

Towards Implementing EMS in Enterprises A Case study in the Tourism Industry – Ghana

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Abstract

Tourism establishments are faced with numerous environmental challenges such as toxic emissions, use of hazardous chemicals, waste generation, disposal and waste treatment systems. Adopting an environmental management system (EMS) confronts and addresses such concerns paramount to achieving a key goal of the objectives of sustainable development. EMS goes beyond mere issues of legal compliance, to tackle internal safety and aspects of societal well-being. Implementing EMS provides an organized and structured way to deal with environmental problems that firms impact on the environment as a result of their routine activities. Those with good environmental performance will find the system useful as it strengthens management review. Companies that do not have good environmental performance records may use it as a valuable management model.

Kurzfassung

Touristische Einrichtungen sind mit zahlreichen Herausforderungen im Umweltsektor, wie beispielsweise Emissionen, der Gebrauch von gefährlichen chemischen Stoffen, der Abfallbehandlung und -entsorgung konfrontiert. Mit Hilfe eines Umweltmanagementsystems (environmental management system – EMS) können diese Umweltprobleme gezielt betrachtet und das Hauptziel „nachhaltige Entwicklung“ gefördert werden. Bei der Durchführung eines EMS werden nicht nur die gesetzlichen Bestimmungen betrachtet, sondern Probleme der internationalen Sicherheit und Aspekte gesellschaftlichen Wohlbefindens mit einbezogen. Der Einsatz eines EMS bietet die Möglichkeit, sich in organisierter und strukturierter Weise mit Umweltproblemen zu befassen. Touristischen Einrichtungen, die bereits umweltschonend wirtschaften, bietet es Marketingmöglichkeiten. Touristischen Einrichtungen, für die eine stärkere Umweltorientierung notwendig ist, bietet es ein gutes Instrument zur Verbesserung des Managements.

1 Introduction

1.1 Sustainable Tourism

Tourism is the movement of a person or group of persons to destinations, outside one's permanent place of abode, for at least 24 hours but not

more than 365 days. The main intent of travel should be one other than the exercise of an activity remunerated from within (COHEN, 1974). These travel and stay attributes are characterized by (NUNOO, 1998) demand for and supply of touristic goods that impinge on 3 core areas; natural resources, physical environment and Pollution (UNEP, 1996).

The need to develop tourism on sustainable basis is paramount since the true proof of "sustainable tourism" will be the sustainable development of tourist destinations. Sustainable tourism is thus seen in the perspectives of development that meets the needs of present tourists and host regions (WTO, 1999) while protecting and enhancing opportunities for the future.

1.2 Environmental Management System

EMS employs a systems methodology that illicit from management personnel a need to integrate environmental considerations into everyday business operations to ensure that environmental stewardship becomes part of daily routines. The system is rooted in an old management model of the 1930s (WELFORD, 1996) and popularised by Deming (SASSEVILLE, 1997) in the 1950s as the *Plan, Do, Check, Act* Cycle. These management principles, in the context of continual improvement (ISO, 2003), are referred to as ISO 14001 standards (Tab. 1).

1.3 EMS in the Tourism Industry

The demand for a healthy environment by tourists is driving the industry in Ghana to higher standards and environmentally friendly way of business practices. Implementing EMS in enterprises will not only satisfy tourist's request but also improve internal efficiencies, increase competitiveness and profit margins, and establish marketing identity. For instance, an environmental risk assessment should be deemed a pre-requisite before any tourism project gets funded by the financial sector. On the stock exchange the Sustainable Index (SI) and an Annual Environmental Outlook Report (AEOR) could be introduced (BETTS, 1998) for companies listed on the market. Implementing EMS in tourism establishments will equip them to meet these standards and verify such environmental performance.

