

A Field Survey of Environmental Initiatives at Selected Resorts in Malaysia

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Abstract: Malaysia, one of the major tourism destinations in the world, has been successfully marketed as an ecologically and culturally rich destination. However, unchecked tourism activities have detrimental impact especially on the natural environment. Since nature and an unpolluted environment are major assets of hotels and the tourism industry in general, an increasing number of hotels are becoming more committed towards the protection of the environment and are incorporating environmentally friendly activities into their daily operations. Yet, it is not known to what extent Malaysian hotels and resorts have implemented these environmentally friendly practices. Hence, this paper examines the environmental initiatives of selected resorts in Malaysia to get insights of the different environmental practices implemented. Even though most of the resorts surveyed in this study are concerned about the environment, the implementation of environmental initiatives was still minimal due to unattractive benefits compared to costs and also the lack of knowledge in this area. The most popular practices are those that lead to a reduction in operational costs or are not too costly to be put in place.

Key words: Green Initiatives • Malaysian Hotels • Sustainable Tourism • Environmental Practices

INTRODUCTION

An unpolluted and healthy environment is one of the greatest assets of hotels and the tourism industry in general. In spite of this, the industry generally uses up enormous amounts of energy, water and other resources in addition to producing large amounts of waste and generating different types of pollution. As a result, the surrounding habitat of flora and fauna could be greatly disrupted if there is inappropriate and unchecked development. Hence, effective measures to protect the environment have to be taken as ignoring the environment would greatly affect the future sustainability of the industry. As such, green initiatives have been adopted and enforced in many parts of the tourism sector worldwide. Concerned hotels and resorts have become more environmentally conscious and have started to implement and obtain environmental management certifications such as the ISO14001 series which contain five main principles; namely environmental policy, planning, implementation and operation, checking and corrective action and review and improvement [1].

This green movement has also brought increased environmental awareness in Malaysia. Malaysia is one of the major tourism destinations in the world and has been

successfully marketed as an ecologically and culturally rich destination. In 2009, the 23.6 million tourists who visited Malaysia brought in close to 50 billion ringgit for the tourism industry, up from 22 million tourist arrivals in 2008¹. However, this trend of increasing tourism activities in Malaysia has led to negative impact on the environment.

Consequently, this has received the attention of not only the tourism industry but also the government. The Malaysian Government has created policies and regulations to support sustainable tourism, one of which is the National Tourism Policy that promotes sustainable practices in the industry. However, there are negligible studies conducted on the actual implementation of environmental initiatives in Malaysian hotels.

Hence, this paper provides an overview of environmentally friendly practices of selected resorts in Malaysia. The purpose of the research was to investigate the environmental attitudes and initiatives of a small sample in the Malaysian hotel industry in order to obtain insights of the current environmental state in the country. The results are hoped can be used to motivate the sector to incorporate more responsible and greener practices in their daily operations.

¹http://www.tourism.gov.my/corporate/research.aspx?page=facts_figures

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Literature Review: The adoption and implementation of sustainable tourism principles is growing due to interest from environmentally conscious tourists. Sustainability covers a wide range of dimensions and includes economic issues relating to organizational interactions with its stakeholders, social involvement with the local community and environmental activities that protect and conserve nature while minimizing damage to the environment. Holden [2] expanded the concept of sustainability to include political and cultural dimensions in addition to social, economic and environmental dimensions.

Environmental management is an important part of sustainable tourism. Environmental management is usually described in relation to environmental management systems which are activities conducted to protect, enhance or reduce environmental impact. Whereas environmental practices are the essential machinery in an environmental management system that tries to reduce the organization's impact on the environment and make its operations more sustainable [3]. In the hotel industry, environmental management can be defined as the adoption of suitable programs and activities implemented and influenced by management to reduce negative impact on the environment [4].

Some recent achievements in environmental management actions include the HEI Hotels & Resorts group, with brands that include the Marriott, Sheraton, Westin, Le Meridien, Embassy Suites and Hilton; that launched the Energy Looking Glass (ELG), a proprietary energy monitoring dashboard, which helped the company maximize its energy use across its portfolio in 2009 and also had set benchmarks for additional energy and waste reduction in 2010.² Meanwhile, the InterContinental Hotels Group reduced their energy consumption by up to 10% in 2009 and introduced energy efficient lighting systems in their new Holiday Inn signage, saving the brand an estimated \$4.4 million annually and an estimated 52 per cent reduction in kilowatt hours³.

