

A Model of Sustainability in the Accommodation Sector

L. S. Zavodna, J. Zavodny Pospisil

Abstract—The aim of this paper is to identify the factors for sustainability in the accommodation sector. Although sustainability is a current trend in tourism, not many facilities know how to apply the concept in practice. This paper presents a model for the implementation of sustainability in hotels, hostels, campgrounds, or other facilities. First, there are identified sections of each accommodation facility, which can contribute to sustainability. Furthermore, concrete steps are presented to transfer this model into reality.

Keywords—Accommodation sector, model, sustainable tourism, sustainability.

I. INTRODUCTION

THE area of accommodation belongs in the tertiary sector of services. Accommodation comprises many activities which make up a resulting complex picture perceived by the customer. It is the basic pillar of tourism, which provides a basis for travelers' other activities. Accommodation is a very varied term, referring to hotels, hostels, boarding houses, motels, campgrounds, cabins and cottages, low-cost dorms, etc. We can also distinguish accommodation categories based on the number of stars – backpacking, economy, first class, and luxury. A separate chapter can be devoted to types of rooms.

The interest of tourism in sustainable behavior is logical because tourism uses resources from its surroundings to create services, either physical or human – the more successful the destination, the more tourists, and more of a negative impact. However, such commercial companies are often not interested in minimizing this negative impact. These requirements increasingly made by sensible tourists, nonprofit subjects or governmental interest groups [17].

For many, tourism is a service industry that brings development of infrastructure, foreign currency and jobs. However, it is also increasingly apparent that tourists destroy the very things that they come for [8]. Interest in alternate forms of tourism arose as a response to the exploitative aspects of the new mass tourism whose growth is strongest in developing countries [2].

With the requirement of sustainability in tourism comes a significant change for managers in tourism. Whereas in the

past the main goal was to maximize profit, in the future it will be increasingly necessary to achieve balance of all three aspects of sustainability – environmental protection, benefits for the human society, and a stable economic growth. These three requirements are at the same time the basic pillars of sustainability. As Bell and Morse remark, sustainability must be understood holistically and comprise all these areas – environmental, social, and economic [1].

With the many definitions for sustainability and disagreements around what is in and what is outsider tourism, it is a difficult industry to regulate. Even in the case of governments taking an active attitude towards regulating claims, this is limited to governmental boundaries, which make it inefficient due to the international nature of the tourism industry [6].

The criteria for sustainable development may be set in generally valid regulations and manuals, or stipulated by a local body of civil service of the particular country, or corporate entities in compliance with special regulations. Herman Daly [3] sets the basic principles of sustainable development. According to him, sustainable resources should be drawn at the maximum speed at which they will be replenished in order to continue drawing them on a continual basis. Pollution intensity must not exceed the assimilation capacity of the environment. A part of the technologies should also be invested in the reduction of pollution, diminishing of wasting, and increasing efficacy. Daly [3] also mentions the necessity to make the applied methods and acquired data available to all those who are interested. The measurement results should be widely published. Open participation is a basic condition for success.

II. CREATING A MODEL

In order to create a model, it is mainly necessary to set basic units or sections which partake in the operation of a hotel, and altogether form its resulting image. As shown in Fig. 1, it mostly involves the following units: Hotel Management, HR, the Economic Section, Sales and Marketing, Front Office, Housekeeping, and the Dining Section. Individual sections may comprise other activities [10].

Under Front Office fall the following: reception-related activities, foyer services, reservations, concierge services or secretary services. Housekeeping refers to the technical sector (maintenance, parking lot, landscaping), cleaning rooms or doing the laundry. The Dining Section is frequently a separate area which includes cooks, various types of storage areas, service personnel, and a special event section – buffet-style events, etc.

Creating this paper was possible thanks to a special-purpose fund for a specialized academic research granted by the Department of Education, Youth and Sports of the Czech Republic to Palacky University in Olomouc in 2015.

