

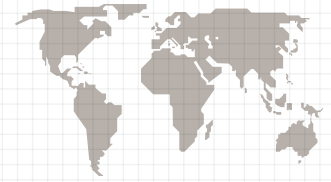
# Sustainable Hotel *Siting, Design and Construction*



The industry guide to good practice

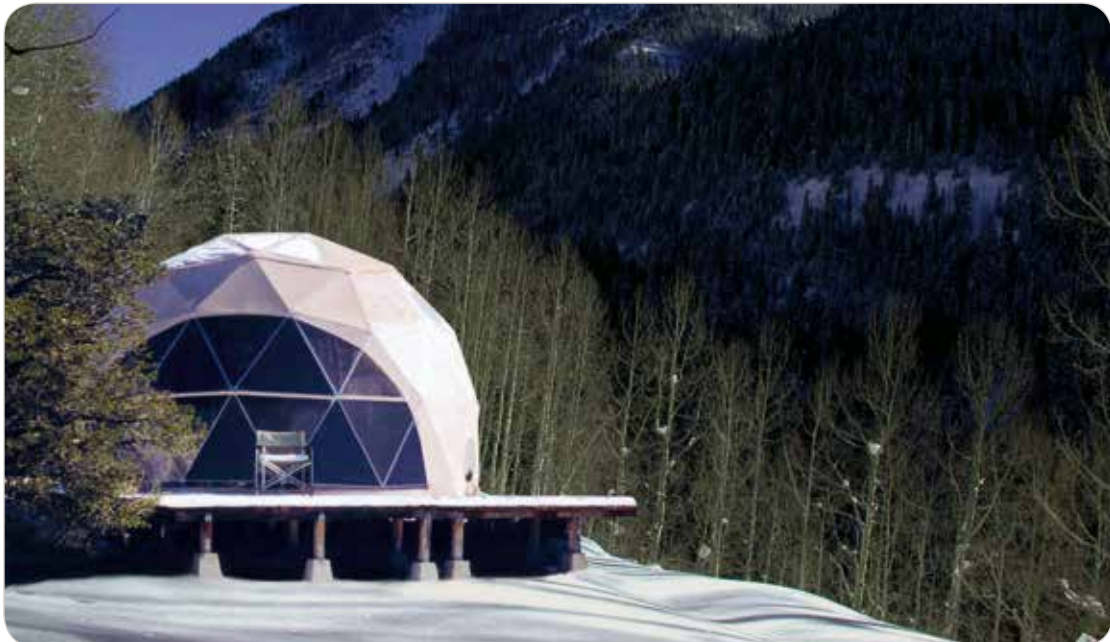
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Before the design phase of the project can commence, there are a number of steps to be completed that will have a major bearing on the sustainability of the building. These include selecting the most appropriate site for the development, consulting fully with stakeholders in the local community, conducting an environmental impact assessment and creating an overall design brief and sustainability 'master plan' that takes these factors into consideration.

## 2.1 Site selection



Whitepod, Villars, Switzerland, designed to be in harmony with nature and its surroundings. Come spring it 'melts away with the snow.'

See Case Study 1, Appendix 1.

In selecting a suitable site, one of the most important considerations is whether the proposed scale of the development is appropriate for and compatible with current and future land use policies.

Hotel developers should not imagine they are starting with a blank piece of paper during the site selection process. Analysis of the unique natural and cultural features of any site needs to be carried out in order to maximise the benefits of these features during the design and construction phase. Nearby ecosystems and wildlife and the potential impacts caused during the development process should also be taken into account. For example, in coastal ecosystems, development projects that destroy mangroves can often lead to subsequent beach erosion and negative impacts on marine habitats and wildlife.