In addition, a number of studies on environmental initiatives have been conducted in various places. A study of environmental programs in eight hotels in Mexico found that the most common environmental strategies were efficient use of lighting and eliminating use of diesel in the boiler [5]. Another study on five hotels in Jamaica that were among the first in the Caribbean to adopt an environmental management system (EMS), found that these hotels achieved remarkable

improvements in environmental performance including cost savings as a result from proactive environmental management [6].

Hotels implementing environmental management systems like the ISO14001 series have generated numerous benefits including operational cost savings, more efficient business practices, regulatory compliance, better image, enhanced attractiveness as an investment, less risk to insurers and increased competitiveness [7]. However, in Hong Kong, adoption of the ISO 14001 EMS standard was not widespread despite the success of several international hotel groups such as the Shangri-La and Nikko groups [8].

A study of factors influencing environmental and social responsibility in the hotel sector in Penang, Malaysia found that the lack of support systems to encourage environmentally friendly practices discouraged hotels from practicing a larger number of environmental initiatives even though they were aware of their environmental responsibility [9]. Another study by the same researcher that explored the awareness and attitudes towards environmental management of small and medium hotel managers in Kuala Lumpur, Malaysia found that there was a lack of clear and adequate knowledge about environmental management and most hotels did not go beyond practices that reduce their water and energy costs [10].

This discovery is quite worrying as the collective impact of small and medium sized hotels (SMH) would be extensive as there are greater numbers of SMH compared to a handful of big hotels in most tourism areas, for example like in the state of Penang where there are 125 SMH and only 20 big hotels [11]. One of the reasons why hotels do not implement environmental actions is the perception that those actions might affect the assurance of exceptional service quality and consequently lower guests' satisfaction [12].

Hunter [13] created three different scenarios of sustainable tourism development whereby the first one is focused on the economic sustainability of tourism without environmental and social distractions. Hunter's second scenario described a situation where although secondary to the economic growth of the tourism sector, environmental and social concerns were still given due consideration [13]. The third scenario was an industry that placed importance on the conservation and protection of the environment for the long term viability

²<http://www.environmentalleader.com/2010/01/25/>;

³<http://www.ihgplc.com/index.asp?pageid=749>

of the tourism industry [13]. This research will offer an indication as to which scenario the Malaysian hotel industry is currently in now and perhaps motivate the sector to achieve the third scenario for the future sustainability of the environment and livelihood of all concerned.

Methodology: This research used the field survey method on ten different resorts in Peninsular Malaysia. The randomly selected resorts were restricted to resorts that had a three star rating and above. Twenty two people from various roles that included the positions of General Manager, Communication Director, Chief Engineer, Training Manager, Landscape Manager and Housekeeping Supervisor were interviewed on topics ranging from internal management practice, environmental management practices of the resorts including water and energy conservation and waste management. In addition, the interviews also covered the resorts’ social and community programs. The challenges, constrains and benefits faced by the selected resorts in implementing environmental initiatives are also discussed. The list the people interviewed from the selected hotels is shown in Table 1. Triangulation and verification of data was achieved by observation of actual practices for example by site visits to recycling centers, organic gardens and guest rooms of the hotels. Documents relating to specific hotels environmental initiatives were also reviewed to obtain richer data and also for triangulation purposes.

Findings on the Initiatives of the Selected Resorts

Background: The selected resorts were from different states in Peninsular Malaysia. All but one resort was managed by professional management groups.

The resorts ranged from four stars to five stars and the majority of the resorts were Malaysian owned however a few had foreign ownership. Guest origin was a mixture of foreigners and locals with some resorts having more foreign tourists compared to others. Guests mainly came for leisure and a number of these guests were environmentally conscious. The background for each resort is found in Table 1.

