Vargas, Andrés; Díaz, David
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Abstract: *Community-Based Conservation programs (CBC) are designed on the assumption that local communities are crucial to the success of the conservation agenda. There is the expectation that, by providing benefits to the local people, they will support conservation because it is economically beneficial. This paper uses willingness to pay (WTP) for habitat preservation of the cotton-top tamarin in the Colombian Caribbean as a means to assess the effect of participation in a CBC program on the support for additional conservation. Using the contingent valuation method, we found that: First, households deriving income from conservation activities are more supportive of additional habitat preservation; second, participants and non-participants in the CBC program are equally sensitive to increments in the costs of conservation; and, third, the CBC program is not a burden for non-participant households.*

Keywords: *Biodiversity, contingent valuation, community-based conservation, tropical dry forest.*

JEL Classification: *Q51, Q57.*

Programas de conservación basados en la comunidad y disposición a pagar de los habitantes locales por la conservación silvestre: el caso del mono tití cabeciblanco en el Caribe colombiano

Resumen: *La Conservación Basada en la Comunidad (CBC) se fundamenta en el supuesto de que las comunidades locales son claves para el éxito de la agenda de conservación, por lo que se espera que los incentivos económicos incrementen su apoyo a ésta. Este artículo utiliza la disponibilidad a pagar (DAP) por la preservación del hábitat del mono tití cabeciblanco (Saguinus oedipus) como medio para analizar el efecto de la participación en un programa CBC sobre el apoyo a un incremento en la actividad de conservación. A través del método de valoración contingente se encontró que: primero, los hogares que obtienen ingresos por participar en el programa CBC están más inclinados a apoyar la preservación de un hábitat mayor; segundo, participantes y no participantes son igualmente sensibles a los incrementos en el costo de la conservación y, finalmente, el programa CBC no es percibido como una carga para los hogares no participantes.*

Palabras Clave: *biodiversidad, valoración contingente, conservación basada en la comunidad, bosque seco tropical.*

Clasificación JEL: *Q51, Q57.*

Les programmes conservation de la nature basés dans la communauté et la volonté de payer des gens locaux pour la conservation du tamarin à crête blanche dans la région des Caraïbes de Colombie

Résumé: *La conservation de la nature à base communautaire (CBC) est une méthode conçue pour développer des programmes de conservation de la nature, laquelle considère que les gens locaux ont la clé de la réussite des programmes. Ce type de méthode prévoit que les incitations financières augmentent l'appui des gens aux programmes. Cet article utilise la volonté de payer (CAP) dans le cas particulière de la préservation de l'habitat du tamarin à crête blanche (Saguinus Oedipe) en tant qu'un moyen pour d'analyser l'effet de la participation des gens à un programme du type CBC sur le soutien accrue à l'activité de conservation. Grâce à la méthode d'évaluation contingente, nous avons constaté que: premièrement, les ménages qui reçoivent un revenu en participant au programme de conservation voudraient soutenir la préservation d'un habitat plus vaste. Deuxièmement, aussi bien les ménages participants que les ménages non-participants sont également sensibles à l'augmentation du coût de la conservation et, finalement, le programme CBC n'est pas perçue comme une change additionnelle pour les ménages non-participants.*

Mots-clés: *biodiversité, évaluation contingente, conservation à base communautaire, forêt tropicale sèche.*

Classification JEL: *Q51, Q57.*

Community-based conservation programs and local people willingness to pay for wildlife protection: The case of the cotton-top tamarin in the Colombian Caribbean

Andrés Vargas and David Díaz[*]

–Introduction. –I. Contextual information. –II. Methods. –III. Results. –IV. Discussion. –Conclusion.

