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Environmental management practices among hotels in the greater Accra region

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Abstract

This study investigates the environmental management practices among different categories of hotels in the Greater Accra Region (GAR) of Ghana. Existing literature on hotels' environmental management practices provided the theoretical underpinning for the study. Using the stratified sampling method, a sample of 52 hotel managers from the various categories of hotels in region completed questionnaires on the study. A test on the hypothesis using the chi-square method supported the fact that larger hotels (Three to five star) were at the forefront of adoption and practice of environmental management practices. Also, for the hotels with environmental policies, such policies were geared towards achieving safe, clean and healthy environments.

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Keywords: Hotel; Environment, Environmental management; Recycling; Eco-friendly practices

1. Introduction

Tourism is one of the activities that depend heavily on the environment. Pristine beaches, warm climates, clean air, dramatic landscapes among others promote tourism. However, it also has the potential of destroying the very environment on which it depends, if not properly managed, a classic case of "killing the goose that lays the golden egg". In the words of Pigram (1995, p. 19) "Tourism can certainly

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1 contribute to environmental degradation and be self-destructive. It also has the
2 potential to bring about significant enhancement of the environment”.

3 Evidence available suggests that tourists are becoming increasingly concerned
4 about the environment of destinations they intend to visit. For instance, the Conde
5 Nast Travellers’ magazine conducted a readers’ poll in September 1996, which
6 revealed that 95% of travelers are concerned with the environmental conditions of
7 their destinations (Moffitt and Engeldrum, 1997). This has led to calls from
8 governments, local residents, Non-governmental Organizations (NGOs), consumers
9 and the tourism industry for more sustainable tourism practices. Hotels also occupy
10 a central place in the tourism industry worldwide, accounting for 31% of tourist
11 expenditure in 1998 (WTTC, 2000). Also, as the more tangible manifestation of
12 tourism development, their impact on the environment cannot be underestimated. It
13 is therefore heartwarming that they are responding to these calls and concerns,
14 culminating in initiatives such as the International Hotels Environment Initiative
15 (IHEI), an alliance between 11 international hotel chains, who in 1993 accepted a
16 manual spelling out a comprehensive campaign to advance environmental
17 performance in the hotel industry.

18 Within the hotel sector, the areas of concern for the environment include recycling
19 of waste, waste management, clean air, energy and water conservation, environ-
20 mental health, maintenance of permits such as building permits and compliance with
21 legislation, purchasing policy and environmental education. Ghana’s nascent and
22 growing tourism industry has experienced a steady growth in hotels but it is not
23 exactly known how these hotels are embracing the concept of environmental
24 management, within the context of sustainable tourism development.

25 There is the need for background information on environmental practices in
26 Ghana’s hotel industry which will serve as a basis for fashioning out an
27 environmental management program for the sector. Such information will also help
28 hotel managers, the government and the Ghana Tourist Board to adopt and initiate
29 appropriate environmental management programs aimed at safeguarding the
30 environment and thereby making the hotels more internationally competitive. This
31 will also augment the national efforts at safeguarding the environment.

32 It is in this light that this work seeks to find out the environmental management
33 practices among the hotels in the Greater Accra Region (GAR), which has the
34 greatest concentration of all the various categories of hotels in Ghana to permit a
35 fair analysis. Also, the results of this study can be used to draw inferences on hotels
36 in other regions of the country. The objective of this study is to determine the
37 environmental management policies and practices of hotels in the GAR. The study
38 also seeks to compare the level of adoption and implementation of environmental
39 management practices among different categories of hotels in the region.

41 2. Ghana’s hotel industry and the environment

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45 Ghana is located along West Africa’s Golf of Guinea, close to the Equator and is
bordered by Togo, Cote D’Ivoire and Burkina Fasso. It has a population of

1 18,912,079 over a land area of 238,000 square kilometers (Ghana Statistical Service,
2002). Tourism constitutes Ghana's third major export commodity after minerals
3 and cocoa. Visitor arrivals moved from 145,750 in 1990 to 399,000 in 2000. During
4 the same period, revenues from international arrivals increased from \$81 million to
5 \$386 million (Ghana Tourist Board (GTB), 2000). Among the tourism resources that
6 make Ghana attractive are a rich and diverse cultural heritage, pristine beaches,
7 colonial slave castles, attractive tropical weather, a friendly and sociable people as
8 well as wildlife and vegetation.

9 The hotel sector in Ghana has also experienced a rapid growth in the 1990s in
10 response to tourism growth and also with the advent of the Economic Recovery
11 Program and the Structural Adjustment Program (ERP/SAP) in 1986 by the
12 erstwhile Provisional National Defense Council (PNDC) government. The number of
13 licensed hotels has risen from 350 in 1990 to 1169 in 2002 as shown on Table 1.