Results

The findings reveal that Malaysian resorts are generally concerned about the environment and know that it is their responsibility to protect and care for the environment. The resorts recognize that guests from countries where environmental awareness is more established, such as those from the Scandinavian countries, have greater expectations for environmentally friendly initiatives to be practiced by the hotels. Resort management that focused on environmentally and socially friendly culture often had more knowledge and environmental initiatives in place. Some of the resorts felt that government involvement is the key factor to ensure sustainable development in the tourism sector. Cooperation between all concerned parties should be developed to further promote environmental policies and practices as awareness about such issues can still be improved.

Common Initiatives: It was found that there were a few practices that were common among a majority of the resorts, meaning more than five resorts practiced them. The following is an overview of the popular initiatives.

Table 1: Background of the Selected Resorts

Resort	Management of the resort	Ownership	Location	Job Position of Interviewees
A	Professional Management Group	Malaysian	Northern Resort	Communication Director and Chief Engineer
B	Professional Management Group	Malaysian	Southern Resort	Director of Engineering
C	Professional Management Group	Malaysian	Northern Resort	GM, Project Executive
D	Professional Management Group	Malaysian	Southern Resort	Senior Landscape Superintendent, Housekeeping Manager, Maintenance Supervisor
E	Professional Management Group	Foreign	Northern Resort	General Manager, Chief Engineer, Landscape Manager
F	Owner is the manager	Malaysian	Northern Resort	Asst.Mngr. for Landscape Pool and Sustainability, Housekeeping Supervisor (Senior staff)
G	Professional Management Group	Foreign	Northern Resort	Special Project Manager
H	Professional Management Group	Malaysian	East Coast Resort	Chief Engineer, Landscape Manager, Technician
I	Professional Management Group	Malaysian	Northern Resort	G.M, Landscape Mngr. & Operational Staff
J	Professional Management Group	Malaysian	Northern Resort	Training Mngr.

Internal Practice: Internal Practice is an important element of environmental management as it relates to the organization's culture, management direction and policies. Most resorts trained and educated their staff to be eco-friendly at some level, for example, instructing their staff to switch off all unnecessary devices when not in use, conserve water and energy while minimizing waste. This practice was popular due to the fact that these kinds of initiatives would directly reduce operational costs. Resort trainings were sometimes incorporated into general training sessions and not specifically recognized as environmental training. Many resorts had a few personnel holding different titles that were collectively responsible as environmental representatives to champion and manage related activities. For example, Resort I, which is a five star resort that is professionally managed, has a chief of security, health, safety and environment to oversee general safety and environmental issues, a naturalist to care for the environment and provide nature trails around the resort and a chief engineer to help in efficiency of operations. These representatives were an important component in the process to ensure the successful implementation of environmental initiatives.

A majority of the resorts indirectly encouraged environmentally friendly behavior from suppliers by trying to buy from suppliers that are environmentally friendly with some having this in their purchasing policy as a preference to buy from such vendors. This was due to the fact that there were more promotions of such products in the market these days. Besides this, most of the resorts did allocate funds in their budget for corporate social responsibility services or nature conservation. For example, Resort A conducted CSR projects throughout the year with a RM30, 000 CSR budget for 2009 while Resort F had a nature conservation budget of approximately RM50, 000 annually. On the other hand, Resort E as with most other resort implemented environmental and social activities with a budget that came out of the general administrative department. The reason for such spending is due to increased pressure from guests for the resorts to become more responsible towards the environment and local people.

Environmental Practices: The environmental impact of resorts is a vital aspect of operations that should be minimized. Most resorts recycled their gray water as many of them had the space to construct a water treatment plant and for some resorts, there was no choice as there were no sewage facilities in the area. These treatment plants resulted in huge cost savings, particularly for Resort E, a

resort with foreign ownership that recycled grey water by transferring it to a sewage treatment plant used for landscape irrigation, getting back the return on investment in just half a month.

