Green Resorts: the Metrics of Sustainable Certification for Resort Development

[FRI-D04]

Learning Objectives

a. Learn the various sustainability metrics used by the hospitality industry for destination resorts.
b. Discover the many standardized metrics of measuring green-resort design.
c. Quantify the intangible socio-economic elements of resort planning that enhance surrounding communities.
d. Examine the importance of public participation as a metric of sustainable certification for resorts, and its role in creating a sustainable community.
e. Learn from case studies about innovative methods and processes that create authentic sustainable destinations.

Description

We know landscape architects improve communities and the surrounding environment. But how is this benefit measured in a resort setting? This session will examine various ways of measuring the sustainability of green resort development from LEED to BREEAM and other socio-economic and environmental metrics.

Presentation Outline

a. Green metrics overview
   • Overview of sustainable development measurement standardized systems
   • Which systems are best apply to hospitality destinations
b. Community Participation
   • The measurable impact that community participation has on sustainable development
   • How can hospitality development fit into the larger grid of a sustainable community?
c. The MehtaMORPHOSIS System
   • Introduction of the mehtaMORPHOSIS rating system
   • Case studies demonstrate an innovative methodology and process of sustainable eco-resort planning, design and development including:
     o Research and integration of physical and metaphysical analysis
     o Cultural immersion in the planning process
d. Dialogue
   • Questions and answers

Todd Hill, Moderator

Todd Hill, ASLA, LEED®AP; is a landscape architect and land planner. He is the Director of DTJ Design’s Atlanta office and has built a 27 year career with EDAW, Inc. and AECOM. His work covers a range of scales, from large land strategies to detailed site designs. He leads the creative process for his projects to combine high-design with innovative sustainability design strategies. His portfolio of global projects includes award winning master planned communities, destination resorts, urban regeneration projects, and signature parks and public gardens. Mr. Hill’s resort portfolio includes projects across the U.S., from Canada to Mexico, The Bahamas, The Cayman Islands and the Caribbean islands, to Costa Rica, Panama, Venezuela, and Brazil; from Europe, Egypt and Senegal, to India, the Philippines, Korea, Hong Kong and China. He manages large multi-disciplined teams involving market economists, environmental and policy planners, designers, architects and engineers.

a. Green metrics overview

Sustainability in the Resort Environment - Changes in Resort Tourism:

• Travelers today are no longer satisfied with conventional vacations. They are more
environmentally conscious and seek new experiences in unusual settings.

Sustainability:
- How to meet the needs of the present without compromising the ability of future generations to meet their own needs

Green Building Metric Standards:
- LEED – USGBC (US/Canada)
- SITES - ASLA
- BREEAM – UK
- HQE - France
- CASBEE - Japan

Sustainable Resort Destination Objectives:
- Appropriate design in natural environments
- Minimize consumption of non-renewables
- Minimization of external pollution and environmental impact

Challenges for Sustainable Resorts:
- Located in highly sensitive environments
- Must provide amenities that meet expectations of high end consumers coming from developed countries
- Results of unavoidable impacts on the environment: it is the responsibility of the planners, designers, operators and developers to minimize damage

It Starts in Pre-Development:
- Analysis of existing site characteristics
- Assessment of environmental impacts
- Planning + Design
  - Balance real estate program goals with environmental site capacity
  - Preserve inherent natural site features and limit clearing
  - Develop Infrastructure Plan (water, energy) in conjunction with MP
  - Maximize opportunities to integrate plan within surrounding context
- Construction + Materials
  - Source local materials and skilled labor
  - Recyclable and durable materials
- Landscape
  - Native or non-invasive species
  - Performance based landscape – function and aesthetics
  - Minimize water consumption
- Water + Energy Management
  - Harvest water on site, and utilize grey water
  - Reduce demand via innovative design and conservation
  - Supplement available power with renewable technology sources
- Waste management
  - Process waste on site as possible
  - Treat remaining effluent that is discharged externally to a high level
  - Minimize waste and pollution resulting from imported materials

catalina avila lafrance

Catalina received a Bachelor’s of Landscape Architecture from The University of California, Berkeley, and a Master’s of Landscape Architecture from the University of Arizona, with a focus on tourism planning and sustainable communities. She has over 8 years of experience practicing landscape architecture, planning, and urban design. Catalina has a diverse portfolio and has been instrumental in the successful completion of public projects involving community participation. She has received awards and honors for professional and academic achievements, and is experienced leading design teams in creating well-used spaces within budget and satisfied clients. Her passions include altruistic endeavors, ecotourism, teaching, and creating holistic environments that enrich our communities.

Catalina currently teaches a design studio at The Design School, Arizona State University.

Fig. 1: Community Participation in Sust. Planning
b. community participation
Community participation (CP) as a metric of sustainable certification for resorts -
- What is it and what are the goals of CP?
- How can we include CP in certification programs?
- How do we measure its success?

