CHARACTERISTICS OF A SUCCESSFUL COMMUNITY COOPERATIVE:

A CASE STUDY IN THE COMMUNITY OF ALTA CIMAS,

EL CIELO BIOSPHERE, TAMAULIPAS, MEXICO

THESIS

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By

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# DEDICATION

This thesis is dedicated to my mother, father, and brother. No matter how far I travel, I always know our hearts are together and you are reaching out to embrace me as though I am at your doorstep. Since I could walk, you've taught me to take advantage of life's opportunities. Thank you for your growing acceptance and continual love.

# ACKNOWLEDGMENTS

The road to this thesis is a story of connections. I was sent to Texas primarily by Leo Zonn, who demonstrated how I could combine my interests in geography with my other passions. From that point on, Fred and Arlene Shelley provided me with the support of a family away from home. I also thank Fred for his reliability, encouraging me throughout my several thesis ideas, always available to discuss and organize them. I thank my assistantship bosses, Michael Solem and David Stea for imparting to me new venues for geographic application, and for their conversation. It has been a wonderful experience creating a balance between professional and personal friendship with them.

My previous thesis proposal was guided by Brock Brown, who took much time to help me discover the meaning of cultural geography. The essence of the project we worked on and the experience in El Cerrito, New Mexico provided a firm foundation for this research. From there flourished my curiosity about Mexico. I thank Alex Bliss Marsh, Brian Teinert, and David Stea for feeding this curiosity. Alex introduced me to Mexico and proceeded with much patience to sift through my often befuddled thoughts, knowing how to direct me to clarity through colors and encouragement. I have learned much more from this experience having been able to share it with Brian. He was my first Spanish teacher and thereafter continually encouraged the values I needed to develop in order to succeed in this project. I am thankful for his support throughout my fears and frustrations, and for being a friend who understands the spiritual essence of this journey.

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CHAPTER 1

INTRODUCTION

The past ten years have seen a growing body of literature that links local

community participation in development of small-scale ecotourism projects with resource

conservation and sustainability objectives (Adams 1990; Boo 1991; Brunt and Courtney

1999; Cater 1994; Drake 1991; Furze, de Lacy, Birckhead 1996; Thorsell 1985; Wisner,

Stea, and Kruks 1991). However, in 1997, Calegari recognized that "few studies have

documented the details of the conservation process in order to know how local people are

introduced to conservation efforts and what their responses are" (1).

The purpose of this case study is to describe the components of a successful

community cooperative. The women's cooperative, in the community known as the *ejido*

of Alta Cimas, located in the El Cielo Biosphere, Tamaulipas, Mexico, has played a lead

role in community development planning since 1994. This research hinges on the

hypothesis that a successful cooperative supports sustainability by empowering

community members. Sustainability was defined by the Brundtland Report in

1987 as "development that meets the needs of the present without compromising the

ability of future generations to meet their own needs"

(http://www.doc.mmu.ac.uk/aric/eae/Sustainability/Older/Brundtland_Report.html). One key to

sustainability is making decisions based on knowledge of the dynamics of place,

including the physical and cultural context. The local community is naturally the "better

information base" (Drake 1991, 253; Furze, de Lacy, and Birckhead 1996, 11). Local participation in community development planning is imperative for environmental sustainability because this is the population that interacts with the environment and daily depends on it for survival (Calegari 1997, 3). Otherwise, conservationists follow their own agendas and impose limits separate from understanding the relationship that exists between the people and their land (Calegari 1997, 4).

To evaluate the underlying premises for sustainability presented in the conceptual model, all current members of the women's cooperative were interviewed about their work experience. In this study, Chapter Two describes the history of the El Cielo Biosphere and the situation within the community of Alta Cimas prior to establishment of the cooperative. Chapter Three analyzes published literature that reviews premises for, and examples of, community participation. The fourth chapter identifies the method and objectives of data collection. Data collected during field study in El Cielo is presented in Chapter Five. This is followed by a discussion in Chapter Six that evaluates data findings in relation to components of sustainability. Finally, Chapter Seven concludes on the cooperative's sustainability in accordance with a framework for community empowerment and in connection with the community's larger geographical context. This chapter also provides suggestions for further research. Supporting documents and the reference list are found at the end of this text.

