

MILENA PERŠIĆ, Ph.D., Full Professor
DORA SMOLČIĆ JURDANA, Ph.D., Assistant Professor
Faculty of Tourism and Hospitality Management, University of Rijeka

GREENING TOURISM AND HOSPITALITY INDUSTRY

Tourism and hospitality industry becomes aware of the great importance of sustainable development, especially ecological dimension of the sustainability.

Due to the multidisciplinary character of tourism, a multidisciplinary approach is required, too. Sustainable tourism development must coordinate economic, sociological, cultural and political aspects with the aspects of environmental protection, the social and cultural identity and the quality of life of local residents.

The paper analyses the problem of sustainable tourism development and different issues connected with environmental problems in tourism and hospitality industry, from economic point of view. The hypothesis of the paper is that to be for a long-term economically sustainable, tourism destination must implement the different methods of eco-management. Eco-efficiency in sustainable economic development is based on the application of preventive environmental strategies with respect to processes, products and services of hotels, local tourism industry and other local authorities on the level of tourism destination. In the paper are analyzed the characteristics of tourist destinations which can be considered as eco-friendly destinations and eco-management in hospitality industry.

Key words: sustainable tourism development, eco-management, EMS – Environmental Management System, public-private partnership

INTRODUCTION

Last decade of the 20th century and the first decade of the 21st century are stressing the importance of the environmental protection and implementation of principles of sustainable development in all aspects of life. Those issues are especially important for tourism and hospitality industry, industry which uses natural resources as attraction for tourists.

In the first chapter of the paper the background and main issues of sustainable tourism development are explained. In the second chapter of the paper the problem of eco-efficiency in sustainable economic development is analyzed.

1. SUSTAINABLE TOURISM DEVELOPMENT



'Business will play a pivotal role
in meeting the sustainability
challenges of the 21st century.'

-The Tellus Institute

1. 1. Background and Main Issues

Sustainable development has emerged as a specific reaction to the fact that human activities have an adverse affect on natural processes and social events, even though such activities are carried out for the benefit of the development of the economy and society in general.

The definition most frequently cited is that of the World Commission of Environment and Development (WCED) printed in 1987 in their report “Our Common Future” (also know as the Brundtland Report): “Sustainable development is development that meets the needs of the present without compromising the ability of the future generations to meet their own needs.”¹ The definition comprises two important notions: human needs and limitations of the environment.

The WCED places special attention on the fundamental needs of humanity, above all the poor. According to the WCED meeting human needs and aspirations must be founded on equity and/or impartiality in the availability of resources and the distribution of developmental costs and benefits. There are two terms, which are used intensively in literature in connection with sustainable development. These are intra-generation equity and inter-generation equity.

Another important aspect of sustainable development is environmental limitations i.e. the limited abilities of the natural surroundings to meet present and future needs. In this sense, resources can be divided into renewable and unrenearable resources. Resource management is therefore of the special interest in the context of the sustainable development, but the limited space of the paper does not allow explaining related problems in details.

The Brundtland report points out the following content for sustainable development:²

- People themselves have a capacity to achieve sustainable development;
- A long-term perspective is necessary; there must be sufficient resources and a good environment for coming generations as well;
- There must be a balance between rich and poor countries; everybody’s basic needs must be provided for;
- We must all, in the rich world particular, change our attitudes and lifestyles to favour sustainable ecologically adapted development;
- Development is a process that can be steered towards sustainability.

Sustainable development is the long-term and global aspiration of humankind.

Keeping the above in mind we can conclude that sustainable development is a process of changes aimed at enhancing the ability of meeting needs and aspirations, both today and tomorrow, through the mutual co-ordination of resource exploitation, investments, technological development and institutional changes.³ In the foreground, the concept emphasizes qualitative improvements over quantitative growth.

The concept of sustainable development promotes controlled growth and development through the maximum preservation and rational exploitation of resources. This would provide for long-term economic and social development. Development that

¹ WCED, *Our Common Future*, Oxford University Press, Oxford, 1987, p. 43.

² Taken from Aronsson, L., *The Development of Sustainable Tourism*, Continuum, London, New York, 2000, p. 32.

³ *Ibidem*, p. 46.

would, in the long run, cause the disruption of the economic, social and ecological basis is not development based on the principles of sustainability.

According to Aronsson the term sustainable development has the following two main dimensions:

- (a) A resource dimension associated with the long-term use and development of the local countryside and local culture;
- (b) A dimension associated with workplaces and material rewards. The rewards may be sufficient to provide a basis for establishing family-firms and for generation shifts.⁴

1. 2. Specific Feature in Tourism Area

As an economic activity, tourism has its specific features. Tourists travel. They go towards the product and arrive at the tourist destination. Being an activity, which is carried out through a range of different agents belonging to various economic branches, tourism is difficult to control. In judging its impact, attention should be given to the seasonal factor which concentrates activities over a short period of time and which could potentially cause considerable harm. An additional problem is the desire of tourists to try new experiences during their travels.

When speaking of sustainability, it should be pointed out that we speak from the economic viewpoint taking into consideration the necessity and imperative of development. Tourism is becoming a massive world phenomenon and this is fact that must be accepted, because it provides the tourism industry with the possibility of making a living. It is necessary to differentiate between the term “massive” which is inherent to tourism and the term “mass tourism”, which, given its characteristics, will no longer be capable of meeting the tourist demand. The requirements of the tourist demand are increasingly turning to the values of sustainable development – personalized relations, unique experiences, cultural events, ecological values.

Development of tourism based on the principles of sustainable development has to accept the different interest and attitudes of many different groups, organizations and institutions that on direct or indirect way influence on the development of tourism. Therefore, it is necessary to get know their attitudes, otherwise it is not possible to develop a positive communication and partnership which is a must in a process of implementation of sustainable tourism development.

