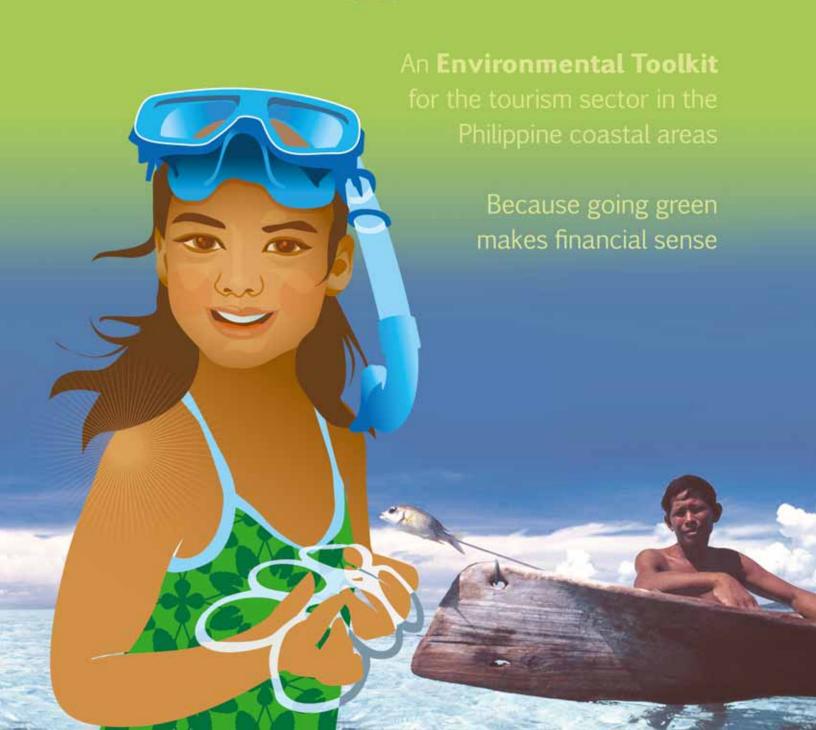
# going green





## going green

An **Environmental Toolkit** for the tourism sector in Philippine coastal areas

Because going green makes financial sense

#### **ACKNOWLEDGMENT**

We would like to thank the United Nations Environmental Programme (UNEP) for allowing us to reproduce, adapt and repackage its series, "A Practical Guide to Good Practice," particularly the volumes "Managing Environmental Impacts in the Marine Recreation Sector" and "Managing Environmental and Social Issues in the Accommodations Sector." These were produced with the collaboration of the Center for Environmental Leadership in Business (CLEB), the Coral Reef Alliance (CORAL) and the Tour Operators' Initiative (TOI).

Photos by Jürgen Freund, Topp2X, Chito Cleofas, Lory Tan and Ivan Sarenas.

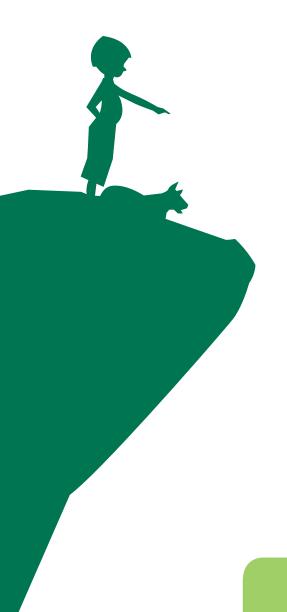
Toolkit design by Studio Dialogo. Illustrations by Abigail D. Goy





for a living planet®

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#### INTRODUCTION

Tourism is one of the fastest growing industries worldwide. In the Philippines, many of our tourist sites are famous for their outstanding natural beauty. Because the country is an archipelago, most of these tourist sites are in coastal areas, and because tourists come for the scenery and the new experiences, it makes sense for the tourism sector to look after its lifeline—its natural environment.

This Environmental Toolkit has been prepared to inform and encourage owners and operators of coastal businesses in the tourism sector to become more environmentally responsible in their operations.

This Toolkit contains straightforward advice that does not require expensive investments in technology. Rather, it gives practical tips that businesses can implement according to their own pace and scale.

This Toolkit is *not* a technical manual on environment guidelines. A general background on environmental laws is given in the first section, followed by recommendations for six types of tourist services commonly found across the county. Descriptions of potential impacts and the rationale for adopting environmentally responsible practices are discussed under each category. Some themes, such as reduction of waste and energy consumption, recur across all sections. The relevance of each category to a particular business will depend on the diversity and scope of an outfit's operations.

Environmental responsibility makes ecological sense, because keeping the environment pristine means that tourists will come to appreciate and enjoy the natural beauty of the location of your business. Increasingly, environmental responsibility also makes financial sense. Gone are the days when "going green" necessarily meant making large investments in expensive technology. Simple waste segregation, for example, can drastically reduce an island resort's expenses in transporting garbage off the island. Encouraging guests to follow simple steps, such as turning off lights and recycling water, could mean saving thousands on a resort's water bill.