Table 1:
EMS baseline model

EMS's Model	Content	ISO 14001 Core Elements	Content
Plan	Environmental policy Environmental aspect Legal requirements Objectives & targets	Environmental policy	Integral with organizations mission statement
Do	Structure Responsibilities Training Communications Document control	Planning	Environmental aspect Legal & other requirements Objectives & targets Environmental Mgt. programs Structure & responsibilities Training, awareness & competence Communication
		Implementation & operation	EMS documentation Document control Operational control Emergency preparedness & response
Check	Monitor Measure Records Audit	Checking & Corrective action	Monitoring & measurement Nonconformance, corrective Preventive action Records & EMS audit
Act	Management review	Management review	Continues process

1.4 Study Objective

The study focused on the design and implementation process of EMS as a management tool for a sustainable tourism industry. It is intended to eventually help stakeholders develop a national EMS operating manual to address the impact of tourism activities on the environment, use resources wisely and get certified to ISO 14001. The study specifically:

- Investigated and identified elements in an EMS of tourism establishments with emphasis on the most affecting and most sensitive elements.
- Identified environmental opportunities associated with the TEMS for future improvement in Ghana.

2 Ghana as Tourists Destination

Located on the west coast of Africa with a population of 20.3 million, tourism in Ghana is perceived to be an engine of growth viable for diversifying the 3-tier agro-based economy (cocoa, timber, gold). What makes it a subject with keen interest, apart from the country's unique ecological zones, natural game reserves, parks and open-door hospitality stigma, is due to the following: (i) The sector has a positive impact on the national economy as the third largest earner of foreign exchange¹ (after gold and cocoa) with a multiplier effect of 3.5 % and 3.4 % on employment and income respectively. (ii) An appreciable average annual growth rate of 15 % with the top 3 generating markets being the USA, UK and Germany.

¹ Foreign exchange receipt is expected to reach US\$ 1.5 billion by 2010 by the (YANKAH, 2004).

The industry is positioned primarily on 5 domains (historical and cultural heritage, sunny beaches, conventions and virgin ecology) with the main tourist's product packages being: national parks and game reserves, cultural heritage and monuments, Pan-African historical festival (PANAFEST), emancipation day celebrations, cultural attractions and festivals, conference tourism, education tourism and health tourism.

3 Methodology

Copious review of manuscripts on the implementation of an integrated EMS in the tourism establishments and structured questionnaire for stakeholders formed the bases of this study. A hierarchization matrix was employed to identify and analyse the most affecting and most sensitive elements in the TEMS. Characterization and ranking the elements presented formidable opportunities within the TEM for establishments to adopt an EMS manual as a guide to develop or improve on their environmental management policies and programmes.

3.1 Element of Ghana's TEMS

Conceptually the sector (Fig. 1) is seen as an industry in production characterized by *input* of various elements that goes through a *process* to turn out tourist's goods (*output*). Two or more elements interact to produce a tourist's product. During the "*production process*" the environment is affected in a number of ways. Interaction between players in the TEMS and the environment, without effective environmental management practices (undesirable), results in wastage of resources (*brown goods*). When an EMS is applied it transforms the various undesirable processes in the industry into an environmentally friendly way of *production* by analysing the system.

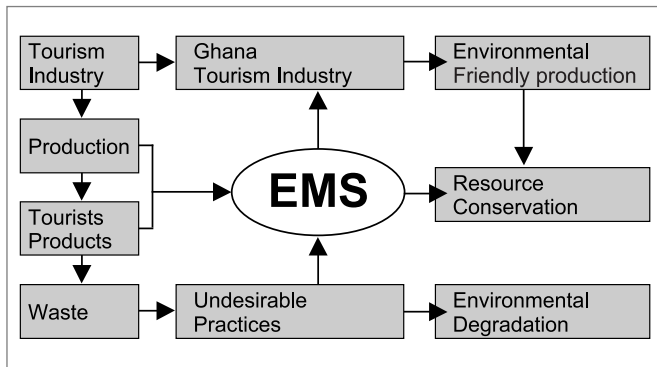


Figure 1:
Relationship between the Tourism Industry and EMS

Most affecting and most sensitive elements are identified as opportunities for future environmental improvement. This is envisaged to result in *greening production*, cost savings, increase profits margins and conserve resources.

