



GSAS ECOLEAF MANUAL

Building Sustainably

FOR CAMPS & FESTIVAL SITES



Dr. Yousef Alhorr, Founding Chairman



Crafting a Green Legacy

اللجنة العليا
للمشاريع والبرث
Supreme Committee
for Delivery & Legacy



GSAS

PUBLICATIONS SERIES

**GSAS ECOLEAF:
MANUAL
FOR CAMPS & FESTIVAL SITES**

Dr. Yousef Mohammed Alhorr
Founding Chairman

COPYRIGHT © 2020

All rights reserved to Gulf Organisation for Research & Development.

Supported by:



DISCLAIMER

GSAS was prepared with the assistance and participation of many individuals and representatives from various organizations and the final outcome represents a general consensus. Unanimous support from each and every organization and individual consulted is not implied. GSAS documentation is revised on a regular basis and as deemed necessary. GORD, through the Center of Excellence GSAS Trust, reserves the right to amend, update and change this manual periodically without prior notice. Where changes in regulations necessitate changes to the criteria assessment, notifications will be issued to all parties involved in the assessment and will be announced on GORD website at www.gord.qa. An appropriate transition period shall be allowed for projects undergoing the assessment process.

As a condition of use, users covenant not to sue, and agree to waive and release GSAS Trust and its members from any and all claims, demands and causes of actions for any injuries, losses and damages that users may now or hereafter have as a result of the use of this manual, or reliance on GSAS.

TABLE OF CONTENTS

1.0 INTRODUCTION 5

2.0 CERTIFICATION HIGHLIGHTS 7

3.0 CERTIFICATION PROCESS 8

 Registration and Fees 8

 Submission 8

 Assessment 8

 Final Certification 8

 Criteria & Compliance Requirements 8

4.0 CERTIFICATION CHECKLIST 10

5.0 REFERENCES 22

**6.0 END USER’S AGREEMENT TO THE TERMS AND
 CONDITIONS OF USE OF THIS MANUAL 23**

Founding Chairman



Festivals and annual events are recognized as a country's signature celebrations that promote understanding, awareness and appreciation of the nation's heritage, culture and identity. Whether these events are commemoration of national, cultural and religious legacy or arranged to celebrate specific international festivities linked with sports, art and entertainment, such events require temporary arrangements to accommodate spectators.

Organized temporary events usually take place over several days or a couple of weeks. They encourage public participation, engagement and leadership to positively reflect and profile the unique character of the community, foster a sense of identity and pride, and contribute to the local tourism and economic activity. Popular temporary events happening worldwide include national day celebrations, fan zones and sports tournaments, expos, food festivals and seasonal camping events.

To turn these events into memorable experiences, adequate planning along with necessary supporting services, appropriate arrangements and logistics needs to fall into place seamlessly. A critical part of this planning is to make sure that such activities do not take a toll on the environment. Therefore, prioritizing sustainability consciously as a core component of these events is the key to the true success of temporary, large-scale events. That said, what makes a sustainable event so elusive is not simply the immense scope of activities and aspects linked to it, but also its reliance on individuals to expand their circle of concern. Nonetheless, institutional interventions have consistently proven to influence behavioral patterns at individual level. To put this context, a camping facility with ample outlets for waste disposal is less likely to get littered, irrespective of the number of users. Similarly, a makeshift restaurant utilizing renewables is bound to conserve energy, and such avenues are limitless when one decides to go down the road to environmental sustainability.

Another major obstacle limiting the scope of decarbonization within tourism sector lies in the transient nature of the travel industry. This is especially true for purpose-built, temporary facilities developed for specific occasions/events or seasons. Expand the scale of these events and the need to create sustainable facilities becomes imperative.

Whilst a number of sustainability assessment systems are in place to assess and implement green standards for permanent structures, the MENA region faces a genuine dearth of a framework designed to improve the environmental performance, ensure wellbeing of users, and reduce the carbon footprint of temporary facilities like Camps and Festival sites.

GSAS EcoLeaf for Camps & Festival Sites has been conceived and formulated to address this gap. This manual elaborates on this new certification's simplified yet prescriptive approach, which offers a truly unique technique by incorporating not just energy and water during operations but

also including a wide range of aspects related to the management of waste, hospitality, facility, safety, landscaping and supply chain, in addition to sustainability awareness.