The benefits of responsible tourism are not far-off and unclear. They are tangible, and in several cases, can be perceived immediately. On the other hand, it may take years before the negative impacts of environmental neglect are felt. But reaching the point of no return in environmental degradation before taking any action is an unwise path. There is no point in being irresponsible, when inexpensive and readily available steps can be taken to avert the risk of ruining your business.



#### Benefits for Businesses and Communities

Poorly conducted, uninformed or irresponsible marine recreation activities can seriously undermine the health and aesthetics of near-shore marine environments and coral reefs, the very resources that service providers rely on for healthy business and visitors demand for an enjoyable vacation. Improving environmental and social performance can not only prevent serious impacts, such as loss of tourist revenue, higher unemployment in the tourism sector, lower fish catches and health threats to local people; it can also improve the viability of the tourism industry as a whole. This, in turn, will stimulate economic growth, increase food and employment resources for local populations, and conserve ecosystems such as intact coral reefs that protect coastal communities from waves and storm damage.

from "Managing Environmental Impacts in the Marine Recreation Sector", United Nations Environmental Programme (UNEP)

# a note on environmental laws

A complex mix of economic, social, political, and environmental factors affects tourism, especially in the coastal areas. Most destinations and activities are dependent on a safe and healthy environment. This entails a need for a rational and orderly balance between socio-economic growth and environmental protection. Laws exist to protect the environment, upon which tourism investors and local communities depend for a viable tourism business. Unfortunately, due to the huge volume of laws and the complexity of jurisdiction over coastal resources, the implementation of these laws has become difficult, and compliance remains a thorny issue.

With the passage of the Local Government Code of 1991 (RA 7160) and the Fisheries Code of 1998 (RA 8550), the primary mandate for the management of coastal areas, and therefore coastal tourism, lies with the local government units (LGUs). This means city, municipal or provincial government units have the authority to develop tourist facilities. Nonetheless, it is the Philippine Tourism Authority (PTA) that coordinates all tourism project plans. The Department of Environment and Natural Resources (DENR) has also retained many functions in environmental management that pertains to certain areas. These include forest management in forest lands; mines and geosciences management not covered by the Small-scale Mining Act; the implementation of the Environmental Impact Assessment System for certain businesses and development projects; the management of all protected areas under the National Integrated Protected Areas System (NIPAS); and the conservation of the sea turtle (pawikan) and the sea cow (dugong). The Bureau of Fisheries and Aquatic Resources (BFAR), under the Department of Agriculture, retains management of fisheries resources outside of municipal waters. The local government units are empowered to make local ordinances that address specific tourism issues in their jurisdiction, like the collection of tourist fees or the use of mooring buoys for boats.

This guidebook does not enumerate all environmental laws pertinent to coastal tourism development, but it emphasizes the important policies required by Philippine law. Counting national laws, administrative orders from the DENR and local municipal or city ordinances, tourism developers and LGUs face a considerable set of rules.



Laws You Should Know

The following categories and rules are among the policies that govern tourism development.

### THE ENVIRONMENTAL IMPACT STATEMENT (EIS) SYSTEM

The Environmental Management Bureau of the DENR is in charge of this system. Under the EIS System, the tourism developer needs to conduct an environmental impact assessment. For projects that are within an Environmentally Critical Area (ECA), an Environmental Compliance Certificate (ECC) should be obtained. Most tourism development projects in natural settings fall within or near an ECA. (Presidential Decree 1586, DENR Administrative Order No. 96-37).

#### CRITICAL HABITATS AND ENDANGERED SPECIES

Coral reef and mangrove areas are critical habitats protected under national laws and various other issuances. Destruction or degradation of these areas is prohibited. Wildlife, including whales and dolphins, whale sharks, manta rays, sea turtles, dugong, giant clams, all coral species, some bird species, shells and mollusks, and sea snakes are protected by law. Collection, possession, trade and destruction of their habitat are punishable by law (Fisheries Code of 1998 or Republic Act 8550, Wildlife Resources Conservation and Protection Act or Republic Act 9147).

#### MARINE PROTECTED AREAS

These areas may fall under the NIPAS system or under the local government. Under the NIPAS, they are governed by a Protected Area Management Board composed of local institutions and chaired by the DENR. Under the Fisheries Code of 1998, the LGU can declare marine protected areas (MPAs), and they may provide for specific regulations for each MPA.

