



green lodging survey
global hotel trends and innovation in sustainability

GREEN LODGING TRENDS REPORT 2016

Benchmarking the Hotel Industry's
Sustainability Journey

2016 SPONSORS



Green Lodging Trends Report 2016

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ABOUT GREEN LODGING NEWS

Green Lodging News, a Hasek Communications L.L.C. publication, is the lodging industry's leading environmental news source. Created in 2006, it consists of the Green Lodging News website (www.greenlodgingnews.com), weekly Monday e-newsletter and weekly Wednesday Green Supplier Spotlight e-blast that focuses on one supplier. The website currently attracts 28,000 to 32,000+ unique visitors, 170,000+ total visits, and 550,000+ page views each month. The newsletter and Spotlight reach more than 5,000 opt-in subscribers. To subscribe to the newsletter and Green Supplier Spotlight, go to www.greenlodgingnews.com, or e-mail editor@greenlodgingnews.com to be added to the circulation list.

Publisher and Editor Glenn Hasek has more than 22 years of lodging industry experience—as a journalist, public relations consultant and publisher. He got his start in 1989 with what was then Hotel & Motel Management magazine. He worked there until 1996 and again with the publication from 2000 to 2001. Glenn Hasek has spoken and moderated at many industry events and has received numerous awards for his work.

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ABOUT GREENVIEW

Greenview is a sustainability consulting and research firm that helps organizations with their strategy, programs, measurement, and reporting. In addition, Greenview provides technology solutions to make calculation and monitoring of data and best practices easy through its Greenview Portal. Greenview's clients include many of the hotel industry's leading chains, as well as cruise lines, event organizers, venues, destinations, trade associations, and research institutions to catalyze sustainability as the industry's thought leader.

With offices in Singapore and the United States, Greenview works with hotel companies to develop and implement strategies, programs, and data measurement platforms. Greenview's clients have received notable awards and recognition including the Dow Jones Sustainability Index Global Leader, CDP Leadership Index, and GRESB Green Star.

In addition to advising leading global organizations, Greenview has launched several innovative industry initiatives including the Green Venue Report, Convene Green Sustainability Commitment, the Green Lodging Survey, the Cornell Hotel Sustainability Benchmarking Index, the Hotel Footprinting Tool, the Hotel Owners for Tomorrow coalition, and the UNWTO's sustainable cruise development benchmarking for South-East Asia.

For more information, visit www.greenview.sg or e-mail info@greenview.sg.

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Acknowledgments

We would like to thank the following individuals, without whom this report would not have been possible:

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Introduction

Green Lodging News, lodging's leading environmental news source, and Greenview, a leader in advancing hotel sustainability, are excited to announce the results of our first Green Lodging Survey. The survey, open from June 8, 2016 through August 31, 2016, was conducted with the support of The Arbor Day Foundation, Travelife, Green Key Global, Mekong Tourism Office, Horwath HTL Asia Pacific and Clean the World. The Green Lodging Survey is sponsored by Pineapple Hospitality, Aquawing Ozone Laundry Systems, PragmaTech Ltd. and reCollect2 Co.

The Green Lodging Survey is the lodging industry's annual exercise to assess and catalyze green innovation, best practices, and awareness regarding the state of sustainability across hotels worldwide. In the past decade especially, sustainability and the measurement of environmental performance have become standard within most major hotel companies around the world. This has been driven by interest in improving operational efficiency, reducing costs, and lessening one's environmental impact in response to growing evidence of climate change.

The Green Lodging Survey is conducted at a time of growing global interest in reducing environmental impact. In December 2015, in Paris, representatives of 195 nations reached a landmark accord that will, for the first time, commit nearly every country to lowering planet-warming greenhouse gas emissions. The Paris Agreement sets out a global action plan to limit global warming to well below 2°C. Throughout the lodging industry, companies have set their own aggressive goals for reducing energy and water consumption and waste. The industry has also repeatedly collaborated on projects that are helping the industry better measure its impact. The Hotel Carbon Measurement Initiative and Hotel Water Measurement Initiative are two examples.

The Green Lodging Trends Report highlights and summarizes responses to 108 survey questions in these categories: Air Quality, Energy Management, Waste Management, Water Conservation, Cleaning & Maintenance, Kitchen & Laundry, Communications, Staff Involvement, Community Involvement, Procurement, and Climate Action & Certification. Our report also takes a look at the most common green practices among respondents, what sustainability initiatives are trending, and what practices are most innovative.

Respondents included titles ranging from General Manager to Innkeeper to Sustainability Director. Property types ranged from large resorts to small inns. Admittedly, this type of survey tends to draw hoteliers already invested in sustainable practices. That said, responses demonstrated a wide range of implementation of green practices—from just beginning to tackle “low hanging fruit” types of initiatives to extensive renewable energy projects.

One purpose of the survey is to establish a benchmark against which one can compare one's own property from year to year—whether that is against one's own progress or that of other similar properties. While impossible to tell the individual stories of thousands of properties, this report includes examples of best practices in action throughout the world and, where relevant, links to related sections in Green Lodging News.

Thank you to all of you who supported this year's Green Lodging Survey—whether through your support, sponsorship or participation. Share the survey's results with your colleagues and be sure to watch for details on our 2017 Green Lodging Survey.

Summary & Key Findings

Data Set

The 2016 Green Lodging Survey received data for 2,161 hotels across 44 countries. Of the overall data set, 1,256 were classified as a city or urban hotel, 435 as resorts, and 67 as bed & breakfasts (the remainder of the properties being other types or unidentified). A total of 1,875 properties were in Asia Pacific, 242 in the Americas, and 31 in the remainder of the world. In terms of service type, 1,661 (75%) were full service properties, and 427 (20%) were limited service (the remaining 5% did not have a service category).

Overall the data set and findings are most representative of full service hotels in Asia Pacific. While most of the results in this trends report are presented in global aggregation, the participants receive benchmarking reports with further peer analysis by location and market segmentation.

As participants were not required to answer all questions and data sets were integrated from other sources, not all responses represent the full data set for this first exercise of the Green Lodging Survey.

The results presented below and in each thematic section of the report represent the findings and trends that could be identified across these variations. With continued industry and sponsor support, subsequent Green Lodging Surveys will be able to present the trends data in better filtration and over time in order to help the lodging industry catalyze innovation and best practices.

KEY FINDINGS

☐ Energy management can be considered as a default practice.

Some practices were found to be ubiquitous across respondents, particularly in energy management. Over 90% of respondents indicated having a preventive maintenance program, routinely checking HVAC filters, and tracking energy. While investments in renewable energy technologies are still quite rare in lodging, many hoteliers are certainly tackling what is considered the “low hanging fruit” of sustainability. Eighty-six percent said they have a towel and linen reuse plan in place, which includes housekeeper training and periodic checks. Fifty percent said they have occupancy sensors in guestrooms to power down heating and cooling.

When asked if they track energy consumption on a regular basis, 91% said yes. Sixty-five percent said they benchmark energy performance against peer properties in their company's portfolio. Forty-seven percent indicated they had conducted an energy audit in the past four years. While just 35% said they measure their carbon footprint, that percentage is significant given the relative newness of carbon measurement in the lodging industry.

Eighty-nine percent indicated using energy-saving variable frequency drives (VFDs). Ironically, few, given a choice, could explain where they use them. Most said they have either high-efficiency boilers (70%) or chillers (59%).

In lighting, the transition from incandescent to compact fluorescents to LEDs continues with 70% of hoteliers saying that at least 75% of lighting (across all areas including guestrooms, corridors, meeting rooms, lobby, restaurants and other public spaces) is LED.

As energy management continues to play a central role in sustainability performance, particularly climate change action, the related practices and specifications for energy usage should see more uptake in the coming years.

Many hotels are yet to adopt the most common practices.

Some of the most well-known best practices which are proven to increase efficiency, save costs, and even enhance guest experience, are still missing from a sizeable chunk of the hotel supply. Nearly two-thirds of respondents indicated having a digital thermostat in guestrooms. While it is encouraging to see this attribute become prevalent among the majority, over one-third of hotels still have yet to install digital thermostats. Likewise, over half of the participants do not have a linen reuse program that requires an opt-out to participate (meaning linens will be changed only upon guest request). Approximately four-fifths of hotels have 1) policies and staff training on sustainability or 2) reduced delivery of newspapers to guestrooms, yet this indicates that one-fifth of hotels still have not put these programs in place.

Only 8% said they have humidity sensors in bathroom fans, 79% do not recover waste heat for reuse, and 41% have refillable bulk soap and shampoo dispensers in bathrooms. Just 48% said they share green practices on their websites.

Full service hotels are not always "greener" than limited service.

It is often heard that full service hotels will have more financial, operational, and technical resources to implement sustainability. We found that in many areas, full and limited service are on par, while in other instances—such as nonsmoking, low-VOC paints, efficient water fixtures, rainwater capture, gray water reuse, native or drought-resistant landscaping, and high-efficiency boilers—limited service properties are exceeding uptake in best practices compared to their full service counterparts.

☐ No property, segment, or location is clearly “winning” in sustainability.

In the analysis of the Green Lodging Survey, there are areas where properties, locations, and segments are performing better in uptake of practices than peers, and other areas where they need to catch up. The United States, for example, is below industry average and other countries in rainwater capture and variable frequency drives, yet far ahead in recycling and digital thermostat use. No participant indicated having all the practices, programs, and specifications in place that were asked in the Green Lodging Survey. Overall, as in the case of sustainability in general, all have room for improvement.

☐ Guest interest in green lodging can be a formidable segment.

Just over a quarter of the hotels indicated some level of overnight guest interest expressed in sustainability. For meeting customers, however, that figure increased to over 70%. Yet nearly a quarter of the respondents indicated not knowing the level of guest interest in sustainability. So there could be a larger interest than is currently understood. Also, the frequency of guests asking about sustainability ranged widely overall and by location, segment, and type. This indicates that guest interest in sustainability is not a mere “yes-or-no” issue for a hotel anymore. Hotels can better explore guest interest, experience, and actions relating to sustainability with further segmentation.

☐ Incremental uptake will have big impacts over time (or not).

For a handful of questions, participants could indicate whether they planned on implementing the practice in the next 12 months. Almost 8% of participants plan on putting in an ozone laundry system, 5% plan on installing electric vehicle charging stations, and 4% going completely non-smoking. While these figures are not monumental, if multiplied over the next few years, we could see significant uptake in them (and even more should they be catalyzed). On the other hand, less than 1% indicated planning on placing recycling bins in guestrooms, indicating that the trend may stagnate unless proven as a best practice.

☐ Green hotel certifications help properties advance.

Correlation could be seen between a hotel having a 3rd party certification and a higher uptake of practices surveyed. However, some instances were found where the industry average was higher than the average of those with certifications. While this may be a result of the survey questions being outside current criteria of the certifications, the most promising was the resounding prevalence of green teams and green champions among certified hotels, well above the industry average. This indicates that as more best practices and innovations emerge, certified hotels will have the on-site team able to be engaged to enact them.

☐ Green teams are an emerging force—and so is training.

Among all hotel types and across the globe with the exception of a few countries, consistently the majority of the respondents (69%) indicated having a “green team” or sustainability committee consisting of property-level staff. Sixty-four percent said they have a green champion who leads green efforts. This indicates that the lodging industry has thousands of individuals who routinely meet to discuss real challenges and opportunities at their property (most of which meet monthly). The collective experience of these individuals and teams can help improve the industry’s overall performance, perhaps more than has been explored in the past. The Green Lodging Survey hopes to be a resource to help a hotel green team, as well as stimulate the 31% of hotels that have yet to form one.

Just as important as ongoing leadership and teaming is training. Seventy-nine percent of hoteliers told us they have staff training on understanding and implementing green practices, at least once a year. This includes front of house and back of house (e.g. housekeeping, maintenance) employees. Seventy percent said they have a comment/suggestion collection process to gather tips related to sustainability.

☐ Show me the money.

One theme in answers throughout the survey was money, of course. You cannot go green without the financial support to do it. And the greater the item costs, the greater the difficulty in implementing it (think solar panels, green roofs, etc.) One survey respondent said, “In hospitality it is very difficult to get investments on items that are not obvious aesthetical improvements. Typically unless a firm ROI can be demonstrated, capital dollars are spent on appearance and guest comfort rather than sustainability projects.”

Innovations

The convergence of technological innovation with the need to accelerate the path toward sustainable development and climate action will offer exciting opportunities in the coming years. This phenomenon, however begs the question:

“What is innovation in green lodging?”

Answering this question brings forth two observations from this year’s Green Lodging Survey. First, **technology does play a central role in hotel sustainability**. When asked to offer their insight on property innovation, overwhelmingly the responses involved technology of various forms. Sensors, equipment, lighting, building materials, and software were commonly cited across areas of energy, water, and waste. Other systems, less common such as reverse osmosis technology and composting machinery, offer insight to historically older technology that is now more affordable at a property level.

However, the second trend appears to be a misconception about what is truly innovative.

When asked to describe their innovative practices, building design, or equipment, the clear majority of the participants responded with items that were found to already have common uptake throughout the survey. Variable Frequency Drives, LED lighting, occupancy sensors, low-flow fixtures, data tracking software, and water reuse are examples commonly cited but which are in place in the majority of the survey responses. Understanding some survey bias with the more advanced properties tending to respond, we recognize that these may not be as prevalent across the entire industry. However, a time value distinction should be made between what is innovative at present, versus what is a best practice today that may have been innovative 10 years ago. For this year's analysis, three perspectives on innovation are given.

Attributes with relatively low uptake may be considered innovative just because they are not yet common.

Utilization of roof space for vegetable gardens, beekeeping, or green roofs are examples that had less than 20% prevalence among respondents, and may fit into this category for now, as perhaps are electric vehicle charging stations (36%), leak detection of refrigerants (18%), waste heat recovery (29%), or solar PV panels (14%). Once these types of practices or attributes become more common across hotels, they may be viewed less as "innovations" and more as best practices, and eventually even expected to be found at hotels.

Innovation can be found by diving deeper within a best practice itself.

For example, grey water reuse is common, but using pool water back wash for flushing toilets is an innovative way of reuse found at two properties. Closed loop systems are innovative forms of improving on waste heat recovery. Likewise, combining practices together for synergistic benefits is also innovative, such as reciprocal relationships with local farmers, providing them compost then procuring organic produce from them. Another angle is combining guest engagement with eco-friendly practice or community benefit, such as encouraging guests to bring used clothing or other goods to strengthen the hotel's community donation program and linking guest awareness programs with a composting toilet.

Innovation can be viewed from a local standpoint.

As found among survey participants, challenges exist across the board as sustainability itself involves overcoming current global challenges. Therefore, when a property is able to find solutions to local problems, they may be truly innovative in their own destination even though the practices are common elsewhere. These pioneers also deserve recognition for their contribution. This can be on-site installation of solar heating in a remote area where the technology is not commonly available, or providing environmental training to staff when few or no other hotels in the market do so. Moreover, applying property solutions to the community's challenges is innovative, such as helping to pass on knowledge to install basic rainwater harvesting systems at local schools. Other community initiatives such as supporting local shelters, the regeneration of coral reefs, protection of parks and endangered wildlife, providing medical or veterinary support, all may be programs that can be found in multiple places. Yet these are important innovative solutions in their respective locales, and help demonstrate the role hotels can play in society.