14 However, the distribution of hotels among the regions has not been even. From
15 Table 2, about 20% of the rooms were located in the Ashanti Region and 12% in the
16 Western Region. The GAR has the largest number of hotels, approximately 34% of
17 all rooms, including all the four- and five-star hotels in 2001 (Ghana Tourist Board
18 (GTB), 2002). The growth of hotels has not been without effects on the environment.
19 The Daily Graphic of 18th February, 1998 reported of the Golden Tulip Hotel
20 discharging sewerage into a drain in front of the Alliance Française building. Some
21 hotels have also been built on waterways, causing flooding to outlying communities.
22 Also, floods in Accra washed away part of Secaps Hotel at the Tetteh Quarshie
23 roundabout in 2001, because it was located on a waterway (Accra Mail, 17th
24 October 2001).

25 There have also been increasing concerns about the environmental problems
26 posed by these hotels as noted in the 1996 Tourism Development Plan for the GAR,
27 that sewage and solid waste disposal is a problem in some hotels. The plan
28 recognized that there could be pollution of rivers, lakes and coastal water from
29 sewerage outfall lines, and of ground water by seepage of waste materials from
30 improper development of sewerage and solid waste disposal systems in hotels and
31 other facilities.

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33
34
35 Table 1
36 Number of hotel rooms and beds, 1990–2002

37 Year	Number of hotels	Number of rooms	Number of beds
38 1990	350	5682	8576
39 1993	587	8578	12112
40 1996	703	10391	13791
41 1998	730	10879	14289
42 2000	992	13641	17558
43 2001	1053	15453	19648
44 2002	1169	16180	21442

45 Source: Ghana Tourist Board (GTB), 2002.

Table 2
Distribution of hotel rooms in Ghana by regions 1995–2001

Region	Year						
	1995	1996	1997	1998	1999	2000	2001
Greater Accra	3231	3928	4752	5125	4317	5874	5211
Ashanti	1506	2037	2207	1867	2004	2264	2214
Eastern	726	732	744	536	688	666	1029
Western	970	1177	1006	936	731	1007	1576
Central	618	679	513	726	821	1108	1458
Brong Ahafo	597	810	584	405	907	1057	1179
Volta	401	550	567	669	685	799	784
Northern	212	213	254	283	393	434	485
Upper East	136	151	133	155	141	188	226
Upper West	121	114	161	177	209	244	291
Total	8518	10391	10921	10879	10896	13641	15453

Source: Ghana Tourist Board (GTB), 2002.

The pressures on hotels in the GAR to adopt sound environmental management practices come essentially from government via its institutions like the Environmental Protection Agency (EPA), GTB and Accra Metropolitan Assembly (AMA). This is unlike in the developed world where consumers and NGOs are at the forefront. EIA is mandatory for hotels with more than 40 rooms, before they commence business. As part of the requirements for the issuance of license by the GTB, hotels are supposed to submit environmental permits from the EPA. The EPA provides the environmental permit only after the hotel has submitted an EIA to them. According to the Quality Assurance Department of the GTB, since it is a prerequisite for the issuance of licenses, for those hotels which are required to, comply with this regulation. However, the environmental management expected of these hotels tends to end after they have been issued with environmental permits by the EPA and licenses by the GTB. To address the problem of abuse of the environment by hotels in the GAR, there is the need to first, know if the hotels have environmental policies and are engaged in some form of environmental management practices.

3. Literature review

Worcester (1994) reports that environmental management, which emerged in the 1980s, is a new and vital aspect of management, which will be adopted by an increasing number of firms by the 1990s. EPA of Ghana defines Environmental Management as “the process by which the collection of policies, structures, resources, systems and processes are brought to interplay for the achievement of clearly defined environmental policy directives” (EPA Newsletter, 1997). Some writers have defined environmental management from the standpoint of Environ-

1 mental Management Systems (EMS) ([Middleton and Hawkins, 1998](#); [Faulk, 2000](#)).
2 [Middleton and Hawkins \(1998\)](#) describes EMS as relating to the conduct of existing
3 day-to-day business operations and is a useful label for the range of programs
4 undertaken by a public or private sector organization to protect, enhance or reduce
5 its impact on the environment. It is a corporate approach usually based on auditing
6 procedures, which involves setting objectives, measurable targets; a detailed program
7 and a monitoring and evaluation process ([Hunter and Green, 1995](#)). For the purpose
8 of this study, environmental management is defined as a continuous process adopted
9 through management decisions, by which a hotel's activities are monitored and
10 appropriate programs and activities devised to reduce the negative environmental
11 impacts.

12 Environmental Management in hotels started in the form of initiatives by various
13 associations and activities which begun when the Prince of Wales launched the IHEI
14 in 1993. In 1994, 16 hotel groups in the Asia Pacific Rim also formed the first
15 Regional Chapter—the Asia Pacific Hotels Environment Initiative ([Chan and Lam,
16 2001](#)). In the same year, the Hotel and Catering Institute Management Association
17 participated in Green Globe, an environmental management awareness program
18 initiated by the WTTC. Also in 1997, the Caribbean Alliance for Sustainable
19 Tourism (CAST) was born to undertake collaborative environmental activities and
20 initiatives within the hotel and tourism sector ([Hotel Online, 2002](#)). Individual hotels
21 like Novotel, Ibis Homebush, Grecotel, Ramada Renaissance Hotel, Fairmont
22 Hotels and Resorts among others are aggressively pursuing environmental
23 initiatives. In Hong Kong alone, a survey conducted in 1992 found that about
24 30% of hotels have launched environmental programs with varying degrees of
25 success ([Barlett, 1992](#)). Environmental management issues that have been of concern
26 to the hotel industry have been recycling of waste, waste management, energy
27 savings, water conservation, compliance with legislation, purchasing policy and
28 environmental education ([Zhao and Merna, 1992](#); [Forte, 1994](#); [Kotler et al., 1999](#);
29 [Middleton and Hawkins, 1998](#)).