#### FORESHORE AREAS

The foreshore is briefly defined as the area between the highest tide mark and the lowest tide mark. Foreshore leases can only cover a maximum of 500 hectares for individuals and 1,000 hectares for corporations for a period of 25 years and renewable for only another 25 years. There is a mandatory three-meter easement or right-of-way in all foreshore lease areas. Not all foreshore areas can be leased. (DENR Administrative Order No. 1999-34)

#### SHORELINE SETBACK

The building of any structures on the banks of rivers and shores of lakes or seas is prohibited. No structures can also be built within a specific distance from the shoreline: three meters for urban areas, 20 meters for agricultural areas, 40 meters for forest areas. No development is allowed within the zone 20 meters from the high water line along sea shores. (Water Code of the Philippines or Presidential Decree 1067, DENR Administrative Order No. 1997-05)

#### SOLID WASTE AND WASTEWATER MANAGEMENT

National laws call for the ecological management of solid waste and the minimization and treatment of wastewater. Tourism establishments generate significant volumes of both solid waste and wastewater. Processes and regulations are provided for by two recent national laws. (Ecological Solid Waste Management Act of 2000 or Republic Act 9003, Clean Water Act of 2004 or Republic Act 9257)

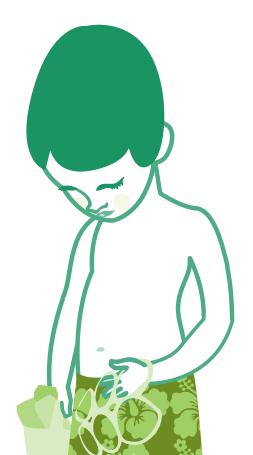
## resorts, hotels & restaurants

#### Improper management of liquid and solid wastes

#### WHAT IS THE ISSUE?

Resorts, hotels and restaurants produce significant quantities of graywater (discharge from washing machines and baths) and blackwater (from kitchen dishwashing and toilets). In many cases, especially when there is no strict compliance monitoring by the government, this waste is not treated. Poor sewage treatment can lead to the pollution of ground and surface water and the degradation of marine resources, such as coral reefs. For people, inadequate treatment of human waste can lead to various infections and diseases. When this happens in an area, its tourism is affected negatively. Boracay Island was reportedly threatened with coliform contamination in 1997. Hotel reservations were cancelled due to the threat, to such an extent that annual tourist arrivals in Boracay dropped by 7.6 %, from 163,727 in 1996 to 151,264 that year. It went down further in 1998, decreasing by over 10% to 135,944.

Hotels produce large quantities of solid waste, from packaging and food scraps to cleaning and maintenance materials, some of which are toxic. Aside from being an eyesore, waste piles also result in water and soil pollution that could run all the way to the sea and swimming areas.





#### WHY SHOULD I CARE?

- Ineffective waste management is bad for business. Effective wastewater
  treatment can prevent serious illness among guests and staff members, and
  limit the number of serious complaints from guests who become infected
  after drinking or swimming in polluted waters. It will also reduce the chance
  of cancellations from potential guests.
- Coastal pollution can scare away tourists. Solid and liquid wastes are huge hazards to the ecological integrity of marine resources like fish. Waste dumped directly into oceans or rivers can reduce fish populations and make the water unsuitable for recreational activities. When a swimming area offers no marine life, guests will be less interested in making the trip.

- Practice the basic Rs of waste management: Reduce, Reuse and Recycle. Minimize wastewater discharge by reducing water use. Use biodegradable detergents and cleaning agents that are compatible with the wastewater treatment technology. Recycle paper products from the office for wrapping other items. Reuse treated graywater for washing floors, flushing toilets and irrigating gardens and golf courses. Separate waste at the source, rather than having to go through all the trash after it is collected. For example, provide containers for recyclables in guest rooms and compost bins in kitchen work areas.
- Coordinate with concerned people. Work with other businesses, private organizations and the local government to support the development of efficient waste separation, collection, recycling and treatment systems. If no municipal system is available, identify the best options for treatment on site. If feasible, choose natural wastewater treatment options that use plants and natural bacteria to purify water, rather than chemicals. Implement a policy among staff to encourage waste management practices.

#### Managing the use of water and energy resources

#### WHAT IS THE ISSUE?

Hotels use a lot of energy for daily operations and recreational activities. In many facilities, energy is the second-highest operational cost after payroll. This high demand for energy is often due to the use of energy-intensive technology to provide modern comforts and conveniences, such as airconditioning. The vast majority of hotels and resorts meet their energy needs by purchasing energy produced through the burning of fossil fuels (coal, oil and natural gas), which contributes to local air pollution and global climate change. The extraction, refining and transport of fossil fuels can also cause environmental damage. Improvements in housekeeping efficiency and the use of renewable energy can decrease dependence on energy produced through fossil fuels.

