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Sincerely yours,

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Economic Impacts of Cruise Tourism: the case of Costa Rica[1]

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ABSTRACT

Cruise tourism generates an estimated $18 billion a year in passenger expenditure and has been the fastest growing sector of the travel industry for the past twenty years with an average annual growth rate of passengers of 7.4%. Cruises can provide economic benefits to a local economy but the impacts of this activity are not well understood and have been neglected in the literature. 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. We focus on the case of Costa Rica using data collected by the Costa Rican Tourism Institute during the period 2006 - 2008.

Keywords: cruise industry, economic impacts, Costa Rica

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ABSTRACT

Cruise tourism generates an estimated $18 billion a year in passenger expenditure and has been the fastest growing sector of the travel industry for the past twenty years with an average annual growth rate of passengers of 7.4%. Cruises can provide economic benefits to a local economy but the impacts of this activity are not well understood and have been neglected in the literature. 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. We focus on the case of Costa Rica using data collected by the Costa Rican Tourism Institute during the period 2006 - 2008.

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1 Introduction

Cruise tourism can be traced back to the beginning of the 1960s coinciding with the decline of transoceanic ship travel and the introduction of the first nonstop air travels between USA and Europe. The 1970s and 1980s were a period of moderate growth, increasing from half a million passengers in 1970 to 1.4 million passengers in 1980 and 3.8 million passengers in 1990. In the 1990s cruise tourism reached Europe, Asia and Oceania and started a period of high growth. The average annual growth rate in the number of worldwide cruise passengers for the period 1990-2007 was 7.4%. It has increased at almost twice the rate of growth of tourism overall and this growth is expected to continue in the future (FCCA, 2008 and Klein, 2005). The Caribbean region, continue being the most preferred cruise destination, accounting for 41.02% of all itineraries (FCCA, 2008). In 2007, Cruise Lines International Association members carried 12.56 million worldwide passengers, an increase of 4.1% over the previous year. In particular, cruise passenger arrivals in the Caribbean region increased from 3 million in 1980 to more than 25 million in 2007.

Cruise ships arrivals are increasing both in number of passengers and size of the ships, conditioning the choice of location. The industry is also booming in Asia, Australia and Europe. The U.K., Germany and Italy are experiencing considerable growth in the popularity of cruising and there is also significant development in Spain but less in France (Klein, 2003). The worldwide growth on 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 of different age, residency and socioeconomic class. Travel on a cruise ship is seen as a safe, cheap and easy option for vacations. Cruises represent the paradigm of globalization: physical mobility, international capital that can be relocated anywhere and at any time, crews coming from different countries at the same ship, no national or international regulations, and marine registrations optimally selected. A cruise ship represents all four faces of the tourism industry: transportation, accommodation (including food and beverages), attractions and tour operators.

Cruise tourism is an important segment of the tourism sector in Costa Rica where there is a lack of information regarding the economic aspects of this activity. The economic, social, cultural and environmental impacts of cruise ship tourism have been studied very little. For this reason, countries as Costa Rica do not have the tools to establish strategies and policies to manage this type of tourism in an efficient manner. To the best of our knowledge, only one study (published twice) on cruise tourism in Costa Rica has been published to date, and uses data collected by ICT for 2004 (see Seidl et al., 2006 and 2007). The measurement of the economic impact is an important point to evaluate whether cruise tourism is economically viable or not. To determine the economic impacts of the cruise activity on a destination we have to take into account the different types of cruise related expenditure. These include passenger and crew-related expenditure (retail spending during the visit, pre/post-cruise expenditure, shore excursions, incidentals, provedoring, departure tax), Vessel-related expenditure (passenger embarkation charges, fuel costs, port dues, port agency fees, pilotage, water, garbage, berthage, stevedoring, towage, miscellaneous expenses, dry dock charges, State conservancy dues) and supporting expenditure which includes direct payments by ship owners into the destination (see Dwyer et al., 1998 and 2004 and Brida and Zapata, 2009 for a more detailed description). Cruise passengers, crew and cruise ships are, then, the sources of income for the port and the local communities. It is important to study the cost and benefits of cruise tourism to understand if the balance of the activity is positive or not. Certainly, in the final balance not only economic aspects are to be considered but also environmental, social and cultural impacts and the consequences of competition for spaces in a destination of cruise tourism with other kind of tourism. It could be necessary for the public sector to implement policies that lead to a sustainable development at the economic, social, cultural and environmental levels.

Attune to the dynamism evidenced by the cruise industry, it arises the interest in analyzing the relationship between cruise liners and destinations. In this case a Caribbean destination. As we show latter in this paper, cruise activity does not have a significant economic impact on Costa Rica and it is small compared with other types of tourism but it is subject to study because of its relevance as a cruise ship port of call on the Central America coasts; because of the national tourism institute –ICT- provides sufficient amount of data, and because of the encouraging perspectives showed by data activity over the last years.

The data used in this study were collected during 2006, 2007 and 2008 in Costa Rica by the ICT (Tourism Institute of Costa Rica). The sample of the survey consists of 1,121 cruise passengers interviewed at the Pacific ports of Calderas, Puntarenas and Golfito and the Caribbean ports of Moin and Puerto Limon. In the survey, information was requested about the tourists' socio-demographic characteristics, expenditure levels and satisfaction levels. The survey included the following items: number of hours in land, quality of the port services, tourist attractions (leisure, parks etc), quality of transportation, cleanliness and hygiene, the presence of friends and/or relatives in the cruise, familiarity with the destination, safety, tranquility, prices, general satisfaction with the visit and amount of the expenditures in tours, cultural activities, tourist attractions, souvenirs, medical costs, transportation and restaurants.

The paper is organized as follows. First, we describe the evolution of the international tourism industry in Costa Rica. In section 3 we provide an overview of cruise tourism in the country, particularly for the last three years. Section 4 introduces a framework to classify the different expenditures of both cruise passengers and crew that is used to estimate the economic impacts of the cruise activity on the economy of Costa Rica. Some concluding remarks are included in the final section.

