2 CROSS CUTTING BEST ENVIRONMENTAL MANAGEMENT PRACTICE

Chapter structure

This chapter is targeted at all tourism actors, and focuses on the prerequisites for successful implementation of BEMPs referred to subsequently in this document. Specifically, guidance is provided the following two cross-cutting themes.

- Environmental management system (EMS) implementation (section 2.1). This section focuses on the environmental performance related aspects of EMS implementation, in particular the identification of relevant environmental aspects, effective performance monitoring and benchmarking, and targeted BEMP prioritisation. It provides users of this document with guidance on how to identify the most relevant BEMPs and associated benchmarks of excellence. Readers are referred to existing guidance documentation for specific cross-sectoral compliance requirements of EMAS and other EMS schemes.

- Supply chain management (section 2.2). This section focuses on the identification of priority supply chains and improvement options across tourism actors and operations. It provides a framework for supply chain improvement, and cross-refers to relevant sections of this document where specific green procurement criteria are referred to for various products and services.

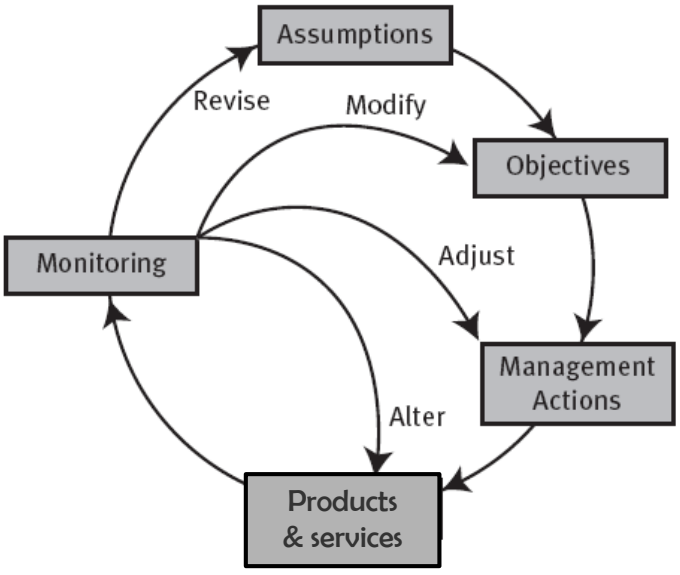
Biodiversity conservation

Of particular note here, owing to hitherto less quantitative assessment and less rigorous integration into EMS accounting, is the issue of biodiversity conservation and management by tourism actors. As referred to in section 1.2.2, tourism is often based on natural heritage and concentrated in areas of high nature value (HNV). Impacts on biodiversity may be direct, arising from construction of tourism infrastructure and the undertaking of tourist activities in sensitive areas, and indirect via extensive supply chains providing food, water, energy, chemicals and other products, and services. Tourism may also generate a positive effect on biodiversity conservation through the realisation of income from nature appreciation. Therefore, the monitoring of biodiversity and direct and indirect measures to protect it, including via supply chain management, are particularly important cross-cutting issues for tourism actors.

2.1 Environmental management system implementation

Description

An Environmental Management System (EMS) provides an organisation with a framework for managing its environmental responsibilities efficiently, with respect to reporting and performance improvement. Implementation of an effective EMS should lead to continuous improvement in management actions, informed by monitoring key performance indicators related to those actions (Figure 2.1).



Source: Modified from SCBD (2007).

Figure 2.1: The continuous planning and improvement cycle

The majority of tourism businesses are not directly regulated by environmental authorities and any decision to adopt an environmental management is voluntary. However, there are numerous potential advantages of implementing an EMS, as listed under the 'Driving forces for implementation' section, below. In addition, successful implementation of visible best environmental management practices can promote the uptake of these practices by customers. Destination management organisations may also implement EMSs, for their own operations but more importantly to account for aggregate environmental impact attributable specifically to the tourism sector. For example, Turismo de Portugal (2010) report on energy consumption across hotels and restaurants, environmental awards issued in the sector, and measures to reduce the impact of tourism on biodiversity. The Abu Dhabi Tourism Authority introduced an Environment, Health and Safety Management Scheme (EHSMS) for the entire tourism industry. In the first instance, all hotels are obliged to apply environmental management according to EHSMS criteria, and the Authority has established targets for reductions in energy and water consumption and waste generation across the sector (ADTA, 2010).

