropological, scientific, and social significance.

Considering Abu Dhabi has UNESCO heritage sites, the Culture and Heritage Sustainability Guidelines have been created in line with UNESCO's "Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention[2]".

World

UN World Tourism Organization Vision - 2030 Agenda

UN World Tourism Organisation aligned to 17 SDGs.

[1] Booking.com, "Sustainable Travel Report", 2022 (www.globalnews.booking.com)
[2] UNESCO World Heritage Convention, "Policy for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention" 2015, (www. whc.unesco.org)

Some of those are:

Good Health and well-being

Quality Education

Affordable clean energy

Climate Action

Partnerships for the goals

1.8 B

of average annual growth of international tourist arrivals is expected in Middle East until 2030

5%

of average annual growth of international tourist arrivals is expected in Middle East until 2030

2020

tourist arrivals decreased by %74 while market recovered by %120 in 2021

United Arab Emirates

UAE Net Zero Initiative

Launched in 2020 with an aim to unify local and federal efforts to harness the UAE's tourism resources:
- Building capabilities, developing policies, plan and programme based partnerships.

UAE Circular Economy Policy

2021: UAE framework for determining the approach to achieving sustainable governance: Promotion of environmental, adoption of clean methods and reduction of environmental stress.

UAE Strategy for Domestic Tourism

2021: UAE sector entities to update their sustainability aproach: Investment AED600 Billion in clean and renewable energy sources expected by 2050.

Figure 1: World and UAE trends towards sustainability and eco-tourism

2. Sustainability in the Abu Dhabi Tourism Industry

As the UAE moves towards sustainability, it is imperative to establish and promote Abu Dhabi's leading position as a global destination in eco-tourism and sustainable tourism.

As the regulator of the tourism industry, the Department of Culture and Tourism (DCT) is committed to providing a sustainable and responsible tourism industry which is tailored to the regional climate, culture, and available resources. The tourism industry is instrumental in supporting the evolution of Abu Dhabi into a world-class destination.

DCT has established a comprehensive sustainability framework for the tourism industry (Figure 2) based on the UN Sustainable Development Goals (SDGs). This is a long-term and forward-looking framework aiming to manage the economic, social, and environmental impacts of the tourism industry. It is built upon six destination principles for sustainable development. These have formed the basis for the development of the Sustainable Tourism Guidelines.

Sustainability Framework & Implementation Plan Abu Dhabi Tourism Sector

Principle	Initiative		
Trasparent Destination	Capacity Building	Sustainable Tourism Award	
Sustainable Destination	Sector Commitment	Sustainable Guidelines	Event Impact Management
Unique Destination	Eco-tourism Marketing	Local Experience App	
Safe, Accessible Destination	Experience for tourists with disabilities	Impproving Site Accessibility	Tourists Site Connectivity
Inclusive Destination	Stakeholder Engagement	Marketing for residents	
Adaptive, Diverse Destination	Low-Season Marketing	Climate Change Assessment	

Figure 2: DCT sustainability framework

As a result, the **Culture and Heritage Sites Sustainability Guidelines** have been developed, which aim to enhance knowledge and encourage the implementation of sustainability practices and procedures into the day-to-day operational activities across the value chain. The guidelines are the foundation that will shape the future of the tourism, culture, and heritage sectors and establish Abu Dhabi as a leader in sustainable tourism. The guidelines are aligned to the key sustainability areas that are related to the tourism industry.

Figure 3 shows DCT's mission and vision for the Culture and Heritage sector while Figure 4 shows DCT's strategic objectives for improving the tourism, culture, and heritage industries of Abu Dhabi.

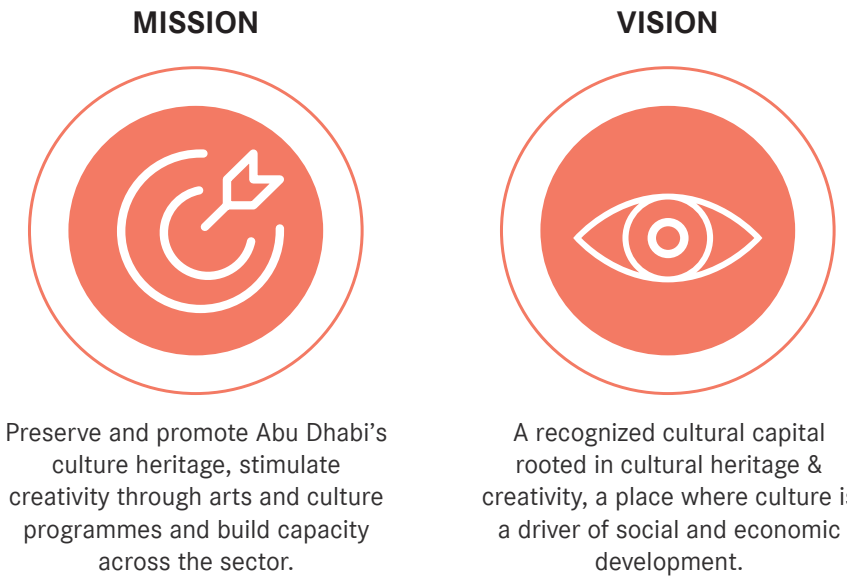

Figure 3: DCT mission and vision for a sustainable culture and heritage sector

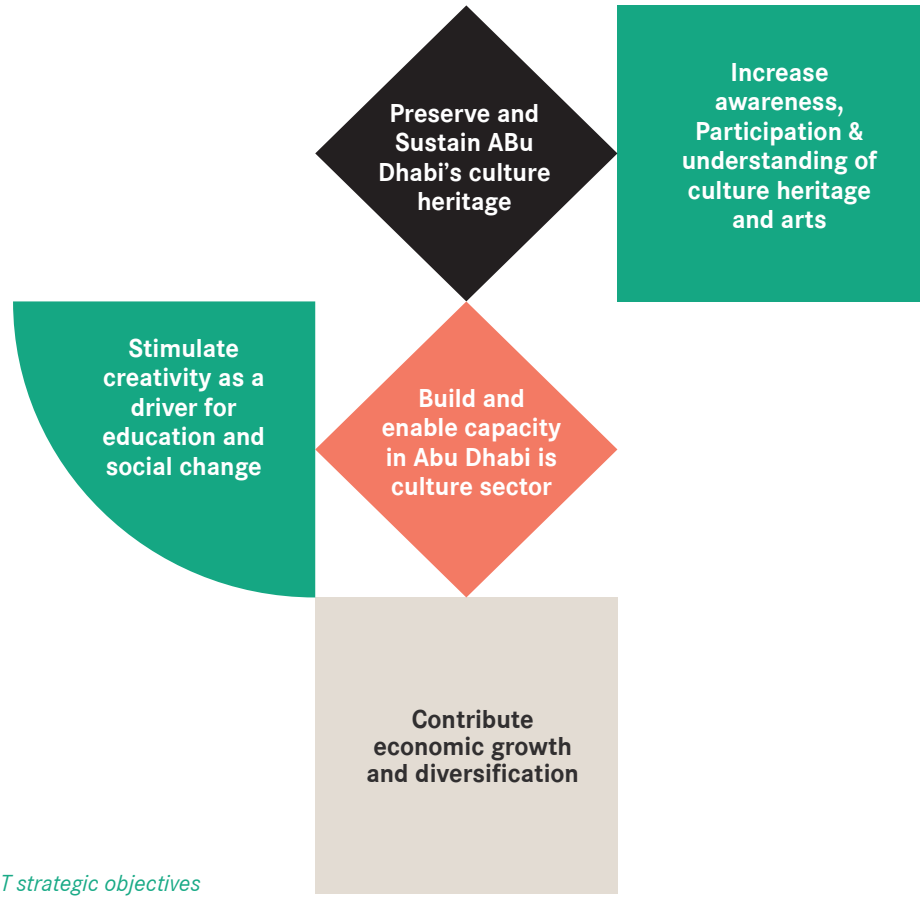

Figure 4: DCT strategic objectives

3. Context and Objectives

The guidelines have been developed to help the sector's stakeholders define their sustainability roadmaps. It outlines initiatives and best practices for the culture and heritage sectors, including museums and galleries, heritage and cultural sites and UNESCO sites (collectively referred to as "heritage and cultural sites" henceforth), equipping them with a goal-based sustainability approach.

Table 1 Definitions

Museums & Galleries	This type of site offers permanent and sometimes temporary exhibitions covering specific cultural domains (e.g., arts, history, music etc.). These sites can offer tours and/or workshops in order to enhance the visitor experience.
Heritage & Cultural Sites	This type of site offers an experience of places with historical and cultural significance for the region or local community. These can be internationally recognised UNESCO sites or locally recognised for their importance. These sites can offer tours and/or workshops in order to increase visitor understanding.
UNESCO Sites	A World Heritage site (UNESCO site) is a landmark or area with legal protection by an international convention. They are designated by UNESCO for having cultural, historical, scientific or other significance.