GSAS EcoLeaf for Camps & Festival Sites reflects GORD's humble effort to fight climate change, but what will really move the needle is a commitment on the part of project owners and stakeholders to benefit from this novel certification – a sincere hope with which we have unveiled this technical manual.

**DR. YOUSEF MOHAMMED ALHORR,
FOUNDING CHAIRMAN**

1.0 INTRODUCTION

Across the world, countries have earned enhanced international recognition through events celebrating seasonal festivities, signature trade shows and exhibitions, annual rituals, religious commemorations and sporting events. Organized temporary events happening over the course of a few days or weeks provide a unique platform to promote diversity and culture. That said, arranging such events involve complex interactions between the setting, people and management systems. To provide a unique experience, temporary events understandably rely on the strength of well-qualified event organizers, destination management companies and other specialists who are capable of putting together customized, creative, exhilarating and well-maintained programs.

In monetary terms, temporary festivities provide an added boost to a nation's economy by creating more jobs as well as entertainment avenues not just for international tourists but also the locals who can enjoy a range of newfound activities otherwise not offered by permanent recreational facilities. That said, the economic benefits of such events often come at the expense of environmental degradation. Considering the scale and due to the absence of permanent supporting infrastructure, temporary events create thousands of tons of waste, use exorbitant amounts of electricity, damage lands due to overuse and increase in CO₂ emissions. However, these despairing facts also present hidden opportunities to make a difference. By embracing a sustainable approach in planning, organizing and managing, temporary events can set an example for similar future events as well as participating individuals to be environmentally responsible.

Considering the scope of green practices and the amount of damage caused in the absence of these measures, it is imperative for project owners and managing organizations of such events to prioritize sustainability. Worldwide, the events industry impacts millions of people who attend festivals every year. The influence created by such mega events poses another reason why organizing teams must work towards sustainability to not only lessen the detrimental effects of their event, but also to use these occasions as platforms to encourage greener behavior long after the festival ends. This is where GSAS EcoLeaf for Camps & Festival Sites comes into play.

Among its latest editions, GORD has developed the unique GSAS EcoLeaf for Camps & Festival Sites as a tourism sustainability certification designed to improve those types of projects' performance and reduce the negative impacts generated by their activity, guaranteeing an adequate balance between the economic, socio-cultural and environmental dimensions. This certification promotes nature's conservation, environmental protection,

safety and quality in the industry. Ultimately, the goal is to support the tourism industry throughout their eco and sustainable activities, and increase environmental requirements and sustainability awareness, along with the need to ensure environmentally friendly projects. Finally, recognizing sustainable tourism services by awarding environmental certificates allows guests to acknowledge the country's efforts towards providing green sites which protect the environment and improve its quality.

GSAS EcoLeaf certification guarantees the fulfillment of requirements based on the principles of sustainability and continuous improvement, ensuring that certified sites carry out new non-aggressive tourism models, satisfying the current needs of their customers and users without compromising future generations.

GSAS EcoLeaf promotes sustainability concept and practices for design, construction and operations, respectively. This concept should be developed by projects based on best sustainability practices for temporary accommodation and events. The sustainability concept should focus on energy efficiency, water consumption, responsible construction, environmental protection, sustainability awareness and behavior, transportation management and waste management.

This document provides comprehensive guidance on the best available strategies and actions to be effective in minimizing resource consumption and reduce the negative environmental impacts. It is intended to serve as a reference document and "checklist" describing a wide array of site management, educational and regulatory "tools" and practices to aid organizers, managers and volunteers in avoiding and minimizing impacts. Recreation ecology and social science research provided the foundational knowledge from which these science-based best practices were derived, augmented by case examples of management experimentation, refinement and success in seeking to accommodate increasing visitation while reducing associated negative impacts. A "sustainable campsite or fan village" is one that can accommodate the intended type and amount of use over time without unacceptable levels of expansion, degradation, maintenance and social crowding or conflict. Sustainability is inclusive of resource, social and managerial dimensions.