2 International tourism in Costa Rica

International tourism has expanded rapidly in Costa Rica since 1950. International stay over arrivals have increased from 64,000 in 1964 to 2.1 millions in 2008, while associated receipts grew from $10 million to $2 billion (Weaver, 1999; Ministry of Tourism of Costa Rica, 2009; ICT, 2007). By 1992, tourism surpassed the banana trade as the country's leading source of foreign exchange (Wood 1993; ICT, 2007) and foreign exchange from tourism (US$1,894.7 millions) was in 2007 more than three times the relative amount for bananas (US$673.7 millions). Table 2 summarizes the evolution of the portion of GDP that corresponds to tourism and the percentage of exports that is generated by the tourism industry. Note that the shares remain almost constant during the period 2000-20007 and that in average the tourist sector participates with a 7.2% of the total GDP and 20.9% of the total exports.

INSERT TABLE 1 and 2 BY HERE

Tourism is the most important source of foreign exchange of the country and one of the largest industries in the country. In 2008 the country received 2.1 millions of tourists, who generated more than 2 billion dollars in foreign income. Table 3 shows the evolution of tourist visits and expenditures in Costa Rica during the period 2002-2007. The number of international tourists increases at an average growth rate of 8%, with a maximum of 17.3 in 2004. There was also an increase of total expenditures with average growth rate of 9% but only in nominal terms. If we discount inflation the increase of expenditure was not significant. In particular, per capita expenditure of tourist visit remains almost constant during the period, but in real terms this implies a decrease in per capita expenditure for the visit. Finally, we can note that the per day expenditures of tourists was first increasing and then decreasing. In part this is a consequence of a longer period of stay of tourists. Note also the low per day expenditures of tourists in Costa Rica ($88 in average for the period).

INSERT TABLE 3 BY HERE

As demand for tourism increases, Costa Rica needs to develop its tourism attractions (in particular natural areas) to meet tourist demand and maintain environmental quality. This outstanding performance is the reason why all governments and private sector efforts are focused on the strengthening of the sector.

Tourism is perceived as an industry that has a positive impact on economic growth. Economic benefits are probably the main reason why so many countries are interested in the development of tourism and its contribution to the world economy is obviously important. In a recent paper, Ivanov and Webster (2007) present a methodology for measuring ex post the contribution of tourism to economic growth. The method uses the growth of real GDP per capita as a measure of economic growth and disaggregates it into economic growth generated by tourism and economic growth generated by other industries. Let (g_r) be the growth rate of real GDP per capita in constant prices as the measure of economic growth:

$$g_r = \left(\frac{\frac{\sum_t Y^t_{r(p_0)}}{N_r} - \frac{\sum_t Y^t_{r-1(p_0)}}{N_{r-1}}}{\frac{Y_{r-1(p_0)}}{N_{r-1}}} \right)$$

where $\sum_t Y^t_{r(p_0)}$ is the total GDP of the economy in the period *r* at prices p_0 (constant prices) and N_r is the population in period *r*. Then, disaggregating the GDP of tourism from the GDP of the rest of the economy we obtain:

$$g_r = \left(\frac{\frac{Y^T_{r(p_0)}}{N_r} - \frac{Y^T_{r-1(p_0)}}{N_{r-1}}}{\frac{Y_{r-1(p_0)}}{N_{r-1}}} + \frac{\frac{\sum_{t\neq T} Y^t_{r(p_0)}}{N_r} - \frac{\sum_{t\neq T} Y^t_{r-1(p_0)}}{N_{r-1}}}{\frac{Y_{r-1(p_0)}}{N_{r-1}}} \right)$$

and the first component in this expression:

$$g_r^T = \left(\frac{\frac{Y_{r(p_0)}^T}{N_r} - \frac{Y_{r-1(p_0)}^T}{N_{r-1}}}{\frac{Y_{r-1(p_0)}^T}{N_{r-1}}} \right)$$

represents the direct contribution of the tourism industry on economic growth in the period r. Note that g_r^T measures the part of growth of GDP produced by the tourism sector where this sector is formed. Table 4 shows the results of applying the methodology to data of Costa Rica for the period 1991-2007.

INSERT TABLE 4 BY HERE

Note that only for the years 1991, 1996 and 1999 to 2002 the contribution of tourism to the economic growth of Costa Rica was negative and in four of these years the GDP of the country decreased. In average the tourism sector contribution to the economic growth was positive and 13% of the growth of the country is a consequence of tourism (0.39% of 2.94%). Then we can conclude that the tourism industry is very important for the economic growth of Costa Rica and 0.5% of this growth is a consequence of tourism. This growth has been the result of the national investment, legal framework and fiscal policy. Costa Rica has been very successful in utilizing forests, parks, beaches, and natural beauty to attract tourist dollars. The country has achieved to enhance and attract foreign tourism investors and get the establishment of international chains. In the same way, has increased national investment.

The ICT collects tourist information via in-person surveys three times annually. Each survey is approximately one month in duration and the objective of the tourist survey is to obtain a profile of the principal characteristics of visitors to Costa Rica, including: motive for travel, frequency of travel, mode of travel, length of stay, trip expenditures, type and location of lodging, age, gender, marital status, level of education and household income. In table 5 we present the most enjoyable aspects of the stay according to the answers of land tourists to the questionnaires.

