Cruise Tourism Impacts in Costa Rica & Honduras:

Policy Recommendations for Decision Makers

Center on Ecotourism and Sustainable Development (CESD)

Central American Institute of Business Administration
Instituto Centroamericano de Administración de Empresas (INCAE)

for the

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Maps of the region

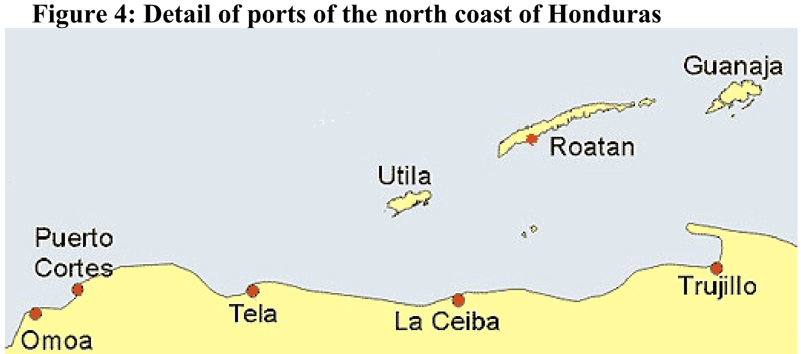
Figure 1: The Caribbean and Central America

Figure 2: Official ports of Costa Rica

Figure 3: Ports of Honduras

Source: COCATRAM

Figure 4: Detail of ports of the north coast of Honduras



Abbreviations and acronyms

AyA – Costa Rican Institute of Aqueducts and Sewers
BTB – Belize Tourist Board
CESD – Center for Ecotourism and Sustainable Development
CETS – Executive Commission on Sustainable Tourism of Honduras
CI – Conservation International
CLIA – Cruise Line International Association
COCATRAM – Central American Maritime Transport Commission
CTO – Caribbean Tourism Organization
ENP – Honduran National Port Enterprise
GEF – Global Environment Facility of the United Nations
ICCL – International Council of Cruise Lines
ICT – Instituto Costarricense de Turismo (Costa Rican Tourist Board)
IDB – Interamerican Development Bank
IHT – Instituto Hondureño de Turismo (Honduran Tourist Board)
IMO – International Maritime Organization
INA – National Training Institute of Costa Rica
INCAE – Central American Institute of Business Administration
INCOP –National Institute of Pacific Ports of Costa Rica
INE – National Institute of Statistics of Honduras
INGUAT – Instituto Guatemalteco de Turismo (Guatemalan Tourist Board)
IPAT – Instituto Panameño de Turismo (Panamanian Tourist Board)
ISPS Code – International Ship and Port Facility Security Code
JAPDEVA – Administrative Board for the Ports and Economic Development of the Atlantic Seaboard of Costa Rica
LAC – Limit of Acceptable Change
M&E – monitoring and evaluation
MARPOL 73/78 –International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. ("MARPOL" signifies “marine pollution”.)
MBRS – Mesoamerican Barrier Reef System project
MOPT – Ministry of Public Works and Transport of Costa Rica
NGO – non-governmental organization
NPE – Netherlands–IDB Partnership Program in Environment
OCTA – Ocean Conservation & Tourism Alliance
OIRSA – Regional International Organization for Agricultural Health
PMAIB – Project for the Environmental Management of the Bay Islands, Honduras
PNTS – National Sustainable Tourism Program of Honduras
PROARCA/CAPAS – Regional Environmental Project for Central America/Central America Protected Area System (US-AID)
SARS – severe acute respiratory syndrome
SOLAS – International Convention for the Safety of Life at Sea
SWOT – analysis of strengths, weaknesses, opportunities, weaknesses, and threats
US-AID – United States Agency for International Development
VIM – Visitor Impact Management

Project Synopsis

This document is a summary of the results and recommendations of a cruise ship tourism study in Central America, with emphasis on Honduras and Costa Rica, and with additional information from a similar study in Belize. For detailed information about the methodology and analysis, please refer to the complete report in Spanish which is available at www.ecotourismcesd.org and from the Inter-American Development Bank (IDB) This shorter version in English varies slightly from the Spanish version submitted to and approved by the IDB because it is intended for a wider audience. Other CESD-INCAE reports, including a parallel study on cruise tourism in Belize, are also available at www.ecotourismcesd.org.

The Center on Ecotourism and Sustainable Development (CESD, based in Washington, DC and at Stanford University), the Central American Institute of Business Administration (Instituto Centroamericano de Administración de Empresas – INCAE), based in Costa Rica, together with the support of Netherlands–IDB Partnership Program in Environment (NPE) carried out a field study between October 2005 and March 2006 and research, analysis and report preparation through December 2006 on the positive and negative impacts – environmental, social and economic – of cruise ship tourism in Central America. The emphasis was on Honduras and Costa Rica as case studies and paradigms for the rest of Central America. An analysis of the behavior and expenses of passengers and crew members was performed in Roatán, Honduras and Limón and Puntarenas in Costa Rica, as well as a competition analysis of the destinations and the relationship between conventional tourism and cruise ship tourism. An aspect of great importance was the comparison between the impacts in a small, fragile destination (Roatán), with the urban ports of Limon and Puntarenas.

The economic study took place during the high season for cruise ships in 2005-2006 (December-March). During this period, a minimum of 500 surveys for passengers and 250 for cruise ship crew members were given in each of the three ports, giving a total of 2,436 valid survey responses. The surveys were complemented by interviews of port and tourism authorities and businesses. The combined effort produced primary data about the income to the two countries from expenditures in-port by passengers, crew members, and cruise lines. This permitted comparisons between the destinations, as well as with expenditures by conventional tourists who stay overnight in each country.

Simultaneously, qualitative studies of the environmental, sociocultural and economic effects of cruise ship tourism were carried out at national levels, with 78 in-depth interviews in Honduras and 98 in Costa Rica. For this part of the study, numerous individuals were interviewed, ranging from industry professionals to ordinary citizens affected by cruise ship tourism. This methodology allows the collection of information on social and environmental impacts that has been accumulated over a long period by experts and affected persons.

The relatively new cruise port of Roatan is unlike the old, urban ports of Limon and Puntarenas. At the same time, the environmental and social fragility of the sites visited by cruise passengers is also quite dissimilar. These circumstances permit one to extrapolate from the examples of these three ports lessons that can be used for the generation of strategy and policy recommendations. Based on the primary data from this research, as well as research in secondary sources, we have proposed a series of recommendations for regional strategies and policies that can favor the sustainable development of cruise tourism in Central America.

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Summary for Decision Makers

I. Introduction

A. Objective of the study

The economic, sociocultural and environmental impacts of cruise ship tourism have been studied very little. For this reason, countries which receive this type of tourism have not had the necessary instruments to establish strategies or national/regional policies to manage this tourism in a more beneficial manner. The purpose of this study is to provide information, based on primary investigation, to help the decision making process and the establishment of policies and strategies for cruise ship tourism in Central America.

The IDB's Terms of Reference called for the "Formulation of Policy Elements for a Sustainable Cruise Ship Tourism in Central America" (ATN/NP-9261-RS). The specific objectives included:

a. To analyze the economic, environmental and social impacts of the cruise ship industry in Central America, with focus on Costa Rica and Honduras.
b. To do a competitive analysis of cruise tourism and stayover tourism.
c. To study the strategic alternatives for the development different types of cruise ship tourism and other tourism in the region.
d. To promote rational use of the resources invested in attracting cruise ship tourism.
e. To propose elements of a regional policy for cruise ship tourism in order to deliver maximum economic benefits and ensure environmental and social sustainability.

The Center on Ecotourism and Sustainable Development and the Central American Institute of Business Administration, with the support of the Netherlands–IDB Partnership Program in Environment (NPE), analyzed the positive and negative impacts – environmental, social and economic – of cruise ship tourism in Central America between October 2005 and March 2006. The primary data collection focused on Honduras and Costa Rica as case studies and paradigms for the rest of Central America. An analysis of the behavior and expenses of passengers and crew members was performed in Roatán, Honduras and Limón and Puntarenas in Costa Rica, as well as a competition analysis of the destinations and the relationship between conventional tourism and cruise ship tourism. The environmental and sociocultural impact analysis was based on interviews with experts and persons directly and indirectly involved in cruise ship tourism.

Based on the results, a series of recommendations have been proposed, to establish a Central American cruise ship strategy, as well as a new set of policies, mentioned here.

B. Scope and limitations of the study

This study attempts to explore the economic, environmental and social impacts of cruise ship tourism in the ports of Limón and Puntarenas in Costa Rica, as well as Roatán in Honduras.

The focus of the economic study was the implementation of a survey during three months of the high season of 2005-2006. This study measured the economic contribution of the passengers and crew members of the cruise ships which arrived at the three ports. In each port, over 500 passengers and 250 crew members were interviewed. In total, 2,436 surveys of statistical value were obtained. The results of the surveys and interviews present detailed information about the behavior of visitors, their expenses, and their distribution by activity. The totals also permit a global analysis of expenditures and distribution, which facilitates a comparison with other segments of the tourism sector and other activities. For comparison, data regarding multiple-day tourism was obtained via exit interviews performed at airports in both countries under study, covering tourist expenditures and preferences.

In addition, to determine environmental, economic and sociocultural effects across the country, 78 in depth interviews were conducted in Honduras and 98 in Costa Rica, among:

- Owners and administrators of natural and cultural tourist destinations,
- Directors and administrators of protected areas,
- Owners and managers of lodging facilities,
- Tourism service providers,
- Members of port communities,
- Governmental organizations,
- Port authorities,
- Service providers for vessels and cruise lines.

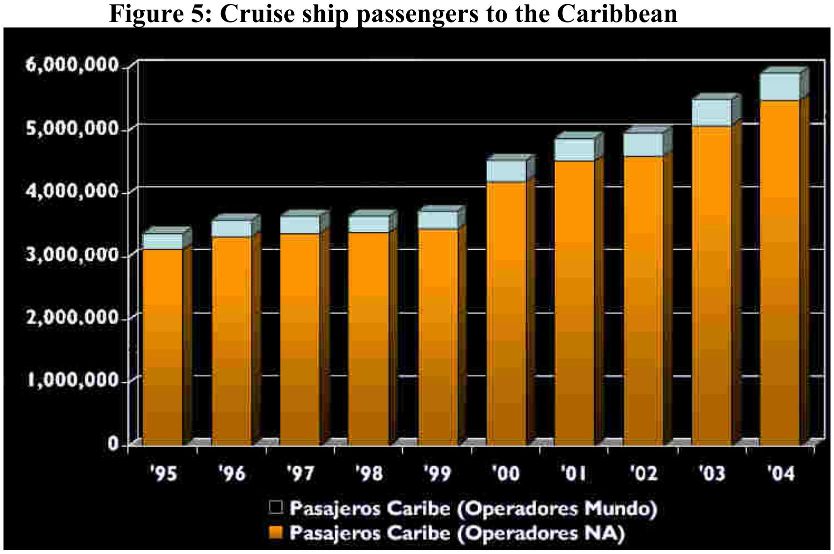
Analysis of the interviews gives the perspective of experts and common citizens related in some way to cruise ship tourism. For this reason, it gives a much broader perspective, along a much longer time span than that of the study.

Small, coastal cruises ("*pocket cruises*") were not analyzed, nor the current or potential situations in Panama, Nicaragua, Guatemala or El Salvador. The information related to Belize was obtained from a similar study by CESD, available at www.ecotourismcesd.org.

C. General context of cruise ship tourism in Central America and the Caribbean

Globally, the number of cruise ship passengers has tripled since 1990. It is projected that 75 to 120 new ships will be constructed between 2006 and 2020.[a] The number of passengers per year could grow from 13.2 million in 2004 to double that by 2020.

Figure 5: Cruise ship passengers to the Caribbean



Sources: CLIA, GP Wild, and Bermello, Ajamil & Partners, Inc., 2005

The Caribbean has been the preferred destination of cruise ships and the demand has grown

[a] Bermello, Ajamil & Partners, Inc., 2005.

rapidly since 2000, reaching about 6 million passengers in 2005, almost half of the global demand, having increased by 0.77% from 2004 to 2005.[b] Almost two thirds of the world's cruise ship fleet is found in the Caribbean between October and March, and one fourth between April and September (Kester, 2002). It is projected for the Caribbean that by 2020, there will be between 2 and 8 million new passengers.[c]

The worldwide growth in the demand for cruise tourism is due in part to the unique model it offers for tourism. Cruise ships today offer a great variety of activities that attract tourists from a wide demographic spectrum (age, residency, and socioeconomic class, among others). Taking into account certain events on a world scale, such as the terrorist attacks in the U.S. and Europe, the wars in Afghanistan and Iraq, potential epidemics, and so on, travel on a cruise ship is seen as a safe and easy option for vacations. Thus, cruise lines have been attracting new clients and retaining existing ones.[d] The popularity of the Caribbean in particular, as a cruise destination, is owed to its ideal geography. It offers a great variety of itineraries with sun, beach, blue seas, culture, and nature, both marine and terrestrial. It is adjacent to the United States – the largest source of cruise passengers in the world (9.1 million or 79%).[e] In addition, in recent years, the industry has marketed intensely towards middle-income clients. This has been accompanied by massive investments in new cruise ships (over US$9 billion) and terrestrial infrastructure in several countries.

The Caribbean Tourism Organization (CTO) estimates that, for 19 Caribbean countries in 2003 (the last year with complete statistics), stayover tourism generated US$7.3 billion, while cruise tourism produced US$1.1 billion, with in-country expenditures per tourist of US$994 and US$77, respectively.[f] The tax income per capita for the governments of the Caribbean shows a similar pattern. In broad terms, governmental income from taxes can be estimated for each cruise passenger at US$9 in head tax plus about US$8 in sales or value-added tax (assuming that purchases are not duty-free), for a total of US$17. For stayover tourists, given average expenditures of US$994, including two nights in a hotel at US$100, the taxes paid are US$18 in exit tax, US$99 in sales or value-added tax, and US$16 in hotel tax, for a total of US$133 per tourist. Given that the numbers of visitors of each type are similar, governments in the Caribbean receive 800% more in taxes from stayover tourists than from cruise passengers (see Figure 6). These numbers are crude estimates based on average tax rates and expenditures, and have not been verified by governments. This is an area that requires further research.

In contrast to this general picture, Bermuda imposes a head tax of US$60 on each cruise passenger, requests that each be given a voucher worth US$30 for purchases in-port (paid for by the cruise lines), and requires that the cruise lines contribute US$1.5 million for a training fund for young Bermudans. In spite of these provisions, Bermuda received 247,259 cruise passengers in 2005, a 20% increase over 2004, indicating that the country suffered no deterioration in cruise visitation.

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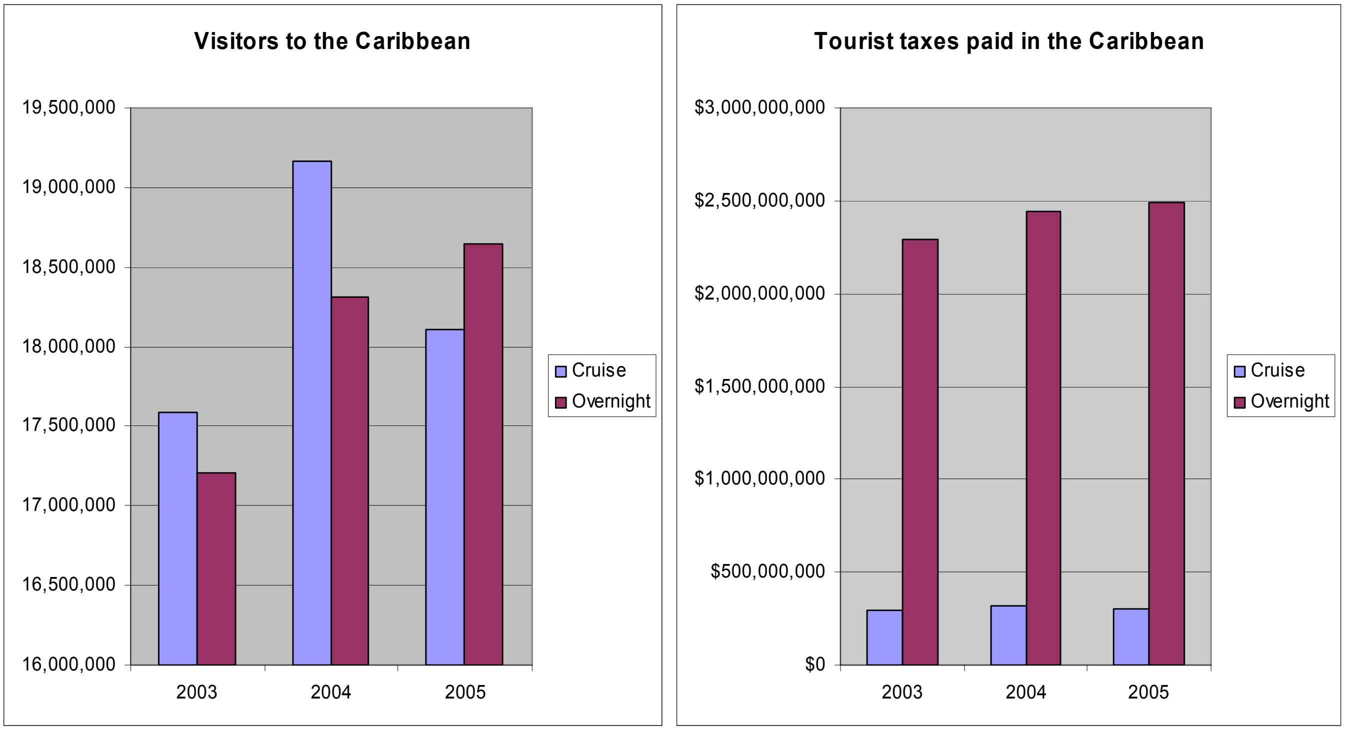
[b] In 2005, 31,450,239 bed-days, composing 40.69% of the global demand. Source: CLIA.
[c] Bermello, Ajamil & Partners, Inc., 2005.
[d] CLIA Press Release, Cruise Industry Poised for Record Breaking 2007.
[e] ICCL, The Cruise Industry 2005 Economic Summary.
[f] CTO statistical compendium 2004, table 51.

Figure 6: Visitors to the Caribbean: overnight versus cruise and taxes paid[g]



The principal destinations in Central America are Belize, Honduras, Costa Rica and Panama, with more than 200,000 passengers per year in each of these countries. Costa Rica, Guatemala, and Panama receive passengers on both the Caribbean and Pacific sides. Panama has received cruise ships since 2001, in Gatún, Colón 2000, Cristóbal, Balboa, Amador and Kuna Yala (small cruise ships). Guatemala receives a small number of cruise ships in Puerto Quetzal on the Pacific and Puerto Santo Tomas de Castilla, Izabal, on the Caribbean. El Salvador received 1,144 cruise ship tourists in 2003 (0 in 2004), while Nicaragua received 6,377 in San Juan del Sur in 2004 (there are no data for Puerto Corinto).

D. Volume and evolution of demand in Central America

Within the Caribbean, Central America's role in the industry is growing, with visitation numbers increasing by 228% between 1999 and 2005 (38% per year). While popular destinations in the Caribbean, such as Grand Caiman, Jamaica, and Bahamas, continue to receive cruise passengers on a large and steady scale, another sector of the market seeks newer or more exotic destinations. To satisfy this demand, the cruise lines have extended their itineraries to Central America.[h] This growth has been accompanied by very little preparation by the countries to promote appropriate policies and infrastructure. Nevertheless, it should be noted that Costa Rica, Belize, Panama and Guatemala received fewer cruise ship passengers in 2005 than in 2004, while Honduras (Roatán) received 40% more during that period.

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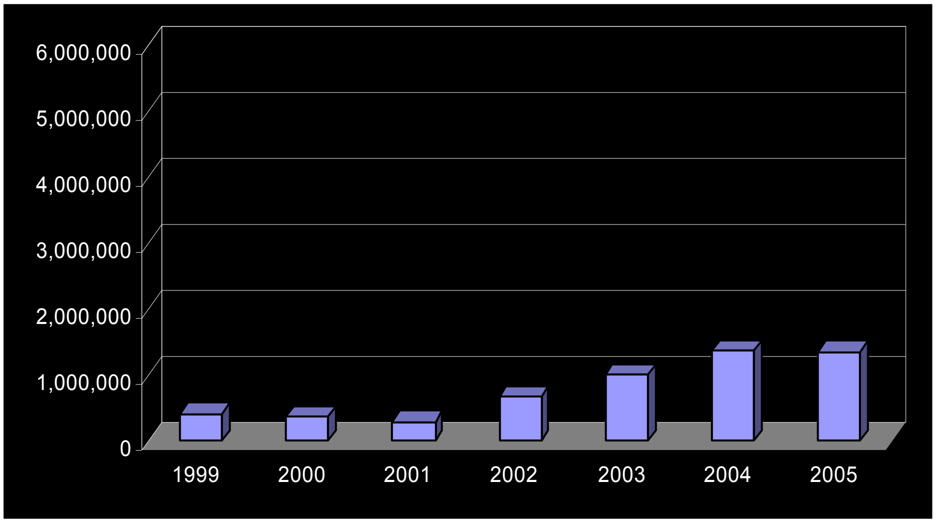
[g] Sources: CTO (2005) and calculations derived from tax rates indicated in the text.
[h] Cruise Lines International Association (CLIA, 2006).