2.0 CERTIFICATION HIGHLIGHTS

GSAS adopts a holistic integrated lifecycle approach for projects assessment, from the earliest stages of design through to construction and operations. In addition to GSAS Hospitality scheme, which can be applied to assess various types of hotels and serviced accommodations, GSAS EcoLeaf for Camps & Festival Sites is introduced to assess the sustainability performance of temporary festival sites, campsites and fan villages throughout the entirety of the project stages.

GSAS evaluates the design and operational aspects that have the most lasting environmental impact, performs measurements related to normative standards and accepted practices, and considers what mitigation measures the project can implement. A project receives its certification following the completion of the design verification process taking place during construction. The assessment measures projects' performance levels and compliance to GSAS requirements, aiming to deliver projects that use resources efficiently throughout their lifecycle. GSAS also evaluates the provisional operational management plans set by projects and provides projects with guidance and best practices to improve health and well-being and user's satisfaction in the post occupancy phases.

GSAS EcoLeaf Certification follows a prescriptive assessment approach, where specific requirements against each criterion are listed for a project to fulfill. Demonstration of compliance by the project can be in the form of reports, plans, drawings and datasheets, etc. which must provide necessary evidence satisfactory for GSAS Trust to certify the project.

3.0 CERTIFICATION PROCESS

Registration and Fees

All projects aiming to obtain GSAS EcoLeaf Certificate should register the project on GSASgate – the online certification management portal of GSAS Trust – and pay the associated fees.

For more information, please refer to GORD website at www.gord.qa

Submission

The required documents and evidences should be prepared and submitted through a trained GSAS Project Manager, following the guidelines and requirements for each criterion outlined below.

Assessment

The assessment process is comprised of two stages:

- Stage 1: Obtaining the provisional certificate after successful completion of design documents,
- Stage 2: Pursuing conformance to design audit during the construction phase, where on-site audits are carried out by GSAS Trust to verify compliance with Stage (1) GSAS requirements against each targeted criterion, and review submitted as-built evidences for each criterion.

Final Certification

Upon the successful completion of Stage (1) and (2) assessment process, the project shall obtain GSAS EcoLeaf Certificate.

Criteria & Compliance Requirements

GSAS EcoLeaf certification consists of seventeen (17) criteria, where each criterion measures the project's environmental impacts and outlines the ways it can mitigate the negative environmental impact. The criteria are listed below:

1. Energy Management
2. Water Management

3. Renewable Energy
4. Land & Biodiversity Preservation
5. Waterbody Preservation
6. Accessibility
7. Locally Sourced Materials
8. Materials Eco-Labeling
9. Heritage & Cultural Identity
10. Sustainability Awareness
11. Waste Management
12. Facility Management
13. Risk Management
14. Supply Chain Management
15. Transportation Management
16. Infrastructure Maintenance
17. Landscape Maintenance

The following criteria are considered mandatory for any project to achieve the certification:

1. Energy Management
2. Water Management
3. Waste Management
4. Facility Management

A Project is eligible for obtaining the certification if it complies with at least fourteen (14) criteria out of the (17) criteria including the mandatory criteria.

4.0 CERTIFICATION CHECKLIST

The following is the detailed description for each criterion and the respective assessment principles (key performance indicator) against each to achieve the certification:

GSAS EcoLeaf Checklist		Checkbox
ENERGY MANAGEMENT		
Purpose	The development should ensure measures to reduce energy consumption and enhance energy management and mitigate the impact of fossil-based energy use. It should improve the design and energy performance of the development having a direct and positive impact on both the consumption of resources and environmental quality.	
Compliance	Prepare an Energy Management Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> Passive solar design elements to reduce the energy demand. Increase surface reflectance through the use of reflective paints, materials or coatings. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Use of hybrid ventilation strategies, such as providing operable windows, where possible. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Efficient interior and exterior lighting. Efficient LED lighting options should be provided in accordance with CIBSE/IESNA standard for the required illuminance and uniformity levels. The lighting for interior and exterior spaces should provide adequate visual comfort while avoiding over-lighting to reduce energy consumption. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Energy-efficient electrical appliances to reduce the electricity requirements of plug loads and reduce heat gains in air-conditioned areas from the usage of appliances, office equipment and other devices plugged into electrical outlets. 	<input type="checkbox"/>