30 Waste management and energy savings have been critical concerns in environ-
31 mental management in hotels. A survey carried out by the American Hotel and
32 Motel Association (AH&MA) revealed that Hotel managers rated reduction of
33 energy consumption as well as waste management through recycling to be their most
34 important concerns ([Stipanuk, 1996](#)). For example, at Kingfisher Bay Resort and
35 Village (KBRV), in Queensland Australia, waste is separated, compacted and sent to
36 the mainland ([Faulk, 2000](#)). The Statler Hotels has also installed a refuse chute that
37 deposits trash directly into a refuse room. The refuse is then separated and the paper
38 balanced and sold ([Stipanuk, 1996](#)).

39 [Chan and Lam \(2001\)](#) on the other hand believe that the thrust of the green
40 campaign in the hospitality sector focused mainly on energy savings as evidenced by
41 the number of hotels engaging in energy-saving measures which range from the use
42 of compact fluorescent bulbs to shutting down unused appliances. The Saunders
43 Hotel for instance uses thermopane windows to reduce energy costs ([Patterson,
44 1995](#)). The Intercontinental Hotel also purchased a capacitor bank to reduce energy
45 consumption with a return of investment of 18 months ([Faulk, 2000](#)) and in the case

1 of the KBRV, architectural design and use of fluorescent bulbs allow for minimal
2 energy consumption ([Faulk, 2000](#)).

3 Environmental Management has also been targeted at reducing wastage of water
4 and improvement of water quality partly because the hotel industry is greatly
5 affected in terms of water availability and quality and will face difficulty in
6 alleviating over-consumption and to deal with cost of water and water conservation
7 ([Zhao and Merna, 1992](#)). One of the Novotel and Hotel Ibis Homebush Bay in
8 Sydney Australia reduced its portable water consumption by 50% through a dual-
9 piping system ([Hotel Online, 2002](#)). As a result of cost savings waste management
10 and energy and water savings have become popular environmental management
11 practices ([Hawkes and Williams, 1993](#); [Forte, 1994](#); [Hotel Online, 2002](#)).

12 In spite of the growing popularity of environmental management in hotels, only
13 larger hotels have been found to be at the forefront of environmental management
14 ([Wahab and Pigram, 1997](#); [Mauforth and Munt, 1998](#); [Alvarez Gil and Cespedes
15 Lorente, 2001](#)). [Mauforth and Munt \(1998\)](#), claim that this is due to the fact that
16 small- and medium-scale accommodation companies do not have the capital
17 resources or internal arrangement structure to conduct environmental management.
18 Facility age, chain affiliation and stakeholder environmental pressure have also been
19 identified as impacting on hotels' environmental practices.

20 According to [Aragón Correa \(1998\)](#) and [Fineman and Clarke \(1996\)](#), most of the
21 studies on corporate environmental management have been done on large firms due
22 to the assumption that there is a direct relationship between size and environmental
23 management. [Alvarez Gil and Cespedes Lorente \(2001\)](#) are of the view that large
24 firms are exposed to considerable environmental pressure from stakeholders because:
25 their environmental impact is more visible; it is easier to control centralized sources
26 of pollution than dispersed units and large firms are regarded as industry leaders and
27 thus constitute models to imitate. Also, large firms have economies of scale in the re-
28 use, recycling or valuation of waste ([Andersen, 1997](#)). Looking at the relationship
29 between environmental management and chain affiliation, [Alvarez Gil and Cespedes
30 Lorente \(2001\)](#) are of the view that the functions carried out by hotel chains that
31 refer to transfer of knowledge are extremely important for environmental protection-
32 related matters. Hotel chains take advantage of the successful practices of individual
33 units and distribute it among members of the chain ([Darr et al., 1995](#)). However, no
34 such study has been conducted in Ghana, accounting for the paucity of data on
35 environmental management practices of hotels in the country. It is therefore
36 hypothesized that there is no relationship between hotel category/class and adoption
37 and implementation of environmental management practices by hotels in the GAR.

39 4. Analysis

41 4.1. Methods of data collection and analysis

42 Data for this study was collected from both primary and secondary sources.
43 Primary data was obtained by means of questionnaires. The data on environmental
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45

management practices was collected from a sample of hotel managers in the GAR. The target population comprised all hotel managers in the GAR as at February 2003. The GTB list of 486 licensed hotels in the GAR for 2002 served as the sampling frame.

The questionnaire for hotel managers was intended to elicit information on their environmental management practices. The four-page questionnaire was categorized into three modules. Module A was on environmental management practices and questions on managers' perception of environmental management, including environmental policy, and practices. Module B was on the nature of the hotel facility; including hotel classification, ownership type, services offered and staff strength. Module C was on the socioeconomic characteristics of hotel managers, such as their age, sex, educational background and income.