INSERT TABLE 5 BY HERE

For long stay- tourists, Costa Rica offers visits to tropical, cloud and dry forests, Pacific and Caribbean beaches, active volcanoes, museums and adventure activities. 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. Considered as the most important tourist destination in Central America, the main distinctive feature of the Costa Rican tourism is the adoption of the concept *sustainability.* A concept has enabled it successfully placed itself as a 'sustainable tourism' destination, making it attractive in major developed markets, especially in USA (OMT, 2009). During the past decade Costa Rica has successfully promoted its tourist industry with an image of natural beauty and environmental consciousness, and has become one of the most popular ecological tourism destinations in the world (Hearne and Salinas, 2002). The country has led certification processes for sustainable tourism (CST) in Latin America. This confirms its commitment with the environmental protection. According to a study done by Yale and Columbia universities in 2008, the country was ranked fifth worldwide on the EPI (Environmental Performance Index). As in most destinations, ecotourism activity in Costa Rica is strongly associated with protected areas. More than 28% of the territory of the country is protected under the World Conservation Union classification system and around 30% of the territory remains in a forested state (Chape et al. 2008) and the success of Costa Rica's tourism industry comes from its strategy of nature conservation.

Nature conservation contributes to the tourism industry and tourism contributes to the national economy. Despite the fact that Costa Rica provides distinct nature-based tourist experiences throughout the country, tourist visits to National Parks are highly concentrated in three tourist destinations: Manuel Antonio National Park (NP), Poas Volcano NP, and Irazu Volcano NP, receive about two thirds of the visitors who come to Costa Rica (ICT, 2007).

3 Cruise Tourism in Costa Rica

The luxury floating buildings in Costa Rica were just a far picture of the future waiting to be developed both in the Costa Rican Pacific and Caribbean ports. They never expected to be leading the cruise industry in the region, especially after seeing ships passing through Caribbean islands. In the last decade 70's, seeing a cruise ship was an absolute phenomenon. Costa Rica has known how to compete in the fight for attracting cruise ships towards Caribbean ports. It has achieved to conquer cruise passengers attracted by destinations such Curacao, Barbados or Jamaica. This has not been an easy task if it is taken into account that most port of calls charges lowest or inexistent taxes. It is remarkable the case of Panama, a country that encourages cruise lines paying them a monetary incentive for each disembarked passenger. Another future competitor in the Pacific waters could be Honduras which recently (March 2009) received the fist cruise ship arrival in Amapala Pacific port. They expected four ships per month be docking in this port. The cruise industry became strongest in Costa Rica in the 1990s. Table 6 shows the evolution of the cruise ship visits. Note that cruise arrivals have been irregular during the period 2002-2008, but the number of cruisers from 1996 has been increasing. This is a consequence of the growing capacity of the cruise ships (see Klein, 2005). It can be also noted that the number of ships arriving in the Pacific ports decreases during the period 2002-2004 but (contrarily to the findings in Seidl, 2007) increases from the period 2005-2008. Meanwhile, Caribbean ports have been decreasing for the same period after having had an increasing performance during 2002-2004.

INSERT TABLE 6 BY HERE

There is a strong potential for a further growth of the cruise shipping industry in Costa Rica. According to a survey conducted by the WTO, port and tourism authorities and cruise companies forecast a maturity of the sector within 6 to 10 years. (OMT, 2008). Despite this positive prediction, one thing is evident and is the fact that the impact of cruises to the economy of Costa Rica is still small with respect to land tourism. The number of cruise passengers arrived to Costa Rica (see tables 3 and 6) was 1/6 of the number of stayover turists. According to ICT (2008), the average cruise passenger spends $US63 per day while the average stayover tourists spend $US78 per day during an average stay of 12 days for a total expenditure of $US1345 in their visit. Table 7 shows a concise comparison between cruisers and stayover tourists for 2007.

INSERT TABLE 7 BY HERE

Cruise passengers are visitors arriving in Costa Rica on board ship and returning to the ship each night to sleep on board. As they do not strictly spend the night in an accommodation structure in the country, they are not included in the category of tourists. From the other hand, the average duration of the stay of an overnight tourist was of 12 days. In addition, the high season of cruise activity (December to March) coincides with the peak of other forms of tourism, diminishing the quality of tourist experience and creating congestion. Tourists arriving to Costa Rica demonstrated strong preferences for the inclusion of restrictions in the access to some trails (Hearne and Salinas, 2002). They have also expressed concern that congestion did reduce the quality of their visit. This is an important point to be considered for the strategies of development of cruise tourism because cruise passengers also contribute in the congestion issue. This competition for the same attractions between cruise passengers and overnight tourist put tourism infrastructure under stress. This could produce negative impressions regarding the destination or the country for the long stayover tourists, affecting the arrival of high-value tourism. The economic costs of this aspect are difficult to measure, but could be significant.

One key factor for the successful performance of cruise activity in the recent decades has been the relationship between cruise liners and Costa Rica government (OMT, 2008). Two cruise lines hold more that 70% of the cruise market in Costa Rica: Carnival and Royal Caribbean International (ICT, 2007). This shows that the power of negotiating of these cruise lines is very high.

The main ports in Costa Rica for the cruise ships are Puntarenas (in the Pacific) and Puerto Limón (in the Caribbean). Both have the capacity to accommodate 80 thousand tons vessels (4000 passengers). Both port alternatives are very attractive for those visitors in search of nature and adventure. This is the reason why cruisers carry out activities such canopy, rain forest visits, rafting, banana plantation tours, among others. The Costa Rican Pacific Ports Institute (INCOP), the Caribbean Port Authority (JAPDEVA) in association with the Costa Rican Tourism Institute (ICT) are responsible for attracting new cruises business and promoting cruise ships expansion in Costa Rica. Their goal is to stimulate economic growth both at Port Limon and Puntarenas. More and more, cruise lines are including Costa Rica in their itineraries. In 2007, the country won an award as the “best destination experience-organized tour” and “destination with de best tour guides” by the U.S magazine Dream World Destination. Costa Rican operates as a port of call (an intermediate stop as a part of cruise ships itineraries) and the following are its main ports.