# CHAPTER 2

## SITE DESCRIPTION

### Figure 2.1. Map of Tamaulipas, Mexico
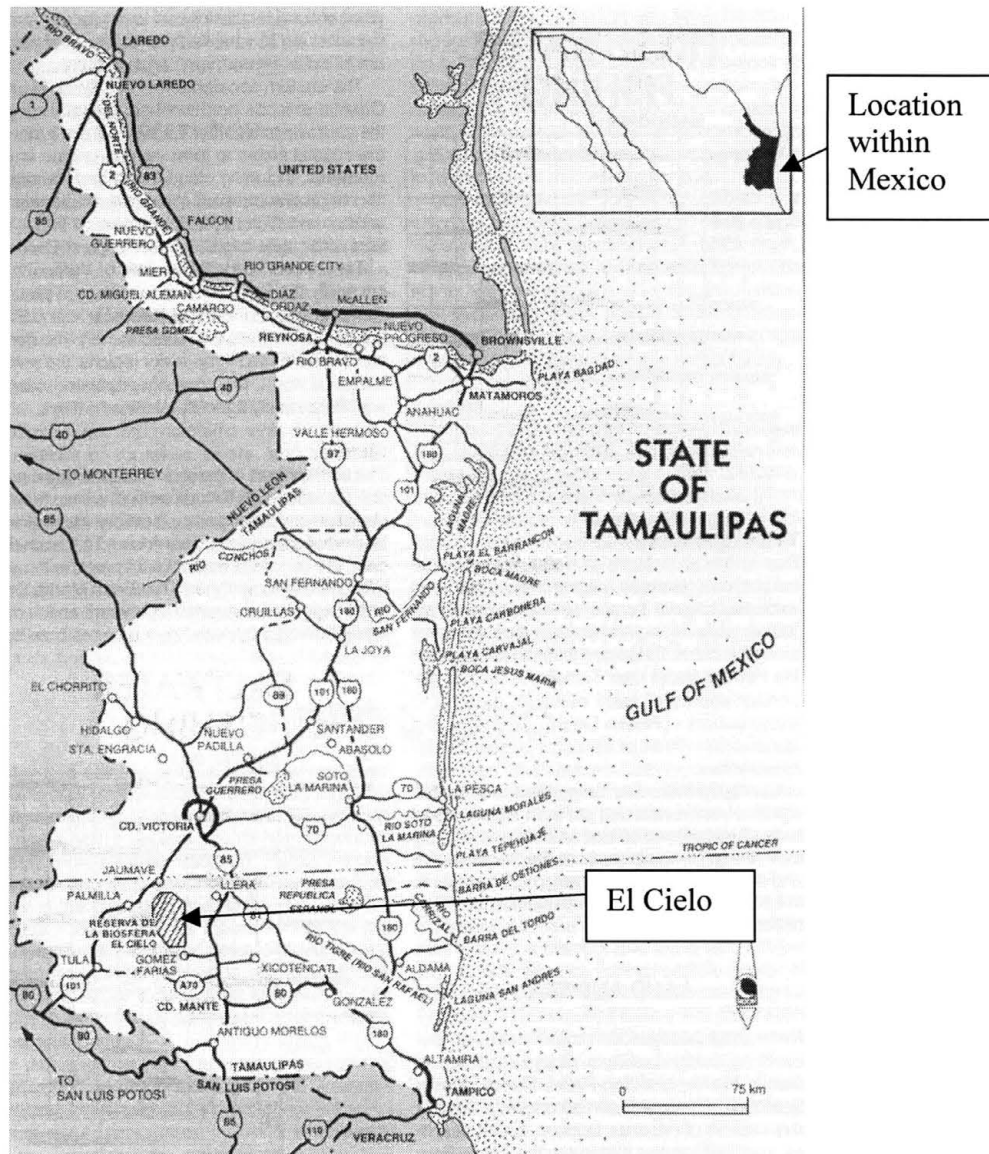


*Source*: Cummings, Joe. 1998. *Northern Mexico handbook.*
Emeryville, CA: Moon Publications.

**Introduction to Site**

On October11, 1985, the Mexican *Secretariat de Desarrollo Social* (SEDESOL,

the Secretary of Social Development) designated 144,530 hectares (356,442 acres) in the

State of Tamaulipas, Mexico as the El Cielo Man and Biosphere Reserve  (*Periodico*

*Oficial* 1996, 1; Sanchez, et al.1998).  The United Nations Education, Science, and

Culture Organization's (UNESCO) Man and Biosphere (MAB) Program began in 1968 at

'The Biosphere Conference" (Furze, de Lacy, and Birckhead 1996, 209).  As implied by

the title, MAB plans to meet the needs of, and re-unite, both human and environment

(Sanchez et al. 1998).  The program represents early sustainability concerns, and is meant

to incorporate conservation, research and monitoring, and development (Furze, de Lacy,

and Birckhead 1996, 209).  Parker (1993) includes cooperation at local and regional

levels as equally important and the characteristic that distinguishes biospheres from other

protected areas (Furze, de Lacy, and Birckhead 1996, 216).

The residents of El Cielo belong to *ejidos*, or community-owned land, established

as part of a land reform system implemented toward the end of the Mexican Revolution

in 1917 (Roach 2001) (Table 2.1 and Figure 2.2).  As of September 2001, "more than

23,000 communal groups own and live on 75% of Mexico's land" (Roach 2001).  In El

Cielo, *ejido* land grants comprise 79%, or 114,530 hectares, private property (including

land owned by the state of Tamaulipas) 17% or 25,000 hectares, and land owned by the

Federal Government 3% or 5,000 hectares (Sanchez et al.1990, 5).

Table 2.1. Distribution of Human Communities in El Cielo near Research Site

| *Ejido* | Number of Families | Number of Inhabitants |
|---|---|---|
| Gómez Farias | 180 | 1500 |
| Alta Cimas | 24 | 168 |
| San José | 7 | 38 |
| La Gloria | 4 | 15 |
| Joya de Manatiales | 2 | 9 |
| Joya de Salas | 18 | 90 |
| Lázaro Cárdenas | 11 | 30 |
| Total | 246 | 1850 |

** Number of families more accurately corresponds with number of homes rather than number of familes (ie: Berrones, Serrano, Martínez).

*Source*: Sanchez Ramos, Gerardo, Eduardo E. Gonzalez Hernández, Arturo C. Sepúlveda Lerma, and Hector Zamora Treviño. 1990. *La reserva de la biosfera "El Cielo", plan de admistración y programa de investigación científica*. II Simposio Internacional sobre Areas Protegidas. Centro de Ecología, U.N.A.M. Accessible from http://ecologia.uat.mx/biotam/v2n2/art8.htm; Internet; accessed 11 December 2001.