Air Quality

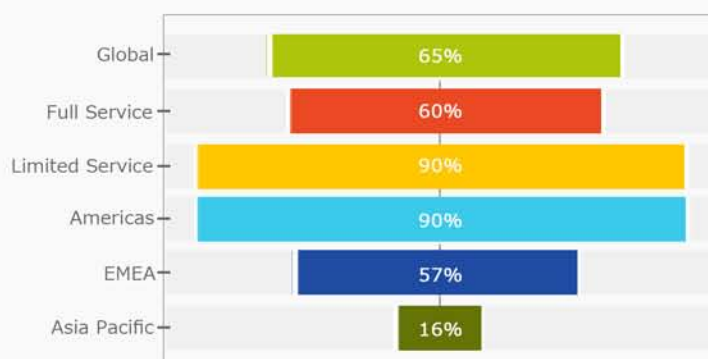
Indoor Air Quality gets a lot of attention in hotels and deservedly so. It impacts guest satisfaction, guest and employee wellness, overall building health and is affected by guests who smoke, the furniture procured, the paint applied, and the maintenance—or lack thereof—of air handling systems. According to the U.S. Environmental Protection Agency (EPA), air pollutants are two to five times higher indoors than outdoors. Indoor air pollution leads to health consequences like asthma, allergies, respiratory disease, neurological disease, cancer and others.

In the Air Quality section of the Green Lodging Survey we addressed topics ranging from smoking on hotel property, to allergy-friendly rooms, to whether or not hotel rooms are checked for carbon monoxide or radon.

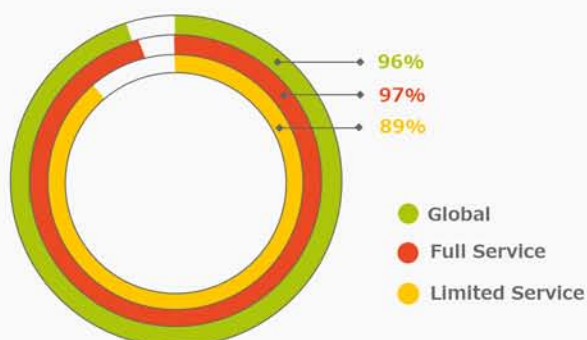
Good news for breathers everywhere, most respondents (65%) indicated they currently offer a 100 percent nonsmoking environment for guests. A small group said they plan to do so in the next 12 months (4%). In the Americas 90% offer a 100 percent nonsmoking environment for guests. In Asia Pacific, however, only 16% of respondents indicated they offer a 100 percent nonsmoking environment.

Unfortunately, death by carbon monoxide poisoning happens on occasion in hotels. When asked if they routinely check for carbon monoxide and radon, only 52% said yes. Almost all respondents (96%) routinely check and change HVAC system filters. Seventy-six percent said they specify low- or no-VOC paints, finishes and other items for renovations or additions.

100% Non-smoking



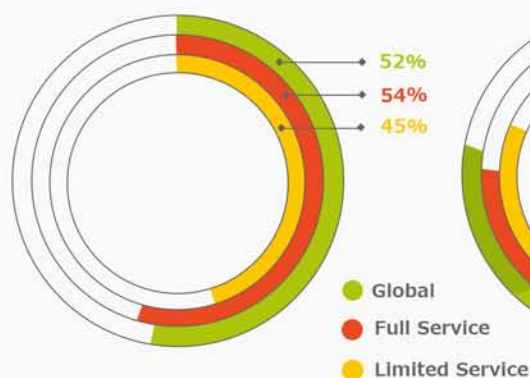
HVAC Filters Routinely Checked



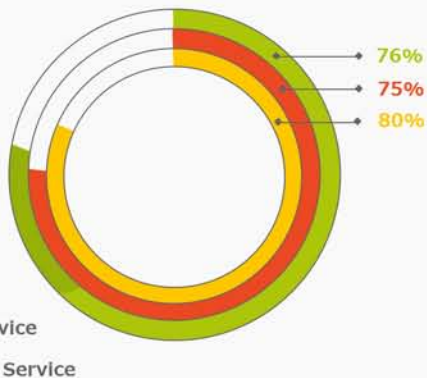
Plan to Offer 100% Non-Smoking in the Next 12 months



CO and Radon Routine Testing



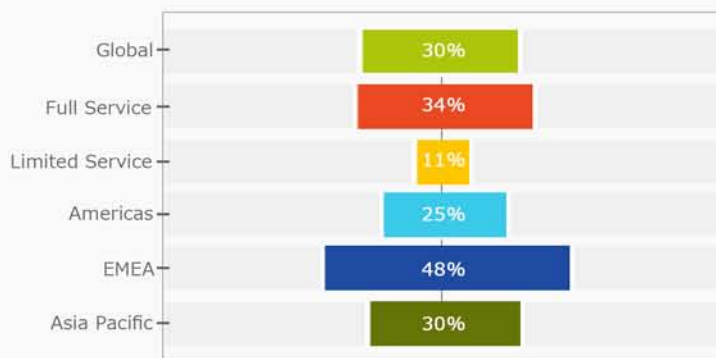
Low-VOC or VOC-free Paints in Renovations/Additions



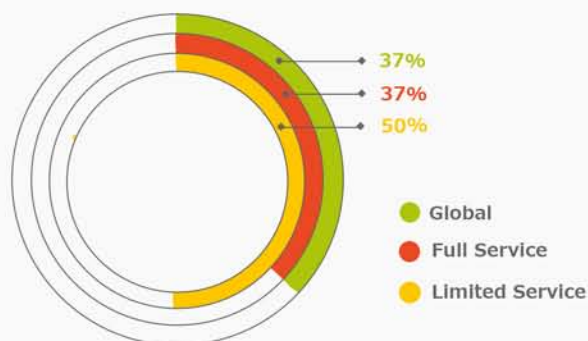
Vehicle idling policies can help improve air quality around hotel entrances, reduce costs and minimize one's carbon impact. Of the hoteliers participating in our survey, only 34% indicated they have a no-idling policy for transportation and suppliers that is communicated prominently using signage.

Millions of travelers have asthma and/or chemical sensitivities. The lodging industry has responded accordingly by offering "allergy-friendly" hotel rooms. The Green Lodging Survey found many differences, however, in what is considered an allergy-friendly room. Many respondents failed to mention anything about air purification, some said all of their rooms are allergy-friendly but did not say how, and some thought a room was allergy-friendly just because a certain type of pillow and linen was offered. It is clear that the lodging industry needs to better define "allergy-friendly" room.

No-Idling Vehicle Policy



Saline or Salt-water Chlorination Pool



There are both advantages and disadvantages to salt water pools. In our survey, we asked participants if they incorporate a saline/salt water system for generating chlorine, which 37% indicated they do.



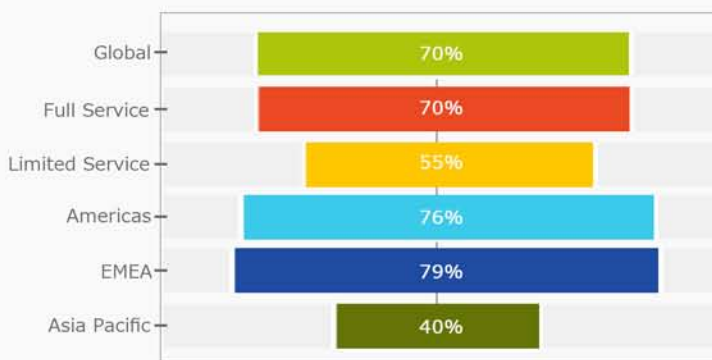
Hilton Concord, Concord, California, USA
One of the 17 PURE Allergy-Friendly rooms

Energy Management

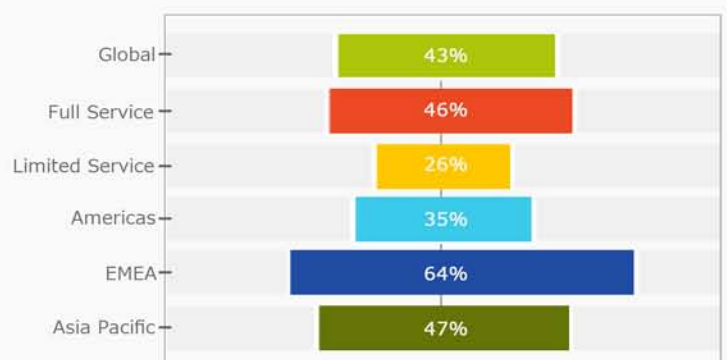
The Energy Management section of the Green Lodging Survey had more questions than any other section and deservedly so. Perhaps no other expenditure in a hotel can be more impacted by the slightest operational change or investment in technology. How one manages energy consumption has a direct impact on carbon emissions generated (or not generated). In our survey, questions addressed systems ranging from digital thermostats to occupancy sensors to whether or not a property generates its own power on-site.

Not surprisingly, hoteliers around the world are transitioning to LED lighting—an opportunity to dramatically reduce energy consumption. Of the respondents, 70% said they have moved at least 75% of their lighting to LEDs.

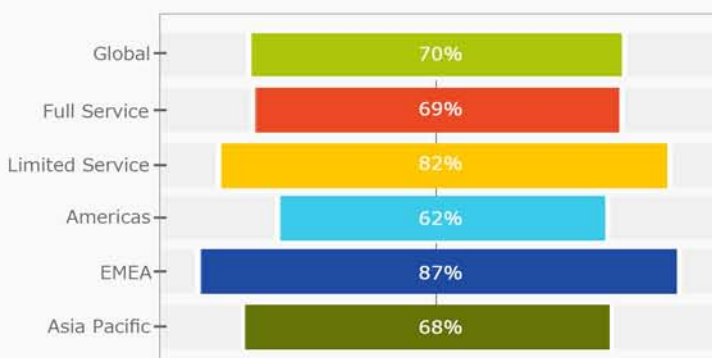
% LED Lighting (>75%)



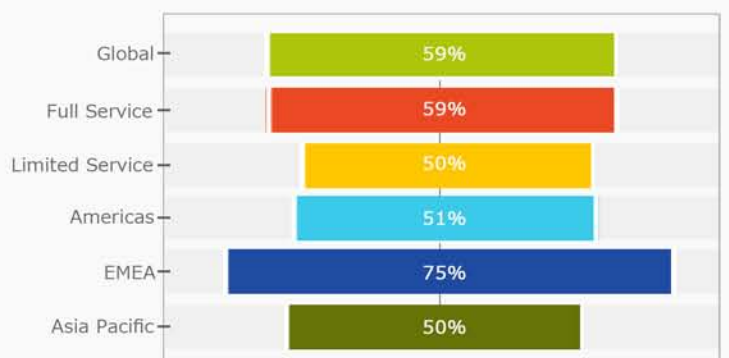
HVAC Commissioning/Retro-Commissioning



High Efficiency Boilers



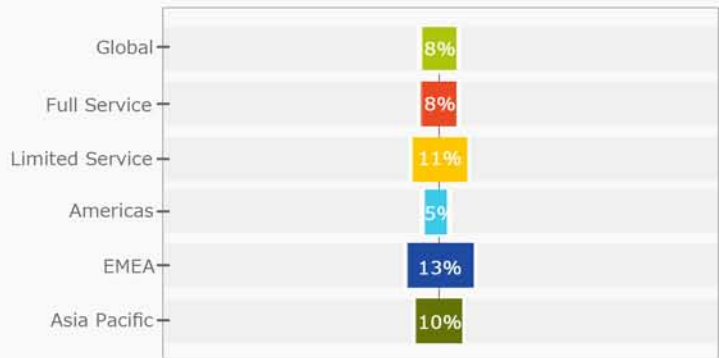
High Efficiency Chillers



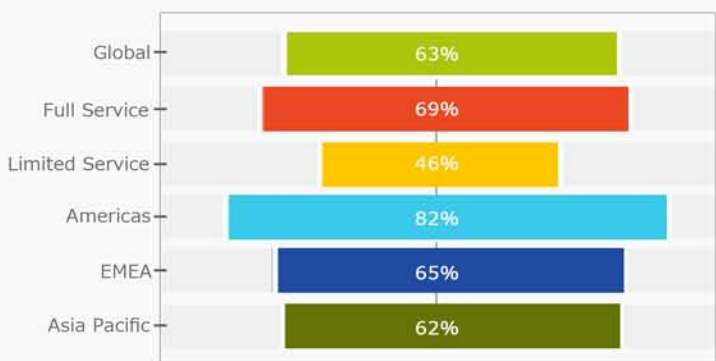
Heating and cooling systems certainly play a large role in how much energy a hotel consumes. When asked whether or not commissioning or retro-commissioning of HVAC systems has been undertaken in the past five years, 43% said yes.

As high as 70% indicated using high-efficiency boilers and 59% said chillers are high-efficiency. Just 8% said they use humidity sensors in bathrooms. About 63% indicated using digital thermostats in guestrooms and 52% indicated using occupancy sensors to power down heating and cooling when guests are not present.

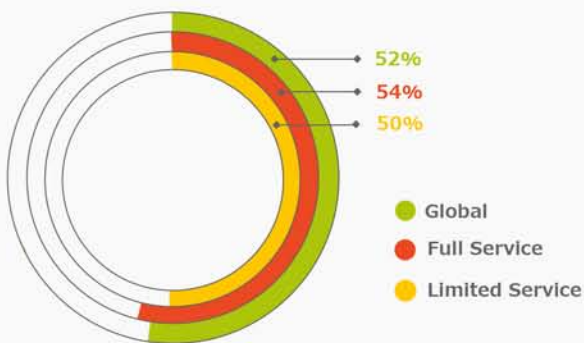
Humidity Sensors in Bathroom Fans



Guestroom Digital Thermostats



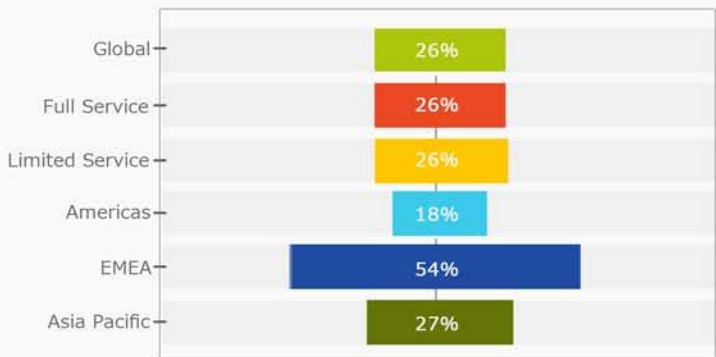
Guestroom Occupancy Sensors



When asked whether or not they generate any of their own power on-site using renewable energy systems, 26% indicated they did. Of the respondents that generate their own power on-site, 14% indicated they have solar thermal heating, 8% said they have solar photovoltaic panels, 2% said they use geothermal, and 7% indicated using other sources of renewable energy. None of

our respondents indicated using wind power or hydroelectric system. From our experience, geothermal, hydroelectric and wind systems are still quite rare in the lodging industry and the survey results reflect that. That 8% said they generate power from wind indicates survey respondents tended to be those already investing in green technologies. In the general hotel universe, it would probably be less than 1%.