Figure 7: Cruise ship passengers to Central America



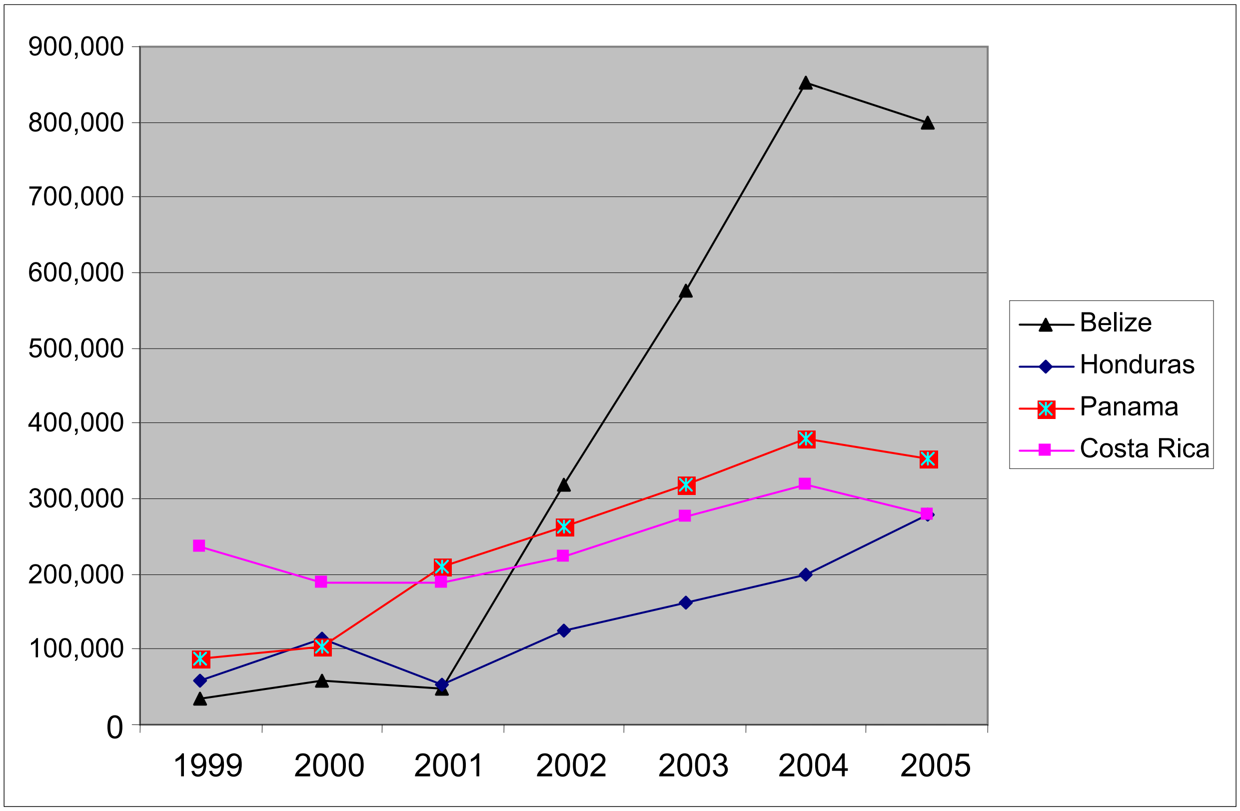
Sources: Instituto Costarricense de Turismo (ICT), Instituto Hondureño de Turismo (IHT), Belize Tourist Board (BTB), Instituto Panameño de Turismo (IPAT), Instituto Guatemalteco de Turismo (INGUAT), Comisión Centroamericana de Transporte Marítimo (COCATRAM)

Particularly in Belize, cruise ship passengers grew from 34,000 in 1999 to 800,000 in 2005, surpassing the 237,000 multiple-day tourists (those who stay at least one night in the country).

Honduras, in the port of Roatán, has experienced similar growth, but not as rapid (50% per year). The volume of cruise ship passengers has grown rapidly since a special cruise ship dock was established in 2001 – from 54,000 to 278,000 passengers in 4 years.

Costa Rica, on the other hand, has experienced very slow growth, some 7% yearly over the last several years, from 156,000 in 1994 to 280,000 in 2005. This has permitted a more gradual adaptation to this type of tourism, which by way of tours has dispersed throughout much of the country. In addition, the vessels dock in two ports which are in old cities, and they have become adapted to receiving large ships for over 100 years. For this reason, they are areas which have become very accustomed to receiving shipping crews, and to a lesser degree passengers, during the era of maritime transport of travelers (up until about 1955, when air travel became predominant).

Figure 8: Cruise ship tourism in Central America (number of passengers)



Sources: Instituto Costarricense de Turismo (ICT), Instituto Hondureño de Turismo (IHT), Belize Tourist Board (BTB), Instituto Panameño de Turismo (IPAT), Instituto Guatemalteco de Turismo (INGUAT), Comisión Centroamericana de Transporte Marítimo (COCATRAM)

In both Costa Rica and Honduras, multiple-day tourists surpass cruise ship tourists by far (1.7 million multiple-day tourists versus 280,000 cruise ship tourists in Costa Rica in 2005; 749,000 multiple-day tourists versus 278,000 cruise ship tourists in Honduras the same year). Panama received 378,608 passengers in 2004 (37.7% of all visitors to the country), compared with 87,111 in 1999. Guatemala received some 31,000 cruise ship passengers versus 1.3 million multiple-day tourists in 2005.

Figure 9: Trend in Stayover vs. Cruise Passenger Expenditures for Central America

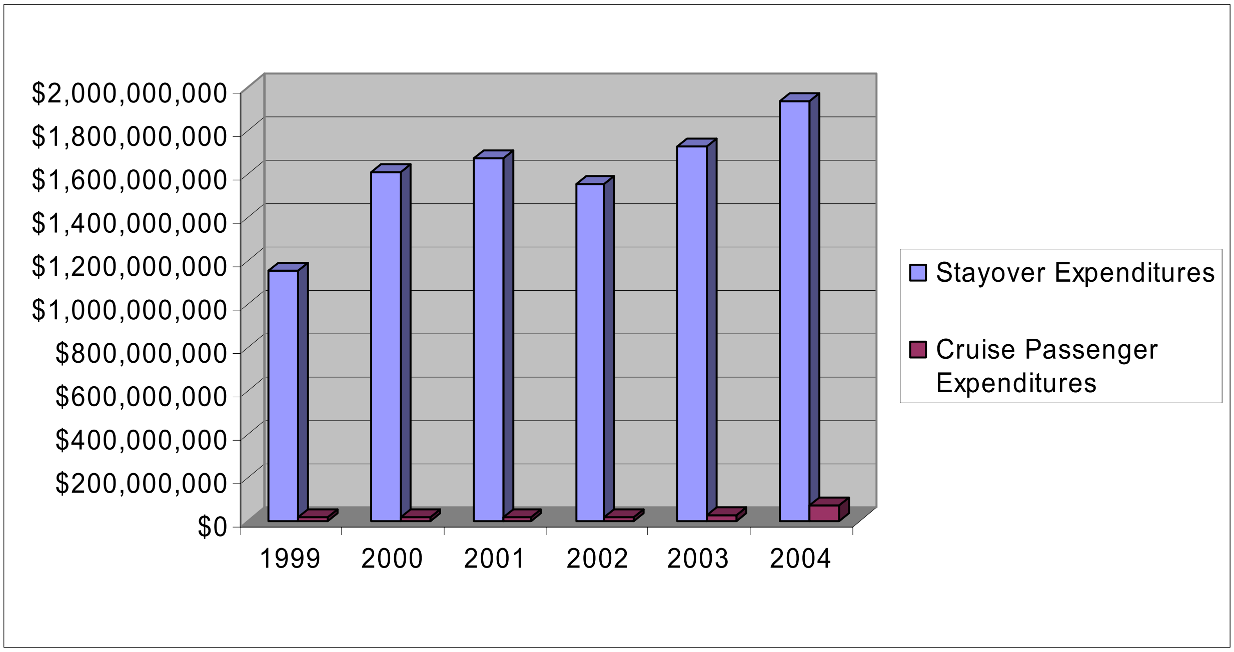
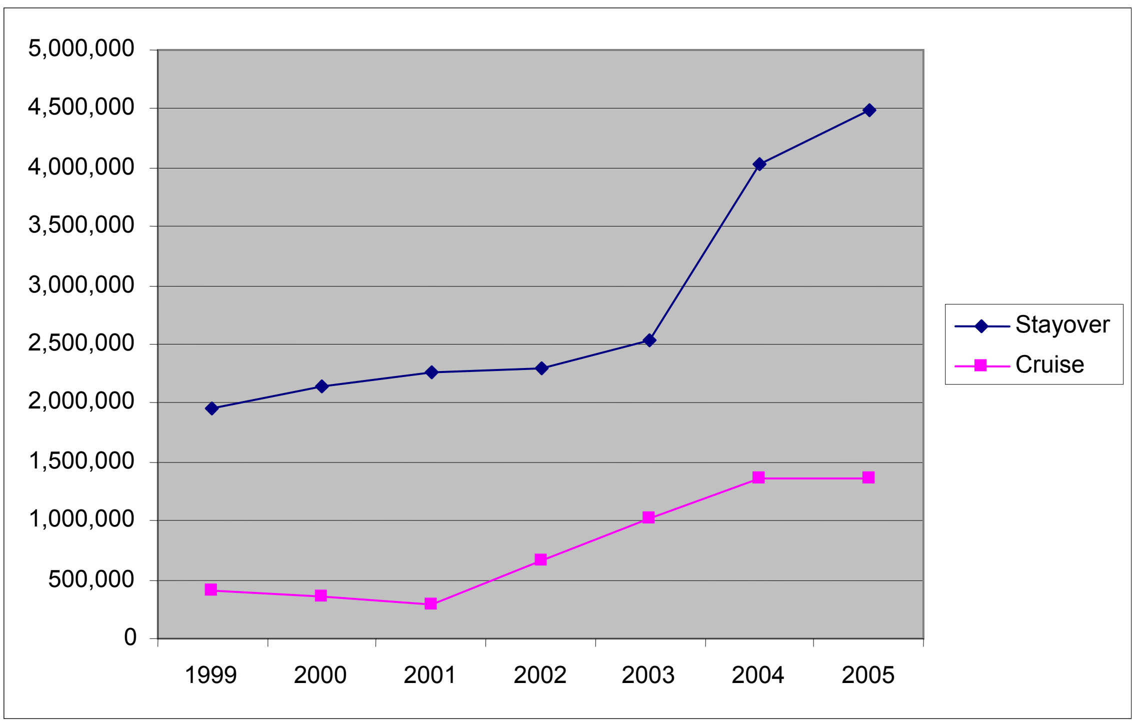


Figure 10: Trends in tourist arrivals in Central America



Sources: Instituto Costarricense de Turismo (ICT), Instituto Hondureño de Turismo (IHT), Belize Tourist Board (BTB), Instituto Panameño de Turismo (IPAT), Instituto Guatemalteco de Turismo (INGUAT)

II. Summary of cruise ship activity in Honduras and Costa Rica

A. Characteristics of the tourist attractions

Like other countries in Central America and the Caribbean, Costa Rica and Honduras have economies that depend greatly on their natural resources. Tourism, agriculture, and seafood products have comprised, for a long time, the majority of the cash income for both countries. Given that this economic mainstay depends on a healthy natural resource base, the sustainable development of both countries must be a priority for economic development.

Tourism, especially ecological and cultural tourism (called “ecotourism” in Costa Rica and “geotourism” in Honduras), is considered the engine of development in both countries. The majority of visitors who arrive in Costa Rica and Honduras have the principal motive of visiting natural and cultural sites. They primarily arrive by air and stay several nights in the country (an average of 10.5 nights in Costa Rica and 11.5 nights in Honduras). Every year, more tourists are arriving to visit the natural and cultural sites of these two countries by cruise ship.

For multiple-day tourists, Costa Rica offers visits to tropical, cloud and dry forests, Pacific and Caribbean beaches, active volcanoes, museums and adventure activities (whitewater rafting, surfing, bungee jumping, and canopy ziplines). Due to the time required and distances between attractions, as well as the age of the travelers, only some of these activities are available for cruise ship tourists. As a result, the use of these resources, although limited in time, is intensive.

The tourist offer in Honduras is more limited, and has concentrated on the Bay Islands (Including Roatán) and the Copán Ruins. There are potential attractions in Mosquítia and other attractions similar to what Costa Rica offers, but they are only in the beginning stages of development. The activities on the islands consist of scuba diving in the coral reefs, snorkeling, sport fishing and visits to beaches. Due to the distances and time limitations, the cruise ship passengers usually just visit the nearby beaches and practice snorkeling, as well as visit local tourist centers for dining and shopping. Due to the geographic characteristics of the island of Roatán, the passengers disperse across a very small geographic radius, causing high concentrations of tourists in some places, especially those facilities designed to receive them. One of the principal attractions of Roatán, the coral reefs, is extremely fragile and susceptible to damage from excessive visitation and lack of a proper management plan.

B. Strategies, regulation, and policies at the Central American and International levels

Due to marine pollution as a result of waste deposition, from both cruise ships and cargo ships, a treaty was developed to regulate the deposition of waste in international waters and waters under national jurisdiction (MARPOL – International Convention for the Prevention of Pollution from Ships, 1973, modified by the 1978 protocol). MARPOL regulates the discharge of oils, lubricants, fecal sewage, solid waste, and gas emissions. This treaty has not been ratified by Costa Rica[i] and El Salvador, but has been by the rest of Central America. In international waters, the cruise ships are subject to the regulations of the International Maritime Organization (IMO), which include MARPOL and SOLAS, the International Convention for the Safety of Life at

[i] MARPOL not being ratified by Costa Rica is due to a bureaucratic error in the moment of its negotiation by the Legislative Assembly.

Sea.[j] At present, IMO is dedicated to promoting the ratification and effective implementation of these agreements, in order to reinforce the security of people, property, and the marine environment.

During the period of rapid growth of the cruise ship industry in the 1980s and 1990s, there were a few scandals regarding the deposition of untreated waste on the high seas, followed by problems of disease outbreaks. As a consequence, the cruise industry developed a code of conduct and placed environmental officials on some ships. In addition, the industry has collaborated with organizations such as Conservation International (CI) to develop and implement good environmental practices on board and in port.[k] The cruise lines have determined that maintaining a good image in terms of safety and the environment is important for their growth, as this can directly influence the decision of potential clients to purchase a cruise tour or not. Nevertheless, the social and economic impacts on the destinations visited have not been addressed with the same level of importance.

At the national level in Central America, Belize has a cruise ship policy which regulates economic and sociocultural aspects, as well as carrying capacity. As its "guiding principle" the policy is intended to ensure that "growth rate and weekly distribution will have to respect the integrity of eco-tourism in Belize. In practice, this means that the carrying capacity established by the industry and by individual sites will be respected and adhered to." The 10-page policy proposes, among other points, to manage the number of cruse ships and passengers sustainable, strengthen the Belizean service providers for ships and passengers, develop new tourist attractions, improve port installations, require licensed to anchor or moor in certain locations, and require compliance with environmental standards. Some aspects, such as limits on the number of passengers, have not been complied with, but the obligation of cruise ships to "suspend all forms of entertainment activities onboard, while in port, to encourage shore visitation by passengers" has had the very important effect of achieving the highest percentage of disembarking passengers of all the Caribbean and Central America (85%).[l]

Honduras is in the process of establishing some policies regarding the development of new docking ports. Costa Rica does not have such a policy, although each port has developed some regulations *ad hoc*. In both countries, there have been state investments of several million dollars for the construction of docking piers for cruise ships and the provision of various services to the ships and their passengers. Also in both countries, the government piers have been given to private concessions, or they are contemplating giving out such concessions.

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[j] "The International Maritime Organization is a specialized agency of the United Nations which is responsible for measures to improve the safety and security of international shipping and to prevent marine pollution from ships. It is also involved in legal matters, including liability and compensation issues and the facilitation of international maritime traffic… When IMO first began operations its chief concern was to develop international treaties and other legislation concerning safety and marine pollution prevention…However, this work had been largely completed…IMO is now concentrating on keeping legislation up to date and ensuring that it is ratified by as many countries as possible." – www.imo.org

[k] This is illustrated by the document "From Ship to Shore: Sustainable Stewardship in Cruise Destination", by CI in conjunction with the International Council of Cruise Lines (ICCL) through their partnership, the Ocean Conservation & Tourism Alliance (OCTA), and the OCTA Science Panel's recommendations on good practice.

[l] For in-depth information on the implications, achievements, and lessons learned from Belize, see the document "Cruise Tourism in Belize: Perceptions of Economic, Social & Environmental Impact", CESD, 2006, www.ecotourismcesd.org.

III. Economic, Social and Environmental Impacts

The scope of this study encompassed two old and urban ports in Costa Rica and one port in Honduras in a zone of very limited development. The impacts of cruise ship tourism depend to a great degree on the nature of the docking port: When it is an already existing urban port, the environmental effects can be minimal and the social and economic effects can be positive. Historically, older urban ports have been heavily affected by environmental contamination (petroleum derivatives, bilge, sewage, etc.) and social ills (prostitution, drugs, etc.), especially from cargo ships. Although contamination has been reduced in recent years through IMO agreements and national legislation, many of these older ports around the world have been severely damaged environmentally and are located in zones of great poverty. The arrival of cruise ships that comply with good environmental practices does not appear to have significant negative impact on this type of port. At the same time, expenditures in-port by passengers and crew members, correctly managed, may represent important income for economically depressed areas. In order for this to happen, it is important to have policies to ensure that passengers spend time and money in the port cities.

With a program to direct the cruise ship passengers to high quality local businesses in the port city, the socioeconomic benefit could be positive and important. To the contrary, when a new port is constructed in a pristine area, or an existing (but shallow or lesser used) port is expanded, the environmental impacts can be severe to moderate. The socioeconomic effects can also be severe to moderate in areas with an established market for ecotourism, or at least it may cause business owners to redirect their businesses. In some cases, the national and local government policies can reduce the negative impacts.

A. Economic Impacts

This study adds new information and consolidates existing information about the economic impacts of cruise ship tourism. The findings regarding the spending habits of passengers and crew members, willingness to pay, the collection of taxes and distribution of revenue do not demonstrate a consistently positive or negative situation. Honduras and Costa Rica have received revenues from the cruise industry of US$29 million and US$19 million respectively, and this has benefited the governments and their citizens. An indeterminate number of jobs have been created, for both women and men. Nevertheless, the real costs of this type of development are not totally clear.

In the case of Costa Rica, cargo vessels pay much higher port fees than cruise ships, although the export and import of essential goods are displaced by cruise ships, which have priority in port. This results in important losses for the transport industry, its employees, and the companies which depend on the rapid transport of perishable goods, in addition to the costs of having the merchandise held at the port. The economic losses caused by reduced cargo capacity and the loss from reduced port taxes represent opportunity costs of cruise ship tourism.

An additional cost of the current development of cruise ship tourism in Honduras and Costa Rica is manifested in the lost opportunities for maximizing and equitably distributing the acquired revenue. The aspects which could be improved include: the low percentage of disembarking revenue (35% in Honduras, 60% in Costa Rica, versus 85% in Belize), the high commissions for tourist packages charged by the cruise lines (100% commission), the low value of taxes paid per passenger ($2.50 in Costa Rica, compared with a Caribbean average of US$8.66), the concentration of contracts for service providers to the passengers being in the hands of very few land-based operators, and not taking advantage of the average US$50 willingness to pay for protecting the natural and cultural resources (see appendices I and II for details). These opportunities not taken advantage of represent a high sum of lost revenue. See section IV, below, for policy suggestions to minimize these losses.

One additional aspect to consider is that the high season for cruise ship tourism coincides with that of international and national multiple-day tourism. This increases significantly the pressure on tourism attractions and infrastructure (transport, trails, parks, beaches, restaurants, drinking water and electricity). Our research indicates that the experience of the multiple-day tourists degrades when their visits to an attraction coincide with the presence of cruise ship passengers. This could produce negative impressions regarding the destination or the country for the multiple-day tourists, affecting the arrival of high-value tourism. The economic costs of this aspect are difficult to measure, but could be significant.

B. Social Impacts

Social impacts vary from one destination to another, but the experiences of Honduras and Costa Rica can serve as informational references for those which share similar characteristics. An island with a population of 70,000, the communities of Roatán are susceptible to the influences of cruise ship tourism. On one hand, it has generated employment due to increased activity in the ports for guilds of artisans, tour operators, transport services and commerce in general, among others. Nevertheless, there is a clear differentiation among the social strata in Roatán; cruise ship tourism has not brought significant benefits to the poorest inhabitants. A large sector of the population of the islands does not possess the ability or capacity to work in tourism, nor in related activities. On the another hand, the businesses which capture the majority of the revenue from cruise ship passengers belong to fewer than six families, thus concentrating the benefits into the hands of few.