Introduction

A great deal of ecosystem stress and degradation takes place in the developing world, mostly in highly diverse areas, where local communities still depend on goods and services they consume directly from the natural environment. This dependency toward the natural environment may turn into a tragedy of the commons as communities get impoverished. For a long time, the mainstream of conservation strategies focused on protecting areas,

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[*] *Andrés Vargas:* Profesor e investigador, Departamento de Economía, Universidad del Norte, Barranquilla. Dirección postal: Instituto de Estudios Económicos del Caribe, Universidad del Norte, Km 5 Vía Puerto Colombia, Barranquilla, Colombia. Dirección electrónica: andresmv@uninorte.edu.co.
David Díaz: Profesor e investigador, Departamento de Economía, Universidad del Norte, Barranquilla. Dirección postal: Instituto de Estudios Económicos del Caribe, Universidad del Norte, Km 5 Vía Puerto Colombia, Barranquilla, Colombia. Dirección electrónica: davidd@uninorte.edu.co.

mostly with low or none population, to sustain biodiversity of natural environments. In the face of intensive pressure of the population on valuable ecosystems in the tropics, conservation movements started trying new approaches that align biodiversity conservation with economic goals for community development (Berkes, 2004).

This new approach of linking conservation with development started in the mid-1960s with a FAO project in Zambia, and expanded rapidly among scholars and practitioners (Garnett, Sayer & Du Troit, 2007). Since then, efforts for integrating conservation and development have pointed to the need for developing economic and social institutions enabling the generation of income flows from conservation. The goal of projects following this approach is to sustain the natural-capital value of ecosystems while improving community welfare (Daily & Matson, 2008).

What differentiates so-called Community-Based Conservation (CBC) from other approaches is that CBC seeks to empower local people to actively participate and incorporate their knowledge and interest into the development of the conservation project (Souto et al., 2014). The CBC approach is centered on local people and, as such, its success is likely to depend on the interest and motivation that leads local communities to place biodiversity conservation as a priority. By providing alternative sources of income to forest-dependent people and gaining social acceptance through the participatory process, CBC approaches are expected to alleviate anthropogenic pressures, thus increasing the likelihood of achieving conservation targets. In other words, garnering support from local people is critical to successful conservation (Allendorf et al., 2006; Sodhi et al., 2010). Additionally, better understanding of people´s preferences towards conservation is important to the design and implementation of conservation strategies that are both successful and legitimate (Kideghesho, Røskaft & Kaltenborn, 2007).

This study contributes to the literature by providing evidence on the effect of a particular CBC program over the preferences for conservation. It employs the contingent valuation method (CV) as a means to elicit values. It is worth nothing that even if the responses to the CV questions reveal attitudes rather than preferences (Kahneman & Sugden, 2005), its results are

still relevant for our purpose, which is to find out whether the CBC program has made people more supportive of wildlife conservation. An advantage of the CV method is that it explicitly takes into account the costs of conservation—that is, attitudes are elicited with reference to the monetary cost accruing to respondents. We claim that this stresses, at the individual level, the conservation-development tensions and trade-offs that are present in the area of study.

The second section of the paper presents information about the study site and the CBC program. The third contains the methodology. The fourth section is dedicated to the results, which are discussed in the fifth section. The last section concludes.

I. Contextual information

In Colombia, tropical dry forests are in great danger of disappearing. Actual estimates show that less than 2% of their original area remains intact (Humboldt, 1998). These forests are considered to be the most endangered forests of their type in the world. One of the principal causes of its destruction is their fertile soils, highly suitable for agriculture. This means that most of the forest areas in the country are tiny fragments surrounded by crop lands and grasslands. Despite this situation, only 3% of the remaining dry forests in the country are inside Protected Areas, PA (Rodríguez et al., 2012).[1] Those forests are also the habitat of different species of primates, among which it is found the Cotton-Top-Tamarin (*Saguinus oedipus*), a critically endangered primate endemic in northwestern Colombia (Savage et al., 2010).

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1   Colombia used to have extensive areas of tropical dry forest in two of its six natural regions: the Caribbean and the Pacific. The area of the tropical dry forest of Colombia was first estimated in 80,000 km² by 1920. Since then, due to human intervention, this figure reduced considerably to the point that in 1950, the coverage was estimated in 35,000 km². Timber logging and cattle ranching in the Caribbean, and sugar cane plantations in the Pacific are reported as the main drivers of dry forest loss during the first half of the past century. In 1992, 98.5% of the original dry forest had been reported as disappeared, leaving only 1,200 km² left in the form of discontinuous patches mostly located in steep lands (Díaz, 2006).