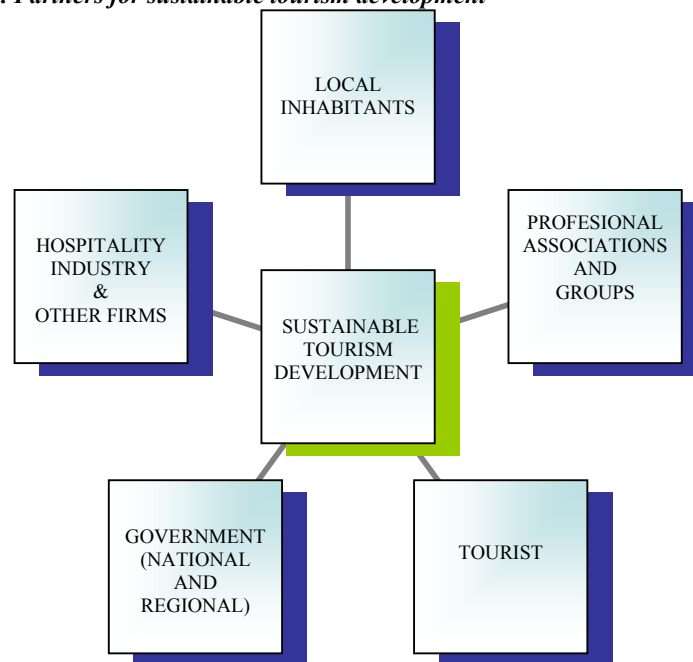
Tourism has various types of consequences in an area, the main categories being economic, social and cultural, and physical and ecological. These consequences affect both the resources and the conditions for tourism as well as the tourism product; they may have both a positive and negative impact. We shall consider this impact. As is apparent, a large number of questions have to be answered in order to create a basis for an analysis of tourism at a destination in terms of development strategy.⁵ When strategic documents are being drawn up for tourism development in a region, sustainability issues should permeate the whole analysis and not be limited to their own (isolated) section of text. All main stakeholders must accept the main principles and codex to make a sustainable strategy possible.

⁴ Aronsson, L., *op.cit.*, p. 33.

⁵ Aronsson, L., *op.cit.*, p. 37.

Stakeholders can be simply defined as any individual or identifiable group who is affected by, of who can affect the achievement of objectives. It presupposes a moral obligation to involve such parties in meaningful participation in decision-making process. The stakeholders can be classified in five big groups: government (national and regional), industry, tourists, professional associations and groups, local inhabitants (figure 1).

Figure 1: Partners for sustainable tourism development



Source: Prepared by the authors.

Due to the multidisciplinary character of tourism engaging the interests of economists, sociologists, geographers, ethnologists, philosophers, linguists, culturologists, ecologists and members of other fields of science, a multidisciplinary approach is required to an even greater extent in the sustainable development of tourism. Sustainable tourism development must coordinate economic, sociological, cultural and political aspects with the aspects of environmental protection, the social and cultural identity and the quality of life of the local community

1. 3. Social, cultural and economic impact

Tourism enhances interest in the public utilization of the environment, which will further impact on the private sector, the regional and state government, and especially on the local communities, which are more susceptible to the issue of environmental preservation.

The interdependence of tourism and the environment in achieving sustainable development involves the following:⁶

- Integrating development policies with the management of natural resources based on projects, plans and programs.
- Developing natural resources management on a regional level, which will provide the framework for management programs for natural resources on a local level.
- Integrating the development of tourism and the policies of natural resources management on a local, regional and state level.
- Increasing local capacities in accordance with the actual possibilities of the environment (especially in areas with strong tourism tendencies).

The environmental policy is generally pointed out as the fundamental issue to consider in elaborating the concept of sustainable tourism development. It goes without saying that the importance of environmental management is incontestable, as it deals with the protection of nature and space, the fundamental resource basis of tourism. However, it should be underlined that it is impossible to competently speak of the sustainable development of tourism, without an analysis of the social, cultural and economic resources.

Just like any other economic activity, tourism has its positive and negative outcomes. Sustainable tourism development should maximize the benefits from tourism, while at the same time minimizing damages or expenses, and directing and limiting tourism development in accordance with the principles of sustainable development in tourism. There are several obstacles to the process of implementing sustainable tourism development in practice:⁷

- Physical and natural limitations. It is difficult to precisely estimate the tolerance threshold of nature and space, due to continuous changes.
- The complexity of the relation. Tourism development cannot be observed through the simplified relation of cause and consequence between two or more factors. Rather, it is a complex relation between various factors having different mutual connections.
- Time deferred consequences. There are certain consequences with causes that go back into the past and with effects that have appeared after a lengthy period of time (the ozone layer hole, for example).
- The assimilation period. A certain period of time is needed for both nature and humans to adjust to the new situation. The necessity of the assimilation period is often neglected in development projects, resulting in adverse consequences.

1. 4. Green Strategies

Tourism industry has to improve education for environmental management, which need interdisciplinary approach and close cooperation of social and natural science and professionals. Environmental management systems are the organizational structure, responsibilities, practices, procedures, processes and resources for

⁶ Coccossis, H., "Tourism and sustainability: Perspectives and Implications", in Priestley, G.K., Edwards, J.A., Coccossis (ed.): *Sustainable Tourism? European Experiences*, CAB International, Oxon, 1996.

⁷ Muller, H., "The Thorny Path to Sustainable Tourism Development", in *Proceedings of the Conference Prema održivom razvitku turizma u Hrvatskoj*, Institut za turizam, Zagreb, 1994.

determining and implementing environmental standards.⁸ What has to be pointed out is that the strict legal regulation is necessary to implement the principles of sustainable development and to achieve the environmental management goals. Nevertheless, tourism has to be economically sustainable, because if tourism is not profitable that it is a moot question to ask whether is environmentally sustainable – tourism that is unprofitable and unviable will simply cease to exist.⁹

1.4.1. Voluntary strategies

Tourism industry can apply different strategies in order to connect tourism and environment protection. These may be *voluntary strategies*, such as codes of conduct, or they may be licenses and associated conditions administered by management agencies.¹⁰ A range of means are available for assisting tour operators and those who manage tourism facilities, such as resorts, to conduct their business in ways that minimize its environmental consequences.