Port Complex of Limón is located on the eastern coast of Costa Rica in the Caribbean Sea. The complex is divided in two port terminals: Puerto Limon and Moin. The port complex of Limon is the entrance door for the tourism coming from the Caribbean Islands and North America. Puerto Limon is famous for launching the first shipment of bananas to North America in the late 19th century. Through this port is moved over 80% of the exports (JAPDEVA).The port also receives a sizeable amount of cruise ship traffic, mostly, out of Miami, stop here as part of a larger tour. The harbor installations of Limon have been modified to create the conditions for the cruise ships docking. Thus, in 1987, 24 cruise ships docked in the port (JAPDEVA) while in 2007 the number of arrivals was 130.

Pacific Ports. Puntarenas is located on the western coast of Costa Rica in the Pacific Ocean. Puntarenas is the largest province. The principal attractions are on the Pacific coast itself. Puntarenas sits on a long, narrow peninsula in the Gulf of Nicoya. For years, it was the country's principal port, and though a never port in nearby Caldera now handles cargo and Puntarenas the cruise ships. **Puerto Caldera** is located 16 km south of the city of Puntarenas. There are no passenger facilities in Puerto Caldera except for a small, air-conditioned terminal with restrooms, information desk, public phones and a small selection of craft vendors. The regional port authority is the Costa Rican Pacific Ports Institute, INCOP. The Authority is responsible for the image promotion and positioning of Puntarenas as a cruise ship destination. The cruise shipping industry appears to have significant growth potential in this port regarding to Puerto Limon. Its new facilities will attract even more cruises to this renaissance town. Table 8 illustrates the main characteristics of cruise ship passengers to Costa Rica. About 60% of the tourists are US residents and more than 70% are North Americans. More than 50% of cruise passengers are older than 55 years old. About 73% of cruise passengers are married, traveling mainly in couples and some in company of their families. The majority of respondents have a high educational degree**.** More than ¾ are visiting Costa Rica for the first time. Note also that the passengers with income higher than $75,000 is more than 25% of the total number of passengers.

INSERT TABLE 8 BY HERE

4 Economic analysis

Cruise tourism seems to have considerable potential as a source of economic benefits. When cruise visits are proposed to policy makers of a destination, the initial reaction is therefore likely to be positive. But, as all economic activities, cruise tourism brings both positive and negative impacts (see Brida and Zapata, 2009). A number of factors must be considered. The arrival of cruise ships and their passengers may require considerable change involving the entire destination and its communities. Most of the economic impact of cruises is related to the tourists and their activities as we mentioned above. The industries which are most likely to benefit from the visitor activities are: transportation (taxis, buses), tour operators (including guides), attractions, shops (mainly those located close to the dock and in particular jewellery shops, craft merchants, local specialties shops). Other sectors related to tourism may not see significant gains. This is the case of hotels, restaurants (normally tourists return to the ship to eat food they have already paid for), liquor stores (most ships do not permit purchases for consumption on board), casinos (most ships have their own casinos), etc. Cruise lines create economic impacts through vessel related expenditure, crew expenditure and support expenditure including port charges such as navigation and berthing charges, pilotage charges, towage charges, bunkering, supplies of food and water, services such as waste disposal and passenger related expenditures, such as security and baggage handling. From the surveys of ICT we have data of total expenditures of cruisers in Costa Rica for the period 1994-2007. Table 9 shows the evolution of these expenditures.

INSERT TABLE 9 BY HERE

Note that during 2008 total revenues from the cruise industry were US$16.4 millions. These revenues from cruises have benefited the governments and their citizens and have created an indeterminate number of jobs. The government of Costa Rica has made a big effort in recent years to offer more favorable conditions for cruise ship companies in order to attract them. This includes a reduction in head tax and shipping lines port fees. These measures and policies have made it possible for the large cruise companies to reduce their costs and increase profits. During 2008 the overnight tourism expenditures were of US$2.144,2 million. If we compare with the US$16.4 millions cruise tourism expenditures, cruise ships represent less than 2% of the expenditures of land tourism. This is a measure of the size of the market showing that cruises are still a small portion of tourism expenditures in Costa Rica. From the other hand, the real revenues of the cruise industry are not totally clear. What is clear is that not all this US$16.4 millions remains in Costa Rica and the big portion of these expenditures is captured by the cruise lines. In fact, cruise ships' boutiques stocks are based on the sorts of items they know passengers are likely to buy in the forthcoming ports; even better, cruisers can buy a postcard of a port on the itinerary and post it on the ship with a local stamp (Douglas and Douglas, 2004). Authors also refer that some people prefer to buy onboard due to they feel more comfortable dealing in a quiet environment and in currencies known by them. From Table 9 we can also note that the total expenditure per cruiser in 2008 was US$63 each during their stay in Costa Rica. Total expenditures have varied little in nominal terms over the past decade, from about $15 million in 1996 to more than $31 million in 2004. However, expenditures per visitor have suffered a significance downturn in the last three year, regarding to 2005. According to Klein's (2002) findings, in general, spending by cruise passengers in port communities has dropped by half since 1994 due to changes in demographics and on-board spending.

Cruise ships are in Costa Rican ports for an average of 12 hours per visit and in average 80% of the passengers disembark. About 33% (profile 1) of the passengers that disembark purchase previously the tour on board o by internet, 6% (profile 2) of cruisers purchase the tour at local agencies and the remaining 61% (profile 3) do not purchase tours. Giving that the ICT (2008) survey provides important data about the expenditure behavior of the different cruise passenger profiles, we segmented on table 10 cruisers into the mentioned three categories above.

INSERT TABLE 10 BY HERE

Note that expenditure on tours is the main part of the contribution of cruise passengers to the economy of the destination. In particular, 2/3 of the total cruisers (those that do not enjoy tours) spend in average only $28.
With respect to those who reserved tours previously, they have a total expenditure on tours for $26,171 and paid in average $72 per tour. Table 11 summarizes in which categories passengers spent their money.

INSERT TABLE 11 BY HERE

Table 12 shows in detail some shore excursions offered by the main cruise lines in their websites.

