

ETPS

TRAINING

Eastern Tropical Pacific Seascape Training

Module 7:

THE TOURISM INDUSTRY



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Today's Outline

Tour operators
Hotels & hotel management
Cruise ships
Recreational activities
Sustainable supply chains



Are these active in your MPA?
Might they be in the future?
Do you want them to be?

7.1 TOUR OPERATORS

Who are the tour operators who send tourists to your area?



Outbound operator - in tourist's country

Inbound operator - in destination country

Local operator - actually administers the tour
(scuba dive tour operator, nature guide, etc.)



LAST FRONTIERS

**TRIBES
TRAVEL**



TRIPS
worldwide



select
LatinAmerica

Tour Operators' Impacts

1. Tour operators have a major impact on tourists' choice of destination.
2. Tour operators can make great impacts via their own management practices:
 - “Best management practices” in own tours
 - “Sustainable supply chains” when contracting with other tour providers.
3. Tour operators can help monitor the ongoing success of a sustainable tourism program:
 - How many tourists are coming?
 - Are they satisfied?

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Tour Operator Initiatives for Sustainable Tourism

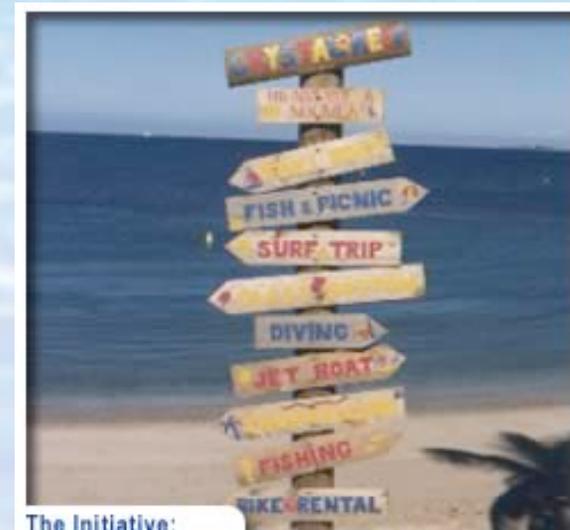
Many tour operators (especially outbound) are part of *voluntary initiatives* to support sustainable tourism and use sustainable supply chains.

Example:

Tour Operator's Initiative (TOI)

www.toinitiative.org

TOI members seek to develop tours that meet the “triple bottom line”: Environmental, social, and economically sustainable tourism.



The Initiative:

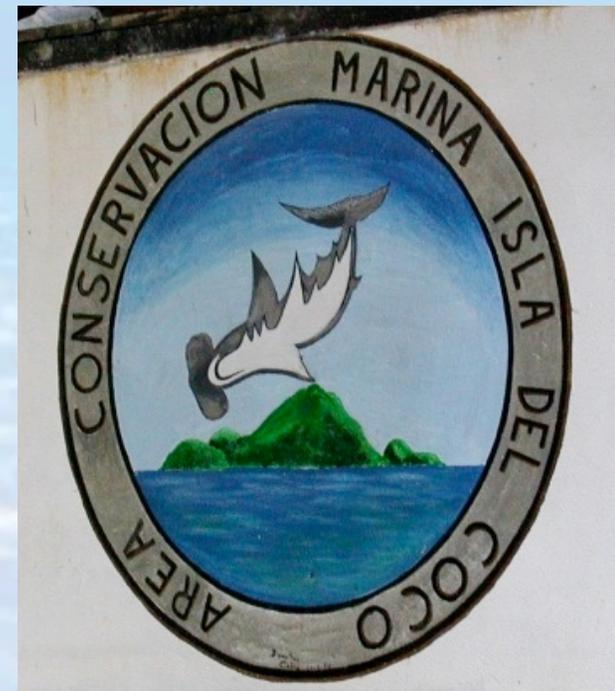
A network of tour operators committed to sustainable development

Management guidelines for tour operators

1. Select appropriate destination

Avoid environmentally vulnerable sites unless they have been “hardened” or otherwise can withstand tourist activity

