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Sustainable financing for ocean and coastal management in Jamaica: The potential for revenues from tourist user fees

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Introduction

The use of non-market valuation techniques as a tool for natural resource management policy is now fairly common across several countries. In many instances these studies are used to support decisions on the implementation of user fees for national parks and marine protected areas.

To provide the policy relevant information this study incorporates the use of a contingent behavior methodology applicable to coastal tourism within multi-use marine parks and managed coastal areas.



Study Objectives

This study aims to contribute to, and inform the policy and decision making process in Jamaica with regards to sustainable financing of ocean and coastal management. The particular research approach used in this case is appropriate because of the multi-use nature of the tourism activities in the coastal zone.

It is envisaged that findings of this study will inform key stakeholders such as environmental and tourism interests on the feasibility of implementing an environmental tax. Additionally, it is hoped that the study will demonstrate the likely impact this type of economic instrument on visitation rates to the island.

Study findings

A random airport intercept contingent behavior survey with an 85% response rate was used to compare estimates of two groups of tourist's willingness to pay user fees (see figure – page 2).

Non-parametric analysis of the response frequency data show that tourists are more willing to pay for an “environmental tax” instead of a general “tourism development tax” (WTP tourism tax = US\$130.07 and WTP environmental tax = US\$165.15). The results show that tourists have a significant consumer surplus associated with a visit to Jamaica.

Econometric estimation using the survey data and the number of stopover visitors to Jamaica in 2007

(1,700,785) were used to predict the likely impact of the imposition of different tax amounts would have on tourist visitation rates.

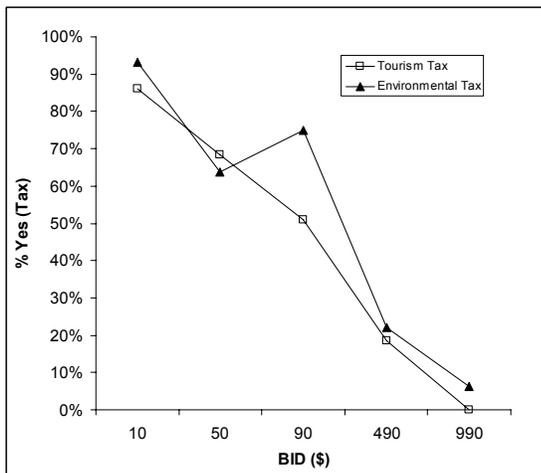


Figure 1. Response frequencies between survey types

The table below shows that if an environmental tax of \$1 per person were introduced it would not cause a significant decline in visitation rates and would generate revenues of US\$1.7M. This would be somewhat lower than the cost of environmental management activities (\$1.9M). A \$2 per person tax would cause a 0.2% decline in visitors while generating revenues of \$3.4M which would be more than

adequate funding for environmental management activities in coastal areas.

Potential negative impacts from the imposition of additional taxes on the annual tourist visitation rates can be minimized by providing information on how the revenues from the tax will be utilized.

This study demonstrates an approach that could be used as part of the policy framework for resource protection and sustainable management of important coastal ecosystems and natural resources. This research method is applicable to other countries that are similarly dependent on beach and coral reef based tourism.

Conclusions

The importance of coastal tourism's continued contribution to Jamaica's economy rests upon the ability of key stakeholders to protect the coastal ecosystem that the industry is so vitally dependent upon. In the absence of adequate government funding for natural resource management, targeted taxes on major resource users of the coral reefs and beaches such as tourists, can be used to generate revenue for the management of the ocean and coastal resources of Jamaica.

Table 1. Environmental costs, potential revenues and the impact on visitation rate

	Annual Costs of Environmental Management		Potential Revenue and Impact on Visitation Rate		
	Jamaican	\$1 US = J\$71.30	Per Person Tax (US)	% Visitor Decline	Revenue
Central Government	\$13,200,000	\$185,133	\$1	0.1%	\$ 1,699,867
NEPA	\$50,000,000	\$701,262	\$2	0.2%	\$ 3,393,326
5 NGO's (J\$15M each)	\$75,000,000	\$1,051,893	\$10	3.9%	\$ 16,351,866
TOTAL	J\$138,200,000	US\$1,938,289	\$50	21.6%	\$ 64,938,704
			\$165.15*	52.4%	\$ 133,599,666

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