GSAS EcoLeaf Checklist		Checkbox
Compliance	<ul style="list-style-type: none"> • Cooling equipment's compliance with ASHRAE 90.1 - 2019 or equivalent for minimum equipment efficiency. The efficiency should be verified through certification under an approved certification program. If no certification program exists, the equipment's efficiency ratings should be supported by data furnished by the manufacturer. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Direct digital control systems to optimize start-up or shut-down of the HVAC systems. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Avoiding the use of temperature sensors that can be adjusted and tempered locally. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Energy recovery system to recover the heating or cooling from the exhaust air before discharging it outdoors. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Ventilation systems that can designate the appropriate amount of outside air ventilation, to provide a comfortable environment for users. Avoid an excessive amount of outside air which will result in a high level of energy consumption. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Selection of efficient hot water generation system for appropriate application, either central or individual type. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Installation of appropriate metering equipment and monitoring devices for the measurement of energy performance and recording of the energy consumption. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Installation of lighting management control systems, including occupancy sensors, timers and photo sensors, to switch lighting off when not required. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Use of generators that are not oversized and run at low load conditions. Calculate the generator load factor based on the KWh that the generator would have produced at rated power and the actual KWh reading from the generator energy meter. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Monitoring of the overall electricity consumption from generators. 	<input type="checkbox"/>

GSAS EcoLeaf Checklist		Checkbox
------------------------	--	----------

WATER MANAGEMENT		
------------------	--	--

Purpose	The development should ensure the implementation of measures related to water systems' monitoring, optimization and conservation for indoor water consumption linked to the schedules of plumbing fixtures and water-consuming appliances. The development should also ensure the implementation of measures related to outdoor water consumption linked to the softscape schedules, the crop coefficients and the irrigation system.	
---------	---	--

Compliance	Prepare an Water Management Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Use of water-efficient fixtures, for example, low flush toilets, vacuum toilet flush systems, dual flush toilets, flow-controllers, water-saving valves and fixtures on faucets and showerheads and low flush urinals. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Installation of water-efficient equipment and appliances including dishwashers, washing machines or similar appliances, if applicable. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Use of water-efficient landscape by specifying native plants that are more tolerant to local soil and rainfall conditions. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Installation of efficient irrigation system. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Usage of rainwater or condensate or TSE water for toilet flushing, where feasible. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Monitoring of water consumption and leak detection. 	<input type="checkbox"/>

RENEWABLE ENERGY		
------------------	--	--

Purpose	The development should install onsite renewable energy generation systems. These may include renewable energy using photovoltaic cells, solar water heating and thermal or electrical energy generation systems using sources such as mini windmills, renewable biomass or geothermal sources etc.	
---------	--	--

GSAS EcoLeaf Checklist		Checkbox
Compliance	Prepare a Renewable Energy Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> The use of renewable energy where appropriate. Compliance is achieved indicating the percentage of the onsite renewable energy contribution to the total energy need of the development meeting or exceeding 5% limit. 	<input type="checkbox"/>
LAND & BIODIVERSITY PRESERVATION		
Purpose	The development should enhance the ecological value of the site and preserve and enhance its natural biodiversity, including the remediation, enhancement or preservation strategies.	
Compliance	Prepare a Land & Biodiversity Preservation Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> Ecological conservation, site restoration and soil contamination including the procedures and guidelines for soil management during excavation, soil sampling and backfilling works. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Protection and enhancement of total biodiversity (including flora and fauna) within the destination through, for example, development restrictions and compensation measures. 	<input type="checkbox"/>
WATERBODY PRESERVATION		
Purpose	The development should protect all natural waterbodies on the site, including coastlines and groundwater to prevent degradation of these limited resources. In addition, new developments reduce activities that have the potential to harm the ecological diversity of waterbodies.	
Compliance	Prepare a Waterbody Preservation Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> The conservation, restoration, and/or enhancement strategies and guidelines for natural waterbodies on or nearby the development site. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Adhere to the coastal protection regulations which mandate provision of buffer between the boundaries of a development site and the waterbody. 	<input type="checkbox"/>