Concentrate visitor activity in a smaller number of sites, when possible

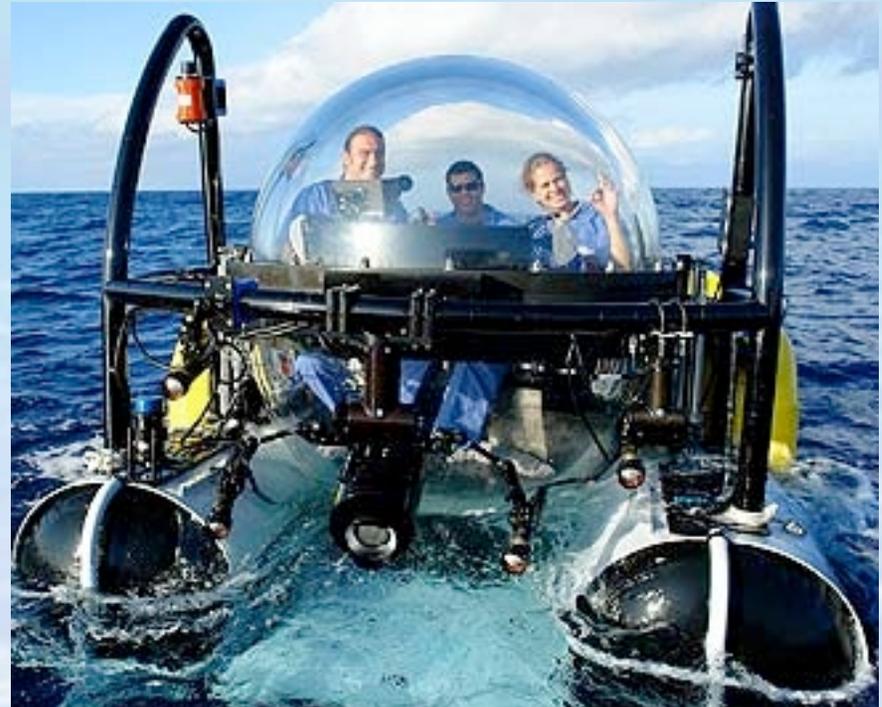


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Management guidelines for tour operators

2. Reduce impacts in sensitive environments



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Management guidelines for tour operators

3. Limit group size



Management guidelines for tour operators

4. Hire local guides, use local suppliers, and treat them fairly

- Conservation International
- Ecuador
- Tourism Expert/ Andean Region
- Tel-fax:
(5932) 223-8850/ 252-4820
- E-mail:
s.edwards@conservation.org
- Address:
Avenida Coruña N29-44 y Noboa
Caamaño Quito- Ecuador
- Webpage:
www.conservation.org



Management guidelines for tour operators

5. Include awareness building & education in tours



Management guidelines for tour operators

6. Contribute to local communities



Tour operator case studies

Rimini, Italy -

Overdevelopment and water pollution by sewage & fertilizers led to *eutrophication*, leading to algal blooms, fish mortality, odors & pollution

Tour operators successfully pressured local government, and encouraged local community, to reduce sewage from hotels & fertilizers from agriculture.



Tour operator case studies

Side, Turkey

Partnership with Tour Operators' Initiative to increase sustainability.

Focus on:

- 1. Waste management
(esp. recycling)**
- 2. Education of hotel owners,
bars, restaurants, etc.**
- 3. Promotion of Side's culture**



TOI helped host public meetings, institute recycling program, organize training sessions for hotel employees, etc.

Tour operator case studies

Inca Trail - problems with carrying capacity & treatment of local porters



Tour operator case studies

Peru Treks & Adventure -

1. emphasizes *fair treatment & fair pay for local staff*
Provides health insurance
Provides sleeping bag, shoes, backpack, tent



Porters inside sleeping tent

Tour operator case studies

Peru Treks & Adventure -

- 2. Contributes part of proceeds to local communities
esp. school construction & school supplies*



One of the local schools built by Peru Treks & Adventure

Tour operator case studies

Lastovo, Croatia:

What is the best way to develop tourism at a small island with a proposed marine protected area?



TOI, WWF, other NGO's, and the local community worked together to develop a sustainable tourism plan.

Tour operator case studies

The plan for Lastovo:

1. **Create a network to link small tourism enterprises**
2. **Aim for one or two types of tourists, not all**
3. **Increase quality of accommodation**
4. **Attract more nautical tourism (yachts)**
 - install mooring buoys
 - arrange for better trash removal
 - encourage better options for food, tours, events
5. **Assess the competition**
6. **Improve infrastructure**
 - freshwater, waste, sewage, etc.
7. **Realize that tourism & conservation are allies**
 - support the development of the MPA

Exercise: The impact of tour operators

Working in small groups, develop a list of tour operators (inbound & outbound) who send tourists to (or near to) your MPA.

- *Who are the operators who send tourists to your area?*
- *Where do they go?*
- *What do they do?*
- *Do they use environmentally sound practices?*
- *Do they limit group size?*
- *Do they treat local staff well?*
- *Are they aware of the MPA, and do they use it?*

7.2 HOTELS

Hotels are “the cornerstone of coastal tourism” - *without good lodging, very few tourists will visit.*

Hotel owners are often very willing to use sustainable practices, because:

- 1. They have a long-term investment in a particular site.*
- 2. Sustainable hotel practices will almost always reduce the hotels' utility costs.*



Hotels: Siting & Design



The environmental impact of a hotel is heavily affected by its *location* and its *design*.

Guidelines for Hotel Siting & Design

- Avoid sensitive environments
- Seek local knowledge of the site
- Be aware of potential user conflicts
- Concentrate in "nodes", not "strips"
- Assess existing infrastructure
- Retain beach access for residents
- Use generous "setbacks"
- Use landscaping & native vegetation



Small hotel - nicely landscaped



*"Strip" development -
no vegetation remaining*

Guidelines for Hotel Siting & Design

Setbacks: Distance between hotel & high-water line

Large setbacks will protect the hotel from storm waves, and will help prevent beach erosion.

The setback area can be used for landscaping with native vegetation.

Note: Shading of hotel buildings by large trees will usually reduce air-conditioning costs by about 20%.