Code of conduct and guidelines is a set of expectations, behaviors or rules written by industry members, government or non-government organizations. Their aim is to influence the attitudes and behavior of tourists of the tourism industry. A code can be informal and adopted by a group, or more formal and instituted for industry members and/or tourists. The former are often referred to as codes of ethics and tend to be philosophical and value-based whereas the latter are usually known as codes of practice or conduct and are more applicable and specific to actual practice in local situations. Guidelines are also used to direct how tourism activities are undertaken and similarly to codes may be written by industry members, government or non-government organizations.

A code of ethics provides a standard of acceptable performance, often in written form, that assists in establishing and maintaining professionalism.¹¹ (For example Pacific Asia Tourism Association's code for environmentally responsible tourism.) World Tourism Organization WTO has adopted a Global Code of Ethics for tourism, outlining a sustainable approach to tourism development for destinations, governments, tour operators, developers, travel agents, workers and travelers themselves. Codes or guidelines for specific activities are intended to help tour operators and visitors improve their environmental management and minimize their impacts.

Accreditation and certification are other means of assisting tourism industry members to act responsibly. Accreditation involves an agency or organization evaluating and recognizing a program of study or institution as meeting certain predetermined standards or qualifications. (For example The Australian National Ecotourism Accreditation Program.) Certification is testing an individual to determine their mastery of a specific body of knowledge. In early 1999, the World Travel and Tourism Council's Green Globe Program announced an environmental certification program – Green Globe 21. It is the worldwide benchmarking and certification

⁸ British Standards Institute; in Neswsome, D., Moor, A.S., Dowling, R.K., *Natural Area Tourism*, Channel View Publications, Clevedon, 2002, p. 233.

⁹ Harris, B., Griffin, T., Williamy, P., *Sustainable Tourism: A Global Perspective*, Butterworth-Heinemann, Oxford, 2002, p. 36.

¹⁰ Neswsome, D., Moor, A.S., Dowling, R.K., *op. cit.*, pp. 223-235.

¹¹ Jafari, J. (ed.), *Encyclopedia of Tourism*, Routledge, London, 2000.

program which facilitates sustainable travel and tourism for consumers, companies and communities. It is based on Agenda 21 and principles for Sustainable Development endorsed by 182 governments at the United Nations Rio de Janeiro Earth Summit in 1992.

Green Globe 21 sets international standards for travel companies and communities for good environmental performance. Objectives include protecting culture, tradition, wildlife and natural resources. The programme covers hotels, airlines, tour operators, travel agents, airports, visitor attractions, cruise ships and car rental companies. Its scope is geographically global and it is supported by a research capacity and set of advisory services. Accreditation and certification can benefit both the tourism industry and the natural environment.

Best practice is also encouraging responsible behavior of the tourism industry members. In tourism industry involves minimizing environmental impacts, especially through careful use of resources and their disposal. (for example Best Practice Tourism: A Guide to Energy and Waste Minimization, prepared by Australian government)

Hotel sustainability programmes of best practice have addressed waste reduction, energy conservation and water conservation. The airline industry has been active in greening programmes through addressing noise and emissions reductions and fuel efficiency. Restaurant programmes have focused on solid waste and energy reduction as well as broader community conservation issues.

1.4.2. Regulatory strategies

Regulatory strategies are used together with voluntary strategies to manage tourism areas and protect the environment at the same time. Licenses with associated conditions are issued to tour operators, while leases are issued to tourism business occupying fixed premises for longer periods. Both provide legally based guidance to tourism companies as to how they must conduct their business.

License is a certificate of document giving official permission to undertake an activity. Licenses allow the governing agency to monitor access and use of the areas under its control and to ensure that conservation values are maintained. License holders agree to abide by a set of rules and regulations in regard to the areas (mostly environmental sensitive natural areas) in which they operate.

Leases are generally issued where operators require exclusive right to land of waters.

2. ECO-EFFICIENCY IN SUSTAINABLE ECONOMIC DEVELOPMENT

Eco-efficiency in sustainable economic development is based on the application of preventive environmental strategies with respect to processes, products and services of hotels, local tourism industry and other local authorities on the level of tourism destination. Environmental quality is a vital part of product quality in the eyes of the tourist. Today, important factor for the success is the special manner of co-operation between local authorities and private companies as well as the networking of the companies taking part in the sustainable program development. When a tourism destination over-exploit its environmental resources, the destination can be rendered

unattractive and thus lose its popularity to those places where the environment has not been compromised. Proven conservation methods and technologies exist that can help businesses enhance guest comfort, reduce costs, and grow and prosper under a climate of resource constraints and environmental responsibility.

2.1. Eco-Management - Background and Main Issues

Eco-Management or *environmental management* has become a core business issue for many organizations. Minimizing the amount of waste that is produced, reducing energy consumption and making more efficient use of resources can all lead to financial cost savings, in addition to helping to protect and enhance the environment.

The part of the overall management system is an "*Environmental Management System*"¹³ (EMS) that includes organizational structure planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy. EMS is based on the belief that *man and nature must live in harmony*¹⁴. The vision requires hotels and other enterprise in tourism destination, to be responsible corporate citizens and thereby thrive with its business partners and local communities. An EMS is management system that provides a mechanism for a hotel and destination management to operate in an environmentally responsible manner, anticipate and meet growing environmental performance expectations, and ensure ongoing compliance with regulatory and legislative requirements.