A number of factors were considered in the selection of the sample. This included the number of hotels in each category, cost, time and resource availability. The stratified random sampling method was used to select the hotel managers ($n = 52$) (Table 3). The criterion for the strata was the hotel classification system used by the GTB (Fig. 1). As can be seen from Table 3, the strata were four/five-, three-, two-, one-star, guest-house and budget.

The fieldwork which started in February 2003 lasted one month. Personal calls were made to the randomly selected hotels between 9 a.m. and 5 p.m. each day. Some of the hotel managers completed the questionnaires on their own while some were interviewed. Some hotel managers were not co-operative. Others accepted the questionnaires but it took quite an effort to collect the completed questionnaires. This was not only time-consuming but also proved expensive in terms of transport cost. Some managers also failed to complete the questionnaires, thus necessitating printing of extra questionnaires and random selection of extra managers from other hotels in the same category to ensure the sample size of 52 managers was achieved.

The chi-square test technique was used to establish if there was a difference in the environmental management practices of the various categories of hotels percentages and frequencies were also used to compare the level of eco-friendly practices among the hotels. The hypothesis was tested at $p < 0.05$. The data collected from the field was edited, coded and processed using the Statistical Package for the Social Sciences

Table 3
Sample of hotel managers

Category/class	Total	Sample of hotel managers
4-5 Star	4	4
3 Star	10	8
2 Star	59	10
1 Star	55	10
Guest house	73	10
Budget	281	10
Unclassed	4	—
Total	486	52

1) Category one (Budget/one star)

- i) **Budget:** Provides the barest minimum of furnishing with no facilities, amenities or guest services.
- ii) **One star:** Provides basic furnishing and very limited or no facilities, amenities and guest services (Hot and cold water in rooms, central heating etc.)

2) Category two (Guest house/ two star)

- i) **Guest house:** Provides good furnishing, facilities, amenities and guest services like a two star rated hotel but has less than eleven rooms.
- ii) **Two star:** Provides more furnishing and some facilities, amenities and guest services (Breakfast/dining room, TV lounge etc.)

3) Category three (three star- five star)

- i) **Three star:** provides better quality furnishing and a more extensive range of facilities, amenities and guest services (private bath/shower, lounge area, bar, restaurant, staff assistance throughout the day etc.)
- ii) **Four star:** Provides superior quality furnishing and a complete range of facilities, amenities and guest services (all rooms with bath, direct dial telephone, radio and TV set, individual control heating and air conditioning, full room service, some shops and sports facilities etc.)
- iii) **Five star:** Provides deluxe accommodation and marked superiority in the extent and quality of facilities, amenities and guest services (minibar in rooms, 24-hour laundry service, several bars, restaurants and lounges, health club, shopping arcade etc.)

Fig. 1. GTB's classification of hotels. (Source: Ghana Tourist Board.)

(SPSS) PC version 8. For easy comparison, the hotels were categorized into three on the basis of similarities in facilities, amenities and services and based on the GTB classification.

4.2. Characteristics of hotel categories

It is important to identify the characteristics of hotels since this affects their environmental management practices. A hotel's legal category and type of dominant tourism among its clientele affects its environmental management practices (Alvarez Gil and Cespedes Lorente, 2001).

Some differences emerged in the characteristics of the various categories of hotels (Budget/one star, Guest house/two star and three- to five star) as depicted in Table 4. The number of rooms and workers of the hotels increased with an increase in the class/category of the hotels. Most of the hotels were owned by local sole proprietors.

Table 4
Characteristics of various categories of hotels

Characteristic	Detail	Category		
		Budget/ 1 star	Guest house/ 2 star	3–5 star
Number of rooms	< 30	80.0	80.0	25.0
	30–59	15.0	10.0	41.7
	90–119	—	5.0	8.3
	120–149	5.0	5.0	8.3
	150+	—	—	16.7
	Total	100.0	100.0	100.0
Number of workers	< 30	100.0	83.3	41.7
	30–59	—	5.5	25.0
	60–89	—	5.6	—
	150+	—	5.6	33.3
	Total	100.0	100.0	100.0
Ownership	Local sole proprietor	85.0	50.0	50.0
	Local partnership	5.0	25.0	—
	Local/foreign partnership	10.0	5.0	41.7
	Local limited liability company	—	20.0	8.3
	Total	100.0	100.0	100.0
Educational background of managers	Secondary	55.0	27.8	16.7
	Post sec.	10.0	16.7	8.3
	Technical/ Vocational	10.0	11.1	8.3
	Polytechnic	20.0	38.9	8.3
	University	5.0	5.6	58.3
	Total	100.0	100.0	100.0
Regular customers	Foreign holidaymakers	10.0	25.0	66.7
	Foreign businessmen	10.0	45.0	75.0
	Local holidaymakers	80.0	40.0	—
	Local businessmen	60.0	35.0	33.3
	Foreign students	15.0	10.0	16.7
	Corporate bodies	—	15.0	16.7
	Total	*175.0	*170.0	*208.4
Promotion media	Brochures/leaflets/fliers	50.0	57.9	100.0
	Radio/TV	5.0	21.1	66.7
	Magazine/newspaper	10.0	15.8	58.3
	Direct mail	25.0	21.1	33.3
	Internet	5.0	26.3	83.3
	Tourist Information Centre	10.0	36.8	41.7
	Personal Contact	65.0	68.4	50.0
	Travel Agency	15.0	21.1	58.3
Total	*185.0	*268.5	*491.6	

*Percentage adds up to more than 100 due to multiple responses.