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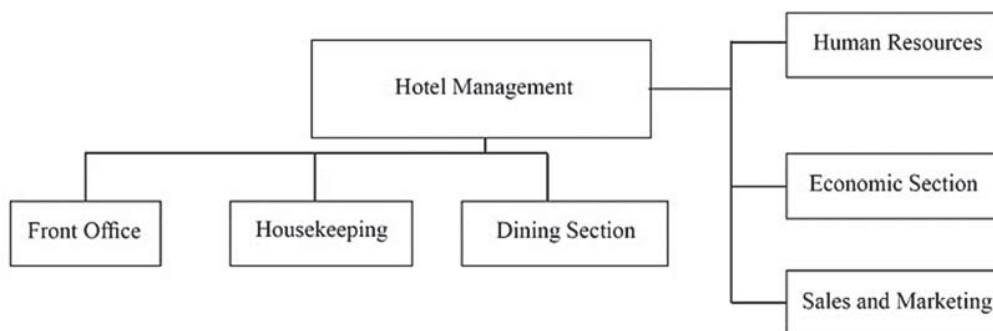


Fig. 1 Simplified scheme of hotel operation (inspired by [10])

In order to identify the sections various activities and job descriptions which are done in the particular hotel are analyzed. In the subsequent step similar responsibilities and activities are synthesized into the individual sections. In case that we did not perform such synthesis, similar activities would be scattered, resulting in a worse subsequent determination of responsibilities for the individual activities in their sustainability. A hotel does not have to provide all services by itself. For those services which are being outsourced, it is possible to choose such a supplier, which will respect the principles of sustainability, and will be able to substantiate that, e.g. by their sustainability standards or certification.

Standards and certification of sustainability are, however, also areas worth mentioning. Standards and certification of quality, sustainability, and various other types of certification are applied in tourism increasingly often. Certification is a procedure held by an independent organization to determine whether there is an adequate degree of certainty that a properly marked product, process or service meets a particular standard or other standardization documents [16]. It serves a better orientation of customers and distinguishing quality products and services. These standards can be of various kinds – regional, national, or international; their basic principle being that they are all voluntary [9].

There are over 100 ecolabels for tourism, hospitality and ecotourism, with many of them overlapping in sector and geographical scope, starting in the mid-eighties but mainly developed in the nineties [4], [5]. The origins of certification are in the manufacturing industry, with greater, direct and measurable environmental impacts, clearer operating systems and larger organizations [15]. Manufacturing standards were set by the European Commission, and recognized through the Eco-Management and Audit Scheme (EMAS) in 1993. Because the original EMAS and ISO systems are only feasible to larger companies, the tourism industry has usually preferred to work with its own systems, usually a much softer approach [13].

From 2000-2004, at least 48 countries created or defined national eco-tourism strategies [7], though in many countries the efforts are still insufficient [11], [12]. In North America alone there are over 50 certification schemes.

Voluntary certificates may be divided into two groups: industry-specific certificates as well as certificates and award

certificates for several sectors, also relevant for the tourism sector. Tourism sector certificates are awarded in the hospitality industry to tourist products by various organizations, associations, institutions, universities, magazines and local governments. Some of them are award certificates, without detailed procedures, intended as a recommendation for the customer [16]. Tourism subjects do not need to apply for mandatory certificates. However, they commonly use goods which require the CE mark indicating that the product meets essential requirements of the directives and, consequently, is safe for use [16]. The main objective includes strengthening the product and quality certification systems as one of the marketing and promotional values of tourism services.

A second step while creating the model is to identify the individual activities in the area of sustainability. Not all the activities from other fields are suitable for sustainable management of an accommodation facility. Activities and criteria of sustainability for the accommodation and tour operation sectors have already been set for example by The Global Sustainable Tourism Council [14]. The GSTC Criteria are an effort to come to a common understanding of sustainable tourism, and are the minimum that any tourism business should aspire to reach. They are organized around four main themes - effective sustainability planning, maximizing social and economic benefits for the local community, enhancing cultural heritage and reducing negative impacts to the environment. Although the criteria are initially intended for use by the accommodation and tour operation sectors, they have applicability to the entire tourism industry.

For the purposes of the model, the following areas will be included among the activities of a sustainable accommodation facility. The set is based on general practice in the area of accommodation services and the theory and practice of the sustainability concept.

