

Sailing toward sustainability

Managing the Impacts of Cruise Tourism

Juneau Alaska

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Tourism is now the World's largest industry.
Cruises are the fastest growing component



Seno Aisen Chile

INTRODUCTION

- A record 24 million passengers cruised in 2016, up from 16 million in 2011
- Caribbean, accounted for 39.8% of all itineraries in 2011,

- The cruise industry is the fastest-growing category in the leisure travel market
- Management of the industry must include responsibility for the impacts on the planet and on destinations visited

Cruise Sector Growth 2015-2017

- Estimated 26 new state-of-the-art new ships are contracted or planned to be added to the North American fleet (17 ocean-going vessels and 9 European & American cruise riverboats)
- Up to 50,000 additional berths
- Growth projected to continue strongly for next decade (10-15 new ships added per year with most older ones redeployed to Asia-Pacific)

Source: CLIA and FCCA

*British
Columbia*



River Cruises Growing



Chongqing hina

The traveler: *Why is cruising so popular?*

Compared with other
types of leisure travel:

- *value for money*
- *chance to visit several different locations*
- *being pampered*
- *fine dining*
- *getting away from it all*

Source: FCCA



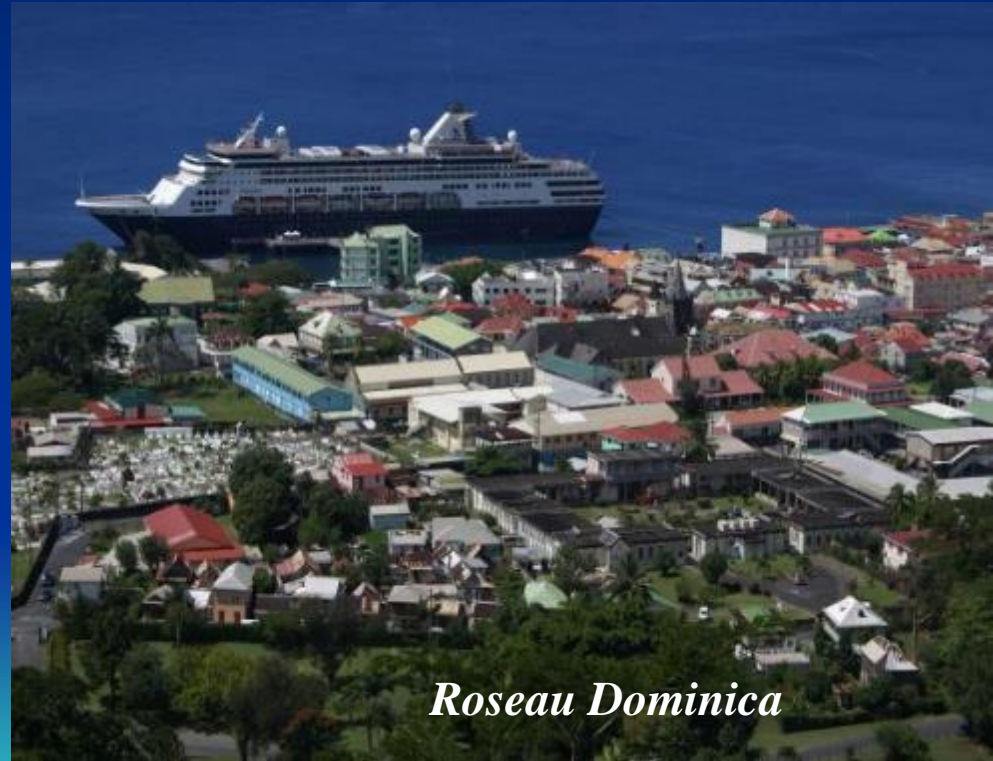
St Lucia

ECONOMIC IMPACT IN DESTINATIONS

Source: 2009 Economic Impact Study conducted by Business Research & Economic Advisors (BREA) – focused on Caribbean and Latin American Ports

- Cruise tourism's direct expenditures - \$2.2 billion
- 17.6 million passenger visits and 3.2 million crew to 29 destinations generated \$1.7 billion and \$288.7 million, respectively
- Average cruise passenger spending per port of call was \$97.26, and average spending per port of call by crew members was \$89.24
- Cruise ship carrying 2,550 passengers and 480 crew members generates \$227,088 in passenger and crew expenditures during a single port-of-call visit.