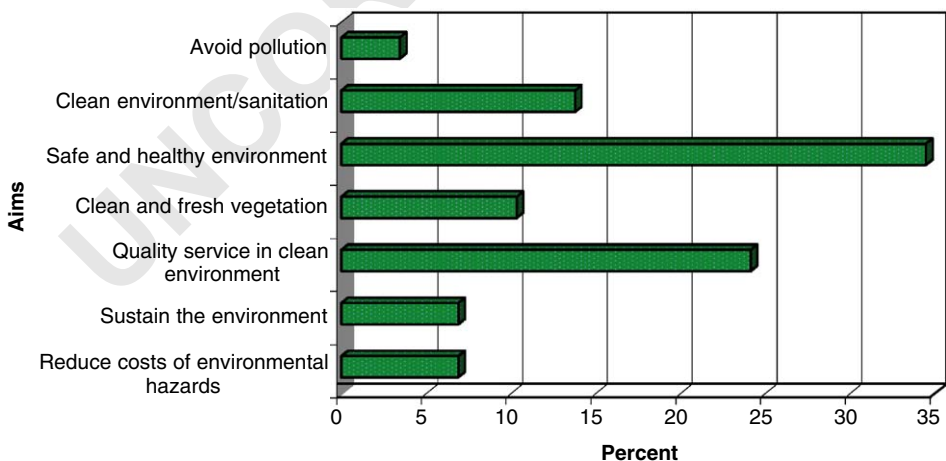
1 This applied mostly to the Budget/ one star hotel (85%). Also, half of both the Guest
 3 house/two star and three-five star category hotels were owned by local sole
 5 proprietors. However, a sizeable number of the three-five star hotels (41.7%) were in
 7 local/foreign partnerships. Also, the educational qualifications of the managers were
 somehow related to the category in which a hotel falls. More than half of the
 managers of the Budget/one-star hotels (55%) had secondary education while 58.3%
 of the managers of the three-five star hotels had university education.

9 The most regular customers of the hotels in the Budget/one star category (80%)
 11 were local holidaymakers with 60% being local businessmen. For hotels in the guest
 13 house/two-star category, they were foreign businessmen (45%) and local holiday-
 15 makers (40%). The three-five star hotels had their regular customers being
 17 foreigners; foreign businessmen (75%) and foreign holidaymakers (66.7%). It
 means that the lower grade hotels are usually patronized by local individuals while
 the upscale hotels are patronized by foreigners.

5. Discussion of findings

19 In terms of environmental policies, 58% of the hotels had environmental policies.
 21 Most of the hotels (34.5%) had environmental policies aimed at achieving a safe and
 23 healthy environment as shown on Fig. 2. Also, 24.14% of the environmental policies
 were aimed at providing quality service in a clean environment, while 13.79% of the
 hotels with environmental policies aimed at ensuring a clean environment/sanitation.

25 This means that environmental health and sanitation is of paramount concern to
 27 the hotels. This is because the topmost three aims were all related to sanitation and
 29 healthy surroundings. Most of the hotels maintained high standards of sanitation.
 The rooms had Waste baskets that were emptied daily. With the exception of a few



45 Fig. 2. Aims of environmental policies. (Source: Fieldwork, 2003.)

of the budget hotels, all the hotels had underground drains. The floors and walls of the hotels were cleaned regularly with disinfectants and detergents. It appeared the surroundings of the hotels; especially the frontages were of more concern to the hotel managers. Most of the hotels (especially the guest houses and Star-rated hotels) had enhanced their outer surroundings with flowers and other plants that were watered regularly to keep them green and fresh.

To most of the hotel managers, environmental management meant keeping their surroundings green and attractive with flowers and other ornamental plants. This is a very narrow view of environmental management as environmental management should be a process which should involve the collection of policies, structures, resources and systems for specific actions. Sanitation and planting of flowers are just some of the actions. Most of the hotels which did not have written or verbal environmental policies attributed that to the fact that their hotels did not need environmental policies (22.72%) or that the hotels were small (18.18%).