An impact of great importance in Roatán has been the immigration of people from the mainland to the islands, in search of opportunities in the tourism industry. This has increased housing prices and the loss of green areas. In addition, it has been reported that the builders of vacation homes and tourist installations hire employees for short periods, without social benefits, and then let them go before legally formalizing their employer obligations. Apparently many of these people stay on the island with low income, temporary employment, and inadequate living conditions. They generate pressure on social services and have been related to an increase in crime and drug addiction.

It must be noted that these social impacts, with the exception of the concentration of revenue among very few families, are attributed to tourism in general, and not specifically cruise ship tourism. Nevertheless, the number of cruise ship passengers surpasses by orders of magnitude the number of multiple-day tourists for diving in Roatán.

In Costa Rica, in part because the cruise ships dock in urban ports, and in part because the number of passengers is low in comparison with multiple-day tourists, the social impacts of cruise ship tourism do not appear to be significant. Just as in Roatán, the port communities in Costa Rica have benefited from an increase in employment related to cruise ship visits; before a significant part of the local population received little or no benefit, given the concentration of revenue among very few operators of tourism packages. This has been justified in terms of the quality and security that these operators offer, which suggests that there is an opportunity to train local people to improve the possibility of them participating more directly, and thus deriving more benefits for the local communities. One additional aspect which must be taken into consideration is that employment in cruise ship tourism is seasonal. Another factor to consider is that the income for local artisans and unspecialized laborers is very low.

With the exception of the crew members which disembark, the passengers on the cruise ships have very little interaction with the local population. Our interviews suggest that there has been an increase in prostitution concomitant with the development of cruise ship tourism in both ports in Costa Rica.

C. Environmental Impacts

In the three ports under study, the environmental effects of solid waste, wastewater, water consumption, and discharge of fuels have been adequately controlled by government policies and cruise lines. The indirect impacts, nevertheless, are much more marked in the less developed zone of Roatán, in comparison with the older and urban ports in Costa Rica.

The arrival of mass tourism in Roatán – including both cruise ship tourism and multiple-day tourism – has stimulated excessive real estate development (called "residential tourism"), as well as high impact construction (destruction of mangroves, creation of artificial beaches, etc.) to serve cruise ship passengers. A significant number of cruise ship passengers also visit the fragile coral reefs of the Bay Islands. This habitat is very easily damaged due to excessive visitation, and inappropriate diving and snorkeling practices produce immeasurable damage in the form of the loss of future tourism revenue, as well as loss of biodiversity. When the best and most accessible reefs have lost their attractiveness (as is currently happening[m]), it will be much more difficult to attract tourists – both cruise ship tourists and multiple-day tourists. We are paying a very high economic, social and environmental cost. The reef also appears to be affected by the unsustainable harvest of grouper, to supply restaurants which serve the tourists. Although both phenomena are attributed to tourism in general, the majority of the tourism impact can be attributed to cruise ship tourists, due to the fact that they far outnumber the multiple-day tourists.

The direct environmental impact of the cruise ship passengers is minimal, in part because the number of them who visit protected areas is much less than the number of multiple-day tourists who visit the protected areas – there are no coral reefs of good quality, or caverns, or sensitive archeological sites. Furthermore, the tour operators prefer to take cruise passengers to sites that have been purposefully designed to manage a rapid flow of a large number of people, with little impact as a result. As an additional factor, the cruise ship passengers in Costa Rica rarely visit fragile areas, and the cruise ships only visit the existing urban ports in Limón and Puntarenas.

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[m] Environmental Management Program of the Bay Islands (Programa Manejo Ambiental Islas Bahías – PMAIB), www.islasdelabahia.org

IV. Analysis of competitiveness and sustainability of cruise ship tourism in Central America

The study revealed a number of interesting aspects dealing with competitiveness in the cruise ship tourism sector in Central America. First, the destinations hold a strong attraction for cruise ship tourists, and generate considerable earnings, particularly for the cruise lines and local tour operators. Second, due to an unusual market structure, it is difficult to accurately assess absolute levels of competitiveness, although field studies done by CESD-INCAE provide some valid indicators with respect to the competitive force of port destinations and their relative strengths. Third, a more detailed analysis of the sector's structure shows that cruise ship tourism as an industry in Central America exhibits very particular conditions. These include:

- The region's governments compete (both directly and indirectly) to draw cruise ships to their ports for an array of reasons, which will be discussed below. The ways in which governments handle dock concessions is an issue that merits deeper study. Once the cruise lines have been authorized to disembark, the governments have given them what amounts to oligarchic rights (i.e., shared monopoly) to deal with local companies that provide services to them.
- Given this structure, practically all the local enterprises that wish to provide services to the cruise ship industry and to its passengers have to either sell directly to the cruise ship lines by means of value chain (a very small number of companies that have contracts with the cruise ship lines), or else they have to carry out the difficult task of competing independently for the attention of tourists during their brief stays. The study's findings indicate that the general structure is promoting competition both theoretically and in practice among the internal participants, which leads to lower prices, lower quality services, and less added value at the local level.
- From the point of view of development, the critical issue is not which country or port is more competitive, but rather how they compete, what kinds of benefits are obtained, and for whom. The goal of competition-driven development is to create continuous improvement for an economy, which will then lead to innovations that produce higher salaries and greater local added value. The sector's present general structure raises important questions about the capacity of competitive opportunities and pressure to generate development opportunities.

A. Comparison among Costa Rica – Honduras – Belize

The tourism services offered in Belize, Honduras, and Costa Rica are similar; they are fundamentally based on viewing nature, with half and whole day visits. Likewise, the structure of underlying costs is comparable (labor, capital, and fuel costs). The CESD-INCAE study found that tour package business for cruise ship passengers has commonly been handled by relatively few tour operators. The governments of Costa Rica, Honduras and Belize, as well as other Caribbean countries, have made an effort in recent years to offer more favorable conditions for cruise ship companies in order to attract them. This includes a reduction in the tax levied per passenger ("head tax"), and charging the shipping lines port fees much lower than those for freighters of similar size. These measures and policies have made it possible for the large cruise companies to reduce their costs and increase profits. According to Figure 11 below, the net amount paid by tourists, for both tour packages and purchases in-country, does not exceed US$65 per person at any of the destinations. At the same time, passengers report spending $200 per day while aboard the cruise ship, in addition to the cost of the voyage itself. To this the commission on tour packages on land must also be added, which is approximately 100%. In other words, only a small portion of the expenditures of the passengers benefits the destinations visited.

Some ports, such as in Bermuda and Alaska, have implemented policies to ensure that a larger percentage of the passengers' expenditures will be made at the destination visited, instead of on the vessel itself. To a lesser degree, Belize has achieved the same objective by insisting that all entertainment and profitable activities on board cease while the ships are anchored in port. Belize has the highest percentage of disembarking passengers – 85% -- in the entire Caribbean. In contrast, Costa Rica has 60% and Honduras 35% of passengers who disembark.

Figure 11: Net expenditures per passenger for tours and purchases in four ports

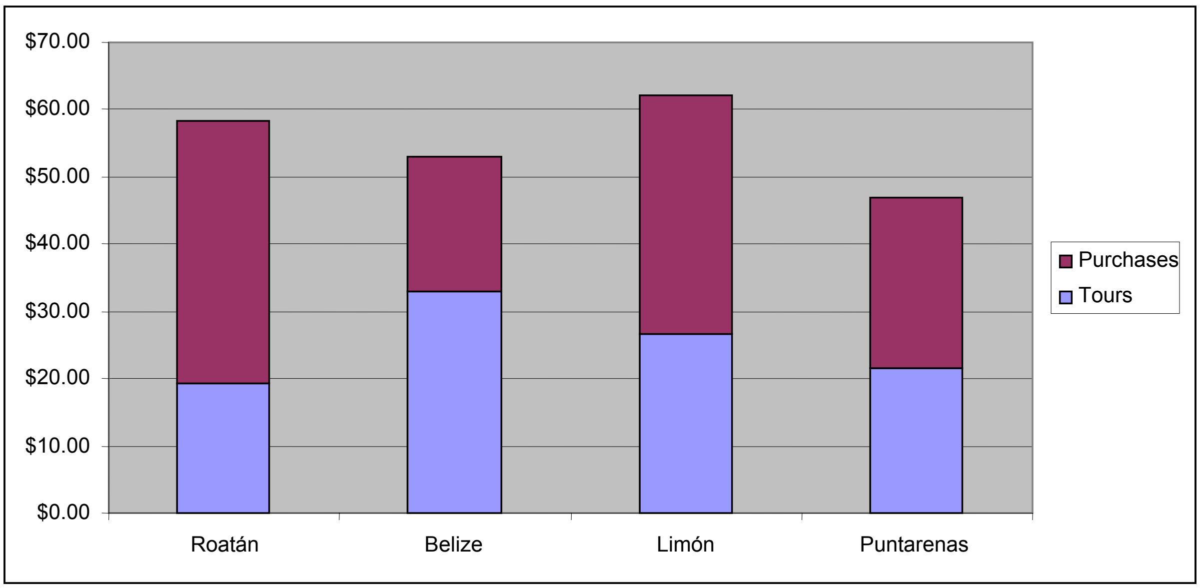

Table 1: Central American Comparisons, 2005						
	Belize		**Costa Rica**		**Honduras**	
Topics	**Cruise Sector**	**Stayover Sector**	**Cruise Sector**	**Stayover Sector**	**Cruise Sector**	**Stayover Sector**
Arrivals (2005)	800,331	236,573	280,017	1,659,167	396,956	749,400
% of Arrivals from U.S.	96%	62%	63%	45%	83%	30%
Market growth	14 fold increase 2000-2005 (*fastest in region*)	Growth rate: 4%-8%/year (*slowest in region*)	3%/year 1999-2005	10%/year 1999-2005	17%/year 1999-2005	64%/year 1999-2005
Passenger spending/day	US $46/day [a]	US $96/day	US $55.24 [a]	US $120 [c]	US $58.38 [a]	US $56.10
Passenger spending/visit	US $46/visit	US $653/visit (*14 times more*)	US $55.24	US $1000 [c] (18 times more)	US $58.38	US $600/visit (10 times more)
Total earnings in local economy	US$30.6 million	US $144 million	US $18.9 million [b]	US $2.1 billion	US $28.6 million [b]	US $431 million
Taxes	US $7/passenger	US $36.25 airport exit tax; 9% hotel tax	US $2.09-2.50/ passenger; 13% sales tax	US $26 airport exit tax; 3% hotel tax; 13% sales tax	US $9.50/ passenger	US $31.40 airport exit tax

a. For disembarking passengers, for tours and purchases.
b. Including port fees, taxes and purchases on ship.
c. Average, 2005 airport surveys.

B. Competitive advantages of Central America as a cruise ship destination

The Caribbean is a consolidated destination for cruise lines, and its positioning is such that, for many Americans, "Caribbean" and "cruise" are closely associated terms. But in this context, "Caribbean" refers to the eastern Caribbean islands, not to the Caribbean coasts of Central America. This area is a relatively new destination for cruise lines, although Costa Rica has been receiving cruise ships for over 20 years. An analysis of the strengths, weaknesses, opportunities, and threats for cruise ship tourism in Central America (SWOT analysis) indicates that the strengths include a great variety of natural and cultural attractions that do not exist in comparable form in the Caribbean islands (Table 2). Moreover, Costa Rica, Panama, and Guatemala have large ports for cruise ships in the Caribbean and the Pacific. Nicaragua and Honduras could eventually offer the same port facilities.

Table 2: SWOT Analysis of Costa Rica, Honduras, and Belize			
	Costa Rica	Honduras (Roatan)	Belize
Strengths	− Ports on the Caribbean and the Pacific − Known nature tourism destination − Near attractions such as tropical forests, suitable beaches, volcanoes, and many adventure activities − Use of existing port infrastructure − Not susceptible to hurricanes − Convenient for Panama Canal itineraries − Sites visited by passengers are not fragile	− Cruise ship port on the Caribbean − Convenient as an added destination to western Caribbean destinations − Known destination for diving and snorkeling − Roatan inhabitants are English speakers − 7-day itineraries in this sector of the Caribbean cost the same as for the eastern sector − Safe location for passengers who do not buy tours	− Cruise ship port on the Caribbean − Official policies for cruise ships since 2000 − Cruise ships must shut down entertainment on board while in port, thus stimulating passengers to disembark − Highest percentage of passengers disembarking in the Caribbean (85%) − One of the world's best coral reefs − English is the official language − Located near Cozumel, Mexico, one of the first cruise ship destinations − Mayan archeological cultural attractions − Tropical forest and cave attractions − Center for cruise ship passengers in the city offers business opportunities for local entrepreneurs

Table 2: SWOT Analysis of Costa Rica, Honduras, and Belize			
	Costa Rica	Honduras (Roatan)	Belize
Opportunities	− 50-60% of passengers currently disembark (more than Honduras but less than Belize); these figures could be increased − Cruise ship tourism could benefit the economically disadvantaged populations of Puntarenas and Limon, but policy and institutional reforms will be needed	− The 35% of passengers who currently disembark could be increased. − New dock/wharf concession may open opportunities for both passengers and local entrepreneurs	− Construction of landing dock to eliminate the use of skiffs to transport passengers to wharf − Reduction in 2006 arrivals constitutes an opportunity to reevaluate policies
Weaknesses	− Further from U.S. ports, compared to other destinations − Intermediate quality beaches − Few attractions in ports − Used for 8-day itineraries, which are less popular	− Only 35% of passengers currently disembark − Low-quality beaches − Little diversity in tourist services due to insularity and small size − According to PMAIB[n] study, the coral reef is plainly deteriorating	− On-shore expenditures per passenger are $44, well below the overall Caribbean average of $77. − Skiffs ("tenders") used to transport passengers to wharf
Threats	− Competition for space with freighters threatens business − Increase in crimes committed with visitors as victims is weakening reputation as a tourist destination	− New dock/wharf concession could exclude local entrepreneurs if not managed correctly − Loss of areas with vegetation due to increase of housing sales to foreigners − Increase in crime due to immigration from mainland. − Large groups of passengers lower the value of the tourism experience for visitors staying in the area	− Dock construction and on – shore land concessions in port could put some local enterprises out of business − High volume of passengers exceeds capacity of some attractions − Plans to increase duty-free purchases may reduce revenues for local economy

In comparative terms (Table 3), certain differences between Central America and the eastern Caribbean clearly stand out. Central America is visited by many more small cruise ships ("*pocket cruises*" or "coastal cruisers") that start and finish in the region. These smaller cruise ships are often more luxurious, and according to some experts interviewed for this study, they tend to

[n] Environmental Management Program of the Bay Islands (Programa Manejo Ambiental Islas Bahías – PMAIB), www.islasdelabahia.org

generate higher expenditures made per passenger in a greater number of places than do the larger cruise ships. This issue deserves deeper research. Another clear difference is Central America's proximity to the Panama Canal zone, which is an attraction by itself, while making Central America a natural destination for cruises that cross from one ocean to another.

In terms of natural attractions, the Caribbean has some of the best beaches in the world, with excellent positioning for the American market. Moreover, most of the islands have coral reefs, a number of which are still in excellent condition, although almost all of them are undergoing a certain amount of deterioration for reasons unrelated to tourism.

All Central American countries have good beaches, but not necessarily near cruise ship ports. In this regard, the Caribbean islands have the advantage. As far as coral reefs, Belize and Honduras share the Mesoamerican Reef, one of the world's best, although it too is deteriorating. In the case of Roatan, its reef's deterioration is due to factors other than tourism (global warming, for one) and also to cruise ships which anchor there, as well as smaller passenger boats.

Central America has comparative advantages in terms of its wider range of attractions (volcanoes, colonial cities, beaches, coral reefs, adventure tourism, tropical forests), but the eastern Caribbean has an important historical positioning.

As long as the cruise lines do not make an effort to distribute more equitably their profits, and as long as the governments of Central America and the Caribbean do not organize themselves in such a way as to have more negotiating power with the large cruise ship companies, the sustainability of this type of tourism will be at risk. In some countries, there has been a trend among the cruise lines to establish landing ports and the sale of products in a vertically integrated manner, under the control of the cruise lines themselves. This trend can exacerbate the already limited distribution of income, as long as there are no government policies to ensure that the tourists buy from local vendors and providers.[o]

Belize and some of the Caribbean countries are taking part in the "Freestay Caribbean" program to lure cruise ship passengers to come back on future vacations as visitors staying on shore by offering them large discounts at local hotels, restaurants, and stores.

In order to negotiate effectively as a united front, the Central American countries would need to emphasize their competitive advantage over the eastern Caribbean. First, with the sole exception of El Salvador, all of the countries in the region have coasts on the Caribbean. The term Caribbean itself now seems directly linked to cruise ships, as the cruise lines have strongly promoted this region for years. The Central American countries can use their competitive advantage of Caribbean coastlines that have very strong natural and cultural attractions, to work together so that they can improve their negotiating leverage with the cruise lines. This would lead to more advantageous results than competing on an isolated basis with one another with respect to concessions, fees and permits for docking and departures, etc. Table 3 indicates a number of the aspects that would permit the Central American countries to propose a unified negotiating strategy, based on strong competitive advantages.

[o] For example, the system of vouchers implemented in Bermuda for passengers to purchase products and local services.

Table 3: Market dynamic for the different segments of the cruise ship industry at destinations competing with Central America, especially those in the eastern Caribbean		
	Central America	**Eastern Caribbean and other destinations**
Destination accessibility	• Caribbean and Pacific coasts • Near the Panama Canal • Voyages lasting 7-11 days available for Belize and Honduras; 8 days or longer for Costa Rica • Trips along the Panama Canal • Voyages lasting 7 days in the western Caribbean cost the same as those lasting 7 days to the eastern Caribbean • Voyages lasting 11-14 days available from the west coast of the US and Mexico, with a stopover in Puntarenas	• Variety of destinations at a relatively short distance from one another • Some destinations in the eastern Caribbean reached on short voyages from the US of only 4-5 days, though most last 7-11 days • Voyages lasting 7 days in the western Caribbean cost the same as those of 7 days to the eastern Caribbean
Origin and type of voyage	• Long voyages on large vessels from Houston, Charleston, Miami, New York, New Orleans, and Fort Lauderdale • Long voyages on large vessels from Los Angeles, San Diego and Acapulco • Voyages on smaller vessels ("pocket cruisers" or "coastal cruise ships"), many of them departing from Costa Rica, Panama, and Belize, with numerous stops at small ports or anchoring sites.	• Both long and shorter voyages setting sail from Miami, New Orleans, New York, Orlando, Galveston, and San Juan.
Existing policies	• Well-defined in Belize: on-board entertainment to cease while vessel is in port, limited number of passengers • Honduras requires construction of infrastructure for dock concessions. Bidding process underway for another port on the northern coast. • Yet to be defined in Costa Rica. Preference is given to cruise ships over freight vessels at dock in terms of priority and costs.	• Bermuda requires cruise lines to contribute to a training fund, and each passenger receives a US$30 voucher for purchase s made ashore • The "Freestay Caribbean" program allows cruise ship passengers who return as conventional tourists to take advantage of large discounts in Antigua, Belize, Cozumel, Dominica, Grenada, Jamaica, St. Croix, St. Thomas, St. Kitts, St. Lucia, and St. Marten

Table 3: Market dynamic for the different segments of the cruise ship industry at destinations competing with Central America, especially those in the eastern Caribbean		
	Central America	**Eastern Caribbean and other destinations**
Port infrastructure	• In Honduras, Roatan's improved infrastructure includes a rebuilt cruise ship dock in operation with new, larger facilities • Belize still has to use skiffs to get passengers shore, though a new dock will soon change this. There is a market for tours and sales (the "*Cruise Village*") • Costa Rica has ports designed to dock cruise vessels. The Puntarenas dock requires restructuring. In Caldera, Moín y Limon cruise ships compete with cargo ships. There are small crafts and souvenir sales areas in both Limon and Puntarenas	• The infrastructure quality in the eastern and southern Caribbean varies. Some ports can handle various vessels at once, and are exclusively for use by cruise ships
Per capita tax	• Per passenger, Honduras charges US$9.50, Costa Rica between US$2.09 y US$2.50, and Belize US$7	• Per capita tax of US$8.66 ($60 in Bermuda).
Quality of natural environment	• As it is part of a continental landmass, Central America's biodiversity is much greater than that of the Caribbean isles. There are large areas of thriving tropical forest near the cruise ship ports of call. • The continental reefs tend to be smaller than those near islands because of river sedimentation. Thus, Central America's best reefs are near coastal areas such as the Belize keys and both San Blas and Bocas del Toro in Panama. Roatan's reef has plainly deteriorated due to the effects of tourism. • Costa Rica has volcanoes close to its ports	• The coral reefs of the Caribbean isles range from excellent to acceptable quality, depending on their distance from urban and port areas, and on the impact of the fishing industry. • The island forests are smaller and have less biodiversity than those on the continent, with little primary forest remaining. Nevertheless, the forests on Dominica, Grenada and Puerto Rico are tourist attractions • Although many of the Caribbean isles have native species, these are not attractions for cruise ship passengers

Table 3: Market dynamic for the different segments of the cruise ship industry at destinations competing with Central America, especially those in the eastern Caribbean		
	Central America	**Eastern Caribbean and other destinations**
Main attractions	• Beaches at all countries near ports are of acceptable quality • Excellent coral reef diving and snorkeling in Belize, Honduras and Panamá. • Important Mayan sites in Belize. The Copan site is not accessible from Roatan but will be from ports to be built in the future • Thriving tropical forests in Belize, Costa Rica, and Panama (forests are not accessible from Roatan, but can be reached from other ports) • Volcanoes and adventure tourism in Costa Rica • Panama Canal	• Excellent beaches at nearly all destinations • Excellent diving and snorkeling on most islands • Colonial era city of San Juan, Puerto Rico • Tropical forests of acceptable quality in Jamaica and Puerto Rico • A number of destinations have aquatic parks and private recreation areas for cruise ship passenger use: Labadee, Haiti; Cococay, Bahamas; Boatswain's Beach, Grand Cayman, and others)

C. Advantages and disadvantages of cruise ship tourism vs. other types of tourism (including other types of maritime tours: coastal cruises, etc.)

