THE INFLUENCE OF SOCIAL CAPITAL ON THE DEVELOC

APPROVAL

N

ABSTRACT

This paper provides an introduction to the concept of social capital, and reviews related empirical literature. It then builds on relevant nature-based tourism literature in a Mexican context. Nature-based tourism provides an oppor

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1: INTRODUCTION

Conflicts are occurring in many coastal communities around the world over the use of natural resources, aquatic resources such

The

Recie

possibilities with measurable indicators of social capital in the three contrasting

CHAPTER 2: LITERATURE REVIEW AND ANALYTICAL FRAMEWORK

In this chapter, I explore the role of social cap

It is often examined as an asocial and ahistorical concept (Fine 2002). This partly stems from the broad definition of the term, and partly because so little agreement exists on what it is, where it comes from, how it can be measured and how to get more of it (Johnston and Percy-Smith 2003). Despite the extensive research on social capital, no universal method is available to measure it, nor is a single underlying indicator commonly accepted in the literature (Sabatini 2006). Difficulties occur since concepts such as social capital are by their very definition complex. As such, Hadjimichalis (2006) advises that researchers need to be prudent about using the concept

views, particularly across communities (Pretty and Smith 2004).[1]

Bridging and bonding social capital can reinforce each other, and give rise to effective community actions or entrepreneurial social infrastructure (Flora and Flora 2004:532). However, an economic problem may ensue if too much bonding social capital disturbs the optimal balance between bridging and bonding (Svendsen and Svendsen 2004:3). E

They observe that membership density and institutional trust were positively related to an index of political engagement, although social trust was either not related or negatively associated, suggesting the complexity of the concept and difficulties of measurement (Mitchell and Bossert 2007).

De Silva et al. (2007) use a qualitative methodology to assess social capital in the development of shantytowns in Lima, Peru, considering both cognitive and structural social cape

Seri have the power to grant authorized permits to outsiders; however, they profit from authorizing outsiders to fish in their waters (Basurto 2005).

Even though community involvement in management and conservation activities encourages local commitment, a community-managed approach to tourism is not a panacea, but rather is part of an integrated management policy for ecotourism and coastal development (Foucat 2002). Regardless, the best approach to wildlife conservation issues that involves social participation in Mexico is CBM (Valdez et al. 2006). The successful management of common-pool resources paired with high levels of social capital has largely been at the local and regional levels, where access to resources can be controlled and where institutional conditions and market pressures are supportive (Pretty 2003, Roncoli et al. 2007). Efforts to improve governance, establish legal authorities and rights, and remove barriers to the economic viability of CBM must complement the capacity building of institutions (Ratner 2006). CBM is relevant to my research since fishing and tourism cooperatives in the study area share commonalities with it, and cooperatives could be interpreted as types of CBM in some instances.

2.4 Nature-based

primarily on the natural environment and true ‘ecotourism’, which entails significant benefits for the local people and

human and social capital is also a challenge for development in many peripheral areas

cases i

Unlike Los Cabos in the south, and La Paz and Loreto in the east, less tourism occurs in Bahia Magdalena. Located in the more isolated northwestern region of BCS, where the climate is slightly cooler then the southern and eastern parts, it has not been the focus of large-scale government tourism development. Bahia Magdalena has a few small hotels and restaurants that cater to tourists during the winter whale-watching season and summer sport-fishing season (Mexfish 2006). Because mass tourism has not substantially affected the region, spaces are available for nature-based tourism to develop that benefit the local communities.

2.5.3 Whale-watching in Bahia Magdalena

Whale-watching is a relatively new and dynamic USD $1 billion industry that provides a high rate of return and significant economic benefit to many coastal regions worldwide (Curtin 2003). The demand for the whale-watching industry, including all cetaceans, has grown exponentially in the last 20 years (Hoyt 20 0 55 0 0 Tm /F1.0 1 Tf0 55 30 0 Tm (w) Tj 550 0550

CHAPTER 3: METHODOLOGY

This chapter outlines the methodology I used in my research. First, I will identify the scale of analysis. Secondly, the survey design and the process of administering the household survey are presented. Thirdly, I will describe the qualitative methods that complement the quantitative methods. Finally, an elaboration on the statistical analysis is presented.

3.1 Scale of

economics, survey methods and local knowledge of the communities. We, the research team, pilot-tested the survey in five households in both Puerto San Carlos (PSC) and Puerto Adolfo Lopez Mateos (PALM), and comments from the respondents were incorporated into a revised version of the questionnaire. A bilingual colleague and I translated the survey into Spanish. We met with the highest elected officials in each of the three communities to obtain their approval before carrying out the household survey.