An EMS allows a hotel and tourism destination to address, control and improve the short-term impacts of its products, services, and services provided on the environment. Before setting up an EMS, the hotel or destination management needs to obtain commitment and understand the current environmental situation. It will be designate specific management representative with defined responsibility and authority for implementing the EMS, while EMS manager is the person in charge of the EMS among the representatives.

Establishment and maintenance of an EMS, has to be according to the ISO 14000ff requirements. ISO 14000 refers to a series of environmental management standards that is voluntary and based on international consensus. The ISO 14001 standard is designed to enable any organization to establish effective environmental system to achieve continual improvement of environmental performance and establish as a minimum, regulatory and legislative compliance. The ISO 14001 standard is now the only standard in the ISO 14000 series against which an organization can become certified, and it is the real way to take the "*Eco-Management and Audit Scheme*" (EMAS) registrations¹⁵.

The EMAS is a voluntary initiative designed to improve companies' environmental performance. Its aim is to recognize and reward those organizations that go beyond minimum legal compliance and continuously improve their environmental performance. In addition, it is a requirement of the scheme that participating organizations regularly produce a public environmental statement that reports on their

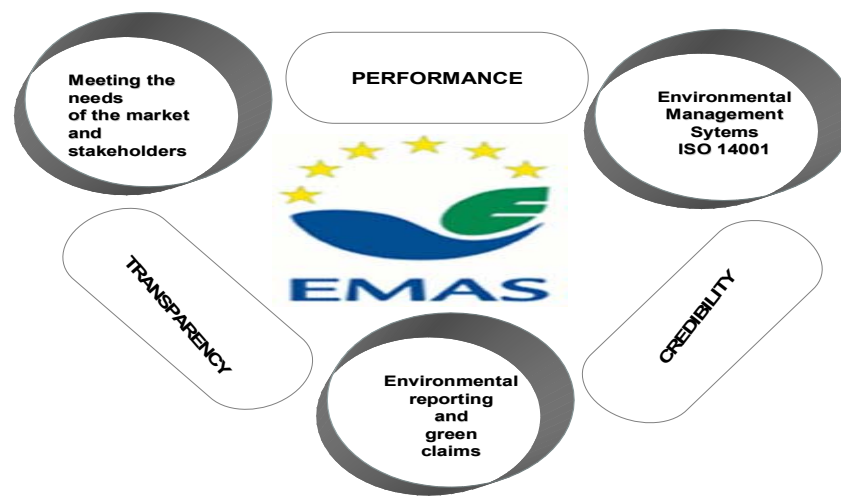
¹³ Also known as *Green Management System*

¹⁴ Taken from Injac, N.: *Okoliš i njegova zaštita, Mala enciklopedija kvalitete, IV dio, Oskar, Zagreb, 2004. p.224-231*

¹⁵ http://europa.eu.int/comm/environment/emas/about/summary_en.htm

environmental performance. EMAS is strongly backed by Government and the environmental regulators that is organizations who participate are recognized as making strong commitments to the environment and to improving their economic competitiveness. EMAS could be the competitive edge that the tourism destination management is seeking. Before some hotel or organization in tourism destination can use the EMAS logo¹⁶, and made it publicly available, they must comply the environmental review, install EMS, audit procedure and the environmental statements that must be approved by an accredited to the EMAS Competent Body for registration (figure 2).

Figure 2: Eco-management and audit scheme



Source: <http://www.emas.org.uk>

2.2. Tourism Destination Eco-Management

Tourism destination can be identified and promoted to tourists as a place to visit. Characteristics of a good eco-destination include:¹⁷

- Plenty of protected landscapes and recreational areas, such as bike paths or beach areas, shared by locals and visitors alike.
- Thriving, locally owned, lodges, hotels, restaurants and businesses that provide genuine hospitality and motivated, friendly staff.
- Evidence of local control over tourism development that prevents harm to the environment or to local well-being.
- Local festivals and events that demonstrate people's ongoing sense of pride in their environment and cultural heritage.

On this level, tourism products can be coordinated by one or more identifiable authorities or organizations, which we will call "destinations management". It is

¹⁶ Taken from <http://www.emas.org.uk>

¹⁷ <http://www.eco-resorts.com/Ecotourism3.php>

important to choose the best model of partnership. There are lots of views, opinions and a number of different approaches to the problem of an integrated destination's management model. The identity of who the destination manager is or how the management is organized will be discussed on the destination level between different models:¹⁸

1. **PREDOMINANTLY PUBLIC SECTOR** (municipality, region, prefecture, province... supported by businesses or public bodies, regional planning office and an executive foundation or municipality financed non-profit-making association....)
2. **PREDOMINANTLY TOURISM SECTOR** (tourism committee, whole range of agencies, tourism service, tourism office, tourism promotion agency, local tourism agencies...)
3. **PREDOMINANTLY PRIVATE SECTOR** (strong management by the private sector, professional federation, private management of the destination including municipal services...)
4. **PRIVATE – PUBLIC – PARTNERSHIP** (horizontal and vertical integration of the various partners – some kind of local authority involvement – destination's municipal authorities involved in most cases...)

The goal of tourism destinations management is the successful introduction of eco-quality plan, because the sustainable quality improvement is the repetitive and participatory process. This process involves an integrated management policy that concerns everyone involved in the basic services and products supplied to tourists, which is the source of attraction for the visitor, as well as in secondary services, which are an important part of the overall tourist experience. Based on the research of the European Commission, the circle diagram in figure 3 is an over-simplified presentation of the destination manager's relationship to the various stakeholders in the destination. It visualizes the links between the stakeholders in the destination and their relationships, and presents the various aspects of influence on the destination's management decision making.