From Fig. 3, the most popular eco-friendly practices were; use of energy-efficient light bulb (94.2%), reuse of linen and towels by guests (74%), training of staff to be eco-friendly (72%), use of eco-friendly cleaning products (72%) and support for local community (70%). Every hotel aims at cutting down its overhead costs in order to remain profitable and competitive. The use of energy-efficient light bulbs and reuse of linen and towels by guests, the two most popular eco-friendly practices are cost-saving measures and that accounts for a greater number of the hotels adopting these measures. Use of energy-efficient light bulbs is an energy conservation measure which means a reduction in the amount of electricity bills to be paid by the hotels. Also, when guests accept to use linen and towels continually during their stay so that

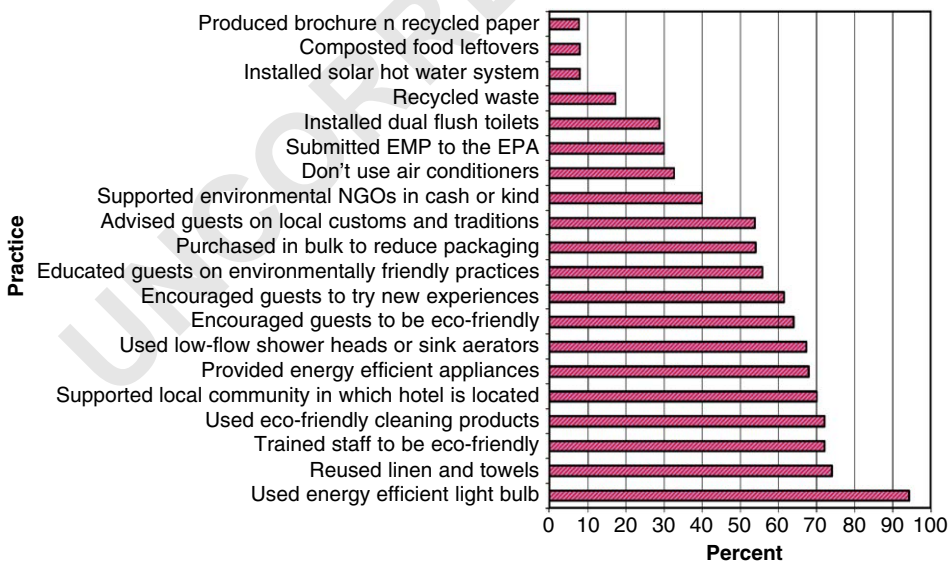


Fig. 3. Percentage of hotels involved in environmental management practices. (Source: Fieldwork, 2003.)

1 it is not changed daily, it leads to water and energy-conservation and ultimately,
2 lower water and electricity bills.

3 Energy cost savings as a result of using energy efficient bulbs and appliances and
4 not changing linen and towels daily are two ways of saving costs in a hotel. However,
5 not using air conditioners, which is also a deliberate energy cost saving measure, is
6 not popular especially among the star-rated hotels. About one-thirds of the hotels
7 (32.7%) do not use air conditioners.

8 They did not use air conditioners because they had not installed them and not
9 because they wanted to conserve energy but because they did not have them. With
10 the star rated hotels, they deliberately shut down their air conditioners sometimes, in
11 order to conserve energy and to avoid paying exorbitant electricity bills. However,
12 the air conditioners at the receptions of most of the star-rated hotels were on during
13 the period of the study. The reasons given for that, related to competitiveness and
14 the comfort of guests.

15 The use of alternative energy sources was prevalent in the hotels to an extent.
16 Most of the hotels visited, used Liquefied Petroleum Gas (LPG) for cooking because
17 it was relatively cheaper to use LPG gas for cooking. The use of solar energy was not
18 popular. Only 8% of the hotels had installed solar hot water heating systems. This is
19 because solar panels are very expensive and the hotels do not see that as a viable
20 investment in the short to medium term.

21 Another area of environmental management that was popular among the hotels
22 was water conservation. About two-thirds of the hotels (67.3%) used low-flow
23 shower heads and sink aerators. This is because water conservation is also a cost
24 saving measure. However, the use of dual flush toilets, which is also a method of
25 water conservation, was not popular. Only 28.8% of the hotels practiced this and
26 this was due to the fact that the technology was less known in Ghana.

27 Most of the hotels (70%) supported the local communities in which they were
28 located. The support was in the form of infrastructural development, sponsorship of
29 local events and donations. Some hotels had constructed roads, embarked on
30 forestation programs and provided cash and logistical support for local festivals and
31 other events. However, in terms of support for local NGOs, less than half of the
32 hotels had supported them in cash or kind.

33 The areas of environmental practice where the hotels were less eco-friendly were
34 recycling of waste, use of solar energy and composting of food leftovers. On the
35 whole, the majority of the hotels in the GAR did not recycle their waste. Only 17.3%
36 of them recycled their waste and 8% composted food leftovers, which is another
37 recycling method. Some of the managers claimed recycling was expensive and that it
38 was not their core business. They also did not have the technology to do that. It was
39 only at Novotel that recycling was being given serious consideration. Separate
40 recycling bins for plastic, iron, bottles and papers had been placed in the offices and
41 kitchens. Only 8% of the hotels used solar energy for heating water because the solar
42 panels are very expensive, though they have long-term benefits. A significant 71.2%
43 of the hotels claimed they were providing fair information to guests. More than half
44 of the hotels (61.5%) also encourage their guests to try new experiences. This was
45 reflected in the brochures of some hotels. It was suggested in some of the hotels that

1 tourists try new experiences such as the culture of fishing communities, the Tema
 Harbor, Kwame Nkrumah Mausoleum and other attractions around the region.