Although the total of expenditures made while on shore by cruise ship visitors *per day* is similar to that of other tourists (US$45-85 per cruise ship passenger, vs. US$50-150 per conventional tourist) each overnight tourist ends up spending from US$570-1450 during an entire trip. The amount of money spent by cruise ship visitors that filters into the local economy is significantly lower in comparison to other kinds of tourism. The cruise lines pocket most of the earnings, as they function like ("all-inclusive" tour complexes. On the other hand, most of the earnings distributed at the destination are realized by a small number of large enterprises, thus reducing the multiplier effect. This trend may be worsened with the plan of several cruise lines to establish their own private ports where they can exercise complete control over tour packages and other activities on shore (such as already takes place in Belize, and at Majahual in Mexico)

Tourism policies should provide incentives for smaller cruise ships ("pocket cruises") instead of the present preference for larger ships operating on massive scale. The small-sized vessels do not compete with cargo ships for dock space; on the contrary, they contribute to smaller marinas and ports, which have been becoming increasingly more numerous. They potentially add more value than the massive tourism of the larger ships because they are dispersed throughout the country without saturating passenger sites. Moreover, all their passengers are discharged at each destination (where visitors then dine at good, local restaurants), and these "pocket cruise" companies also contract higher quality, more expensive services (for example, by hiring specialist guides); their passengers also receive information on environmental issues. Examples of these smaller luxury cruise lines include Abercrombie and Kent International, with luxury voyages to the Antarctic; Lindblad Expeditions, which sails to numerous destinations, including Costa Rica; Windjammer Barefoot Cruises, which pilots small yachts through the Caribbean; and Swan Hellenic, offering historical tours through the Mediterranean, with talks and conferences. At present, Costa Rica receives this segment of cruise tourism, which is well distributed and leaves considerable earnings along the Pacific coast . According to maritime agents and tour operators, the smaller vessels in Costa Rica produce much higher economic benefits than do the larger, conventional cruise ships, and they do not constitute a burden on natural attractions. In addition, many of these cruise ships use Costa Rica as a base or home port, which in turn generates even higher earnings and revenues for the country in terms of sailing departure and air travel taxes, sales of supplies, and hotel stays for both passengers and crew members. More studies should be carried out to assess the effects produced by these smaller cruise ships.

V. Recommendations for a regional strategy and policies to favor the sustainability of cruise ship tourism

A series of recommendations, strategies and policies for managing cruise ships in Central America have emerged from this study. The implementation of these strategies and policies will help attract and maintain cruise ship tourism while mitigating adverse social and economic effects as well as increasing the economic benefits for a wide sector of the local population. The proposed strategies are based in part on the following observations.

- A central question of this study has been whether cruise ship tourism complements or competes with conventional tourism. Based on analysis of figures obtained in the field combined with a thorough examination of pertinent policies, reports, and research done, the conclusion is that cruise ship tourism in Costa Rica and most of the other countries of the region is economically much less worthwhile than conventional tourism. Conventional tourism with on shore stays has more positive social impact; it produces higher economic return – per person on a daily basis, per visit, and in overall earnings – and it has been the bastion in these countries. Since the end of the 80s, Costa Rica has built up an image and international reputation as an important ecotourism destination, with tourism becoming its most important source of income. Meanwhile, Honduras has secured a position in the market with the Islas de la Bahia for marine ecotourism, Mosquitia for naturalist tourism, and Copan for cultural tourism. The other Central American countries are in the process of creating their ecotourism in cultural tourism sectors with similar resources.
- At all ports studied, tourists have complained about the increase of traffic both on streets as well as at beaches and nature areas. Such impact, while less environmental than one affecting the enjoyment of the tourist destination, does represent a latent risk to the ecotourism and beach tourism industries.
- The greatest environmental impact comes about whenever a new port is established or used in a sensitive or fragile area; vessels berthing at previously established ports cause less environmental impact. Those ports which are close to coral reefs, for instance can cause severe impact due to (a) visits that exceed carrying capacity (b) damage brought about by novice divers (c) anchoring in unsuitable areas (d) pollution of the reef, and (e) damage due to fishing carried out for restaurants serving tourists. Similar harm is produced in highly fragile terrestrial or coastal habitats (tropical forests, wetlands, or marshes). Although it is true that conventional tourism can produce the same damage, the volume of daily visitors is much higher with cruise ships.
- One significant negative economic impact is that cargo freighters, especially those transporting export goods, are blocked and delayed by cruise ships. It would seem that

establishing a special dock just for cruise ships could solve this problem, but if it is built with public funds, the construction costs may well equal or even exceed the total possible economic benefits. On the other hand, granting the cruise lines the dock construction contract could put local service providers at risk. A number of countries in the Caribbean and Central America, as well as in other parts of the world, are offering contracts to cruise lines to establish tourist enclaves which are vertically integrated. Yet, as long as the concessionaire has absolute control over the service providers that will hold permits to operate within the enclave, there will be a tendency to favor those providers that are most useful to the cruise lines, and even for cruise lines to directly provide the services to the exclusion of local entrepreneurs.

- The smaller ports and docks in shallower waters which are suitable for less sizeable vessels ("*pocket cruises*") could be an alternative for fragile areas. The evidence which as been gathered so far indicates that the profile of the tourist who vacations on these vessels both spends and interacts more while on shore, but there no studies have been carried out as yet.
- Paradoxically, the services offered to cruise ship crew members could be equal to or even more beneficial for small and medium-sized enterprises than the benefits from passengers, since the latter tend to make use of the services offered by larger businesses.

A. Strategies and Recommendations

1. Regional coordination

Strategy: **Coordinate cruise ship policies among the countries of the Central American region in order to eliminate the descending spiral of competition that puts their negotiations with the cruise lines at a disadvantage.**

Justification:

Effective national policies for cruise ships consist in ensuring that this activity will benefit society such as through earnings for local residents, generating capital investment, and an improved quality of life. The evidence from Honduras and Costa Rica shows that little in the way of benefits for the local communities is produced by cruise ship tourism, and that it in fact consumes resources such as port infrastructure, natural areas, and other sites that could support development in other applications of greater value.

The large conglomerates of the cruise ship tourism industry have successfully used their economic power and negotiating skills to force destinations and countries to compete against one another in order to obtain more favorable terms. The consolidated negotiating position of the cruise lines, coupled with the lack of unified criteria on the part of the region's governments, will make it difficult to establish more advantageous terms than those already observed.

This situation becomes irreversible once the governments authorize cruise line operations and mandate ports to receive their vessels. Afterwards, local entities can but compete between each other to sell their services to the cruise lines, and this sort of competition is based on high volume and narrow margins.

The way for Costa Rica and Honduras, as well as other Central American nations, to improve the terms of their dealings with the cruise line industry, would be through a unified, cohesive, stance that is both national and regional. This would require that governments initiate transparent dialog with the other interested parties – members of the tourism industry, labor unions, port and tourism communities, civil workers and officials in protected areas, environmental NGOs, etc. It is necessary that each country and the region as a whole establish a coordinated position (on regulations, commissions, goods, services, participants, investments, quality of service provided in port, etc.) and that they present a united front during their negotiations with the cruise line companies.

These aspects have to be coordinated at the regional planning level – governments (officials from tourism, environmental, and coastal resource sectors), municipalities and private enterprises (local, national, as well as the cruise lines) – extending from Quintana Roo to the Darien, and from Chiapas to the Panama Canal, to keep the region's ports from becoming saturated, and to prevent unfair competition as well as adverse economic impact across borders.

Recommended policies: Regional uniformity has to be ensured in terms of:

a. conditions for port and dock concessions
b. regulations for enclaves operated by cruise lines, as well as their jurisdiction
c. environmental regulations for cruise lines
d. port use fees
e. tax per passenger
f. duty free sales

Recommended measures:

a. A regional coordination unit for cruise ship policy must be established.

b. Port policy has to require environmental, social, and economic impact assessment from the cruise lines before granting concessions or awarding contracts. The economic aspects for the local populations related to offering high quality employment opportunities, as well as the creation of small and medium-sized enterprises, should be taken into account.

c. The negotiation strategy for dealing with the cruise lines should include incentives to have them establish voluntary initiatives for the training and development of communities receiving their vessels.

d. Trusts with funds from the cruise lines and passenger donations should be set up, with governmental counterpart contributions (based, for instance, on the per capita tax). The example of Bermuda's US$60 per capita tax and the US$30 voucher to spend ashore (paid by the enterprise) with its fund for training, offers a possible model to follow.

e. If the conditions offered to a given country are not sufficiently favorable for all affected sectors, the nation must be prepared to break off negotiations.

f. Tools such as social cost-benefit analysis and that of real options are useful to determine acceptable limits. Specific components of a negotiating position could include:

    i. Tax per passenger: set a reasonable and uniform Central American tax (preferably including the entire Caribbean). Honduras currently charges US$9.50, Costa Rica between US$2.09 and US$2.50, and Belize US$7. The average tax per passenger in the Caribbean is US$8.66, which is a mere fraction of the departure taxes charged in airports. In Bermuda, this tax is US$60, with no drop in the number in passengers. Establishing a single tax throughout the region would help port municipalities an officials to defray the costs implied in handling this kind of tourism. At the same time, the downward spiral of competing taxation rates among the countries could be prevented.

ii. Establish a certification system that gives recognition to those enterprises that meet standards of acceptable levels for quality, safety, and sustainability. To achieve greater fairness and transparency, the region's governments could work with local industry and the cruise lines to set up the certification system. At present, some important European tour operators use this type of system to ensure efficient and high quality service for their clients. If handled ethically, tourists know with certainty what they can expect on tours being offered.

iii. Commissions and certification: Establish mechanisms that promote the transparency of paid commissions, and provide incentives for using local enterprises. Currently, the commissions paid by tour operators to cruise lines run around 100%, and the cruise lines are pressuring operators to lower their prices. Moreover, each enterprise pays the cost for promoting its services on the cruise ship. Stores and restaurants frequently pay unofficial commissions to mid-level crew members in exchange for these promotions. Fierce price wars among the various operators are the result, and this ends up in reducing local benefits and quality of service. Honduras handles this situation by having the cruise shops turn in a list of tour prices, including what is paid to the provider, to the port harbor master. Belize requires that entertainment on board cease while the vessels are in harbor. Combining these mechanisms with a certification system that contains ranges for compliance could prove an incentive for better service quality without unfair competition.

iv. Community development fund: Motivate the cruise lines to support local development projects. In recent years, many tourism enterprises have begun programs to support social and environmental projects in host countries. Cruise lines should be encouraged to take part in this growing movement, known as travel philanthropy, by means of corporate donations and voluntary contributions from passengers. The projects needed support should be chosen in collaboration with local organizations and labor unions.

v. Design contingency plans in case a country finds itself obliged to abandon negotiations.

g. All the region's countries that currently receive or could receive cruise ships should manage a policy of information that is open to public debate. In the case of Costa Rica, for example, cruise ship policy could deal with the potential economic benefits for small business in downtown Limon – no such benefits exist at present.

h. A consolidated national position oriented toward achieving set goals set at the regional and local levels should be created in each country.

2. Regulation and environmental control

Strategy: **Ensure that cruise ship tourism complies with international, regional, and national norms related to health, safety, and protection of the environment**

Justification:

Cruise ship tourism occasions a number of negative impacts, which can be mitigated (and in fact controlled by most of the cruise ship operators):

- Damage to fragile natural resources due to contamination, poor anchoring practices, and overuse by tourists
- Congestion and air pollution at tourist attraction sites due to excess visits
- Air pollution caused by the buses and other transport vehicles on the dock when their motors are left running for long periods
- Inadequate handling of solid and liquid wastes
- Wastes possibly dumped into territorial waters, especially bilge, sewage, oil, and solids
- Fresh water consumption in areas with scarce supply

Existing regulations and codes of conduct prohibit harmful environmental practices, but compliance with these norms on the part of all vessels, including skiffs and small touring boats, must be ensured. Other regulations are needed so that carrying capacity in fragile zones is not exceeded, and to maintain the quality of the tourism experience. Not all countries in the region have ratified the existing international agreements on pollution, and regulations (as well as practices) regarding waste management on land vary considerably from one country to the next.

At present there is no general, region-wide scientific system among Central American countries for monitoring nature areas, despite reports on damage caused by tourism; excessive numbers of visitors diminish the quality of the experience and damage resources.[p] For the Mesoamerican Reef and Bocas del Toro there is coordination between (a) the Mesoamerican Reef Systems Project (MBRS)[q] and (b) the initiative of the International Council of Cruise Lines (ICCL), and Conservation International (CI)[r], recognized worldwide for efforts to protect sensitive marine areas. This kind of collaboration must be maintained, and the results obtained should be used to establish or modify environmental policies; in other words, a regional system of for monitoring, evaluating, and applying corrective actions could be built on this foundation.

A certification system for waste disposal does exist in Costa Rica, along with suitable regulations, but verification is deficient at times. In Belize, solid wastes are dumped without a single appropriate landfill site. No waste disposal system was observed in Honduras.

[p] For an example of the implementation of this type of policy, see the "Revised Action Plan for the Development of the Australia-Pacific Cruise Industry" (Government of Australia, 2006) and Sweeting, J. & Wayne, S.L. (2003) "A Shifting Tide: Environmental challenges & cruise industry responses". A regional policy should also coordinate with the initiatives of the International Council of Cruise Lines (ICCL) y Conservation International (CI) to globally map sensitive marine zones.

[q] Project documents at http://www.mbrs.org.bz/espanol/docBD.htm#doc3.

[r] Project description at http://www.celb.org/xp/CELB/news-events/press_releases/03142006a.xml.

Recommended Policies:

a. Establish an agency in each country that will be responsible for implementing an enforcing the MARPOL 73/78 agreement.
b. Ensure that ships have regular personnel trained on board to operate systems for preventing pollution, as well as environmental officials.
c. Establish a regional system for environmental and social monitoring and evaluation (M&E), both terrestrial and marine, with a mechanism for taking corrective actions.
d. Use port entry fees (per vessel or passenger) to finance the M&E program on a permanent basis.
e. Prohibit waste discharge until ports have suitable technology for handling this, as well as mechanisms for disposal verification and certification.

Recommended Actions:

a. Costa Rica and El Salvador should ratify MARPOL and implement it.
b. Cruise lines should be urged to implement the recommendations for good practices of the OCTA (Ocean Conservation and Tourism Alliance) Science Panel, available at www.celb.org/xp/CELB/programs/travel – leisure/cruises.xml.
c. For environmental and social impact monitoring and evaluation, coordination has to be carried out with environmental officials on board vessels as well as with environmental ministries and recognized NGOs in the affected areas. The information gathered should be used to determine which corrective actions are needed, and to propose new policies. An environmental socioeconomic baseline must be established before starting new port projects for cruise ships.
d. Part of the revenues collected (such as a portion of the tax per passenger, for instance) should be used to maintain protected areas. The advantage of using a tax per passenger for this purpose is that the amounts paid vary in proportion to the volume (i.e., impact) of visitors.
e. Carrying capacity limits should be established and put into practice at all sites, as well as apply zoning for high use and protected areas.
f. Appropriate infrastructure needs to be built according to the volume of visitors. To control damage to natural and tourist site resources, methods such as Acceptable Change Limit, Tourist Carrying Capacity, Thresholds for Possible Questions, Visitor Impact Management (VIM), among others, can be used to prevent the deterioration of the environment and to maintain the quality of the tourists' experience on land.[s] The actions, schedules, and numbers of visitors in fragile zones have to be taken into account.
g. A penalty system (fines and/or permits revoked) needs to be set up for operators and guides that disobey regulations.
h. For managing waste, once a certification system is in place for both proper disposal of waste products and for permits issued to those who transport waste, then a simple program to check up on compliance will be sufficient. In some countries, observers on

[s] An explanation of these methodologies would be beyond the scope of this study, but they all deal with how to estimate an acceptable number of visitors at a given site. For details, see "Guide for best ecotourism practices in protected areas of Central America" *("Guía para las mejores prácticas de ecoturismo en las áreas protegidas de Centro América*"), Ana Báez and Alejandrina Acuña, PROARCA/CAPAS, 1998.

board ensure that wastes are not dumped; this could be required for cases in which illegal activities are suspected.

3. Zoning

Strategy: **Establish a regional zoning policy for sailing, anchoring, and port development in sensitive areas.**

Justification:
All port and wharf construction for cruise ships in untouched or fragile areas should be avoided, such as the Mesoamerican coral reef, wetlands, sea turtle egg-laying sites, and the primary forest of the Mosquitia coast. Cultural, environmental, and historical site damage can not be justified by what amount to limited economic benefits for a given country.

In areas that are deemed only somewhat fragile, rather than constructing permanent docks, smaller-sized cruise ships could be anchored and passengers brought ashore in skiffs or tenders. In the case of building a new port in Honduras, it would be best to use a site that is already degraded and near one of the points under consideration in the financial feasibility study.

Recommended Policies:

a. Sailing, anchoring, and berthing zones must be authorized based on scientific data, according to a vessel's draft (the depth of its keel when loaded) and possible impact.
b. Tourism should be restricted in pristine areas, and in those where natural or resources are fragile.
c. Existing urban port areas should have priority in decisions to built new port facilities created exclusively for cruise ships. Stipulations to prevent interference with cargo handling should be included.

Recommended Actions:

a. Explicit decisions must be taken regarding which attractions will be accessible to massive numbers of tourists, which will only be open for low volume tourism, and which others will be completely protected.

4. Infrastructure and public funds

Strategy: **Ensure that public funds will be invested to generate public benefit.**

Justification:
One of the key issues related to the global cost-benefit ratio creation of value for the society is the opportunity cost of public funding, whether funds come from tax revenues, tourist surcharges, or fees for use of public facilities. Counties have both the right and duty to allocate scarce public funds in order to achieve the greatest public good. Empirical evidence from Costa Rica and Honduras shows that the benefits of cruise ship tourism do not justify a substantial public investment in infrastructure that directly favors the cruise lines. This can be applied to new investments (such as tourist "villages" or complexes) as well as the use of existing investments (for instance, assigning space for cruise line vessels at the dock).

Nevertheless, this study and a parallel study done in Belize have both indicated that environmental and social damage is minimal when passengers disembark at existing urban ports, such as at Limon, Puntarenas, and Belize City, and that the local economic benefits can be high – although currently, they are not. Thus, public investment in urban public spaces related to established ports would be justified so as to improve the ambiance of attractions so that tourists will spend more time and money there, which will benefit local businesses.

Concerning concessions, Roatan's exclusive dock for cruise ships is located side by side with its freight loading docks, and is a model that can be replicated elsewhere, provided that the capital outlay can be defrayed in part by the cruise lines themselves or private investors. To prevent financial imbalances, port fees have to be high enough to cover direct and indirect operational and maintenance costs occasioned by the cruise ships berthed in port. Establishing ports and enclaves exclusively for the cruise lines would foster the present trend toward vertical integration of the cruise line activities to the exclusion of local enterprises. Any negotiation of this type must foresee such effects.

Recommended Policies:

a. Decisions made regarding potential investments to support the development of cruise ship tourism should be based on realistic estimates of the benefits that will result. Likewise, they should be compared with other types of potential investments in other tourism sectors, as well as others outside the tourism sector, that might achieve similar development results.
b. Public investment in cruise ship tourism should be focused on the use of existing urban centers.
c. Port and wharf concessions should be financed by cruise lines, not by direct or indirect expenditures from public coffers.
d. . Port and wharf concessions should be awarded in such a way that local enterprises are the beneficiaries, thus avoiding vertical integration controlled by cruise lines.