On-site Renewable Energy



Irving House at Harvard, Boston, United States

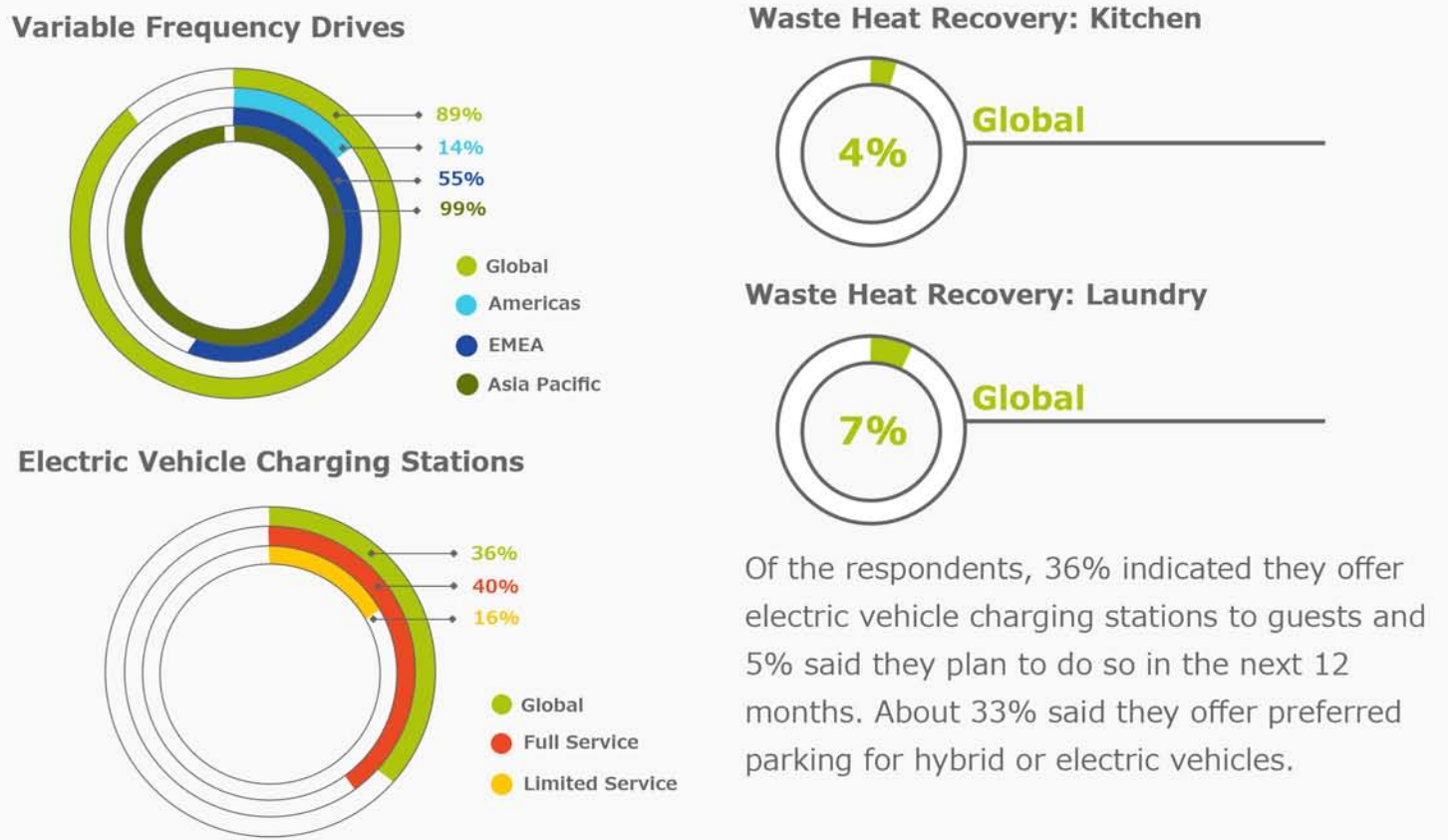


“Solar thermal panels installed in 2009 produce hot water for guest use, reducing our therm use 25-40%”

Survey participants had an opportunity to describe innovative practices, building design techniques, or equipment related to energy management that have succeeded in their hotel. One property mentioned extra insulation, while another mentioned high-efficiency electric motors and variable speed drives. A small percentage of respondents indicated utilizing waste recovery technology in the kitchen (4%) and laundry (7%).

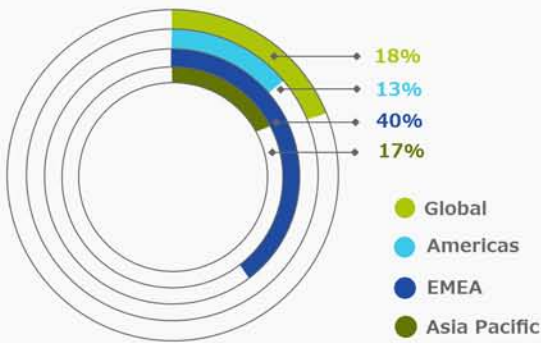
Diamonds Mequfi Beach Resort, Mecúfi,
Mozambique

“The villas (guest rooms) are designed and built with local materials, such as traditional macuti for the roof, and bamboo plus bamboo mesh for ceilings and outdoor showers. Also, some local wood and local stones have been used and applied during the construction. These combined techniques of macuti roofs and bamboo mesh ceilings help in bringing down the air temperature inside the villas (cooling effect).”

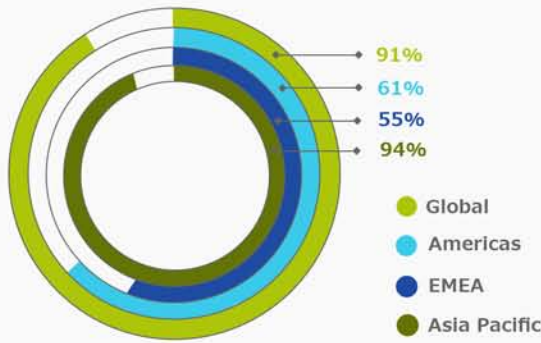


Having greenery on a roof can add some insulation to the roof, improving energy efficiency. When asked if the hotel roof has greenery (e.g. plants, trees, flowers), 18% said yes.

Green Roof

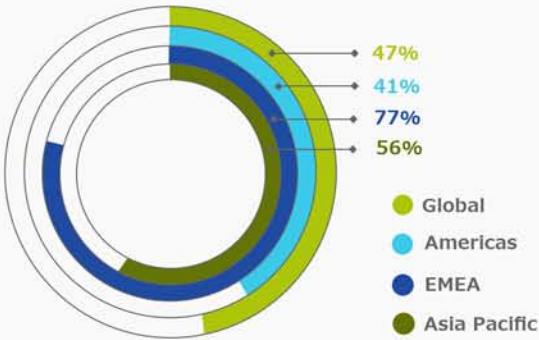


Energy Tracking

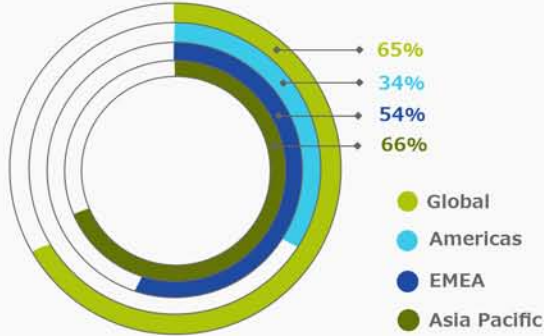


Questions also pertained to measurement, monitoring and upkeep of on-site equipment. Of the respondents, 47% percent said their properties have undergone an audit in the last four years. In the Asia Pacific region, 56% indicated audits have been conducted in that time frame. There were 65% who said they benchmark energy performance against peer properties in their own company’s portfolio. Almost all respondents said they track energy consumption on a regular basis. Given an opportunity to explain how they do that, answers ranged from sub metering to Energy Star to working with a third party.

Energy Audit



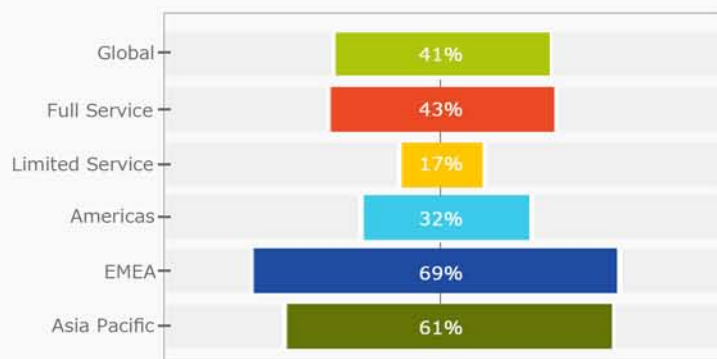
Benchmarking Energy among Peers



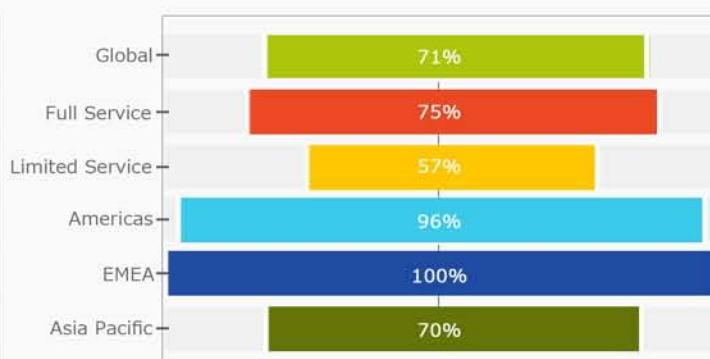
Waste Management

We did not ask Green Lodging Survey participants this year about dumpster diving—the little known “sport” of getting into a dumpster to audit a property’s waste stream. We did, however, ask about auditing and whether or not a property had undergone a waste audit in the last four years. Forty-one percent of respondents indicated they had conducted such an audit. Sixty-one percent of respondents in Asia Pacific said they had done so.

Waste Audit



Recycling in Common Areas



Most hoteliers (82%) said they do not deliver newspapers to guestrooms. Forty-one percent indicated they offer refillable bulk soap and shampoo dispensers in bathrooms. Thirty-two percent said they offer hand dryers in public restrooms to help reduce paper waste, 34% donate leftover food to charities, and 60% recycle kitchen grease.

% F&B with Reusable Food Service Ware



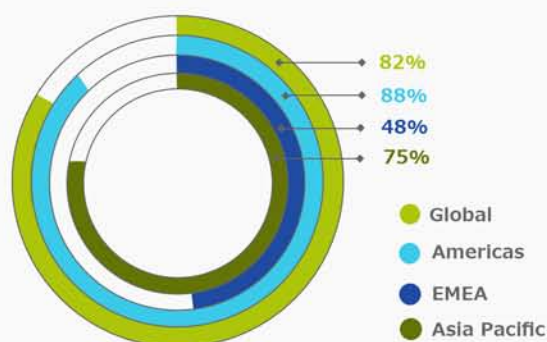
% Guestrooms with Bulk Soap/Shampoo Dispenser



Water Filtration/Hydration Station

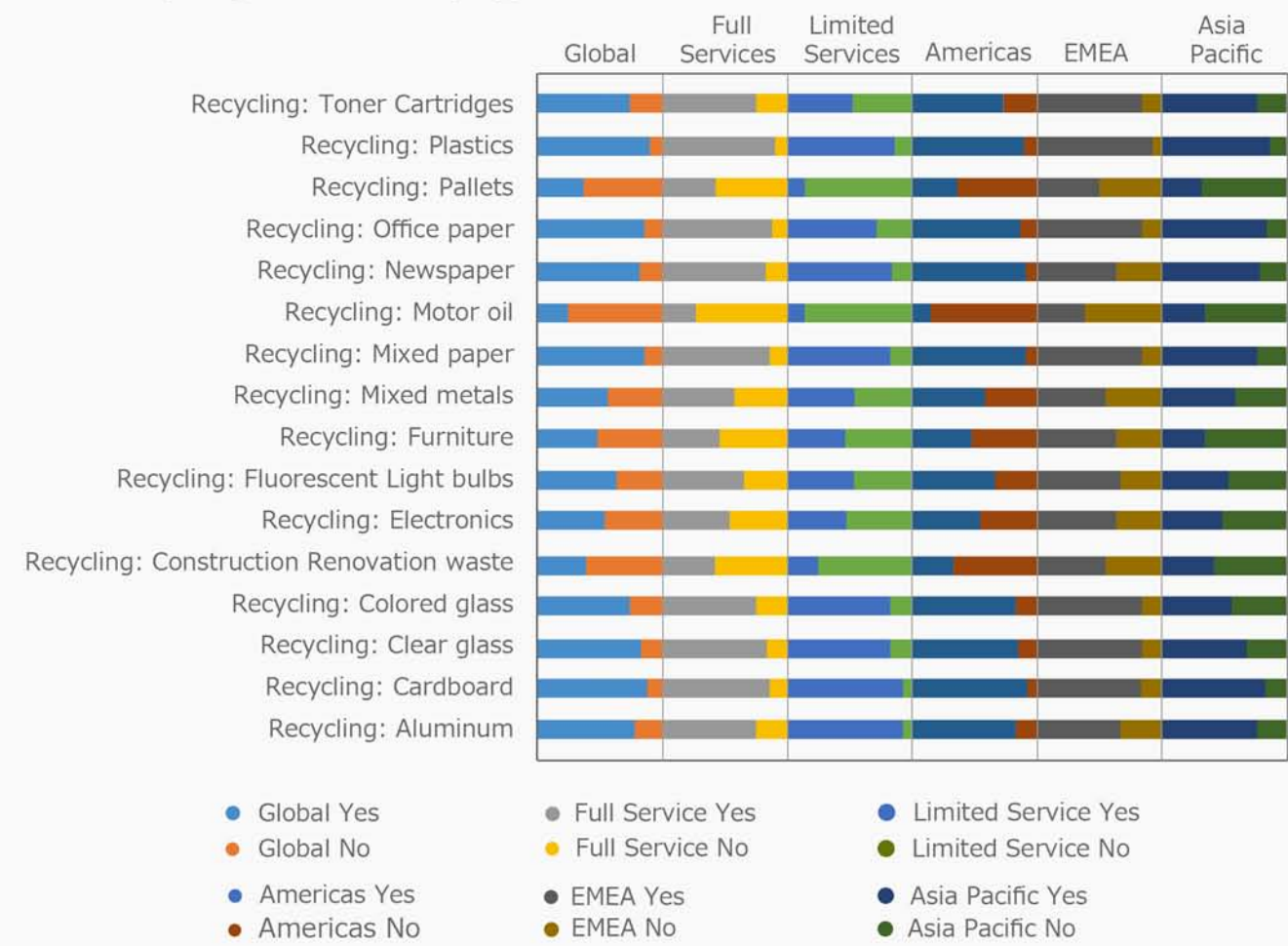


Newspapers Not Delivered to Guestrooms

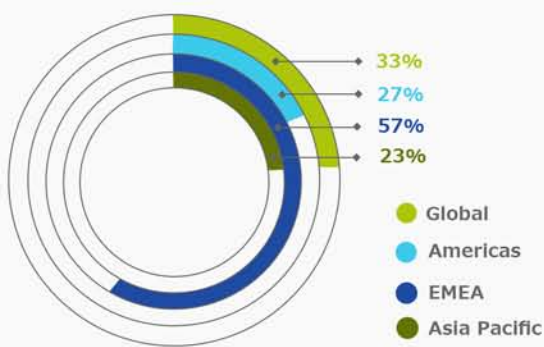


Hoteliers were asked if they practice recycling in all common areas of the property. Nearly 71% said they do. What items are recycled most commonly? Cardboard (89%) and plastics (90%) topped the list. Just 48% indicated they recycle furniture and mattresses. Forty-three percent said they go so far as including recycling containers in guestrooms.