(Total spending amount is based on 85% of passenger arrivals and 38% crew arrivals)



Roseau Dominica

Cruise growth in popularityand its impacts in destinations

Cruise arrival day in Sint Maartin



*Philipsburg
Sint Maartin*



Valletta Malta

Some Fundamental Questions

- Do we have to travel?
- If yes, what modes have the lowest footprint?
- What can we do to reduce the footprint of the voyage?
- What can be done to lower negative impacts on sites destinations and ecosystems?
- Are successes replicable?



Quantum of the Seas from "North Star"

Sustainable Management for the Cruise Industry

- Involves clear understanding of key issues and potential impacts
- Involves both the cruise industry and the planners and managers of destinations
- Attempts to maximize the benefits to all while eliminating or reducing any negative effects.

Delivering Sustainability

- **Cruise Planning and itineraries**
- **Improving vessels** -ships that achieve higher efficiencies on water/wastewater, waste management, energy carbon emissions, etc.
- **Marine conservation**, pollution control –protecting seas shoreline reefs
- **Ports of call** – destination management including excursions, education, communities – social, economic and environmental effects and benefits
- **Planning** – of itineraries, shore activities, visitor management, destination enhancement
- **Stakeholder Engagement**,
- **Education** - crew, passengers, communities, suppliers

Key Destination Issues

An aerial photograph of Santorini, Greece, showing the caldera and a cruise ship. The image captures the dramatic landscape of the island, with its white-washed buildings and the deep blue sea. A large cruise ship is visible in the water, and the rugged, layered rock formations of the caldera are prominent. The sky is clear and blue, and the overall scene is bright and sunny.

- Attracting cruise custom
- Planning for tourists
- Shoreside facilities
- Tours and visits
- Seasonality and timing
- Impact management

Key attributes of cruise tourism from the destination perspective



Aurora in Fort Shirley Dominica

- How big?
- How many at once?
- How often?
- How long?
- Who pays?
- Provisioning?
- What can we sell them?
- How control visitors?

Challenges

- Ships often carry more passengers and crew than the resident population of ports like Grand Turk, Skagway Alaska, islands in the Maldives, the Falklands or Bonaire.
- When these floating cities visit tiny communities, or disembark hundreds of tourists an hour to visit interesting villages and fragile ecosystems, changes are inevitable.
- All arrive at once!

*Stanley
Falklands*



Male Maldives



Visitors Impacts

- *Shorter stays - more concentrated visitor impact*
- *Cruise visitor planning in destination is often limited*
- *Lack of local capacity to develop sustainable tourism solutions or negotiate with larger players*

Planning for cruise tourism

- Ports such as Cozumel, Charlotte Amalie, Acapulco or Skagway Alaska can have six to ten ships in port mid-week, but are often empty on weekends or off-season.
- Itineraries and arrival times can be critical decisions – who controls?
- Impact on infrastructure development: Does the port build docking space, toilets, bus parking, etc. for a ten ship day, or plan and build for a lower level of demand?