Recommended Actions:

a. A real analysis must be carried out of cost-benefits ratios for new cruise ship ports or the expansion of existing ports, based on true economic, environmental, and social costs. These costs vary significantly from negative impact of little consequence at existing urban ports to massive negative impact in pristine areas. Subsidies and hidden costs have to be openly assessed and their relative merits compared with other investments (in tourism and in other sectors), according to the development goals that have already been established.
b. Private facilities: Public funds, including revenues from passenger taxes, should not be used to finance private docks, tourist villages and complexes, and other facilities belonging to cruise lines or any private corporations. The tax levied per passenger is known as a tax on the industry for the host countries. Thus, these funds should be utilized to manage and improve public sites and protected areas, as well as to improve infrastructure.

5. **Economic aspects: Fostering high-value tourism**

Strategy: **Strengthening the country's key assets and international reputation to promote on-shore high-value tourism (present and/or future).**

Justification:

One of the most adverse effects caused by mass tourism in Central America (including cruise ship tourism) is the deterioration of infrastructure, resources, and the general quality of the tourist's experience. High-value tourism businesses (generally on-shore stays) create substantial economic and social benefits for host countries and their communities. These visitors spend time and money at natural and cultural sites, so if the places they visit show signs of deterioration due to overuse, or if they are overcrowded, high-value tourists' willingness to pay to visit them and to return to the host country will diminish.

To the extent that mass tourism reduces the quality of the on-shore tourist's experience, the destination suffers. This is particularly important since Costa Rica, Honduras, Belize, and Guatemala all have successful niches in the accommodations market based on the quality of their wilderness and cultural sites. Tourists pay substantial amounts to visit such sites, which are susceptible to qualitative deterioration (such as has taken place at Roatan's coral reefs) and the deterioration of the general quality of the tourist's experience due to the presence of crowds of visitors (noted at the Cahuita National Park).

Very large groups of tourists are using the same resources during the same high season, and this diminishes the sites in terms of quality of experience, as frequently observed in both Roatan and Belize. High-value tourists who make a large contribution to the economy complain about the crowds, and they withdraw from sites frequented by cruise ship passengers on tour. This could generate strong economic repercussions in the future. To prevent losses for on-shore tourism at nature and cultural sites, zoning should be considered to physically separate cruise ship tourists from those who are staying at the places visited, since the latter are generating higher profits per capita.

Taking into account the poor ratio of profits per capita of cruise ship tourism in comparison with visitors staying at on-shore accommodations (1:10 or lower), it is clear that Central America's promotional expenditures should be targeted at tourists who will stay at lodgings on shore.

Recommended Policies:

a. Temporarily separate mass tourism crowds from high-value tourists.
b. Target each country's promotions at tourists who will lodge on shore.

Recommended Actions:

a. Reserve certain sites for cruise ship passengers on specific days. Physical segregation has to coincide with zoning for nature sites. Some entrepreneurs have managed to service both markets, on-shore lodgers and cruise ship visitors, by means of separate facilities and attractions on the same property.
b. Target marketing funds at tourists who will lodge on shore. Cruise lines have abundant resources to promote their destinations, and they also charge tourism service providers at

ports for the right to promotion onboard their vessels, exacting fees in addition to the 100% commissions collected for tours.

6. Social aspects and training

Strategy: **Establish a clear definition of the various goals (economic, environmental, governmental, etc.) that are sought for development of cruise ship tourism in order to create benefits for local populations.**

Justification:

The definition of development goals serves as a foundation for decision-making when there are alternative strategies and investment options. Ideally this will take place not only with cruise ship tourism, but as an integrated part of a national tourism strategy.

Democratizing the distribution of earnings from organized excursions is a laudable goal, but this has to be balanced with the need to ensure quality, trust, and safety for clients. Training in good practices as well as in environmental certification and quality could contribute to closing this gap.

Along with special docks for cruise ships in port cities, training programs need to be offered to local inhabitants in providing quality tourist services. Surrounding urban areas have to be restored and made secure, with consulting and credit financing available so that local small enterprises oriented toward anticipating and meeting the needs of passengers and crew members can be established. The investment must include public safety and health measures, as well as the means for controlling aggressive street vendors.

Bermuda's measures constitute a viable model for Central America, with the US$60 tax the country charges per passenger, along with the voucher for US$30 toward purchases made ashore (both paid by the cruise lines). Also provided by the cruise lines is US$1.5 million in job training programs for local youths.

On the other hand, the social impact and other problems caused by the large number of crew members at ports in Costa Rica and Honduras have to be weighed against the important economic benefits they bring, as solutions to such issues are sought.

Recommended Policies:

a. Development goals clearly established in cruise ship tourism policies must include measurable challenges and objectives for the desired results. Potential investments have to be considered in terms of these goals for development.
b. Cruise ship passengers should be encouraged to buy local products, especially when the dock or port is a cruise line concession.
c. Means for handling large numbers of visitors need to be considered, as well as a voucher program for use at local businesses providing transportation, tours, meals, and souvenirs.
d. Likewise, the right conditions have to be ensured so that crew members will be able to obtain goods such as crafts and other souvenirs at small, local businesses, as well as easily make arrangements to go on tours ashore.

Recommended Actions:

a. Among the aspects that could be optimized at urban port areas are the following:
    i. Local crafts: Governments, the private sector, and NGOs could offer training and promote better quality and a wider variety of crafts. A good model is that of Oaxaca, Mexico, where a program of master artisans and apprentices has been created.
    ii. Local culture: Local celebrations and customs are strong tourist attractions, but in many places traditional culture has been lost. This could be revived with little effort and cost.
    iii. Local cuisine: Regional cooking is currently a rapid growth interest for tourists. Restaurants, stands, and hotels could offer local recipes, which celebrations would then enhance. Also needed is training in standards for safe handling of food.
    iv. New services: Some designated hotels could offer services that reflect the latest market trends.

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7. Research

Strategy: **Obtain reliable information on a continuous basis regarding both cruise ship and conventional on-shore tourism in order to be able to make well-founded decisions.**

Justification:
During the course of carrying out this study, the lack of vital information about key aspects of cruise ship tourism became glaringly obvious.

Recommended Actions:

a. Obtain the data that is lacking on cruise ship tourism in order to establish an information baseline.
b. Keep information up to date on an annual basis in each country, in comparable form, that is, in terms and formats that can be used for comparisons.

Recommended Actions:
The following areas require additional study to fill gaps in information:

a. Thorough surveys done on the features of conventional on-shore tourism. Currently, exit interviews in the airports are used to obtain data about the state of the multiple-day tourism market. It would be useful to periodically carry out deeper research on the industry in various countries.
b. Smaller-sized cruise vessels ("*pocket cruises*"): Preliminary data from this study suggests that this kind of cruise ship produces greater economic benefits per passenger in host countries, with a better geographic distribution and a larger number of small and medium-sized businesses taking part. To determine the sum of these benefits, specific study of this matter is advised.
c. Contracts and concessions for berthing and dock use: An important component of cruise ship policy that merits more study is the process that governments of the region apply in order to determine, among other matters, (a) the right to anchor at its ports (b) the conditions offered (c) dock concessions and contracts for port and other facility construction (d) which lines receive these rights (e) exclusivity (f) fees and taxes (g) the obligations of cruise ships while in port. By understanding the terms of the rights

authorized, the handling of the process, problems to avoid, and successful models to emulate, destination communities could be helped to maximize the benefits of cruise ship tourism. Knowing how to regulate the frequency and duration of ships docking at a given port also could yield benefits.

d. Employment analysis: Creating jobs is often cited as a justification for cruise ship tourism, but no reliable data exist on wages and types of employment generated by multiple-day tourism or cruise ship tourism.
e. Continuous and systematic monitoring of the impact of cruise ship tourism on natural and cultural attractions.
f. Biannual study of the impact of cruise ship tourism: Given the rapid changes in the cruise ship industry, an evaluation program should be set up to assess the matter every two years; this work could be carried out by local universities in each country, and would make it possible to evaluate trends and impacts with the present study used as the baseline.
g. Analysis of income to governments from taxes on cruise tourism and conventional overnight tourism.

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Appendix I

Cruise ship tourism in Honduras

A. Introduction

Tourism is Honduras' third largest source of earnings, surpassed only by assembly plant wages and money sent from relatives working abroad. So far this decade, profits from tourism have grown at an annual rate of 11%. By 2005 overnight tourism[20] earned more than 430 million dollars, which amounts to 6.6% of the country's gross national product. The Honduran tourist industry directly employs 48,400 workers, and indirectly provides employment for 56,500 others. [21] In 2005 the number of conventional tourists reached 749,000, with expenditures per visitor of US$576, not counting airport departure taxes (approximately US$31), for a total of about $600.[22]

Cruise ships have been coming to northern Honduras since 1999, mainly to the Islas de la Bahia, although three vessels arrive each month in Puerto Cortes. Roatan is the largest of the three islands in the Islas de la Bahia group, and is the one with the needed facilities for docking cruise ships. The cruise ship wharf originally was used for trade and general coastal traffic; the government modified it in 2001 for cruise ship docking. In 2006 it was contracted in private concession to the Royal Caribbean line for a period of 30 years. [23]

At present the Honduran government is weighing the possibility of building another port specifically for cruise ships on the Atlantic shore. The sites being considered are Bahía de Omoa, Bahía de Tela, La Ceiba, and Bahía de Trujillo. The feasibility study carried out by Bermello, Ajamil & Partners in 2005 indicated that a cruise ship port in Tela would not be practical in terms of the investment, though a dock for tenders or skiffs to transport cruise ship passengers to shore would be feasible. According to the study, the best options would be Omoa or Trujillo, with low costs for moderate-sized projects and high potential.

B. Cruise ship tourism compared to overnight tourism

In 2005, Honduras received 151 cruise ships in Roatan, with 278,000 passengers and 119,000 crew members. The number of passengers is slightly more than a third of the conventional tourists who stay at lodgings in the country.

The earnings from direct expenditures in Honduras run between US$58 (the median) and US$85 (the mean) per cruise ship passenger that disembarks. The amount spent by passengers, crew members and the cruise lines themselves (including taxes) was around US$28 million in 2005, which averages out to US$72.04 per person aboard (both travelers and crew), or if only passengers are considered, US$102.89 each. In short, a conventional tourist staying in Honduras spends around US$600, while a cruise ship passenger leaves only US$100 or less in the country.

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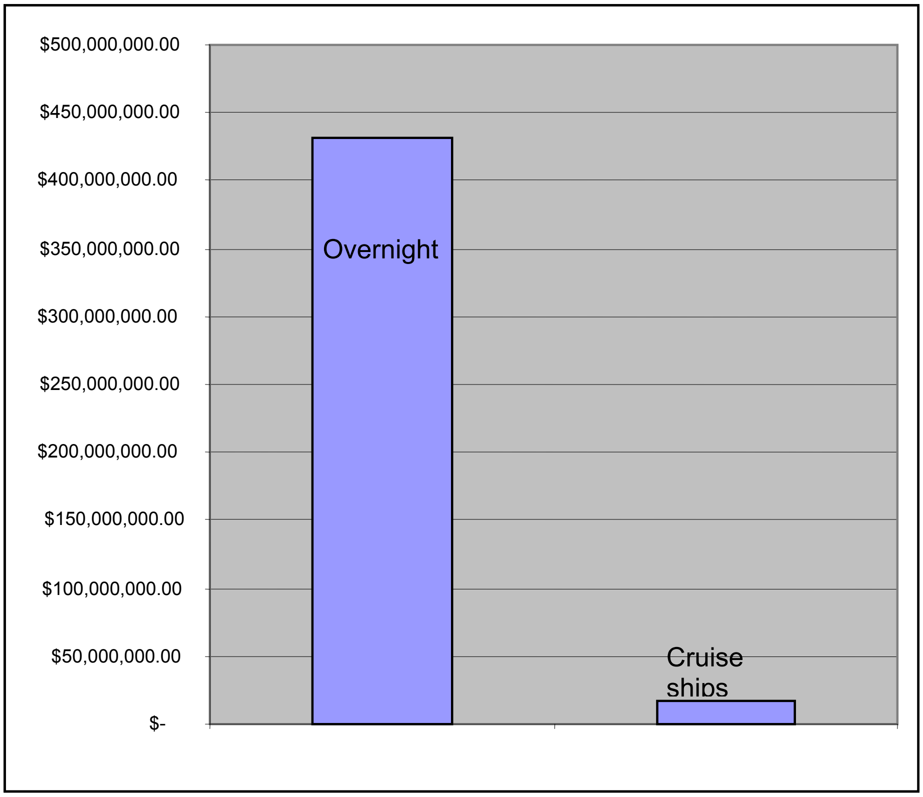
[20] Tourists who spend at least one night in the country, most of whom arrive by plane.

[21] "Gasto y Perfil del Turista", Instituto Hondureño de Turismo (IHT) 2005. This study, by the Honduran National Institute of Statistics (INE), is based on exit surveys at airports and other sources.

[22] Instituto Hondureño de Turismo (IHT) 2006.

[23] "With the concession contract, Royal Caribbean will invest a sum of between 18 and 20 million dollars in coming years, according to John Tercek, the company's vice-president in charge of business affairs. He explained that the project has several stages, and that the first will consist of immediately developing technical features of the infrastructure both on land and below water. The second phase will be to expand the port area by extending into the water in order to facilitate disembarking and boarding of passengers. The third stage is to build a tourism complex or "villa" that will have bars, restaurants, and stores for cruise ship tourists and other visitors." Source: La Prensa Honduras, April 2nd, 2006, www.periodicos-de-honduras.com/2006/04/02/llego-la-hora-de-roatan/

Figure 12: Earnings for Honduras from both overnight tourism and cruise ship tourism (2005)



Source: Instituto Hondureño de Turismo (IHT)

C. Principal entities involved

Eight entities in the Honduran central government deal with cruise ships: The National Port Authority, the Immigration Department, the Health Department, the Secretary of Agriculture and Livestock through the International Regional Organization for Safety in Agriculture and Livestock (OIRSA), the Customs Department, the Harbor Masters office, and the Secretary of Tourism. With the exception of the Secretary of Tourism, all these entities deal with levying fees or rates per inspection of vessels, arrival and departure schedules, compliance with health regulations, and food product safety.

The Municipality of Roatan is in charge of coordinating efforts so that the financial, social, and political activities of the municipal offices are carried out in conjunction with the central government, the private sector, and local inhabitants. Roatan's municipal offices charges a single fee per passenger of $3 for services related to cruise ship tourism, whether or not the travelers actually come ashore; around US$1.2millon were collected in 2005 from this fee.

There are a number of civil sector entities involved in cruise ship tourism. Those offering services include travel agents, tour guides, artisans who produce and sell souvenirs, drivers providing transport for visitors, and maritime agents. Cargo transporters and fishermen are indirectly benefited by increased sale. But those small businesses providing services to conventional tourists who expect a quiet stay to appreciate the country's natural resources and peaceful settings may undergo adverse effects as their quality of service diminishes due to crowds of cruise ship passengers on shore.

D. Specific national regulations for cruise ships and compliance with national and international norms

To date, no stated or specific Honduran policies regulate cruise ship tourism. Laws at both the central and municipal levels are basically limited to setting fees for services, as well as diverse aspects related to health and safety.

However, to provide incentives for this work, the Secretary of Tourism in Honduras has started the Policies for Cruise Ship Service project. This document's goal is to foster the orderly growth of the industry, to foment coordination among the state institutions dealing with this issue, and promote the creation of other ports for cruise ships. In addition, it is intended to make the country competitive in the worldwide cruise line market, create favorable conditions for civil sector participation in the development and implementation of policies, and generally serve as an institutional framework for the activity. It was in the rubric of this document that the Roatan wharf 30-year concession came into being as of 2006, moreover, the Sustainable Coastal Tourism Project has proposed the development of ports at various destinations in the northern coastal area.

The national port authority regulates the control of operations, use, and management of docks and coordinates security with Roatan's municipal officials. The nation's immigration department makes supervisory visits upon the arrival of each cruise ship, checking the lists of crew members and passengers. The health department likewise carries out inspections, as does the agriculture and livestock department. The harbor master supervises each vessel's arrival to guarantee safety, and keeps a list of tour prices and other tourist activities for passengers.

E. Vessels and types of voyages

Roatan's heavy cruise ship season runs from November to April. In 2005, 151 vessels docked there, with a total of 277,956 passengers and over 119,000 crew members (2.3 passengers per crew member) for a total of 396,956. Twenty two cruise ships had a passenger capacity of over 3,000 persons each, 107 could carry up to 1,600 passengers, with the rest transporting fewer than 1,000. 80% of the cruise ships belonged to only three lines: Norwegian Cruise Line, Carnival Cruise Line, and Windstar Cruises, all of them having home offices in Florida.

Table 4: Honduras: Cruise ship and passenger arrivals 1999-2005[24]

Year	vessels	passengers	% change	crew
1999		57,225		
2000		114,101	99.4%	
2001		53,832	-52.8%	
2002		124,454	131.2%	
2003	114	161,580	29.8%	68,149
2004	166	266,725	65.1%	113,748
2005	151	277,956	4.2%	118,750

[24] IHT Sources: National Port Authority (ENP), Tourist Information Analysis Division, IHT.

Passengers visiting Roatan were for the most part on 8-day cruises, paying an average of US$1,925 for the cruise package, which includes a cabin, meals, and most comforts on board, but not drinks or special services, or tours and other expenses on shore. Those passengers surveyed in Roatan reported expenses of up to US$200 per day on average; ships dock for 8 hours when they arrive in Roatan, and the average cruise passenger goes on 4-5 tours during a typical voyage, signing up for no more than one tour per port.

F. Services for cruise vessels

As already stated, Roatan charges US$3 per person aboard each ship, which amounted, in 2005, to US$1,190,118 (US$3.00 x 396,706, including crew); in addition, each passenger must pay the central government US$6.50, for a total US$9.50 in fees.

The amount collected for piloting and navigational aid, safety, health, customs, and harbor master costs was US$1,395,427 in 2005. On average, the maritime agency charges US$900 per vessel for handling administrative matters, which in that year came to US$135,000, 95% from cruise ships with the rest from other naval craft.

Since Roatan does not produce goods that the cruise lines require, such as fruits, flowers, fuel, and replacement parts, these must either be imported or transported to the island; thus, they are more cheaply obtained at other ports. Its lack of fresh water and the island's small size also make it hard for Roatan to provide full service to the cruise vessels docking there, nor does it have the space or infrastructure to process discarded waste on a large scale.

G. Profile and buying habits of passengers on stops in Roatan

All of the data that follows derives from a primary study done by CESD and INCAE, expect as indicated otherwise. For this study, median values are used for typical passenger expenses, as opposed to the mean (arithmetical average), given that a significant deviation above normal distribution was noted due to a small number of unusually high figures. Nevertheless, mean values are employed to calculate gross flow of earnings for the country, since the highest passenger outlays affect this amount.

i. Demographic profile of passengers who disembark

Although barely a third of conventional tourists who stay in Honduras are from Canada and the U.S.,[25] over 90% of cruise ship passengers are North Americans. Approximately 15% of tourists staying in Honduras are from Europe, in contrast to only 7% of cruise ship passengers who are European.

Cruise ship passengers stopping in Honduras are considerably older than other tourists there; between 70 and 80% of those passengers in Roatan are over 45 years old, with a median age of 54 years, and 29% are retired. In contrast, 90% of tourists staying in Honduras are under 58 years of age, with a median age of only 40 years. [26]

62% of these surveyed passengers were women, and the median annual income reported by both

[25] Honduran Tourism Institute, (IHT) 2005. Study carried out by the National Statistics Institute (INE); the survey applied is "Tourist Expenses and Profiles."
[26] *Ibid*.

men and women was between US$70,000-90,000. Most were college graduates with a month of vacation each year, and the average household size was between 2 and 2.5 persons, of whom 1.75 to 1.85 were employed.

ii. Activities in-port

Around 35% of all passengers disembark, with 65% remaining on board.[27]

Similar to patterns observed in Belize and Costa Rica, the main reasons given for going ashore were (i) friendly local people (ii) personal safety (iii) cleanliness of surroundings (iv) scenic views (v) locals who spoke English, and (iv) high quality beaches and coral reefs.

The activities most frequently engaged in were going to the beach, going shopping, seeing the city, diving, or walking (Table 5). Those businesses that offer these activities on tours are relatively large enterprises, belonging to only a few families. Nevertheless, a significant number of tours are run by smaller family businesses as well.

Table 5: Activities of passengers in Roatan

Beach visits	60%
Shopping	56%
Touring the city	45%
Snorkeling	23%
Walking	23%
Visits to archeological sites[28]	18%
Boating tours	18%
Drives	15%
Bird/wildlife watching	11%
Visits to ranches and farms	10%
Visits to national parks	10%
Visits to museums/zoos	9%
Canopy tours	8%
Music/dance performances	7%
Diving	5%
Horseback riding	4%
Bicycle rides	2%
Sport fishing	1%
Going to sport events	1%
Surfing/boogie board	1%

iii. Passenger expenditures

As stops in Roatan are quite short, tourist expenditures mainly involve tours, local transportation, food, beverages, souvenirs, and other purchases. Around 69% of those passengers who disembark go on a tour of some kind, and 57% of passengers paid for their tours while still on board, with 11% having pre-paid their tours before starting the voyage; 5.6% of these were arranged through a tour operators' website. Only 24% of the passengers arranged for tours directly and paid for them on shore in Roatan.