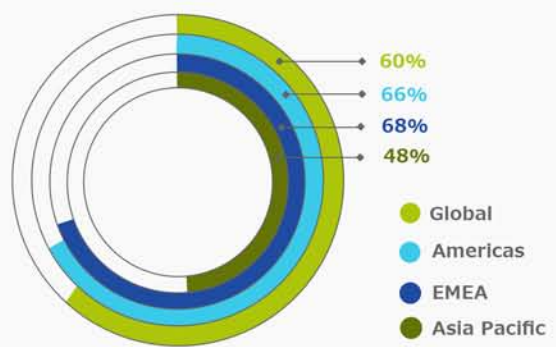
Waste Recycling Prevalence by Type



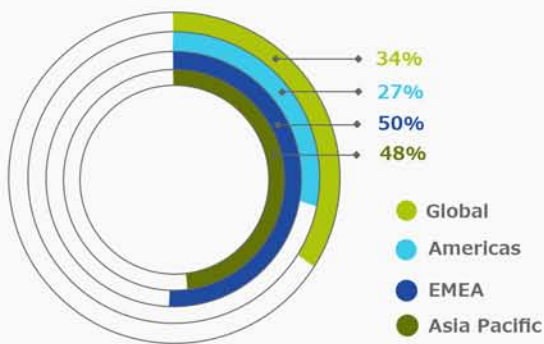
Hand Dryers in Restrooms



Kitchen Grease Recycling

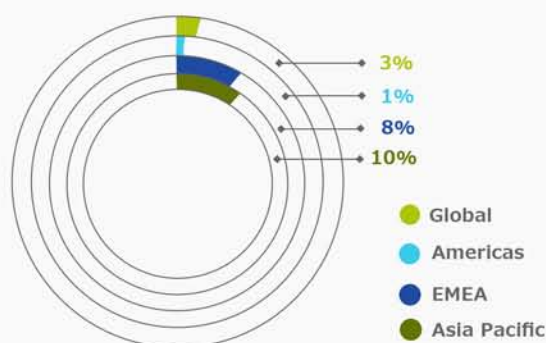


Leftover Food Donation

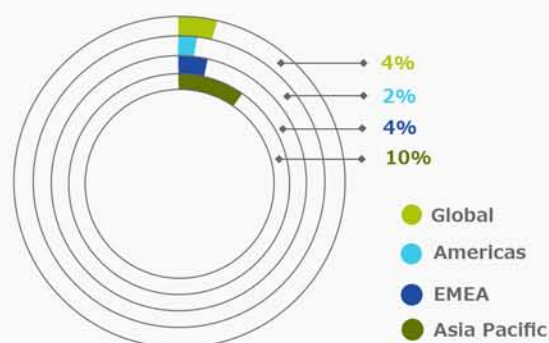


In a landfill, organic food composting can contribute significantly to the amount of methane released to the atmosphere. Forty-three percent indicated they participate in food composting. Those responding were then asked how that food waste is specifically handled. Twelve percent said they use on-site composting bins, 10% said composting is conducted off-site, and 7% indicated they either use an on-site organics liquefier or waste digester.

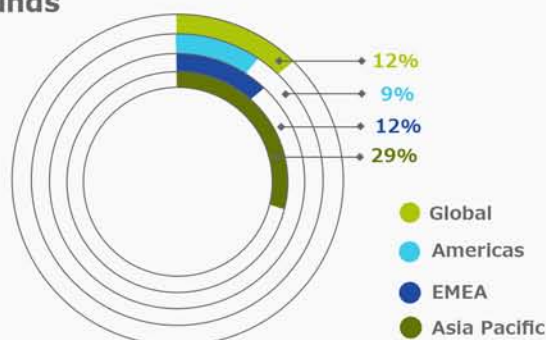
Organics Liquefier



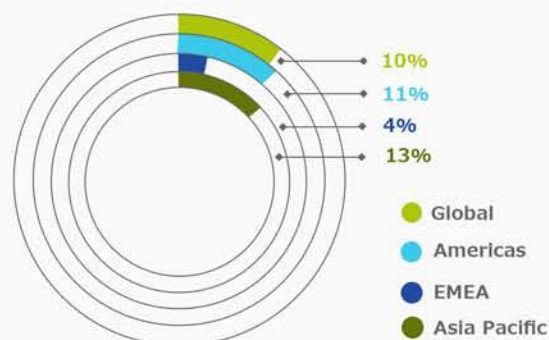
Waste Digester



Composting Bins Used Within On-site Grounds



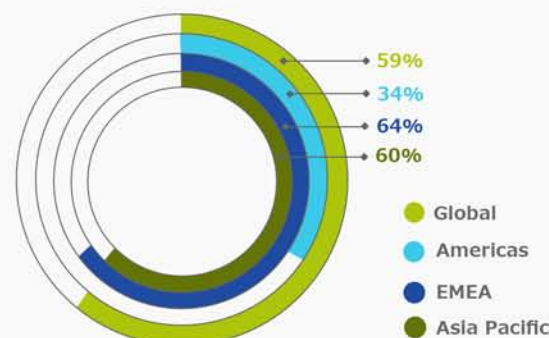
Traditional Composting Off-site



Food Waste Composting



Waste and Recycling Tracking



Waste tracking is a part of doing business for many large hotel chains. When asked if they track the volume of waste and recyclables leaving their facility—including waste diversion rate—on at least a quarterly basis, 59% said they do.

Survey respondents were asked a number of open-ended questions about waste management, including if there are any local/regional challenges that affect waste management practices. One respondent from Accra, Ghana said, “Inadequate rubbish pickup and recycling services within our city means that many items that could be recycled are not. There is a surplus of about 600 tons of rubbish left in the streets of Accra every day, and this eventually ends up in the gutters and drains which all lead to the ocean. We therefore face a daily challenge of rubbish landing on our beach, brought in by the tide.”

The response from another hotelier: “Being a property that is directly downtown and sits on a corner of two main streets has proven a problem for our attempts to install a composting program. Composting requires space that our hotel currently does not have. With windows on all sides of our hotel for guestrooms, and limited parking, the hotel has not been able to implement a proper compost program.”

A number of hoteliers mentioned training as an ongoing concern when it comes to waste management. Many survey participants said they have eliminated all plastic water bottles from their properties and replaced them with reusable glass bottles.

Black Sheep Inn, Chucchilán, Ecuador



"The Inn built composting toilets that are attractive, educational and productive. The toilets take advantage of a spectacular view across the canyon. Inside the bathrooms are flower/vegetable gardens fertilized with finished compost from the toilet. The plants are beneficial and produce fresh air."

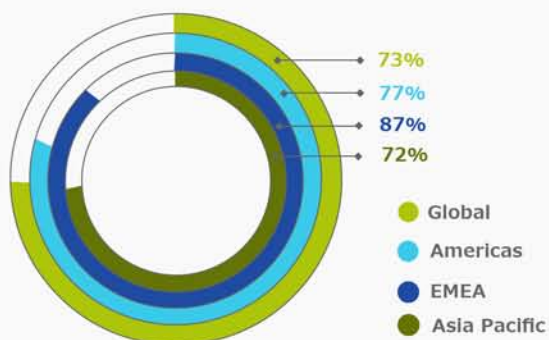


Water Conservation

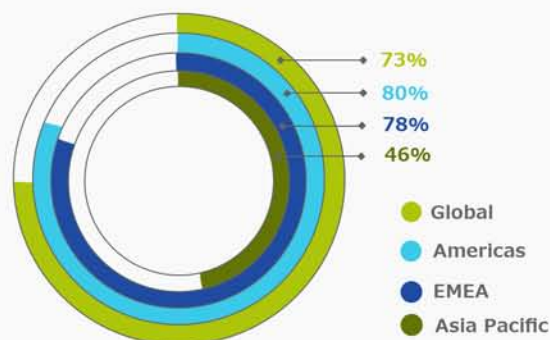
It is most often the cost of water that drives efforts to conserve it. That cost varies significantly around the world. Water in Germany costs five times more than in Canada, for example. Our survey shows that most hoteliers get it when it comes to water conservation but there is still more work to do.

When it comes to low-flow water fixtures, 73% indicated that 90 to 100 percent of toilets in their hotels use less than 1.6 gallons/6 liters per flush. Seventy-three percent said all faucets are low-flow and 67% said 90 to 100 percent of their showerheads are also low-flow.

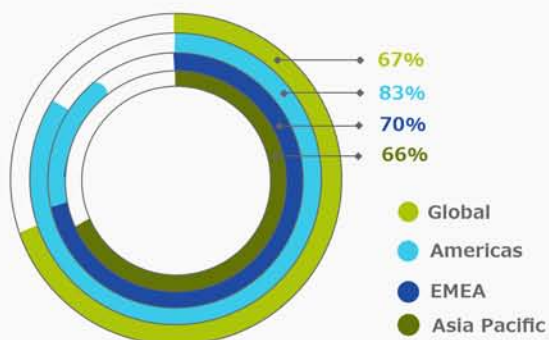
% Low-Flow Toilets (>90%)



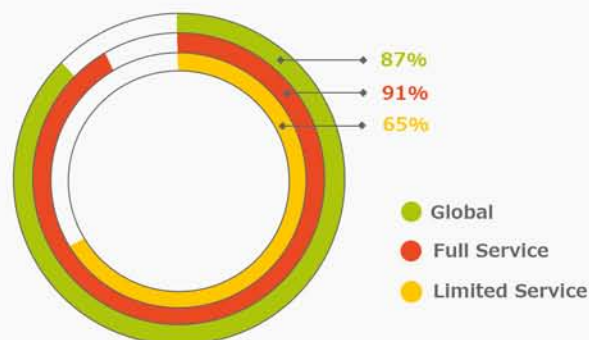
% Faucets (>90%)



% Showerheads (>90%)



Regular Water Tracking



Eighty-seven percent said they track water consumption on a regular basis. When asked how they do that, some said they simply read the water meter and use spreadsheets. Others said they rely on a third party to track their water consumption or they use their own hotel company's tracking program. One hotelier stated, "Our Green Engage program has a utility tracking section where all utility usage is entered."



Holiday Inn Club Vacations at Desert Club Resort, Las Vegas, United States

"Our Green Engage program has a utility tracking section where all utility usage is entered."

Water consumption is certainly easier to pinpoint if you sub-meter. In our survey, we asked hoteliers if they sub-meter and where they do it. One-half of respondents said they do sub-meter. That most often happens in food and beverage operations (30% of survey participants). The area where sub-metering also takes place: guestrooms, where 24% said they monitor water consumption.

Water Sub-metering: Guestrooms



Water Sub-metering: Food and Beverage Facilities



Water Sub-metering: Fitness Facility



Water Sub-metering: Landscaping/Grounds Keeping

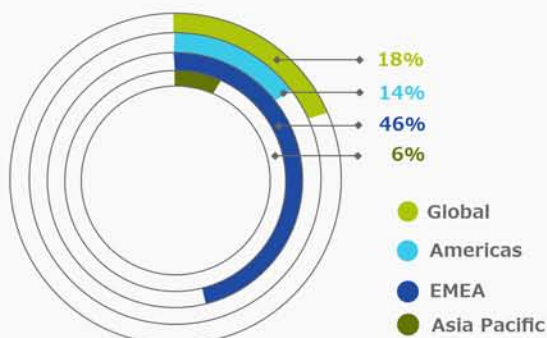


Leaks can go undetected for weeks or months and fatten water bills. However, only 18% indicated installing a leak detection system for water piping.

Water Sub-metering: Other

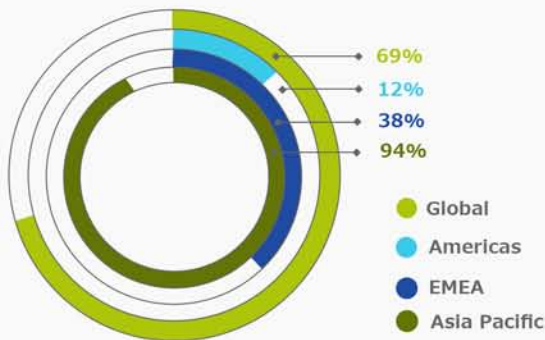


Leak Detection for Water Piping

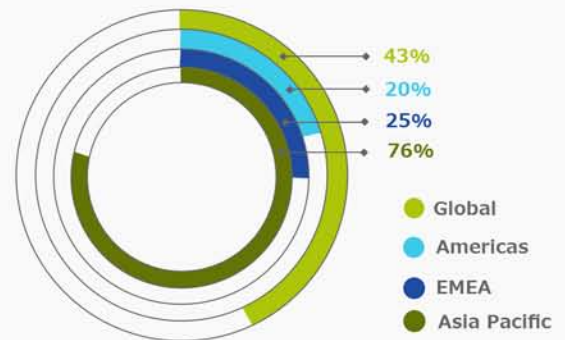


Hotels and resorts commonly feature lots of plants and grass. We asked hoteliers if native or drought-tolerant landscaping is used to reduce irrigation needs. Seventy-five percent said yes, it is. Thirty-five percent said they have moisture sensors on sprinklers and 43% said they capture rainwater for reuse.

Gray Water Reuse



Rainwater Capture



Native or Drought-tolerant Landscaping

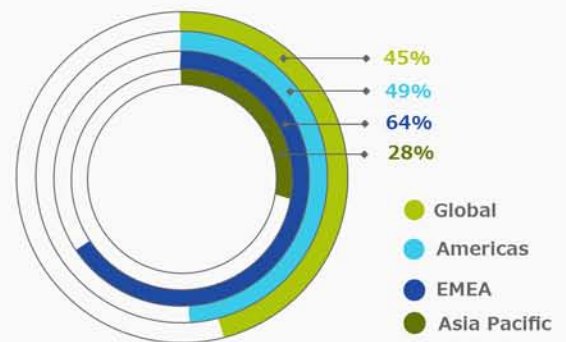


Moisture Sensors on Sprinkler Systems



Kitchen personnel are often the guilty parties when it comes to allowing water to flow unnecessarily. Pre-rinse sprays valves help address that. Forty-five percent of hoteliers said they have pre-rinse spray valves in their kitchens.