The tourism sector has long supported the economic development of Abu Dhabi and its emergence as a world class tourism destination. With the upcoming for 2020 – 2025, DCT (specifically its culture and heritage sectors) highlighted the need to preserve and sustain Abu Dhabi's cultural heritage, increase awareness and engagement to contribute to economic growth and diversification. Abu Dhabi is rich in archaeological finds and sites including Al Ain, which is a UNESCO Heritage site.

As per the 2022 Sustainable Travel Report[3], 81% of global travellers confirm that sustainable travel is important to them while 66% of travellers would prefer having local cultural experiences while visiting a destination. Keeping in tune with these global perceptions of sustainability, it is recommended that cultural and heritage sites use these guidelines to benefit from the success of sustainable business practices and contribute to Abu Dhabi's vision of a sustainable tourist destination.

The Culture and Heritage Sites Sustainability Guideline is a non-binding set of recommendations and initiatives aiming to improve responsible tourism development. The guideline is aligned with the SDGs and the Global Sustainable Tourism Council (GSTC) criteria, and other leading industry initiatives, to provide cultural and heritage sites in Abu Dhabi with a roadmap towards achieving a more sustainable and inclusive business while providing tourists with an enriching, authentic Abu Dhabi experience.

To develop this document, 18 different guidelines from global leaders were assessed and benchmarked, including GSTC Criteria, Green Key, Green Globe, and UNWTO. Standards from Dubai Sustainable Tourism were also studied for more understanding on the Middle East region. These guidelines and standards were studied to understand the sustainability requirements in the global tourism industry and evaluate gaps and opportunities for sustainability in the Abu Dhabi tourism industry. A survey with different players, including Cultural and Heritage Sites, Hotel Establishments, Food and Beverage Establishments, Events, Leisure and Entertainment Attractions, and Travel Agencies and Tour Operators, was conducted in January 2022 by DCT to understand the current sustainability practices implemented within their operations. These studies helped in understanding the gaps and opportunities for how these players can facilitate sustainability practices across Abu Dhabi as a tourism destination. To develop these guidelines, the following key steps were undertaken to understand the current state of sustainability in the tourism industry of Abu Dhabi. This is shown in Figure 5.

[3] Booking.com, "2022 – Sustainable Travel Report". (www.globalnews.booking.com)

1.	**Benchmarking & Research**	Research was conducted on the selected sustainability policies, guidelines and certifications from around the world. Key sustainability conclusions and best practice were drawn from this exercise.
2.	**Sector Stakeholder Selection**	6 sector stakeholder categories for selection were developed based on targeted sectors: culture and heritage sites, hotel establishments, events, F&B, entertainment attractions, travel agencies and tour operators.
3.	**Survey Development**	A survey was developed to gain an understanding of the current state of sustainability for the Culture and Heritage sector in Abu Dhabi.
4.	**Workshops & Survey Launch**	Selected stakeholders from the Culture and Heritage sector were invited to participate in different workshops and fill in the survey.
5.	**Survey Analysis**	A total of 24 tourism industry stakeholders participated in the survey. Results from the survey were analysed, and the main challenges and opportunities were identified.
6.	**Guideline Development**	The findings from the benchmarking, surveys and workshops were used as the foundation for the development of the 6 sector-specific guidelines.

Figure 5: Guideline development process

Key sustainability elements, challenges, and opportunities related to sustainable growth and development were identified through the process of surveying cultural and heritage sites. The survey was structured around the key findings from the benchmarking exercise, wherein a collection of guidelines was benchmarked against the following criteria: voluntary versus mandatory guidelines, international and national guidelines, other applicable guidelines and certification schemes and key sustainability categories (e.g., energy management, water management etc.).
The results of the survey show that 80% of the surveyed cultural and heritage sites in Abu Dhabi consider sustainability to be very important.

Surveyed Cultural and Heritage Sites think sustainability is important to their operations

Surveyed Culture and Heritage Sites have a corporate social responsibility statement related to sustainability.

Surveyed Culture and Heritage Sites have not assigned sustainability responsibilities to a specific team nor do they have dedicated departments.

Figure 6: Survey Key Findings

Based on the data of the survey conducted for cultural and heritage sites, the results indicate that there is a crucial need for solutions to support them in their journey towards sustainability. The most important focus areas were environmental risk management, carbon emissions, biodiversity, safety and health of visitors and employees, sustainable procurement and energy, water and waste management. These were the most important focus areas, while it was also found that the journey towards becoming sustainable meant facing quite a few challenges such as sustainability awareness and expertise, lack of sustainability monitoring, value-chain sustainability awareness, high utility bills, access to sustainable goods and visitor sustainability awareness. These findings can be considered as baseline aspects and initiatives that currently exist within the industry, which emphasises the need for different sectors to improve the sustainability status of the tourism industry.

Figure 7: Survey Analysis

4. How to Use This Guideline?

This section of the guideline will provide clear steps on how to ensure a successful implementation of the sustainability strategy through the day-to-day operations to contribute towards sustainable development. A summary of the steps is presented in Figure 8, and it is recommended to follow steps 1-5 annually to ensure that the sustainability strategy remains relevant, robust, and aligned with the site's current sustainability progress.

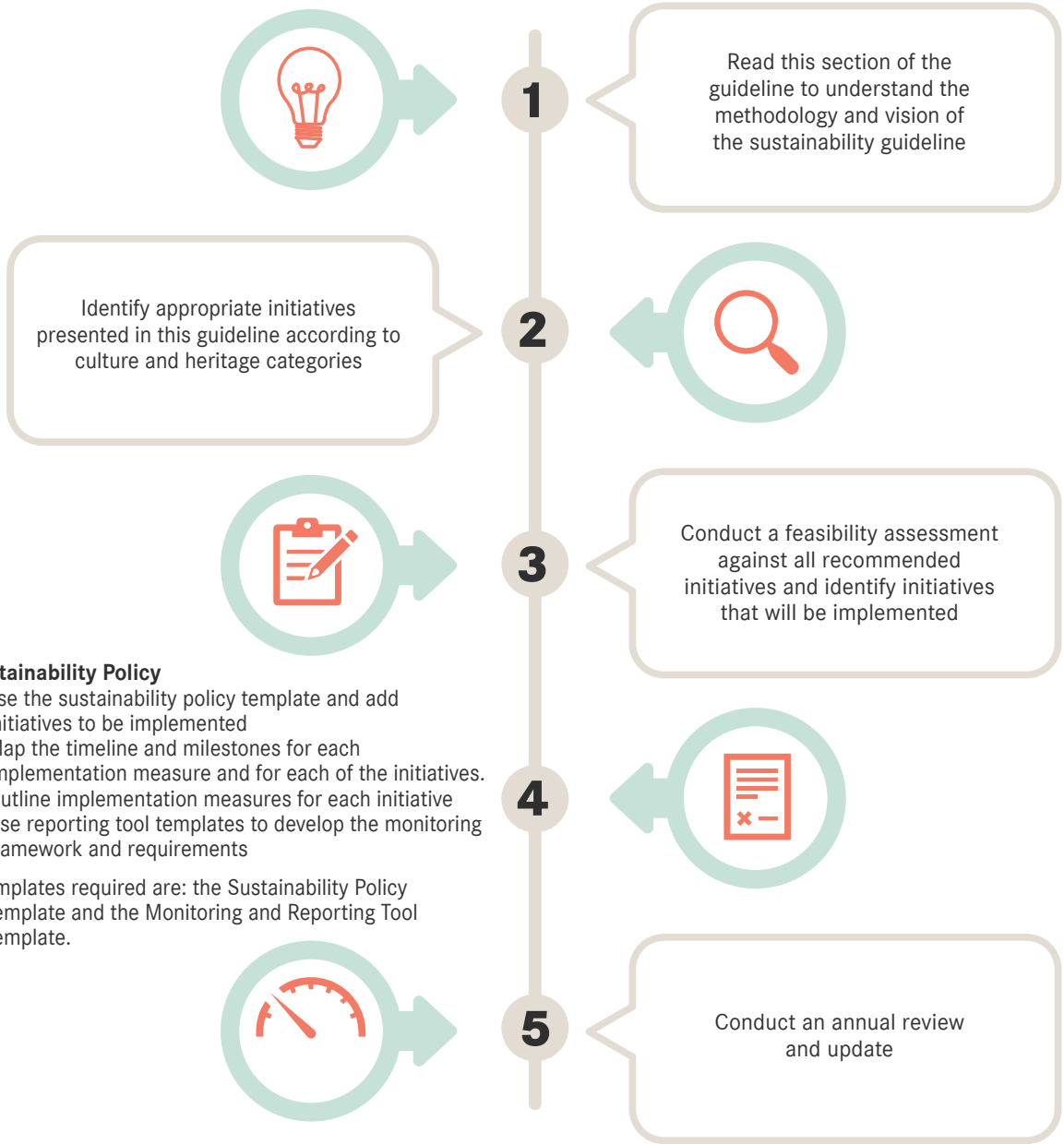

Figure 8: Steps to use the guideline

5. Sustainability Categories and Key Initiatives

There are five different sustainability categories summarised in Table 2. Under each of these categories there are three different cultural and heritage site divisions: museums and galleries, heritage and cultural sites, and UNESCO sites. While many other specific measures can be implemented, DCT recommends first proceeding with the five sustainability categories summarised in Table 2 as a step in the journey towards sustainability.