[27] Port Authority of Roatan, January 2006.
[28] Roatan Museum.

The median price of a tour was US$48.50, of which about half stayed on the vessel as commission, with a total paid to the local tour operator of just US$27.55.[29] Taking into account the percentage of passengers who go on tours, the median tour expenditures remaining on shore amounted to just US$19.40 for all passengers who disembarked.[30]

On the other hand, 80% of the passengers surveyed reported additional expenditures while in port, the median being US$38.98. This amount was used for crafts, local transport, duty free purchases, food, and entry tickets to places visited. It is worth noting that the median amount spent on crafts was US$14.03, while duty free purchases (handled by the cruise lines) came to US$2.76.

The median amount for expenditures made on shore was approximately US$58[31] (mean of US$85); this averaged among all passengers, whether they came ashore or not, is US$20.30 (the median) or US$29.75 (the mean). The marked difference between the median and the mean is because some passengers reported very high expenditures; thus, the median is probably a better measure of the real situation. In Table 6 the expenditures are presented in detail. These amounts do not include the tax per capita paid to the municipality and central government.

Table 6: Summary of cruise passenger expenditures while in Roatan (N=652)

	% of passengers who disembark[32]	Median net US$	Median amount spent per passenger	Mean net US$	Mean amount spent per passenger
Average cost of tour	*69%*	$28.16	$19.40	$31.42	$21.64
Total amount spent besides the tour	*80%*	$48.50	$38.98	$78.28	$62.91
- *Arts and crafts*	*47%*	*$30.00*	*$14.03*	*$50.19*	*$23.48*
- *Duty free items*	*14%*	*$20.00*	*$2.76*	*$53.68*	*$7.41*
- *Other souvenirs*	*26%*	*$20.00*	*$5.18*	*$36.73*	*$9.52*
- *Food and beverages*	*38%*	*$15.00*	*$5.64*	*$24.39*	*$9.16*
- *Local transport*	*17%*	*$25.00*	*$4.26*	*$31.23*	*$5.32*
- *Tickets for events*	*4%*	*$17.50*	*$0.75*	*$61.43*	*$2.64*
- *Other*			*$6.36*		*$5.38*
Total expenditure on shore			**$58.38**		**$84.55**

iv. Opinions regarding Roatan

One of the arguments that tourism officials use to promote cruise ship tourism is that passengers may return to the host country to stay for a number of days if they have a positive impression of the destination. For this study, the passengers were asked if they would come back on a different

[29] Net price is the amount received by an operator on land. Of the amount reported by tourists (rack rate), 24% were paid for directly to the tour operator an 76% were bought from the cruise line with a 100% markup. The calculation is thus K = 0.24 x NET + 0.76 x NET x 2 = 1.76 x NET. As such, NET = RACK / 1.76

[30] NET x 0.69

[31] (net price of tour x 69% of passengers taking tours + local costs x 80% that made purchases while on shore)

[32] Percentage of surveyed passengers who participated in each activity or made a purchase.

cruise, or spend any more time at the destination if it were possible, and for how many days, or if they would recommend the destination to friends. The survey results show that it was unlikely that they would return to Roatan for a vacation on shore, and that they would probably not recommend Roatan to friends if they were not simply stopping there on a cruise.

To assess the flexibility of prices passengers would pay for a cruise, they were asked how much more they would be willing to pay for a similar voyage, if costs such as for fuel were to rise. The passengers stated that they would pay the cruise line up to US$100 more.

When asked about their willingness to pay more in Roatan to disembark in order to maintain natural and cultural resources there, they answered that they would pay around US$50 more. Of the amount, 55% would be for nature conservation and 45% for preserving traditional culture.

H. Profile and buying habits of crew members on shore

i. Demographic profile of crew members who disembark

Crew members on vessels docking in Honduras come from 36 different countries, mainly in Central America and the Caribbean (46%), followed by Europe (21%); few are from highly developed or industrialized nations. They are typically male (67%) with a median age of 30 years and educational level ranging between technical institute studies and college degree. Their families are much larger than those of the passengers, with an average of 4.16 members. They earn between US$15,000-$20,000 annually, with five weeks of vacation.

ii. Reasons for disembarking and activities while in port

Crew members generally are entitled to 8 hours in Roatan, but do not always disembark. When they do so, it is because of (i) friendly locals (ii) good beaches (iii) high quality coral reefs (iv) personal safety, and (v) scenic views. Those who went ashore expressed satisfaction with Roatan. Crew tend to take part in adventure activities more often than passengers, and the main things they do while in Roatan are going to the beach (43%), going shopping (34%), walking (25%), seeing the city (19%), and diving (10%).

iii. Crew member expenditures

30% of the crew members went on tours, paying a median fee of US$40, with a cost among all crew members (including those who did not go ashore) of US$12; the lower price may reflect the fact that many paid for them in port and not on the vessel, so as to avoid paying the commission fee. 59% of the crew members that disembarked spent money in port: duty free purchases (US$50); food (US$30), crafts (US$27.50), and other items (US$27.50). Using the same methodology as for the passengers, the median amount for purchases made was US$29.69; adding this to the cost of tours yields US$41.69 for crew members that disembarked and US$19.95 for all crew members, including those who did not go ashore.

iv. Opinions about Roatan

On average, the crew members had a better opinion of Roatan than did the passengers. A much higher percentage would recommend the destination to friends, and they would spend more time there if possible. They also indicated willingness to pay up to US$25 more (the median figure) to disembark in Roatan, half of what passengers would pay, as well as US$25 more to protect the environment and traditional culture, also half of what passengers would pay, which was designated as 53% for nature conservation and 47% for culture.

I. Impact on the destination

1. Economic impact: analysis of cash flow and incidence

Cash flow from cruise ship tourism in Honduras comes from the cruise lines and goes to the central and municipal governments and service providers. Passenger and crew expenditures are also part of the flow. Table 7 shows the cash flow for 2005 based on mean (not median) expenditures of passengers. Cruise lines' expenditures mainly go to the Honduran governmental system (port authority and Roatan's municipal offices). Except for services provided by the maritime transport agency, most of the economic activity in Roatan comes from passenger and crew visits on land.

Table 7: Gross cash flow in Roatan (2005)		
Cruise ship expenditures (US dollars)	**subtotals**	**totals**
National government		**1,395,428**
Port authority	*1,381,657*	
Services	*13,771*	
Municipal government (docking fee)		**1,190,118**
Vessel expenses (maritime agency)		**135,900**
Passenger expenditures		**23,501,180**
Crew expenditures		**2,375,000**
Total flow		**US$28,597,626**

Data from surveys done with passengers allow for a statistically valid sample from which the mean and median of passenger expenditures in each category could be calculated. As explained before, the median was selected instead of the mean, here in the examination of cash flow that appears below, due to the large number of upper end deviations in different categories, which distorted the mean.[33] The median value was multiplied by the frequency with which each kind of expenditure seemed to reach "an average expenditure per disembarked passenger." For instance, 305 of the 663 passengers surveyed reported that they had bought "arts and crafts" (46%); of these visitors, the median amount spent on such goods was US$30, or an average of US$14.45 (46% multiplied by US$30), which gives a more accurate idea of total expenditures for all disembarked passengers.

The transformed expenditures were then multiplied by the figures in the cost incidence categories to yield the estimates on the total expenditures of the passengers in each of the expenditure areas, and for each of the cost categories. Table 8 shows the results based on the total visits in Roatan, equivalent to US$12.7 million annually. The most important components are "tours" along with "arts and crafts," which together represent around 55% of total expenditures. "Other souvenirs" as well as "food and beverages" follow. Interestingly, purchases at duty-free shops amounted to only 5% of total expenditures in port, barely a seventh of the amount spent on "arts and crafts" and "other souvenirs." This suggests either that visitors to Roatan are more interested in tours and obtaining local products, or that there were fewer opportunities for duty-free purchasing.

[33] In symmetrical distributions, the mean and median are equal, whereas in asymmetrical distributions it is better to use the median since the mean is affected by extreme values or deviations.

Table 8: Estimates of cash flow by category of expenditure per visitor								
	Deprecia-tion	Local returns to physical plant	Imported inputs	Locally produced inputs	Local labor (includes return to owners)	Local fees and taxes	National fees and taxes	Total
Tours (as sold)	96,204	0	806,633	0	2,649,310	0	148,006	3,700,154
Arts and crafts		321,317	1,221,006	1,221,006	321,317	0	128,527	3,213,174
Duty-free purchases		63,152	442,062	0	126,303	0	0	631,517
Other souvenirs		593,715	213,737	213,737	118,743	0	47,497	1,187,429
Food and beverages (at small restaurants)	64,597	129,194	452,179	129,194	465,099	0	51,678	1,291,941
Local transportation	146,094	535,677	0	0	292,188	0	0	973,959
Events		17,122	0	0	147,250	0	6,849	171,221
Other			393,853	170,670	627,247	0	43,761	1,458,714
Total	**306,895**	**1,660,177**	**3,529,471**	**1,734,607**	**4,747,457**	**0**	**426,318**	**12,628,108**

The most relevant aspect of these findings is the local participation at the businesses that serve cruise ship passengers. Around 35% of the total amount spent per passenger[34] reaches local businesses and workers, or is used toward payment on local facilities. It is estimated that local wages and business earnings amount to 50% of expenditure totals, most of these (56%) in tours.

It is important to note that around half of the salaries and tour earnings were pocketed by the owners of tour operations firms and bus companies. The other half was distributed in wages (drivers, guides, mechanics, and administrative staff). The relatively few owners of tour companies got roughly 11% of all expenditures made by cruise ship passengers (net revenue less the commission charged on board the cruise vessel).

The average expenditure on shore made by cruise ship passengers in the Caribbean ranged between US$15 and US$270 in 2001 (CTO, 2003). The differences are most likely due to luxury purchases having little local content.

On-shore expenditures in Roatan fall within this range, being around US$60-85 per day, after deducting commissions. In contrast, the passengers reported spending an average of around US$200 per day while on-board. The commissions charged by the cruise lines on ground excursions come to at least 100%; thus, they would have charged US$1,275,000 in commissions on excursions in Roatan in 2005.[35]

[34] Of the amount paid by the passenger, approximately half is retained by the cruise line as commissions. Of the remainder that is spent in the destination country by disembarking passengers, 70% goes to local businesses.

[35] This amounts to approximately 35% of the passengers disembarking in Roatan. The survey data show that 69% went on organized excursions, and that 75% of this group paid for the tour through the cruise line. The tour operators report that the net price for the cruise line is $25 per passenger, and that the standard commission for the

2. Environmental

In the environmental area, there are policies aimed at regulating tourist activity. Since 1997, the Program for Environmental Management in the Islas de la Bahia (PMAIB) has been implemented with an eye to developing a Master Plan for Sustainable Tourism Development. For this purpose, the Head Committee for Sustainable Tourism (CETS),[36] was created, which is in charge of environmental management policies, promoting tourism that is in harmony with the environment, and ensuring that tourism and activities related to residential housing, business, and industry are carried out in an orderly fashion. In addition, this committee has to make sure that the environmental norms of the Islas de la Bahia are complied with; among its most important functions is enforcing best environmental practices in the tourism sector, along with the expansion of sanitation infrastructure and implementation of management planning for protected areas.

Moreover, there are legal measures that prohibit cruise lines from dumping waste into the Islas de la Bahia waters or land, except in emergencies and with special approval from the harbor master. While solid wastes are not generated directly from the cruise ships, there has been a notable increase in the volume of plastic trash, mainly due to cruise ship tourists on tours and excursions around the Island.

In addition to the effects mentioned above, the general impacts of tourism on Roatan's natural attractions, including effects due to cruise ship tourism, have been obvious:

- Damage to coral reefs caused by amateur divers, unsuitable anchoring procedures, inappropriate practices on the part of guides and operators of small boats that transport tourists
- Unregulated reef fishing for grouper (which produces severe damage) for restaurants serving tourists
- Destruction and landfill of mangrove swamps in order to build beach area facilities for cruise ship tourists
- Destruction of vegetation to build vacation homes for residential tourism, with cruise ship tourists targeted for this market (this activity contributes to the further impact of housing and water consumption for the large number of seasonal workers from the mainland who are hired for such construction projects)
- Traffic congestion and pollution on the island's main streets during the periods that cruise ships are berthed in the harbor

These adverse effects are not only attributable to cruise ship tourists. On the contrary, to large measure bad procedures and practices are due to the eagerness of local entrepreneurs and micro-enterprises to please customers and make profits on a short term basis.

3. Social

On one hand, tourism involving cruise ship passengers has created employment because of

industry is at least 100% of the mark-up. Thus 277,956 passengers (in 2005) *0.35 (disembarked) * 0.69 went on excursions = 67,126 went on excursions. Around 76% paid for the excursions through the cruise lines (51,016), with an average commission of US$25 = US$1,275,000.

[36] By Official Executive Decree Nº 005/2002.

greater activity in port for craftspeople, tour operators, transport services, and business in general. Yet, there is a marked difference in Roatan's social strata, and cruise ship tourism has not brought more financial or social benefits to the poorest local inhabitants. Members of a large sector of the islands lack skills, and they have not been given sufficient training to work in tourism or in related areas. At the other extreme, enterprises that profit the most from trade with cruise ship tourists belong to six principal families, which means that earnings are concentrated and remain in the hands of very few individuals.

Another significant aspect are the activities of fishermen which have an adverse effect on those person who make a living from guiding tourists on dives at the coral reefs. While the fishermen are poorer and less educated, the guides generally have had more schooling, and they are able to speak some English. Moreover, many diving companies are foreign-owned. Additionally, the demand for fresh fish, especially grouper, has grown markedly with the arrival of cruise ships to the island, hence resulting in indirect impact on the reefs and people whose work involves traditional tourism, such as diving guides. Training local inhabitants in skills such as those related to guiding tourists who wish to go diving would median that profits from this work would cease to be mainly controlled by a few foreigners, and that the destruction of the reef due to rivalry between diving guide enterprises and fishermen would diminish.

One social impact of grave importance has been the large migration of persons from the mainland to the islands, seeking to benefit from job opportunities related to increased tourism. This has increased the price of housing and added to loss of vegetation. In additional, vacation home and tourism facility builders hire workers for short periods, with no health care or social security benefits, and then dismiss them without any severance pay or compensation. Evidently many such fired workers stay on the island, hoping to get some temporary work and living in unsuitable conditions. These displaced persons add to pressure on local social services, and have been linked to an increase in crime and drug addiction.

It bears noting that these social effects, with the exception of profits remaining in the hands of very few entrepreneurs, can be ascribed to tourism in general, not just to cruise ship tourism. Nevertheless, the large number of cruise ship passengers has surpassed the number of conventional tourists on an order of magnitude, especially with respect to diving on Roatan.

J. Conclusions

Whether directly or indirectly involved, governmental entities, NGOs, and the private sector all coincide in that cruise ship tourism has brought both advantages and disadvantages to the island.[37] Some sectors of the local population would like to see an increase in cruise vessel arrivals, even if it means that the destination will deteriorate. They say that alternative solutions exist to make cruise ship tourism sustainable. Although this may imply sacrificing other tourism sectors in favor of cruise ship tourism, in a certain way this makes sense since "all-included" diving tours have produced few benefits for the general population, and has been observed, only a small number of owners operating this segment of the market have profited from it. This same is true of cruise ship tourism, but this problem could be solved by training the population presently excluded from working in either tourism area, as well as implementing policies to motivate entrepreneurs to subcontract their services.

[37] This information is based on interviews of functionaries, businesses, and environmental organizations on the island.

The qualitative study's findings regarding these issues are summarized below; all statements are based on interviews held with officials, entrepreneurs, and environmental organizations on the island.

1. **Positive impact of cruise ship tourism**

- Growth in jobs providing services directly or indirectly related to this kind of tourism
- Since cruise ships started arriving, tourist services have diversified and expanded, including independent transport companies, restaurants, and to a lesser extent, arts and crafts production
- Increase in sales at businesses involved in this kind of tourism tour and dispatch services at the wharf have been created
- As a result of the cruise ship arrivals, tourism-related businesses have become organized to give better service arrivals has resulted in higher family income
- More women are working outside the home, especially as tour guides for cruise ship passengers
- The island's population has been motivated to seek a high level of schooling
- Increased revenues from fees and taxes have allowed the municipality to carry out more local public works projects
- The central government has benefited from revenues collected from the cruise ships
- The country's economy has improved, particularly that of the northern Honduran provinces of Atlantida, Yoro, Colón and Cortes, since they supply the goods and materials, such as food products, construction materials, vehicle parts, etc. to Roatan which are needed for tourism services

2. **Negative impact of cruise tourism**

   i. **Environmental**

- .Pressure on the island's natural resources is inevitable, especially for the municipality, which puts the quality of the tourist destination at risk; lack of planning and zoning worsen the impact
- Due to a failure to control carrying capacity, coupled with a lack of understanding of environmental issues, damage to the coral reefs is ever greater. This is caused by both conventional and cruise ship tourism, but the huge number of visitors from these vessels, and their inexperience in diving, is creating the most impact on the reefs
- An increase in solid and liquid wastes resulting from the various tours on the islands is worsened by the volume of passengers from cruise ships
- Density and volume of motor vehicles when cruise ships are in port
- Overloaded carrying capacity with the arrival of two and even three cruise ships on the same day

   ii. **Social**

- The constant migration of Hondurans, many of whom have little schooling, from the mainland to the island without local policies and the infrastructure required (drinking water, sanitation facilities, electricity, etc.) to meet their basic needs
- An increase in social problems (drug use, prostitution, delinquency)
- Increased numbers of minors in the streets adjacent to the cruise ship dock

iii. Economic

- The cruise ship business structure ensures that the cruise line maintains strong control of the market, obliging service providers to compete based on low price. This restricts larger local profits being generated.
- Owners of hotels, restaurants, and other businesses (such as diving excursion and tour companies) that normally offer services to conventional tourists rather than cruise ship passengers, have been receiving complaints from their customers that on the days when these vessels are in port, the beaches are overcrowded and that client service is of poor quality.
- Providers of tourist services such as guides, drivers, and dispatchers have banded together out of necessity, but lack the training needed to offer better service.
- Due to the fact that these providers lack training, inferior quality service offered may create a bad image.
- Increased cost and scarcity of local transport on days of cruise ship arrivals, since nearly all vehicles are placed at the service of the passengers, making transportation difficult for the population at large
- Lack of suitable port infrastructure to meet the needs of both cruise lines and tourists

3. Suggestions offered by persons interviewed to improve cruise ship tourism in the short term

a. Training

- Establish a training center in Roatan that will offer techniques in handling tourists, and instruction in foreign languages such as French and Italian
- Continue to carry out the training offered for tour guides as well as bus and taxi drivers per the agreement reached by the National Training Institute of Honduras and the Chamber of Commerce, this being a priority for 2006/2007
- Offer customer service and organizational training to providers, tour guides, and drivers who offer their services at the dock, with instruction in transit law to the latter group.
- Increase financial aid and training for local craftspeople so they can improve the quality and quantity of their output and thus make better sales. There are intentions for creating a micro-financing support center. At present, local arts and crafts production is quite poor

b. Environmental

- Businesses providing tourist services must comply with environmental norms, and local officials have to ensure that they do by passing ordinances and establishing fines for non-compliance
- A management plan is needed for marine resources, and has to be agreed upon by diving guides, hotel owners, and cruise ship tour operators
- To minimize impact on coral reefs, passengers on board the cruise ships have to be made aware of related environmental issues
- Grouper has to be either removed from tourist restaurant menus, or else measures must be taken to ensure that this fish is not caught at the reef

- Carry out a massive and aggressive publicity campaign on both conserving the environment while providing services to tourists in order to make the latter sustainable
- Enforce municipal ordinances and fine those tour operators who do not suitably comply with norms when providing services

c. Social

- The central and local governments have to work more on developing special programs to improve in environment and quality of life, and must immediately deal with the problem of minors loitering near the cruise ship wharf
- Establish policies for migration to Roatan, establishing programs that oblige those involved in running construction projects for residential developments or tourist facilities to provide minimum conditions of sanitation, housing, and health for their workers
- Step up and intensify public security measures with more officials and vigilance in various key sectors of the island
- Exert greater control of conditions wherever prostitution takes place
- Create better policies for prevention of drug abuse, and ensure that existing laws are obeyed

d. Economic

- Promote development of new tourist destinations along with the suitable use of the other natural resources on the Island, in order to minimize the impact on beaches and coral reefs
- Improve quality and quantity of tourist services
- Carry out better planning in terms of cruise ship arrivals in order to provide incentives for these enterprises to have their vessels some in low season
- Implement a strategic plan with environmental, social, economic, and tourism policies whose design and implementation will involve all social sectors of the island

It should be noted that although some of these issues relate to overnight tourism on Roatan, most visitors are cruise chip passengers; the majority of businesses on the island provide services for tourists staying ashore, and these comments regarding impacts and the suggestions offered were made in response to specific questions about cruise ship tourism.