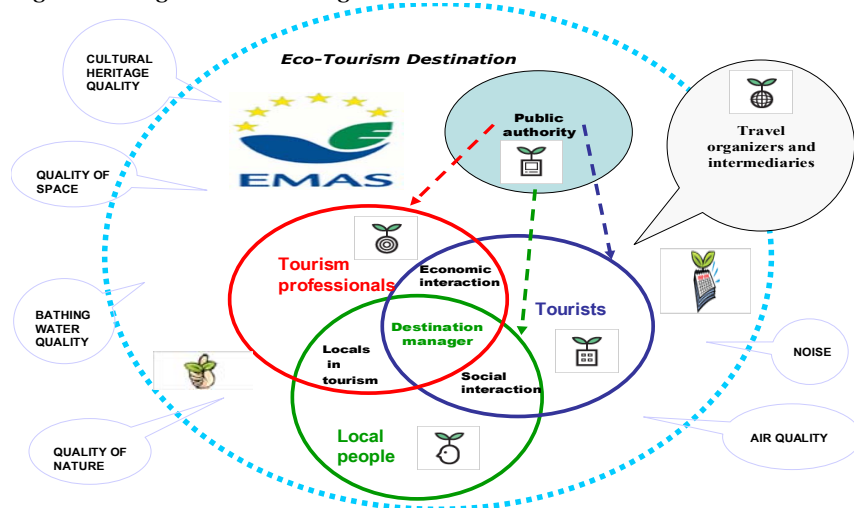
Eco-destination management oversees these aspects that are common to all successful tourist destinations (noise, bathing water, the quality of nature, cultural heritage, etc.), whether they work in the tourism industry or are tourists. Improving these elements will also contribute to improving the overall quality of life in the destination. Travel organizers and intermediaries are also important in the packaging of the tourist product and its marketing outside of the destination. Travel organizers and intermediaries are often represented in the destination management and may take an active part in the management process.

The manager has to be a leader, the “human” component of the integrated management concept. The manager must be able to coordinate between tourists, local people, tourism industry professionals, and the public authority on the tourism destinations level. To be successful in eco-activities, destination management must have qualified employees, local authority, and the resources necessary to take an active role in the planning of tourism development. It has to be the catalyst for change within the concept of sustainable development. All segments must take an active role in the destination management, and the public and private sectors can not be independent.

¹⁸Towards quality coastal tourism, *Integrated quality management (IQM) of coastal tourist destinations*, Enterprise Directorate-General Tourism Unit, European Commission, Brussels, 2000,

"Lead authority" must be identified and organized in the best form of the destination management, supported by a private-public partnership.

Figure 3: Integrated Eco-Management in Tourism Destination



Source: Prepared according to http://europa.eu.int/comm/environment/emas/about/summary_en.htm and "A Manual for Evaluating the Quality Performance of Tourist Destinations and Services", Enterprise DG Publication, European Commission, 2003. 13

The role of the eco-destination manager is to bring together the stakeholders in the destination and facilitate a constructive process whereby their inputs can be gathered. In the decision-making process, management needs information, which has to be related to the external and internal problems, and impacts on the level of tourism destination. External information can relate the most important aspects of the globalization process in the field of tourism (markets, production conditions, corporate structures, organization structures, locations, culture, environment, etc.) and its impact (like opportunities and threats) to the particular tourism destination. The key factor is in determining the integrated information system, which includes strengths and weaknesses of all organization and other subjects in the destination offers. Eco-destination management is obligate to support all organizations and subjects in the tourism destination, to receive EMAS registration to introduce the following steps:¹⁹

- conduct an *environmental review* considering all environmental aspects of the organization's activities, products and services, methods to assess these, its legal and regulatory framework and existing environmental management practices and procedures
- in the light of the results of the review, establish an effective EMS aimed at achieving the organization's environmental policy defined by the top management. The management system needs to set responsibilities, objectives, means, operational procedures, training needs, monitoring and communication systems

¹⁹ http://europa.eu.int/comm/environment/emas/about/summary_en.htm

- carry out an *environmental audit* assessing in particular the management system in place and conformity with the organization's policy and programme as well as compliance with relevant environmental regulatory requirements.
- provide a *statement* of its environmental performance which lays down the results achieved against the environmental objectives and the future steps to be undertaken in order to continuously improve the organization's environmental performance.

On the level of EU, tourism destination management is obligated to introduce EMAS instruments, which acknowledge organization to improve environmental performance on a continuous basis. EMAS registered organizations are legally compliant, run an environment management system (EMS) and resort on their environmental performance through the publication of an independently verified environmental statement. They are recognized by the EMAS logo, which guarantees the reliability of the information provided.

It is very important, because for the tourism destination business community, sustainability is more than mere window-dressing. By adopting sustainable practices, companies can gain competitive edge, increase their market share, and boost shareholder value. The growing demand for *green products* has created major new markets in which sharp-eyed eco-hotels and other organizations are reaping rewards. On the level of tourism destination, the strategies and tools that companies can draw on to translate an aspiration of sustainability into practical, effective solutions must be applied. That include identification of the specific sustainable development topics from a business perspective, incorporate the principles of sustainability into everyday business activities (in real-life), markets possibility to business opportunities arising from sustainable development, banking and investment approach and fund the best model to working with NGOs and other lobby groups. On this level have to be involved universities, schools and professional institutions that provide different education and training opportunities, for helping hotels and other institution to incorporate sustainability into their business strategies.

2.3. Eco-Management in the Hospitality Industry

Since 1990s in theory and practice are present many initiatives designed to help management in the hospitality and tourism businesses, achieve greater efficiency, reduce costs, increase profits, and enhance guest comfort. International Hotel and Restaurant Association (IH&RA)²⁰ with the United Nations Environment Programme (UNEP)²¹ Conservation International²², Green Globe²¹²³ and the International Tourism Partnership (the programme of The Prince of Wales International Business Leaders Forum)²⁴ assign since 1990th the *environmental award* for recognizing hospitality's outstanding and proactive work to protect the environment. It was one of the first award programmes to promote environmental awareness among hotels. The programme recognizes the efforts of both independent and corporate hotels, selecting a

²⁰ http://www.ih-ra.com/awards/previous_winners.php

²¹ <http://www.unep.org/Documents/Multilingual/Default.asp?DocumentID=108>

²² <http://www.conservation.org/xp/CIWEB/>

²³ <http://www.greenglobe21.com>

²⁴ <http://www.internationaltourismpartnership.org/>

winner and runner-up in each category, honored at a special *award ceremony* at the IH&RA annual congress and included in periodical "*best practice reports*".