GSAS EcoLeaf Checklist		Checkbox
ACCESSIBILITY		
Purpose	The development should ensure the availability of public transportation stops or stations near the development's accessible entrance, ensure that adequate signages are provided and enable safe access for people with disabilities or special needs.	
Compliance	Prepare a Accessibility Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Specifications for accessible trails, picnic and camping areas, viewing areas, beach access routes, and other components of outdoor developed areas that meet the Architectural Barriers Act (ABA) for Outdoor Spaces or other international standards. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Signage strategies including but not limited to street signage, pathway labels, trash and recycling receptacles, and directional signs leading to major attractions, parking, entrances and exits. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Safety and advisory warning signs in hazardous and potentially hazardous areas, signs indicating all public, administrative and maintenance facilities, and interpretative signs for any historical, artistic and cultural attractions. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Safe connection between the facilities and public areas including parking spaces, leisure areas and recreational spaces, etc. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Connectivity to the existing or planned transportation hubs, such as bus stops, rail or metro stations and shuttle bus parking areas. 	<input type="checkbox"/>
LOCALLY SOURCED MATERIALS		
Purpose	The development should maximize the use of local materials and reduce the impact of long-distance transportation. Locally sourced materials are locally manufactured or assembled materials with content or components either coming from local or foreign origins.	

GSAS EcoLeaf Checklist		Checkbox
Compliance	Prepare a Locally Sources Materials Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Procurement of locally sourced materials to reduce the transportation distance which will mitigate the environmental impacts of transportation. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Investigation of the availability of locally produced products and development of a materials logistic plan to identify manufacturers in the local market, aligned with a procurement program which ensures the availability of materials according to the development timeline. 	<input type="checkbox"/>
MATERIALS ECO-LABELING		
Purpose	The development should maximize the use of certified products and materials with enhanced environmental, health and resources conservation attributes. Eco-labeled materials are materials labeled with GSAS approved certification. Certificates identify eco-labeled materials include, material with Environmental Product Declaration (EPD), multi-attribute material or single-attribute material.	
Compliance	Prepare a Materials Eco-Labeling Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Procurement of eco-labeled materials. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Certificates of the materials with eco-labeling. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Development of a procurement program to ensure the availability of materials according to the development timeline. 	<input type="checkbox"/>
HERITAGE & CULTURAL IDENTITY		
Purpose	The development should encourage design expression which is in alignment with the preservation of local cultural identity and heritage; and integrate the development into the existing cultural fabric.	
Compliance	Prepare a Heritage & Cultural Identity Report to demonstrate the following:	<input type="checkbox"/>

GSAS EcoLeaf Checklist		Checkbox
Compliance	<ul style="list-style-type: none"> • Design strategies that meet the enhancement, strengthening and reflection of heritage and cultural identity of the region. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Architectural design expressions that harmonize with cultural values and traditions of the people. 	<input type="checkbox"/>
SUSTAINABILITY AWARENESS		
Purpose	The development should ensure implementation of sustainability awareness initiatives, with a focus on bio-diversity preservation, energy saving, water conservation and waste management.	
Compliance	Prepare a Sustainable Awareness Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Framework for goals and objectives. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Identification of key objectives. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Identification of resources. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Identification of communication channels. 	<input type="checkbox"/>
WASTE MANAGEMENT		
Purpose	The development should consider aspects associated with operational practice for waste reduction, reuse and recycling to mitigate the environmental impacts on landfills, and measures should be implemented for managing organic waste and recyclable materials on- or off-site.	
Compliance	Prepare an Waste Management Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Planning for collection, transportation and disposal of each type of waste with the relevant authority or licensed waste management contractor. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Installation of adequate quantity of separated waste collection bins for glass, plastics, paper and food. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Planning an adequate space and collection points for paper and magazines, batteries and other hazardous waste. 	<input type="checkbox"/>

GSAS EcoLeaf Checklist		Checkbox
Compliance	<ul style="list-style-type: none"> • Proper handling and separation of waste arising from public areas, maintenance of outdoor and indoor facilities, and other back-of-house areas into appropriate fractions for recycling and correct disposal. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Selection of products and packaging made from recycled and recyclable materials. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Minimization of single use plastics. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Proper storage of chemicals, fuel, sewage, and environmental spills. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Monitoring of chemicals use and waste production. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Transportation of waste to a disposal/recycling facility approved by the relevant authority. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Ensuring that vehicles delivering waste to the disposal area are covered, to prevent dropping, leaking or blowing of waste from the vehicle. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Ensuring safe removal/disposal at an authorized landfill for non-recyclable waste. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Provisions for proper waste tracking system to ensure that waste, including hazardous waste generated throughout the development, is disposed appropriately. 	<input type="checkbox"/>
FACILITY MANAGEMENT		
Purpose	The development should ensure the measures implemented for the best practices adopted for the operational management of the facility and the upkeep of the property assets of the development. This should include the management, operations and maintenance of the development.	
Compliance	Prepare a Facility Management Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Proper housekeeping of the development's operations including janitorial services, help desk support, storing facility, fire safety, security, environment, and health & safety, etc. 	<input type="checkbox"/>