In many areas of the world, demand for water exceeds supply, and is seriously straining available water resources. Guest demand for water usually far exceeds that of local residents. In addition to the water required for each hotel room and general hotel management areas such as kitchens and laundry rooms, features such as swimming pools, lawns and golf courses mean a huge increase in water usage. Such demand can degrade or destroy local water resources, threatening the availability of water for local needs. Problems may be worse in areas where the high tourist season corresponds with periods of low rainfall. In Boracay, for example, when the demand for water rises during peak seasons, the lack of freshwater is felt more by the local residents than the tourists.

#### WHY SHOULD I CARE?

- You can reduce operation costs. More efficient energy use and better
  housekeeping practices can lead to significant reductions in operating costs
  and energy bills, with relatively short payback periods. In Anilao, Mabini,
  for instance, where local resorts usually expect diver guests only during
  weekends and holidays, the electric bill can reach P80,000 a month for a
  middle-range resort. Energy efficiency and water conservation practices can
  also enhance an institution's reputation among guests and others who are
  concerned about reducing global energy consumption and the effects of
  climate change.
- You must consider the welfare of the local community. Reducing water use
  can conserve and protect local water resources upon which a hotel and the
  local community depend. In the long run, you will want to contribute to the
  sustainability of water resources for the community; if they run out of water,
  sooner or later you will, too.

- Assess and monitor energy consumption. Daily or weekly monitoring of energy use helps to identify abnormal consumption and to quantify energy savings when efficient equipment is installed or a good practice implemented. Upgrade older, inefficient equipment or replace them with newer, energy-saving technology.
- Make a habit of simple energy-saving practices. Encourage guests and employees to follow energy-saving practices, such as switching off lights and air-conditioning, closing window shades before leaving their rooms, and using towels or linens for more than one day. Use products that require less energy to maintain, such as colored sheets and towels or eco-labeled cotton products. Reduce the number of elevators and escalators running during times of low use.
- Promote water-saving practices. Identify the main areas of water consumption in your hotel where significant water savings can be achieved. Work with employees to identify water-saving practices, such as not leaving water running, or properly using toilets, faucets and showerheads. Install water-saving devices, such as low-flush toilets and low-flow shower heads and faucets. Low-flow fixtures in showers can reduce the flow of water by 50% without being uncomfortable for the user.



#### Biodiversity and nature conservation

#### WHAT IS THE ISSUE?

Tourism development can significantly affect both inland and coastal areas. Beyond simply reducing negative impacts, hotels can also help improve the state of the environment on a local, regional or national level. In Palawan, El Nido Resorts maintain patrols in areas adjacent to their properties, not only for security purposes, but also to ward off fishers using destructive methods.

#### WHY SHOULD I CARE?

- Degradation of natural resources is bad news. In many places, the state of the natural environment is the primary basis for tourists' decisions on whether or not to go there for a holiday. Support for conservation can minimize the risks of future environmental problems and preserve the quality of a destination.
- Conservation practices result in a positive image. Contributions to conservation can enhance a place's reputation among guests, other individuals and groups concerned about the environment. Supporting conservation efforts can generate positive publicity and improve relationships with local people and organizations.

- Develop and/or join partnerships in conservation work. Work with government officials and other local groups to evaluate the local situation and identify the best strategies for conservation.
- Observe rules and regulations that protect the environment. Environmental policies, if properly developed, exist to preserve the integrity of the natural environment. These policies can be as simple as complying with designated zone usage and using appropriate building materials from legal sources.
- Make tangible contributions. Financial and in-kind contributions to local
  conservation efforts, such as patrolling, marine sanctuary management and
  buoy installation in coral reefs, are a great help.
- Educate others. Encourage staff to become involved in volunteer projects such
  as beach clean-ups and awareness campaigns. Educate guests as to how
  they can make a positive contribution to local biodiversity conservation
  efforts. If you have animals among your attractions, encourage guests to
  respect and protect them.



#### WHAT IS THE ISSUE?

Almost all coastal tourism destinations in the country rely on boats for transport or recreation. Day-to-day boat operations can cause serious damage to the coastal environment if carried out in a reckless manner. Irresponsible boat handling and related accidents damage coral reefs and coastal environments; the destruction of large areas of coral is often due to boats crashing into them. The use of anchors for mooring boats leads to extensive damage to marine ecosystems, particularly coral reefs. Repeated dropping of anchors crush the corals and cause widespread scarring of reefs, especially when you consider the huge number of boats that ply coastal waters. Boat traffic also increases sedimentation, clouding the water, choking corals and inhibiting the penetration of sunlight, which the corals need for growth. Toxic substances leaking or thrown from boats also threaten the coastal environment; the effects of pollution from dumped or leaking oil or fuel and the heavy metals from boat paint are widespread and dramatic. These problems can only be avoided through careful planning and responsible boat operations, which can lead to healthy coral reef ecosystems and a stronger tourism industry based on healthy natural marine resources.