Figure 2.2  Map of El Cielo Communities near Research Site
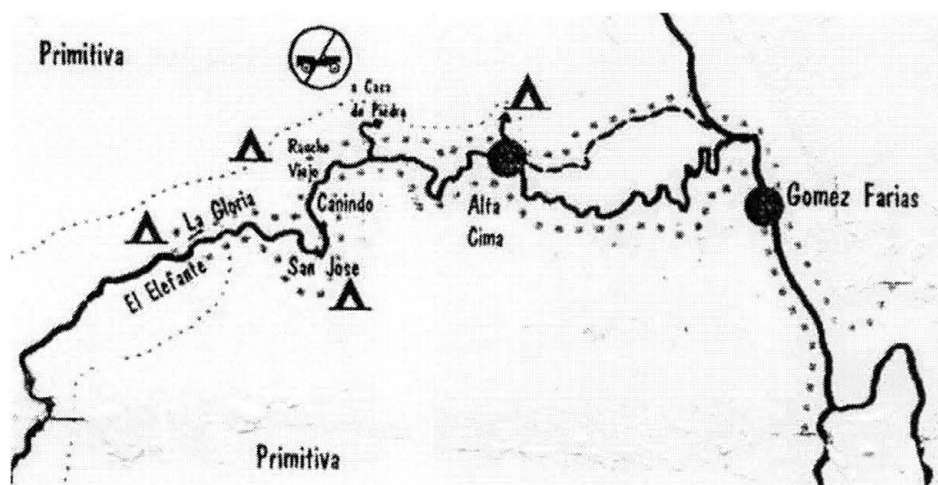


*Source*: Walker, Scott. 1997a. Ecotourism demand and supply in El Cielo
Biosphere Reserve, Tamaulipas, Mexico.  Masters thesis, Southwest Texas
State University.

Biosphere reserves are organized into core, buffer, and transition zone areas (Furze, de Lacy, and Birckhead 1996, 210; Sanchez et al. 1990), each serving its own function. Conservation and monitoring take place at the core, where ecological systems are least disturbed. Buffer zones incorporate research, education, and tourism. *Ejido* communities fall within the transition zone, the area most impacted by the continuation of daily home and work activities. (*Periodico Oficial* 1996, 2)

Upon designation as a biosphere reserve, El Cielo's resident population maintained their *ejido* land rights but were no longer allowed to log the sub-tropical forest. In 1995, nearly 70% of the inhabitants were unemployed (Walker 1997a). The primary source of income in the area is the harvesting of an ornamental plant named *palmilla*, collected Monday through Friday by pairs of males, and sold weekly to a distributor who thereafter sells the *palmilla* in Cuidad Victoria (capital of Tamaulipas) and the United States for inclusion in floral arrangements (Figure 2.3). Other important crops for the subsistence of these communities are peach, corn, and black beans (Medellín 1997). Approximately one year after the establishment of the cooperative store, Walker (1995) determined the average monthly household income in the *ejido* of Alta Cimas as N$105.52 (approximately US$11). Of this average, N$71.36 (approximately US$8) was derived from ecotourism (20). Households may include as few as two residents in the case of an elder man and wife, or families of up to ten children.

Figure 2.3  Boy collecting *palmilla* in Alta Cimas
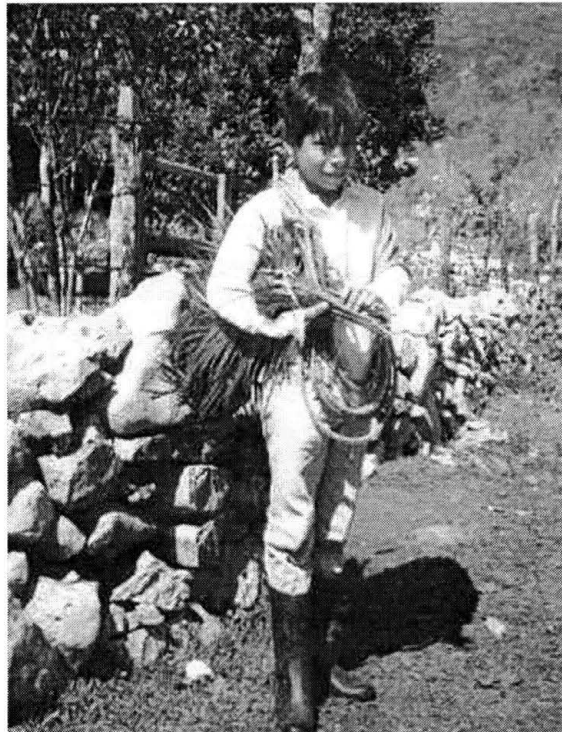


*Source*: Medellín, Sergio and Armando Contreras. 1994. Plan comunitario de manejo de recursos naturales del ejido Alta Cimas. Cuidad Victoria, México: Terra Nostra. 11.

Figure 2.4  Burro used for collecting *palmilla*



*Source:* Personal photograph.  2002.

In February and March of 1994, Sergio Medellín, as a representative of *Terra Nostra A. C.* (now *Pronatura*), a non-government organization in nearby Cuidad Victoria, approached the residents of El Cielo in search of sustainable economic alternatives. With financial support from the Biodiversity Support Program (BSP), the World Wildlife Foundation (WWF), The Nature Conservancy (TNC), the Institute of World Resources, and the United States Agency for International Development (USAID), Medellín met with approximately half of the male and female adults of Alta Cimas (Medellín 1997b; Medellín et al. 1998, 22). His community diagnosis carried out during these meetings in February and March 1994 sought to identify community strengths and available human and natural resources for sustainable development. This diagnosis is presented in *Plan comunitario de manejo de recursos del ejido Alta Cimas* (Medellín and Contreras 1994) (Figures 2.5-2.9). Thereafter, citizens of Alta Cimas, essentially the gateway entrance into El Cielo, established female and male cooperatives responsible for providing meals, shelter, and guide services for tourists in an area where such services are scarce. Publications since 1994 describe how the successes of the Alta Cimas cooperatives spread to other *ejidos* and facilitated additional development projects (Medellín 1997; Medellín and Romo 1999; Walker and Ramírez 1998). Throughout the literature documenting ecotourism in El Cielo, these developments are described as community directed (Medellín 1997; Medellín and Romo 1999; Walker 1997a; Walker and Ramírez 1998).

Figures 2.5-2.9 Alta Cimas community diagnostic



*Source:* Medellín, Sergio, and Armando Contreras. October 1994. *Plan comunitario de manejo de recursos del ejido Alta Cimas.* Cuidad Victoria, Tamaulipas, México.