A local non-governmental organization[2], which focuses on rural environmental projects, administered the survey face-to-face, thereby reducing possible cultural biases. The survey team of eight people included residents of PSC, who are familiar with the communities, as well as researchers with experience administering surveys on environmental issues from other parts of Mexico.[3]

The research team trained the surveyors. The first day of the training consisted of a day of seminars explaining the project and th

regularly speak out when disagreeing with other members in their community (Wood 2003). I used civic participation as another indicator of a norm held by the community and asked if respondents had voted in the last federal election.

the number of times respondents leave the municipality in the past 12 months (Table 3.1).[5]

Table 3.1 Social capital variables

	Social capital variable	Bonding/ bridging
	A) Whether or not respondents trust most of the people within t	

distribution lowers the possible error.” The *manzanas* are like random chunks since they vary in size and compactness. The team

household survey; however, I explored them more informally and in de

Sabatini (2005) performed a PCA on groups in Italy representing the struc

between clusters, where the basic concepts are similarity and distance (Sepcic et al. 2004). It is an agglomerative clustering method – which iteratively merges *n* observations (respondents) into a single cluster in a process of *n-1* steps (Aldrich et al. 2007). Ward's method attempts to minimize the sum of squares (SS) of any two clusters that can be formed at each step by reducing the total within-cluster error (Aldrich et al. 2007). Squared Euclidean distance analysis removes the signs of the variables and places greater emphasis on objects further apart, thus increasing the effect of outliers (Garson 2007). I used an agglomeration schedule to determine the number of clusters to use in the analysis. I selected the number of clusters based on the results of the coefficient matrix of the agglomeration schedule, using the numbers of clusters that are present when the proximity coefficient jumps significantly from the previous value (Garson 2007). Similar to a comparison of the communities, I analyzed the clusters to determine key relationships and see how representative the groups are in explaining the distribution of variables, specifically those related to social capital, using cross-tabulations and one-way ANOVAs.5 0 0 55 374 0 Tm ( ) Tj 552W n /Cs1 cs 0 0 0 Tm (m) Tj 55 0 0 558

and outside of BCS. In total, respondents have lived in 27 different places in BCS a

people are moving to PSC and other areas of the Bay to access services that are not available on the island. The average household consists of four people: 1.3 males over 17, 0.88 females over 17, and 0.90 males under 17 and 0.38 females under 17. Responden

Mean and Gross Household Income from Tourism

PSC tends to generate slightly higher mean household incomes from activities that benefi[illegible]tourism t aoe

required by a cooperative. Currently, 28 associates are in the tourism cooperative. Each associate (or person working with that associate's permit) takes his or her turn through a rotation. Of the 11 respondents of the tourism cooperative that were randomly surveyed, 64% stated that they were mostly from the community and 36% stated that they were mostly friends and neighbours. Many of the associates are not from the founding cooperative since the original members have passed on or sold their permits, often to family members. The members of the tourism cooperative appear to work well together and their finances are jointly managed. They prepare budgets for the cost of gasoline, trips to the government office in La Paz, and other administrative activities[7]. Aside from direct income generated as *pangueros* – they generate another 25-30 jobs for people working in the restaurant and the cabins that they are in the process of building. The cooperative also has assistance from the government to expand (e.g. a loan for the restaurant and cabins). Additionally, they have many business agreements with operators outside of PALM, including an arrangement with a large transport company in BCS, as well as operators in La Paz and Los Cabos. The cooperative made 1,065 trips in 2006, transporting a total of 5,925 tourists with an average of 5.6 people per boat (SEMARNAP 2006).

The cooperative contributes to the community by assisting with community work parties and special celebrations (e.g. Mothers' Day). Future business plans include starting an artisan store to generate more business and to extend tourists' sojourn in the Bay. The tourism cooperative is discussing the possibility of expanding by using larger boats; currently, the number of boats cannot be increased because of government permit regulations. Members of the cooperative care i 2

The union has 29 associates, many of them family, and they have lived in the community for many years. They made 473 trips in 2006, trans

mainland Mexico. Additionally, the owner has many plans to expand the whale-watching industry by using larger boats.

Tourism in PM

The only organized tourist activity on the island of Magdalena is a restaurant. Whale-watching trips in PSC often stop there for lunch, and tourists can have fresh seafood (e.g. lobster, fish or shrimp) and learn about the island. The restaurant began in 1993 with the assistance of a local entrepreneur from PSC, who agreed to bring tourists to the island to enhance their whale-watching experiences. The restaurant is only open during the whale-watching season (the *temporada*), and tourists frequent the restaurant daily from January until March.