#### WHY SHOULD I CARE?

- Nobody will be drawn to unattractive, murky water. Boat traffic and
  anchoring can cause an increase in sand and sediment in the water, making
  once clear water appear cloudy or murky and preventing corals from getting
  the sunlight they need to survive. Reduced visibility due to cloudy water
  means an unpleasant experience for a visitor.
- There will be fewer living species and less overall biological diversity.
   Degraded marine habitats harbor fewer marine mammals, fish and other species that are key components of both a healthy coral reef and marine ecosystem and an attractive coastal tourism destination.
- The degradation of coral ecosystems means the decline of tourism. When a coral reef is reduced to rubble by inappropriate or irresponsible anchoring, it becomes more difficult for new corals to grow, and the reef will further decline. Fuel, oil and boat paint contain known carcinogens and heavy metals. Studies have shown that these substances can stress and kill living corals and other organisms, thus making the area not worth visiting for potential tourists.
- Unattractive algae will grow. The sediment-filled anchor scars are poor environments for new coral growth, but good environments for fast-growing algae, which may take the place of corals.
- Seagrass beds will be destroyed. Boats generally swing around in different directions when anchored, and the chains and lines attached to anchors can cause severe damage to seagrass beds.
- Toxins will find their way into the food we eat. Toxic paint can accumulate in a sensitive environment in the form of small chips that settle on a reef. Once these chips are covered by algae, they can be consumed by herbivores in the ecosystem, leading to the distribution and buildup of heavy metals in fish populations and negatively affecting other consumers, from fish to humans. Tourists will not flock to places where they are likely to fall ill from swimming in contaminated water or eating the local produce.
- Toxic waste will damage marine life. Illegal or accidental dumping of toxic waste like oil and fuel at sea can kill a slew of creatures, including fish, marine mammals, turtles, seabirds, and smaller species such as plankton and microorganisms. Many of these species are key attractions for tourists, and their loss can harm the viability of the tourism industry in an area.

- Use mooring buoys. Mooring buoys provide permanent lines that allow boat operators to stay in a stationary position without dropping anchor. An effective mooring program includes the installation of mooring posts or buoys that are suitable for near-shore marine and coral reef areas, use of moorings by all boats, and regular maintenance and correct use of moorings.
- Change boating practices. Small adjustments in standard practice can help save coral reef ecosystems. Create some good habits by:
  - Correctly using mooring buoys whenever possible or if anchoring is absolutely necessary, making sure your boat is anchored in a designated area, away from important ecosystems and reefs, and where it will not be dragged near these areas and accidentally cause damage.
  - When transporting scuba divers, opt for drift dives instead of anchored dives when no moorings are present and if conditions allow them to be safe.
- Educate tourists. Many tourists have little understanding of how harmful anchors can be to near-shore marine environments and reefs. Educate your customers by:
  - Giving a brief orientation on the basic ecology of marine ecosystems before boarding the boat.
  - Providing waterproof written reminders of proper anchoring practices on all vessels.
  - Explaining the potential impacts of poor anchor use.
  - Explaining the sensitive nature of the ecosystem and the importance of keeping motorized vessels out of shallow areas.
    - Providing easy-to-use waterproof navigation and location charts.
    - mooring buoys at popular snorkel and dive locations.

- Follow proper navigation. Knowing where you are and where you are going means less unnecessary and harmful movement for a boat. Do this by:
  - Staying within designated channel markers and staying beyond the furthest visible reef patch in unknown or unmarked reef areas.
  - · Obeying all speed limits to avoid hitting marine mammals.
  - · Identifying dark water areas as possible important shallow ecosystems, such as shallow reefs.
  - · Knowing how to properly read and interpret a navigational chart.
- Be careful when refueling. If possible, refuel at a dock or at a pier. If you fill up at sea, you could spill fuel into the water.
  - Regularly inspect areas that are susceptible to potential leaks of toxic substances. This means regularly checking fuel lines and tanks, filters, separators, vents and bilge pumps.
  - Use toxin-absorbent sponges in bilges. These sponges can significantly reduce or eliminate discharge of oils and fuels. Many types of sponges are available that absorb fuel and oil, but not water. Absorbent sponges should always be kept on hand while a vessel is being refueled in a pier or harbor. This will also prevent the spillage of oily bilge water.
  - Use biodegradable cleaning agents. Several commercial non-toxic biodegradable cleaning agents are now available that reduce the amount of toxic pollutants and chemicals that boats release into the environment.



Avoid pumping oily bilge water or other hazardous substances into the sea. Unless the boat is in danger, wait to pump out oily bilge water, particularly when you are near a coral reef.