It is also important to mention that the Colombian Caribbean is characterized by a high incidence of poverty: around 37% of the population is below the national poverty line for 2012 (DANE, 2013), whereas at the national level the incidence is of 25%. This fact, coupled with relatively high demographic pressures, makes the remaining forests in the region vulnerable. Furthermore, it points out the importance of designing conservation strategies beyond the traditional approach of Protected Areas, incorporating a better understanding of local people's preferences for environmental protection.

A. The CBC program

The CBC program of our study, Proyecto Tití,[2] is located in the municipalities of Luruaco and Santa Catalina (Atlántico and Bolivar Departments) in the Colombian Caribbean region. For this research, the relevant population consists of the households residing in Luruaco and Santa Catalina town centers and the villages of Pendales, Los Límites, Colorado and Hobo (see Figure 1). The area is characterized by isolated dry tropical forest remnants, which serve as habitat of the cotton-top tamarin. According to the conservationist organization ruling the CBC program, the primary threats to the survival of the cotton-top tamarin are: loss of habitat from conversion of forest to agricultural uses, extraction of forest resources, and poaching. The latter is a phenomenon attributed to the high incidence of poverty among households surrounding the forest (Savage et al., 2010).

The CBC program has three areas of emphasis: (1) scientific studies detailing the biological and long-term survival of the Cotton-top tamarin, (2) conservation educational programs to increase public awareness and conservation knowledge, and (3) community development programs that demonstrate a valuable economic incentive to protect forests. In this study, we are mainly interested in the effects of the third component because it is the one that affects attitudes towards conservation through the provision of economic incentives in this case, the opportunity to have an additional source of income derived from the existence of the cotton-top tamarin and the conservation efforts.

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2   More information about the project can be found at www.proyectotiti.co

The strategy consists of the elaboration of tote bags made from recycled plastic bags, *Ecomochilas*, and a cotton-top-tamarin-shaped stuffed toy, *Tití-peluches*, by a group of artisans, mostly women. The artisans are grouped into two registered business, one for the *Ecomochilas* and the other for the *Tití-peluches*. Each business sells directly to Proyecto Tití, who in turn delivers the products to the national and international markets and pays to the artisans the final consumer price. It is important to note that the marketing and commercialization of the two products is done entirely by Proyecto Tití. This is both an advantage and a disadvantage because it guarantees the market, decreasing the risks to artisans, but at the cost of undermining the self-sustainability of the business.

Figure 1. *Study site*
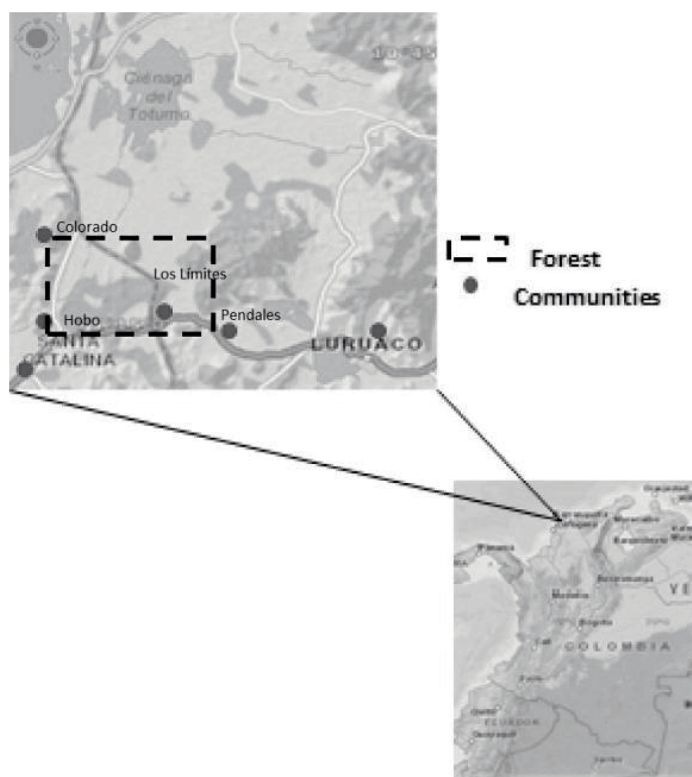
Source: the authors.