Hotels: Management Practices

Environmentally sound hotel management practices will usually save the hotel 20-30% in utility costs

Major areas for improvement:

Water use

Wastewater & sewage

Solid waste (garbage)

Energy use



1. Water conservation

Water sources:

Should be identified during initial site selection

Hotels may need water wells

Water wells should be sited carefully re septic system, saltwater

The most water-intensive needs are golf courses and swimming pools



1. Water conservation

Case study: Pulau Redang, Malaysia

Group of 9 islands selected for tourism development

Development process ignored the need for adequate freshwater supplies



1. Water conservation

Simple low-cost steps for water conservation:

- Flow diverters and toilet dams
- Low-flow showerheads and faucet aerators
- Control nozzles on water hoses
- Drip-irrigation systems
- Towel & linen re-use programs
- ...etc...

Monitoring:

- Record water meter readings daily
- Install sub-meters for kitchen & irrigation
- Occasionally, track water usage hourly - can reveal waste/leaks



Look for leaks!

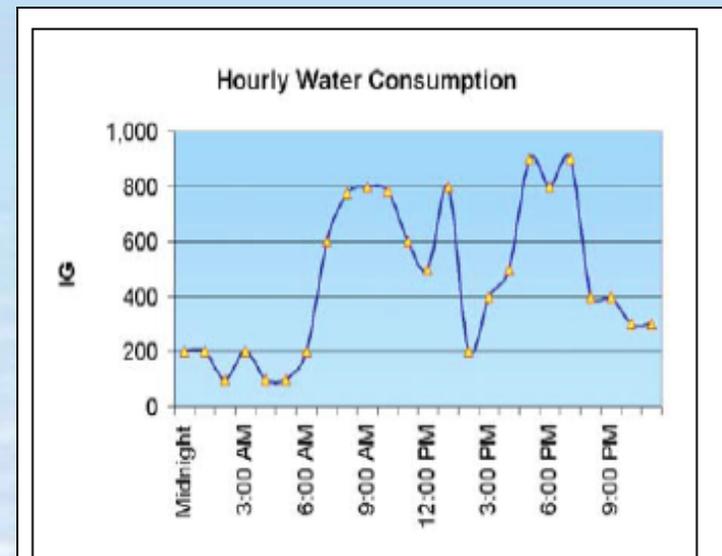
40% of hotel toilets have leaks

Can waste a huge amount of water (and money)

Leaks can only be fixed if they are detected.

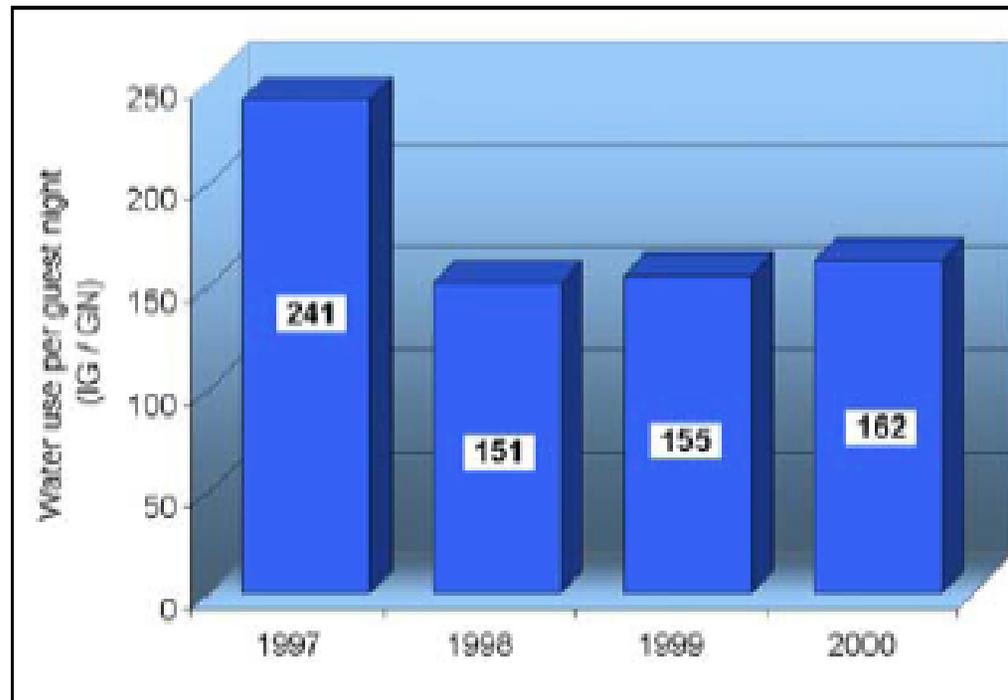
Check water meters daily.

Occasionally, check hourly:



Determining your property's "hourly water consumption curve" is a great way to determine whether your property has leaks. If consumption is high in the middle of the night, that probably indicates the presence of leaks.

1. Water conservation



Sea Splash Resort, a small property in Jamaica, conducted an environmental assessment in 1997 and reduced water consumption by 35% ever since.