#### WHAT IS THE ISSUE?

In many popular coastal destinations, near-shore marine ecosystems are beginning to show signs of damage as a result of irresponsible snorkeling and diving. The constant presence of small and large groups of people in shallow coral reefs can lead to significant degradation of an ecosystem over time. Inexperienced snorkelers and divers regularly crush and break corals and other reef-dwelling organisms with fins, equipment and body parts. This damage is often caused by people who are unable to maintain control in the water, who fight currents, who stand or walk in a shallow area, who try to get a closer look or take a photograph of animals by whatever means possible, and who handle, touch and feed the wildlife. While much of the damage may be unintentional, there are also many snorkelers and divers who are conscious of their movements but indifferent to the consequences. Such pressure can lead to a decline in living corals and other reef-dwelling organisms, increase in sedimentation, and disturbance of wildlife. Careless snorkelers and divers can compound damage done to reefs and other habitats that are already suffering from other forms of environmental stress.



#### WHY SHOULD I CARE?

- You're disturbing sea bottom habitats. Contact from fins, equipment or body
  parts crushes and kills bottom-dwelling organisms and their habitats. In
  heavily used areas, the cumulative effects of many snorkelers and divers can
  lead to extreme degradation in the ecosystem and a decrease in the quality
  of the visitor experience.
- You're causing an increase in sedimentation. Stirred up sediment can disrupt sea bottom communities, smothering and choking coral colonies and causing broader damage to the ecosystem.
- You're disturbing marine wildlife. Excessive disturbance can cause animals to
  leave primary feeding and reproductive areas, which could mean an overall
  decline in habitat health and animal population—the primary features that
  attract tourists. When animals become accustomed to being fed by divers
  or snorkelers, they lose some of their ability to find food on their own, which
  can affect population size and change natural behaviors.
- You're removing coral mucus. Repeated contact between divers and snorkelers and coral removes the coral's mucus covering and causes physical damage to coral tissue. This can increase the susceptibility of corals to pathogens, diseases and other competitive organisms.

- Establish a no-contact policy. Promote a voluntary no-contact policy for recreational snorkelers and divers. These policies can be supported by encouraging the use of flotation vests for inexperienced snorkelers and discouraging the use of gloves by divers.
- Conduct environmental awareness briefings for tourists and other marine enthusiasts. Educate tourists, photographers, and videographers about the sensitive nature of near-shore marine and reef ecosystems and the potential impacts that can result from irresponsible snorkeling and diving.
- Conduct buoyancy refreshers. Offer buoyancy refreshers and other basic dive skills training for inexperienced, out-of-practice or infrequent divers, addressing the importance of issues such as proper weighting and streamlining of gear.
- Discourage the feeding and harassment of marine life. The level of wildlife
  disturbance caused by snorkelers and divers can be significantly reduced.
  The adage "Take nothing but pictures, kill nothing but time, leave nothing
  but footprints" still applies, but bear in mind that even footprints can be
  damaging.
- Support mooring buoy projects. The establishment of permanent mooring buoys at popular snorkel and dive sites significantly reduces anchor damage to near-shore marine environments, particularly coral reefs. Use the mooring buoys. Help protect them from theft and damage. If no mooring buoy is available, go to another dive site if possible.
- Support the establishment of MarineProtected
  Areas (MPAs). The designation of MPAs often results
  in an increase of protective measures in an area,
  including the elimination of anchoring, fishing,
  harvesting of corals and other species, and
  harassment of wildlife. Such protection enhances
  the economic and ecological value of an area,
  and creates market advantages for businesses
  operating in them.



#### WHAT IS THE ISSUE?

For many people, going on vacation means finding opportunities to do things out of the ordinary for excitement. In the Philippines, among the popular new beach attractions are jet-skiing, water-skiing and banana boat rides. While all of these activities may be fun for the person doing it, they are risky and disruptive to the surrounding environment.

#### WHY SHOULD I CARE?

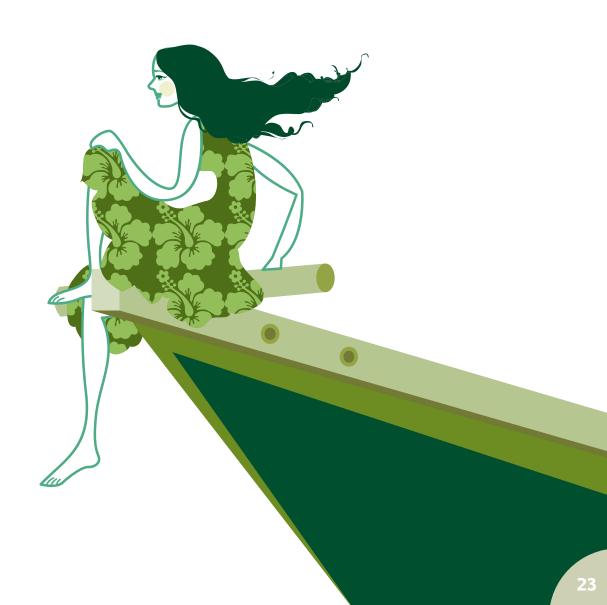
- Motorized, powerful leisure crafts use up a lot of fuel. By burning fuel, you
  contribute to climate change. You also run the risk of leaking fuel and oil
  from your craft, which are toxic to corals and fishes.
- Your craft can be a safety hazard. While people who engage in these activities may be seeking adventure, they must also realize that these are risky activities, not only for the one doing it but for those who are swimming, diving or snorkeling in the immediate area. There have been many instances of swimmers being hit or harmed by speeding jet-skis.
- You're adding to noise pollution. Jet-skis, water-skis and banana boats are
  powered by motors that make noise. The ruckus may be tolerated by the
  user, but can be a disturbance to everyone else, especially guests who may
  be trying to sleep or relax.
- Your "fun" is disruptive to the environment. Powerfully motorized leisure
  crafts don't just disturb humans; they shake up the natural environment.
  Their noise, emissions and leaks drive away animal life, from marine animals
  to birds and terrestrial wildlife roaming nearby. They also stir up the sea
  bottom, leading to murky water and sedimentation. They also damage the
  sea grasses and corals they hit.