Environmental management systems may be informal organisation systems, or internationally recognised systems certified by a third-party, such as ISO 14001 and EMAS. This technical report provides guidance on sector-specific best practice measures and indicators, and proposes 'benchmarks of excellence'. This section therefore focuses on best practice in EMS implementation with respect to monitoring and reporting appropriate environmental indictors. For more comprehensive guidance on specific EMAS certification requirements, readers are referred to EMAS requirements in EC 1221/2009 and guidance documents provided by competent bodies in member states.

Table 2.1 summarises EMS implementation in relation to the Plan-Do-Check-Act approach, and highlights the relevant aspects of this document for each stage. Key points are the establishment of an organisation level environmental policy, followed by the development of action plans with specific targets. These should be informed by an awareness of what is commercially achievable, as described in best environmental management practice (BEMP) techniques and quantified by associated benchmarks of excellence in subsequent sections of this document.

The identification of significant environmental aspects is the first stage of environmental management, and as part of accredited EMS requirements enterprises must perform an environmental review. The European Commission is working on separate guidance on how to calculate 'corporate environmental footprints' that may be of relevance for the environmental review. Following the environmental review, the monitoring of relevant environmental performance indicators forms a reference point for implementation of best practice in sustainable sourcing (section 2.1), water minimisation (section 5.1), waste minimisation (section 6.1), energy minimisation (section 7.1).

Table 2.1: Stages of the Plan-Do-Check-Act cycle, with reference to relevant use of this document (highlighted in red)

Cycle stage	Management activities/steps	Relevant environmental management tool (use of this document)
Plan	• Identify priority issues (significant environmental aspects) • Establish a policy to address these issues • Identify performance standards and improvement opportunities (best practice) • Allocate specific responsibilities • Set objectives and targets • Prepare action plans, programmes and procedures for achieving (performance) objectives	Environmental review (refer to relevant best practice techniques and 'benchmarks of excellence' for particular processes)
Do	• Responsible persons implement plans, programmes and procedures	Standards and procedures (implement best practice techniques)
Check	• Monitor results • Evaluate performance against objectives and targets • Determine reasons for deviations and non-conformances	Environmental monitoring and management audit (use appropriate indicators, compare with 'benchmarks of excellence')
Act	• Take corrective action for non-conformances • Consider performance and adequacy of system elements in relation to targets • Identify changing circumstances • Modify system elements, including policy, objectives, targets, responsibilities, plans, programmes, procedures	Management review (re-assess relevance of particular best practice techniques and 'benchmarks of excellence' for particular processes)

Guidelines for generic EMS implementation and best environmental management have been produced for tourism organisations from various sources. A selection of sources for EMS and best practice guidance are listed below.

- Ecocamping (Ecocamping, 2011): an association of campsites in Europe that implement EMS, promote environmental practices, and advertise environmentally-aware camping. Encourage EMAS registration (see Figure 2.2).
- Hostelling International (2012): a non-profit organisation that promotes sustainable development of hostels around the world, and awards HI-Q accreditation. The HI-Q Quality Management System relates to service and environment related objectives.
- Tour Operators' Initiative for Sustainable Tourism Development (TOI, 2011): an international association of tour operators facilitated by the UNWTO, which currently hosts the TOI Secretariat, the UNEP and UNESCO to identify and disseminated best environmental, social and economic management practices across the industry. Members include TUI plc, REWE, Aurinkomatkat and Kuoni.
- Travel Foundation (Travel Foundation, 2011): a UK charity established to provide support for implementation of EMS and best environmental practice across tour operators and their supply chains. Provides extensive best practice information and case studies to accommodation and acts as intermediary between tour operators and destination mangers (section 4.1).
- Travelife (Travelife, 2011a): an initiative that provides training and certification on EMS implementation for tour operators, travel agents and suppliers including accommodation. Awards for hotels include bronze, silver, and gold standards, whilst a goal for participating tour operators and travel agents is to move towards EMAS through a step-by-step approach. Best practice for tour operators to leverage environmental management across suppliers is detailed in a training and management guide (Travelife, 2011b).