A. The Environmental Area (E1)

1. In terms of environmental interest, wastes produced are always a priority. Sorting out waste among paper, plastic, glass, milk cartons, and hazardous wastes (aluminum, light strobes, toners, accumulators) should be automatic for every company. It is also possible to compost your own kitchen waste. Waste should be measured. Mechanisms in business are in place to reduce waste and

where reduction is not feasible, to re-use or recycle it. Any residual waste disposal has no adverse effect on the local population and the environment.

2. The green program for washing laundry is in place – towels, bed clothes and other linen (e.g. uniforms) are washed only when absolutely necessary. Neither towels nor bed clothes are automatically replaced every day. The clients can decide themselves when they wish to have the linen replaced. At the same time, they are informed of the impact of their decision. Environment-friendly laundry soap is used.
3. Recycled paper is used in offices, receptions and other activities, as well as for envelopes, both-sided printing, and toilet paper.
4. Biologically degraded detergents are used. E.g. the pool is drained as late as two weeks after the last dose of chloride. No bleach or other aggressive chemicals including Freon sprays are used. No chemicals for outside use (such as dusting gardens) are used.
5. Salt is not used for treating roads in the vicinity of the company.
6. Grease catchers are installed in the kitchen. Grease must not enter the sewer system.
7. While remodeling a house or building a new one, natural materials which are in harmony with both the landscape and already existing buildings are used.
8. Greenhouse gas emissions from all sources controlled by the organization are measured, procedures are implemented to minimize them, and offsetting remaining emissions is encouraged. The organization encourages its customers, staff and suppliers to reduce transportation-related greenhouse gas emissions.
9. The organization implements practices to minimize pollution from noise, light, runoff, erosion and air.

B. The Economic Area (E2)

10. Water flow reducers are installed – in restrooms, faucets or showers (instead of bathtubs). They provide less water but a lot more pressure.
11. Energy-efficient lights are preferred. It is necessary to ensure correct direction of light, its intensity, and minimum consumption. The company creates energy consumption plans complemented with checklists.
12. Large packaging is preferred while buying groceries. Bulk or not separately packed products are used for buffet-style serving or snacks. Purchasing policy requires re-usable, returnable and recycled goods where available. Purchases are in bulk and/or avoid packaging as far as practicable. Purchasing policies favor locally appropriate and ecologically sustainable products, including building materials, capital goods, food, beverages and consumables. Purchases are mostly from local providers and/or fair trade.
13. Energy consumption is measured, sources are indicated, and measures are adopted to minimize overall consumption, and encourage the use of renewable energy.
14. Water consumption is measured, sources are indicated,

and measures are adopted to minimize overall consumption. Water sourcing is sustainable, and does not adversely affect environmental flows.

15. There is an in-kind or cash contribution to the protection and preservation of sites visited for tour operators or within the locality for accommodation.
16. Adherence to the principles of sustainability is applied. External audit or internal mechanisms may be implemented, which will enable the system to work as set.

C. The Social Area (E3)

17. In the social area it is essential that employees are educated and customers informed. All staff has awareness of their roles and responsibilities with respect to environmental, social, cultural, economic, quality, health and safety issues. Customers are aware of appropriate behaviors and have a general understanding of the local natural and cultural environment. The company has an interpretation program with displays, guides, etc.
18. If possible, local residents are given a priority in terms of being offered jobs and training, which includes management positions. The percentage of women and local minority employees on staff is reflective of local demographics (both in management and non-management categories). Internal promotion of women and local minorities occurs. There is no child labor. Salaries and benefits meet or exceed local, national and international regulations (whichever are higher).
19. The organization incorporates elements of local art, architecture, or cultural heritage in its operations, design, decoration, food, or shops; while respecting the intellectual property rights of local communities.

The activities indicate what should be done, not how to do it or whether the goal has been achieved. This role is fulfilled by performance indicators, associated educational materials or access to tools for implementation [14].

In the following step of creating the model we will focus on determining responsibilities in before-selected sections. It is necessary to bear in mind that sustainability works based on a balance between three pillars, that is why it is necessary to balance individual activities in the areas. Besides that, it is necessary to distinguish processes taking place in the company. We are able to influence the internal processes very well by setting them up. Besides those, however, there are processes on the company's input and output. The input processes include purchasing groceries, disposable items for tourists, building and remodeling, energy consumption, water consumption, etc. The output ones include waste, waste water, greenhouse emissions, the surroundings of the accommodation facility, etc. The management of the given company are responsible for the input and output processes.