3 Though 55.8% of the hotels had educated guests on eco-friendly practices and
 5 53.8% of the hotels had advised them on local customs and traditions, most of the
 7 hotels visited did not have notices displayed either at the reception or rooms on
 environmentally or culturally acceptable behavior. Some of the managers explained
 that they render such advice only upon request.

9 The areas of environmental marketing that the hotels did not practice much were
 11 sponsorship of research on environmental issues and production of brochures on
 13 recycled paper. 13.5% and 7.7% of the hotels had sponsored research on
 15 environmental issues and produced brochures on recycled paper respectively. This
 17 is an unfortunate situation because a hotel which claims to be environmental-
 conscious must communicate its environmental consciousness through marketing.
 This could be done by for instance producing brochures on recycled paper and
 providing information on the cultural and environmental integrity of the community
 where the hotel is located.

19 Table 5
 21 Percentage of hotels in each category involved implementing eco-friendly practices

Environmental Management Practice	Budget/1 Star	Guest House/2 star	3–5 star
Have an environmental policy	31.6	68.4	83.3
Have a manager in charge of environmental management	25.0	25.0	100.0
Recycled waste	5.0	15.0	41.7
Used energy efficient light bulb	85.0	100.0	100.0
Used low-flow shower heads or sink aerators	70.0	70.0	58.3
Don't use air conditioners	50.0	20.0	25.0
Installed dual flush toilets	25.0	35.0	25.0
Encouraged guests to be eco-friendly	77.8	45.0	75.0
Installed solar hot water system	5.6	5.0	16.7
Trained staff to be eco-friendly	83.3	55.0	83.3
Provided energy efficient appliances	72.2	55.0	83.3
Used eco-friendly cleaning products	77.8	75.0	58.3
Supported environmental NGOs in cash or kind	38.9	35.0	50.0
Supported local community in which hotel is located	72.2	55.0	91.7
Submitted EMP to the EPA	22.2	15.0	66.7
Reused linen and towels	77.8	65.0	83.3
Purchased in bulk to reduce packaging	44.4	55.0	66.7
Composted food leftovers	5.6	5.0	16.7
Advised guests on local customs and traditions	30.0	55.0	91.7
Educated guests on environmentally friendly practices	60.0	45.0	66.7
Sponsored research on an environmental issue	20.0	0.0	25.0
Encouraged guests to try new experiences	55.0	55.0	83.3
Produced brochure n recycled paper	10.0	0.0	16.7
Provide fair information to guests	85.0	65.0	58.3
N = 52			

45 Source: Fieldwork, 2003.

Table 5 reveals the differences in the percentage of hotels in the various categories of hotels implementing environmental management practices. A greater percentage of hotels in the three- to five-star category implemented most of the environmental management practices than those in the Budget/one star category and Guest house/two-star category.

To determine the relationship between hotel category and level of involvement in sound environmental management practices, a list of 18 eco-friendly practices was used as a benchmark. Hotels that practiced one to six (1–6) out of the eighteen eco-friendly practices had a low level of involvement in sound environmental practices. Hotels that practiced seven to twelve (7–12) of the eco-friendly practices had a medium level of involvement in sound environmental practices and hotels that practiced thirteen to eighteen (13–18) of the eco-friendly practices had high level of involvement in sound environmental practices.

From Table 6, the χ^2 calculated is 10.922. Four degrees of freedom at alpha level 0.05 is 9.488. Since the calculated χ^2 (10.922) falls under the critical value for 4 degrees of freedom of 9.488, the null hypothesis is rejected. There is a statistical evidence of a relationship between hotel category and level of implementation of environmental management practices.

From Table 6, 35% and 30%, respectively, of the budget/one-star hotels and the guesthouse/two-star hotels, respectively, had low involvement in environmental management practices, 25% of the three to five-star hotels had low involvement in environmental management practices. Also, 5% of the budget/one-star and guesthouse/two-star had high involvement in environmental management practices while 41.7% of the three to five-star hotels had high involvement in environmental management practices. The higher the class of a hotel, the greater the level of involvement in sound environmental management. This further epitomizes the fact that, that larger hotels have been at the forefront of environmental management (Mauforth and Munt, 1998). It also parallels similar studies. In an analysis of environmental management of Spanish hotels, Alvarez Gil et al. (2001) found that high category (four- or five-Star) hotels and sun-and-sand tourism establishments

Table 6
Level of implementation of environmental management practices/hotel category cross tabulation

Level of implementation of environmental management practices	Hotel category			
	Budget/1 Star	Guesthouse/2 Star	3–5 Star	Total
Low	7 (35.0)	6 (30.0)	3 (25.0)	16
Medium	12 (60.0)	13 (65.0)	4 (33.3)	29
High	1 (5.0)	1 (5.0)	5 (41.7)	7
Total	20 (100.0)	20 (100.0)	12 (100.0)	52
$\chi^2 = 10.922$				
Df = 4				
Sig. = 0.027				

1 are more endowed with resources to undertake environmental management that
3 their counterparts in the lower categories. Kirk (1998) in a study of attitudes to
5 environmental management held by a group of hotel managers in Edinburgh,
7 discovered that managers of large hotels (three to five-star and chain or consortium
9 hotels) are more likely to see a positive public relations benefit from environmental
11 management when compared to small hotels (less than two-star and independent).