Table 2: Sustainability Categories

Sustainability Category	Definition
A. Energy and Environment	Sustainable energy and environment management initiatives to provide solutions for sustainable energy, water and waste management, environment protection and carbon management.
B. Sustainable and Local Procurement	Sustainable procurement initiatives that give preference to local and environmentally friendly goods.
C. Social and Culture	Initiatives to promote the social and cultural heritage of Abu Dhabi through the tourism industry.
D. People	Initiatives focussing on empowerment of employees in the tourism industry.
E. Resilience and Risk Management	Initiatives focussed on identifying and managing the risks associated with the cultural and heritage sites in the tourism industry.

Key initiatives under each sustainability category

The key initiatives presented in Figure 9 were comprehensively identified and developed, ensuring alignment with Abu Dhabi's sustainability pillars and agenda. This guideline covers holistic sustainability development and specific measures for environmental and social pillars, whilst considering under each applicable category the key vision for Emiratisation, financial stability and growth, and governance (including data collection, monitoring, and reporting). Initiatives have been carefully tailored based on the cultural and heritage site classification. This document provides guidance on implementing the suggested initiatives based on the classification and business type. It is designed to provide cost-effective solutions that can help induce a positive impact on the overall sustainability performance.

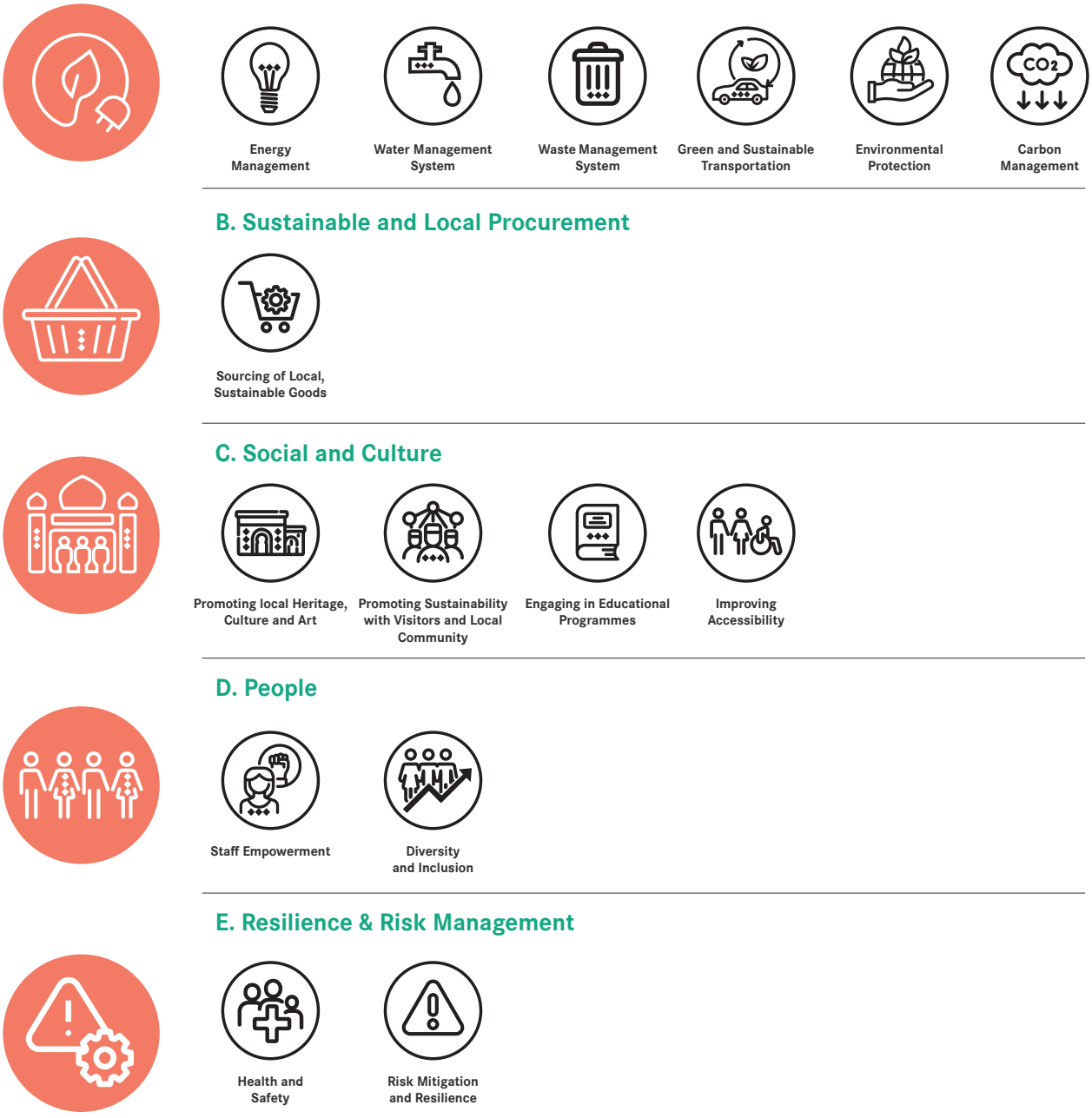

Figure 9 Sustainability initiatives

The following sections will provide further detail on the above-mentioned key sustainability measures and detail the opportunities that result from the implementation of these practices. It should be highlighted that some of the initiatives appear to be easier for new sites (e.g., installing Emirates Authority for Standardization and Metrology [ESMA] 4- or 5-star rated products), however these are applicable to sites that are installing new or replacing old products within the site.

6. Estimation and Prioritisation Process

Estimation | **Prioritisation**

Estimate cost and effort of the initiative

1. Prioritise estimated initiatives
   Low estimation → high priority for all cultural and heritage sites
2. High estimation → Low priority for all cultural and heritage sites

Time required for implementation along with cost involved is evaluated as Low, Medium or High

A representation of priority for the culture and heritage sites

✓ **Priority 1** ✓ **Priority 2**

Culture and Heritage sites

Time	Cost	Museums & Galleries	Heritage Sites	UNESCO
LOW	LOW	✓	✓	✓
LOW	MEDIUM	✓	✓	✓
MEDIUM	LOW	✓	✓	✓
LOW	HIGH	✓	✓	✓
HIGH	LOW	✓	✓	✓
MEDIUM	MEDIUM	✓	✓	✓
MEDIUM	HIGH	✓	✓	✓
HIGH	MEDIUM	✓	✓	✓
HIGH	HIGH	✓	✓	✓

Figure 10: Initiative priority mapping for culture and heritage sites categories

To determine if an initiative is Priority 1 or Priority 2:

- **Estimation:** Cost and effort of each initiative was estimated as Low, Medium, or High.
- **Prioritisation:** Priority matrix was developed based on cumulative scores from the Estimation stage, and based on matrix priorities, assigned for each cultural and heritage site.

For further understanding on cost and effort estimation of each initiative please refer to the ***Annexture document for the Culture & Heritage guidelines***.

The recommended sustainability initiatives are categorised as “Priority 1” and “Priority 2”. It must be emphasised that the sustainability guidelines are not mandated and aim to present a framework on how the industries can progress on their sustainability journey.

✔ **Priority 1**	All sites identified in orange should aim to target and implement the identified initiatives.
✔ **Priority 2**	Where the site has been identified in dark green, it is encouraged that the stakeholder investigates the feasibility of implementing the initiative to surpass expectations..
✖ **Not Applicable**	

All cultural and heritage sites should aim to target Priority 1 initiatives marked in ✔ for implementation as per their category. The initiatives marked in ✔ are encouraged to be considered and their feasibility assesed for implementation to surpass expectations.

To calculate the estimations on time and costs, several assumptions were applied considering the uniqueness of Abu Dhabi, Al Ain and Al Dhafra areas.

1. Average museum, gallery, and cultural site is considered to be an indoor area of 90,000 sqm. Based on averages taken in Abu Dhabi.
2. A typical UNESCO site is considered to be outdoors.

7. Sustainability Initiatives Prioritisation

A. Energy and Environment.

A.1 Energy Management

How can cultural and heritage sites achieve energy and environmental sustainability?

When looking at energy improvements, cultural buildings can differ from contemporary buildings and the following standards and recommendations may not be applicable to certain cultural and heritage sites. To improve energy efficiency and performance, careful and responsible planning is required to preserve the cultural and heritage sites. Given the nature of some UNESCO World Heritage Sites (e.g., Al Ain's Hili, Hafeet and Bida Bin Saud archaeological sites), some of the recommended initiatives might not be applicable. It is therefore advised that each site assesses the applicability of each initiative. There is a remarkable opportunity to substantially reduce the consumption of energy through the implementation of conservation measures and through energy efficiency initiatives. DCT and other government entities have agreed to identify and retrofit 30 buildings across Abu Dhabi with energy and water saving technologies to decrease energy and water consumption and reduce their carbon footprint.