No whale-watching operators are based in PM. One fisher from PM states that the whales come to the Bay, and belong to their island, but they are not the people bringing out the tourists. Also, conflicts exist among residents in the community with respect to who can become involved in tourism. One shopkeeper wanted to start selling beer and *ceviche* (a cultural dish containing raw seafood) at a *palapa* (palm-covered roof). He mentioned that those who

Touris

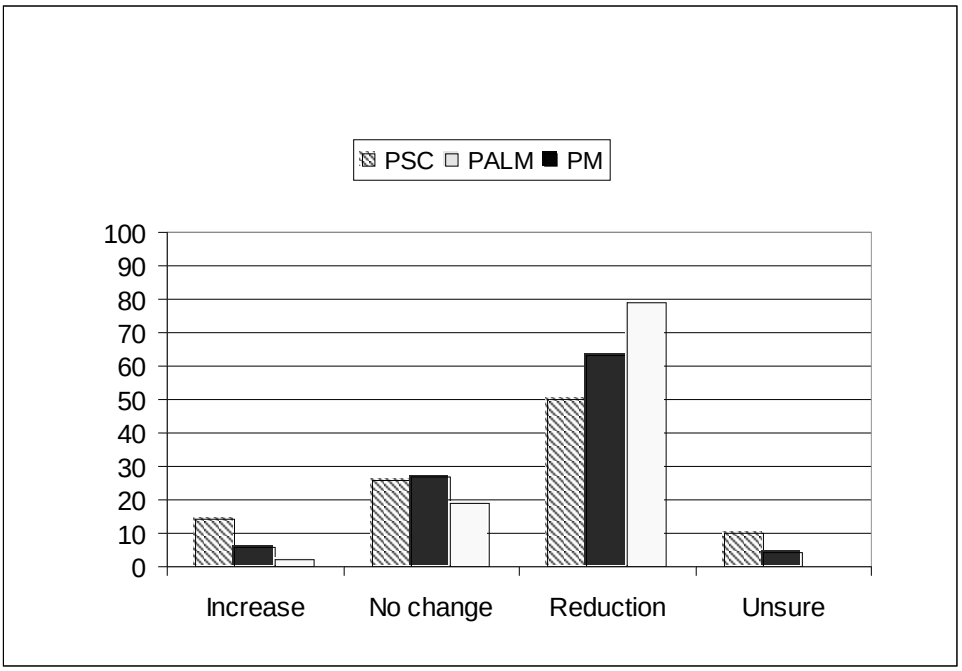
sheltered area of the Bay than those from PALM. Re

CHAPTER 5: ANALYSIS OF SOCIAL CAPITAL AND RELATED CHARACTERISTICS BY COMMUNITY AND CLUSTER GROUP

Perceptions of Marine Resources

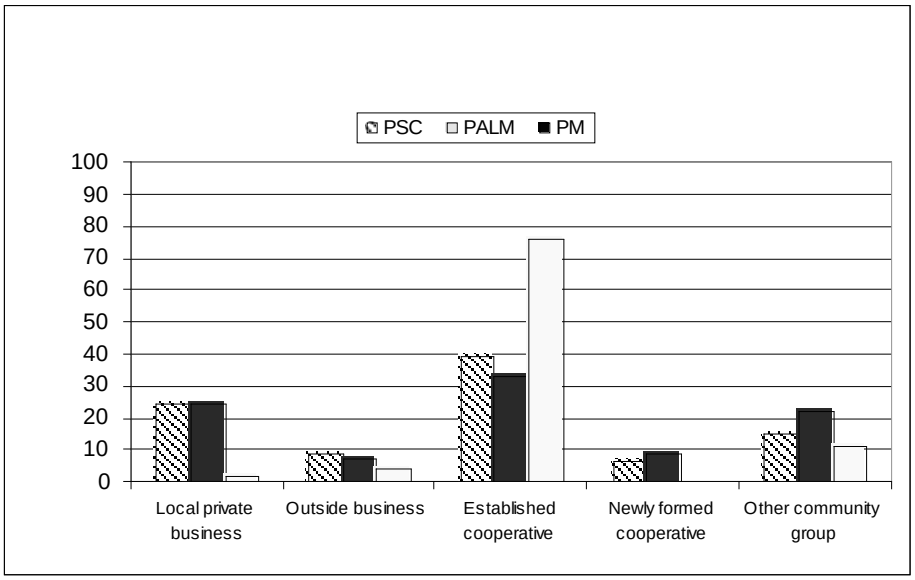
Perceptions of changes in the abundance of marine resources, preferences for who should establish new nature tourism ventures and for future economic activities differ significantly between the communities. The highest proportion of respondents who perceive a reduction in the abundance of marine resources is in PM, followed by PALM and PSC (χ^2= 28.3, df=6, p=0.000) (Figure 5.1).