2. Wastewater management

Wastewater is *any water that has been used & is not pure.*

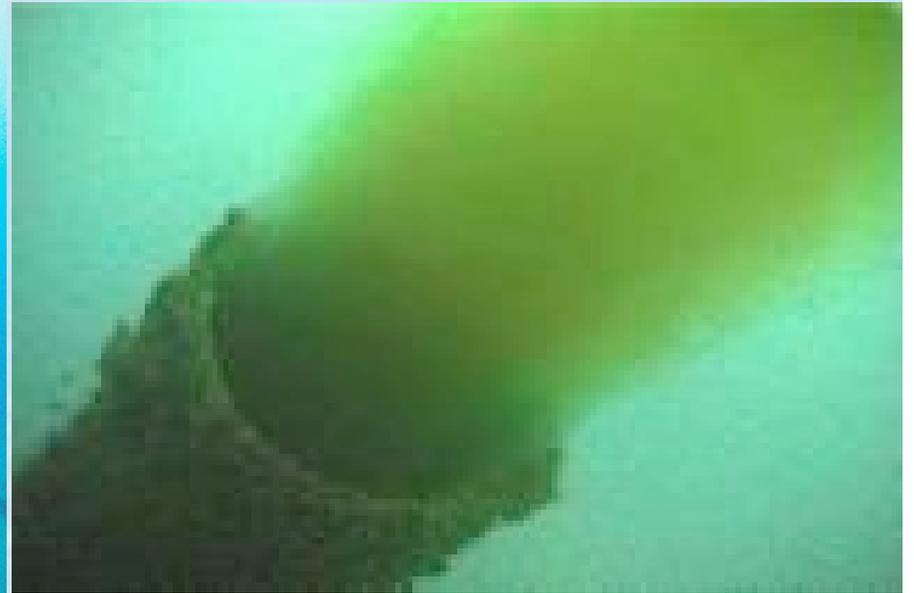
Wastewater includes:

- Sewage - from toilets
- Kitchen water - usually very greasy
- Graywater
 - water used for cleaning (laundry, showers)
 - only contains soap & dirt; no toxins, no organics
 - often can be re-used for laundry or irrigation
- Irrigation water
 - may contain pesticides, fertilizers
- Any environmental water that enters the system.
 - storm runoff, groundwater, etc.

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Wastewater problems



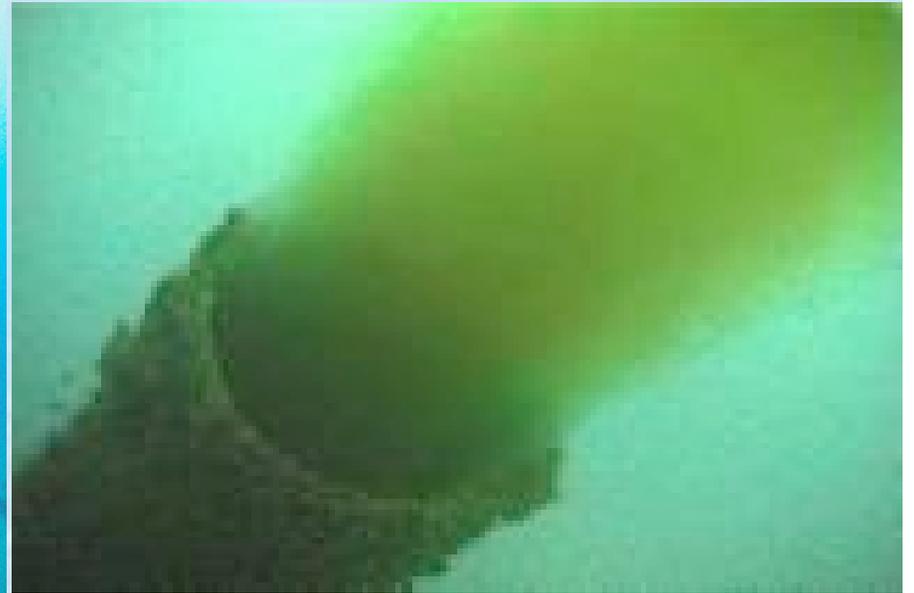
Untreated raw sewage outflow (Florida)

Photos: Steve Spring

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Wastewater problems

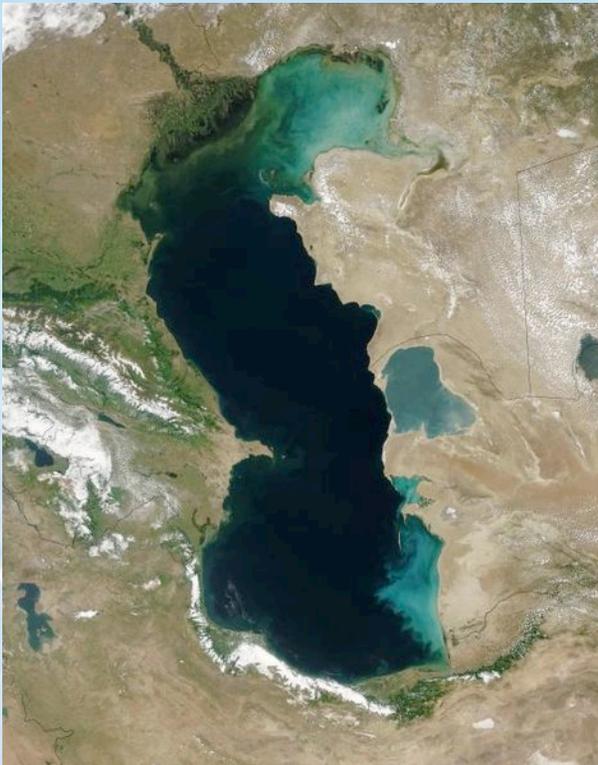


Untreated raw sewage outflow (Florida)

Photos: Steve Spring

Wastewater problems

Eutrophication - excessive nutrients (from sewage or fertilizer) cause excessive growth of algae (*algal blooms*), which use up most dissolved oxygen. Can cause complete ecosystem collapse. Even in milder cases, coral reefs are particularly susceptible.