Initiatives applicable to culture and heritage sites

Sustainability Initiatives		Culture and heritage site category		
1.	**Install efficient lighting solutions.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Install LED lights depending on the desired brightness (a 9W LED is equivalent to a 45 W incandescent bulb output).	✓	✓	✓
	1.2. Install motion sensors and timers for lighting. For instance, in regularly occupied spaces in back of house (BOH), install motion and daylight sensors to automatically adjust lighting levels to reflect the daylight levels and use of the space in non-guest areas.	✓	✓	✓
2.	**Conduct energy conservation awareness campaign.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Conduct annual training for staff on energy efficiency measures and behaviours (e.g., turn off lights in empty rooms, reduce water consumption, switch off plugged electronic items at the wall after usage).	✓	✓	✓
	2.2. Create digital or reusable materials, e.g., guidebooks and leaflets, on energy management and conservation, detailing how much energy can be conserved through efficient energy systems and appliances.	✓	✓	✓
	2.3. Place multi-use or permanent energy usage signage throughout the site's BOH areas (e.g., turn off lights by the light switch, switch off computer after usage).	✓	✓	✓
	2.4. Utilise digital tools (such as eTEACHER) to increase efficiency in energy management and highlight energy consumption reduction areas.	✓	✓	✓

3.	**Enhance cooling efficiency**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. When renovating or upgrading, install efficient chillers.	✓	✓	✓
	3.2. Install temperature controls for central cooling and ventilation (in appropriate locations like BOH and regularly used areas). This can be accomplished in existing and new sites.	✓	✓	✓
	3.3. Check thermostat temperature regularly and maintained it at 24 degrees. If areas on-site are required to be set at a different temperature, adapt accordingly.	✓	✓	✓
	3.4. Inspect ductwork and windows for leakage bi-annually.	✓	✓	✓
	3.5. Install a digital management solution that monitors energy consumption. This can be accomplished in new and existing sites.	✓	✓	✓
4.	**Purchase efficient appliances and equipment, such as ESMA 5- and 4-star appliances.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. Washing machine (this can be applicable for mosques).	✓	✓	✓
	4.2. Dryers (also applicable for mosques).	✓	✓	✓
	4.3. Consider AC split units when retrofitting/upgrading and in new sites.	✓	✓	✓
5.	**Purchase more efficient appliances, based on their catalogue rating and site design specifications**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	5.1. Consider large AC systems when retrofitting/upgrading and in new sites.	✓	✓	✓
	5.2. Vacuum cleaners, floor polishers, glass cleaning equipment, etc.	✓	✓	✓
6.	**Invest in renewable energy solutions.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	6.1. Install solar water heaters.	✓	✓	✓
	6.2. Install solar PV wherever possible, like rooftops and garden area.	✓	✓	✓
	6.3 Purchase renewable energy certificates from Emirates Water and Energy Company (EWEC).	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]
*As ESMA expands its energy efficiency programme, Culture and Heritage sites are advised to keep checking the updates for inclusion of more appliances.

Benefits:

- Installing efficient lighting systems, including LED bulbs, daylight harvesting systems, and motion sensors, can save between AED 400,000 and 600,000 per month for average 90,000 sqm cultural and heritage sites[4,5].
- Providing sustainability training aims to achieve energy efficiency, cost savings, improved reputation, and increased awareness.
- Installing cooling systems equipped with efficient chillers and temperature control systems, coupled with regular ductwork inspection, can result in savings of up to 35%.
- Using ESMA-rated appliances can save anywhere between 30% and 75%.
- Solar heaters and Solar PV systems can have a payback period of five years post-installation. These systems can cover a significant portion of the energy bill, depending on the size of the solar array installation.
- Purchasing Renewable Energy Certificates can be accomplished to develop the site's clean energy portfolio. This should be a consideration especially when renewable energy installation is not feasible, or when there are emissions that can be difficult to decarbonise and offset[6].

Local References:

- Estidama Pearl rating system: Estidama is a building design methodology for constructing and operating sustainable buildings. Under Estidama, energy management is a key factor to obtain the Pearl rating.
- Abu Dhabi Stock Exchange Guidance (ADX): ADX has developed guidance on the adoption of Environment, Social, and Governance (ESG) among its listed companies and investors alike. Cultural and heritage sites can use the monitoring framework for the initiatives presented in these guidelines as part of ADX sustainability reporting.
- AD Environmental Vision 2030: Achieving sustainable energy management will support the sustainable development of Abu Dhabi's economy.

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[4] Based on AESG research: data from several online retailers and bulk suppliers to create market.
[5] This was conducted considering four AED %90 25 efficiency LED bulbs with a 31,000 sqm area combined with motion and daylight sensors that can vary from AED 20 to AED 70 per installation.
[6] Based on AESG research: It should be emphasised that the scheme operates as an auction and price points cannot be disclosed in these guidelines.

Tips:

ESMA energy efficiency standards:

As part of the UAE Ministry of Industry and Advanced Technologies, ESMA (Emirates Standardization and Metrology Authority) issues the Energy Efficiency Labels for appliances. Cultural and heritage sites should ensure that all appliances have a high ESMA star rating (4 or 5 stars).
The list of the approved appliances can be found here: https://moiat.gov.ae/en/

Clean Energy Certificates:

Clean Energy Certificates are an innovative programme that allows Abu Dhabi consumers to certify the source of their clean energy usage and empowers them in achieving their sustainability goals. EWEC owns and sells all Clean Energy Certificates for solar and nuclear generated electricity in Abu Dhabi, supporting the UAE's climate change goals as part of the UAE Energy Strategy 2050.

How can I purchase Clean Energy Certificates?
To track and verify clean energy consumption, please contact the EWEC Clean Energy Certificates team at: CleanEnergyCertificates@ewec.ae

Further Reading:
1. OneClick LCA information and pricing
2. eTEACHER

A.2. Water Management System

Developing a water conservation plan and purchasing water-efficient appliances reduces both operating costs and overall environmental impact. In the UAE, due to its geographical location, it is very important for the sector to conserve water wherever possible.

Initiatives applicable to culture and heritage sites

Sustainability Initiatives	Culture and heritage site category		
1. Ensure regular water systems maintenance and leak prevention inspections, where applicable.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
1.1. Inspect pipes, faucets, drainage, and other water fittings to ensure there is no water leakage, for sites that have permanently installed systems. For sites that have temporary or off-grid systems that might be difficult to inspect, ensure that regular maintenance is carried out to enhance the efficiency of the systems.	✓	✓	✓
2. Conduct water conservation awareness campaign.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
2.1. Train staff on water efficiency and management annually.	✓	✓	✓
2.2. Create guidebooks, leaflets or booklets on efficient water management, either in digital format or by printing on eco-friendly paper.	✓	✓	✓
2.3. Post water conservation signage throughout the site in the bathroom facilities, at refill water stations, etc.	✓	✓	✓
2.4. Use digital tools to calculate water consumption for the site (e.g., Estidama).	✓	✓	✓
3. Install efficient and smart water fittings.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
3.1. Install hand basin faucets with flow rate at 1.5-2 l/min or less. This can be applied on existing and new sites. If the site has temporary or off-grid water fixtures and fittings, ensure that aerators are installed to reduce flow rate.	✓	✓	✓
3.2. Install toilet with flush flow rate at 2-4 l/min and bidet flush flow rate at 9.5 l/min or less. This can be applied on existing and new sites.	✓	✓	✓

4.	**Provide water filling stations**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. Provide a choice to opt for refillable water bottles around the site to encourage multi-use bottles and cups.	✓	✓	✓
5.	**Harvest condensation/rainwater ***	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	5.1. Install condensation and/or rainwater collection systems if the site allows it.	✓	✓	✓
6.	**ntroduce a smart and efficient irrigation system for lawns and gardens.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	6.1. Install drip irrigation system/high-efficiency devices (e.g., drippers, sprinklers, bubblers) controlled by time sensors and with leak detection. This can be enhanced further by installing a smart system that reacts to real time weather detection, has an automatic irrigation schedule etc.	✓	✓	✓
	6.2. Install subsurface irrigation system.	✓	✓	✓
	6.3. Utilise recycled water for irrigation.	✓	✓	✓
	6.4. Practice xeriscaping: use soil additives and native/adaptive trees, plants, shrubs, and artificial surfaces to conserve water.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]
* This initiative is applicable only if the property can accommodate the initiative.

Benefits:

- Regular inspections and monitoring and installation of efficient water fixtures and fittings can result in 20% savings on water[7].
- Smart and drip irrigation systems can offer savings of around AED 100 for every 1,000 sqm of irrigable land[8].
- Regular inspection reduces risks of scaling, corrosion, contamination, and other problems which could rupture pipes, inhibit your water flow, or damage equipment that requires a certain water quality.