Important areas for practical eco-managers action in the hospitality industry, to development of an environmental policy and overall strategy are: hotel environmental culture, waste management, energy and water conservation, water quality, product purchase, indoor air quality, external air emissions, noise, stored fuel polychlorinated biphenyl's (PCB's), pesticides and herbicides, hazardous materials, asbestos, etc.²⁵

The most important task for eco-hotel is the process of introducing and developing an environmental culture. The process advocated is exemplary involving top-down commitment, wide communication and consultation, the appointment of a coordinator and working group and outlining an in-house programme to *build environmentalism into staff culture*, raise awareness, build commitment, provide support, reward and recognize efforts, celebrate success and to take practical steps.

One of the most important aims of the eco-hotel manager is to build the programme for the environment, to look at the formidable influence which environmentally committed hotels may have upon the processes and products of the supply chain. Vital is, if the hotel makes such changes in the way it operates and reduces its impact on the environment. Good public relations, is seen as one of the beneficial spin-offs to be gained, which will attract guests and induce competitors to raise their own game. A role in the community is advocated for committed hotels, which opens up a new agenda for community environmental action as part of the business function. Good ideas and exemplary behavior should be rewarded and communicated to others, and recognized as a process of change.

The outlined process needs to be carried out with commitment and sensitivity would likely lead to other significant changes in the culture and ethos of the organization, in addition to increasing environmental awareness and understanding. The approaches of the eco-hotel manager are to implement the networks between hotels in the life-cycle-product-chain, support the employees (rewards and incentives schemes) to run the environmental policy, communication through newsletters and guest leaflets, fit out the *green rooms* and alternative accommodation, introduce the special eco-programmes for children, invitations to guests to re-use linen, grants to local environmental programmes and knowledge of traditional architectural features and styles, and special on use of organic and recycled products, biodegradable materials and refillable containers. Benefit to the eco-hotel managers in introduction, monitoring and evaluation process, is a good education and training program.

*Register of significant environmental aspects*²⁶ is an environmental tool to identify significant environmental aspects and their associated impacts in process of continual improvement the environmental performance. For each department or segments in the hotel, must be used a list of all relevant activities and operation, and their associated environmental aspects and impacts, under normal, abnormal and

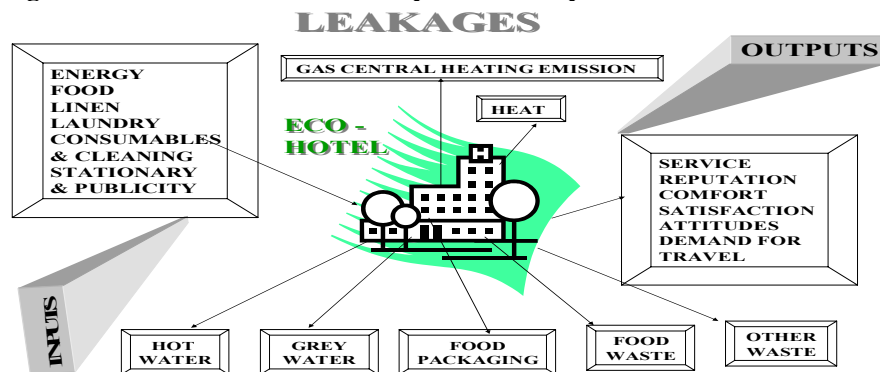
²⁵ Taken from Kirk, D: *Environmental Management for Hotels: A Student's Handbook*, Oxford: Butterworth-Heinemann Ltd, 1996. and *Environmental Management for Hotels: The Industry Guide to Best Practice*, International Hotels Environment Initiative, Oxford: Butterworth-Heinemann Ltd, 1993.

²⁶ Ben Ho: *Initial Environmental Review Report*, Hotel Generic Hong Kong, study "Keeping Hong Kong's Hotel Industry Competitive into the 21st Century", The Hong Kong Polytechnic University, Department of Building Services Engineering, 2000, p. 11 - 13

emergency situations. Figure 4 presents the most significant environmental aspects and impacts in this area, which will be hold in "Register" as follows:

- *Emission to air* (flue gas emissions from the boiler plant, exhaust emissions from kitchens, potential leakage of refrigerant from the chilled plant to the atmosphere, potential leakage of volatile chemicals e.g. thinner, plant, laundry chemicals containing ozone depleting substances etc., emission of lint particles by laundry machine, and emission of heat by equipment to workplace)
- *Water use and sewage discharge* (cleaning processes in housekeeping department, operation of laundry machines, kitchen activities, engineering and building maintenance and water consumption in guestrooms, public area toilets and staff changing rooms)
- *Energy use* (lighting and HVAC system, water pumps and swimming pool plant pumps operation, dishwashers and laundry machines, boiler plant and other energy intensive equipment)
- *General solid waste* (waste paper, empty containers, food waste, packaging waste, timber waste, broken equipment and utensils, building waste and other consumables) *connected with land contamination and use of landfill space* (from guestrooms, offices, service outlets, kitchens, stores, engineering and building maintenance)
- *Noise emissions* (HVAC system, bars and lounges, engineering and building maintenance activities, potential noise emissions by alarm systems)
- *Health risks* (from chemicals and dangerous goods handling in housekeeping, laundry, stewarding and engineering departments, malfunction of equipment or fire in the hotel)

Figure 4: Hotel environmental aspects and impacts



Source: Gray,R.,Bebbington,J.: *Accounting for the Environment, II Ed.*, Sage Publications, London. Thousand Oaks, New Delhi, 2003 , p. 94.