## Cooperative Formation

Cooperatives can be described as "action-based organizational structures" (*The mountain forum*, 16). The best example of a successful cooperative in El Cielo is the women's group in Alta Cimas. In 1994, Medellín's diagnosis identified the women of Alta Cimas as skilled embroiderers. Accordingly, a small group of interested women recognized the possibility of selling their embroideries when large amounts of tourists visit the community, notably during Easter week (personal interview Elena [M11], 2002) (Figures 2.10 and 2.11). With instruction from Medellín, the women also canned and processed native fruits into jams. These were the two main types of items sold when the cooperative store, *La Natura*, opened on April 16, 1994 (personal interview Rosanna [M8], 2002) (Figures 2.12-2.14). After four years, a cooperative restaurant, *La Fe*, and separate kitchen, were added next to the store (Figures 2.15 and 2.16). Today, the cooperative members sell meals, Coca Cola, coffee, bottled water, homemade wine, jams, and canned fruit. The small store displays handmade crafts including hand-embroidered shirts and table coverings and woodcarvings along the inside walls. This is also the meeting center for environmental education courses offered to El Cielo's residents (Medellín et al. 1998, 22).

The women's cooperative can be characterized as the community's "hub of activity" (Walker 1997b, 2), providing a social support network. This support has reached beyond Alta Cimas to providing assistance for the formation of cooperatives in other *ejidos* (Medellín et al. 1998, 22). The women of Alta Cimas, particularly those employed in the cooperative, have applied their "leadership abilities by serving on regional organization and resource management committees" (Walker et al.1998, 222).

Figures 2.10 and 2.11  Sample embroideries for sale in the cooperative store



Source: Medellín, Sergio, and Armando Contreras. October 1994. *Plan comunitario de manejo de recursos del ejido Alta Cimas.* Cuidad Victoria, Tamaulipas, México.

Figure 2.12  Dedication of *La Natura*, cooperative store



*Source*: Medellín, Sergio, and Armando Contreras. October 1994. *Plan comunitario de manejo de recursos del ejido Alta Cimas.* Cuidad Victoria, Tamaulipas, México.

Figures 2.13-2.16  *La Natura and La Fe*, February 2002
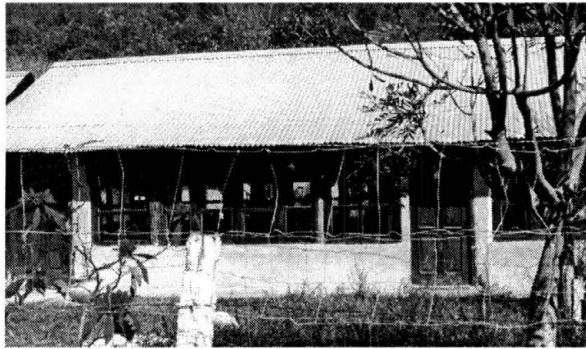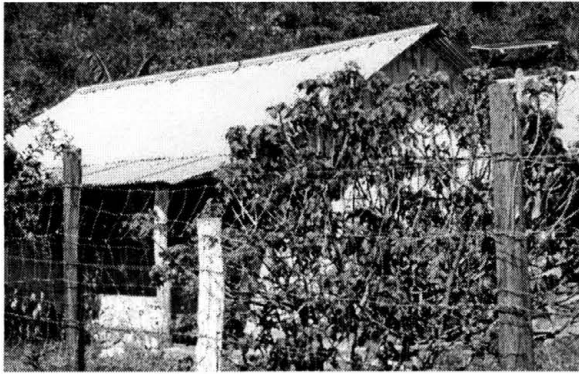


*Source*: Personal photographs.  2002.

Medellín, with the help of related foreign financial support, also aided in the creation of a male cooperative. Members built and run the hotel and campground of *El Pino* (Walker 1997b, 2) (Figures 2.14 and 2.15). *El Pino* consists of ten rooms with one to four beds. One of a group of fifteen members oversees the hotel on a full-day (10:00 am-5:00 pm) rotational basis. Members meet on the first Saturday of every month to discuss cooperative earnings and improvements, as well as attend ecotourism courses and yearly forums with the female members. Furthermore, members serve as guides, some certified internationally in such specialty areas as birds, trees, and bees, and most with some training in the natural and cultural history of the area (Medellín et al. 1998, 20).

The participation of community members in sustainable development will be discussed in the following chapter. Although the women's group is the subject of focus, it is important to note the men's cooperative as part of the community investment in ecotourism development. The most notable way that the men's cooperative affects the women's cooperative is that it is more likely for women to become members if their husbands are also cooperative members. One husband who works at *El Pino* related positively in 1998 that his wife "helps contribute money to the family to buy food and clothes, while both control the money" (Walker et al. 1998). On the other hand, two other husbands who do not work at *El Pino* refused that their wives continue to work at the cooperative because this kept their wives from keeping up with housework adequately (Walker et al. 1998). These contrasting attitudes are a variable affecting membership in the women's cooperative, and moreover, affecting the amount of recognition the women acquire for their work from men in the community.