Figure 5.1 Perspectives on the abundance of marine resources



Preferences for who should establish new nature-based tourism projects in the region differ significantly between the communities (χ^2= 37.4, df=12, p=0.000). More respondents in PM (76%) selected established cooperatives or unions than the ot

Figure 5.2 Perspectives on who should establish new nature-based tourism projects by community



Preferences for future economic activities that communities should pursue differ significantly

more appropriate to look at membership in a cooperative or union

PALM and a low rating in PSC. In contrast, bridging variables have a medium rating in PSC and PALM and a low rating in PM (Table 5.5 and Appendix G).

Table 5.5 Summary of bonding and bridging aspects of social capital in eac

tourism prefer nature-based tourism and 41% (n=39 of 96) prefer other tourism development. Of households who are not involved in tourism, 42% (n=180 of 433) prefer nature-based tourism and 29% (n=126 of 433) prefer other tourism development (χ^2=14.0, df=4, p=0.007). No significant differences in preferences for who should establish new nature-based tourism projects or perceptions on changes in the abundance of marine resources are evident between the clusters.

Social Capital Variables

Households involved in activities that benefit from tourism tend to be more trusting of people within (67%) and outside (37%) of their community. In comparison, households who are not involved in activities that benefit from tourism tend to be less trusting of people within (52%) and outside (20%) of their community (p=0.000, p=0.001) (Table 5.6). More people who are involved in tourism express their opinions (56% versus 44%, p=0.038) and vote in more elections than those who do not (2.72 versus 2.37 elections, p=0.007) (Table 5.6 and 5.7). More people involved in tourism travelled outside of their municipality than those who do not (p=0.035). Also, they are more likely to belong to households who have members in cooperatives or unions (57% versus 29%, p=0.000) (Table 5.7).

Table 5.6 Social capital variables comparing households that benefit from tourism and those that do not

Variable		Households not involved in tourism		Households involved in tourism		Total			
		%	n	%	n				

variables. The responses cannot be interpreted to have a sequential order, and as such, they do not have a genuine interpretation within the PCA. Also, the Cronbach's Alpha

Communities and Component Scores

A negative relationship exists between PSC and the first two components, given that the negative sign represents the direction of the relationship. This indicates that PSC tends to have low trust (Component 1)l

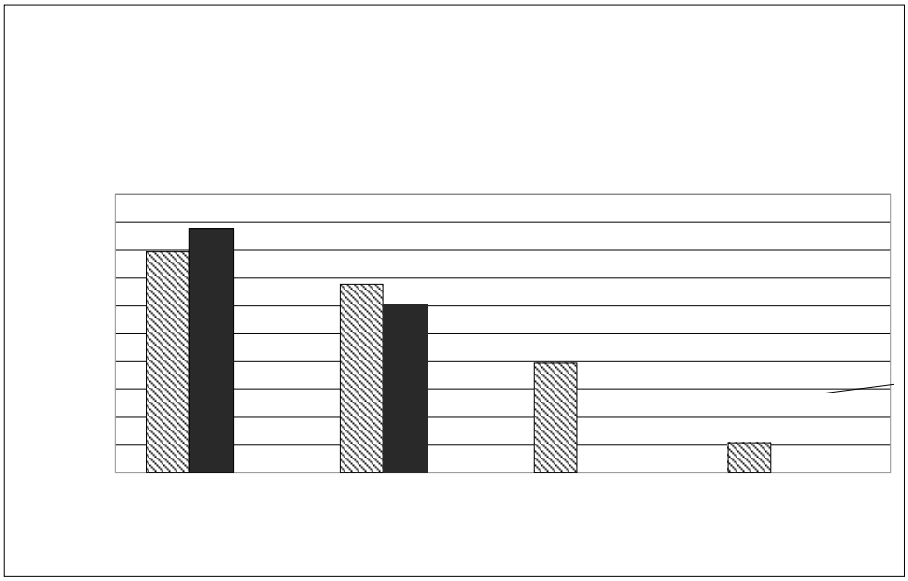
5.2.3 Demographic Characteristics, Livelihood and Resources

Demographic Characteristics and Livelihood

Variables that vary significantly between the clusters include: age l

Figure 5.6 Perceptions on changes in the abundance of marine resources

Figure 5.7 Preferences for future economic activities by cluster



houses. In Cluster 2, most respondents said that it is the responsibility of the government (Table 5.11).