INSERT TABLE 12 BY HERE

ICT survey does not differ from cruisers who purchase by internet or onboard, however, it can be deduced (giving the prices in the table 10 and the results of the survey) that most of them acquired their tours by internet. 87% of this group had expenditures on port additional to local tours for $19,184 with an average expenditure per person of $38. It is not common to find passengers who take an additional tour with a local agency but they organized it by themselves (17%). From the total number of passengers who had expenditure on port, 76% spent basically on crafts, clothes and tourist guide. Having paid for all meals in the cruise package, people are disinclined to buy food ashore as we can see for this category and the next one.
Passengers who purchased tours at local agencies registered the highest average expenditure per person ($50). As the group is small, it is comprehensible they report the lowest amount of the total expenditure on port; but it is interesting the significant expenditure they have in transport and culture comparing to the others one. Passenger's expenditure comes, mainly, from crafts, transport and food. This segment is benefited with a better price for a local tour. Note that category 1 paid twice for the tour obtained onboard.
Being the biggest group, cruisers of category 3 could have not only a higher participation on total expenditure on port but also on average expenditure per person. But the reality is different. They spent just almost 50% more with relation to category 1 and have the lowest expenditure per passenger. The majority of this passenger' expenditures come from crafts, food and clothes. There are 11% of these people that does not have any spending and they also spend on average 3 hours off ship. "Expenditure by cruise ship passengers in ports of call is influenced by a variety of factors" (Douglas and Douglas, 2004). Being aware of this, local tourism authorities might analyze the reason why this is happening. This situation could evidence the lack of an efficient organization and infrastructure: an easy disembarking, taxis and buses available on time, security, etc. Maybe, passengers could prefer the cruise ships' boutiques for reasons mentioned before.
Both ports (Puntarenas y Puerto Limon) require to be developed as real destinations. However, ports have the conditions to attend the demand, local community do not perceived a direct benefit due to passengers visit other places in the country. The results for this category suggest that Port towns do not have enough attractions to generate a relevant stay. Communities such Limon and Moin (Caribbean) depend economically on cruise tourism incomes. Specially those generated by the sales of crafts and souvenirs.

Some destinations have implemented policies to ensure that a larger percentage of passengers disembark

There is another important group included in the survey that corresponds to the cruise ship staff.

Interestingly, the crew averaged the highest spending per person (US$42) on port in comparison with the rest of groups. This confirms (Seidl, 2007) statement referring to crew expenditures should not be ignored in the assessment of cruise tourism's economic impact. Just 5 per cent of the respondents took a tour at local agencies with an average price of US$33. They also had a total expenditure additional to tours for US$4158. Cruise workers come from Philippines (29%), India (11%), South America (10%), North America (10%) and from other regions (40%) y, in average, 3 hours off the ship. In spite of they have less income than a cruise passenger they have significant expenditures. In fact, comparing to cruisers they spend more on food, liqueur and cultural services.

In general terms, the survey indicates that in addition to tour expenditures, each cruise passenger spends in average an amount between U$D28 and U$D38. That is, from U$D63 that each cruiser spends during their stay in Costa Rica, only less than U$D38 goes to local providers of goods and services. These expenditures are, mainly, on crafts, coffee, local transport, souvenirs, food, drinks and other expenditures. Table 13 shows the distribution of the average cruise passenger expenditure both crew and cruisers.

INSERT TABLE 13 BY HERE

The country, as many others, wanted to include cruises as a key product for their national tourist portfolio and then it is very important to know which are the benefits and costs of the activity. They also expected cruise activity brings a range of expenditures and benefits, including foreign exchange earnings, profit and taxes, employment, externalities, terms of trade and scale economies (Dwyer and Forsyth, 1998). There are some hidden costs that are very difficult to measure. For example, in Costa Rica ports cargo vessels pay much higher fees than cruise ships, which have priority in port. This results in important losses for the transport industry which depends on the rapidity of transport of goods. From the economic viewpoint this losses caused by reduced cargo capacity and the loss from reduced port taxes are opportunity costs of the cruise industry.

Literature related to economic impact of cruise industry in Costa Rica is practically non-existent. A first approach to an economic cruise activity assessment (Seidl, 2006 and Seidl, 2007) was presented through a descriptive analysis. In our study we intend to compare the recent performance of Costa Rica with the results presented in (Seidl, 2007) that uses data until 2004.

Conclusions

This study provides an overview of the main economic issues of the cruise tourist in Costa Rica. We also describe the profile of cruise passengers and crew expenditures. We that cruise activity does not have a significant economic impact on Costa Rica. Cruise tourism represents less than 2% of the expenditures of land tourism. In particular, the economic contribution of cruises is small compared with the stay over tourism. Costa Rica's average cruise tourist is older, less educated and more American, and spends less per person day than its overnight tourists. The cruise tourism season peaks at the same time that other forms of tourism peak, diminishing the quality of the individual tourism experience under greater stress. This is an important point to be considered by the tourism authorities if they want to preserve stay over tourists.

In this paper we show that the contribution of the tourism industry to the economic growth of Costa Rica is very high and around 20% of the economic growth of the country is a consequence of tourism. To maintain this high contribution, policy makers must design a policy that avoids the negative impact of cruises to stay over tourism.

Cruise passengers who currently disembark in Costa Rica could be increased as in other Caribbean countries. This will produce an increase of the expenditure in destination. The visit of cruise passengers to non fragile tourism attraction must be supported. This will reduce competition with overnight tourists and the environmental impact of the visit.

All these opportunities represent a high sum of lost revenue. With the rapid growth of cruise ship tourism in Central America and the Caribbean and the concentration of the business in an oligopoly of three big corporations, there is an urgent need for a regional cruise ship policy to be established

To implement similar alternatives as Bermuda or Alaska, which allow them to ensure that a great portion of the cruise passenger expenditure remains in the local economy and not only in

Although data used in this study were collected by the Costa Rican Government, the Tourism Institute does not have any responsibility for any analysis and comments presented here.