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- A** ..... It is essential that **wildlife** (particularly threatened or endangered species) and sensitive ecosystems, including protected areas, are not disturbed. If there is any disruption, it must be kept to an absolute minimum and full rehabilitation undertaken to restore the balance after the construction phase. This is increasingly a pre-requisite of planning consent.
- B** ..... Choose a location that is sheltered and **away from high-risk areas** such as hurricane zones. If this is not possible, then ensure that the potential future effects of climate change (such as rising sea levels, flash floods and tidal waves) are factored into the design brief. In locations where extreme climate change episodes are becoming more common, ensure that additional caution is exercised over issues such as the distance of the site from any high water mark (100-year flood).
- C** ..... If possible select a location that is **close to existing local public transport** networks and that these are of reasonable frequency. The presence of a hotel facility may increase the viability of an existing service or provide an opportunity to expand it.
- D** ..... Where access to mains services already exists, consideration needs to be given to the increased demand that will be placed on **water and energy supplies**, as well as **waste** and **sewage disposal** facilities, and whether the existing facilities will need to be upgraded.
- E** ..... Where possible consider renovating, restoring or re-using **existing buildings** in order to reduce the required input of new resources.
- F** ..... Look at whether the building can be situated on **previously developed land** in order to reduce development pressure on prime virgin land. 'Brown field' sites that have had a prior industrial use may require specialist clean-up and remediation if the land is contaminated with toxic waste, which may be expensive. However, redevelopment of this kind can be highly valuable in helping to re-invigorate the local economy and regenerate blighted areas. The long-term sustainability benefits can far outweigh the initial costs of cleaning up the land.
- G** ..... Consider the likelihood that the presence of a hotel may increase demand for more recreational activities, and whether these can be supported, especially in ecologically sensitive areas and cultural and heritage sites.

## 2.2 Community consultation and involvement

The development of hotel accommodation of any size can be a contentious issue within a community. The building itself and the visitors it attracts will inevitably impact on the surrounding community. It is the responsibility of the hotel development team to manage the process of consultation with the community to mitigate any negative impacts and to maximise the benefits to and acceptance by community members of the new establishment. If they are not involved early on, important considerations may be overlooked. These may be costly to address at a later stage and will not foster the climate of consent within the community that will help the business to flourish. Establishing a participatory planning process involving comprehensive stakeholder dialogue at the earliest stage will be critical to the success of the enterprise.

Although it may not be possible to win over every member of the community, dialogue is the best way to build consensus and manage expectations.



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- A** ..... Consider the potential effects of the hotel development on the **local economy** and the **dynamic of the local community**, such as its cultural heritage and traditional activities. These elements must at all times play a central role in the design and development strategies, particularly in emerging economies.
- B** ..... **Anticipate issues which will be emotive** among community members, for example: relocation of homes (which should only be considered if completely unavoidable), potential impacts during construction and operation such as noise, emissions, overshadowing, light pollution, odours etc. Make sure you address these as a priority in any communication with community members.
- C** ..... **Research and document** the lifestyles of the surrounding communities so that this information can be shared with other members of the project team. Understand their values, traditions and beliefs, and how they are organised politically, economically and socially.
- D** ..... **Create mechanisms and opportunities** (such as face-to-face meetings with community leaders and public forums) so that community members can participate in the hotel development process by sharing their concerns and showcasing their own strengths.
- E** ..... Be **open, honest and transparent** in your communications with all external parties and avoid creating unrealistic expectations.
- F** ..... Involve residents both as **participants** and **beneficiaries**. Consider the opportunities for **ownership** (by community members or the community as a whole) of all or part of the project.
- G** ..... **Understand the community's needs**, and ensure that primary resources and services (i.e. water, energy and waste management) will be adequate to service the hotel development without encroaching upon the needs of the community. Explore opportunities for helping to establish facilities that can be shared by the community, for example, waste water treatment plants and recycling schemes.
- H** ..... Seek to provide quality, meaningful **employment opportunities** for residents and workers in nearby communities during all phases of the project development and operation. Aim to employ a representative number of local staff at all levels of the organisation and provide appropriate recruitment and training opportunities. Ensure that the **employment standards** you practice locally meet with international company standards.
- I** ..... Commit to providing **adequate staff housing** for hotel and support services staff within a reasonable distance from a property. This is of particular concern for new developments in rural areas where the secondary impacts of inadequate staff accommodation can have significant negative environmental and social implications.
- J** ..... **Purchase materials and other supplies ethically<sup>22</sup> and, wherever possible, locally.** Identify economic activities in the community that can support the hotel, or that could be grown and developed in tandem with the hotel operation. For example, explore options for developing small businesses by sub-contracting selected hotel services, such as tours, laundry services or local transport.
- K** ..... Promote an appreciation among local residents for their cultural values and lifestyle and the value of the site's characteristics, to encourage a **sense of local pride**.
- L** ..... Create opportunities to **integrate with the community** such as offering access to the hotel's recreational facilities.
- M** ..... Ensure that you comply with **local and national regulations** as a minimum standard.