Table 5.11 Social capital variables in each cluster

Variable		Cluster 1		Cluster 2		Cluster 3		Total		χ^2	Df	P
		%	n	%	n	%	n	%	n			
	Yes	31	67	62	101	97	110	56				

The numbers of elections in which respondents voted, including federal, state and municipal elections, differs significantly between the clusters. Significantly more respondents in Cluster 2 voted than in the other clusters (p=0.000) (Table 5.12 and Table 5.13).

Table 5.12 Numeric 50 138 0 Tm (r)q 9 40 594 743 re W n/Cs1 cs o

Table 5.13 Numerical social capital variables in each cluster - Post-hoc tests

Variable	Comparison	Mean difference	Post hoc test	SE	P
Days volunteering (days/ 12 months)	Cluster 1 and 2	-4.40	Tamhane's T2	0.90	*0.000*
	Cluster 2 and 3	2.72	Tamhane's T2	0.96	*0.015*
	Cluster 1 and 3	-1.68	Tamhane's T2	0.41	*0.000*
Days visiting neighbours (days/ 2 weeks)	Cluster 1 and 2	-5.94	Tamhane's T2	0.55	*0.000*
	Cluster 2 and 3	3.50	Tamhane's T2	0.69	*0.000*
	Cluster 1 and 3	-2.44	Tamhane's T2	0.63	*0.000*
Vote in elections (federal, state and municipal)	Cluster 1 and 2	-0.71	Tamhane's T2	0.11	*0.000*
	Cluster 2 and 3	0.33	Tamhane's T2	0.12	*0.015*
	Cluster 1 and 3	-0.38	Tamhane's T2	0.14	*0.015*
Times outside the municipality (trips/ 12 months)	Cluster 1 and 2	-4.7	Tamhane's T2	1.14	*0.000*
	Cluster 2 and 3	3.41	Tamhane's T2	1.32	*0.030*
	Cluster 1 and 3	-1.24	Tamhane's T2	0.80	0.321
	Cluster 1 and 2	-0.37	Tamhane's T2	0.05	*0.000*
	Cluster 2 and 3	0.15	Tamhane's T2	0.06	*0.046*

Table 5.15 Summary of bonding and bridging aspects of social capital variables in each cluster

	Cluster 1	Cluster 2	Cluster 3
Bonding variables			
Trust in most people within the community	Low (31%)	Medium (62%)	High (97%)

Table 5.17 Percentage of total income generated from tourism activities by clusters (n=91)

% of income generated from tourism	Cluster 1		Cluster 2		Cluster 3		Total	
	% of households in tourism	n	% of households in tourism	n	% of households in tourism	n	% of households in tourism	n
None	4	1	7	2	6	2	6	5

considering both br

in PSC. In PSC, people are more likely to be involved in religious groups (PSC=34%, PALM=17%).

Social Capital in PM

PM, a small and isolated community, has high bonding and low bridging social capital. The only organized group in the community is the one fishing cooperative, unlike the other communities, which have more associations and cooperatives. However, it appears that residents of PM organize activities informally (e.g. sports, fiesta). Members of the community are more inwardly focused. Some communities with high bonding, particularly island cultures like PM, may not be as open to others. As such, bonding can be either positive or negative depending on how tight or loose the connections are (Dale 2005:21).

Excessive bonding social capital can be a negative externality and a barrier for economic growth at the macro-level. It can generate generalized distrust and a lack of cooperation between groups (Svendsen and Svendsen 2004:11). These factors may be at play in PM, given that respondents are concerned that aspects of the community are not working well; an illustrative example is the organizational problems of the fishing cooperative. Over time, division within the cooperative has deepened and management challenges have become prominent. However, these challenges also stem from other issues related to accessing resources and regulating poaching. Cooperative are often created under a condition of high bonding, but face potential

developing bridging ties as their enterprise develops, and others may resent

Table 6.1 Sum of squares of

This partly stems from a dramatic increase in the population without time to evolve traditional community-based management systems, or other institutions except those instituted by the government (such as cooperatives).

household involved in cooperatives. Also, women tend to travel less often then men. Possibly women take fewer trips outside of the region, since travel is often related to business activities, and men dominate the primar78 0 Tm (s) Tj 55 1885 0 Tm (e) Tj 40 0 55 734 0 Tm

h

80 thousand pesos/12 months (approximately $8,000 CAD) in PSC and 76 thousand pesos/12 months (approximately $7,600 CAD) in PALM. In contrast, PALM's gross income for the entire community is slightly higher than PSC's; it is approximately 11 million pesos/12 months ($1.1 million CAD) as opposed to approximately 10 million pesos/12 months ($1 million CAD). Values for PM are much lower than the other communities, with an estimated mean household income from tourism and related activities of 2,800 pesos/12 months ($280 CAD) and a gross community-wide income from tourism of approximately 23,000 pesos/12 months ($2,300 CAD).[12]