13 Smaller hotels (below three-star) in Ghana are independent and owned by
15 individuals or in some instances family businesses. They usually do not have any well
17 structured management in place. The owner is usually the manager and often
19 assisted by family members or some less motivated and unskilled staff. The managers
21 are usually not endowed with the technical knowledge on environmental manage-
23 ment. Also, the profit motive overrides any other consideration and therefore
25 deploying resources for environmental management which will only yield profit in
27 the medium to long term, is not a priority to them. The larger hotels (three to five-
29 star) on the other hand are affiliated to hotel chains and consortium like Accor,
31 Golden Tulip, Golden Beach Hotels and the New Achimota Group of Hotels. They
33 therefore have management structures and standards including environmental
35 quality standards to abide by. Indeed some chains impose some minimum set of
37 environmental management practices on members like in the case of Accor and
39 NOVOTEL.

23 6. Conclusions and implications

25 This has been an exploratory study which has sought to find out the
27 environmental management practices of hotels in the GAR and establish differences
29 in the level of adoption and implementation of such practices among different
31 categories of hotels. A major limitation of this study is that it mainly descriptive in
33 nature and there was no link between the proactivity of environmental management
35 and the organizational and contextual characteristics of the different categories of
37 hotels due to logistics and time-related issues. Also, this study did not elicit reasons
39 for why some hotels are more proactive than others. This should be the subject of
41 further research. There is also the need for further on how hotels should recycle their
43 wastes to help hotels reduce their consumption of natural resources and save costs.
45 Moreover, there is the need for insights into what informs hotel managers' perception of environmental management and the impacts of hotels on local communities. Further studies on waste management, water and food quality as well as pollution by hotels though in the realm of the physical sciences are important for enabling understanding on issues of environmental management practices in hotels.

It can be concluded from this study that there exist marked differences in the implementation of environmental management practices among hotels of different categories in the GAR. The most popular eco-friendly activities practiced by the hotels were use of energy-efficient light bulbs and not changing used linen and towels daily. Also, the larger hotels (three to five-star category) were at the forefront of environmental management. However, this fact should be a cause for concern. This

1 is because the three to five-star hotels constitute just 2.88% of the total number of
3 hotels in the GAR (Ghana Tourist Board (GTB), 2000, 2002). Though the smaller
5 hotels are in the majority, their managers think it is the larger hotels that should be
7 concerned with environmental management. The smaller hotels are springing up
9 everywhere in the region and their cumulative effect on the environment could be
catastrophic if the GTB, Hoteliers Association, EPA, and AMA do not initiate
moves to educate their managers on their environmental responsibilities and arrest
the environmental problems associated with such developments.

9 The GTB, EPA, AMA and other institutions tasked with enforcing environmental
11 standards should organise training programmes for hotel managers on sound
13 environmental management practices. The training should cover areas like hotels
15 purchasing policies, recycling of waste, government's environmental requirements,
17 national environmental policy and the benefits to be derived from sound
19 environmental practices among others. Such programmes will adequately inform
21 hotel managers about their responsibilities and help them to pursue adequate
environmental management programmes. Also, policy makers should consider
enacting laws on the environment geared towards enforcing current conventions on
the environment. Penalties that are ascribed to offenders of such legislation should
be punitive enough to serve as deterrent. Legislative Instrument (LI 1502) of 1975,
under which hoteliers who contravene any of the provisions of the regulations are
liable to a fine not exceeding ₵200 (approximately 2 cents) is no longer relevant and
should be scraped from the statute books.

23 Secondly, the study findings have implications for recycling of waste by the hotels.
25 Only 17.3% of the hotels recycled their waste, 8% composted food leftovers and
27 7.7% produced brochures on recycled paper. This means the hotels don't attach
29 much attention to recycling. The food leftovers, waste water and other wastes that
31 are generated in hotels go waste. However, the hotels can save costs if they recycle
33 these wastes. Accra is grappling with the problem of waste disposal and hotels can
35 help alleviate this problem if they add value or find alternative uses for their waste
37 instead of dumping them indiscriminately. Hotels must recycle the thousands of tons
of wastewater that goes down the drain each day. Wastewater could be used to water
ornamental plants around the hotels or to flush toilet. Food leftovers can be used for
composting as manure or to feed animals. Recycling of solid waste demands some
form of technology which should not be beyond the collective scope of the hotels.
However, they should in their own small way have separate dustbins for collecting
papers, plastic and bottles to make easier, the work of waste management companies
involved in recycling.

39 Environmental management remains a neglected area in the management of hotels
41 in Ghana as typified by hotels in the GAR. NOVOTEL Accra is the only hotel that
43 has a clearly defined environmental management system in place. Eco-labeling and
45 certification have not caught on with hotels in Ghana. This should be a cause for
concern because if the government's tourism policy objective of Sustainable Tourism
Development by 2010 as spelt out in the 15 year tourism development plan
(1996–2010) is to be realized, then hotels which are the more tangible manifestation
of tourism development, must be at the forefront of sustainable tourism practices.

7. Uncited reference

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