Socially responsible resort development -
- How does it fit into the big picture of a sustainable community?
- Who benefits from CP?
- What happens when the community is not included?

hitesh mehta
Hitesh Mehta, FASLA is considered by his peers as one of the world’s leading authorities, practitioners and researchers on sustainable tourism physical planning and both the landscape architectural and architectural aspects of ecolodges. A pioneer in eco-resort planning and design, National Geographic Adventure magazine, in 2007, identified Hitesh as one of five Sustainable Tourism Pioneers in the world. For over 8 years, Hitesh has been researching certification programs in the Resort Industry and in 2007 he published his paper - “Towards a New International Ecolodge Certification System” - in the Book “Quality Assurance and Certification in Ecotourism” -published by Black and Crabtree - CARI, Australia. And then in 2010, in his book Authentic Ecolodges, Hitesh implemented an internationally recognized and tested Ecolodge Certification Scheme – the butterfly rating system called mehtaMORPHOSIS.

c. the mehtaMORPHOSIS system
His latest book “Authentic Ecolodges”, in which Hitesh used the mehtaMORPHOSIS rating system, won the FLASLA award last year. His presentation “Mehtamorphosis it is!” will focus on:
- The holistic criteria system that is used to evaluate ecolodges

The presentation illustrates a novel and innovative methodology and process in the field of sustainable resort certification.

Fig. 1: The evolution of ecolodges

Fig. 2: Similarities between metamorphosis and evolution of ecolodges

The ecocertification and eco-labelling of products has recently become a key determining factor in consumer choice. Within the tourism sector, eco-certified businesses offer travellers a formalised measure by which to judge whether a company operates at a specified level of environmental sensitivity; enough to earn a particular award. At the same time however, with so many certification schemes to choose from, it is difficult for the consumer to assess the credibility of certain schemes in their ability to protect the environment and likewise, difficult for certification schemes to cater for all customer expectations. Advancements in green technologies have encouraged the development of criteria which address ‘eco’-tourists who consider the purpose of travel to be more than the three S’s (i.e. sun, sea
and sand). Hitesh will begin his presentation by showing some of the best ecolodges in the world.

The Butterfly Rating systems includes:

- Pre Site-Visit Research techniques
- Integration of Physical and Metaphysical Analysis
- Groundtruthing as a confirmation tool
- The role of cultural immersion in planning
- Community empowerment through planning
- Involvement of Resort Operators in the planning process

The Metamorphosis of butterflies:

This section of the presentation will highlight the various stages of evolution in Butterflies.

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<tr>
<th>Tier</th>
<th>METAMORPHOSIS Components</th>
<th>MEHTAMORPHOSIS</th>
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<tbody>
<tr>
<td>Stage 1</td>
<td>Egg (Embryo)</td>
<td>Satisfy the minimum 5 criteria</td>
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<td>Stage 2</td>
<td>Larva (Caterpillar)</td>
<td>Satisfy 6 criteria</td>
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<td>Stage 3</td>
<td>Instar 1</td>
<td>Satisfy 7 criteria</td>
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<td>Stage 4</td>
<td>Instar 2</td>
<td>Satisfy 8 criteria</td>
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<td>Stage 5</td>
<td>Caterpillar to pupa</td>
<td>Satisfy 9 criteria</td>
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<td>Stage 6</td>
<td>Pupa</td>
<td>Satisfy 10 criteria</td>
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<td>Stage 7</td>
<td>Adult/Imago</td>
<td>Satisfy 11 criteria</td>
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<td>Stage 8</td>
<td>Mating</td>
<td>Satisfy 12 criteria</td>
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*Table 1: The stages of Metamorphosis components*

Introduction to the MehtaMORPHOSIS system:

Every lodge visited was subjected to a previously established criteria system. My verification process included on-site investigations and exhaustive interviews with local community members, lodge owners/operators, and local government officials. This is the first time in the history of tourism that one person has visited every single property and objectively used one criteria system to verify the authenticity of the accommodation facility. It is impossible for one ecolodge to satisfy every tenet of this system, and failure to do so is not based on intent, but more often than not on physical and cultural limitation. If an accommodation facility is located near a fresh water river or in a rain forest, for example, it’s not necessary to spend money on water conservation technologies. Similarly, in some areas, local building material may not be available.

The thirty-six ecolodges presented in the book have satisfied the criteria system, fulfilling three of the main principles and two of the remaining criteria. All the ecolodges, in the book have successfully fulfilled additional criteria. The butterfly rating system for each entry directly corresponds to these additional criteria fulfillsments. It is my hope that ecolodge proprietors, architects, academician and travelers will use this criteria as a positive gauge of authenticity and to track the evolution of ecolodges along their continued processes of environmental, social, and spiritual refinement.