<sup>22</sup> See 'Guidelines for European Companies on the Ethical Procurement of Goods World-wide', EuroCommerce and the Foreign Trade Association, 2001, [www.fta-eu.org/doc/unp/opinion/en/social.pdf](http://www.fta-eu.org/doc/unp/opinion/en/social.pdf)



Anangu Tours in Australia's Northern Territory provides a cultural learning experience for visitors. The company is owned by the local Aboriginal people.

See Case Study 3, Appendix 1.



## More information

**Guidelines for European Companies on the Ethical Procurement of Goods** World-wide EuroCommerce and the Foreign Trade Association, 2001  
[www.fta-eu.org/doc/unp/opinion/en/social.pdf](http://www.fta-eu.org/doc/unp/opinion/en/social.pdf)

**The Natural Step (TNS)**  
[www.naturalstep.org](http://www.naturalstep.org)

**Pollution Prevention and Abatement Handbook: Part III Tourism and Hospitality Development** World Bank Group September 2001  
[www.ifc.org/wps/wcm/connect/topics\\_ext\\_content/ifc\\_external\\_corporate\\_site/ifc+sustainability/publications/publications\\_handbook\\_ppah\\_wci\\_1319577543003](http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/publications/publications_handbook_ppah_wci_1319577543003)

## 2.3 The Environmental Impact Assessment

Once the systematic integration of environmental values into the decision-making business process has been established, pre-planning traditionally involves the identification of environmental impacts by conducting an Environmental Impact Assessment (EIA). In many countries, an EIA is a formal legal requirement.

Some organisations, notably the World Bank Group, require an environmental assessment to identify and minimise and/or mitigate the potential impacts for any new tourism or hospitality project.<sup>23</sup> Where the project is in a remote or sensitive location, developers are required to address issues relating, for example, to power supply, habitat management (such as the provision of water to wild animals in the dry season), the construction of airstrips and the involvement of local communities in the project design and operation.

<sup>23</sup> 'Pollution Prevention and Abatement Handbook: Part III Tourism and Hospitality Development', World Bank Group, 2001,



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It is worth noting that in some countries it is possible to obtain an EIA through corrupt government officials. Companies should avoid this temptation at all costs as it is not worth the potential risks to their reputation or license to operate should the fact later be uncovered. Increasingly, environmental pressure groups and other organisations are tracking the validity of the EIAs of major developments.

**A** ..... Ideally, an EIA should consider not only the environmental impacts of a new development but also the **broader sustainability agenda**. A number of sustainability 'checklists'<sup>24</sup> have been developed as self-assessment tools to encourage dialogue between developers, planners and the community and allow performance to be scored. These are often designed for whole areas and communities, rather than for individual buildings, but much of the content can be applied when considering hotel developments. The environmental, social and economic issues that need to be taken into account are:

- **Land use, urban form and design** (including local area plans and the opportunity for re-use of existing structures or sites).
- **Transport** (proximity to public transport, consideration of vehicle emissions and provision for parking).
- **Use of energy, water and other natural resources.**
- **Impact of buildings** such as emissions from boiler flues and kitchen exhausts, noise originating from the hotel roofs or facilities such as nightclubs and bars, overshadowing (where the building casts a shadow on other buildings), loss of daylight, obstruction of views and light pollution at night.
- **Impact of associated infrastructure** such as roads and lighting.
- **Biodiversity** and the effect the development will have on local ecological systems.
- **Community** (social and economic effects).
- **Business** (such as whether it will hinder or encourage existing or new enterprise development).

**B** ..... Within the sustainability agenda, **specific environmental criteria** should be investigated and evaluated including:

- **Vulnerability of resources**, ecosystems, and human communities to changes.
- Compatibility with existing, other or forthcoming **land use policies and plans**.
- **Compliance with environmental standards** for noise, air, surface water, ground water, and soil quality.
- Thresholds and **carrying capacities** for resources, ecosystems, and human communities.
- The effect on land and marine **protected areas** and sensitive or threatened **ecosystems**.
- Compatibility with **sustainable development principles**.
- **Disagreement among experts** as to the significance of anticipated effects.
- The **level of public concern** regarding the effects.
- **Added value of additional information** to the decision-making process.