Figure 2.2: Stated goals of EMS implementation for Ecocamping certified campsites

A note on biodiversity

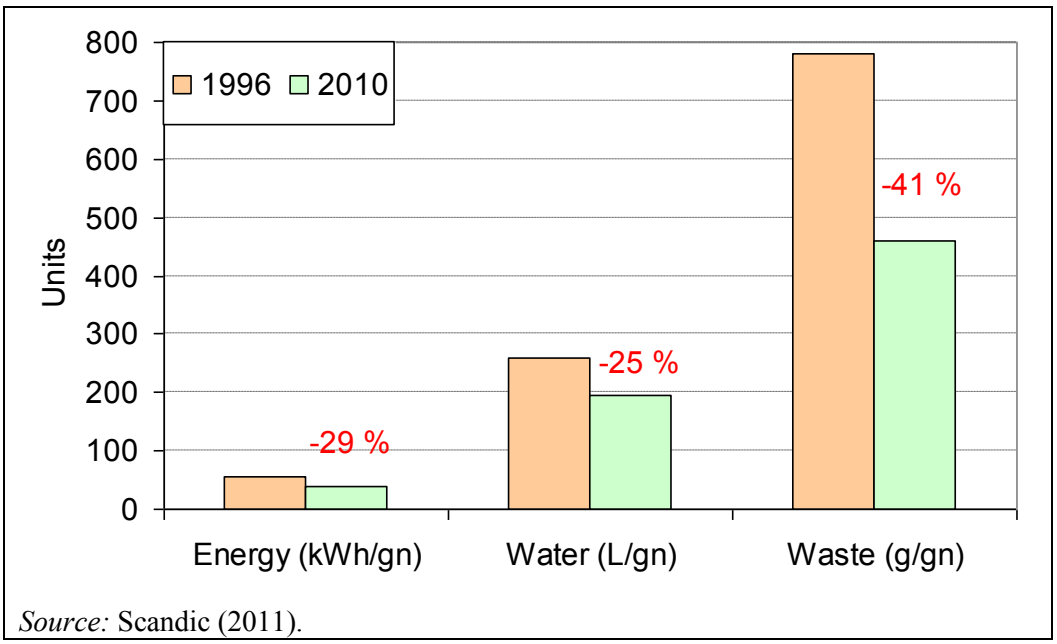
Biodiversity has been identified as a new environmental aspect with high relevance within EMAS. The main drivers of loss of biodiversity are degradation /destruction of habitats, overexploitation of natural resources, climate change, emissions/pollution and invasive species (neobiota). Emissions are traditionally managed within EMS, along with aspects contributing to climate change (energy, transport), but degradation or destruction of habitats, overexploitation of natural resources and invasive species are often new items for EMS coordinators and for staff. Particular attention is therefore required to integrate these aspects into EMS, codes of conduct and procurement guidelines. Staff training on biodiversity issues, and provision of information on biodiversity to customers is important. Annex 1 of this document contains a copy of the biodiversity check indicators devised by the European Business and Biodiversity Campiagn (EBBC).

Achieved environmental benefit

Effective implementation of some form of EMS (at a minimum monitoring) is a prerequisite for, and often directly leads to, the realisation of continuous improvement across key environmental pressures. It is the starting point from which to realise environmental benefits associated with BEMP techniques described throughout this document. Front-runners in EMS implementation are also front-runners in environmental performance.

The Scandic Hotels group has been monitoring and reporting energy consumption, water consumption and waste generation, amongst other KPIs, since 1996. Consequently, Scandic is able to demonstrate significant improvements in KPIs (Figure 2.3). On a daily operational level, an EMS can lead to the early detection of leaks that can account for up to 50 % of hotel water consumption, as described in section 5.1.