Green areas show severe algal blooms in Caspian Sea



Underwater photos of dying animals in the Baltic Sea, caused by eutrophication

Wastewater problems

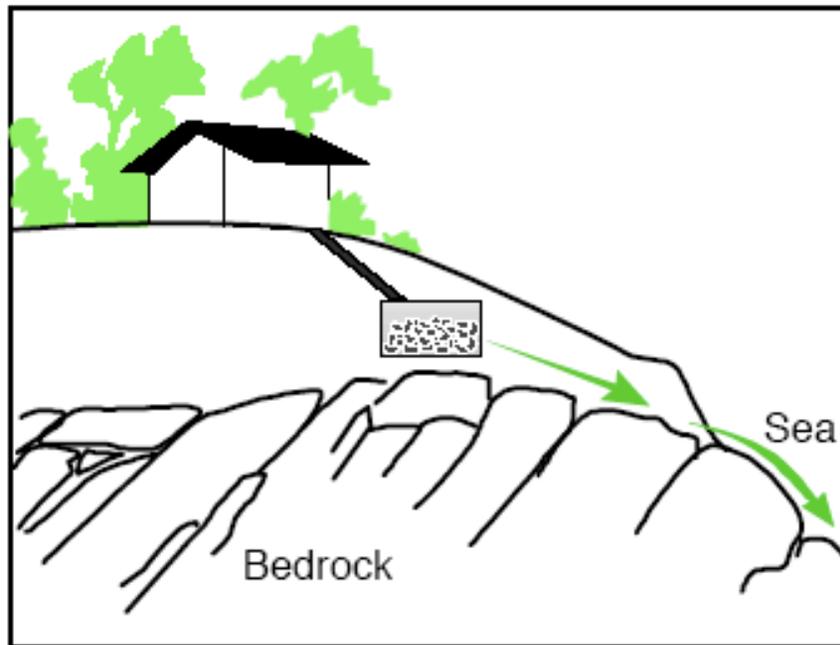


This coral is being smothered by algae due to sewage outflow.

The coral eventually died.

(Florida, U.S., 2003. Photo: Peter Schulz)

Tips for wastewater treatment

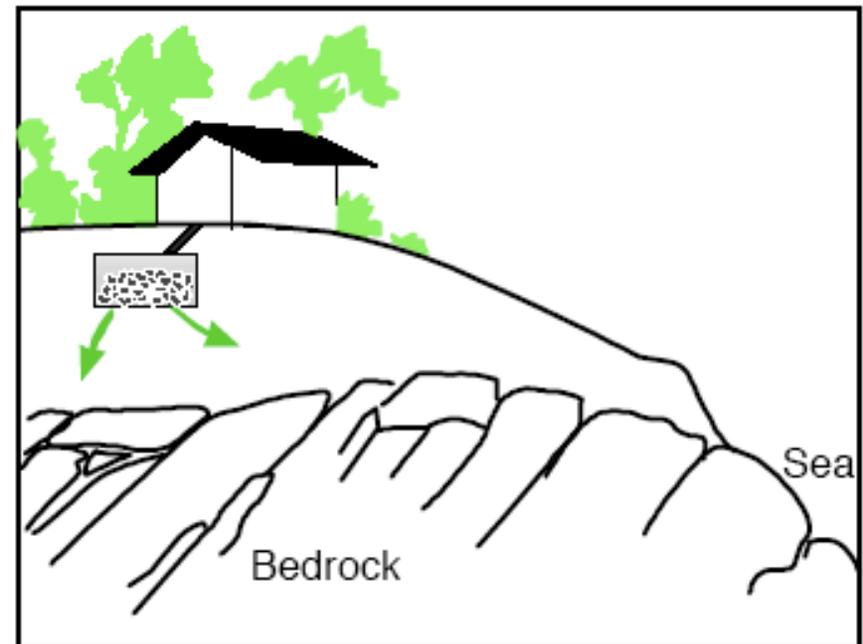


Inappropriate

Left – septic system is directly above bedrock, resulting in wastes seeping along bedrock gradient and reaching sea before proper treatment.

Right – better placement of septic system as wastes will be treated in at least 1 m of soil above bedrock. Gradient of bedrock is less steep, so effluent will not flow directly into sea.

Better



Tips for wastewater treatment

Maintain septic systems -

1. Clean out “sludge” from septic tank regularly (often 4x/year)
2. Clean kitchen grease traps weekly



3. Solid waste management



Why would a tourist want to visit this beach?

(American Samoa, 2005. Photo: Ryan Binns)

“Reduce, re-use, recycle”

Reduce use of items that generate solid waste:

unnecessary packaging
single-serve items
paper cups, etc.