Low-flow Pre-Rinse Kitchen Spray Valves



One of the goals with the Green Lodging Survey is to identify trends in innovation.

Interestingly, 69% said they reuse graywater (water from sinks, showers, baths, washing machines or dish washers). When asked to describe other innovative practices, building design, or equipment related to water management, survey participants mentioned using back wash pool water for the flushing of toilets, the use of drip-irrigation systems, and waterless urinals.

Cleaning & Maintenance

Earlier this summer, two people were hospitalized and a Detroit-area hotel was evacuated after high carbon monoxide levels were recorded. In April, a similar incident happened in Scotland. In fact, it is easy to find cases online of hotels where carbon monoxide poisonings took place. Unfortunately, many have died during such incidents. Oftentimes, a simple preventive maintenance plan could have prevented the hospitalizations and deaths.

In our survey, we asked, “Do you have a preventive maintenance plan which checks, at least quarterly, that building energy and water equipment (e.g. HVAC, lighting, plumbing fixtures, irrigation systems, etc.) are functioning properly?” The good news is that 93% said yes.

Preventive Maintenance Program



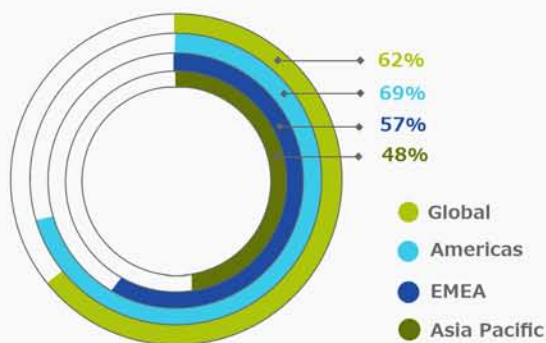
A hotel owner’s choice to implement green cleaning practices can have significant positive impact on not only guests but associates in housekeeping and other departments as well. Green cleaning is not only about what chemicals are applied; it also has to do with the integrity of

those products, what equipment is used, how energy efficient that equipment is, and the degree to which waste is created during the cleaning process.

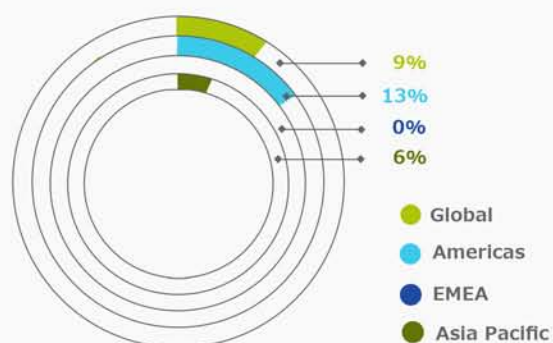


In our survey, we asked hoteliers if at least 50% of the green products used for cleaning are certified by a third party. Sixty-two percent said yes. We then asked survey participants to tell us which green certification programs apply. Nine percent said GreenGuard, 24% said Green Seal, 22% said Environmental Choice EcoLogo, 29% said “other”, and 33% said “none of the above.”

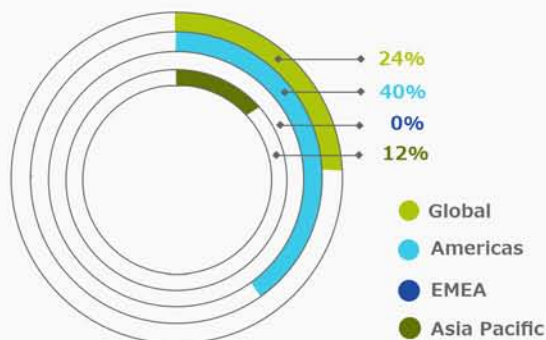
>50% Green Cleaning Products



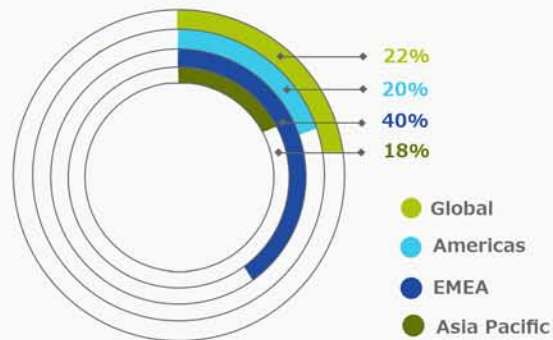
GreenGuard



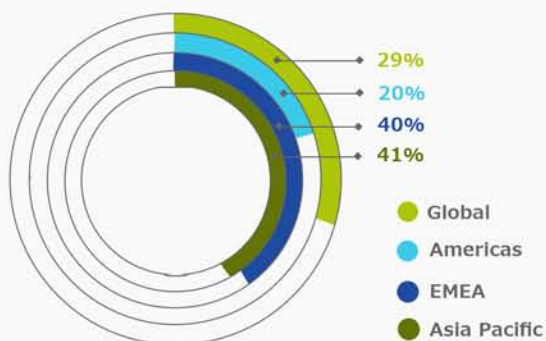
Green Seal



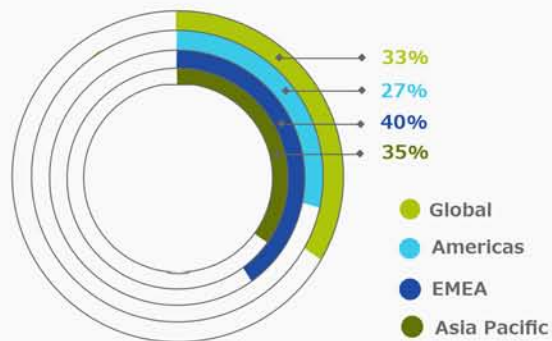
Environmental Choice EcoLogo



Other



None of the Above



When asked if environmentally friendly alternatives to pesticides/insecticides are used in guestrooms, 75% said yes. Seventy-eight percent said integrated pest management techniques are employed throughout their properties.

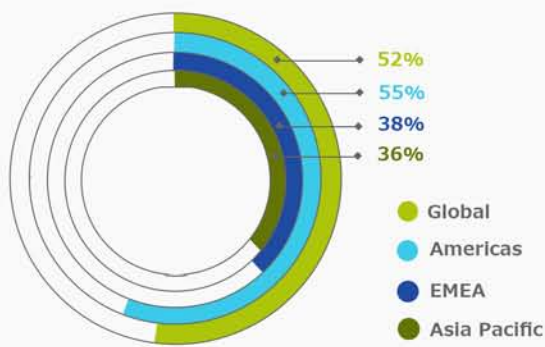
Environmentally Friendly Pesticide/Insecticide Alternatives in Guestrooms



Integrated Pest Management Program



Soap Donation



Housekeeping associates are most often the persons who have first contact with partially used soap and other amenities. We asked hoteliers if leftover used soaps and bottled amenities are donated to a charitable organization, either local or global. Fifty-two percent said yes.

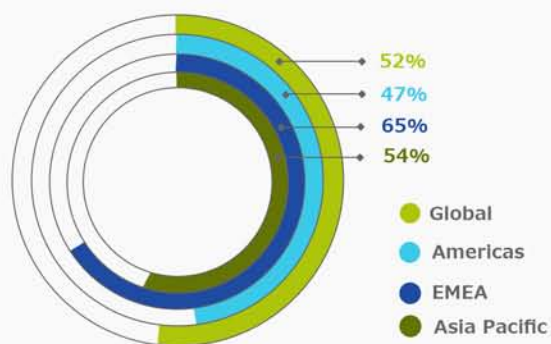
Kitchen & Laundry

At the Ritz-Carlton, Naples in Florida, Executive Chef George Fistrovich “farms” inside a repurposed shipping container, a.k.a. CropBox. Measuring 40 feet by 8 feet in size, the container is where vegetables such as lettuce, cabbage, spinach and other plants are grown hydroponically. Growing one’s herbs or vegetables on-site is not that unusual in the lodging industry. According to our survey, 52% of respondents said they grow food ingredients, such as herbs or vegetables, on-site. Six percent said they have a vegetable garden on the roof, and 3% said beekeeping is conducted on the roof.

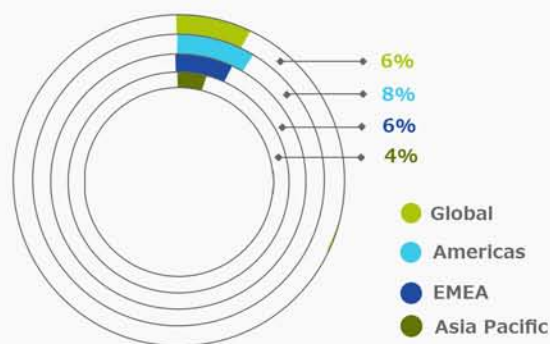


The Ritz-Carlton, Naples, Florida, United States
Executive Chef George Fistrovich working in the CropBox

Food Grown On-site



Green Roof: Vegetable Garden



Almost every single hotelier who answered the question (99%) about whether they offer vegetarian menu options said they do indeed offer that type of food.

Beekeeping

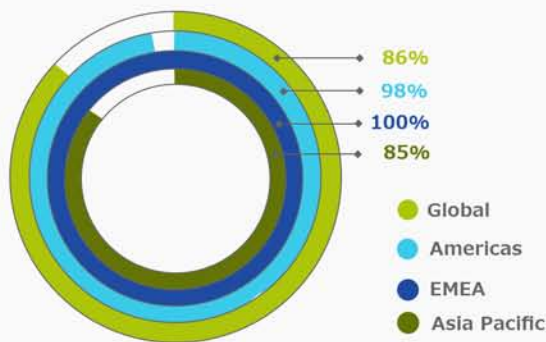


Vegetarian Menu Options

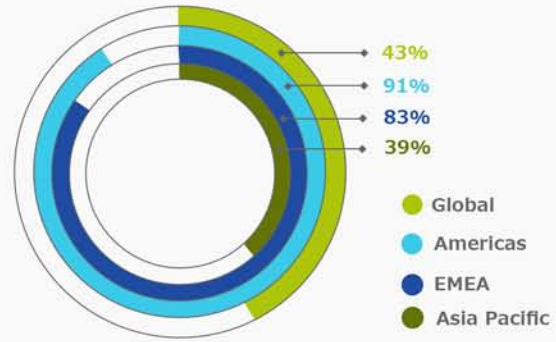


We asked hoteliers, "Do you have a towel reuse plan in place, which includes housekeeper training, and periodic checks?" Eighty-six percent indicated they do. We also asked, "Is a linen and towel reuse program in place that changes linens every three days by default except upon guest request or check-out?" Forty-three percent said yes. Going one step further we asked, "Are guests given the option of opting out of housekeeping services altogether for one or more nights?" Sixty-nine percent said yes. Starwood Hotels & Resorts, with its "Make a Green Choice" program, was one of the first companies to give guests that option.

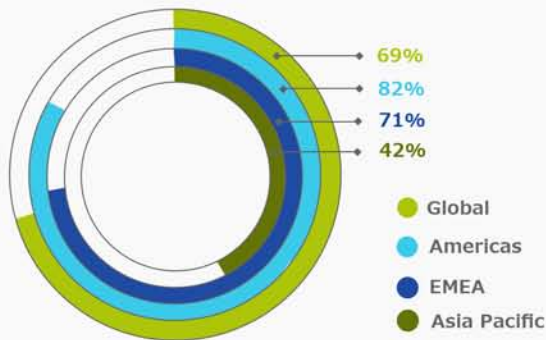
Linen/Towel Reuse w/Training



Linen/Towel Change Only Upon Request or Every 3 Days



Housekeeping Opt-out



Ozone Laundry System



The laundry offers plenty of potential for energy, water and chemical savings. Ozone laundry systems can accomplish that but when asked if an ozone system is in place in laundry

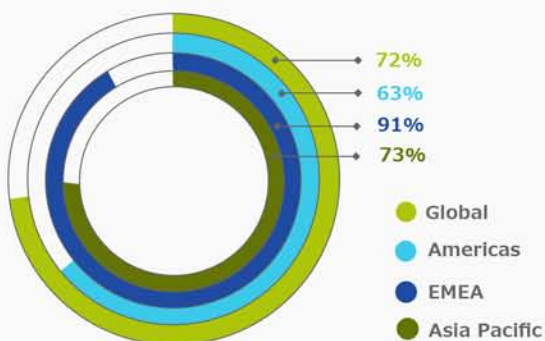
operations, only 16% said yes. Eight percent said they plan to implement an ozone system in the next 12 months. Some of what was covered in other sections of the Green Lodging Survey applied to kitchen and laundry operations—pre-rinse spray valves in Water Conservation for example, or another question under Water Conservation having to do with sub-metering.

Communications

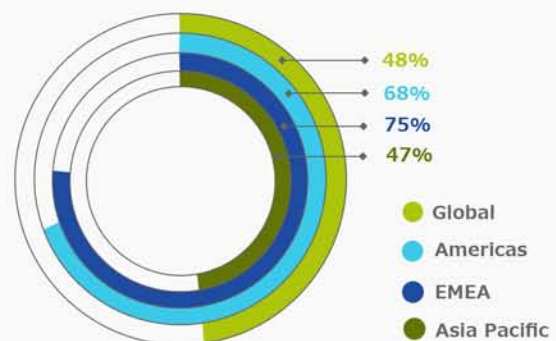
Communications is key to the success of any sustainability initiative—whether with associates, guests or other stakeholders. How do you keep associates excited about participating in a green program if you don't frequently remind them about its importance and its details? How do you attract new group business if your website says nothing about your conservation, community and waste minimization efforts?

In our Green Lodging Survey we asked hoteliers if they have a written environmental policy/set of policies in place. Seventy-two percent said yes. Less than half of respondents (48%), however, said they allocate space on their website for the sharing of green practices. If green practices are not mentioned online, what about in the guestroom—in the guest services directory or elsewhere? Seventy-six percent of those responding said yes, green initiatives are communicated somewhere in the guestroom.