Ecocamping certification requires implementation of environmental management on campsites, and has been awarded to around 250 campsites throughout Europe (Ecocamping, 2011). Following implementation of an environmental management system in accordance with Ecocamping certification, the Jesolo International Club campsite achieved reductions of 50 % and 72 % in water and gas consumption, respectively, between 2008 and 2010. Other examples of water, energy and waste reductions and biodiversity management across Ecocamping campsites are referred to in Chapter 9.



Source: Scandic (2011).

Figure 2.3: Organisation-level environmental performance improvements documented by Scandic following implementation of a comprehensive EMS

Appropriate environmental indicators

Appropriate environmental indicators are measured at the process level and associated with best practice techniques described subsequently. Best practice is for tourism enterprises to systematically identify the indicators and best practice techniques relevant to them, in terms of their direct operations and their sphere of influence (Table 2.2). Of particular importance for EMS reporting are organisation-level key performance indicators, such as total energy or water consumption for accommodation providers – kWh/m2yr and L/guest-night, respectively (Table 2.2).

Note that all indicators are potentially relevant to tour operators and destination managers, to manage their own service providers and to monitor and influence aggregate environmental performance within destinations, respectively.

Table 2.2: Relevant environmental performance indicators for different tourism actors (key organisation level indicators highlighted)

	Tour operators	Destination managers	Built accommodation managers	Campsite managers	Kitchen managers	Laundry managers
Energy						
kWh/m^2/yr	✓		✓			
kWh/guest-night				✓		
kWh/cover					✓	
kWh/kg laundry						✓
% efficient products			✓	✓	✓	✓
% renewable energy	✓	✓	✓	✓		
CO_2/km	✓	✓				
CO_2/gn	✓	✓	✓			
Water						
L/guest-night	✓	✓	✓	✓		
L/cover					✓	
L/kg laundry						✓
Wastewater treatment standards	✓	✓		✓		
Waste						
Kg/guest-night (or L/guest-night)	✓	✓	✓	✓		
Kg/cover					✓	
% recycled	✓	✓	✓	✓	✓	
Biodiversity						
% natural area		✓				
% protected area		✓				
Number of native species		✓				
Provision of biodiversity education		✓	✓	✓		
BioD included in procurement criteria	✓	✓	✓	✓	✓	
Plan for onsite biodiversity management			✓	✓		
% outdoor area that is green			✓	✓		
Consumables						
See waste						
% ecolabelled products	✓		✓	✓	✓	✓
% organic products	✓			✓	✓	
% relevant certified products (e.g. MSC)	✓		✓	✓	✓	
% local products	✓		✓	✓	✓	

Benchmarks of excellence

The following benchmarks of excellence are proposed, the third with reference to subsequent sections of this document:

BM: appropriate indicators are used to continuously monitor all relevant aspects of environmental performance, including less easily measured and indirect aspects such as biodiversity impacts.

BM: all staff are provided with information on environmental objectives and training on relevant environmental management actions.

BM: best environmental management practice measures are implemented where applicable.

Cross-media effects

Cross-media effects associated with implementation of specific techniques are described in subsequent sections. Successful implementation of an EMS involves assessment of all major environmental aspects and processes, so that actions are targeted to minimise negative environmental (and social and economic) consequences. Often, efficiency measures have multiple benefits. For example, installation of low-flow water fittings in guest areas (section 5.2 and section 9.3), efficient dishwashers in kitchens (section 8.3), and efficient washer extractors in laundries (section 5.4), reduces water and energy consumption. For every m3 reduction in hot water consumption, approximately 52 kWh of energy is saved, assuming water is heated by 45 ºC (section 5.1).

Operational data

Staff training

It is recommended that sustainability issues are included in basic training for all levels of staff. This includes induction training, where environmental objectives and the rationale behind them can be explained alongside practical actions. Meanwhile, managers need to develop the knowledge and skills to deal with future challenges and opportunities associated with environmental issues. It is particularly important to establish a link between individual actions and aggregate environmental benefits, ideally expressed in tangible forms. For example, 'unnecessary second flushes during toilet cleaning in this hotel add up to enough water to fill an Olympic sized swimming pool every two years'. A sequence of key principles for effective staff training are suggested in the box below.