In a comparison of the cluster t

communities. Similar to the communities, households involved in tourism vary between the clusters, reflecting different social capital characteristics. The manner that tourism is operated in PALM might influence the type of organi

resources; it encourages socioeconomic development (e.g. Mother's Day events) (Kellert et al. 2000). However it is a limited type of community-based management, since the permits are allocated by a higher governing authority - the federal government's environmental department (SEMARNAP). The permit system provides an institutional framework by which the cooperatives can build their credibility in the region and maintain control over resources. It also enables the government to control resources although they have minimal interaction with operators after the permits are obtained. The formalization of enabling structures, such as community-based organiz l5 660 0 Tm (m) Tc201W n /C

to formal institutions and more diverse stocks

communities with respect to who should establish new nature-based tourism ventures. Established cooperatives are the preferred model of development for instituting tourism in all c

of social capital. Natural resource endowments and the abundance and quality of natural capital vary, and relate to opportunities for livelihood activities (Porter and Lyon 2006:169, Flora and Flora 2004:529, Krishna and Shrader 1999, Perreault 2003). As Hall and Boyd

Los Cabos). Although plans for large-scale hotel developments in t

7.2.1 Physical and Technological Characteristics

Emphasize New Nature-based Tourism Activities

New tourism activities, such as sport-fishing and sea turtle-watching are necessary to increase nature-based tourism in the region, since the whale-watching industry is saturated. Combinations of activities lengthen tourists' visits, thereby increasing economic benefits to the local communities. For example, tourism companies that provide multiple day trips including camping, kayaking and bird watching generate higher revenues per person than just whale-watching trips.

Increase Government Support for Tourism Development

The government needs to provide some type of infrastructure investment to realize successful nature-based tourism development. While high expectations for the future of tourism continues, government support such as assistance to purchase boats and motors for sport fishing, marketing, training and other capital investments is necessary for its development (Secretaria de Promocion y Desarrollo Economico 2005). Los Cabos, for example, was a small fishing community until the federal tourism agency FONATUR (Fondo Nacional de Turismo) decided to develop it as a large-scale tourism area. However, the government does not envision Bahia Magdalena as the next "Los Cabitos".

7.2.2 Institutio rn

investments to be built with shared risk. Local cooperatives provide opportunities

7.2.3 Characteristics of the User Communities

Use Social Capital to Develop Tourism and Entrepreneurship

Social capital is important for nature-based tourism development. Certain types of social capital might contribute to a more supportive community for tourism services that involves a broader section of the community. Higher bridging social capital may facilitate the building of partnerships within and

CHA

PSC, and mos

8.3 F

8.4 Research significance

My research is significant in that I compared three communities in which socia

Appendices

Appendix A: Small-scale Fisheries

An understanding of small-scale fisheries is germane to my research since it is the dominant resource activity in the case study region and the nature tourism operators emerge from a fisheries context. Connections e

subsistence fisheries (Liverman and Vilas 2006). Fishing communities have emerged with little autonomy to make resource decisions, where the use of marine resources are contingent on government-issued harvest permits, and decisions about their future are made by federal officialsn

Appendix B: Household Survey

Date:		House number:	
Surveyor:		Block:	
Community:		Choice Model:	

Household Survey Questionnaire

HOW TO USE THIS INTERVIEW PROTOCOL

Notes and remarks are [*contained in square brackets and in italics*]. These are for your information. Text marked in **lower case and bold** is for you to "read" to the respondent, but try not to read this protocol word for word. Just try to capture the main ideas within your own natural style of speaking.

Introduction

[Ask to speak to the male or female head of the household. The respondent should not be a relative, staying temporarily in the respective household.]

Hello, my name is_____. We are conducting a survey with local residents about marine use in Bahia Magdalena. We would like to know your personal opinions about fisheries, tourism and conservation in your area. This survey is part of a research project being undertaken by la Universidad Autónoma de Baja California Sur, Simon Fraser University in Canada and the Center for Coastal Studies at Puerto San Carlos.

Any information that is obtained during this study will be kept confidential to the full extent permitted by law. Knowledge of your identity is not required. You will not be required to write your name or any other identifying information on research materials. Materials will be maintained in a secure location.