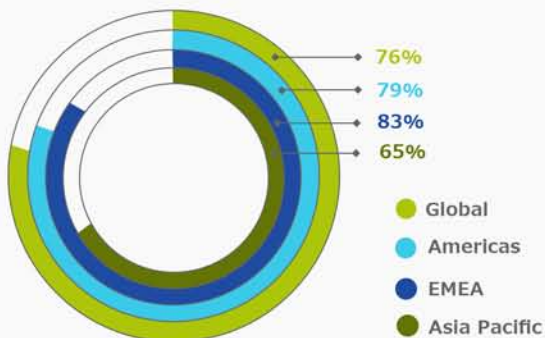
Written Environmental Policy(ies)



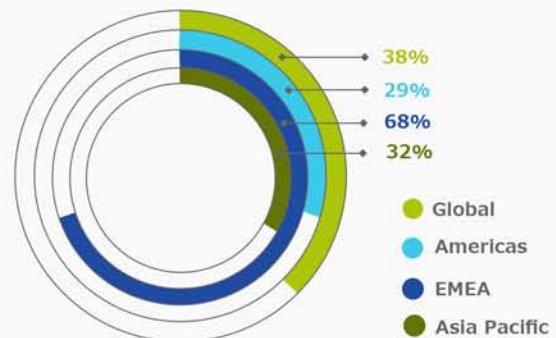
Green Practices Shared on Website



Green Initiatives Communication in Guestrooms



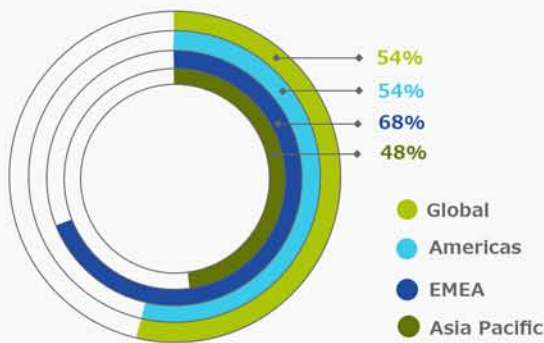
Environmental Project Tours for Guests



We frequently run across properties, both large and small, that provide tours of their properties to highlight their green initiatives. When asked if they indeed do that for guests and the public, 37% said yes.

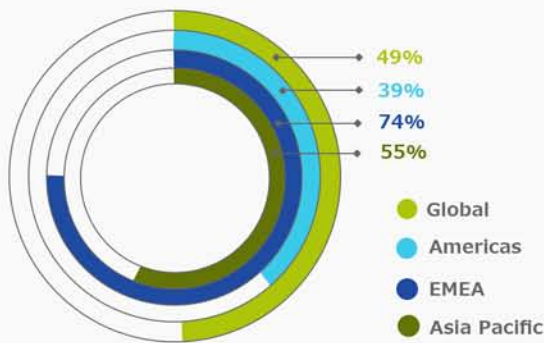
Alerting the media about one’s green efforts and accomplishments can lead to a significant amount of free publicity and even more room nights sold. When asked if they had ever issued a press release highlighting a green investment or initiative, 54% of hoteliers said yes.

Green Investment/Initiative Press Release



Earth Day and Earth Hour are often the occasions when public green events are held. We asked respondents, “Has the property ever hosted a community or guest event highlighting your facility’s environmentally sustainable or socially responsible practices?” Forty-nine percent said yes.

Hosted Events Highlighting Practices

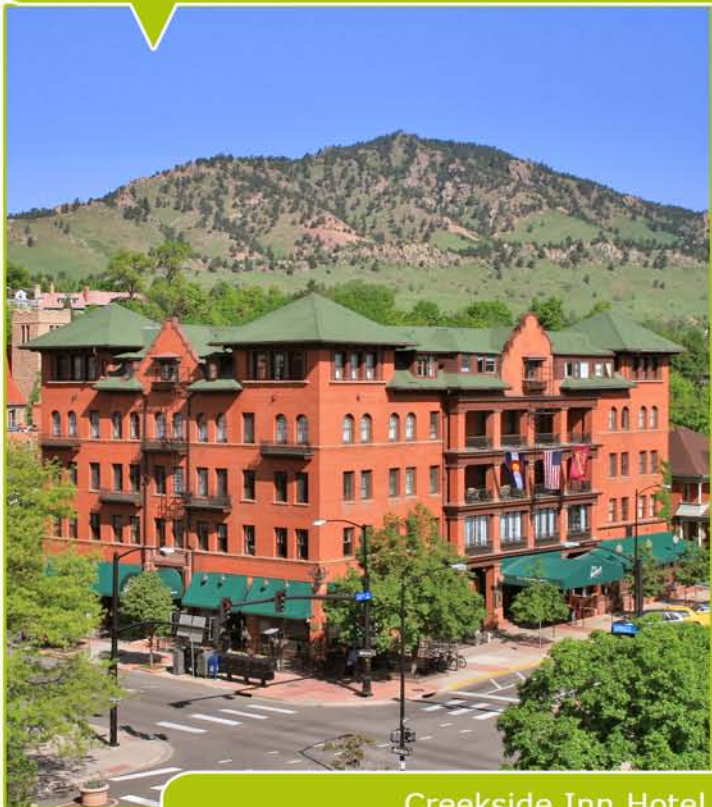


Hotels have long asked guests to comment about their stay. Social media has exploded with opportunities for guests to do just that. We asked, “Has a guest comment(s) related to a green initiative ever led to an operational change?” Many hoteliers responded to this question.

Here are two of the responses:

Hotel Boulderado, Boulder, Colorado, United States

“Many years ago we had a guest suggest that we make it easier for guests to NOT have their sheets changed daily.”



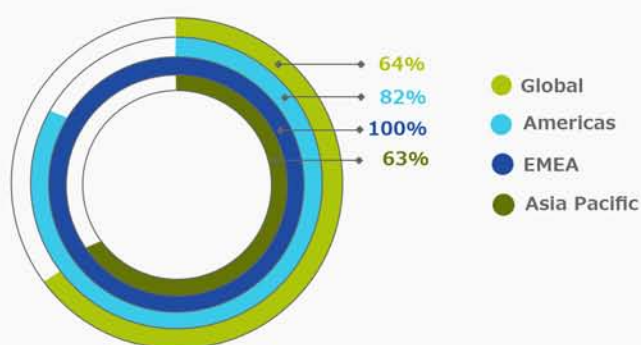
Creekside Inn Hotel, Palo Alto, California, United States

“We purchased a Tesla for guest transportation, as well as a hybrid Toyota.”

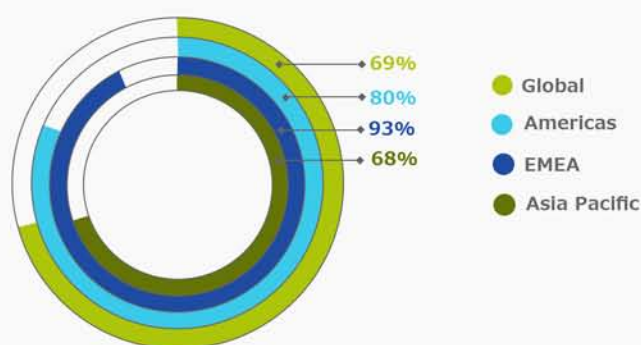
Staff Involvement

Who is in charge of a green program has a lot to do with its level of success—whether it is the CEO, the general manager, director of engineering, or even the security guard (it has happened). In the Green Lodging Survey, we asked, “Do you have a sustainability coordinator or green champion (someone charged with overseeing the various green initiatives) at your property?” Sixty-four percent of respondents said yes. In the Americas, 82% said they have someone in charge of green initiatives. Less than 1% overall said they intend to put a green champion in place in the next 12 months.

Green Champion



Green Team



Just as important as having someone in charge of a green program is having a team structure in place to ensure ongoing goal setting and participation of associates. We asked, “Does the property have a green team or sustainability task force/management team?” Sixty-nine percent said they have such a structure in place. In the Americas, that rose to 80%.

Las Vegas Sands Corp. CSR



In 2015, more than 3,600 Marina Bay Sands Team Members contributed a total of 10,500 volunteering hours.

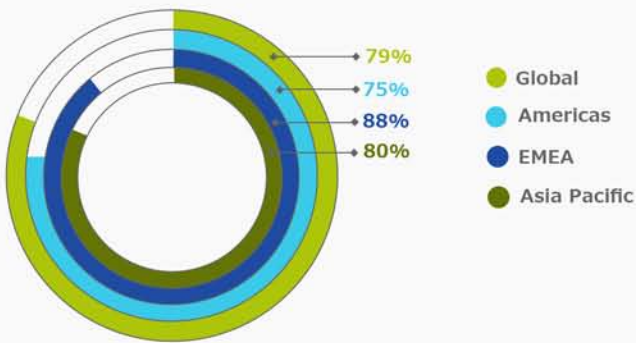


Team members in Las Vegas collected 8,600 school supplies for local students in need before the school year started in 2015.

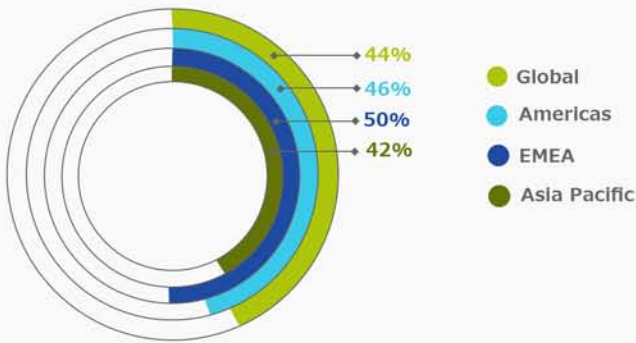
Whether upon hiring or on an ongoing basis, it is critical that staff be given training in order to learn operational standards related to green initiatives. When asked if they have staff training on understanding and implementing green practices at least once a year (including front of house and back of house (e.g. housekeeping, maintenance), 79% said yes.

Implementation of green programs costs money, of course. We asked the question, “Does the sustainability coordinator or green team have a budget to implement green initiatives?” Forty-four percent said yes.

Staff Training



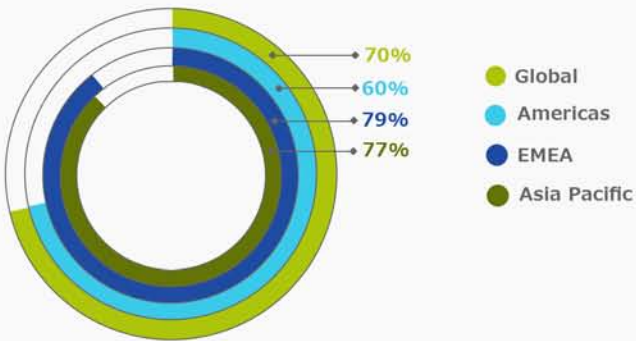
Green Team Budget



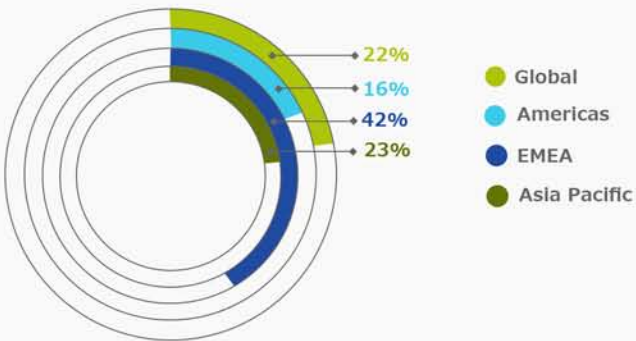
Sometimes associates at a hotel may be reluctant to offer input or suggestions directly to a superior. One way around that is to offer alternative forms of communication—a comment/suggestion card, for example. We asked if there is a comment/suggestion process in place for sustainability-related issues. Seventy percent said yes.

Some hoteliers have discovered that if associates sign a commitment letter, they are more apt to participate in green programs. As successful as that step can be, it is still quite rare. Only 22% of hoteliers ask employees to sign such a letter.

Comment/Suggestion Process



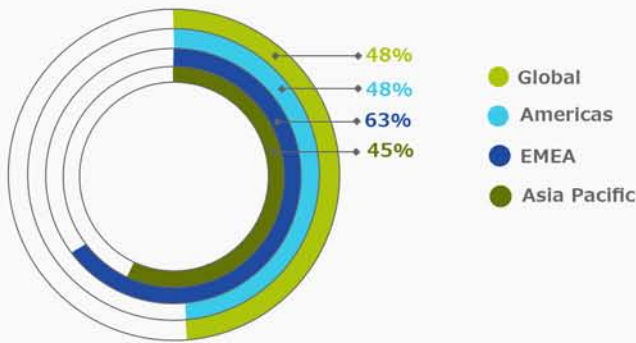
Staff Commitment Letter



Getting fired up about sustainability and having fun with it is an important step. Employees appreciate recognition and occasions when success is celebrated. Unfortunately, less than half of those participating in our survey (48%) said they recognize staff members who go above and beyond with awards or recognition.

Asked what the hotel’s greatest challenges around sustainability and staff involvement are, many survey respondents mentioned education and training. Others mentioned recognition, apathy, high turnover and communication.

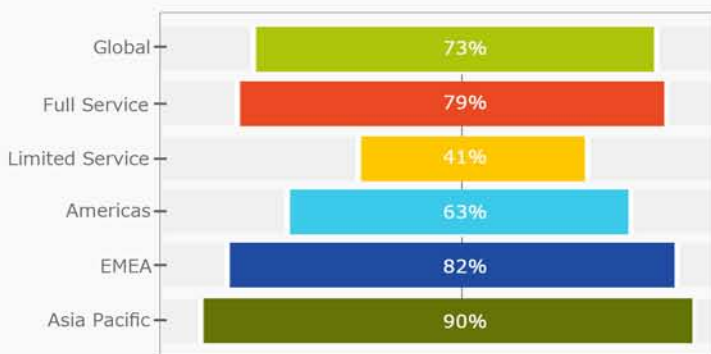
Staff Recognition



Community Involvement

One of the Ps in the definition of the Triple Bottom Line is, of course, “People.” Providing career growth opportunities, benefits and a healthy work environment for employees is certainly part of the People part but responsible business practices also extend beyond the walls of a business into the community. Those practices may take the form of cash or material donations or time given toward uplifting causes. In our survey, we asked hoteliers if employees are given the opportunity to volunteer their time and services towards various environmental events and campaigns during regular working hours. Seventy-three percent said yes.

Employee Volunteering Opportunities During Work Hours



In an attempt to gather specific examples of community-focused programs, we asked hoteliers to describe the most innovative philanthropic or community initiative carried out in the past year. Many responded to this question with examples ranging from beach cleanups to seagrass planting to hosting needy families during holiday times.

Here are some additional examples:

“We invited our associates to nominate charities that were important to them and made donations to the winning charities.”

“The administrator has started a local youth eco-club and a Sustainable Community-based Ecological Tourism Association.”

“The most important thing we do is our commitment towards the local communities in providing them with jobs and training. We have 150 associates, 85% from the local villages. We are also the biggest employer in the region and one of the rarest.”

“The Park Town Hotel loves the community! We’ve been an entertainment station cheering on the runners at the Saskatchewan marathon, and we’ve contributed hundreds of prizes to various benefits and charitable endeavors this year! We voluntarily allow a charitable cause 30 free tickets to our Yuk Yuk’s comedy show every week which they are able to sell at any cost they want while retaining 100% of the profits.”