- Clarify definitions to ensure that objectives and actions are understood by everyone.
- Include practical experience at all levels of training, and include study visits to demonstrate best practice in action where possible.
- Motivate staff with competitive objectives, including those for the organisation, to become environmental front-runners.
- Ensure that responsibilities are clearly defined.
- Encourage staff feedback and suggestions for environmental management.
- Analyse and evaluate reasons why best practices are not applied and improve training through review-loops to improve performance (including staff feedback).

For biodiversity training involving complex direct and indirect impacts, environmental organisations and scientific institutes can help organisations to design and implement tailor made programmes that relate to the mitigation of direct impacts on local biodiversity as well as the indirect impacts via supply chains.

NH Hoteles bases annual bonus payments for managers partly on environmental performance targets. All staff are offered prizes for identifying opportunities to reduce energy or water consumption, or reduce waste generation (NH Hoteles, 2011).

Systematic implementation of best practice measures

Managers of tourism establishments or organisations may refer to the index of this report and identify BEMP techniques relevant to their business. Managers and relevant staff may then compare their establishment or organisation level performance with the proposed benchmarks of excellence to identify the improvement potential, and any associated economic implications. Where there appears to be significant improvement potential, the possibility to apply proposed

best practice measures can be assessed. Best practice is to perform this systematically across relevant departments and processes.

Applicability

All types of organisation can implement an EMS. This document refers to tour operators, destination managers (national, regional and local governments), accommodation providers, food and drink providers, laundry service providers. The level of complexity may increase as the scope of influence increases (e.g. tour operators and destination managers have wide spheres of influence (Table 2.2, Chapter 3 and Chapter 4).

Economics

Implementation of an EMS leads to the identification of efficiency savings detailed for best practice techniques in subsequent sections. For example, implementation of efficient lighting in a luxury 65-room hotel reduced electricity and maintenance costs by EUR 120 000 per year (section 7.6).

Driving forces for implementation

A range of factors encourage tourism organisations to implement an EMS. Objectives of EMS implementation, certified or not, include:

- identify and implement opportunities to improve operational efficiency (e.g. reduce energy and water consumption, reduced waste generation)
- manage environment-related risks and liabilities
- demonstrate environmental commitment to customers and other stakeholders
- increase access to business with customers requiring environmental management or information standards
- demonstrate a commitment to achieving legal and regulatory compliance to regulators and government.

Reference organisations

Ecocamping, Hostelling International, NH Hoteles, Scandic Hotels, Travelife

References

- ADTA, Towards a sustainable tourism destination: ADTA sustainability report 2009, ADTA, 2010, Abu Dhabi.
- DestiNet, homepage accessed March 2012: http://destinet.eu/
- Ecocamping, webpage accessed October 2011: http://www.ecocamping.net/18990/Service/Home/index.aspx
- Hostelling International, HI-Q webpage accessed January 2012: http://www.hihostels.com/web/quality.en.htm#100
- NH Hoteles, Proyecto de monitorización de consumos de agua, NH Hoteles, 2011, Madrid.
- Scandic, online live report, accessed October 2011: http://www.scandic-campaign.com/livereport/?lang=en
- SCBD, Managing tourism and biodiversity: user's manual on the CBD Guidelines on biodiversity, SCBD (CBD, UNEP), 2007, Montreal. ISBN 92-9225-069-8.
- and Tourism Development
- TOI, webpage accessed October 2011: http://www.toinitiative.org/index.php?id=3

- Travel Foundation, webpage accessed October 2011: http://www.thetravelfoundation.org.uk/
- Travelife, webpage accessed October 2011: http://www.travelife.eu/index.php?id=1
- Travelife, Travelife Training: Corporate Social Responsibility for Tour Operators, Travelife, 2011
- Turismo de Portugal, Sustainability report 2009, Turismo de Portugal, 2010, Lisbon.