II. Methods

To elicit people's preferences, we use the contingent valuation method, because it allows us to frame the problem in terms of the costs implied by additional conservation. In other words, attitudes are contingent on the cost to respondents that additional conservation entails. In this particular case, we asked people their willingness to pay (WTP) for increased protection of the cotton-top tamarin through an expansion of the CBC program such that 1,500 hectares of forest areas between Luruaco and Santa Catalina municipalities will be put under protection−instead of the 400 hectares currently covered.

In this study, we use a binary discrete-response format with a year-long monthly voluntary contribution through the energy bill as the payment vehicle. To assess the structure and understanding of the survey and define a WTP bid range for a single dichotomous question, we pre-tested the questionnaire with 30 households.[3] Based on the pre-test and using as reference the bid vector used by Moreno-Sanchez et al. (2012) in a rural area of the Colombian Andean region, four bids were randomly distributed on the sample as follows:[4] 24% of the households were asked for a monthly payment of US\$1.155; 26% for US\$1.9; 26% for US\$3.8 and 24% for US\$5.8.

The final questionnaire contained six sections: i) Introduction and identification of social and environmental problems, ii) environmental attitudes, iii) knowledge and perceptions about the CBC program, iv) the valuation question, v) demographic and socioeconomic characteristics and vi) quality control questions to the enumerator. We presented to the res-

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3   The pre-test survey used two payment vehicles: i) a voluntary contribution and, ii) a referendum type question. In the definitive survey the voluntary contribution was preferred because was easier to understand and more realistic to the respondents. In the pre-test survey we used a broader bid range with higher lowest and largest values which did not generated a smooth "demand" curve.

4   Original values in Colombian pesos were converted using the 2012 PPP-based exchange rate of COP\$1,302 per international dollar.

pondents the following scenario: "To reduce the local extinction risk of the Cotton-top tamarin, it is necessary to put under protection 1500 hectares of forests instead of the 400 hectares currently under protection."[5] Then respondents were informed that this will be possible only if a sufficient number of households in the community agree to make a voluntary contribution of $USX, where X is one of the bid amounts (US$1.15, US$1.9, US$3.8, US$5.8). The contribution would be paid along with the energy bill and funds will be administered by the community and Proyecto Tití. The valuation question presented was: "Under the above conditions, would you make a monthly voluntary contribution of US$X during a year to protect the Cotton-top tamarin?" 46% of the households agreed on making the voluntary contribution.

Given that the valuation good can be characterized as a public good, people have incentives not to reveal their true WTP. In order to minimize hypothetical bias, and because the voluntary contribution is not incentive compatible, we used the following measures: 1). A short cheap talk script (Loureiro, Loomis & Vázquez, 2009) followed by a budget remainder (Arrow & Solow, 1993); 2) a provision point mechanism to induce demand revealing behavior (Rondeau, D. Schulze & Poe, 1999), and 3) a consequentiality message which consisted of a short text, accompanied by a local newspaper page showing direct statement from a policy maker informing the respondents that the forest remnants in the area are going to be declared a Protected Area. According to Carson (2012), consequentiality is necessary to produce meaningful information from the answers, and so we expect to generate policy consequentiality (Herriges et al., 2010).