GSAS EcoLeaf Checklist		Checkbox
Compliance	<ul style="list-style-type: none"> • Proper operation and maintenance of the development including maintenance unit, access control, surveillance, management of customer needs and MEP associated services, etc. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Data collection (energy and water consumption, chemicals use and waste production). 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Provide controlled and monitored drinking water bottles refill stations. 	<input type="checkbox"/>
RISK MANAGEMENT		
Purpose	The development should ensure the measures implemented for the best practices adopted for handling any expected or unexpected risk incident, ensuring safety of all at all times.	
Compliance	Prepare a Risk Management Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Expected and unexpected hazards (human, technological, natural and environmental) should be identified, assessed and controlled to eliminate or minimize the potential for harm or injury. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Level of risk or risk rating based on the consequence – what will happen, the extent of the harm, and the likelihood – chances of possibility of it occurring. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Procedure for emergency and immediate evacuation. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • First aid provisions. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Procedure for lost children incidents. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Procedures for electric failure. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Procedure for fire hazards. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • All portable electrical equipment/tools, leads and power boards are tested and tagged as required. 	<input type="checkbox"/>

GSAS EcoLeaf Checklist		Checkbox
Compliance	<ul style="list-style-type: none"> Generators, if used, are safely positioned and access to area restricted. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Event personnel have completed necessary emergency procedures training. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Procedures undertaken in an event of overcrowd occurrence. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Procedure for smoking control. 	<input type="checkbox"/>
SUPPLY CHAIN MANAGEMENT		
Purpose	The development should ensure that a lifecycle approach is taken to assess products and services, considering production, use and end-of-life stages, so that environmental hotspots and improvement options can be identified, and environmental impacts efficiently minimized. Supply chain management should demonstrate involvement of all departments and high-level direction and management within organizations.	
Compliance	Prepare a Supply Chain Management Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> Major products, services and suppliers used by the organization, including food and beverages. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Priority products and services for improvement based on environmental impacts. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Identification of improvement options. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Implementation of improvement options (green procurement and benchmarking, etc.). 	<input type="checkbox"/>
	<ul style="list-style-type: none"> Green cleaning policy. 	<input type="checkbox"/>
TRANSPORTATION MANAGEMENT		
Purpose	The development should ensure the availability of public transportation stops or stations within a close distance range from the accessible entrances. It should also ensure that adequate signages are provided including those for differently abled people.	

GSAS EcoLeaf Checklist		Checkbox
Compliance	Prepare a Transportation Management Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Adequate local transportation services or shuttle bus services available to and from destination areas. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Nearby public transportation that can support the capacity of the staff and guests. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Public bus stops, rail or metro stations and shuttle bus schedules, location and routes that are clearly displayed and informed to the users. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Shuttle transportation from the development to nearby transit hubs and airports. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Safe connection between the facilities and the public areas including parking spaces, leisure areas and recreational spaces, etc. 	<input type="checkbox"/>
INFRASTRUCTURE MAINTENANCE		
Purpose	The development should implement an Infrastructure Maintenance Plan to include both preventative maintenance strategies as well as incidental corrective maintenance strategies in order to maintain performance, quality and aesthetics.	
Compliance	Prepare a Infrastructure Maintenance Report to demonstrate the following:	<input type="checkbox"/>
	<ul style="list-style-type: none"> • A specific inspection and maintenance protocol for each individual infrastructure component. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Maintenance plan that includes the level of urgency to repair the damage, if any. 	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Maintenance requirements and routines guidelines including inspection frequency, small maintenance frequency and a schedule of large maintenance. 	<input type="checkbox"/>