Re-use all possible items, on site or in community

Recycle materials such as:

organic materials for compost
glass, aluminum, paper, some plastics

Simple steps add up....

Casuarina Beach Club (Barbados):
Composts yard waste
Unnecessary packaging minimized
Used recycled materials



Lapa Rios (Costa Rica):
Instituted recycling & composting



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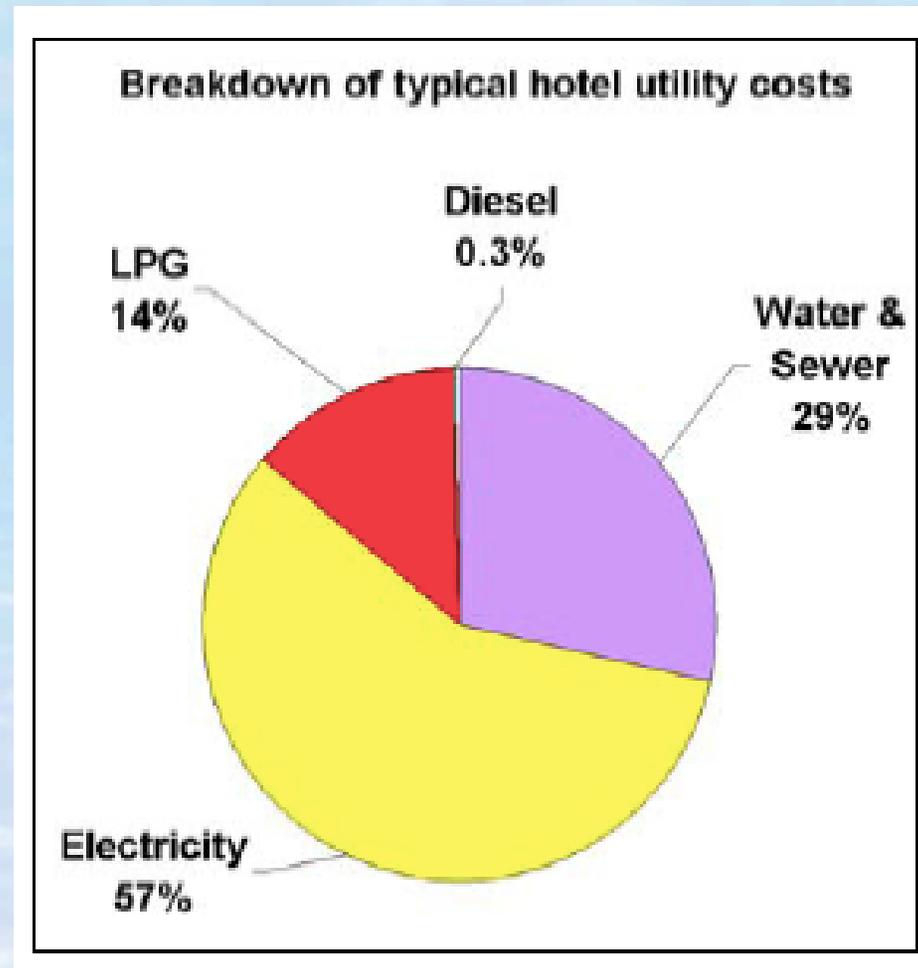
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Simple steps add up...



More steps taken by Lapa Rios:
Local, renewable building materials; passive solar energy use.