Cozumel



Skagway

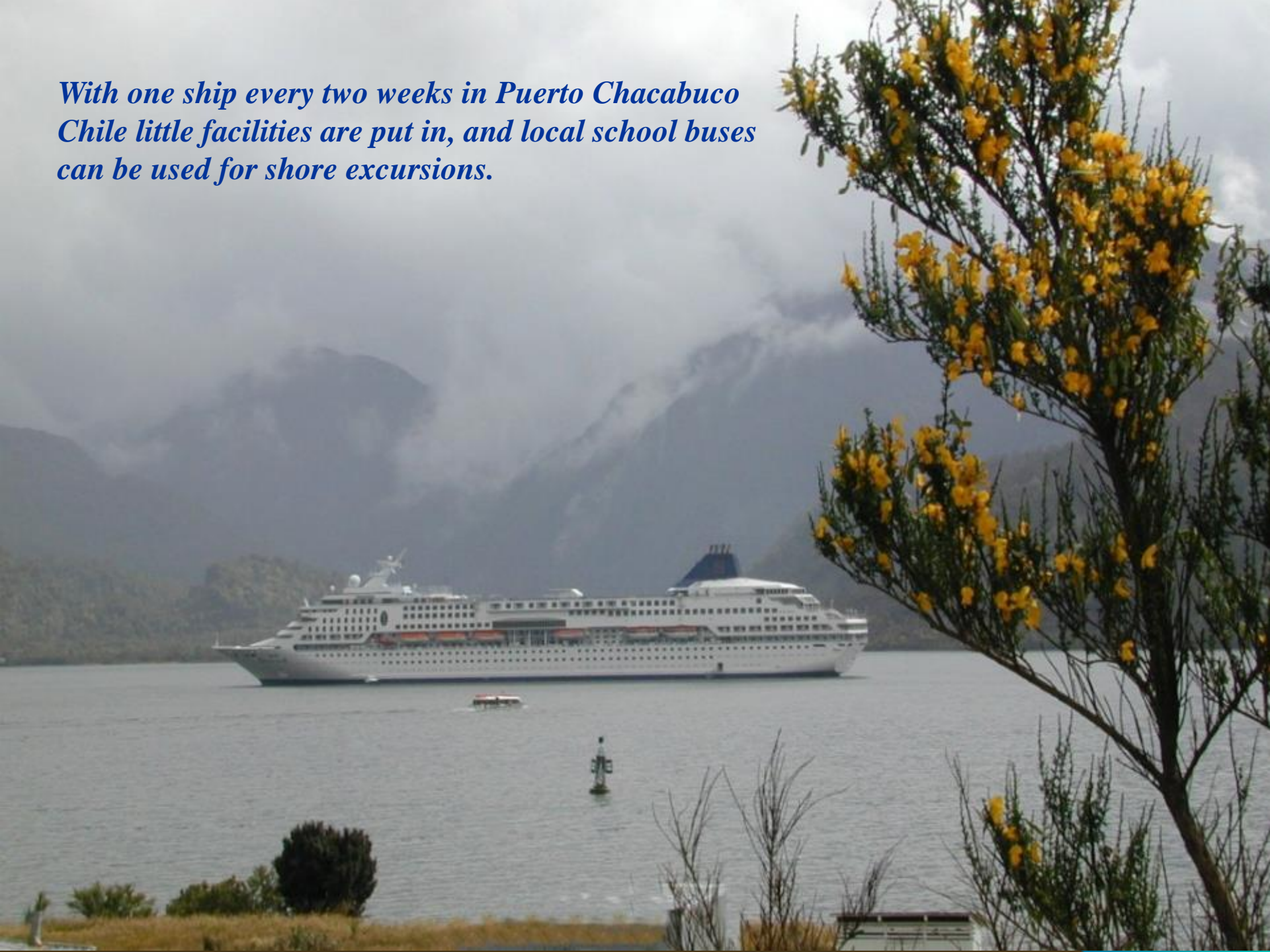
Carrying Capacity Considerations

- Physical (how big is the port?)
- Social (how many can the community host?)
- Economic (how much infrastructure can we afford?)
- Ecological can we manage sea and land impacts?



Lisbon – all the cruise tours arrive at the palace simultaneously

*With one ship every two weeks in Puerto Chacabuco
Chile little facilities are put in, and local school buses
can be used for shore excursions.*



*Stockholm: most ships can tie up right down town;
season is very short*



Key Environmental considerations

- Impacts of shore tours on ecological resources.
- Impacts of sea tours on fragile ecology (notably reefs)
- Impacts of levels of use on natural systems.
- On- shore tourist waste management.
- Resource consumption (water, energy).



For some water-poor destinations, cruise tourism may be a solution, as most cruise ships bring their own water supply and can load fresh water in other destinations where fresh water is more abundant.

Economic considerations for destinations

- Limited direct economic effect if provisions are purchased only in home country
- Can be a very seasonal business (many shops close after the cruise season)
- Industries to benefit are: transportation (taxis, buses, automobile, boat rentals), tour operators(including organizers, guides) selected attractions located close to the dock, or marketed directly by the ship activities staff,
- Local restaurants and bars do not always benefit from visits as passengers return to the ship to eat

Ketchikan



Greening the ships

- A cruise ship is a de-facto floating resort hotel
- Larger new ships have facilities like wave riders, water slides, ice rinks which are energy intensive
- Ship have all of the challenges and opportunities which relate to greening a hotel and resort facilities, as well as those related to transportation.
- Like any 1500 room hotel, a cruise ship consumes energy, uses water, produces waste, and uses toxic substances (e.g. paint, solvents, and cleaners).
- New ships are generally far more efficient and environmentally sound than older ones





Grenada 1992

*2012 Capacity: all lines = 428, 835 passengers
(256 ships) – from Cruise Market Watch
5% growth per annum in berths since 2011)*