It will take approximately one hour of your time and we would really value your input. Would you be willing to participate at this time?

[If yes, continue survey]
[If no, then ask if it would be more convenient to come back at another time]
[If yes, arrange a mutually agreeable time]
[If no, thank the respondent sincerely and end the interview]

Thank you for agreeing to participate. Where would you like to complete the survey? Before we start, I would like you to know that your participation is entirely voluntary and that you may choose not to participate at any time. The study results will be presented only as summaries in which no personal information is used.

Furthermore, I would like to clarify that we are in support of your existing economic activity and we are not here to change anything. We are simply interested in learning about your perspectives and opinions.

Where you interviewed with respect to this survey in the last 3 months? If yes, stop the survey.

START SURVEY [If the respondent wants to read the questions with you, let them]

A. Demographic Information

A1. Name and surname _____ *(optional)*

B. Social Capital

I am now going to ask you some questions about your community and how people interact with each other.

B1. In a typical 2 week period, how often did you visit neighbours or have neighbours visit your household? _____visits in 2 weeks

B2. In the last 12 months, how many days did you contribute to community activities (e.g. volunteer, building, clean-ups, or organizing social events)? _____days

B3. Do you feel that most people **in** the community can be trusted?
! Yes ! No ! Unsure

B4. Do you feel that most people **from outside** the community can be trusted?
! Yes ! No ! Unsure

B5. In the last 12 months, how often did you leave Comondu? _____12 months

B6. How do you think the community would respond if a natural disaster (e.g. hurricane or flooding) affected the community? *[Pick one]*
- ! Each family (e.g. brothers/sisters) would make repairs on their own
- ! Neighbours/friends would work together to make repairs to each others homes
- ! The entire community would work together to repair homes and communal structures

B9a-2. Are **other members of your family** members of a cooperative or union?

- ! Yes – Which? *[Please list them in order of importance]*
- ! No *[NO, go to question B16.]*

B9c-2. Activity of the cooperati

Occupation	You	Other members of your household

D. Discrete Choice Section: Future Scenarios for Local Development

In the next four questions, you will have an opportunity to choose between different possible future scenarios of local development in

The next characteristic describes <u>Local Employment in the Tourism Industry</u>. The proportion of jobs in the tourism industry that are filled by existing members of the community may range from:

1. Almost all are filled by locals

E3. Some years ago, with the arrival of the whales, the federal government implemented certain restrictions on the normal activities in the Bay, like no fishing in certain areas. How much have your livelihood activities been aff

F2. If there are opportunities in the region to implement more nature-based tourism projects, for example the observation of birds and marine turtles, which of the following groups are most appropriate to be in charge of such projects?

- ! Local private businesses/individuals
- ! Private business/individuals who are not from the community
- ! Established cooperatives or unions
- ! New cooperatives or unions
- ! Other community groups
- ! Not important/Unsure

I would like to ask you a few questions about your attitudes towards fishing,

Table: Income generated from household involvement in tourism in each community

Average % of HH income generated from tourism	n	Mean annual income after expenses (Pesos/ 12 months)	Total income from tourism (Pesos/ 12 months)	n	Mean annual income after expenses (Pesos/12 months)	Total income from tourism (Pesos/ 12 months)	n	Mean annual income after expenses (Pesos/ 12 months)	Total income from tourism (Pesos/ 12 months)

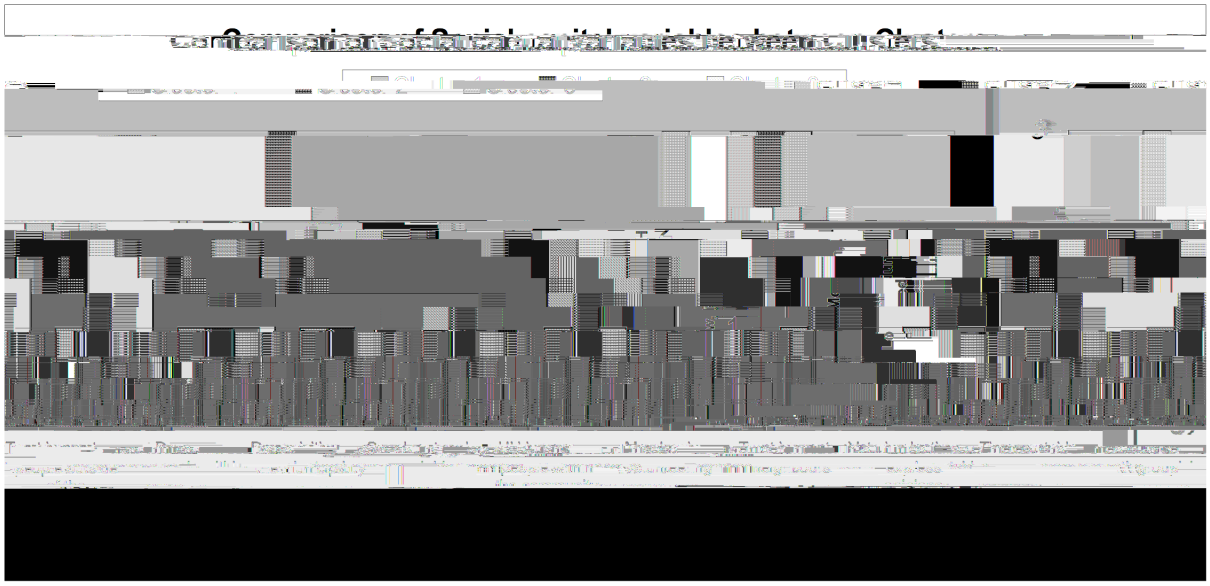
Appendix F: Descriptive Data for Each Community