Table I shows the division of activities in the model according to individual sections of responsibility. At the same time, it divides the activities into input, internal, and output. However, there may be other sections responsible for these activities in other companies. Quite frequently the responsibilities overlap in multiple sections. In this case it is

necessary to strictly determine specific responsibility of a person or work position in order to avoid a “no-one's or everyone's responsibility” situation.

TABLE I
 THE DIVISION OF RESPONSIBILITIES FOR ACTIVITIES RELATED TO THE
 SUSTAINABILITY OF AN ACCOMMODATION FACILITY (OWN)

Operation section	Sustainability area	Activities
Front Office	E1, on input	3
	E3, on input	17
Housekeeping	E1, on output	1, 4, 5
	E1, internal	2
Dining	E1, on output	6
	E2, on input	12
Management	E1, on input	3, 7
	E1, on output	8, 9
	E2, on input	12
	E2, internal	10, 11, 13, 14, 16
	E2, on output	15
	E3, on input	17, 18, 19

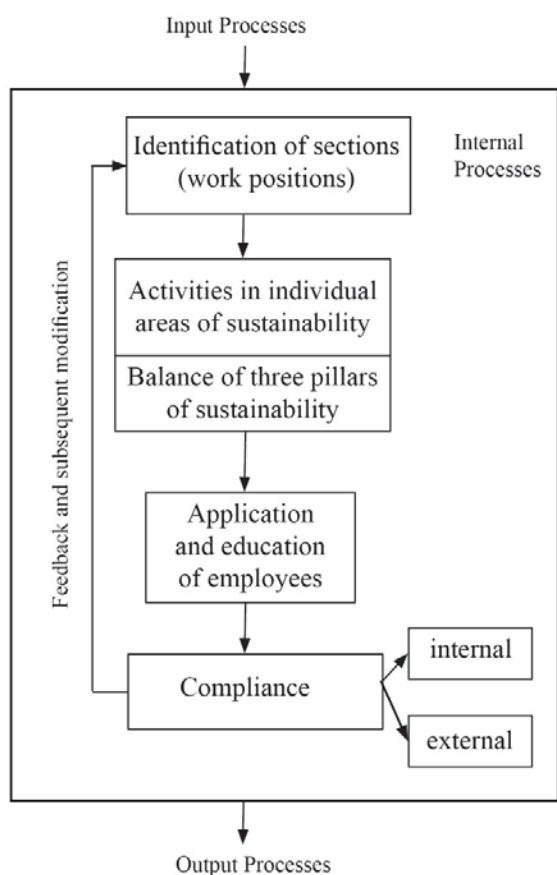


Fig. 2 The model of implementation of the principles into the practice of an accommodation facility (own)

Fig. 2 shows the overall sustainability model for accommodation facilities. The model works with interconnectedness of individual steps. As mentioned above, it is first necessary to identify the sections, or in fact work positions, which interact with input, output and internal processes. Once the sections have been identified, it is

possible to determine their activities in individual areas of sustainability with regard to a balance of the three basic pillars of sustainability – the environmental, economic, and social areas. Subsequently it is possible to practically apply the principles of sustainability into the activities of the given organization, with these being necessarily connected to adequate education of the employees.

In order to ensure a meaningful application of the model in practice, it is essential that control mechanisms meant to determine the amount of adherence are engaged. Elementary level of control should take place at the internal level between autoevaluation and the control section itself. The selected activities are possible to be evaluated within external control, which may be performed on a supplier principle. At the same time, it is possible to determine within such inspection whether all benchmarks are set correctly.

It is necessary to mention that in the whole model there is a need for feedback which is given after control mechanisms, be it internal or external. Its goal is to rectify possible malfunctioning or useless sustainability measures. It is crucial to apply and educate employees. If this part does not work, sustainability measures do not work correctly, and the resulting effect may even be negative.