Fort Lauderdale 2012

Reduced Physical Impact of Ships

- More fuel efficient
- Cleaner technologies
- Waste management systems on board
- Ocean and coastal initiatives to reduce impacts (MARPOL, Alaska)
- Cruise lines own environmental policies and practice (examples follow)
- Electric Ship now possible

Royal Caribbean Cruises Ltd

Conservation and Destinations

- Conservation – support for research, education, destination management
- The Ocean Fund - \$12 million for awareness and projects
- The *Celebrity Xpedition* Galápagos Fund
- Environmental Ship of the Year
- Working with Partners to Protect Destinations
- Destination Level Global Sustainable Tourism Criteria (GSTC)
- Sustainable Shore Excursions – standards for operators



Independence of the Seas in Gran Canaria

For the RCL Sustainability Report see:

<http://viewer.zmags.com/publication/49a26be2#/49a26be2/1>

CARNIVAL CORPORATION & PLC (CCL)

Sustainability Report, Fiscal Year 2010

- **ENVIRONMENTAL IMPACT MITIGATION AND COMPLIANCE**
- **LABOR PRACTICES**
- **HUMAN RIGHTS** - Non-Discrimination
Child Labor - Forced and Compulsory Labor
- **SOCIETY** Impacts on Communities -
Training in Anti-corruption Policies and Procedures
- **PRODUCT/SERVICE RESPONSIBILITY**
Guest Health, Safety and Security -
Compliance with Health and Safety Standards - Guest Satisfaction - Guest Privacy



Carnival Victory, Nassau

For the full CCL report see:

<http://phx.corporate-ir.net/phoenix.zhtml?c=140690&p=irol-sustainability>

Holland America Line (CCL brand)

Environmental Management System (EMS) to mitigate potential impacts of:

- **Air** – Climate Change, GHGs, air pollution, ozone layer depletion
- **Land** –
- *Inputs* – potential impact: natural resource depletion -> food, packaging materials, fresh water, sea water
- *Outputs* – potential impacts: soil and groundwater pollution -> solid waste, recyclables, hazardous waste
- **Water** – oil spills, water pollution, biodiversity imbalance
- **Operating in protected areas**
- **Shore Excursions / Guest Education**
- **Community: ports, philanthropy**



Ryndam in Costa Maya

For the full HAL report see:

<http://www.hollandamerica.com/about-best-cruise-lines/Main.action#>

Norwegian Cruise Lines

ECO-SMART CRUISING

Environmental Protection as a core value

- preventing accidents and incidents involving pollution
- reducing the impact of operations
- disposing garbage and waste materials recycling and re-using materials
- establishing specific objectives and targets for continual improvement of environmental management programs
- Environmental officer on each ship
- Regular environmental audits



Norwegian Star, Zihuantanejo

For the full NCL report see:

<http://www2.ncl.com/about/environmental-commitment>

Alaska Model

- State has many ports – and has instituted stronger laws and monitoring than other jurisdictions.
- Negotiation with cruise lines
- State has own grey water standards
- Regulations for visible air emissions
- All US regulations also apply except where State standards higher
- Fee of \$1 per passenger to pay for monitoring program
- High penalties - which have been enforced
- Innovation - plug in to shore power

- Seattle has a comprehensive port plan aimed at sustainable development – including all modes of transport – with comprehensive effort to monitor and reduce carbon footprint

- Vancouver has a green policy and has implemented shore power connections at its main terminal

Vancouver

Impacts on the Port and Town Centre

- Positive and negative
- Greatest impact usually on immediate surrounds of the port.
- Displacement of local retail (by jewelry and t-shirt shops)
- Extensive port tourism development in many ports with tourist targeted retail shops, (St Thomas, Ketchikan, Kusadasi)
- New dedicated cruise port facilities with extensive shopping (e.g. Turks and Caicos, Costa Maya,)
- In addition to investment in existing and new port facilities, some lines have taken a further step – that of creating their own private destinations. (Labadee, Princess Cay, Castaway Cay)
- New ports being added annually (e.g Napier NZ , Nosy Be Madagascar, Petropavlovsk Russia, Hanoi Viet Nam)



Tours and their Impacts

- Most visits to ports are for twelve hours or less
- Most passengers leave the ship at least once in each port
- Cruise lines provide a wide range of tour options
- Tours and experiences must be planned around the ship's departure time
- Tours therefore concentrate visits on specific sites during a specific time of day.



*Meet Juan Valdez
Cartagena Colombia*

Lamanai, Archaeological Site Excursion, Belize

an example...



