

Cruising into a Greener Industry: Reducing the Environmental

Impacts of Cruise Lines on Host Countries

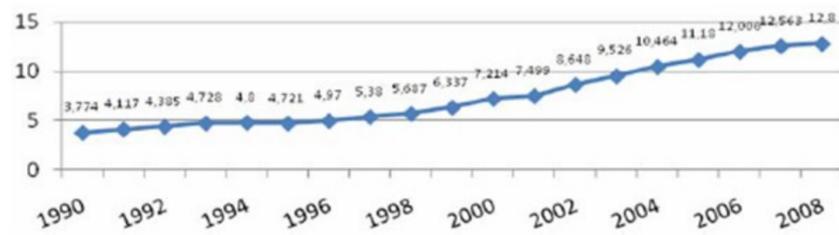


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Introduction:

The idea of palm trees, crystal clear waters, and pristine white beaches of tropical destinations draw millions of tourists to cruise lines annually. These characteristics as well as the social and economic well being of host countries are being heavily impacted by the cruise industry. Harmful air emissions, introduction of non-native species, waste discharge, and destruction of coral reefs are all side effects of the cruise industry that degrade ecosystems and consequently impact human well-being in host countries. Balancing economic activity brought by the cruise industry with these negative impacts continues to challenge local communities. There are three key pathways to decreasing the negative environmental impact on host countries by the cruise industry. These include the cruise industry implementing better technologies to have less of an environmental impact, local governments creating stronger regulations, and collaboration between cruise lines and local governments to ensure compliance of new regulations.



Source: CLIA (2008)

Figure 2: Shows the expansion of the cruise industry by showing passengers (in millions) per year

Methods:

Sources of environmental damage from cruise lines were found through extensive literature review of primary sources as well as exploration of company web sites. I then researched alternative solutions to these problems. Next, I looked globally to find examples of how these solutions are being implemented and to determine the best method to effectively enforce beneficial regulations.

Results:

Changing the technology on-board ships, increasing government regulations from port cities and improving industry compliance are three keys to a more sustainable industry. A table of best practices for each environmental impact is shown below to demonstrate the most effective strategies required to reduce the negative impacts that cruise lines have on their destinations.

Environmental Impact	Solutions
Harmful Air Emissions	Install more efficient engines as well as air scrubbers to ensure fewer emissions from ships. This would require stronger industry standards as well as compliance from each vessel.
Introduction of Non-native Species	Sanitize ballast water before it is dumped into new port cities to ensure the least amount of contamination.
Coral Reef Destruction	Educate passengers on how fragile these reef systems are, and use technology like dynamic positioning to avoid hitting coral.
Waste Disposal	Improve local government regulations on dumping waste and establishing a compliance policy within the industry.



Figure 3: Locals protest new cruise line development in order to protect their cities historic ambiance. Cruise lines and governments need to work together to preserve local communities.

Conclusion:

Environmental degradation not only harms ecosystems, but also has a damaging effect on the social and economic well being of local communities. Technological advances, increased legislation from host countries, and stronger enforcement measures need to be taken to lower the environmental impacts that the cruise industry leaves on local communities. Cruise ships need to redesign aspects of their ships such as engines and waste treatment plants in order to decrease their environmental impact overall. Newer technologies (like the system shown in Figure 3) help ships clean their waste before it gets discharged into waters. Next, governments need to work with communities to ensure that decisions regarding the cruise industry are made to benefit the community. They also need to create increased regulations to prohibit cruise ships from damaging their natural environments while docked. In order to ensure these measures are taken, there needs to be stronger enforcement on board to ensure compliance from the industry and to prevent the cruise lines from finding loopholes that allow them to continue to pollute the environment.

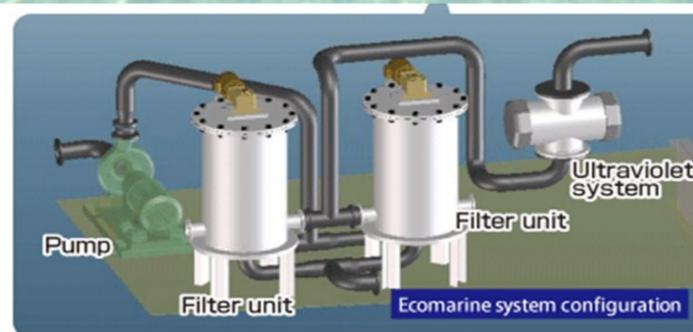


Figure 3: One example of a water treatment system that can be done on board to clean out the ships ballast water before it gets discarded into the water at the ships destination.

Images:

- http://www.colmayor.edu.co/uploaded_files/images/conveniosVICE/giet/ijltm_cruise_impacts_jwbz7.pdf
- <http://mauinow.com/2011/11/28/photos-water-blockade-temporarily-stops-molokai-cruise-ship/>
- http://global-sei.com/news/press/11/images/ecomarine_sys.gif