A. Econometric model

In order to calculate additional habitat preservation benefits, we utilized the dichotomous CVM. According to this approach, the utility of an individual is a function of the quantity or quality of an environmental attribute, in this case the area under conservation (represented by C) and the consump-

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5   There are not scientific estimates from which extinction probabilities could be obtained.

tion of all other goods (represented by income y). Utility from additional conservation depends on the individual personal preferences and characteristics, only some of which are observable to the researcher. The unobservable part is treated as stochastic, and hence the indirect utility function can be decomposed into a deterministic and a random term as follows:

$$U = f\ (C; y) = v(C; y) + e \qquad (1)$$

where e is the stochastic component. With the dichotomous choice approach, respondents are asked whether or not they will contribute $X, the bid amount, to funding an expansion of the conservation project. The respondent will answer "Yes" if utility from additional conservation, with the associated loss of $X in income, would be greater than or equal to the individual's original utility level without the project. The respondent who answer "Yes" would hypothetically contribute ($C = 1$) $X. The probability of a "Yes" response is represented by a comparison of the utility obtained with the additional conservation and the reduction of $X in income with the utility attained without additional conservation but retaining the current income. That is,

$$P\ (Yes\,|\,\$X) = P\ [v(C = 1; y - \$X + e_1) \geq v(C = 0; y + e_2)], \qquad (2)$$

where e_1 and e_2 are the zero-mean error terms. Because the random components cannot be identified, we can write $e = e_1 - e_2$. The econometric specification of (2) is:

$$P\ (Yes\,|\,\$X) = \phi(\beta_0 - \beta_1\$X + \alpha\mathbf{z}), \qquad (3)$$

where ϕ is the cumulative standard normal, β_1 is the coefficient on the bid amount, z is a vector of personal characteristics and α the accompanying vector of coefficients. Using the coefficients from equation (3), mean WTP is calculated as:

$$E\ (WTP) = \frac{\alpha \bar{z}}{\beta_1} \qquad (4)$$

In (4), $\bar{z}$ is the mean vector of exogenous variables.

III. Results

A. Descriptive statistics

Using census information and administrative records, we estimate a total of 4,378 households residing in the area of influence of Proyecto Tití, see figure 1. Survey data were collected for 172 households, of which 166 were usable for estimation purposes, using face to face interviews with two groups of previously trained enumerators between April and July of 2012. Because we lacked a list of households with appropriate contact information, interviewed households were randomly selected during the field work. To gather data from participant households in the CBC program, we oversampled households of the two communities where the program has been more active, Límites and Hobo.

As can be seen from Table 1, our sample consists mostly of adults with low levels of education and income. In fact, using the reported household income of our survey and the official poverty line we found that nearly 50% of our sample is below the poverty line, which is close to the official estimates for rural areas. The most frequent environmental problem is water pollution, followed by deforestation and biodiversity loss.

Table 1. *Sample descriptive statistics, n=172*

VARIABLE	DESCRIPTION
Gender	47% female
Education	60% has less than complete secondary
Water Pollution	91% considers it a problem
Biodiversity loss	46% considers it a problem
Deforestation	64% considers it a problem
Occupation	22% agriculture, 40% independent
Participation in the CBC Project	30% of the households
Mean age	42 years
Mean household income	US$363

Source: The authors.

Regarding the CBC program, Proyecto Tití, 80% of the people know about its existence, 63% have seen the cotton-top tamarin and 30% have

participated in one of the community development programs. Mean household income reported by participants in the project is US$383, which is not statistically different from the one reported by non-participants. We also collected data on durables consumption as a means of measuring economic status through the construction of an assets index. As with income, we did not find any statistical difference in the assets index between participants and non-participants. In terms of livelihoods, 62% of the surveyed households earn some income from natural resource dependent activities, like agriculture, selling of forest products, hunting and fishing. Nevertheless, the most important sources of income are informal jobs in the service sector, transport and retail.

B. WTP estimates

Under a linear utility function, we estimate the probit model of equation (3) to calculate mean WTP using equation (4). As dependent variable, we used the acceptance of the proposed bid, contributes, which takes the value of 1 if respondents accept the proposed bid and zero otherwise. The explanatory variables are:

- Bid: the value of the voluntary contribution asked to the household.

- Participant: this variable takes a value of 1 if the household has participated in one of the community development programs sponsored by Proyecto Tití. 30% of the households have participated.

- Cartilla: this variable takes a value of 1 if there are children in the household who participate in the environmental education program.

- Male: this variable takes a value of 1 if the respondent is a male.