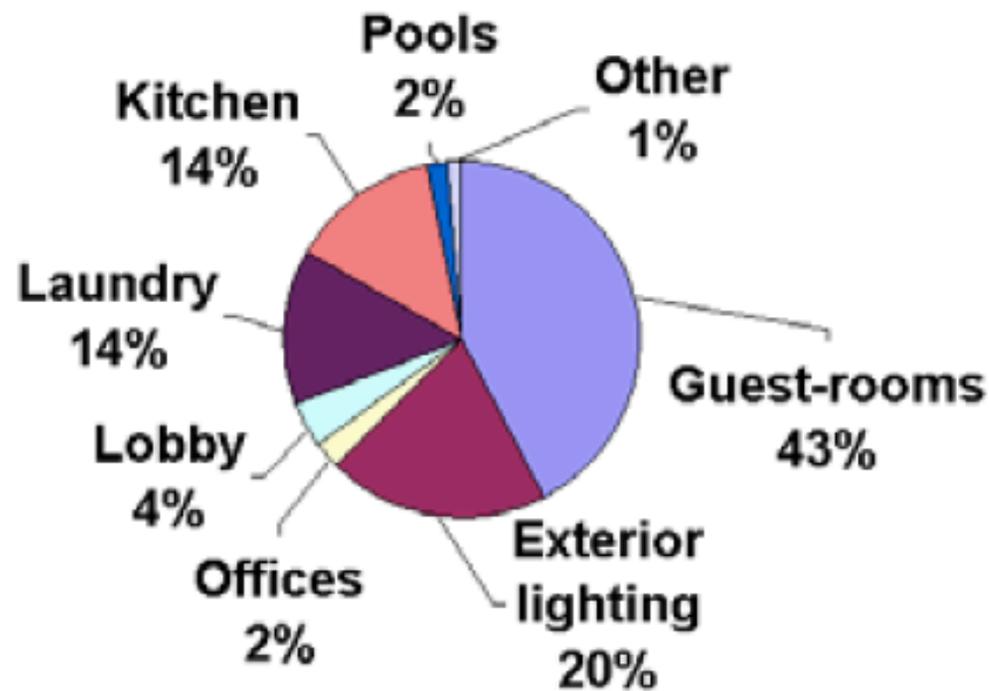
4. Energy use



Energy is the largest utility cost for most hotels

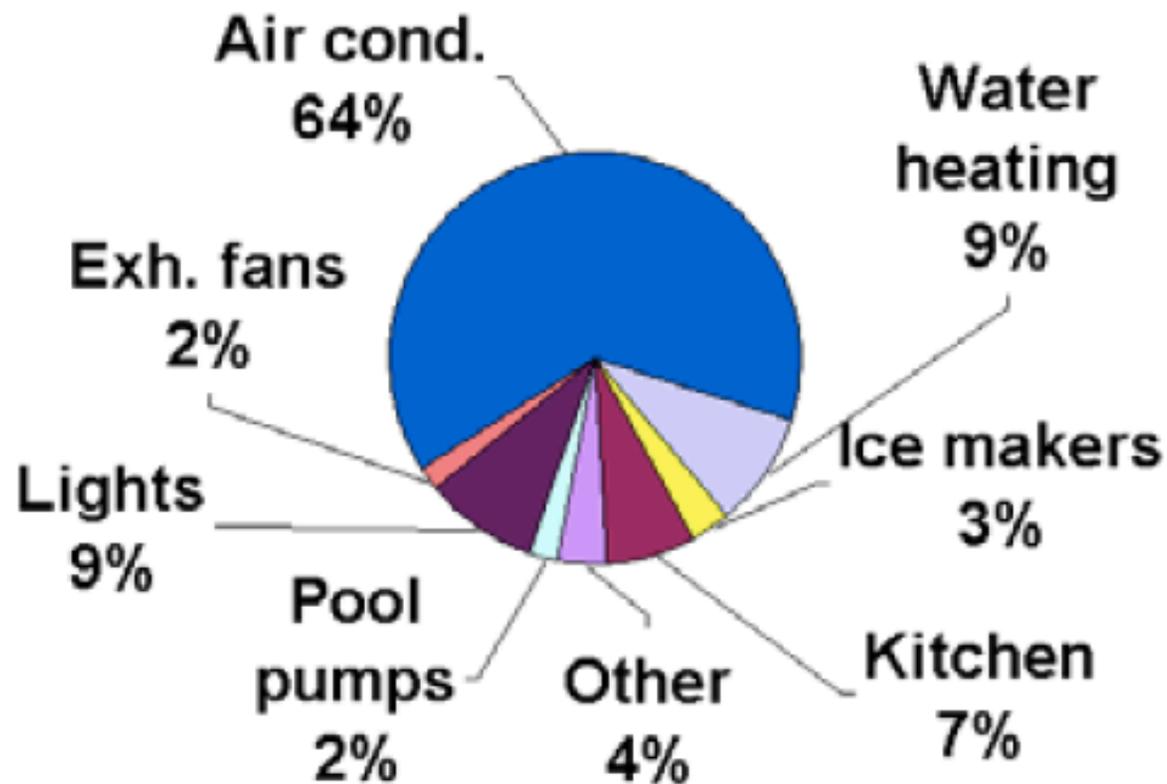
Most energy use is by guestrooms...

Breakdown of energy use by area at a typical small property



... for air-conditioning

Breakdown of small hotel energy use by application



Reduction in energy use

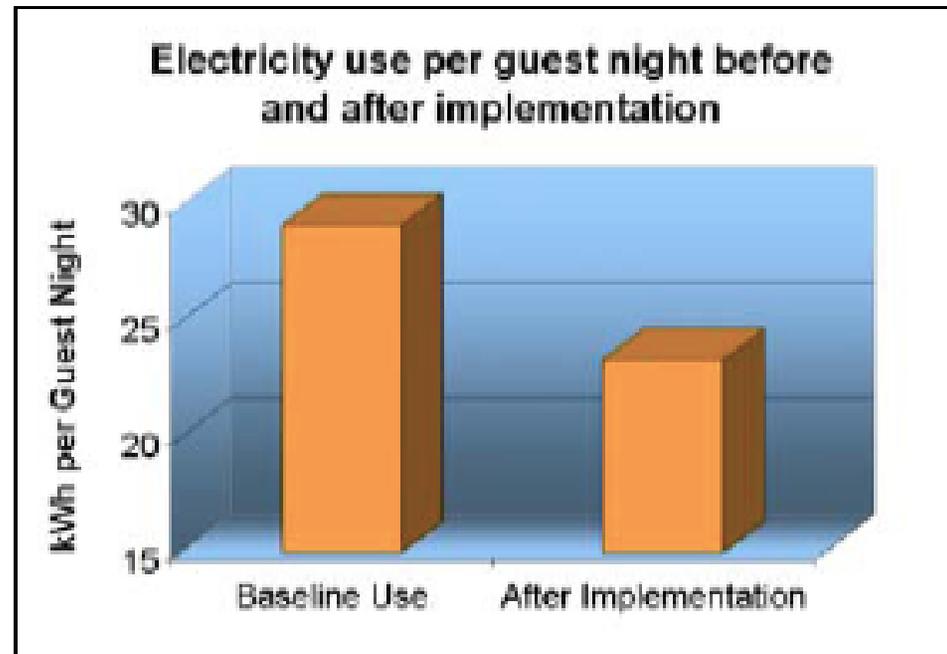


Figure 2. Energy use per guest night before and after implementation of energy conservation measures at Blue Waters Inn.