Anantara Golden Triangle Elephant Camp & Resort

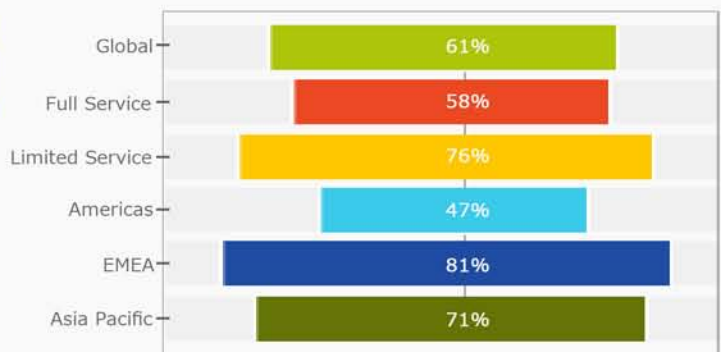
"Our Golden Triangle Asian Elephant Foundation (www.helpingelephants.org) has Human Elephant Conflict mitigation projects to help elephants and local villagers in three Thai, one Cambodian and one Tanzanian National Park."

We then asked hoteliers for examples of how these offerings are communicated.

Here is one response:

"The room directory in every room lists all possible places of interest and cultural activities available. We are linked to Urban Adventures for local tours. We provide walking maps of the local area, and front desk staff are trained to assist guests in finding local offerings."

Local Heritage Offerings Communicated



P

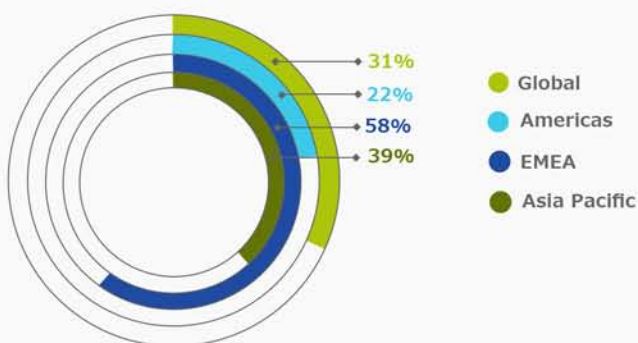
rourement

Just prior to the completion of this survey, TripAdvisor and its Viator brand announced they will discontinue selling tickets for specific tourism experiences where travelers come into physical contact with captive wild animals or endangered species, including but not limited to elephant rides, petting tigers, and swim with dolphin attractions.

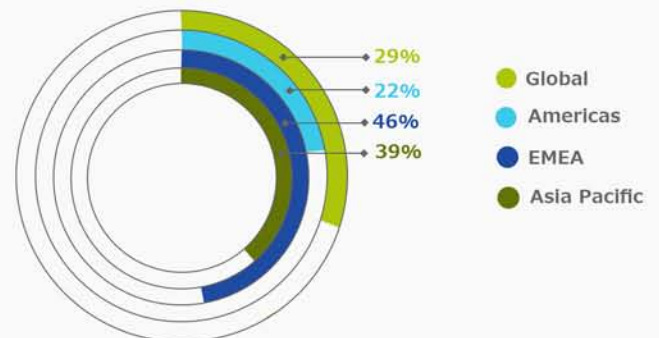
Just as industry players like TripAdvisor have taken steps to influence consumer buying decisions, so too have hotel companies taken steps to change how they purchase everything from paper to seafood to construction materials.

In our survey, we asked if hotels have sustainability-specific requirements in their procurement of goods and services. Thirty-one percent said they have such requirements with contractors, 29% said they have these requirements with service providers, and 44% said they have such requirements with suppliers.

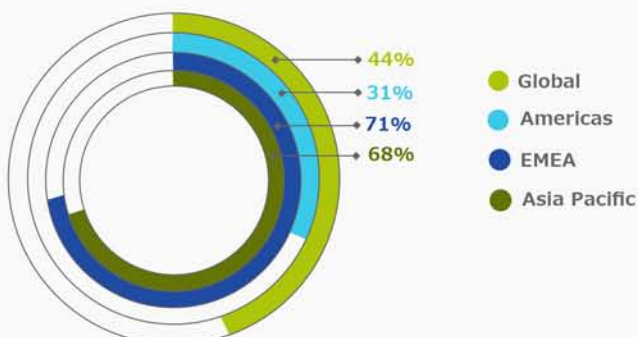
Contractors



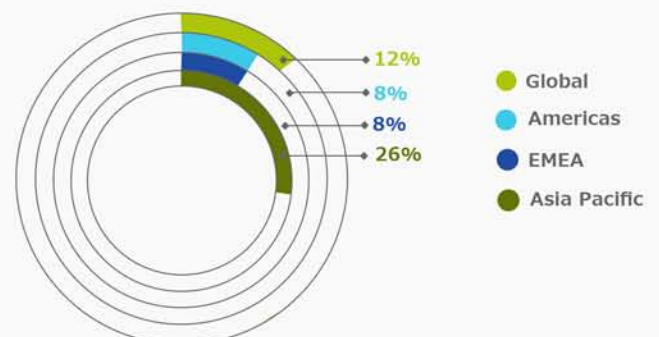
Service Providers



Suppliers



Other



We then asked hoteliers for examples of requirements they have with suppliers. Here are a few responses:

"We are currently implementing a policy whereby we will move to purchasing and/or growing 100% organic fresh produce within the next five years."

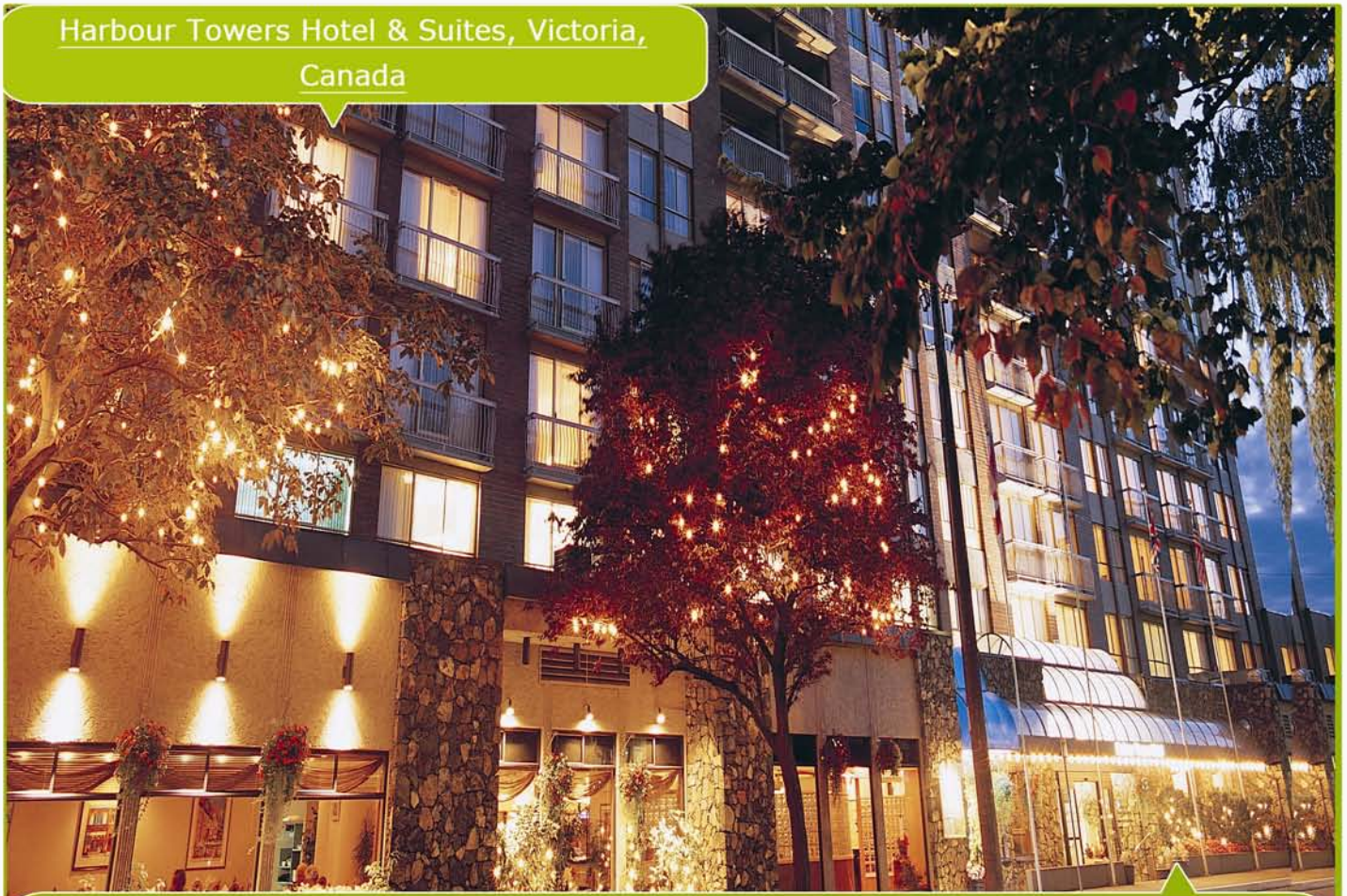
"We ask for every quote of produce to have a green alternative option included. We ask what percentage of inside branded products are green or recycled material, etc."

Sustainable Seafood Procurement



In recent years, there has been a lot of emphasis on purchasing local—to support local jobs and businesses and to reduce carbon impact related to transportation of goods. We asked hoteliers if their properties have a policy that requires procurement from local suppliers, when possible. Seventy-four percent said yes. Sixty-two percent said they have a sustainable seafood purchasing policy.

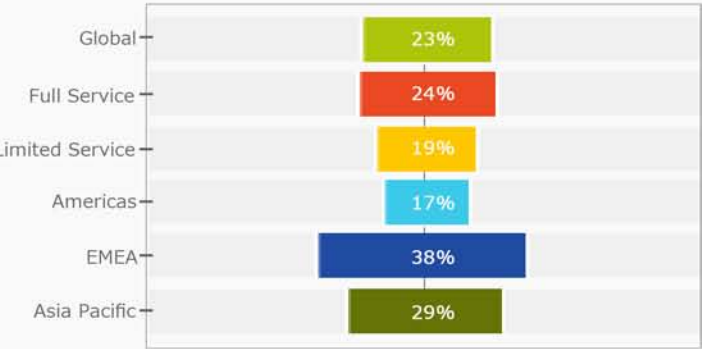
Harbour Towers Hotel & Suites, Victoria, Canada



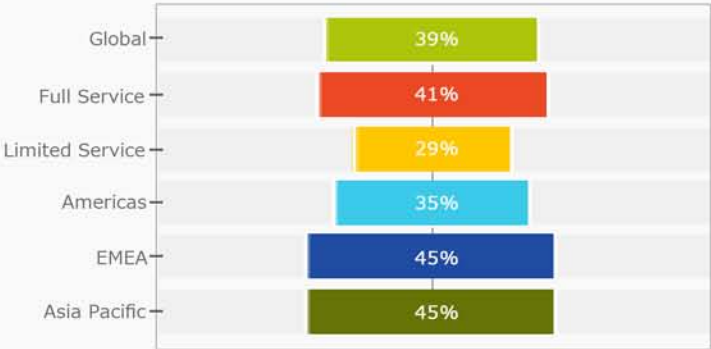
"Construction waste must be recycled. Byproducts of contract cleaning must be pH neutral and dechlorinated before disposal. All surplus packaging and pallets must be returnable or recyclable."

Just 23% said their property has a policy to procure all FF&E wood that is FSC or SFI certified and 39% said they have a policy to procure all office paper that is FSC or SFI certified.

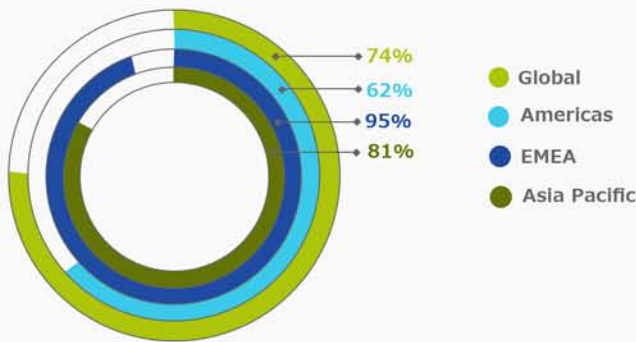
Certified FF&E Wood Policy



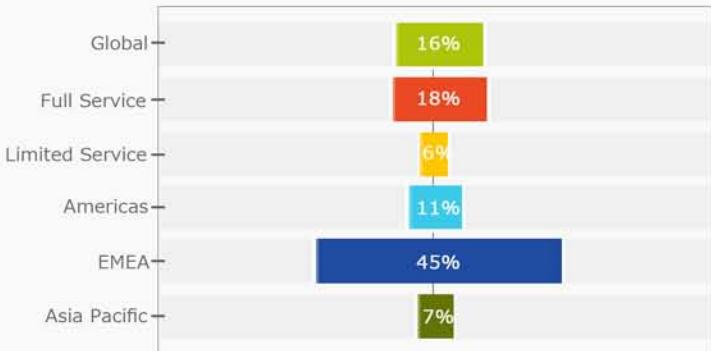
Certified Office Paper Policy



Local Procurement Policy



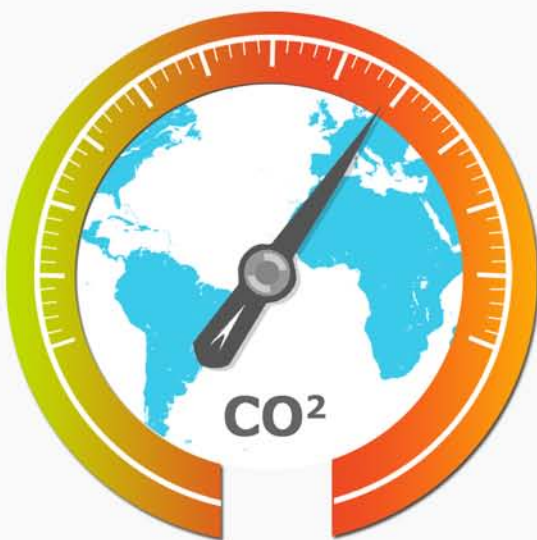
End-of-life Take-back Vendor Arrangement



From our experience, few supplier types take back product at the end of its life for recycling. Some examples of where it has happened: with mattresses, fabric, electronics and carpeting but it is rare. We asked survey participants if they have any agreements with vendors for end-of-life take-back for recycling. Just 16% said they do.

Climate Action & Certification

It was more than four years ago now that the International Tourism Partnership (ITP) and the World Travel & Tourism Council (WTTC), in collaboration with 23 leading global hospitality companies, launched HCMI 1.0, a methodology to calculate and communicate the carbon footprint of hotel stays and meetings in a consistent and transparent way. This effort, and many others at the individual hotel company level, demonstrate how serious the lodging industry is taking its carbon impact.



Has Some Impact



In our survey we asked hoteliers, "To what degree does climate change drive you to make operational improvements and investments?" Fifty-six percent said some, 28% said it has significant impact, and 16% said it has no impact at all.

Has Significant Impact



Not at all



Thirty-five percent of respondents said their property's carbon footprint is measured. Of those, 46% indicated they measure for the total carbon footprint in a year. When asked which metric(s) they use to measure their property's carbon footprint, 31% said HCMI.