Figures 2.17-2.19 *El Pino* hotel rooms and campground area
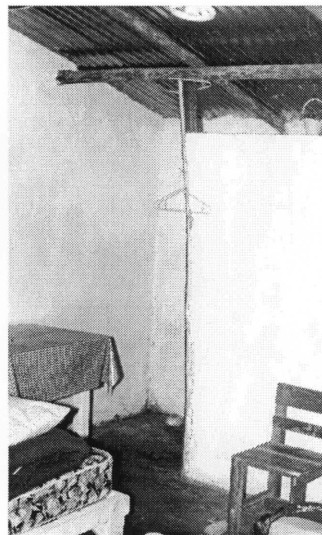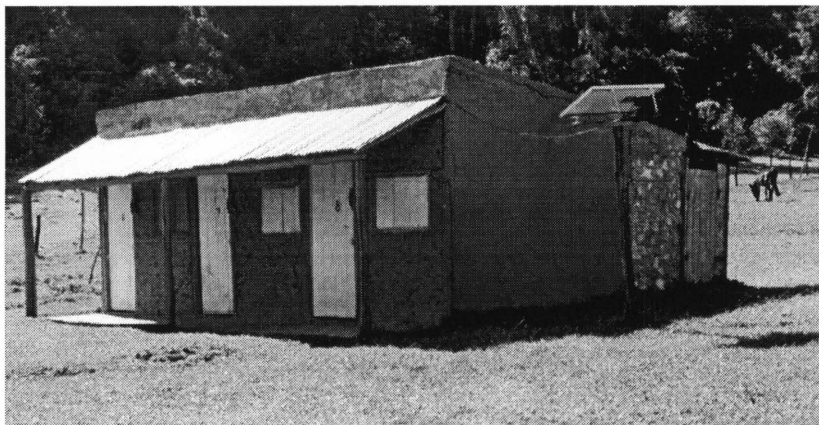


*Source:* Personal photographs. 2002.

CHAPTER 3

REVIEW OF RELEVANT LITERATURE

**Introduction to Theoretical Framework**

This research proposes a theoretical framework for understanding successful local participation in a community development project. The theory defines success as the ability of a group of community members to autonomously maintain a development project that benefits the community over a period of time extending indefinitely into the future. Following a definition of sustainable ecotourism and development, the review of relevant literature summarizes previous findings on challenges to and benefits of local participation. The theoretical framework is based on a conceptual model found at the heart of the review that identifies five major components of community participation: involvement, organization, communication, profit, and education. An analysis of these five components enables the researcher to evaluate the impact of the development project on the community members' level of psychological, economic, social, and political empowerment. Using Regina Scheyvens' (1999) guide to signs of empowerment and disempowerment, the theoretical framework concludes that an empowered community gains the means for cultivating its own sustained success.

Figure 3.1  Theoretical Overview for Evaluation of Cooperative Success
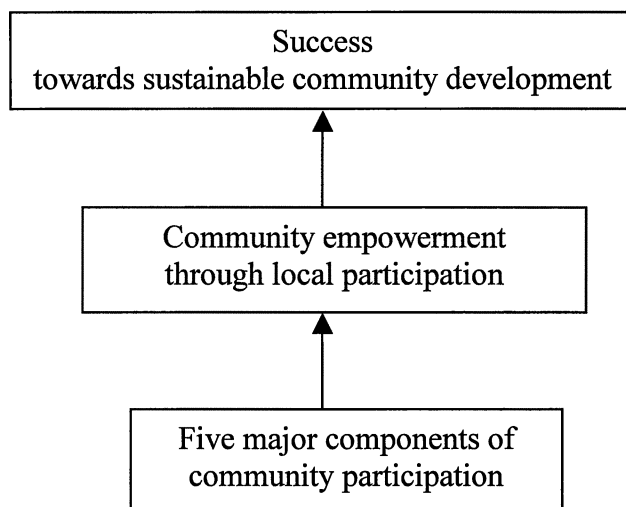
## Introduction to Sustainable Ecotourism Development

The Man and Biosphere (MAB) program recommends ecotourism as a way of meeting objectives of economic, environmental, and cultural sustainability (Wood 1991, 204). As defined by the Ecotourism Society, this means that the MAB program promotes "purposeful travel to natural areas to understand the cultural and natural history of the environment, taking care not to alter the integrity of the ecosystem while producing economic opportunities that make the conservation of natural resources financially beneficial to the local citizens" (Wood 1991, 201). The second goal of the MAB program states that biosphere reserves will model sound land management practices and approaches to sustainable development (Seville Strategy). Toward this goal, objective II.1 requires that development follow "the support and involvement of local people" (Seville Strategy), drawing a link between sustainable land planning and community involvement. In June 1992, the United Nations Conference on Environment and Development (UNCED) titled this stipulation for local involvement in conservation efforts "Agenda 21" (Furze, de Lacy, and Birckhead 1996, 3).

The number of dissident opinions makes the concept of development exceedingly difficult to define. Development implies change and fundamentally seems to contradict sustainability. However, most often, definitions of development agree with Western measurements of material standards, and are thus synonymous with "modernization" (Furze, de Lacy, and Birckhead 1996, 4). Furze, de lacy, and Birckhead (1996) establish a somewhat culturally-sensitive, yet vague, definition of development as "the process of

intervention into existing structures of society in order to facilitate desired social, cultural, economic, political and conservation goals" (6).

Once having established the development process and goals, how does a local group of people succeed? All local level development must acknowledge local residents as "legitimate actors in social, economic, and political processes which will impinge on the ways in which they live" (Furze, de Lacy, and Birckhead 1996, 7). However, most community planning, especially with regard to conservation, at least begins with some type of outside support.

Local participation projects begun by outside investors often fail to involve the community from the outset and throughout the stages of planning, implementation, and monitoring. Thereafter, the community has missed the opportunity to understand planning objectives and profits. Furthermore, residents continue to lack the education necessary for replacing the roles that outside interests played, including leadership roles, decision-making practices, and environmental knowledge. (Campbell 1999; Roach 2001)

> An Eskimo villager once told me that he did not attend an important
> public hearing being held in his area because he '...didn't know enough to
> ask a good question'. Citizens are not going to voluntarily go out of their
> way to appear stupid, ignorant, or weak. Under these circumstances, non-
> attendance becomes a rational, or even honorable act. It is not a
> manifestation of apathy or lethargy (Kennedy 1980, 8-9, in Stea 1984).