UAE and Abu Dhabi Regulations:

- Estidama Pearl rating system: Estidama is a building design methodology for constructing and operating sustainable buildings. Under Estidama, water management is a key factor to obtain the Pearl rating.
- ADX: If cultural and heritage sites are listed on the ADX make sure that it follows ESG guidance. They can use the monitoring framework for the initiatives presented in these guidelines as part of ADX sustainability reporting for water management.

Local References:

- Abu Dhabi Environmental Vision 2030: Achieving sustainable water management will support the sustainable development of Abu Dhabi's economy.
- ESMA EESL programme certified products: all water fixtures and water consuming appliances must be approved by ESMA in order to operate them in the UAE.

Further Reading:

1. Estidama Water Consumption Calculator – follow this link for further information and instructions on how to calculate indoor and outdoor water consumption and how to improve on water consumption.

[7] Based on AESG research: Data from several online retailers and bulk suppliers to create market; Efficient/low flow appliances with efficiencies ranging from %10 to %20.
[8] Based on AESG research: Calculation based on industry average irrigation rate of 20 L/sqm, system cost of around AED 600 with an efficiency of up to %60 and the latest (ADDC, www.addc.ae, 2020) utility price of water.

A.3. Waste Management System

Cultural and heritage sites are one of the most popular attractions for visitors to Abu Dhabi. To mitigate against the impact of high visitor football, a robust waste management strategy is essential. The waste management strategy should focus on reducing waste, reusing useful materials and recycling them.

Initiatives applicable to cultural and heritage sites

	Sustainability Initiatives	Culture and heritage site category		
1.	**Start by designing a waste management strategy, and establish a waste disposal hierarchy - reduce, reuse, and recycle (targeting paper, plastic, water).**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Encourage reduce, reuse, and recycle practices (targeting paper, plastic, water).	✓	✓	✓
2.	**Conduct waste management awareness campaign.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Train staff annually on waste management and segregation, advantages of recycling and reuse, etc.	✓	✓	✓
	2.2. Develop training materials - e.g., guidebook and leaflets on waste management explaining the importance of waste segregation, creative ideas for reusing waste, etc.	✓	✓	✓
	2.3. Provide segregation bins in visible locations that have a high footfall.	✓	✓	✓
	2.4. If the site or building hosts an F&B outlet, place a bin for organic waste at the F&B area.	✓	✓	✓
	2.5. Place waste segregation signage on bins for recyclable materials - glass, paper/ cardboard, cans, plastic, organic, etc.	✓	✓	✓
3.	**Engage in minimising food waste if site has food and beverage outlets.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. If there is an F&B outlet on-site, provide options for smaller plate size/half plate.	✓	✓	✓
4.	3.2. Ensure cooking to order only where feasible initially and target to increase the practice over time.	✓	✓	✓
	3.3. Raise awareness of the implications of food waste by printing a message, key facts, or other relevant information on menus, packaged food, etc.	✓	✓	✓
	Reduce and gradually eliminate the use of single-use plastic.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. Reduce use of single-use cups at water dispensers and plastic cutlery and food containers at F&B outlets and replace with reusable or biodegradable alternatives.	✓	✓	✓
	Promote the use of refillable amenities.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	5.1. Place refillable soap and sanitiser dispensers.	✓	✓	✓
	Engage in hazardous waste management initiatives.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	6.1. Develop a Green Cleaning Manual which identifies eco-friendly options such as chemical-free option for cleaning.	✓	✓	✓
	Engage in creative recycling initiatives.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	7.1. Donate reusable cardboard and paper to kids' camps, art institutes, or arts and crafts workshops.	✓	✓	✓
	7.2. When designing reception area and interior common areas, consider using upcycled waste from the site (e.g., transforming waste into decor items or furniture).	✓	✓	✓
	7.3. Coordinate with Tadweer on waste recycling and composting initiatives.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]

Benefits:

- Placing waste segregation bins will provide the option of recycling waste through the correct streams, which will lead to landfill diversion. Additionally, the waste can be sold for additional revenue or reused in a waste-to-value scheme.
- Installing water filling stations can save up to 95% on water costs[9].
- Switching to refillable amenities such as shampoo and soap dispensers can offer savings of up to 92%[10].
- Proper waste removal helps improve air and water quality as well as reduces greenhouse gas emissions.
- Managing the waste smartly will help conserve natural resources including minerals, water and wood.

Local References:

- Estidama Pearl rating system: Estidama is a building design methodology for constructing and operating sustainable buildings. Under Estidama, waste management is a key factor that cultural and heritage sites can develop in order to obtain the Pearl rating.
- ADX: Cultural and heritage sites can use the monitoring framework for the initiatives presented in these guidelines as part of ADX sustainability reporting for waste management.
- AD Environmental Vision 2030: Achieving sustainable waste management will support the sustainable development of the Abu Dhabi economy.

[9] Based AESG's research: Wholesale bottled water prices at 0.3AED/L, latest utility prices of water by ADDC in 2020,
[10] Based on AESG's research: Price of the bottled soap estimated at 131/L, the price of refill soap estimated at 10.6/L.

A.4. Green and Sustainable Transportation

Transportation remains one of the biggest emitters of carbon dioxide emissions in the UAE. For the cultural and heritage sites sector, managing transport emissions is crucial, as transportation is allowing visitors to reach their destination, and is essential to city tours, sourcing of daily supplies, etc. Below are some of the key areas where the cultural and heritage sites sector can become more sustainable.

Initiatives applicable to culture and heritage sites

Sustainability Initiatives	Culture and heritage site category		
1. Promote alternative use of transport.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
1.1. Promote the use of public transport and provide visitors with a map of public transport and directions on how to use them to get to the site. This can also be conducted in partnership with hotels and travel & tour agencies.	✓	✓	✓
1.2. Utilise electric buggies, bicycles, electric scooters, etc., within the site if appropriate.	✓	✓	✓
2. Promote employee carpooling and use of public transport.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
1.2. Encourage employees and staff to use public transportation.	✓	✓	✓
3. Install EV chargers in the parking lot.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
3.1. If the site has parking spaces that are under the control of the site, install EV chargers in the parking lot.	✓	✓	✓
Purchase or lease electric/hybrid vehicles as part of your fleet operations where appropriate.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
4.1. Purchase or lease electric/hybrid vehicles as part of the fleet operations where appropriate.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]

Benefits:

- Purchasing a six-car fleet of hybrid vehicles can save cultural and heritage sites up to 80% on fuel costs[11].
- Promoting the use of public transport, employee carpooling and individual use of green transportation will significantly reduce the carbon footprint across Scope 1 and Scope 3 (as transportation accounts for 49% of the tourism industry's emissions according to the World Travel & Tourism Council)[12].
- Sustainable public transportation is ten times safer per mile than driving a personal vehicle into the city. Moreover, commuters can reduce their chance of being involved in a crash by more than 90% by taking public transit[13].

Local References:

- ADX: Use the monitoring framework for the initiatives presented in these guidelines as part of ADX sustainability reporting for sustainable transportation.
- Abu Dhabi Environmental Vision 2030: Achieving sustainable transport management will support the sustainable development of Abu Dhabi's economy.
- Abu Dhabi sustainable transport mobility strategy.

[11] Based on AESG's research on the average fuel cost in Abu Dhabi in the last 3 months, which is 3.7AED/L – to account for volatility – as well as average miles per gallon or MPG value for cars in the industry (24.2 mpg), average energy consumption per range figures of EVs at 0.2 kWh/km, ADDC's EV tariff of 0.3AED/kWh as well as an average of one 12km trip per day based on Moovit Transport Index, www.moovit.com)
[12] World Travel & Tourism Council, "A Net Zero Roadmap for Travel and Tourism", 2021, (www.wttc.org)
[13] Environment, "8 Main Benefits of Sustainable Transportation", 2020, (www.environment.co)

A.5. Environmental Protection

Protecting the local environment and native ecosystems is critical for the tourism industry in Abu Dhabi, given the large number of vulnerable plants, animal species, and habitats[14]. For example, according to Environment Agency - Abu Dhabi (EAD) experts, Abu Dhabi contains 34 different types of hard corals and 17 different types of birds that are endangered. Abu Dhabi is home to 436 native plant species, including the national tree of the UAE, the Ghaf[15]. The tourism industry should ensure the protection of the local environment across all their operations and value chain.