Most resorts used energy efficient devices such as light bulbs in public areas as return on investment was fast. For example, a foreign owned, Resort E, obtained the return on investment for LED lights with 3 watts in only one year while it took just 18 months for the resort to get back the investment in capacitor banks that reduced energy loss and increased efficiency back to 100% as there was normally a 15% loss in energy supplied by the state energy department. Due to the airy and cool conditions around the resort and construction of well ventilated lobbies, all resorts had open areas with no air conditioning and some installed fans as well. Key cards usage was commonly practiced in all resorts even before the green movement as a method to reduce electricity bills. Almost all the resorts had equipment to manage and separate solid and liquid waste to be collected by third party vendors as this was a basic necessity of all resorts to ensure hygiene levels were complied with.

Environmentally friendly products were widely used among a majority of resorts as more suppliers were providing such products and resorts considered these an easy marketing tool. Recycling and reusing programs were implemented in all the resorts and employees were educated on proper ways to practice recycling and waste sorting as there were many centers available in Malaysia to provide an additional income for staff. In addition, guests are encouraged to reuse their towels and bed linens with a notice in the room to save resources like water and laundry detergent in many of the resorts surveyed. This was because such practices were gaining popularity due to the low costs involved. Sustainable trails in the jungle were used in most resorts to take guests for nature walks as the resorts were mainly situated close to nature. Resort G which is a five star resort goes one step further as 300 acres of mangrove that the resort owns only has minimal or low impact development so that migratory birds and other wildlife are protected.

Socio-Community Practices: The social and economic welfare of the local people were the concern of all resorts surveyed. At least 50% to 100% of local staff were employed in all resorts for both operational and management staff due to the employment policy in the country. Equal employment opportunities were provided in most resorts including employment for those with

Table 2: Uncommon Initiatives Practiced by Less than Half of the Selected Resorts

Attribute	Initiatives
Internal Practice	Environmental representative to champion and manage related activities Trained and educated staff on how to conserve water and energy while minimizing waste Hired external consultants to teach their staff on different aspects of environmental management Green information packs placed in the rooms of guests Have ISO14001 certifications Created their own green policy Documented green practices implemented Buy from suppliers that are environmentally friendly Environmentally friendly purchasing policy in place Green team or green committee made up of many different departments and levels of personnel Motivation strategy of coming up with various green competitions and prizes to encourage innovation and involvement Worked with governmental and non-governmental organizations to promote and create awareness about environmental issues Won awards specifically related to the environment Concept of sustainability and how to incorporate it into designing, planning and construction of the resort was thoroughly discussed and infused into their framework on sustainability before construction even started Minimize cutting of trees during the building process Consultants at least once to guide them about specific environmental issues
Environmental Impact	Dual flush toilets and toilet tanks with less than 9 liters of water Low flow sink aerators or water restrictor devices Encouraged their guests to minimize water usage by using notices Extensive rain water collection system with filters that saved thousands of gallons of water Motion sensors to reduce energy consumption in public areas Installed solar panels for generating hot water Energy saving air conditioners devices like inverters Set air-conditioners at around 24C° or higher Timers and double glassed windows to reduce heat Notice to encourage guests to conserve energy Key card system to cut off electricity when guests were not in the room Composting of kitchen and garden wastes Used cooking oil was sold to third parties Regularly purchased in bulk to reduce packaging and wastage Practice recycling and reusing Use sustainable building materials and local materials in the architectural designs and construction Conserve or care for wildlife Organic gardens or nursery Utilized property to provide fresh fruits, vegetables, flowers and meat while organic chicken and ducks were reared Reforestation efforts and tree adoption program Employed a tree doctor to look after the health of trees around the resort Erosion control to protect the beach and save the trees along the coast
Socio-Economic Impact	Actively cooperated with others by sharing and educating other hotels and organizations about green practices Educational activities to raise awareness in the local community about environmental practices by conducting programs and seminars, exhibitions, Facilities for those with disabilities and allocation of no smoking sections Encourage guests to participate in local customs and traditions

physical and mental disabilities. Management of Resort E viewed good service as a key asset in the hotel industry and it is the attitude of staff compared to their ability that is more important. The most popular and extensive practice was the cooperation with other parties to support and help local communities with cash or benefits in kind.