Critics of community development planning claim that reliance on the local people "invites trouble, confuses values with facts, is time consuming, costly, and stressful" (Campbell 1999, 536; Drake 1991, 253; Harper 1997, 148; Murphy 1985, 171). A community may lack certain areas of education and most likely includes several

opposing interests (Furze, de Lacy, and Birckhead 1996, 9). Thus, the outsiders involved often become frustrated with the slower pace of accomplishment (Harper 1997, 148).

After implementation, community-based development projects face other types of problems. These include deficiences in the infrastructure, such as proper waste disposal and water treatment, as well as a lack of appropriate marketing and extensive information distribution (Morales 1998).

### Creating an Indicator for Evaluation of Local Participation

Once it is accepted that local participation benefits economic, environmental, and cultural sustainability goals, the first obstacle to be overcome is "how to involve" (Stea 1984, 2). Few researchers have attempted to identify a set of indicators of successful participation in community development. To begin, Wisner, Stea, and Kruks (1991) created the following table, Table 3.1, to distinguish between characteristics of community design and traditional design approaches to development (227).

Table 3.1  Some Differences between Community and Traditional Design Practices

| Community Design | Traditional Design |
| --- | --- |
| Small scale | Large scale |
| Local | National/international |
| Appropriate technology | High technology |
| Human oriented | Corporate or institutionally oriented |
| Client redefined to include users | Single-client oriented |
| Process and action oriented | Building and project oriented |
| Concerned with meaning/ornament | Concerned with style/context |
| Low cost | High cost |
| Bottom-up design approach | Top-down design approach |
| Inclusive | Exclusive |
| Democratic | Authoritarian |

This table describes local participation as community design and non-participation as traditional design. However, it is not possible to base an indicator solely on this list. The nature of a community development program relies on several additional variables. The following list of questions adopted from Wandersman (1987) in Wisner, Stea, and Kruks (1991, 276) serve as an initial guide to identifying variables:

1. Who participates, who does not participate, and why?
2. How does the interaction of the person and the situation influence participation?
3. What is a sense of community and what are its consequences?
4. What are the characteristics of organizations that are active and successful versus those that become inactive?
5. What cross-culture comparisons are appropriate to participation in community development?
6. With regard to knowledge dissemination and knowledge utilization, what is the relationship between scientists and citizens?

Each community development project reflects the individual dynamics of participation involvement and organization. The subsequent literature review can be conceptualized through this model for the evaluation of local participation (Figure 3.2):

Figure 3.2  Conceptual Model for Evaluation of Local Participation
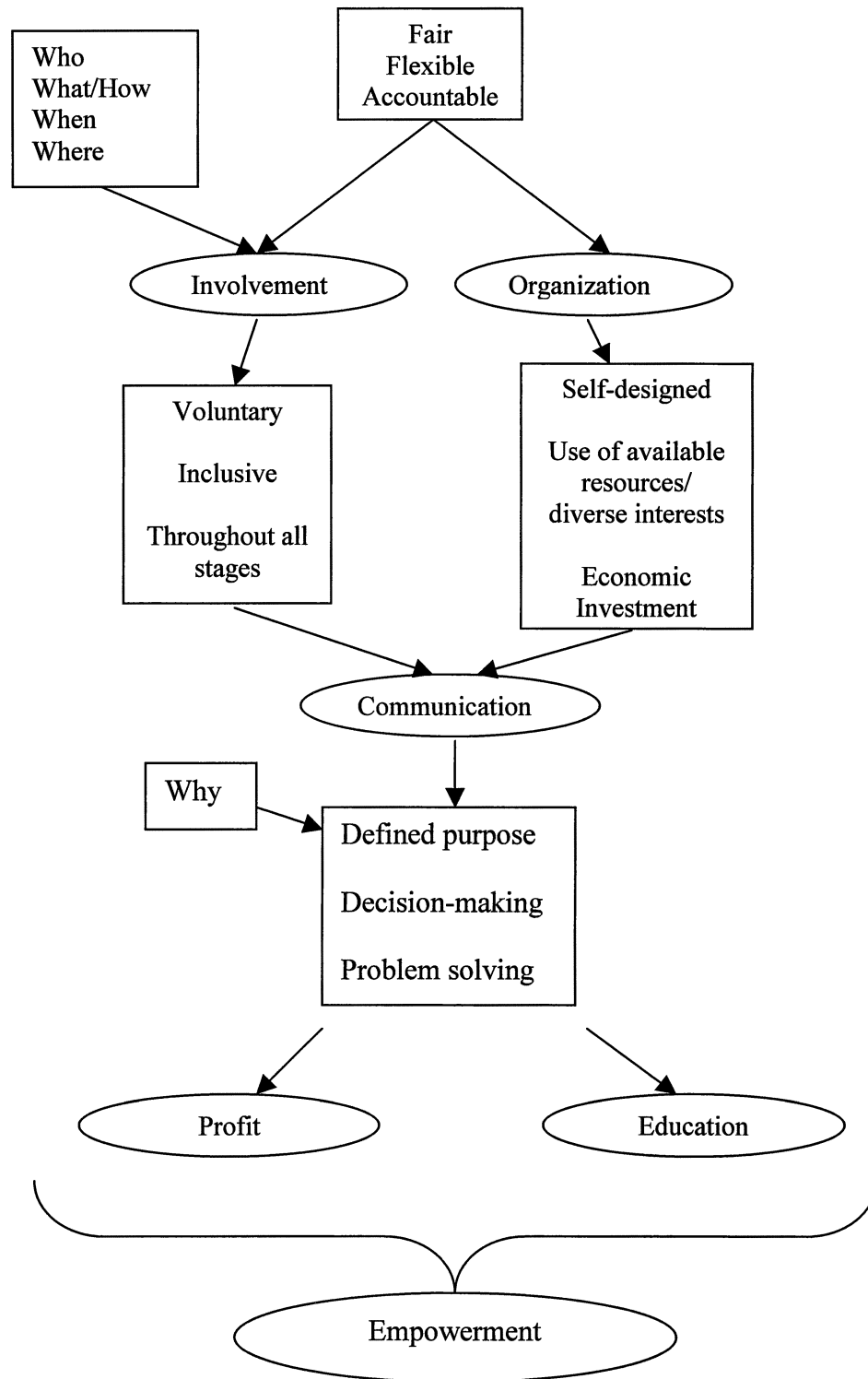
*Involvement*

The left side of the conceptual model conveyed by Figure 3.2 focuses on the type and extent of involvement in the participatory process. Roseland (1998) suggests that evaluation of community participation begins by asking "who participates, when they participate, and how they participate" (183). These variables address the struggle of defining a relationship between 'expert' knowledge and local participation.