Variable	Cluster	Mean	SD	F/χ^2	df	P
Average age of respondent	PSC	41.7	12.8	F		
	PALM	43.8	13.3			
	PM	36.5	11.5			
	Total	42.1	13.0			

Appendix G: Summary of Social Capital Variables in Each Community

Appendix I: Total Variance Explained from t

Appendix M: Summary of Social Capital Variables in Each Cluster



Appendix N: Functioning of Cooperatives and Number of Meetings

	Very badly	Badly	Neither well nor badly	Well	Very well

Table: Comparison of attitudes on marine resources in ea[redacted]uster

Variable	Cluster 1	Cluster 2	Cluster 3	Total	[redacted]	df	P
My community takes care of the environment.	2.4	1.9	1.7	2.1		2, 494	*0.000*
I take care of the environment.	1.2	0.9	0.9	1		2, 494	*0.000*
I plan on initiating a new business opportunity in the next 5 years.	1.3	1.4	1.4	1.3		2, 490	0.510
I can see myself taking a job in nature-based tourism if the opportunity arises.	1.2	0.9	1.1	1.1		2, 494	*0.003*
The permit system for fishing is equitably divided among the community.	2.7	2.6	2.4	2.6		2, 493	*0.027*
The permit system for whale watching is equitably divided among the community.	2.4	2.69					

REFERENCE LIST

Adger, W.N. 2001. Social capital and climate change. Tyndall Centre for Climate Change Research Working Paper 8. Norwich: University of East Anglia.

Agrawal, A. 1999

Bartolini, S. and L. Bonatti. 2007. Endogenous growth, decline in social capital and expansion of market activities. University of Siena and University of Trento. MPRA Paper No. 3341. <http://mpra.ub.uni-muenchen.de/ 3341/>.

Basurto, X. 2005. How Locally Designed Access and Use Controls Can Preven

Ceballos Lascurain, H. 1996. *Tourism, Ecotourism and Protected Areas: The Sta*

Doloutskaia, S. 2002. T

Hammer, O. 2007. Principal components analysis. Multivari

INEGI. 2007. Sistemas Nacionales Estadistico y de Informacion Geografica. Instituto Nacional de Estadistica Geografia e Informatica. <http://galileo.inegi.gob.mx/>

Jóhannesson, G., U. Skaptadottir, and K. Benediktsson. 2003. Coping with Social capital? The cultural economy of tourism in the North. *Sociologia Ruralis* 43(1), 3-16.

Johnston, G. and J. Percy-Smith. 2003. In search of social capital. *Policy & Politics* 31(3), 321-334.

Jones, S. 2005. Community

Ramirez-Sandoval, S. 2007. A social relational approach to the conservation and management of fisheries: the rural communities of the Loreto Bay National Marine Park, BCS, Mexico. PhD. Thesis. Resource and Environmental Management. Burnaby: Simon Fraser University.

Ratner, B.D. 2006. Community management by decree? Lessons from Cambodia's fisheries reform. *Society and Natural Resources* 19(1), 79-86.

Rivera-

SEMARNAP (Secretaría de Medio Ambiente y Recursos Naturales). 2006. Statistics

------. 2001. The place of social capital in understanding social and economic outcomes. *Canadian Journal of Policy Research* 2,11-17.

Woolcock, M., and D. Narayan. 2006. Social Capital: Implications for Development Theory, Research, and Policy Revisited. In: *The Search for Empowerment: Social Capital as* *o*