The first step in process of introduce the *Register of significant environmental aspects*, is to carry out a gap analysis. It is an environmental audit or analysis of current operations and management practices against requirements of ISO 14001. It can let the management know what is missing in the existing EMS elements, in order to comply with all ISO 14001 EMS standards.

The main goal is to identify all the environmental aspects and impacts of the hotel in different departments and segments in order to control and improve those significant environmental aspects. Eco-quality management is obligated to follow *Deming model circle sequence* (plan, do, check, improve) as a framework for successful EMS, which is based on five main stages (environmental policy, planning, implementation and operation, checking and corrective action and management review)²⁷. Research results based on ISO 14001 requirements are implemented for hospitality industry specific and presented in the project *Environmental Management Manual for Hotels in Hong Kong*²⁸ as follows:

- Environmental Policy
- Environmental aspects
- Legal and other requirements
- Objectives and targets
- Environmental management programmes
- Structure and responsibility
- Training, awareness and competence
- Communication
- Environmental management system documentation
- Document control
- Operational control
- Emergency preparedness and response
- Monitoring and measurement
- Non-conformance, corrective and preventive action
- Records
- Environmental management system audit
- Management review

In this process the EMS is seen as a management system that provides mechanism for the hotel to operate in an environmental responsible manner, anticipate and meet growing environmental performance expectations, and ensure ongoing compliance with regulatory and legislative requirements. The EMS allows the hotel to address, control and improve the short-term and long term impacts of its activities, products and services on the environment. The EMS documentation encompasses four levels (environmental management guide, hotel environmental procedures, operational control procedures and environmental records) with the environmental policy at the pinnacle.

Continuing improvement the EMS in the hospitality industry is the task of EMS Manager (or Managers) in closely cooperation with the General Manager to posit and review the environmental policy based on the results of EMS audit, or review results of all environmentally related activities and processes in the hotel. Department Heads with the assistance of the EMS Manager shall update the identified significant environmental aspect, and report any significant changes in the environmental aspects in the *Register of Significant Environmental Aspect*. It will be

²⁷ ISO 14001 - Environmental Management System Self-Assessment Checklist, Global Environmental Management Initiative (GEMI), Washington, DC, 1996., revised 2000. p. 5 - 38

²⁸ Chan, A.: ISO 14001 General Awareness Training Manual for Hotels, a part of Environmental Management Manual for Hotels in Hong Kong, Department of Building Services Engineering, The Hong Kong Polytechnic University, Hong Kong, 2000.

based on the ISO 14001 standards, and introduces the relationship between various EMS documents and procedures, presented on table 1:

Table 1: Cross-reference matrix of EMS documentation with ISO 14001 standard

Environmental Management System Documentation:	Section number of ISO 14001 standard																	
	4.1.	4.2.	4.3.1.	4.3.2.	4.3.3.	4.3.4.	4.4.1.	4.4.2.	4.4.3.	4.4.4.	4.4.5.	4.4.6.	4.4.7.	4.5.1.	4.5.2.	4.5.3.	4.5.4.	4.6.
HEP - Hotel Environmental Procedures																		
Environmental Policy		x																
Environmental Management Guide	x						x				x	x					x	x
HEP-01 Environmental Policy		x															x	x
HEP-02 Environmental Aspect			x	x	x							x	x	x			x	x
HEP-03 Legal and Other Requirements				x										x			x	x
HEP-04 Environmental Objectives and Targets					x	x								x			x	x
HEP-05 Environmental Management Programmes						x											x	x
HEP-06 Organizational Structure and Responsibility							x										x	x
HEP-07 Training, Awareness and Competence								x									x	x
HEP-08 Communication									x								x	x
HEP-09 Environmental Management System Documentation and Document Control										x	x					x	x	x
HEP-10 Operational Control												x	x	x			x	x
HEP-11 Emergency Preparedness and Response													x				x	x
HEP-12 Monitoring and Measurement														x		x	x	x
HEP-13 Non-conformance and Corrective and Preventive Action														x	x		x	x
HEP-14 Records																x	x	x
HEP-15 Environmental Management System Audit																	x	x
HEP-16 Management Review																	x	x
Operational Control Procedures												x	x	x			x	x
Environmental Objectives & Targets and Environmental Management Programmes					x	x								x			x	x
Register of Significant Environmental Aspects			x	x	x							x	x	x			x	x
Register of Legal and Other Requirements				x										x			x	x
Initial Environmental Review Report			x															
Environmental Records	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Source: Burnett,J., Ho,B., Chan,A.: *Hotel Generic Hongkong - Environmental Management Guide in Environmental Management Manual for Hotels in Hong Kong*, Department of Building Services Engineering, The Hong Kong Polytechnic University, Hong Kong, 2000. p.7

When a firm understands the financial benefits that can arise by reducing environmental impacts, it is more likely to adopt cleaner production and services practices. A method for evaluating the true environmental costs of operating a business is the hospitality industry is the *environmental accounting*²⁹. A number of professional associations are dedicated to providing the necessary tools for accounting professionals to be trained in environmental accounting methods, according to standard guidelines. Without environment accounting tools, firms frequently do not know the environmental costs of their business, because these have been too narrowly defined - only as the costs of complying with environmental regulations. Costs of resources (such as air, water and energy) may be treated as a one-line *operating cost* or *administrative cost* that is regarded by management as independent of production.