If the view of public involvement is basically what Furze, de Lacy, and Birckhead (1996) name the 'beneficiary approach', local people are involved in the project only through employment. In contrast, the 'participatory approach' empowers local people by incorporating them in the decision-making process (174-175). Successful projects exemplify the participatory approach by emphasizing local involvement throughout all the project stages. In Oaxaca, Mexico, the factor contributing most to success is the empowerment of community members through the process of project initiation, design, decision-making, and implementation, through employment as hosts, cooks, guides, artisans, and managers of tourist facilities (Morales 1998). Murphy suggests that in a balanced interaction the combination of all levels of knowledge helps to circumvent usual frustrations and delays in planning and implementation (1985, 172). An "informed and able" community (Murphy 1985, 171), if willing, can also develop monitoring skills during these stages.

Paul (1987) defined four levels of community participation as information sharing, consultation, decision-making, and initiating action. Based on several international case studies, and these levels, Drake (1991) outlined a ten step Model Local

Participation Plan (156; Table 3.2) that stresses local involvement at every stage of the

process.

Table 3.2. Model Local Participation Plan

| Step | Action |
| --- | --- |
| I | Determine local participation goals |
| II | Choose research team |
| III | Conduct preliminary studies |
| IV | Determine level of local participation |
| V | Determine appropriate participation mechanism |
| VI | Initiate dialogue with press/local community |
| VII | Collective decision making |
| VIII | Develop action plan and implementation mechanism |
| IX | Monitoring and evaluation |

In a situation in which an outsider's proclamation changes traditional lifestyles, "until they see some profits of their own, local people are not likely to fully embrace new land use restrictions or the new environmental ethic that is supposed to accompany them" (Calegari 1997, 3). Adams (1990), who also advocates a bottom-up approach, emphasizes the power of compromise in sustainable development. "Through sustainable development both conservationists and local people can work together to confront the potential loss of the resources which are both a source of sustenance for the community and the components which contribute to the area's biological richness" (Calegari 1997, 4).

Community planning works to limit the impacts that tourism brings to transforming the local population's culture and standard of living (Beeton 1998, 34-36). In general, planning must begin with understanding what the community perceives as needs (Beeton 1998, 36) and an awareness of potential costs and benefits (Walker 1995, 1). Thereafter, community planning relies considerably on the level of interaction at planning meetings and roles of social groups (Furze, de Lacy, and Birckhead 1996, 13).

Participation in planning encourages sustainability because it endeavors to consider cultural and community values, distributes economic benefits within the community, and develops understanding of, and united action in, conservation practices (Campbell 1999, 535). Input from community members into planning and decision-making builds an invaluable relationship. Local involvement from the beginning increases project support because the community has a better understanding of the needs and objectives (Drake 1991, 253; Harper 1997, 148). Development plans are better suited to the community because "the social and cultural limits of development options

are easily identified at an early stage" (Harper 1997, 148). To the planning process, the community imparts its cultural and environmental history, and in the implementation and monitoring stages, its members are able to proactively react to the situations that affect them.

During planning, participation can include "identifying problems, formulating alternatives, planning activities, and allocating resources" (Drake 1991, 133). In Harper's (1997) example of a community approach to tourism in a similar rural area, "the social and cultural limits of development options are easily identified at an early stage" (148). Furze, de Lacy, and Birckhead (1996) describe an example of "participatory conservation area management" in Nepal suggesting that local development efforts include the following: "impart skills and knowledge to local people; initiate village level activities; promote economic activities; identify potential activities; promote people's participation; and further refine an overall implementation strategy" (13).

*Creating the Organization Structure*

Public participation requires a definition of participation criteria (Stea 1987, 40) and roles. Its basis is the evolution of power distributions, solidarity, organization skills, 'active' involvement, personal values, understanding of individual internal motivators, and a participatory model facilitating communication (Stea 1987, 41).

The development process originally depends on the manner of organization of local citizens, both in their own group and in a group including government and private interests. "The question of power and control of one social group over another is often judged to be central to the understanding of participation and obstacles to it" (Gran 1983

in Wisner, Stea, and Kruks 1991, 276). Community development planning does not assume a non-hierarchical structure (Furze, de Lacy, and Birckhead 1996, 7). Certainly, non-participatory examples identify that only the wealthiest community members initiate and benefit from development (Campbell 1999). Hunter and Green (1995), although not directly addressing community development planning, view land use planning as "the task of developing a framework of land use for an area which balances the resource base and physical capacities against the different interests that are involved in development" (96).

The participatory planning process necessitates collaboration and "mutual cooperation" (Furze, de Lacy, and Birckhead 1996, 11). Success depends on the character and structure of relationships between planning members. Harper's (1997) research supports that community development planning requires "the role of the project manager to be one of a facilitator, who guides rather than directs. Openness and hard work are essential to gain respect among farmers. Acceptance by the farmers helps to instill confidence in the project manager" (148). In the case of Alta Cimas, Medellín could be viewed as the project manager.