For example, Resort A had a beach clean up session which involved about 800 volunteers from the hotel and another big corporation while another program was to sponsor food for homeless people in the state for a whole year whereby the chef would go down every second Friday of the month to serve food to about 180 homeless

people. Each resort had their own corporate social responsibility programs with activities conducted yearly to attract socially responsible guests to their resorts. Many resorts provided business opportunities for locals by recommending the packages of local tourist guides and encouraging guests to visit batik factories and handicraft shops. By doing this, the resorts were indirectly providing some form of entertainment and activities for their guests. Finally, at least 50% to 100% of food was sourced locally in all the resorts surveyed as this was a logical approach to reduce operational costs.

Other Initiatives: There are also some novel environmental practices found during the field survey. These include using special machines to capture and reuse CFC in air conditioner compressors instead of releasing it into the atmosphere, using greener air conditioning gases, having a natural wetland to attract wildlife and using wells and pumps to get underground water among other things. After conducting more surveys, all these newly found initiatives could be used to construct an environmental best practice manual for the industry.

Factors Influencing non Adoption of Initiatives: Some of the other internal practices, environmental and socio-economic activities that were not widely practiced among the surveyed resorts are included in Table 2. For internal practice, some resorts did not see the benefits of incurring extra costs and resources just to get labels or certificate like ISO 14001 or green labels. These resorts were content as long as they were doing the right thing for their guests and the environment. However, Resort H a professionally managed resort in the east coast that is in the process of getting an ISO14001 certification, valued certifications and environmental management systems like ISO14001 to ensure systematic control of practices and procedures relating to the environment as without it, unmonitored and unmeasured activities would eventually be neglected by staff and forgotten by management.

Not all resorts had green teams or green committee made up of many different departments and levels of personnel due to the fact that it was on a voluntary basis. However, Resort F which was the only resort managed by its owner, had set up a Green Team with representatives from each department that briefed their respective departments on green practices. In addition, the resort owner also had a good strategy of coming up with various green competitions with rewards such as cash and

holiday packages to encourage innovation and involvement in such initiatives. Resort C, an ecoresort with a Malaysian owner that was committed to the environment, had the concept of sustainability as a basis for designing, planning and construction infused into their framework on sustainability before construction even started. This kind of planning was not done in the other resorts probably due to lack of information and knowledge of the concept and this is an important step that should be used in future construction and setting up of any resort in Malaysia. In order to create a culture and environment focused on sustainable operations, more efforts need to be made to promote and increase awareness.

Regarding environmental impact, specifically water conservation, dual flush toilets and toilet tanks with less than 9 liters of water were not yet widely practiced among the resorts either due to lack of knowledge about the available options or that the conventional toilets built previously were still in working order. Low flow sink aerators or water restricting devices were not popular as most of the resorts had not heard of them. If resorts and hotels were educated on the practice, the practice could be utilized more comprehensively in Malaysia due to its minimal cost. Although, energy conservation by using motion sensors was only used in Resort D, a professionally managed resort in the south, the cheap cost of such devices should encourage more resorts and hotels to implement this practice with proper awareness. Even though, Resort J, a professionally managed Malaysian resort in the north, experienced a reduction of 30% in energy consumption and a return of investment in just one year for solar panels, only a few other resorts had this initiative in place due to the high initial capital cost. Energy saving air conditioners devices like inverters was not popular due to the fact that it is a new technology and would take time for widespread implementation. Air-conditioners were not really set at around 24C° or higher because resorts were unaware that this would result in a significant amount of energy savings.

Waste management by composting kitchen and garden wastes to be used as organic fertilizer was not implemented in most of the resorts due to that fact that it involved a complex technique that had to be mastered. Recycled paper to produce brochures was not used in any of the resorts due to the fact that it cost a lot more than normal paper. A few resorts do conserve or care for wildlife in some way due to that fact that it was a form of promotional tool to increase occupancy among animal lovers. For example, Resort I has the Hornbill project to protect the Hornbill species and also other animals in the

areas which are cared for by their naturalist. Although organic gardens or nursery do exist in some resorts there are only minimal plants. Fresh fruits, vegetables, flowers from the resort garden were used and meat from the organic chicken and ducks were reared only in Resort F which gave them huge savings yearly. Reforestation efforts that encouraged guests to buy and plant their own trees as part of a tree adoption program was less popular due to a lack of land for some resorts. Erosion control to protect the beach and save the trees along the coast was only done in a few resorts as not all resorts were resorts by the sea.