Carbon Footprint Measured



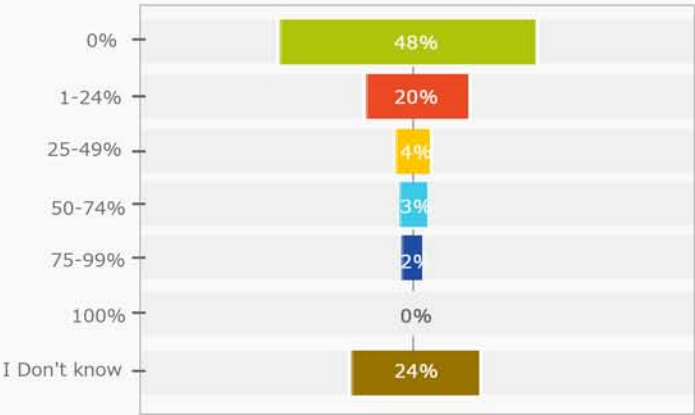
Carbon Footprint Annual Measurement



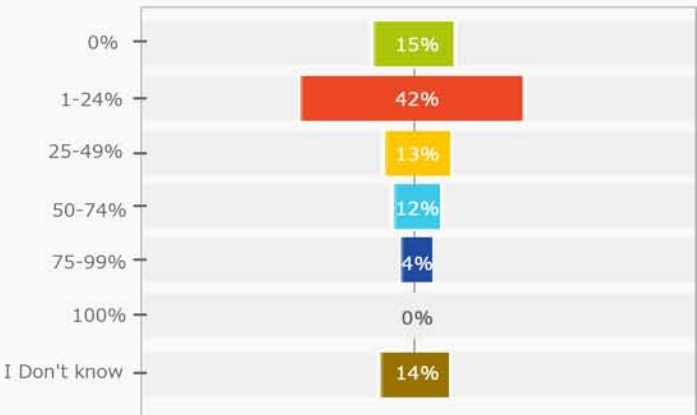


When asked, “Approximately what percentage of your guests seeking out room nights or meeting space at your property ask about the opportunity to offset carbon emissions,” 48% said no guests ask. Twenty-four percent said they did not know and 20% said between one and 24% of guests ask.

% of Overnight Guests Asking About Carbon Offsetting

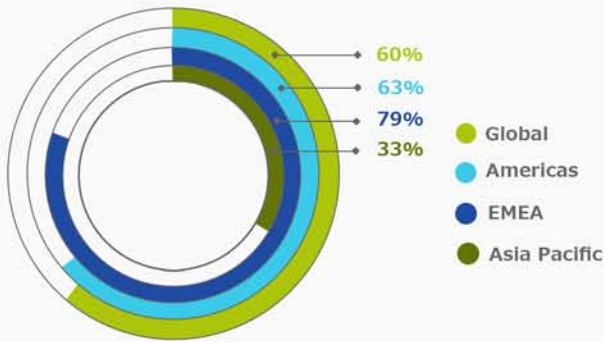


% Meeting Customers Asking about Sustainability Initiative:



One sure-fire way of reducing a property’s overall carbon impact is to make it easy for guests and employees to ride bikes or take public transportation. We asked, “Are facilities/resources provided to encourage employees and guests to favor sustainable transportation (e.g. bike rentals, free bike lending, bike storage and change rooms, subsidized public transit passes, shuttle buses, parking for low emissions vehicles, etc.)?” Fifty-seven percent said yes.

3rd-party Certification



Availability of third-party certification has grown over the last decade with many opportunities available to hoteliers at the global, national, regional, state and even city level. We asked hoteliers if they have taken the step to get their hotels third-party certified for their sustainability initiatives. Sixty percent said they had done that. Three percent indicated they plan to obtain certification in the next 12 months.

About

The Green Lodging Survey

The Green Lodging Survey is the lodging industry's annual exercise to assess and catalyze green innovation, best practices, and awareness regarding the state of sustainability across hotels worldwide. The Green Lodging Survey is powered by Greenview, a leader in advancing sustainability through metrics, measurement, data analysis and reporting, and managed by Green Lodging News, lodging's leading environmental news source.

How the Survey is Conducted

The Green Lodging Survey is comprised each year of approximately 100 questions covering operational practices, facility attributes, and outreach programs to conserve resources, reduce carbon emissions; increase guest experience, and make positive community impact. The 2016 survey consisted of 108 questions. Quantitative data (i.e. energy and water consumption) are not collected; the survey is focused only on practices and attributes. Hotels participate by responding to the survey via the [Greenview Portal](#), an online portal platform where work can be saved over time and recurring participants can update their answers easily each year. In addition to participant respondents, data are integrated from supporter data sets of similar or parallel questions. For the 2016 Green Lodging Survey, data were integrated from 1) the Asia Pacific Sustainability Data Trends Report 2015, published by Horwath HTL Asia Pacific and co-authored by Greenview, and 2) data on file from 2015-2016 within the Greenview Portal for surveying done for other hotel customers and hotel companies.

Data Confidentiality

With the exception of approved case study highlights and examples, no property-level data are shared with other entities outside the owner or operator of that property. The data kept on file within the Greenview Portal remain confidential, and the integration or streamlining functions for data feeds (i.e. from customer surveying) are always contingent upon property participation each time.

Aggregate results are distributed to industry supporters as identified among their membership. Therefore, a certification body will receive an aggregate snapshot of prevalence among the properties within their membership on a whole as compared to the overall data set and peer group (but no individual-level property data are shared with certifications or other industry supporters).

All participants and supporters are asked not to publicly share their results, as the Green Lodging Survey seeks to stimulate competitive benchmarking for internal purposes but not external scoring or rating.

Technical Notes

- ≡○ The total number of hotels in the survey reached a maximum of 2,161 from 44 countries. As this resulted from participation + data integration, some questions will have less respondents in the sample.
- ≡○ As an introductory survey and communicated through a network interested in Green Lodging, we recognize the potential for systemic bias in the survey: those hotels striving to excel in sustainable hospitality may be more inclined to participate than those who are not. So the results may not be representative of the industry overall, and best practices or attributes may be less prevalent than reported in the results.
- ≡○ Property survey responses have not been verified or audited for accuracy. Where some inconsistencies were found (i.e. not having a kitchen but identifying VFDs in kitchen hood fans), those were removed for data quality. It could be possible that some participants did not properly understand the questions or had indicated responses incorrectly. However, as all information is kept confidential and no public benchmarking of specific properties exists, the Green Lodging Survey seeks to encourage truthfulness so that participants receive maximum benefit of the compare reports they receive back as a yardstick of their performance and progress.
- ≡○ Not all of the 108 questions were included in this trends report. The compare report participants receive will contain prevalence among peers for all questions, broken down further by location and segment. To view all the results, hotels will need to either participate in the survey or subscribe to the Greenview Portal.
- ≡○ The uptake, prevalence and performance of the participants as indicated in this trends report is equivalent to the number of properties indicating “Yes” divided by the total number of applicable properties. For example, properties that do not have food and beverage operations are excluded from the denominator of properties for food and beverage questions.

2017 Green Lodging Survey Outlook

This Green Lodging Survey is the first of an annual exercise for industry trends and benchmarking. The 2017 survey will open in the second quarter of 2017, with the results published in the fourth quarter of 2017.

The survey will be enhanced next year to add new, innovative best practices to the questions. It will be further improved based on participant feedback, particularly in segmenting or adjusting the questions by property type, so that properties can be benchmarked according to property type.

One of the goals of the Green Lodging Survey is to invite and encourage all hotels to participate, regardless of their journey towards sustainability, to help move the industry forward on a whole. So it is possible that next year's results, with expanded participation, may show less prevalence or uptake of best practices as new-comers join the survey. With more participation, we will be able to further segment and filter the results, and in year three we will be able to produce “like-for-like” trends that show the trajectory of practices among the same group of participants over time.

Sponsors

Aquawing Ozone Laundry Systems



Aquawing Ozone Laundry Systems is the Global leader of Ozone Laundry Technology with more systems using the Aquawing process installed and operating than all other manufacturers combined (8,000+). These goals have been achieved by maintaining the highest level of reliability and technology with the support of the most advanced distributor network. Aquawing offers as much as 90 percent savings on hot water, up to 40 percent total water savings, and is clinically validated to kill Superbugs like MRSA & C. diff. Aquawing is the only system properly clinically validated. Aquawing's patented variable ozone system automatically delivers custom amounts of ozone as determined by each wash load. The patented validated ozone (VO3) validates ozone in the wash wheel certifying that products are clean and safe for clients on every wash. Call (888) 296-4777 or e-mail info@AquawingOzone.com.

Pineapple Hospitality, Inc.



Pineapple Hospitality, Inc. is a leading edge provider of Savvy...Sustainable...Solutions for the lodging industry. Founded by Ray Burger in 2005 the company is primarily a distributor of greener operating supplies and equipment. With roots in hospitality dating back to the early 1970s our founder was an early adopter, proponent and advocate of Environmental products, programs and services from the early 1990s. For more information about Pineapple Hospitality please visit us at www.PineappleHospitality.net. You may also e-mail ray@pineapplehospitality.net or call (636) 922-2285.

PragmaTech Ltd.



PragmaTech leverages leading expertise in solid waste equipment with an advanced ERP/CRM platform called Pandora Intelligent Networks. This combination uniquely positions PragmaTech to offer insightful diagnostic and monitoring solutions to customers around their waste equipment. The end result is significant automation, transparency, accountability and business intelligence. Typical results also bring 30 percent to 50 percent savings off your total waste haulage bill. The data PragmaTech collects positions us to offer preventative maintenance services while also reducing unnecessary and costly service calls. Our asset management service can track the health of your equipment, allowing for lifecycle planning, maximized equipment up-time, and multi-location comparison analyses. For more information contact Gabe Vinizki at (647) 453-0351, by e-mail at gabev@pragmatechltd.com, or go to www.pragmatechltd.com.

reCollect2 Company is creator of the reCollect2® in-room recycling receptacle. Designed with simplicity in mind, the reCollect2 offers a clean, cohesive and streamlined silhouette complementing today's modern spaces. Each three-piece set includes: a recycle bin, matching bin for non-recyclables and set-base for customized identification and function. Manufactured from recyclable plastic and responsibly made in Wisconsin, USA; the reCollect2 offers a stylized solution for hotel guestroom/in-office recycling that will help promote, encourage and reinforce your own organization's sustainability message, practices and achievements.

Contact: Ann Riphenburg, (262) 527-9375, info@reCollect2recycler.com. Also go to: www.recollect2recycler.com/home.

Industry Supporters

Arbor Day Foundation



Founded in 1972, the Arbor Day Foundation has grown to become the largest nonprofit membership organization dedicated to planting trees, with more than one million members, supporters, and valued partners. During the last 44 years, more than 250 million Arbor Day Foundation trees have been planted in neighborhoods, communities, cities and forests throughout the world. Our vision is to help others understand and use trees as a solution to many of the global issues we face today, including air quality, water quality, climate change, deforestation, poverty and hunger. Specifically through its focus on fighting climate change, the Arbor Day Foundation plants trees to capture carbon and provide forestry carbon offsets to help organizations reach their sustainability goals. The Arbor Day Foundation works with hundreds of hotel & resort locations to provide guests the opportunity to offset each night of their stays. To learn how to get your guests involved or to identify your hotel's carbon footprint, please contact Jared Carlson at jcarlson@arborday.org, (402) 473-2102, or go to www.arborday.org/hotelcarbon.

Clean the World



Clean the World's mission is to collect and recycle soap and hygiene products discarded every day by the hospitality industry and other sectors that generate environmental waste. Through the distribution of these and other donated products to impoverished people, prevent millions of hygiene-related deaths each year, reduce the morbidity rate for hygiene-related illnesses, and encourage vigorous childhood development.

Clean the World implements its mission through the collecting, sorting and processing of discarded soap, shampoo conditioner and lotion product donations from participating hospitality partners, and the collection of donated hygiene products from manufacturers. The recycled product donations are sent to domestic homeless shelters and developing countries suffering from high death rates due to acute respiratory infection and diarrheal disease.

Call (407) 574-8353 or go to www.cleantheworld.org for more information.

Green Key Global



Green Key Global is a leading, international, GSTC Recognized, environmental certification body whose suite of industry standard programs and resources has been designed specifically for the lodging and meetings industries. Our affordable programs, including the Green Key Eco-Rating and the Green Key Meetings Programs, help members leverage organizational CSR activities to support their property's sustainable initiatives, improve overall fiscal performance and community relations. With member properties in over 20 countries and a notable mix of branded and independent members Green Key Global truly is the lodging industry's certification program of choice.

For further information contact info@greenkeyglobal.com, (613) 237-7149, or go to www.greenkeyglobal.com.

Horwath HTL—Asia Pacific



Horwath HTL—Asia Pacific is the regional arm of Crowe Horwath International's Hotel, Tourism and Leisure Consulting Group. Since its establishment in 1987, Horwath HTL has been involved with thousands of projects throughout the region in all phases of the property lifecycle for clients ranging from individually held businesses to the world's most prominent hotel companies, developers, lenders, investors and industrial corporations. Offices are currently located in Singapore, Hong Kong, Tokyo, Beijing, Shanghai, Jakarta, Kuala Lumpur, Bangkok, Sydney, Auckland and Mumbai.

By combining resources from our offices in key cities throughout the Asia Pacific region and globally, when needed, we ensure clients receive a multi-skilled international perspective for their projects and benefit from our wide-reaching industry contacts. We are also supported by the Horwath HTL database.

Our services are grouped under three main areas: Planning & Development Services, Asset Management Services, and Transaction/Lender Services

Mekong Tourism Coordinating Office



Established in early 2006, the Mekong Tourism Coordinating Office (MTCO) is a collaborative effort between the six countries of the Greater Mekong Subregion (GMS): Cambodia, The People's Republic of China (PRC) (Yunnan and Guangxi Provinces), The Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand and Vietnam.

The mission of the MTCO is to help GMS National Tourism Organizations develop and promote the Mekong as a single travel destination, offering a diversity of good quality and high-yielding sub-regional products that help to distribute the benefits of tourism more widely; add to the tourism development efforts of each GMS destination; contribute to poverty reduction, gender equality and empowerment of women; and minimize any adverse impacts of tourism through the development of a sustainable industry. For more information, visit www.MekongTourism.org, and follow MTCO on social media [@TourismMekong](https://twitter.com/TourismMekong).

Travelife



Travelife is an internationally recognized sustainability certification scheme, and has been developed by the travel industry for the travel industry. Travelife is the only certification scheme to work in partnership with tour operators like TUI, Thomas Cook, DER Touristik, Virgin Holidays and Flight Centre UK and many others—including over 50 of their travel brands, all of whom promote the adoption of Travelife by their contracted accommodations. Travelife is a fair and affordable system that assists hotels and accommodations in showing that they are serious about sustainability.

Travelife currently has 1,400 member hotels in 55 countries with 768 gaining the Travelife Gold certification. Since Travelife's inception in 2007 the certification has grown to be recognized and used by all major European tour operators.

Call +44 (0) 20 3693 0160, e-mail info@travelife.org, or go to www.travelife.org.

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