Initiatives applicable to culture and heritage sites

Sustainability Initiatives		Culture and heritage site category		
1.	**Ensure protection of local flora and fauna.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Ensure that no pollution or spillage in the local environment is caused during the retrofit activities.	✓	✓	✓
	1.2. Ensure that garden areas or any open tourist waiting area in the premises or site is clean and no plastic or other waste is left behind, to protect the environment and animals.	✓	✓	✓
2.	**Environmental protection awareness campaign.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Train staff on environmental protection, particularly on how to reduce pollution.	✓	✓	✓
	2.2. Provide information and training materials (e.g., guidebook and leaflets on flora and fauna protection, planting native trees of UAE, etc.).	✓	✓	✓
	2.3. Create awareness leaflets and signage on littering and tampering, endangered species protection, etc.	✓	✓	✓

[14] Earth's Endangered Creatures, Endangered species (www.earthsendangered.com)
[15] Environment Agency Abu Dhabi, Discover our biodiversity (www.ead.ae)

3.	**Sedimentation and Erosion Control Plan.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. Develop a plan to mitigate and prevent sedimentation and erosion of the natural area surrounding the cultural and heritage site.	✓	✓	✓
4.	**Protect the natural environment.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. When building or renovating outdoor infrastructure (such as car parks, play areas), ensure that prevention and mitigation measures are implemented to protect the natural area surrounding the infrastructure.	✓	✓	✓
5.	**Plant native trees and plants at the site or surrounding areas to promote biodiversity.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	5.1. Plant native trees and plants (such as Ghaf Tree and White Saxaul) in the surrounding area to promote biodiversity.	✓	✓	✓
6.	**Develop a climate resilience action plan, which outlines measures on how to adapt to climate change issues.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	6.1 Can be conducted through a third party, or alternatively LEED has an established Climate Change Action Plan template.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]

Benefits:

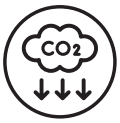
- Ensuring the protection of flora and fauna and planting native trees will preserve and enhance the biodiversity of Abu Dhabi.
- This is a long-term investment in the environment, to keep it resilient and attract more visitors in the future.
- Planting trees has the direct effect of reducing atmospheric CO2, since each individual tree directly sequesters carbon from the atmosphere through photosynthesis.
- A balanced ecosystem results in rain and slows down climate change. Large mangrove forests can influence weather patterns and create their own microclimates.

Local References:

- UNESCO, Loi N.8 sur les antiquites et les fouilles – Themes, protected area or good. Categories, cultural movable heritage – cultural property.

Further Reading:

1. Abu Dhabi's native plant species.
2. There are several other laws relating to environmental that cultural and heritage sites are expected to comply with. Read UAE legislation on environmental protection



A.6 Carbon Management

The global tourism industry accounts for around 8% of global carbon emissions[16] and this is set to increase. Tourism, like other industries, has a responsibility to manage its impact on the planet. Reducing the sector's carbon footprint contributes towards mitigating the devastating effects of climate change, which has a positive cascade effect on public health and the environment. Abu Dhabi's arid climate makes it vulnerable to extreme weather changes such as increases in temperature, which in turn leads to reduction in the number of visitors travelling to Abu Dhabi. Carbon management has significant importance and investing in carbon management results in innovative and more environmental-friendly solutions that will boost the planet's health.

Initiatives applicable to culture and heritage sites

	Sustainability Initiatives	Culture and heritage site category		
1.	**Calculate footprint through monitoring operations and outlining the emissions related to each operation.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. This can be done through digital tools (such as OneClick LCA, IES).	✓	✓	✓
2.	**Identify carbon hotspots in the operations.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Emissions related to visitor arrivals, departures and pickups or sourcing of materials for day-to-day operations.	✓	✓	✓
3.	**Develop a pathway to net-zero.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. Identify carbon reduction measures.	✓	✓	✓
	3.2. Set carbon reduction targets.	✓	✓	✓
	3.3. Offset residual emissions.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]

Benefits:

- Calculating a carbon footprint through a digital tool can identify GHG hotspots, thus enabling carbon emission reduction and reporting.
- With the rise of eco-tourism, carbon-conscious cultural and heritage sites would attract more visitors.
- Benefit from long-term partnerships with local and government bodies that are working towards a net-zero economy.

Local References:

- UAE net-zero 2050: The UAE has pledged to have net-zero emissions by the year 2050. Culture and Heritage sites can be aligned with this strategy by aiming to reduce their emissions.
- Whilst there are no laws mandating carbon reporting at the date of writing these guidelines, it is expected that there will be requirements in the future. Therefore, we recommend that cultural and heritage sites should establish procedures to report their carbon emissions.

Further reading:

1. GHG protocol – for further information and definitions of GHG Scope emissions and classifications and methods of calculation.

[16] World Economic Forum, "Tourism is responsible for a staggering 8% of global greenhouse emissions", 2018 (www.weforum.org)

B. Sustainable and Local Procurement

B.1 Sourcing of Local, Sustainable Goods

How can cultural and heritage sites procure sustainably?

Sustainability should not be considered solely within the company itself, but must go beyond its boundaries, throughout the entire supply and value chain in which it operates and collaborates. Research has shown that customers have increased consideration of the products they consume, including environmental and social sustainability[17].

Initiatives applicable to culture and heritage sites

	Sustainability Initiatives	Culture and heritage site category		
1.	**Design a sustainable procurement plan and policy to support sustainable purchases.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Create a requirements checklist for identifying sustainable suppliers (within the sustainable procurement strategy) and collaborate and partner with contractors that meet the sustainability criteria for radical maintenance work or infrastructural changes.	✓	✓	✓
2.	**Wherever possible, purchase products with less disposable packaging and opt to purchase products that are packaged more sustainably (reusable/recyclable cardboard packaging or recycled packaging).**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Select multi-use materials in packaging first, then biodegradable/recyclable.	✓	✓	✓
3.	**Purchase eco-friendly products.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. General cleaning products (low hazardous chemical content), bathroom soap, and where applicable, washing up liquid, detergent. Bamboo cleaning equipment (e.g., scrubs, cloths, mops).	✓	✓	✓
4.	**Partner with local suppliers wherever possible.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. Purchase groceries, food items and other goods from local supplier.	✓	✓	✓
5.	**Encourage procurement of sustainable food products.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	5.1. For F&B outlets, do not purchase food products from endangered or protected marine species, fish and other species.	✓	✓	✓
	5.2. Encourage the purchase of food products that have nationally recognised eco-labels (presented on the packaging) or green certification, if options are available.	✓	✓	✓
6.	**Source environmentally preferable options including products that contain recycled materials (pre- and post-consumer content), contain renewable materials or are compostable/biodegradable.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	6.1. Source compostable or recyclable products, such as napkins, food containers, notepads made from recycled paper and other packaging.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]
[17] Deloitte, "Shifting sands: How consumer behaviour is embracing sustainability" (Available: www2.deloitte.com [accessed: 2022/08/22])

Benefits:

- Purchasing locally sourced products yields multiple benefits such as supporting local businesses, reduced emissions from product transport, and reduced damage during transportation.
- Purchasing environmentally preferable options would reduce carbon emissions, waste, and encourage sustainable behaviour.
- When offering a seasonal menu with locally sourced ingredients, transportation requirements, food waste and spoilage are reduced, and it also opens an opportunity to partner with local farmers.
- Sourcing fresher produce will ensure higher quality products.
- Growing local varieties of food preserves local genetic diversity.

Local References:

- ADX: cultural and heritage sites can use the monitoring framework for the initiatives presented in these guidelines as part of ADX sustainability reporting for sustainable procurement.
- Supporting suppliers who are committed to the development of UAE Nationals.

C. Social and Culture

C.1 Promoting Local Heritage, Culture, and Art

How can cultural and heritage sites achieve social and cultural sustainability?

Rapid urbanisation and modernisation have had considerable impacts on the culture and built environment of the Middle East, which has impacted cultural sites and resulted in the need to place higher significance on celebrating cultural heritage. Promoting the local culture, heritage, and art the region has to offer will create an authentic experience for visitors, and the sites will enhance the quality of life of all stakeholders and local communities.

Initiatives applicable to culture and heritage sites

	Sustainability Initiatives	Culture and heritage site category		
1.	**Celebrate and support national events and holidays.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Support and promote UAE National Day, Ramadan, Eid, etc., by partnering with artists and artisans in creating themed souvenirs, local businesses to set up a temporary local market, or musicians to play traditional music.	✓	✓	✓
2.	**Play local music, serve local food and drinks, and put up traditional decorations and arts, promoting local artists and artisans, if applicable.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Put up local decorations and crafts and play local music throughout and serve complimentary local snacks to visitors.	✓	✓	✓
3.	**Support local tours and guides through partnerships.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. Partner with local tour guides to organise tours for visitors at the sites. Additionally, museums and galleries can promote local/traditional items in the non-exhibition public spaces (e.g., reception, F&B, rest areas) and open space sites (e.g., village/markets) can invite traders, craftsman, artists to attend.	✓	✓	✓
4.	**Embrace technology and innovation for preservation and archiving. These methods can provide a publicly accessible archive enabling people to visit and learn about Abu Dhabi's cultural and heritage sites from around the world. These technologies can also help ensure that heritage sites are effectively managed today as well as protected for tomorrow.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. Use 3D digital scanning and modelling.	✓	✓	✓
	4.2. Utilise digital preservation and archiving.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]

Benefits:

- Raising awareness of the value and importance of the cultural heritage of Abu Dhabi contributes towards a sustainable future by maintaining and preserving the rich cultural heritage.
- Promoting local cultural heritage strengthens the relationship between the visitors and the local community.

Local References:

- UAE law on the preservation of cultural heritage.
- Emirates Heritage Club.
- Juma Al Majid Center for Culture and Heritage.