References

Brida, J.G. and Zapata, S. (2009). Cruise tourism: Economic, socio-cultural and environmental impacts. International Journal of Leisure and Tourism Marketing, Vol.1 Issue 3 (forthcoming).

Chase, L., Lee, D., Schulze, W. and Anderson, D. (1998). Ecotourism demand and differential pricing of national park access in Costa Rica. *Land Economics*, 74, pp. 466-482.

Chape, S., Spalding, M. and Jenkins, M., (2008). *The World's Protected Areas Status, Values and Prospects in the 21st Century*. Berkeley, University of California Press.

Douglas, N., and Douglas, N. (2004). Cruise Ship Passenger Spending Patterns in Pacific Island Ports. International journal of tourism research 6, 251–261

Dwyer, L. and Forsyth, P. (1998). Economic significance of cruise tourism. *Annals of Tourism Research*, 25(2), pp. 393-415.

Dwyer, L., Douglas N., Livaic, Z. (2004). Estimating the economic contribution of a cruise ship visit. *Tourism in marine environments*, 1(1), pp. 5-16.

Florida Caribbean Cruise Association FCCA. (2008). Cruise Industry Overview. http://www.f-cca.com/research.html.

Hearne ,R.R. and Salinas, Z.M. (2002). The use of choice experiments in the analysis of tourist preferences for ecotourism development in Costa Rica. *Journal of Environmental Management* 65, pp. 153-163.

ICT, (2004). Instituto Costarricense de Turismo. Informe de Encuestas de Turismo. Unidad de Estadística. Costa Rica. URL: http://www.visitcostarica.com/ict/paginas/modEst/estudios_estadisticas.asp?idIdioma=1

ICT, (2007). Instituto Costarricense de Turismo. Informe de Encuestas de Turismo. Unidad de Estadística. Costa Rica. URL: http://www.visitcostarica.com/ict/paginas/modEst/estudios_estadisticas.asp?idIdioma=1

ICT, (2008). Instituto Costarricense de Turismo. Informe de Encuestas de Turismo. Unidad de Estadística. Costa Rica. URL: http://www.visitcostarica.com/ict/paginas/modEst/estudios_estadisticas.asp?idIdioma=1

Ivanov, S. and Webster, C. (2007). Measuring the impacts of tourism on economic growth, *Tourism Economics*, 13(3): 379-388.

JAPDEVA. Junta de Administración Portuaria y de Desarrollo Económico De la Vertiente Atlántica. URL: http://www.japdeva.go.cr/adm_portuaria/Informacion%20general.html

Klein, R. (2002). Cruise ship blues: The Underside of the Cruise Industry. New Society Publisher, Gabriola Island.

Klein, R. (2003). Cruising Out of Control: The cruise industry, the environment, workers, and Maritimes. Canadian Center for policy alternatives-Nova Scotia. http://www.policyalternativies.ca

Klein, R. (2005). *Cruise Ship Squeeze: The new pirates of the seven seas*. New Society Publisher, Canada.

Lindberg, K. and Aylward, B. (1999). Price responsiveness in the developing country nature tourism context: review and Costa Rican case study. *Journal of Leisure Research*, 31, pp. 281-299.

Ministry of Tourism of Costa Rica, (2009). ITB Berlin Convention Program. http://www1.messe-berlin.de/vip8_1/website/MesseBerlin/htdocs

OMT (2008). *Turismo de cruceros. Situación actual y tendencias*. Published and printed by Organización Mundial del Turismo, Madrid. ISBN 978-92-844-1240-2.

OMT (2009). BAROMETRO ENERO. URL: http://www.unwto.org/UNWTOBarometer09.pdf

Schultz, S., Pinazzo, J. and Cifuentes, M. (1998). Opportunities and limitations of contingent valuation surveys to determine national park entrance fees: evidence from Costa Rica. *Environment and Development Economics*, 3, pp. 131-149.

Seidl, A., Guillano, F. and Pratt, L. (2006). Cruise tourism and community economic development in Central America and the Caribbean: The case of Costa Rica. *Pasos Online*, 4(2), pp. 213-224.

Seidl, A., Guillano, F. and Pratt, L. (2007). Cruising for colones: cruise tourism economics in Costa Rica. *Tourism Economics*, 13 (1): 67-85.

Weaver, D.B., (1999). Magnitude of ecotourism in Costa Rica and Kenya. *Annals of Tourism Research*, 26(4), pp. 792-816.

Wood, M. E., (1993). Costa Rican Parks Threatened by Tourism Boom. *The Ecotourism Society Newsletter*, 3(1), pp.1-2.

Consulted websites

Princess Cruises. (2009). www.princess.com, accessed 20 April 2009

Carnival Cruise Lines. (2009). www.carnival.com, accessed 20 April 2009

Royal Caribbean International. (2009). www.royalcaribbean.com, accessed 20 April 2009

Year	SOURCES OF FOREIGN CURRENCY		
	TOURISM	**COFFEE**	**BANANAS**
2000	1.229,2	272,0	546,5
2001	1.095,5	161,8	505,8
2002	1.078,0	165,1	477,5
2003	1.199,4	193,6	553,1
2004	1.358,5	197,6	543,4
2005	1,570,1	232,7	481,8
2006	1,620,9	225,8	620,3
2007	1,927,4	251,9	673,0
2007	2.144,2	305,0	689,2

Table 1: Tourism vs. other sources of foreign exchange for Costa Rica (US$), 2000-2007. Foreign exchange from tourism was in 2007 more than three times the relative amount for bananas. *Source: ICT, 2007*

Share in %	2000	2001	2002	2003	2004	2005	2006	2007
Tourism/GDP	7.7	6.7	6.4	6.8	7.3	7.9	7.4	7.3
Tourism/Total Exports	21.0	21.8	20.5	19.7	21.6	22.3	19.9	20.3

Table 2: Contribution of Tourism to the GDP and Exports in Costa Rica. In average the tourist sector participates with a 7.2% of the total GDP and a 20.9% of the total exports. *Source: Central Bank of Costa Rica*