- Educ: is an ordinal variable capturing educational attainment.

- Income: reported monthly household income in Colombian pesos.

- Drecursos: is a dummy variable taking the value of 1 if the household obtains income from resource-dependent activities.

- BidParticipant: is the product of the variables Bid and Participant

The Participant variable is aimed to test the importance of direct participation in one of the community development programs on the probability of supporting additional conservation. The variables Male, Educ and Income are standard socio-economic controls. The variable Cartilla is included to see if the educational component of the program affects WTP. The variable Drecursos is included to test whether households deriving income from the natural resource base are less supportive of additional conservation efforts. Cross tabulation of the variable Drecursos and the dependent variable reveals that 40% of those who are resource-dependent are willing to pay for additional conservation, which contrasts with the 56% for the non-resource dependent. A chi-square test (x_1^2 = 4.1) shows that there is a statistically significant relationship between the two variables.

Table 2 shows the percentage of respondents who answered yes to the valuation question; that is, they said they will contribute the randomly assigned bid. A two-tailed Fisher exact test reveals that, for all the bid amounts, the percentage of respondents answering yes is statistically different for participants (62%) and non-participants (40%).

Table 2. *Acceptance of proposed Bid*

Proposed Bid (US$)	Participant	Non-participant	Total (Participant+Non-participant)	Difference
1.15	100%	80%	88%	N.S
1.9	90%	59%	66%	*
3.8	36%	15%	20%	N.S
5.8	20%	8%	12%	N.S
All	62%	40%	46%	**

Note: *Significant at 90%, ** significant at 95%, N.S no significant
Source: The authors.

Columns (1) and (2) of Table 3 show the results for the basic probit model. The first point to mention is that the probability of acceptance is reduced as the proposed bid increases, implying that there is internal validity. The variable Participant is significant and indicates that participants in the community development program are more likely to pay for additional

conservation. The income variable is not significant, which is consistent with the linear utility form used here. It can also be explained by the fact that the economic status of our sample does not greatly vary. The variable Drecursos is not significant, meaning that once included other relevant variables the relationship between this variable and the acceptance of the proposed bid no longer holds. Finally, the variable Cartilla does not affect the decision to support additional conservation.

Table 3. *Results*

VARIABLES	(1)	(2)	(3)
Bid	-0.000453***	-0.000445***	-0.000406***
	(6.20e-05)	(6.01e-05)	(7.14e-05)
Participant	0.666**	0.835***	1.376**
	(0.304)	(0.274)	(0.660)
Edad	-0.00166		
	(0.00933)		
Male	0.180		
	(0.254)		
Educ	-0.121		
	(0.0928)		
Income	3.92e-07		
	(6.33e-07)		
Drecursos	-0.390		
	(0.276)		
Cartilla	0.159		
	(0.270)		
BidParticipant			-0.000125
			(0.000134)
Constant	1.882**	1.409***	1.274***
	(0.753)	(0.246)	(0.281)
Observations	166	166	166
r2_p	0.361	0.343	0.347
ll	-73.25	-75.26	-74.80
chi2	82.75	78.74	79.65
p	0	0	0

Note: Standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$
Source: The authors.

Column (3) of Table 3 includes the interaction between Participant and the Bid, BidParticipant, in order to test whether participation had a differential effect on respondents who were randomly assigned higher bid prices. The coefficient on the interaction term was not statistically significant. Taking the results for the variables Participant and BidParticipant together, we can say that participant households are more likely to contribute for any level of the proposed bid; but, as the bid increases, their probability of participating decreases as occurs for non-participants.

One caveat here is that the Participant variable is potentially endogenous because participation in the community development program is a decision taken by the people. One way to overcome this problem is using a bivariate probit model (Greene, 2012). Two reasons prevent us for adopting such approach. First, we lack a good instrument, so we cannot explore whether parameter identification under this approach is due to the exclusion restrictions or the non-linearity of the model (Altonji & Elder, 2005). Second, the sample size is small. Nonetheless, other authors do not find significant differences in WTP estimates between probit and bivariate probit (Martínez-Espiñeira & Lyssenko, 2011).