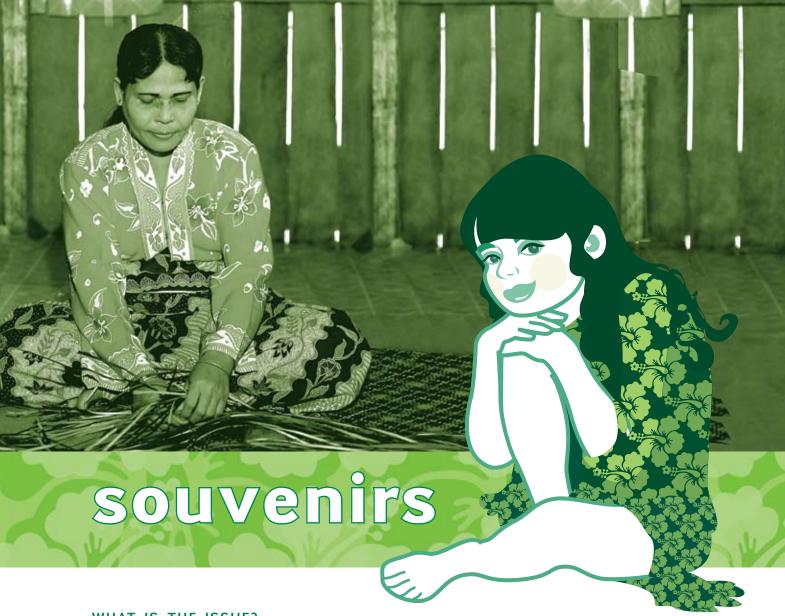
#### WHAT CAN I DO?

Find something better to do. It would be best if powerfully motorized leisure
crafts are not offered for use in the vicinity of your business at all. Instead,
offer leisure activities that are more considerate of other guests and the
natural environment, such as those propelled by the wind or waves, like
surfing.

However, if leisure crafts are already a standard feature of your area, the best thing to do would be to:

- Regulate use. Designate zones and hours for these activities, and encourage your fellow business operators to observe them. Zoning would lessen the risk of harming other people. Observing hours of operation for these vehicles would also mean being less of a disturbance to other guests. In consideration of nature, block off sunrise and sunset as being off-limits to these activities, since most animals graze during these times.
- Encourage peers and guests to shift to crafts propelled by nature, such as surfing. There are several types of surfing—chances are, there is one that is suitable to your area. This activity still offers a lot of adventure, and is much less disruptive to people and the place.





WHAT IS THE ISSUE?

In a country beset by overfishing, the harvest of marine resources for souvenirs is an additional and pointless threat to the health of the seas. Shells and other products of marine animals are widely available in tourist areas across the country. Although many of these products are harvested and traded legally, some species are protected by law because they are becoming increasingly scarce, or because the means to harvest them have been deemed destructive and illegal. Even then, laws have loopholes, such as in the case of tridacna shells—it's illegal to harvest them, but you are allowed to pick up the shells when they are dead. But once a tridacna finds its way to a souvenir shop, who can say what the state of the shell was when it was harvested?

Not all souvenirs are acquired in souvenir shops, however. Many tourists harvest their souvenirs from the wild, picking up shells and starfish or bringing bottles of white sand from the beach. Just imagine what would happen if every one of the 500,000 tourists who visited Boracay in 2005 brought home some white sand. A small bottle of mineral water filled with white sand weighs half a kilogram; 500,000 tourists could cart away 250 tons of sand, or the equivalent of 56 dump trucks. Is it worth finding out how many dump trucks Boracay's sand could fill before the famous seven-kilometer stretch of beach is lost forever?