Year	Number of tourists	Receipts per tourist visit (US$)	Average per day tourist expenditure (US$)
2002	1,113,359	968	75
2003	1,238,692	968	73
2004	1,452,926	935	116
2005	1,679,051	935	103
2006	1,725,261	939	78
2007	1,979,789	973	81

Table 3. Tourist visits and expenditures in Costa Rica, 2002-2007.
Source: ICT, 2007

Years	1991	1992	1993	1994	1995	1996
Growth of all sectors (a)	-0,23%	6,52%	4,82%	2,26%	1,41%	-1,61%
Growth of tourism sector (b)	-2,24%	11,23%	6,65%	2,63%	0,95%	-3,03%
Tourism contribution	-0,40%	1,98%	1,23%	0,49%	0,18%	-0,57%
Years	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Growth of all sectors (a)	2,95%	5,71%	5,66%	-0,46%	-1,02%	0,86%
Growth of tourism sector (b)	3,49%	5,78%	-0,03%	-0,76%	-0,19%	-0,43%
Tourism contribution	0,65%	1,07%	-0,01%	-0,13%	-0,03%	-0,08%
Years	**2003**	**2004**	**2005**	**2006**	**2007**	**AVG.**
Growth of all sectors (a)	4,39%	2,37%	4,01%	6,91%	5,50%	2,94%
Growth of tourism sector (b)	1,41%	2,02%	2,22%	3,23%	4,88%	2,22%
Tourism contribution	0,25%	0,34%	0,37%	0,54%	0,78%	0,39%

Table 4: Contribution of the Tourism to the economic growth of Costa Rica. During the period 1991-2007 the tourism sector contribution to the economic growth was in average positive and 13% of the growth of the country is a consequence of tourism. *Source: Central Bank of Costa Rica*

Aspect	2006 %	2007 %	2008 %
The people	31.4	17.4	21.9
The Nature	7.5	7.0	17.3
Purchasing	11.5	9.8	14.1
Souvenir	3.0	3.5	7.9
Tours	9.2	2.3	5.1
Weather	3.6	5.3	4.5
Beaches	5.3	8.2	4.4
Animals	6.8	4.8	4.3
Food	3.5	2.6	3.4
Rain Forest	4.8	6.6	3.2
Plantations	7.1	9.3	3.0
All	4.2	8.1	2.3
Tortuguero	5.0	2.4	2.1
Touristic guides	2.8	2.7	0.5
Other aspects	37.4	30.1	36.2

Table 5: The most enjoyable aspects of the stay. The quality of protected areas, beaches and natural attractions are the visitors' most enjoyable aspects of the stay. The brand of Costa Rica is natural beauty, agreeable climate and well educated population.
Source: ICT, 2007

Year	Pacific Ports (Puntarenas,Caldera, Golfito)		Caribbean Ports (Puerto Limon, Moin)		Total Ships	Total passengers
	Ships	Cruisers	Ships	Cruisers		
2002	81	79.721	105	142.775	186	222.496
2003	74	85.035	128	190.055	202	275.090
2004	**62**	84.528	**153**	233.575	215	318.103
2005	72	95.667	120	184.350	192	280.017
2006	97	141.467	140	204.179	237	345.646
2007	**86**	105.062	**130**	216.700	216	321.762
2008	**103**	120.277	**135**	199.428	238	319.705

Table 6: Cruise ship arrivals in Costa Rica, by port, 2000-2007. In 2008 Costa Rica received more cruise ships than in 2007, however, the number of cruisers decreased. In average, the number of cruisers increased at an average rate of 7.2%
Source: ICT, 2008

Items	**Cruise Tourism**	**Stayover Tourism**
Arrivals	345.646	1.725.261
Average growth rate of number of passengers (period 1994-2007)	6.5%	8,10%
Average passenger expenditure/day	US$ 63	US$78
Average passenger expenditure/visit	US$ 63	US$1345
Average time of the visit	12 hours	12 days
Total Incomes in economy	US$13,8 millions	US1620 billions
Taxes	US$ 2.09 disembarking; 13% VAT	US$26 airport; 3% hotel; 13% VAT

Table 7: Costa Rican Cruise Tourism Vs Stayover Tourism. 2006. The average cruise passenger spends $US63 per day that goes into the local economy while the average stayover tourists spend $US78 per day during an average stay of 12 days for a total expenditure of $US 1345 in their visit.
Source: Adapted from ICT, 2006

Residence (%)	2006	2007	2008	**Age (%):**	2006	2007	2008
USA	57,70	63,50	60,93	>66	31,40	18,70	26,85
Europe	18,90	13,30	13,65	56-65	31,10	36,00	33,63
Canada	11,00	9,10	10,79	46-55	18,40	22,00	19,09
Other countries	12,40	14,10	14,63	36-45	10,90	12,20	10,35
Travel Companions (%):				25-35	7,10	6,50	7,31
Couples	54,30	43,70	42,56	< 25	1,20	2,40	1,52
Families	17,80	19,80	18,10	**Income (%):**			
W/friends	15,30	16,50	14,48	>$100.000	18,50	12,40	16,68
Marital Status (% married):	76,20	68,30	75,20	$76.000-$100.000	13,40	11,30	12,40
Education:				$61.000-$75.000	5,10	2,30	5,53
University	65,50	64,60	68,33	$41.000-$60.000	13,80	18,50	16,41
Secondary	27,60	24,80	23,55	$25.000-$40.000	11,50	11,30	10,26
First Visit (% yes)	80,90	80,50	75,93	< $25.000	4,30	10,50	5,80
				NS/NR	33,40	33,80	32,92

Table 8. Main characteristics of cruise ship tourists to Costa Rica, 2006, 2007 and 2008. The average of cruise passenger is USA resident, married, travels with a partner or family and is older than 55 years old. More than ¾ are visiting Costa Rica for the first time and there are passengers with very different ranges of income.
Source: ICT, 2006, 2007 and 2008.