4. General conclusions regarding cruise ship tourism in Roatan

It can be concluded that certain structural problems related to tourism in general exist in Roatan; solutions to these problems have to be focused on in an integral way:

- Roatan is environmentally fragile, with a high-value tourist resource – the coral reef— that is being degraded due to lack of control over massive tourism. Instead of building a second dock to attract more cruise ships, Honduras should consider encouraging investment for this sector inland along the Caribbean coast, in less sensitive areas that have employment problems. In this regard, the cruise ship dock being proposed in Trujillo could be an option with high positive impact in social and economic terms, but with low adverse environmental impact.

- There is an urgent need to train people who currently can not take part in the benefits brought by tourism due to their lack of skills. Given that cruise ship passengers spend more on goods, especially arts and crafts, during tours, a major opportunity exists to support micro-credit financing projects in order to supply these needs. Diving guide service operators, for instance, tend to be foreigners since a qualified and certified local labor force is lacking.
- The Fund for Fomenting Tourism (FFT) ought to be an indispensable source for these initiatives through the funds of the Honduran National Program for Sustainable Tourism (PNTS) [38], which is an International Development Bank (IDB) program to provide assistance for a sustainable tourism model in Honduras; Las Islas de la Bahia constitute one of the priority areas.

[38] "The FFT will offer a system of shared financial support of US$2,5millon in matching grants for pre-investment, investment, training, and technical assistance." – "Honduras: National Program for Sustainable Tourism (PNTS) (HO-0195); loan proposal," International Development Bank document.

Appendix II

Cruise Ship Tourism in Costa Rica

A. Introduction

In Costa Rica, which is a country recognized worldwide for its great diversity and number of natural resources, tourism accounts for its highest earnings. Through a strategy of attracting visitors oriented toward sustainable or value-added tourism, in which the environment, profits, and jobs are brought together, this country has achieved a position on the world market as a safe tourist destination that is rich in natural beauty.

During 2005, overnight tourism earned Costa Rica over US$2,090,000,000 – almost twice as much as coffee and banana exports, and 40% more than electronic components, the country's current leading export. At present, tourism amounts to 7.4% of the gross national product.[39]

Costa Rica has been involved in cruise ship tourism since before 1987. Two main ports are available: one on the Caribbean, in Limon, and the second on the Pacific coast, in Puntarenas. Both ports have cities that have serviced both cargo and passenger vessels for over a century. Limon also has another port nearby named Moín, while Puntarenas is close to Puerto Caldera; both of these principally handle freight. Costa Rica also has small ports in Quepos, Golfito and Punta Morales (Chomes). The Ministry of Public Works and Transportation (MOPT) oversees all of the country's ports, which operate under the ISPS naval protection code (the international security code for the protection of vessels and port facilities).

Almost all cruise vessels berth in either Limon or Puntarenas, although they infrequently dock at Moín and Caldera. Smaller vessels ("*pocket cruises*") sail only along the Pacific, and also make stops in Golfito and Quepos, or anchor near the beach at the Isla de Coco (only the Okeanos Aggressor) or Marenco. Some 80 smaller ships berth each year at secondary ports (Marenco, Playas del Coco, Quepos, Curu, Tortuga, and Golfito).

The cruise ship season runs from September to May. Most vessels (70%) dock in Limon, which is also the main port for international maritime trading. Cruise ships tend to slow movement at the port since cargo ships must often wait until passenger vessels are processed.

The government has made investments to bring about improvements in Puntarenas and Limon's capacity to berth cruise ships (US$3 million in 2002 for each), yet some structural features of the dock in Puntarenas still impede swift attention to these vessels. [40] Currently there are a number of projects to improve service for cruise ships in Limon: separating freighters from cruise ships, widening the breakwater, improved dredging, and dismantling one of the piers to replace it with three docks built specifically for cruise ships. One of these special docks would function as "home port" for passengers who disembark and re-board, as well as a loading site to supply the ships with goods and replacement parts.

Moreover, the Ministry of Public Works and Transportation has asked the World Bank to finance a master plan in the port city of Limon that would gradually move merchant ship operations to the Moín port to prevent congestion and the deterioration of the city. The plan also seeks to harmonize the city with its natural surroundings and to further its development as a service business center. The project would invest US$250,000,000 in the city over the next 8 years to create jobs and improve quality of life there. The government has US$500,000 allocated to carry out a feasibility study.

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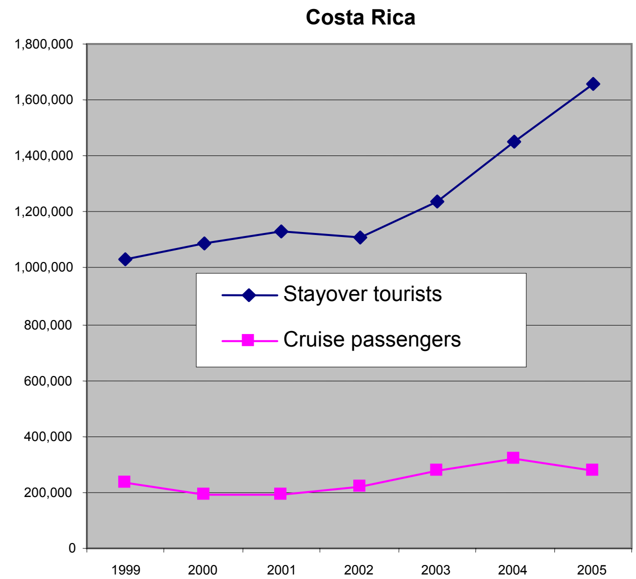
[39] Overnight tourism figures from the ICT (Costa Rican Institute of Tourism) annual statistical report (2004-2005 draft), Air Travel Surveys from 2004 and 2005, and the Central Bank of Costa Rica.

[40] Deteriorating pilings, absence of an extension of the pier parallel with the coast, currents that impede docking except at certain hours, depending on the tides.

B. Cruise ship tourism compared to overnight tourism

300,000 cruise ship passengers arrive each year in Costa Rica, amounting to 17% of all tourists (Figure 13) in contrast to 1.5 million conventional tourists, mainly attracted by the country's wildlife and natural scenery. Growth in overnight tourism has been 10% per year between 1999 and 2005 (+14% from 2004-2005), while cruise ship tourism has only increased 3% annually in the same period (-12% from 2004 to 2005).[41]

Figure 13: Arrivals of conventional tourists and cruise ship passengers[42]



The difference between earnings from overnight tourism and cruise passengers is even more marked (Figure 14). The country took in US$2.1 billion from the former, against only US$18,9 million for cruise industry tourism – 110 times less, even after 20 years of receiving cruise vessels. The average overnight tourist spent between US$934-US$1,260 during a median stay of 10.5 days; 86% were college graduates or had advanced degrees, 59% visited a natural reserve, and 62% observed flora and fauna during their stays.[43] This profile is much higher in socioeconomic terms than of cruise ship passengers, who also show less interest in nature and spend less; conventional tourist expenditures were roughly US$1,000 while cruise passengers spent only around US$55, that is, 18 times less. Given these differences, it seems obvious that allowing cruise tourism to have adverse impact on the overnight tourism experience would be harmful to the country.

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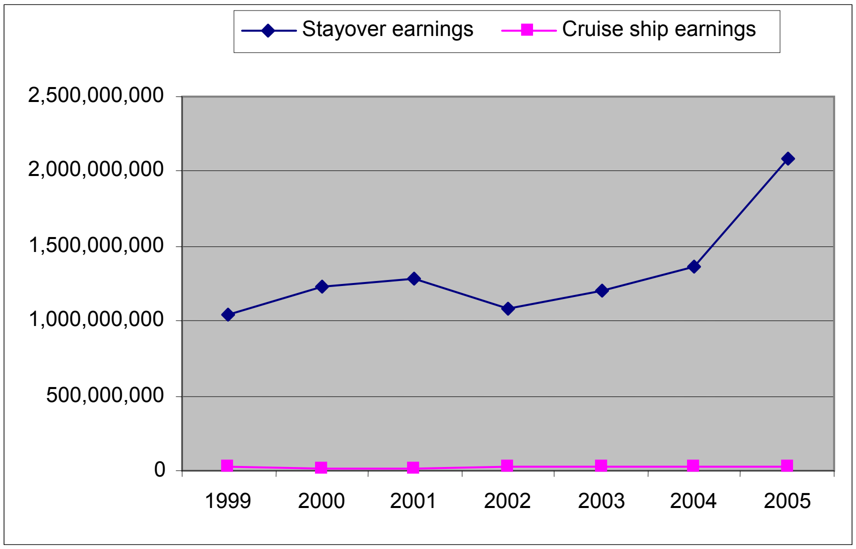
[41] 1,031,185 conventional tourists and 235,039 cruise ship passengers in 1999; in 2005, 1,659,167 conventional tourists and 280,017 cruise ship passengers.

[42] Source: ICT

[43] ICT, Anuario 2004, Encuesta Aérea 2005-IV

Figure 14: Earnings for Costa Rica from both overnight tourism and cruise ship tourism[44]



C. Principal entities involved

A number of entities from the Costa Rican central government take part in overseeing cruise tourism, most importantly the Ministry of Public Works and Transportation (MOPT), the National Port Institute of the Pacific, the Administrative Board for Ports and Economic Development of the Atlantic Coast (JAPDEVA), The Ministry of Health, and the Costa Rican Ministry of Tourism (ICT). The first three define policies and regulations on the transit, operations, and loading and unloading of vessels in port. The ministry of health enforces sanitation norms for food in ports, and the ICT provides incentives for the tourism industry.

Docking and administrative management are handled by four maritime agencies that facilitate official procedures, work as liaisons between various entities and local organizations, and provide other forms of logistic support needed for cruise ship operations while vessels are in port.

A number of providers administered by three large companies in San Jose and Limon have up to now offered tourist services to arrange visitor transportation around Costa Rica; in order of sales volume these are Swiss Travel Service, TAM Corporation, SHOREX, ASUAIRE, and the Limon Transport Association. Guide and transport services are generally contracted in the central region of the country, where there are large companies that own well-equipped, late model buses; local services exist, but these are scarce and lack financial resources.

The options for choosing among tour and destination providers are vast, but as with the bus companies, most of the more successful ones are also located in the capital city, San Jose, instead of being members of the local business community at the port.

D. Specific national regulations for cruise ships and compliance with national and international norms

Although the country has been receiving cruise ships for over twenty years, there is no stated policy regulating this activity. A number of efforts have been made on the part of the various

[44] Source: ICT

entities involved, but no management strategy for cruise ship tourism in Costa Rica has been defined.

Port administrations have been promoting cruise ship activity by reducing fees per passenger (ranging from US$3.50 to US$2.09 in Limon) and making surcharges and fines for periods in port more flexible. Moreover, according to international maritime regulations, cruise vessels have priority over cargo ships since they are transporting passengers.

Legislation in Costa Rica referring to environmental protection with respect to cruise ships is quite limited. The country signed the International Civil Responsibility Convention of 1969, which states the rights a nation has to take measures to prevent, mitigate, or eliminate damages related to oil (hydrocarbon) pollution in its coastal areas, the rates of recompense that vessels must pay for spills were updated in 1992.

On the other hand, Costa Rica has not ratified other agreements dealing with human safety at sea and maritime pollution, such as SOLAS 74 and MARPOL 73/78.[45]

Fee structures at Costa Rican ports tends to favor cruise ships over freighters, which has an important impact on merchant marine operations.

E. Vessels and types of voyages

A number of different types of cruise vessels arrive in Costa Rica. The six principal cruise lines, which together comprise more than 60% of the market, are Holland America, Princess, Royal Caribbean, Celebrity, Carnival, and Crystal.

The largest cruise vessels arriving in Costa Rica have a maximum capacity of 2000 persons, but generally do not sail with full occupancy. Crew members range from 5000 to 1000 per vessel, depending on the type and type of the ship. One sixth are officers, and the rest are waiters, housekeeping workers, and miscellaneous employees. The ratio of crew to passengers ranges from 1:2 to 4:5, the latter being for luxury liners.

A different market is that constituted by the six smaller vessels ("pocket cruises") which carry only around 200 passengers each and anchor in Puntarenas, Caldera, and Golfito, as well as off shore in Marenco and the Isla de Coco. These small ships provide a kind of "boutique"cruise experience, with specialties (such as wildlife appreciation, aquatic sports, diving, etc.) and have experts in the respective areas on board.

F. Services for cruise vessels

Charges for port services run US$8,000 in the Caribbean US$7,300 on the Pacific coast; these include all fees paid to port authorities, including the US$2.09 per passenger in Limon and US$2.50 in Puntarenas, which are among the lowest in the entire region. In contrast, a freighter of similar size must pay US$15,000 000 in the Caribbean and US$53,000 at Pacific coast ports.[46]

Cruise ships in Costa Rican ports typically take on from 300-400 tons of freshwater, for which

[45] The specific nature of these agreements is described on page 14. Failure to ratify MARPOL is due to a procedural error in the Legislative Assembly, which has thus far gone uncorrected.
[46] An average 200 meter freighter with cargo of 50,000 TRB in port for 12 hours, and a cruise vessel of similar size with 1000 passengers aboard.

they pay US$3.50 per ton directly to the Costa Rican water company (AyA). The fee in Limon is US$7 per ton since the water must be trucked to dock in cisterns.

Although port authorities interviewed said that the cruise vessels do not unload waste in Costa Rica, operators of services for vessels stated that they do receive solid waste as well as concentrates containing fecal matter, gray water, and oily substances that have been partially processed and disinfected. The cost for handling these wastes is US$23.60 for metric ton of solids and US$60.00 for liquids, and is paid to the local service providers. This process is regulated by the Ministry of Health and by the Ministry of Agriculture and Livestock. Yet, only solid, dry waste is actually permitted, such as wood, zinc, tin, plastic, cardboard, etc. No waste involving discarded food, biodegradable products, chemicals, medical supplies, or radioactive materials is allowed. Waste management is in practice carried out by private companies that deliver oily substances to incinerators at glass or cement plants. The soapy or fecal liquids are handled in concentrated form at incineration sites in Alajuela, or are recycled for sale in Orotina. The companies that transport these materials have permits from the ministry of Health, and are required to turn in paperwork that certifies that the materials were destroyed, which is generally done. However, this procedure is not always properly handled, and the final whereabouts of some waste remains unknown.

A cruise ship usually spends US$15,000 at each stop in Costa Rica for provisions and services.[47] Maritime agent services include handling marine operations support, programming arrivals 1-4 years in advance, "*ship calls,*" confirmation of data, filing reports, registration at port, forms and payments, go-between tasks with port authorities and operations services, migration office affairs, harbor master procedures, quarantine, health and safety issues, medical evacuations, customs, supplies, delivery of air and naval cargo, action plan preparation, logistics; fact reports on financial, legal, and diplomatic issues, as well as time-sensitive matters; contingency reports at port in case of disaster, etc.

G. Profile and buying habits of passengers on stops in Costa Rica

For this study, median values are used for typical passenger expenses, rather than the arithmetical mean, given that a significant deviation above normal distribution was noted due to a small number of unusually high figures. Nevertheless, means are employed to calculate gross flow of earnings for the country, since the highest passenger expenditures affect this amount.

i. Demographic profile of passengers who disembark

Most passengers interviewed were English speakers from the U.S. (63%), Canada (11%) and the United Kingdom (19%). 60% were women and the median age was 60 years, much older than those interviewed in Roatan. The annual household income reported was US$90,000-100,000, also much higher than in Roatan. 48% were retired, vs. 29% in Roatan. Most had attended university, and had 5 months of annual vacation.

ii. Activities during stops

Similar to patterns observed in Belize and Honduras, the main reasons given for going ashore were (1) friendly local people (2) personal safety (3) scenic landscapes (4) cleanliness of surroundings (5) quality of protected areas, and (6) locals who spoke English. In Limon, visits to

[47] In 2005, a cruise ship typically spent US$800-1000 for potable water (300-400 metric tons), US$700-1000 for disposing of solid waste (30-40 m^3), US$1600-2000 for crew changes (transport and hotels) , US$10,000-12,000 for provisions and delivery of re-embarkations, containers, etc.; with less frequency concentrated sewage sludge at US$1500 (20-25 metric tons) per ship.

beaches and coral reefs, as well as cultural attractions, carried more weight than in Puntarenas.

In Costa Rica most tours were handled by the four major companies already mentioned; a key aspect of the success of these firms is guaranteed punctuality and security so as to avoid liability for the cruise lines and for passengers away from the vessels to not be at personal risk.

70% of passengers disembarking in Limon and 52% in Puntarenas went on tours; the preferred activities were shopping, going to the beach, walking, boarding small tour boats, observing nature, or taking part in some form of adventure tourism.

Adventure tourism activities were generally light, in natural settings with wildlife areas. In Limon, the most popular excursions were boat trips along the Tortuguero canals, the Rainforest Canopy ride, and river rafting. Other activities were canopy tours in Manzanillo and visits to the Caribbean Aviary. National Park visits are also important, but only Cahuita received a significant number of cruise passengers.

In Puntarenas there are similar popular attractions for passengers: visiting the Rainforest Canopy ride of the Pacific, white-water rafting, trips to San Jose, the Poás volcano, the Monteverde cloud forest, and other typical light adventure activities, as well as shopping at the arts and crafts complex in Sarchi.

Besides the large companies at each port that provide tour services for these activities, a smaller and loosely organized group of local enterprises also offer tours, taxi rides, and meals at low cost, but only 5% of the passengers are estimated to use these services.

iii. Passenger expenditures

62% of passengers disembarking in Costa Rica went on tours. The mean price of a tour was US$71.90 (the median was $69), and 75% were paid for on board or before starting the cruise, of which about half went to the cruise line as commission, with the rest paid to the local tour operators, a net amount of just US$39.45,[48] which divided among all passengers amounted to an median amount of US$24.46. Taking into account that only 60% of all passengers actually disembarked, the median tour expenditures on shore amounted to just US$15.29 ($14.68 was the median figure) for all passengers who disembarked in Costa Rica.

[48] Net price is the amount received by an operator on land. Of the amount reported by tourists (rack rate), 25% were paid for directly to the tour operator and 75% were bought from the cruise line with a 100% markup. The calculation is thus K = 0.25 x NET + 0.75 x NET x 2 = 1.75 x NET. Therefore, NET = RACK / 1.75

Table 9: Summary of cruise ship passenger expenditures while in Costa Rica (N=1154)					
	% of passengers who disembark [49]	Median net US$	Median amount spent per passenger	Mean net US$	Mean amount spent per passenger
Average cost of tour	**62%**	**$39.45**	**$24.46**	**$41.11**	**$25.49**
Total amount spent besides the tour	**77%**	**$40.00**	**$30.78**	**$64.13**	**$49.35**
- *Arts and crafts*	*46%*	*$30.00*	*$13.70*	*$46.71*	*$21.33*
- *Duty free items*	*10%*	*$25.00*	*$2.40*	*$48.65*	*$4.68*
- *Other souvenirs*	*22%*	*$20.00*	*$4.38*	*$33.00*	*$7.23*
- *Food and beverages*	*26%*	*$10.00*	*$2.56*	*$18.75*	*$4.79*
- *Local transport*	*8%*	*$32.50*	*$2.53*	*$40.73*	*$3.18*
- *Tickets for events*	*3%*	*$14.00*	*$0.35*	*$50.03*	*$1.26*
- *Other*			*$4.85*		*$6.88*
Total purchases in Costa Rica			**$55.24**		**$74.84**

In port, the net median expenditures was US$30.78 ($49.35 was the mean) per disembarked passenger. Taking into account all passengers onboard, this meant a median of US$18.47 or a mean of US$29.61 per passenger. The expenditures were distributed among arts and crafts (US$13.70), local transport (US$2.53), duty-free purchases (US$2.40), food (US$2.56), and entry fees to attractions (US$0.35).

The total median sum of expenditures, including tours and purchases, came to US$55.24 (a mean of $74.84) for each passenger who went ashore.[50] This amounts to a median of US$33.14 (a mean of $44.90) for all passengers aboard the cruise vessels. It is worth noting that arts and crafts were bought almost 6 times more often than duty-free items, which means that the money spent went directly to the local economy; nevertheless, the cruise lines are making an effort to increase the duty-free sales under their control at some ports.

iv. Opinions regarding destinations in Costa Rica

In contrast with opinions voiced about Roatan, in Costa Rica satisfaction levels were all higher, especially for Limon (4.32 on the Likert scale of 1 to 5). Passengers indicated that their likelihood of returning personally on a cruise, or recommending it to a friend was 4.38, versus a score of only 3.88 for future on-shore stays. The figure for recommending that a friend visit Limón through conventional tourism was higher, however, at 4.16. While it is said that cruise ship tourism generates overnight tourism at the same destinations, there are no studies that support this assertion.

[49] Percentage of surveyed passengers who participated in each activity or made a purchase.

[50] Total per passenger = Net price x 62% who purchased tours + local expenditures x 77% who made purchases

Flexibility regarding prices that would be paid for future cruise passage was greater in Roatan than in Costa Rica on mean (US$245), though not for the median (US$100). This difference is because in calculating the mean, some passengers in Costa Rica were included who had said that they would pay amounts that were much higher than the others indicated. As in Roatan, willingness to pay more to protect or maintain natural and cultural resources was expressed as a median of US$50, the mean was 57% more for nature and 43% more for culture.