For social and economic initiatives, only Resort F, which was managed by its proactive owner, actively cooperated with others by sharing and educating other hotels and organizations about green practices. This was due to the lack of expertise of other resort personnel regarding environmental issues. It was also due to this lack of knowledge that only a few resorts has educational activities to raise awareness in the local community about environmental practices by conducting programs and seminars, holding exhibitions and giving talks to different universities. Facilities for those with disabilities and allocation of no smoking sections were not popular as this was still not made compulsory by the government. Encouraging guests to participate in local customs and traditions was only practiced by resorts which had a supply of local artists. Sponsoring research on an environmental issue in the local community was not done by any of the resorts due to the fact that local universities had not yet approached them on the subject.

CONCLUSION

In conclusion, even though most of the selected resorts are concerned about the environment, implementation of environmental initiatives were still minimal due to unattractive benefits compared to costs, not enough incentives or rebates from the government to encourage implementation of green practices and lack of knowledge about the variety of methods that can be used to protect the environment and care for society in an effective way. Based on the field survey conducted, Malaysian hotels are still more focused on the economic side of business although more hotels are needed for study in order to draw more significant conclusions. Future research can be conducted to understand the scope of the actual problems faced by resorts to obtain insights on how to improve and encourage the Malaysian hotel industry to strive for better environmental performance.

ACKNOWLEDGEMENTS

Grant from University Sains Malaysai Malaysia (grant no 1001/PMGT/816032) are gratefully acknowledged

REFERENCES

1. Faulk, S., 2000. A Survey of Environmental Management by Hotels and Related Tourism Businesses. In the Presentation of the 2000 Oikos Ph.D. Summer Academy, University of St. Gallen, Switzerland, pp: 3-6, 11-17.
2. Holden, A., 1999. High Impact Tourism: A Suitable Component of Sustainable Policy. *J. Sustainable Tourism*, 7(2): 97-107.
3. Siti Nabiha, A.K., R. Mahadi, A. Amran, N. Abdul Wahid, I. Abustan and R.A. George, 2010. A Field Survey on the Green Performance of Selected Resorts in Malaysia. In the Proceedings of the 2010 International Graduate Tourism Research Conference 2010, K.L. Malaysia, pp: 24-35.
4. Mensah, I., 2006. Environmental Management Practices among Hotels in the Greater Accra Region. *J. Hospitality Management*, 25(3): 414-431.
5. Revilla, G., T.H. Dodd and L.C. Hoover, 2001. Environmental Tactics Used by Hotel Companies in Mexico, *International Journal of Hospitality & Tourism Administration*, 1(3): 111-127.
6. Meade, B. and J. Pringle, 2001. Environmental Management Systems for Caribbean Hotels and Resorts, *J. Quality Assurance in Hospitality & Tourism*, 2(3): 149-159.
7. Quazi, H.A., 1999. Implementation of an Environmental Management System: The Experience of Companies Operating in Singapore. *J. Industrial Management & Data Systems*, 99(7): 302-311. MCB University Press ISSN: 0887-604.
8. Chan, W. and K. Ho, 2006. Hotel's Environmental Management Systems (ISO14001): Creative Financing Strategy. *International Journal of Contemporary Hospitality Management*, 18(4): 302-316.
9. Kasim, A., 2005. Business Environmental and Social Responsibility: Factors Influencing the Hotel Sector in Penang. Sintok: North Malaysia University Press.
10. Kasim, A., 2009. Managerial Attitudes towards Environmental Management among Small and Medium Hotels in Kuala Lumpur. *J. Sustainable Tourism*, 17(6): 709-725.

11. Kasim, A. and C. Scarlet, 2007. Business Environmental Responsibility in the Hospitality Industry. *Management J.*, 2(1): 5-23.
12. Kasim, A., 2007. Towards a Wider Adoption of Environmental Responsibility in the Hotel Sector, *International J. Hospitality & Tourism Administration*, 8(2): 25-49.
13. Hunter, C., 1996. Sustainable Tourism as an Adaptive Paradigm. *Annals of Tourism Res.*, 24(4): 850-867.