Year	Cruisers	Growth rate	Expenditures (US$ millions)	Growth rate	Expenditures per cruiser (US$)	Growth rate
1994	155584		14		90	
1995	139428	-10,4	12,8	-8,6	92	2,2
1996	158.742	13,9	14,9	16,4	93,9	2,1
1997	201.386	26,9	18,3	22,8	93,0	-1,0
1998	224.405	11,4	21,4	16,9	100,0	7,5
1999	235.039	4,7	21,5	0,5	90,9	-9,1
2000	189.814	-19,2	18,7	-13,0	98,8	8,7
2001	188.596	-0,6	17,9	-4,3	95,0	-3,8
2002	222.496	18,0	21,1	18,1	95,0	0,0
2003	275.585	23,9	26,2	23,9	95,0	0,0
2004	318.103	15,4	31,7	21,3	99,8	5,1
2005	255.336	-19,7	28,9	-9,0	103,3	3,5
2006	345.646	35,4	13,8	-52,2	63,1	-38,9
2007	321.762	-6,9	14,0	1,4	61,9	-1,9
2oo8	319.705	-0,6	16,4	17,1	63,0	1,8

Table 9: Cruise expenditures in Costa Rica, 1994-2008. In average, the cruise tourist spends US$89 each during their stay in Costa Rica. The average growth rate of expenditure was just 2.6% with a dramatic downturn in 2006 (-52%) and a year of positive growth rate (47.9 in 2008). But in real terms the expenditure decreases and the biggest portion of the expenditure remains to the cruise lines.
Source: ICT, 2007.

Types of cruise passenger's expenditure	Category 1	Category 2	Category 3
Percent of the total population	33%	6%	61%
Total tour expenditure	$ 26.171	$ 2.373	0
Average expenditure per person on tours	$ 72	$ 37	0
Average time off ship (in hours)	3	3	3
Total expenditure on port	$ 19,184	$ 5,456	$ 29,349
Average expenditure per person (not including tours)	$ 38	$ 50	$ 28

Table 10: Types of cruise passenger's expenditure. Category 2 registered the highest expenditure per person on port regarding the others. Category 3 spent 50% more on total expenditure on port with respect to group 1.
Source: Adapted from ICT, 2008

Expenditure category	Profile 1 US$	Profile 1 %	Profile 2 US$	Profile 2 %	Profile 3 US$	Profile 3 %
Crafts	10979	57.23	1895	34.73	18870	64.30
Food	700	3.65	477	8.74	2127	7.25
Clothes	881	4,59	117	2.14	2620	8.93
Transport	816	4.25	1621	29.71	888	3.03
Touristic guide	1666	8.68	538	9.86	155	0.53
Liqueur	393	2.05	65	1.19	932	3.18
Coffee	991	5.17	52	0.95	708	2.41
Tobacco	176	0.92	110	2.02	498	1.70
Medical services	280	1.46	0	0	190	0.65
Culture	76	0.40	160	2.93	93	0.32
Others	2226	11.60	421	7.72	2268	7.73

Table 11: Total average expenditure additional to tours (different categories in US$ and %). Since their average time off ship is 3 hours, all segments expenditures come mainly from crafts. Profiles 2 and 3 also spend on food and clothes, while profile 1 spend on coffee and touristic guides. Note the high spending on transport by cruisers of profile 2**.**
Source: Adapted from ICT, 2008

Tour	Activity	Duration (h)	Price (US$)
Royal Caribbean			
Eco-Caribbean Paradise (Pt. Limon)	Sightseeing and/or city tours	3.5	59
Meet an amazing crocodiles (Pt. Limon)	Wilderness and wildlife tours	4.25	169
Aerial Tram	Wilderness /wildlife tours/ adventure	7.25	135
San Jose City Tour	Sightseeing/shopping/national parks	9.5	105
Horseback Riding at a tropical Cattle Ranch	Adventure tour	4.5	96
CARNIVAL			
Adventure canals, rainforest and banana plantations	Education journey	4.5	69
All about Puerto Limon	City tour, country side visit	4	89
Horseback Riding	Natural wilderness	4	99
Rainforest aerial tram	Adventure Caribbean Rainforest	6	115
Treetops and water experience	Adventure Caribbean Rainforest	6.75	179
PRINCESS			
The original canopy tour at Mahagany park	Adventure ground/transport	4.5	119
Natural wildlife wonders and eco-cruise with lunch	Boot ride/ wildlife reserve/national park	9.5	119
Pacific aerial tram with lunch	Natural walk/aerial tram	7	129
Arenal Volcano and hot springs with lunch	Resort/scenic drive/ shopping	10	129
Scenic drive to San Jose	Museums/scenic drive/sightseeing	9	99

Table12. Main shore excursions offered by cruise lines to passengers. Prices are higher than the tour purchased at local agencies.
Source: Official cruise lines' websites

Total cruisers average expenditure

Year	$US	%
Crafts	10979	57%
Food	700	4%
Clothes	881	5%
Transport	816	4%
Touristic guide	1666	9%
Liqueur	393	2%
Coffe	991	5%
Tobacco	176	1%
Medical services	280	1%
Culture	76	0%
Others	2226	12%
Total	19184	100%

Total Crew average expenditure

Year	$US	%
Crafts	1065	24,14
Food	1098	24,89
Clothes	459	10,40
Transport	72	1,63
Touristic guide	25	0,57
Liqueur	424	9,61
Coffe	52	1,18
Tobacco	105	2,38
Medical services	60	1,36
Culture	110	2,49
Others	688	21,35
Total	4158	100%

Table 13: Total Average Expenditure (different categories in $US and %) More than 50% of the cruisers expenditure corresponds on crafts. Note that cruise ship crew spends 50% more on food and cultural services than cruise passengers.
Source: Adapted from ICT, 2008