GSAS EcoLeaf Checklist		Checkbox
LANDSCAPE MAINTENANCE		
Purpose	The development should develop and implement a Landscape Maintenance Plan to conserve habitats and biodiversity as well as to maintain lawns and vegetation.	
Compliance	Prepare a Landscape Maintenance Report to demonstrate the following:	<input type="checkbox"/>
	• Framework of measures implemented to monitor the maintenance procedures and progress.	<input type="checkbox"/>
	• Schedule and details of maintenance that will be carried out considering the flora and fauna present and their requirements.	<input type="checkbox"/>
	• Measures implemented to prevent soil erosion, irrigation and pest control.	<input type="checkbox"/>

5.0 REFERENCES

1. Bostock, Cooper and Roberts G. *Rising to the Challenge of Sustainability: Community Events by the Community, for the Community*. Palgrave Macmillan, London, 2016.
2. Getz, D. *Event tourism: Definition, evolution, and research*. *Tourism management*, 29(3), 403-428, 2008.
3. *GSAS 2019 Design & Build – Assessment Manual for Building Typologies*. Gulf Organisation for Research and Development (GORD), 2019.
4. *GSAS 2019 Design & Build – Guidelines Manual for Building Typologies*. Gulf Organisation for Research and Development (GORD), 2019.
5. *GSAS 2019 Operations – Assessment and Guidelines Manual for Existing Buildings*. Gulf Organisation for Research and Development (GORD), 2019.
6. *GSAS Technical Guide 2019*. Gulf Organisation for Research and Development (GORD), 2019.
7. Laura Anne Hunt. *Are we Moving Closer Towards a More Unified Definition of Sustainable Events?*. *Sustainable Communities Review journal*.
8. Marion, Jeffrey, et al. *Sustainable Camping “Best Management Practices.”* USDI U.S. Geological Survey, Virginia Tech Field Unit, 2019.
9. Milohnic, Ines, and Josipa Cvelic-Bonifacic. “Sustainable Camping Management: A Comparative Analysis between Campsites and Hotels in Croatia.” *Tourism in Southern and Eastern Europe*, vol. 3, 2015, pp. 211–22.
10. Planning and Statistics Authority. *Sustainable Development Goals Report in the State of Qatar 2018*. 2018.
11. Qatar National Tourism Council. *Annual Tourism Performance Report*. 2019.
12. Styles, David, et al. *Best Environmental Management Practice in the Tourism Sector: Learning from Frontrunners*. European Commission Joint Research Centre, 2013.

6.0 END USER'S AGREEMENT TO THE TERMS AND CONDITIONS OF USE OF THIS MANUAL

The use of this assessment manual is governed by the end user's agreement to the following terms and conditions.

This manual is designed, developed and maintained by the Gulf Organisation for Research & Development (GORD) with business address located in Doha, State of Qatar.

Careful attention to details were exerted in the creation of this manual to ensure the accuracy, clarity, and relevancy of the contents. However, the same should not be construed as a statement of law or used for any legal purposes.

For any clarifications or inquiries, users are advised to verify or check with GSAS Trust, a division of GORD with website address at www.gord.qa, and to obtain appropriate professional advice.

GORD or any of its centers of excellence, under any circumstances be liable for any cost, expense, loss, or damage from the use or loss of use of the information in this manual.

Dispute or claim in connection with the use or loss of use of the information contained in this manual are subject to the jurisdiction of the courts in the State of Qatar.

The information contained in this manual could include pointers or links to information created and maintained by non-Government or private organisations.

GORD is providing these links and guides solely for your information and convenience.

External sources are subject to the privacy and security policies of its owners/sponsors and are outside GORD's domain.

GORD does not guarantee the availability of such outside sources or linked pages at all times.

GORD cannot authorize the use of copyrighted materials contained in external sources or linked websites.

Users are advised to request such authorization from the owner of the outside sources or related sites.

GORD does not provide any guarantees on the accuracy, currency, and relevancy of the pointed or linked information from external sources.

By proceeding to download or receive this manual, you now agree to be bounded by the terms and conditions of use set forth in this manual.



Building Sustainably



Crafting a Green Legacy

Gulf Organisation for Research and Development
T: +974 4404 9010, F: +974 4404 9002
Qatar Science & Technology Park (QSTP)
Tech 1, Level 2, Suite 203
P.O. Box: 210162, Doha, Qatar

www.gord.qa