H. Profile and buying habits of crew members on stops

i. Demographic profile of crew members who disembark

Also in contrast with findings from Roatan, where 46% of the crew came from the region, in Costa Rica most (48%) were from Oceania and Asia, followed by Europe (12%) and Central America and the Caribbean (12%); relatively few were from developed or highly industrialized nations (10%). Almost all (90%) were males, vs. the 67% recorded in Honduras. The median age for crew members was 30 years, and in general they were university graduates. Their family size was large (4.99), and those interviewed in Puntarenas had more than 6 weeks of vacation annually, against four weeks for the crew members stopping in Limon. Income levels varied as well: US$15,000-20,000 for those interviewed in Limon, and more than $20,000 for the crew members stopping in Puntarenas.

ii. Reasons for disembarking, and activities while in port

Crew members generally are entitled to 10 hours ashore in Puntarenas and 3.25 hours in Limon, thus fewer left ship in Limon, and those who did so engaged in fewer activities. The main reasons given for disembarking were: (1) friendly locals (2) good beaches (3) high quality coral reefs (4) personal safety, and (5) scenic views. Those who went ashore expressed satisfaction with the destination. Crew members tend to take part in adventure activities more often than passengers do.

The main activities crew took part in varied between the two ports. Shopping was more important than in Honduras, amounting to 45% in Puntarenas and 78% in Limon. 17% of the crew went to beaches in Limon, vs. 56% in Puntarenas, while only 23% went walking in Puntarenas, in contrast to 48% in Limon. 20% reported seeing the city of Limon, against 32% in Puntarenas. 2-4% went on activities associated with nature and adventure in Limón, vs. 6-11% in Puntarenas. These differences were due to the shorter time available for crew members in Limon, and to the proximity to the dock of a good swimming beach in Puntarenas.

iii. Crew member expenditures

16% of crew members in Limon and 45% in Puntarenas paid for tours, with a median prorated cost among all crew members who disembarked of US$15.00. In port they spent US$24.80 total, distributed among food (US$9.42), duty-free purchases (US$3.55), arts and crafts (US$4.39) and other souvenirs (US$2.78). All of thee figures are given as the median, divided among all disembarked crew members. With the cost of tours, the median total in expenditures was US$39.80 for crew members who went ashore.

iv. Opinions about the destinations

In Costa Rica crew members expressed more satisfaction with the destinations than in Roatan, as did passengers, with a higher percentage saying that they would return for a visit ashore, and that they would recommend the country to friends. Crew members indicated that they would spend more time at the destination if it were possible.

Crew members in Limon said they would pay US$25 (median) more to cover disembarking costs, while those in Puntarenas were willing to pay US$50, which were the same figures given by passengers in Puntarenas and half of those in Limon.

The same figures held in both cities for protecting the environment and traditional ways; 56% would be assigned for nature conservation and 44% toward culture.

I. Impact on destinations

1. Economic

According to the Costa Rican Institute of Tourism (ICT), each cruise ship passenger leaves an average of US$94 in the country. However, the results of this study show that the net amount is US$67.40,[51] equivalent to 7% of what a conventional tourist spends during a stay (from US$934[52]-1260,[53] depending on the source). In 2005, cruise ship tourism generated US$18.9 million, against US$2,090 billion from overnight tourism.

a. Total cash flow

Five entities are involved in services provided and resources supplied for cruise ship tourism in Costa Rica. The national, local, and municipal governments work on the public sector's behalf; tour operators and service providers work in the private sector, and finally, there are the crew members and passengers of cruise ships docking in Limon and Puntarenas. By means of a detailed analysis of the outlay of the crew and tourists, the remaining local providers of services and resources for cruise ships can be identified.

The gross cash flows shown in Table 10 were estimated from fees or tariffs established by Costa Rican law, as were the median costs obtained from the study carried out by CESD and INCAE. Based on this, practically all costs in Costa Rica were lower than those observed in Roatan (for comparison, see Table 8: Estimates of cash flow by category of expenditure per visitor), with the exception of the expenses incurred for the maritime agency handling typical port operation and processing costs for cruise ships.

As noted earlier, these activities include handling marine operations support, registration at port, coordination between port authorities and operations services, migration office affairs, disembarking crew and passengers, medical evacuations, customs, supplies, delivery of air and naval cargo, action plan preparation, logistics; fact reports on financial, legal, and diplomatic issues, along with reports on time-sensitive matters; contingency reports at port in case of disaster, among others.

[51] Taking into account expenditures on land by crew and passengers, as well as port fees, taxes, and expenditures on the part of the cruise line for goods and services. Spending per passenger (excluding taxes, fees, and crew and cruise line expenditures) is $55.24.
[52] ICT, Annual Statistical Report 2004
[53] ICT, averages from air travel survey IV-2005

Table 10: Gross cash flow in Costa Rica (2005)		
Cruise ship expenditures (US dollars)	**subtotals**	**totals**
Port authorities		**1,480,080**
Limon	*954,480.00*	
Puntarenas	*525,600.00*	
Vessel expenses (maritime agency)		**2,880,000**
Passenger expenditures		**12,573,883**
Tours	*4,282,580*	
Purchases	*8,291,303*	
Crew expenditures		**1,938,073**
Total flow		**US$18,872,036**

b. Passenger expenditures

Below is an analysis of the beneficiaries of cruise ship passenger expenditures in Costa Rica, and the proportions of the profits made.

c. Aggregate analysis based on cost structure of enterprises

Based on the types of passenger expenditures made in port which were collected from CESD-INCAE 2005-2006 surveys, along with estimates of outlay on the part of principal service providers for cruise ship tourists, a cost structure was calculated for each type of outlay. By combining the industry's own parameters with field research at each site, an estimate of the amount generated by each activity is distributed among the various approximate costs of the enterprises involved, including profits to owners. In Table 11 the percentages per expenditure type is assigned to each cost incurred by the providers of services to cruise ship tourists in Costa Rica.

For example, in the case of expenditures on arts and crafts, 2% (0.2) is assigned to payment of local fees and permits for use of stand "spaces" or square meters to effect sales, as indicated in the local tax and fee budgetary indexes. Within the column of local labor are wages paid to guides, crafts salespeople, and restaurant staff, according to the kind of service offered, these workers generally not being the actual owners of such tourist service businesses.

Table 11: Estimated percentage of sales in categories according to costs							
	Depreciation	Local returns to physical plant	Imported inputs	Locally produced inputs	Local labor (includes return to owners)	Local fees and taxes	National fees and taxes
Tours (as sold)	0.02		0.30		0.65		0.03
Arts and crafts			0.21	0.10	0.62	0.02	0.05
Duty-free purchases		0.1	0.7	0	0.2		0
Other souvenirs		0.1	0.7	0	0.2		0
Food and beverages (at small restaurants)	0.03	0.29	0.32	0	0.32	0.03	0.03
Local transportation	0.2	0.4			0.4		
Events		0.1	0.3		0.6		

***Sources**:* based on industry parameters, and on figures from businesses in Roatan and Costa Rica.

d. Estimated passenger expenditures

Both the statistical sampling as well as the methodology used in surveys with crew and passengers make it possible to derive a close approximation of the average expenditures of visitors in Costa Rican ports, which in turn allows for a calculation of cash flow per category of visitor expenditure.

Table 12 shows estimated expenditures for 2005 by passengers in port at Limon and Puntarenas. The median amount of expenditures reported by passengers in surveys was used to reduce high-value values that considerable raised the mean.

To estimate the total expenditures, an adjustment was made to the median expenditure so as to obtain a reasonably acceptable value for what each passenger spent on shore; the median figure was multiplied by the frequency of each expenditure, so that for instance, in Costa Rica, since 295 of the 1,154 passengers surveyed stated that they paid for food or beverages at local stands or restaurants (26%), with a median expenditure in this category of US$10, the median outlay was calculated at US$2.6 (26% X US$10). These kinds of transformed expenditures are then multiplied by the estimated cost for each sale, according to category of incidence, established in Table 10. The relative part of these adjusted expenditures is what made it possible to assign a total expenditure value for passengers in Costa Rica according to cost incidence of the enterprises.

As can be seen in Table 12, 58% of the expenditures of disembarked passengers ended up as local wages and owner fees. As already stated, owners do not usually work in their own enterprises, where employees earn the minimum wage established by law.

Table 12: Estimated cash flow by category of visitor expenditures							
	Depreciation	Imported inputs	Locally produced inputs	Local labor (includes return to owners)	Local fees and taxes	National fees and taxes	Total
Tours sold	113,465	1,701,968	–	3,687,598	–	170,197	5,673,227
Arts and crafts	–	399,507	185,138	1,180,009	46,971	94,401	1,906,025
Duty-free purchases	–	234,184	–	66,910	–	–	334,549
Other souvenirs	–	427,017	–	122,005	–	–	610,024
Food and beverages (at small restaurants)	10,151	112,784	–	112,784	9,399	9,023	355,647
Local transportation	70,527	–	–	141,053	–	–	352,633
Events	–	14,684	–	29,368	–	–	48,947
Total	194,142	2,890,145	185,138	5,339,726	56,370	273,620	9,281,052

***Sources**:* based on industry parameters, and on figures from businesses in Roatan and Costa Rica.

In addition, 34% of these expenditures do not end up in the local destination or port, but rather are used to pay for goods and supplies outside of Limon or Puntarenas, or to pay national taxes.

e. Results – passenger expenditures

As can be observed in Table 12, around 82% of tourist expenditures were for either tours or arts and crafts, and of these 61% was spent on tours, whether directly arranged through local operators or pre-paid to the cruise line. 3 or 4 Costa Rican tour operators service the cruise ships arriving in port, three of which basically dominate this market.

For this reason, based on data supplied by the tour operators themselves and crafts salespeople, an estimate of cash flow at tourism agencies was made per cruise ship arrival in port. In Table 13, it can be seen that 60% of earnings generated by sales of tours to cruise ship passengers is pocketed by tour agency owners, bus company proprietors, and tour agency staff.

Table 13: Estimated cash flow – Tour operators

	$	*% of gross*		*$*	*% of bus*	*% of gross*
Net price received by the agency	39.45					
Passenger (mean)	23					
Gross revenue	892	1	**Bus subcomponent**	*$*	*% of bus*	*% of gross*
Price for bus (mean)	450	0.50	Fuel, fluids, & parts	150	0.33	0.17
Guide	75	0.08				
Driver	8	0.01	Insurance	23	0.05	0.03
Gross profit	358.8	0.40	Maintenance	45	0.10	0.05
Insurance and other costs	53.5	0.06	Depreciation	68	0.15	0.08
Administration of staff	178.4	0.20	Financing costs	23	0.05	0.03
Taxes	16.5	0.02	Profit for owner	143	0.32	0.16
Net return	126.9	0.14				
Total at location (%)		**0.60**				
For agency owners	0.14					
For bus owners	0.16					
For labor	0.29					
Total depreciation		**0.08**				
Sales tax		**0.02**				
Total outside of Limon and Puntarenas		**0.31**				

Source: data supplied by tour operators and sales agents in Costa Rica

f. Comparison of expenditures in port vs. those made while on board cruise vessels

The mean expenditure of cruise ship tourists ashore is near US$75; a lower figure is yielded when calculated for the median (US$55). This amounts to less than a tenth of what conventional tourists contribute to the local economy (US$1,260), and is considerably different from what passengers spend while on board; Klein (2003) noted that these expenditures range between US$220 and US$232 daily.

As analyzed in the previous section, the main expenditure of cruise ship tourists is for tours. Since 75% of passengers arrange their shore excursion packages through the cruise line, which charges 100% extra in commissions, most of the earnings for this business go to the cruise companies.

This highly advantageous situation for cruise operators in the case of Costa Rica has been enhanced by modified port fees that favor cruise ship activities over cargo transport. The reduction in tariffs paid per passenger as well as a relaxed application of fines and fees for in-port stays, along with greater competition among providers of goods and services in port, have all contributed to increasing the large number of cruise vessel arrivals.

2. Environmental impact

Generally cruise ship tourists in Costa Rica do not visit fragile areas, but rather prefer to see those zones where a much larger number of conventional tourists go. As far as protected wildlife areas, the cruise ship tourist profile is different from that of conventional visitors, who are more demanding as far as the preservation of the natural and historical state of places they go. Cruise ship tourists tend not to be avid naturalists, and the few protected areas that they visit in Costa Rica, mostly in small groups, are Cahuita on the Caribbean coasts, as well as Carara and Poás on the Pacific. The parks do not undergo much damage as a result of their visits other than normal erosion of hiking trails. According to officials at these protected areas, no important adverse effects as a result of cruise ship tourism have been noted, especially since the volume of other kinds of tourists is much higher at these destinations.

As far as the impact that the cruise ship itself can have on the port's conditions, there is no indication that they cause more effects than freighters. One variable that could be evaluated is the effect of gases and emissions produced by internal combustion engines left running during the entire time a vessel is in port. Such effects could be easily measured and resolved.

Discharge of solid and fecal waste is strictly regulated, although there are indications that providers of waste disposal services do not always comply with their contract and legal duties. On the others hand, the fact that Costa Rica has not ratified the MARPOL treaty means that there is no management or control over the activities of cruise ships at sea.

3. Social impact

In the social context, interaction between passengers and local inhabitants is really minimal, quite less than that of conventional tourists traveling through the country. This is due to the brief amount of time passengers spend ashore, usually 12 hours or less, which most spend on tours that are not conducted in communities. The subjects interviewed stated that because of lack of security and quality services, visits to communities were basically limited to shopping trips.

The group that could have the most impact on the local population would be crew members who end up spending more time on shore and share or seek services that could produce economic or behavioral changes affecting port inhabitants.

Among the effects noted is more employment resulting from increased activity in the ports, such as for arts and crafts makers, tour agencies (contracted both locally and by the cruise lines), representatives of shipping firms, local guides, transport companies, supermarkets, municipal or farmers markets, restaurants, etc. The seasonal nature of cruise ships has an important effect on family income. The general opinion of Costa Ricans living in port areas is that the cruise ship tourism businesses are controlled by people from San Jose, that local people will try to make a profit from the cruise ship trade any way they can, but that their role is small in comparison. For many people living in ports, the arrival of cruise ships means at most a chance at seasonal work, not as owner or operator of a business, but rather as temporary hired help at one of the service enterprises providing services, such as at the arts and crafts stands.

Additional effects of cruise ship tourism can have a very significant social impact, such as those related to the illicit market involving prostitution ("sexual tourism") and drug sales, among others.[54]

[54] This aspect was noted by sources at the port, who preferred to remain anonymous.

J. Conclusions

Costa Rica has been able to assimilate a cruise ship tourism market without serious effects so far on overnight tourism and the environment since growth has been gradual over the last two decades. This is also due to the fact that most cruise ships dock at ports with over a century of experience in handling passenger arrivals, where the most pressing need is to find ways to get tourists to spend more time and money at local enterprises while in port. Protection of the more important overnight tourism trade has been the result of separating cruise ship tourists from those interested in the country's wildlife and other natural attractions.

However, the cruise ships place freighters and the exporters who depend on them at an economic disadvantage. Moreover, the low berthing costs and tax per passenger rates for cruise ships has produced a situation in which the Costa Rican state is subsidizing, by means of developing extremely specialized port infrastructure for cruise vessels, an activity which is highly lucrative for the cruise lines but not for the country. A latent threat that has not yet appeared in Costa Rica but has in other ports of the region, is the development of exclusive port facilities that the cruise ship operators manage, a situation which excludes local enterprises and puts all activities on the dock completely under the control of the cruise lines.

At the individual and political level, port inhabitants have felt that the cruise line activities are not only a tradition, but also probably their most obvious opportunity to participate in this industry. Nevertheless, the lack of security and urban attractions has forced tour operators to seek other destinations outside the port cities, transforming them mainly into points of departure. Strengthening cruise ship tourism and shopping expeditions in urban port areas would generate significant socioeconomic benefits in the short term.

1. Positive impact of cruise ship tourism

- Besides the maritime agents in ports, there are supermarkets, a number of restaurants, and bars, all of which profit directly from the arrivals of vessels and crew. Other beneficiaries are those who have obtained work as salespeople of arts and crafts and other goods at concession stands at the wharf. In addition, some transport services have likely been able to earn tourist dollars on a regular basis.
- The most direct contact with the greatest economic and social impact probably comes from crew members.
- Port inhabitants increasingly want to learn foreign languages and to get training in the skills needed to be able to work in this industry, since financial remuneration tends to be greater than for jobs typically available for Costa Ricans in these areas
- Unlike what has taken place at some other important destinations in Costa Rica, cruise ship tourism does not appear to have caused changes in the social composition and behavior of port communities.

2. Adverse impact of cruise ship tourism

- Tourism operations for cruise ship passengers at both ports is typically quite vertical as well as controlled by entrepreneurial structure based in San Jose. Direct participation of the community in the tourism business is very limited, and although on the surface some jobs have been created, this continues to be random. Cruise ship tourism moreover has ignored the presence of other kinds of tourists at the ports, tending to alienate them.

- Prostitution is on the rise; the attraction of this activity for a significant number of crew members in undeniable.
- Though the effect of large crowds of cruise ship passengers on fragile ecosystems is yet to be measured, it may well be irreversible.
- The socioeconomic gap between port cities and the country's inland urban centers is widening.
- Freighters and businesses that export perishable products are enduring high cost impact both for the loss of goods as well as for delays in loading and shipments.
- Funds allocated to improve cargo docks are being diverted to build cruise ship dock facilities, even though freighters pay up to 8 times more in port fees. In effect, the longshoremen and taxpayers are subsidizing the cruise line operations.

3. Suggestions for improving cruise ship tourism in the short term

Cruise ship tourism does not substantially further activities in Costa Rican port cities. It has been observed that cruise ship passengers are primarily interested in shopping at stops during the voyage; as such, since port towns have little to offer them at present, strengthening locally production and sales of arts and crafts would be worthwhile. Thus, it is suggested that the following measures be implemented:

- Quickly renovate and equip the existing boulevards in both ports. Together with local governments and pertinent institutions, convert these areas into attractive and dynamic sites. At the same time, such investments must be made within the limits of potential economic benefit to be obtained, and not as subsidies for unsustainable activity.
- Set up skills instruction programs with the National Training Institute (INA) for craftspeople and other providers of services and goods at the ports.
- Together with national institutions, work to define the local products and services that are offered in terms of their special local identity.
- Set up lines of credit for small enterprises, especially those trading in arts and crafts or serving food and beverages.
- Establish programs that promote and enhance the cultural traditions and gastronomic specialties of the port areas.
- To ensure that goals can be achieved, strengthen security at the ports.
- Provide incentives for local government services to increase sanitation, street cleaning, and urban beautification.
- Ensure that Costa Rica ratifies the MARPOL treaty to protect territorial waters from pollution; this measure has gone unsigned for purely circumstantial reasons.[55]
- Have cruise lines pay fair docking and port facility use fees in order to underwrite the cost of improvements; this would imply adjusting the tax per passenger to bring it in line with international rates.

[55] The file was lost during proceedings in the Legislative Assembly.

About CESD

Center on Ecotourism and Sustainable Development

The Center on Ecotourism and Sustainable Development, founded in 2003, is a multi-disciplinary research institute devoted to ecotourism. The only one of its kind in the US, the institute operates out of bi-coastal offices in Washington DC and Stanford University, and partners with agencies and institutes around the world to monitor, evaluate and improve sustainable tourism practices and principles. Its policy oriented research leverages ecotourism as a tool for poverty alleviation and biodiversity conservation. CESD's areas of focus include indigenous rights, certification, travelers' philanthropy, impacts of cruise tourism, and research on market trends in the broader tourism industry.

CESD views ecotourism as a development and conservation tool that has the potential to address some of the most complex and compelling social and natural conservation issues of our times.

CESD's mission is to design, monitor, evaluate, and improve ecotourism and sustainable tourism practices and principles. Our policy-oriented research focuses on ecotourism as a tool for poverty alleviation and biodiversity conservation, as well as socially and environmentally responsible tourism practices.

CESD activities include:

- International **research projects**, both field-based and out of our offices in Washington, DC and at Stanford
- Writing **publications**, including books, pamphlets, booklets, and handbooks
- Organizing international workshops and **conferences**
- Organizing ecotourism courses and seminars, offered at Stanford and other institutions
- Building **partnerships** with universities and research institutes in developing countries

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About INCAE

Central American Institute of Business Administration
Instituto Centroamericano de Administración de Empresas

INCAE is a private, non-profit, multinational, higher-education organization devoted to teaching and research endeavors in the fields of business and economics aimed at training and instructing, from a worldwide perspective, individuals capable of successfully holding top management positions in Latin America.

In 1964, the business community and the governments of the Central American nations founded INCAE as an initiative. Since its inception it has had the technical supervision of the Harvard Business School.

INCAE is presently focused on three key activities:
* Masters programs in areas critical for Latin American development.
* Executive training programs and seminars.
* Research projects on competitiveness in the region. INCAE has an applied approach combining the best practice and the world frontier of knowledge with the realities in Latin America.

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