The benefits of the model itself are visible at first sight. In the economic area the management of the company will appreciate savings based on both conserving energy and water resources. Sustainability measures thus nicely reflect in the marketing strategy of the company. Thanks to them it is possible to address specific target groups of so-called green customers. However, some measures may be appreciated even by normal customers. The relations to other subjects such as the local community are also strengthened within these measures, be it a higher employment rate in the area (the company employs more local residents, also in managerial positions), or the company financially or otherwise supports improvement projects in the region.

III. CONCLUSION

Sustainability does not mean centralized management or world rule based on the principles of regulations, inspections, orders and bans. It is not a rigid and the only correct instruction for use. However, it is a concept which meets the current view of exploiting resources in society and reflects the current consumer trends. The application of the sustainability concept in the tourism industry or the area of accommodation services is thus not only responsible behavior toward the environment and society, but also a possible competitive advantage. The practical application of this model is not too demanding, but the model must be adequately modified for a particular organization. Then it can really be great help.

ACKNOWLEDGMENT

The author thanks to special fund for specialized academic research granted by the Ministry of Education, Youth and Sports of the Czech Republic to Palacky University in Olomouc in 2015: FF_2015_014 - SGS - Continuities and

discontinuities of economy.

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REFERENCES

- [1] Bell, S., Morse, S. (2008). Sustainability indicators: measuring the immeasurable? Earthscan.
- [2] Bowman, Kirk S. (2011), "Sustainable tourism certification and state capacity: keep it local, simple, and fuzzy", International Journal of Culture, Tourism and Hospitality Research, Vol. 5 Iss 3 pp. 269 – 281
Permanent link to this document:
<http://dx.doi.org/10.1108/17506181111156961>.
- [3] Daly, H. E. (1996). Beyond Growth: The Economics of Sustainable Development. Boston: Beacon Press.
- [4] Ecotrans (2001). Ecolabels and awards in tourism in Europe. <http://www.eco-tip.org/eco-labels/ecolabels.htm>. Viewed in June 2001.
- [5] Font, X. (2001). Regulating the green message: the players in ecolabelling. In X. Font, & R. Buckley (Eds.). Tourism ecolabelling: certification and promotion of sustainable management. Wallingford: CAB International.
- [6] Font, X. (2002). Environmental certification in tourism and hospitality: progress, process and prospects. In Tourism Management. 23, pp. 197-205.
- [7] Higgins, M. (2006). If it worked for Costa Rica. New York Times, 22 January, p. 5.
- [8] Honey, M. (1999), Ecotourism and Sustainable Development: Who Owns Paradise?, Island Press, Washington, DC.
- [9] Kažmierski, T. (2013). Značení regionálních produktů v České republice. 1. vyd. Brno: Lipka - školské zařízení pro environmentální vzdělávání. 35 s. Metodický materiál pro učitele.
- [10] Křížek, F., Neufus, J. (2011). Moderní hotelový management. Praha: Grada.
- [11] Medina, L. (2005). Ecotourism and certification: confronting the principles and pragmatics of socially responsible tourism. In Journal of Sustainable Tourism, Vol. 13 No. 3, pp. 281-95.
- [12] Mycoo, M. (2006). Sustainable tourism using regulations, market mechanism, and green certification: a case study of Barbados. Journal of Sustainable Tourism, Vol. 14 No. 5, pp. 491-511.
- [13] Synergy Ltd. (2000). Tourism certification: an analysis of Green Globe 21 and other certification programs. Godalming: WWF UK.
- [14] The Global Sustainable Tourism Council (GSTC) <http://www.gstccouncil.org/en/gstc-criteria/criteria-for-hotels-and-tour-operators.html>. Accessed January 20, 2016.
- [15] Tribe, J., Font, X., Griffiths, N., Vickery, R., Yale, K. (2000) Environmental management of rural tourism and recreation. London: Cassell.
- [16] Walas, B. (2014). Certification in tourism as an element of quality management—theoretical aspects and entrepreneurs' attitudes. In: International Journal of Business Quantitative Economics and Applied Management Research. Volume 1, Issue 2, July 2014. ISSN 2349-5677.
- [17] Zavodna, L.S. (2015) Udržitelný cestovní ruch – Principy, certifikace a měření. Vydavatelství Univerzity Palackého. Olomouc. 123 p.

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