#### WHY SHOULD I CARE?

- Loss of species is a serious matter. Over-harvesting of particular species
  that play a vital role in the ecosystem can lead to numerous environmental
  changes. For example, when too many herbivores are harvested from a
  coral reef, various species of algae can become overgrown, smothering
  living corals by blocking sunlight and creating a ripple effect of negative
  changes throughout the ecosystem.
- You're contributing to the destruction of habitat. Probably the most direct instance of destruction of coral reefs for the sake of souvenirs is the trade on painted and mounted hard corals. Hard corals are extremely slow growers, developing at an average rate of only two centimeters per year. A 10-centimeter coral souvenir would have taken five years to grow, and will take another five years to grow back on the reef—10 years for a single dust-gathering souvenir. Hard corals form the skeletons of coral reefs, which house fishes and other marine life. Harvesting hard corals can result in farreaching damage to marine resources. The harvest and trade of hard corals is also illegal.
- You're encouraging an increase in illegal fishing and wildlife trade. The existence of markets for exotic species drive fishers to take advantage of the financial opportunity. With the existence of large markets, unscrupulous fishers resort to destructive and/or illegal fishing methods to harvest species that are in demand. As long as there are buyers, there will be sellers. Without buyers, the harvest and sale of souvenir items using marine products would eventually stop.

- Just don't do it. Refraining from the sale and purchase of marine ornamental souvenirs should be the rule of thumb. Next time you are on a beach, resist the urge to take home some white sand, starfish and shells. Instead, opt for souvenirs that foster the local economy and culture, without compromising the natural environment.
- Educate others. Inform your clients, colleagues, friends and family about
  the sensitive nature of corals. Discourage them from buying and
  collecting souvenirs made from marine life. Buying manufactured goods
  contributes further to the local economy because of the trade and transport
  involved in production and delivery of the goods. Plus, you don't hurt
  Mother Nature.
- Observe the law. Abide by all regional, national and international laws regarding the harvest of marine species.

# fee systems

#### WHAT IS THE ISSUE?

No matter how seemingly harmless or fleeting, every interaction between man and nature will always have an impact on the environment. The most obvious example is the harvest of plants and animals for whatever purpose, and through whatever means. Other cases are less direct, such as leaving waste, which is not only aesthetically unpleasant, but which could kill certain animals, such as when turtles mistake plastic bags for jellyfish and swallow them, leading to the turtles' eventual death.

Fee systems are established to enable managing bodies to raise funds to protect the environment. Fees raised are most often used to conduct patrols against illegal fishing, clean up solid and liquid waste, and install devices such as mooring buoys and signage for public information and education.

Managing areas of natural beauty entails costs. Although such costs should theoretically be shouldered by the government, its budget is never enough. Fee systems are implemented worldwide, in developing as well as developed countries. Unfortunately, to this day, no natural park has been able to achieve financial independence.





#### WHY SHOULD I CARE?

- Lack of resources to manage an area of natural beauty would mean lack of management. Without financial resources at their disposal, government and private management bodies would be hard-put to conduct any activities necessary to manage and preserve an area, be it simple garbage collection or more complex undertakings such as reef rehabilitation and patrolling.
- Lack of management could lead to faster degradation of habitat. Without the financial means to undertake preventive or restorative work, areas of outstanding natural beauty could easily become dirty and damaged. Detractors of fee systems often ask, "What's in it for me?" They should be asked in return, "Why did you come here? What did you come here to see?" While it is impossible to attribute the saving of the environment to any one particular activity, allowing for the lack of management and the consequent degradation is not a risk worth taking.

- Support the fee system in your locality. The design of a fee system is determined by the tourist sites, as well as the capacities and relationships among institutions that have a stake in the resources found there. In many places the government is in charge of the actual fee collection, although in as many areas the private sector is at the frontline of the collection system. Whether your designated role is merely to inform your clients or to actually collect the fees, you could support the fee systems by accomplishing your task diligently, efficiently, and with fervor and commitment. You must truly believe that the health of your business depends largely on the natural beauty of its location.
- Inform and encourage others to support the fee system. Whether you have a direct or indirect role in the fee system, one of the greatest roles you can play is that of advocate. If there is an existing fee system, inform and encourage your peers, employees and clients to support it. You can even become an active member of the body that handles the fees, and be part of further improving the design and management of the fee system. If your place has no fee system yet, and you see the need for one, you could set it up.

#### The bottom line:

## Environmental awareness pays

Every business aims for long-term feasibility, and tourism-based enterprises are no exception. A prime tourist attraction is a place that is full of life and abundance, a place where visitors can relax and feel that all is right with the world—a place they would pay hard-earned money to see and experience. Whether it means keeping the surroundings clean, making sure there is abundant water and electricity to use, or assuring guests of a nature experience they will not forget, maintaining a tourist destination means sustaining the life around it, and carrying out responsible operations that will make such sustenance possible. It takes only a few simple