Cost savings from energy conservation

An investment of US \$20-30 per room will usually yield an annual savings of US \$100 per room.

Tips for energy conservation:

- **Install door sweeps/weather strips**
 - **Use energy-efficient light bulbs**
 - **Minimize use of air-conditioning**
 - **Maintain/service air-conditioning equipment**
 - **Use timers to turn off pool pumps, A/C, etc.**
 - **Use ionizers**
 - **Plant shrubs/trees to assist in shading property**
- ...etc...*

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Further considerations for hotels

Community relations

Guests' off-site activities



Exercise: Hotel guidelines

1. What are the hotel practices in your own area?
2. Develop guidelines for hotel site selection & management practices in or near your MPA.



7.3 CRUISE SHIPS

Year	#passengers worldwide
1970	500,000
1998	9,500,000
2010 (projected)	14,200,000



Cruise ship passing through Panama Canal

The cruise industry today

Three major cruise corporations:

1. Royal Caribbean - 23 ships
2. Carnival Cruise Lines - 43 ships
3. P&O Princess Cruises - 18 ships

... plus several smaller companies.

Each of these ships represents a small floating city (with its own postal code) with thousands of passengers. 80% of cruise passengers are U.S. residents.



Environmental impacts

Waste discharge

Cruise ships have a mixed environmental record. Over the past ten years, nearly 70 ships from 42 cruise lines have been cited for illegal dumping, and fined a total of over US \$30 million.



Norwegian cruise ship fined \$1,000,000 for illegal dumping of oily bilge water

Environmental impacts

1. Sewage & wastewater

- A typical ship of 3000 passengers generates 30,000 gallons of sewage & 255,000 gal wastewater per day
- May be discharged more than 10 miles at sea
- Best assimilated by sea when ship is moving fast

In US waters, sewage must be *treated* when discharged from 3-10 nautical miles of land, and *may not be discharged* within 3 nautical miles of land.

Environmental impacts

2. Solid waste

- Each passenger generates ~2 lbs trash, plus 2 bottles and 2 cans.
- The total is ~50 tons solid waste per week.
- Most cruise lines have reduce/reuse/recycle programs
- Approximately 75% of solid waste is incinerated on board the ship.

Environmental impacts

3. Oily bilge water

- An inevitable by-product of normal engine operation
- A large ship produces ~8 metric tons per day
- Should be passed through oily-water-separator devices
- Logs are required of bilge water discharge

Other cruise ship impacts

Air emissions, ballast water, port construction



Cruise ship passengers in Panama

The cruise industry as a source of funding & support

1. Patronizing local sustainable tourism
2. Passenger education
3. Local resident/schoolchildren education & outreach
4. Direct funding of research & MPAs

Exercise: Attracting cruise lines

1. Where do cruise ships currently go in the ETPS?
2. Do you want them to come to your area?
3. How might cruise lines be approached for funding of local MPA conservation efforts?



7.4 RECREATIONAL ACTIVITIES

Anchoring

- can cause physical damage (esp. to reefs)
- can mow down seagrass beds
- best solution: mooring buoys



Recreational impacts in MPAs

Boat maintenance & operations

- stay within designated markers
- “gentle”/slow motoring in shallow/sensitive areas
- proper disposal of hazardous materials
- limit use of anti-fouling paints
- upgrade two-stroke engines, if possible
- no sewage/garbage disposal at sea

...etc...



Recreational impacts in MPAs

Snorkeling & scuba diving

- strict no-contact rule for coral
- strict no-harassment rule for wildlife



Recreational impacts in MPAs

Recreational fishing, seafood & souvenirs

- Discourage all souvenir collection except “sea glass” (pebble of glass litter buffed by wave action)
- Make tourists aware of which food species are over-harvested



Recreational impacts in MPAs

Wildlife viewing

- Basic guideline: *Do not make wildlife feel threatened!*
- Do not approach so closely that animals alter behavior
- Use special caution around breeding areas / nests
- If an animal wants to leave, let it leave.



Exercise: recreational guidelines

Develop recreational guidelines for your own MPA:

- Sport fishing
- Diving (snorkeling & scuba)
- Wildlife viewing
- Jet skis, waterskiing
- others??



Case studies

Small business credit schemes at Coiba

Concessions at Gorgona

7.5 SUSTAINABLE SUPPLY CHAINS

Tour operators are not always in direct control of goods & services provided in a tour - they subcontract to local providers.

By using “sustainable supply chains”, tour operators can patronize those businesses that adhere to sustainability practices.

Case studies: Aurinkomat, LTU Touristik

Discussion: Sustainable supply chains

What are the plusses and minuses of sustainable supply chains as practiced by outbound tour operators in the case studies?

What can make it worthwhile for a local business to participate in one program vs. another?

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Review & next steps