Table 4 shows mean WTP, computed using parameters from column (2) in Table 3. Confidence intervals were constructed using the Krinsky and Robb procedure, with the Stata code provided by Wilner (2007). As can be seen, mean WTP for participants is 59% larger than for non-participants.[6]

Table 4. *Mean WTP*

Sample	E(WTP)	Lower Bound	Upper Bound
Full	2.87	2.46	3.28
Participants	3.87	3.10	4.70
Non-participants	2.43	1.94	2.90

Note: 95% confidence intervals calculated using the Krinsky and Robb procedure
Source: The authors.

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6   Given the simulation approach used, non-overlapping confidence intervals are not equivalent to a statistically significant difference.

IV. Discussion

The demand for conservation is cost sensitive, meaning that the higher the proposed contribution the lower the proportion of people willing to support the initiative. This suggests that just pointing to the importance of forests as ecosystem service providers is not enough to gain the sufficient support to advance the conservation agenda. This result is similar to what is found in other research areas, where it is shown that development projects that seem beneficial to the community do not have a demand as higher as expected by the organizations seeking to implement the project (Whittington, 2010). In other words, community members are aware of the opportunity cost of additional conservation.

Households deriving income from the conservation activities, through their participation in the community development programs, are more supportive of additional conservation but at a decreasing rate. At any cost participants are more likely to contribute than non-participants, but the higher the cost the lower their willingness to contribute. This result highlights two important aspects: First, when there is a way to generate incomes from forest protection, its economic value increases; or, in economics parlance, the total economic value of the natural asset increases due to a higher use value, and; second, the fact that participants are more supportive does not mean that they are motivated by any long-term concern for biodiversity protection. Immediate concerns about the incomes they are earning could be driving the result. Research in other settings has found this mismatch between short-term private incentives and forest sustainability (Lybbert et al., 2011).

Mean WTP for households' members of the community development programs is higher, confirming that CBC programs can be effective in increasing the value of forests. Although this is quite intuitive, it is nonetheless important. For example, a higher economic value is a critical argument in favor of conservation in a cost-benefit analysis. From the point of view of the relationship between conservation and development, it is also an expression of the welfare gains experienced by those households involved in the conservation program.

Because non-participants also have positive mean WTP, it could be said that in general the CBC program does not have negative effects on other members

of the community for which they seek some sort of compensation. This is not always the case (Muchapondwa, Carlsson & Köhlin, 2008), in particular when conservation is perceived as having negative effects on the livelihoods of local communities (Kideghesho et al., 2007; Arjunan et al., 2006). The lesson here is that CBC programs do not need to provide direct benefits to all members of the community but to strongly avoid to be perceived as a burden.

Conclusions

Community Based Conservation programs can provide economic benefits to communities, making them more supportive of wildlife protection. Because conservation is a particular land-use type, it competes with alternative uses, each of them with potential economic benefits. This fact, in conjunction with the characteristic land-tenure regime of the area, determines the distribution of gains and losses of any project. In the present study, the welfare gains of wildlife protection through the expansion of a CBC program have been calculated. The study takes place in a context where most of the rural population is landless and forest remnants are inside private farmlands or haciendas, meaning that the benefits of economic activities will be appropriated by land owners and not by the local people. Because of this, wildlife protection, represented here by the Cotton-top Tamarin, is supported by most local inhabitants. In its own way, the CBC program makes financially tangible the benefits of conservation despite the fact that the dry forest is under a private land regime. This pro-conservation attitude of locals suggests that distributive effects cannot be overlooked in assessing alternative land use decisions.

Using the contingent valuation method, the study found that people directly involved in community development programs are more supportive of conservation than those not participating. Two immediate implications are that BC programs can be effective in increasing the economic value of forests, and that it is also an expression of the welfare gains experienced by those poor households involved in the conservation program. Nevertheless, both participants and non-participants are less likely to contribute to additional conservation if the cost of doing so increases. In other words, the actual gains people are enjoying from forest conservation and its wildlife is not a guarantee that they will keep a positive attitude towards it.

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