- Ships tender tourists ashore 8:30-9 AM
- Buses leave for New River 9:15 -11
- Fast boats take tourists up river to Lamanai 11-12
- Visit Mayan ruins and lunch 12 to 2.
- Boat back to road 2:30-3:30
- Bus back to dock 3:45-5:30
- Last tender to ship 5:30
- No time to shop
- Roar past jungle and wildlife



Visitor Management

- Cruise tourism is in many ways analogous to day tourism, but tends, as noted above to be even more concentrated in space and time due to the constraints associated with the length of port stay of the ship.
- Cruise ship excursionists are less likely than stay-over ecotourists to be sensitive to the environmental consequences of their actions”.
- Need for good tour planning, guides and education

Excursion tour planning for cruises ...considerations and challenges



- Tours will focus on areas within two hours travel from the ship
- For half-day tours, the distance is closer to one hour maximum travel from the ship.
- Logistics dictate that most tours will reach the same sites at the same time .
- Planning consideration for destinations:
 - *Do you need a parking lot for twenty buses?*
 - *How many guides are needed?*
 - *How many seats?*
 - *Is the site sufficiently hardened to allow the visitors to see the sights on their own, or will warden, security staff or other staff to manage the tourists be required?*

All cruise lines are not the same – different clienteles.

Destinations attract different custom - fun beaches vs birdwatching

Some tourist behaviour can be an issue, particularly for larger groups

Cruise planning can shorten physical distances covered and allow more time in ports for shore visits

Destinations have some ability to influence the offer

Don't bring the tourists until you are ready for them

(facilities and management in place)

Ushuaia Argentina Cruise ships serving Antarctica limit numbers who can go ashore at once and police behaviour strictly

Tools for Management of Attractions and Destinations

- Demand management – using a range of marketing, pricing, quota, and other means to limit numbers
- Distance and price limit the numbers who take a Machu Picchu tour from coastal ports

Machu Picchu Peru



*Antigua
Guatemala*

Carrying Capacity for Tourism



Tools 2 Zoning

- Zoning – used on site to keep the visitors in areas where there is carrying capacity for them.

*El Tiede National Park
Tenerife Canary Islands*

Tools 3 Facility Design and Crowd Management

The background of the slide is a photograph of the Alhambra in Granada, Spain. The image shows the historic fortress complex, including the Giralda tower, set against a backdrop of snow-capped mountains under a clear blue sky. The foreground is filled with lush green trees and foliage.

- Facility design –tours, hardening of paths, viewing platforms and eating areas
- Crowd management path and route design, timing of entrance
- Alhambra Granada is an excellent example of crowd management (tours from Almeria and Malaga ports)

Tools 4 Visitor Management

PLEASE DO NOT HANG HANDS
OR FEET IN THE WATER
WHILE STATIONARY

CROCODILES BITE

- Management of behaviour
- Guides and watchmen
- Effective signage!

*Victoria Falls
Zambezi River*



Tools 5 Facilities

- Facilities management – greening of structures
- Clean-up - waste management is essential
- But... a concern is that all destinations do not have effective garbage collection or disposal sites –
- Yet... level of cleanliness is one of the most frequent complaints by tourists
- Monitoring systems are essential to keep up with changes



Managing cultural impacts

- Can be positive or negative, but impacts can be exaggerated by the scale of arrivals.
- Many tourists are not aware of local customs or issues
- Guides can help make the interaction positive but need training, languages, cultural sensitivity (even when the visitors do not)
- Skilled locals may be rare – consider that hiring them may remove a teacher, nurse or other professionals needed in smaller or developing destinations.
- Hostility, harassment, or theft can cause the ships to go elsewhere

Emerging Success Stories

- MARTI – focused on Meso- American reefs: Cozumel is first integrated case focused on destination level sustainability (joint MARTI/STI with new cruise destination diagnostic)
- Florida Caribbean Cruise Association training initiatives and outreach which involves local community and environmental projects
- GSTC standards for destination stewardship

Key Larger Questions for a Mobile but Vulnerable Industry

- Resilience to climate change (origins and destinations)
- Response to terrorism and civil strife
- Ability to reduce global footprint (including voyage to departure port)
- Social contract: industry is by definition serving the most affluent
- Legal considerations as a multinational



Istanbul

Sailing Towards Sustainability: An Ongoing Challenge



All photography

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Website: www.tourisk.com

St Thomas USVI