C.2 Promoting Sustainability with Visitors and Local Community

The local community are an important asset when considering offering unique experiences to visitors. Creating opportunities for the local community to engage with visitors encourages locals to preserve and value their cultural identity and traditions which contributes towards a sustainable social future.

Initiatives applicable to culture and heritage sites

	Sustainability Initiatives	Culture and heritage site category		
1.	**1. Partner with non-profit associations to organise events that raise money for local causes and charities.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Obtain the required license from a competent authority like Ministry of Community Development to organise a fundraising event.	✓	✓	✗
2.	**2. Organise a community/public space, public events or lectures on various topics related to sustainability.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Where sites have space, provide a community garden/area open to the public. Dedicate this space to hosting public events/lectures for visitors to attend. The events can address sustainability, local culture and heritage , and other important topics.	✓	✓	✓
3.	**3. Raise visitor awareness of their environmental and social impact.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. Raise awareness through campaigns, leaflets, signage for waste disposal, etc.	✓	✓	✓
4.	**4. Collaborate with local performing artists and artisans**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. Collaborate with local artists and artisans to showcase their crafts or a local musician to play music for the visitors.	✓	✓	✓
5.	**5. Align with local initiatives and NPOs to design programmes to engage visitors and locals on sustainability.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	5.1 Incorporate guidelines and advice from the UAE Ministry of Climate Change and Environment.	✓	✓	✓
	5.2. Incorporate guidelines and advice from Emirates Environmental Group.	✓	✓	✓
6.	**6. Instigate a rewards system.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	6.1. Offer a visitor loyalty card which can be marked for every visit and for additional sustainability efforts. These effects can be advertised through the sustainability awareness materials (e.g., bringing and using a refillable water bottle would be rewarded).	✓	✓	✓
7.	**7. Conduct visitor surveys.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	7.1. Understand their satisfaction with and expectations of the site's sustainability initiatives.	✓	✓	✓
8.	**8. Ensure integration of international programmes and certifications.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	8.1. ISO140001 Environmental Management System, Green Key, Green Globe, Earth Check, ISO 20121 Sustainable Events, ISO 50001 Energy Management System.	✓	✓	✓
9.	**9. Co-develop and co-design products inspired by local crafts in collaboration with local artisans and artists.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	9.1. Hire local businesses to decorate and provide traditional products (e.g., furniture and art).	✓	✓	✓
	9.2. Promote and sell local souvenirs by partnering with local artists and artisans.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]
[Note: For events organisation, please refer to the Event Sustainability Guidelines]

Benefits:

- Research from Booking.com has shown that visitors look for more sustainable options, hence the site's reputation will benefit from informing the guides, local community and visitors which sustainability initiatives have been implemented.
- Increased partnerships with local artists and artisans will result in exposure and recognition while generating additional revenue.
- Collecting guest feedback would allow cultural and heritage sites to undergo continuous improvements and encourage recommendations and revisits to the cultural and heritage sites.
- By raising awareness in local communities of environmental concerns, people will be encouraged to protect the environment and wildlife.

C.3 Engaging in Educational Programmes

Education is one of the key assets in raising awareness about sustainability, especially among the younger generations. During the past decade, sustainability has been integrated into most school curriculums to motivate the younger generations to make environment-friendly decisions and take action in the future to curb the impact of climate change.
The education sector offers unique opportunities for the cultural and heritage sites to engage in educational programmes and workshops for students by collaborating with schools and educational institutes.

Initiatives applicable to culture and heritage sites

	Sustainability Initiatives	Culture and heritage site category		
1.	**Partner with educational institutions to promote community, culture, and heritage.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Partner with educational institutions to organise lectures and programmes for students to educate them on the heritage and cultural sites in Abu Dhabi.	✓	✓	✓
	1.2. Organise cultural heritage workshops for students (e.g., traditional crafts, music, art, dance, etc.).	✓	✓	✓
2.	**Partner with schools and educational institutions to encourage students to participate in sustainability initiatives at the sites, if applicable.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Organise an annual tree planting drive, talks on Abu Dhabi's culture and history, etc.	✓	✓	✓
	2.2. Engage students in activities as part of the site's sustainability initiatives.	✓	✓	✓
3.	**Support sustainability-focussed groups**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. Provide the space and resources for a sustainability-focused group. This group can be formed of anyone that is passionate about sustainability, but educational institutions can elect a representative.	✓	✓	✓
	3.2. Students can be encouraged to join and run these sessions.	✓	✓	✓
4.	**Promote UNESCO General Conference competition for innovative projects**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. Promote on-site the opportunity for students and community members to enter the UNESCO annual competition for innovative projects regarding Education for Sustainable Development (ESD).	✓	✓	✓

Benefits:

- Educating students and the local community about local culture reinforces the importance of preserving Abu Dhabi's cultural heritage.
- Through educational programmes, tourists and the younger generations (including residents) will become more aware of and enthusiastic about social sustainability in Abu Dhabi.
- Hosting workshops/classes on local art, crafts, and cuisine can help build a stronger relationship with visitors, increasing revisits and recommendations.
- Environmental learning prepares students for future careers and prepares them with the required skills to become professionals in the sector.

C.4 Improving Accessibility

Despite the global population of People of Determination, the lack of awareness and information is one of the major obstacles visitors face whether they are a Person of Determination or a companion or family member. Universal access is a key factor in social sustainability to ensure the needs of People of Determination are addressed and fulfilled.

Initiatives applicable to culture and heritage sites

Sustainability Initiatives	Culture and heritage site category		
1. Ensure provision of a lactation room for women, and gender-neutral baby changing stations.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
1.1. Provide nursing mothers with a private lactation room and baby-changing stations should be gender-neutral.	✓	✓	✓
2. Organise staff training on accessibility provisions for visitors bi-annually.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
2.1. Train staff on how to support/provide assistance to a Person of Determination.	✓	✓	✓
2.2. Provide behavioural and etiquette training, e.g., how to communicate with a Person of Determination.	✓	✓	✓
3. Improve provisions for People of Determination.	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
3.1. Provide ramps for easier access to entrances (or wherever required at any elevated spot).	✓	✓	✓
3.2. Ensure information is in raised text/numbers and braille on elevators, , signages, etc.	✓	✓	✓
3.3. Place People of Determination priority sign and ensure that one of the elevators provides priority or is designed for People of Determination, with wider entrance and low door closing speed.	✓	✓	✓
3.4. Ensure accessible parking spaces are marked with People of Determination priority signage. These must be closest to the main entrance.	✓	✓	✓
3.5. Ensure visible and accessible signage and directions.	✓	✓	✓
3.6. Introduce audio aids for directions, information on displays, etc.	✓	✓	✓
3.7. Ensure sufficient pick-up and drop-off vehicles with wide entrance and low-rise accessible seats.	✓	✓	✓
3.8. In accessible bathrooms, provide a fixed horizontal and vertical grab rail beside the toilet to assist in standing/sitting and install a pull-cord alarm.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]

Benefits:

- Enhancing accessibility within the venue or site will create customer loyalty and distinguish the brand.
- Lactation rooms provide a private, relaxing space for nursing mothers during their visit to the venue or site.
- Staff training would enhance customer service, especially when dealing with a Person of Determination.
- Enables people with disabilities to move around independently and access the site fully.

Local References:

- Cultural and heritage sites must also comply with Abu Dhabi building codes and the requirements set out in chapter 11 on building accessibility (and appendix E).
- UAE national policy for empowering People of Determination.
- UAE People of Determination protection from abuse policy.

D. People

D.1 Staff Empowerment

How can cultural and heritage sites engage with their people and generate social value?

Securing a workforce for the future has long been a challenge for the tourism industry. Research has shown that lack of career progression is one of the main reasons people leave the sector. Although training and development cannot always combat this directly, investment in employees and a robust training and development strategy can go a long way.

Initiatives applicable to culture and heritage sites

	Sustainability Initiatives	Culture and heritage site category		
1.	**Conduct annual trainings for employees for their personal and professional development.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Online and/or in-person courses (e.g., management courses).	✓	✓	✓
2.	**Provide career path and milestones for employee professional development and promotion.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Set in place a structured review and development programme, including bi-annual performance reviews where development goals and objectives are set and performance reviewed against KPIs.	✓	✓	✓
3.	**Conduct a human rights awareness training for employees.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. Schedule human rights awareness training on a bi-annual basis and record the number of hours.	✓	✓	✓
4.	**Develop a policy for anti-harassment and discrimination and conduct trainings to promote a healthy working environment to increase efficiency, employee well-being, and work quality.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. Schedule anti-harassment and anti-discrimination training on an annual or bi-annual basis and record the number of hours.	✓	✓	✓
5.	**Provide an employee reporting channel to raise issues related to sustainability and develop a process to resolve these issues.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	5.1. Place an anonymous feedback box or provide or a platform in the establishment's intranet.	✓	✓	✓
6.	**Incentivise employees to perform on sustainability (by setting it as a KPI) via appropriate tools like a staff award system.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	6.1. Provide incentives for commuting by public transport, waste segregation, reduction in water consumption, being energy efficient, etc.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]

Benefits:

- Employee engagement initiatives and programmes will contribute towards the improvement of staff performance, reduction of absenteeism and will increase the cultural and heritage site's ability to attract and retain talented employees.
- Developing an anti-harassment and anti-discriminatory policy will establish a safe working space for employees.
- Empowerment of staff helps create a positive, open environment that leads to maximum productivity.
- Improves employee morale, so they act as brand ambassadors and present the company in the best light possible.
- Flattens the company's hierarchy, which eliminates micro-managing and excess management layers to improve communication and increase transparency in the workforce.