Table 2:
List of elements in the TEMS

01. The Weather	22. Effluents	43. Communication systems
02. Attractions	23. Water Consumption	44. Capital Investment
03. Accessibility to attractions	24. Inland water Resorts	45. Ministry of tourism
04. National Parks and Gardens	25. Water Quality	46. Land contamination
05. Game Reserves	26. Supply of Water	47. Environmental Education
06. Surface Water Contamination	27. Firewood	48. Ghana Tourist Board
07. Beach Resorts	28. Water Conservation	49. Air Quality
08. Quality of beaches	29. Lost of Flora and Fauna	50. Soil Quality
09. Cultural heritage and Monuments	30. Packaging Materials	51. Laws and Regulations
10. Festivals	31. Licenses and permits	52. Occupational Health
11. Waterfalls	32. Liquid Waste	53. Waste Disposal Systems
12. Accommodation	33. Pollution	54. The Company's Organization
13. Transportation	34. Noise and Vibrations	55. Financing Waste Disposal
14. Restaurants and Bars	35. Air Emissions	56. Environmental Tax
15. Boilers	36. Environmental practice	57. Tour Operators
16. Tourists	37. Solid Waste	58. Tour Guides
17. Tourist Night Stay	38. Hazardous Chemicals	59. Environmental Policy
18. Supply of Energy	39. Company location	60. Groundwater Contamination
19. Energy sources	40. Computers	61. Erosion
20. Heating System	41. Staff Training	62. Liter
21. Lighting System	42. Air Conditioning	Source: Sampled field data, 2007

3.2 Characteristics of the Gh-TEMS

The TEMS exhibited the following characteristics; *tourists goods*: good produced cannot be stored, deferred consumption nor transferable. They can be consumed only at destination points; *boundary conditions*: on a meso-scale since it is measured from its immediate environment; *socio-economic aspect*: supply of "tourist's products", job creation, employment, income generation, revenue to government, modernization of cities, provision and improvement of basic infrastructures, *environmental aspects*: resource conservation, pollution, energy use, water use, and destruction of plants and microorganisms

3.3 List of Elements

Categorised under 6 themes; (i. management, ii attractions, iii. transportation, iv. accommodation, v. catering, restaurants and drinking spots/clubs, vi. supporting and ancillary services) stakeholders identified the following (Tab. 2) as elements to be considered in the Gh-TEMS.

Table 4:

Most affecting to most sensitive elements (Tourists>>>>>Attractions)

01. Tourists	22. Festivals	43. Transportation
02. Laws and Regulation	23. Ministry of Tourism	44. Packaging Materials
03. Ghana Tourist Board	24. Computers	45. Supply of Water
04. Environmental Policy	25. Effluents	46. Lost of Lora and Fauna
05. Environmental Practices	26. Occupational Hazards	47. Air Quality
06. Capital Investment	27. Beach Resorts	48. Inland water Resorts
07. Environmental Tax	28. Company location	49. Hazardous Chemicals
08. The Company's Organization	29. Boilers	50. Game Reserves
09. Environmental Education	30. Quality of Beaches	51. The Weather
10. Groundwater Contamination	31. Liquid Waste	52. Emissions into the Atmosphere
11. Tourist Night Stay	32. Tour Guides	53. Soil Quality
12. Staff Training	33. Land Contamination	54. National Parks and Gardens
13. Waste Disposal Systems	34. Surface Water Contamination	55. Water Consumption
14. Tour Operators	35. Erosion	56. Noise and Vibrations
15. Accommodation	36. Water fall	57. Heating System
16. Liter	37. Use of Firewood	58. Water Conservation
17. Restaurants and Bars	38. Solid Waste	59. Lighting System
18. Financing Waste Disposal	39. Water Quality	60. Supply of Energy
19. Licenses	40. Accessibility to Attractions	61. Energy sources
20. Cultural Heritage & Monuments	41. Communication Systems	62. Attractions
21. Pollution	42. Air Conditioning	Source: Sampled field data analysis, 2007

Tourist's attractions on the other hand are the most sensitive in the TEMS as it scored 61 points ("0"s). Other sensitive elements, in descending order, are energy sources (59 points), supply of energy (58 points), lighting system (57 points) and water conservation (57 points).

5 Conclusion

Based on the *most affecting* and the *most sensitive* elements the study identified conservation, preservation and protection of attractions (historical buildings, monuments, cultural events, and parks), infrastructural development, conservation of water, energy conservation, emission control and solid waste disposal to be the immediate environmental opportunities associated with Ghana's TEMS.

There is therefore a need to transform the system into a more environmental friendly sector by managing the TEMS with the appropriate redesigning tool involving employee, stakeholders and EMS experts. Adopting an EMS operating manual will assist establishment operators to use resources wisely, minimize environmental impact of tourism developments, get certified to ISO 14001 and make the industry a sustainable one.

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