**C** ..... The EIA/sustainability review process needs to be:

- **Comprehensive** (with an integrated approach to all major aspects and an assessment of alternatives).
- **Transparent**. Not only should the EIA identify strengths but also any weaknesses of the development. It is better to identify these and demonstrate efforts towards mitigation than for another party to 'uncover' them at a later stage. Supporting material should be made publicly available, should be in agreement with typical approaches and should include an assessment of what is not working so that lessons can be learned from previous errors.

<sup>24</sup> See particularly those of BRE, LEED and SEEDA listed at the end of this section.



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- **Inclusive of involved stakeholders** (all appropriate and applicable bodies, authorities, specialists should be listed and consulted).
- **Credible** (i.e. decisions must be objective and the scope and results of the EIA should be independently verified).

**D** ..... Procedures will vary by country but usually increase with the **size and complexity** of the building and the **sensitivity** of the site and surrounding areas. While environmental impacts may be comparatively low within cities, especially when existing structures are being reused, they become sizeable and controversial in ecologically sensitive areas, such as in tropical rainforests, coastal marshes, coral reefs, and where fauna and wildlife would be affected.

**E** ..... Often there are **difficulties** with interpretation, evaluation, assessment methods, applicable legislation and conclusions which can cause controversy with special interest groups. An effective stakeholder dialogue can help to prevent or at least mitigate against these problems.

**F** ..... An **overall feasibility study** will help to establish baseline requirements for the project, which include, but are not limited to, whole life costing, taking into account operational cost savings, potential future regulatory changes and non-tangible savings (such as gains from community support and satisfaction).



## More information

### **A Sustainability Checklist for Developments: A Common Framework for Developers and Local Authorities**

Building Research Establishment (BRE), 2002  
[www.brebookshop.com](http://www.brebookshop.com)

### **Canadian International Development Agency Environmental Assessment & Compliance Unit**

[www.iaia.org](http://www.iaia.org)

### **Conducting Environmental Impact Assessment for Developing Countries**

United Nations University Press, 1999  
[www.earthprint.com](http://www.earthprint.com)

### **Environmental Impact Assessment**

UNEP Production and Consumption Branch  
*Environmental Management Tools*.  
[www.unep.org/pc/pc/tools/eia.htm](http://www.unep.org/pc/pc/tools/eia.htm)

### **Environmental Impact Assessment Handbook: A Practical Guide for Planners, Developers and Communities**

Thomas Telford Ltd, 2002  
[www.ttbooks.co.uk](http://www.ttbooks.co.uk)

### **Environmental Impact Assessment (EIA) tool**

*The Global Development Research Centre website tool*.  
[www.gdrc.org/uem/eia/impactassess.html](http://www.gdrc.org/uem/eia/impactassess.html)

### **The European Eco-label for Tourist Accommodation Service**

European Commission, Commission Decision 2003/287/EC, 2003  
<http://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html>

### **Leadership in Energy and Environmental Design (LEED)**

*Green Building Rating System*.  
 Developed by the US Green Building Council  
[www.usgbc.org/leed](http://www.usgbc.org/leed)

### **Green Guide to Specification: Third Edition**

*A quick and easy way to assess the environmental performance of over 250 construction specifications*.  
 Building Research Establishment, 2002  
[www.brebookshop.com](http://www.brebookshop.com)

### **Guidelines For Environmental Impact Assessment**

Institute of Environmental Management and Assessment, 2004  
[www.iema.net/shop](http://www.iema.net/shop)

### **The Green Host Effect: An Integrated Approach to Sustainable Tourism and Resort Development**

Conservation International, 1999  
[http://nsgl.gso.uri.edu/washu/washuw99003/7-Bruner\\_et\\_al.pdf](http://nsgl.gso.uri.edu/washu/washuw99003/7-Bruner_et_al.pdf)

### **World Bank Group Environmental Assessment website**

[www.worldbank.org/environmentalassessment](http://www.worldbank.org/environmentalassessment)