Local References:

- All UAE employment laws

D.2 Diversity and Inclusion

According to research, staff composed of different regional and cultural backgrounds and overall diversity of employees can lead to better problem-solving, higher occupancy and profits[18], which visitors respond positively towards.

Initiatives applicable to culture and heritage sites

Sustainability Initiatives		Culture and heritage site category		
1.	**Have a diverse workforce of women, nationalities, and People of Determination via hiring and retaining policies.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Work towards a diverse workforce across all levels. Do not discriminate in the hiring process against race or People of Determination and reflect this in a policy.	✓	✓	✓
2.	**As part of the Emiratisation strategy, encourage and train the local population (especially women) to join the tourism industry.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. When marketing jobs, use the job description to encourage Emiratis (especially women) to apply.	✓	✓	✓
3.	**Put policies in place to ensure equal pay for equal work.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. Through an equality policy, stipulate that regardless of gender, nationality or ability, all employees will be paid equally for equal work and roles.	✓	✓	✓
4.	**Encourage representation of women and People of Determination in senior leadership and board.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. When hiring and promoting employees, ensure inclusion of women and People of Determination in senior leadership and management.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]

[18] McKinsey & Company, "Diversity wins: How inclusion matters", 2020, (www.mckinsey.com)

Benefits:

- A diverse and gender-balanced workforce enables the cultural and heritage sites to have a wider talent pool with varied perspectives which improves productivity, company image and overall management.
- According to survey research, 66% of organisations believe that diversity enhances innovation[19].
- According to research, diverse teams make decisions 60% faster than non-diverse teams. Teams marked by age, gender, and geographic diversity made the right decision 87% of the time, compared to 58% for all-male teams[20].

Local References:

- Emiratisation programmes and initiatives in Abu Dhabi, including:
  - "Training for Work" initiative, launched by Human Resources Authority, aims at developing job seekers' skills by providing training opportunities in government entities and companies.
  - Ministry of Human Resources and Emiratisation - The Ministry aims at providing more than 15,000 suitable jobs for Emiratis in the private sector by the end of 2018.
  - "Absher" initiative is supervised by the Ministry of Presidential Affairs and implemented by the Ministry of Human Resources and Emiratisation to encourage Emiratis to work in the private sector.
  - Khebraty programme attracts Emirati students who wish to explore the tourism sector and are able to work for 20 hours per week in a tourism company.
- UAE law on equal wages for women and men

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[19] EW group, "The benefits of diversity and inclusion in the workplace", (www.theewgroup.com)
[20] EW group, "The benefits of diversity and inclusion in the workplace", (www.theewgroup.com)

E. Resilience and Risk Management

E.1 Health and Safety

How can cultural and heritage sites mitigate risks and become more resilient?

The DCT health risk matrix and Abu Dhabi Occupational Safety and Health System (OSHAD) Framework is mandatory for all cultural and heritage sites. These suggested initiatives are additional to the mandates and if implemented would exceed expectations, driving cultural and heritage sites towards having a strong and sustainable health and safety system.

Initiatives applicable to culture and heritage sites

	Sustainability Initiatives	Culture and heritage site category		
1.	**1. Employee engagement and workshops to improve physical and mental health of employees.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Organise health and wellbeing events/retreats.	✓	✓	✗
	1.2. Promote annual health check-ups for all employees.	✓	✓	✓
2.	**2. Provide medical assistance.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Align with OSHAD COP4 and provide medical rooms, first aid kits, and assistance like CPR (at least one staff member should be trained in CPR).	✓	✓	✓
3.	**3. Develop a future pandemic/epidemic action plan.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. Develop a future pandemic/epidemic action plan that can be easily tailored to the instructions from Abu Dhabi Public Health Centre.	✓	✓	✓
4.	**4. Apply appropriate measures (such as sensors or a third party) to periodically check noise, water, and air quality for visitor and employee safety.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. Ensure a quarterly quality check of water and annual check for noise and air.	✓	✓	✓
5.	**5. Enforce Volatile Organic Compounds (VOC) and formaldehyde content limits.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	5.1. Only if the cultural and heritage site can accommodate, purchase products with low VOC content that are used for paint/coatings, adhesives/sealants, cleaners, and fragrances. Products must be stored in containment areas and disposed of correctly.	✓	✓	✗
6.	**6. Provide mental health counselling for employees.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	6.1. To ensure a safe and healthy workspace, provide employees with channels to reach out for individual counselling services.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]

Benefits:

- Providing health and safety support would reduce cost associated with accidents.
- Providing physical and mental health support to employees would improve employee wellbeing and business efficiency.
- Demonstrating commitment to sustainability and corporate social responsibility, which includes health and safety, will attract investors to the company.
- Having a robust health and safety plan keeps all staff aware of current legal requirements, which improves the company's regulatory compliance and lowers the risk of being fined.

Local References:

- UAE laws on health and safety at the workplace
- Electronic Public Health Pest Control Services- DCT and Tadweer direct all tourism and cultural and heritage sites to use Pest Control E-contract system to ensure effective and safe public health.

E.2 Risk Mitigation and Resilience

Risk management ensures that a business is prepared for any potential threats and events. This covers health and safety, as well as any global events (e.g., Covid). Resilience refers to the development, preparedness, and mitigation measures considered for scenarios such as climate change, pandemics, health and wellbeing, and sustainable growth. It is important to provide benefits and empower the employees/staff across multiple financial and non-financial dimensions to create value and manage the risks and opportunities associated with economic, environmental, and social developments.

Initiatives applicable to culture and heritage sites

Sustainability Initiatives		Culture and heritage site category		
1.	**Develop an ethics and anti-corruption policy.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	1.1. Develop a policy on ethics and anti-corruption and make sure employees are informed.	✓	✓	✓
2.	**Identify risk and have management and escalation procedures, covering at least people, assets, community, and environment.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	2.1. Conduct annual reviews of risk management policies, involving stakeholders and where applicable utilising a third party to conduct an assessment.	✓	✓	✓
3.	**Develop a risk register for the four categories (people, assets, community, and environment) and a system to monitor performance on regular basis.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	3.1. Conduct an impact assessment on all four categories (hire a third party if applicable) and develop a monitoring framework after involving all stakeholders.	✓	✓	✓
4.	**Invest in artificial intelligence, financial and climate related models to better predict the future.**	Museums & Galleries	Cultural & Heritage Sites	UNESCO Sites
	4.1. Hire a third-party assessment consultant to perform software analysis to highlight any potential future impacts. Regularly review.	✓	✓	✓

[Note: Please refer to Annex A for higher level cost, effort, and responsibilities for each initiative]
[Note: Please refer to Annex B for monitoring KPIs]

Benefits:

- Having an ethics and anti-corruption policy will lead to better staff engagement and an enhanced reputation.
- A risk management strategy will help identify risks that are not apparent and protect the business from unforeseen liabilities.
- According to McKinsey's survey about the pandemic's impact on corporate resilience, a better risk governance model is key for efficient and effective decision making and crisis management[21].
- Having a resilience plan reduces stress within the organisation and this in turn improves job satisfaction and productivity.

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[21] McKinsey & Company, "From risk management to strategic resilience", 2022 (www.mckinsey.com)

8. Conclusion

The purpose of the guidelines is to provide a roadmap and approach for the industries to contribute towards making tourism in Abu Dhabi more sustainable. By becoming a sustainable tourism destination, Abu Dhabi will maintain a high level of tourist satisfaction and ensure a meaningful experience for all visitors and tourists. In conjunction with raising tourist awareness about sustainability issues, tourists will also get an authentic experience of local UAE culture and heritage. Furthermore, sustainable practices create a positive impact on visitors and increase their likelihood of returning. Going green leads to greater loyalty, word-of-mouth marketing, and higher customer satisfaction.

Sustainable tourism in the culture and heritage sector can be collectively achieved through implementing the recommendations and sustainability initiatives presented in the culture and heritage sustainability guidelines. The culture and heritage sector can use these guidelines to develop individual sustainability journeys and roadmaps which will collectively contribute towards the vision of making Abu Dhabi a sustainable destination. Moving forward, the sector should refer the Monitoring and Measuring templates provided in Annexture B with this guideline for supporting metrics and KPIs for suggested initiatives. The template would help monitor initiatives, analyse the gaps, and track progress towards the set targets to achieve sustainable excellence.