Environment accounting tools help to recognize all environmental cost as costs of resources in production, cost of resources in general business operations, waste treatment and disposal costs, and in some situations cost of a poor environmental reputation and environmental risk insurance premiums. There are many other possible ways to recognize the environmental costs from production and service site design to decommissioning, which may be classified as overhead or research and development. Environment accounting is used to find these hidden costs and classify them correctly, and attempts to help management assess true environmental costs, and also the costs and benefits of alternative actions, necessary in decision making processes.

CONCLUSION

The Public Private Partnership is a special way of co-operation between local authorities, hospitality industry, tourism professional, other businesses, non-governmental organizations and local people, to achieve the goal of sustainable development and eco-profit through ecological project. Co-operation and partnerships between different participants, as well as the profit from synergy effects is for all members of the network a big chance for more economical and ecological success, especially in developing and implementing of new environmental technologies. It focuses on the application of preventive environmental strategies, and includes effects of synergy with respect to eco-processes, products and services development. Partnership is very important in process of *life-cycle-assessment* process, attempts to provide a systematic approach to measuring resource consumption and environmental releases to air, water and soil associated with all processes, products and services, which have environmental and economic impact on the tourist destination level.

For any effectiveness, the environmental progress toward goals must be a part of multi-year strategy. It will be supported through eco-management system (EMAS), but also through standard ISO 14001 and ISO 14040 - developing on a task of life cycle assessment. The methods which use government, tourism and hospitality manager or tourism destination management to inform shareholders, tourists, partners, employees or local people on their environmental progress is the *public environmental* or *corporate environmental reporting system*. Environmental reports includes background information about the tourist or hotel organization, or tourist destination

²⁹ See more Persic, M. Jankovic, S., Vlasic, D.: *Approach to Understanding Environmental Management Accounting in Hospitality Industry*, internal conference proceeding "General Accounting Theory - Toward Balancing the Society", Leon Kozminski Academy of Entrepreneurship and Management, and Cracow University of Economic, 2004., p. 277-304

and environmental policy, progress made towards specific targets established in previous reports and new targets or actions to improve the environments performance in the future, but also is helpful for verification by an independent agency. Standard formats, indicators and matrices in environmental reporting system are needed to allow comparisons between various subjects on the level of tourist destination, on national and international level.

REFERENCES

1. *A Manual for Evaluating the Quality Performance of Tourist Destinations and Services*, Enterprise DG Publication, European Commission, 2003.
2. Aronsson, L., *The Development of Sustainable Tourism*, Continuum, London, New York, 2000
3. Ben Ho: *Initial Environmental Review Report, Hotel Generic Hong Kong*, study "Keeping Hong Kong's Hotel Industry Competitive into the 21st Century", The Hong Kong Polytechnic University, Department of Building Services Engineering, 2000
4. Burnett, J., Ho, B., Chan, A.: *Hotel Generic Hongkong - Environmental Management Guide in Environmental Management Manual for Hotels in Hong Kong*, Department of Building Services Engineering, The Hong Kong Polytechnic University, Hong Kong, 2000.
5. Chan, A.: *ISO 14001 General Awareness Training Manual for Hotels*, a part of *Environmental Management Manual for Hotels in Hong Kong*, Department of Building Services Engineering, The Hong Kong Polytechnic University, Hong Kong, 2000.
6. Coccossis, H., "Tourism and sustainability: Perspectives and Implications", in Priestley, G.K., Edwards, Coccossis, J.A (ed.): *Sustainable Tourism? European Experiences*, CAB International, Oxon, 1996, pp. 1-21.
7. *Environmental Management for Hotels: The Industry Guide to Best Practice*, International Hotels Environment Initiative, Oxford: Butterworth-Heinemann Ltd, 1993.
8. Gray, R., Bebbington, J.: *Accounting for the Environment*, II Ed., Sage Publications, London. Thousand Oaks, New Delhi, 2003
9. Harris, B., Griffin, T., Williams, P., *Sustainable Tourism: A Global Perspective*, Butterworth-Heinemann, Oxford, 2002
10. http://europa.eu.int/comm/environment/emas/about/summary_en.htm
11. <http://www.chinacp.com>
12. <http://www.conservation.org/xp/CIWEB/>
13. <http://www.eco-resorts.com/ECOTOURISM3.php>
14. <http://www.greenglobe21.com>
15. http://www.ih-ra.com/awards/previous_winners.php
16. <http://www.internationaltourismpartnership.org/>
17. <http://www.unep.org/Documents/Multilingual/Default.asp?DocumentID=108>
18. Injac, N.: *Okoliš i njegova zaštita*, Mala enciklopedija kvalitete, IV dio, Oskar, Zagreb, 2004
19. *ISO 14001 - Environmental Management System Self-Assessment Checklist*, Global Environmental Management Initiative (GEMI), Washington, DC, 1996., revised 2000
20. Jafari, J. (ed.), *Encyclopedia of Tourism*, Routledge, London, 2000.
21. Kirk, D.: *Environmental Management for Hotels: A Student's Handbook*, Oxford: Butterworth-Heinemann Ltd, 1996
22. Muller, H., "The Thorny Path to Sustainable Tourism Development", in *Proceedings of the Conference Prema održivom razvitku turizma u Hrvatskoj*, Institut za turizam, Zagreb, 1994, pp. 9-16.
23. Newsome, D., Moor, A.S., Dowling, R.K., *Natural Area Tourism*, Channel View Publications, Clevedon, 2002.
24. Persic, M., Jankovic, S., Vlastic, D.: *Approach to Understanding Environmental Management Accounting in Hospitality Industry*, internal conference proceeding "General Accounting Theory - Toward Balancing the Society", Leon Kozminski Academy of Entrepreneurship and Management, and Cracow University of Economic, 2004
25. *Towards quality coastal tourism, Integrated quality management (IQM) of coastal tourist destinations*, Enterprise Directorate-General Tourism Unit, European Commission, Brussels, 2000
26. *WCED, Our Common Future*, Oxford University Press, Oxford, 1987