Community disregard for preservation regulations is associated with "a lack of communication between local residents and those federal and state officials in charge of the conservation" (Calegari 1997, 2 of 9). Collaboration between representatives requires efforts to bridge gaps in socioeconomic and cultural differences and communication barriers, so to reinforce participatory confidence (Stea 1984; Wisner, Stea, and Kruks 1991, 280).

Communication theory, as established by Shannon and Weaver in 1949 to describe relationships between transmitters, signals, and receivers, and as modified by Wisner, Stea, and Kruks in 1991, views communication as a process of translating verbal, visual, and mental messages. Effective communication works to minimize the variables that distort the meanings participants attempt to convey through these messages. Sources of distortion subject to evaluation include 1) participation environment, 2) medium of communication, 3) professional subcultures and their jargon, 4) socioeconomic class differences, 5) cultural differences, and 6) language barriers. (Wisner, Stea, and Kruks 1991, 279-280)

Effective communication requires recognition of community values. Communication studies advocate incorporated use of "concrete" and "abstract" materials, such as sketches and photographs combined with maps, floor plans, and models. These items facilitate collaborative non-verbal communication and real application of theoretical examples (Stea 1984).

The communication structure arises through collaborative problem-solving activities. An initial group activity should be the definition of purpose. A purpose created to promote sustainability should "support local belief systems and land use practices" (Calegari 1997, 1). The process of defining the purpose cultivates the initial decision-making structure. Decision-making may take several forms. Relying on voting quickens the decision-making process. However, acquiring skill in the consensus method encourages fairness and equality among participants. Roseland (1998) identifies the following advantages of the consensus method as synthesized from Beer and Stief (1997), Coover et al. (1977), and Kaner et al. (1996):

it produces more intelligent decisions, by incorporating the best thinking of everyone; it keeps people from getting into adversary attitudes where individual egos are tied to a proposal that will win or lose; it increases the likelihood of new and better ideas being thought up; everyone has a stake in implementing a decision, because all have participated in its formation (participants have more energy for working in groups with which they are fully in agreement); and it lessens significantly the possibility that a minority will feel that an unacceptable decision has been imposed on them.

The characteristics of consensus described by Canada's National Round Table on the Environment and the Economy in 1993 correspond with successful components of local participation: purpose-driven, inclusive, voluntary, self-designed, flexible, fair, respectful of diverse interests, accountable, time limited (realistic deadlines are necessary throughout the process), and implemented (commitment to implementation and effective monitoring are essential parts of any agreement) (Roseland 1998, 184; Roseland 2000, 107-108).

## Products of Successful Local Involvement

*Education*

Education and empowerment of community residents are the greatest possible supports of long-term sustainability. Education at the start of a new project requires explanation of new limits, terms, and purposes. Many examples find that community members who are "unclear as to the meaning of terms like ecology and conservation, and uncertain as to what purpose is being served by the declaration of the protected area, are deferring to the instructions of those whom they consider to be the experts" (Calegari 1997, 12). Henceforth, education may include specialized environmental education, and an emphasis on experiential learning (Stea and Coreno 1997). Education also refers to the ability of the community to communicate the significance of its culture and local

environment to outsiders (Morales 1998). A community may do this through crafts, foods, ceremonies, and informative displays and tours.

*Empowerment*

The greatest difference between participatory and non-participatory community development projects is that in cases of the former, members of the local community grow in empowerment. Regina Scheyvens (1999) discusses a theoretical framework for examining economic, psychological, social, and political empowerment. This framework, presented in Table 3.3, lists characteristics to guiding evaluation of the level of a community's empowerment (Scheyvens 1999, 247). For example, several families benefit from development profits and some profits are applied towards continued improvements in an economically empowered community. Psychological empowerment acknowledges the value of self-esteem and confidence developed through educational and economic opportunities and when others value the local culture and environment. Socially, an empowering development project unites members within the community. Finally, a representative political structure that encourages equal involvement and individual expression of opinions signifies political empowerment. It is significant to note that characteristics outlined by this framework align with variables identified in the conceptual model.

Table 3.3

Framework for Determining the Impacts of Ecotourism on Local Communities

| Type of empowerment | Signs of empowerment | Signs of disempowerment |
| --- | --- | --- |
| Economic | Lasting economic gains<br>Shared profits<br>Used for improvements | Small, spasmodic gains<br>Select few profit<br>Profits leave community |
| Psychological | Outside recognition of<br>culture, environment<br>increases self-esteem<br>leads to search for<br>educational, economic<br>opportunities<br>status for women, youth, etc | Suffer from reduced access<br>to environment |
| Social | Community equilibrium<br>Cohesion<br>Community projects | Disharmony<br>Disadvantaged suffer<br>Compete for profits<br>Resentment, jealousy |
| Political | Representative<br>Discussion forum<br>Shared decision-making | Autocratic, self-interests<br>Passive beneficiaries<br>No voice to effect change |

Local participation empowers people by valuing their perspectives, cultivating a voice by recognizing their knowledge. Empowerment increases involvement, and vice-versa. The prospects for sustainability are increased in communities that are empowered by "the ability . . . to influence the outcome of development projects such as ecotourism that have an impact on them" (Drake 1991, 132) and the ability to "control over the decisions affecting [their] own community" (Stea 1990, 73).

When Scheyvens' theory is applied, the first step in creating an empowering environment is supporting community decision-making. Often "people lack the appreciation of their own power to affect change" (Calegari 1997, 12). Once a community begins brainstorming solutions for a small common problem, the small problem becomes perceived as surmountable, the group becomes cohesive over a shared strategy, and increased confidence targets larger tasks. Through the development of feelings of self-competence, the community increases its sense of control.

Women in developing areas, particularly, experience increased empowerment as they become included in small-scale ecotourism development (Walker et al. 1998, 211). Several women-only tourism organizations have enabled an interchange among women, transforming their "attitudes and lives" and "by extension, societal attitudes toward women" (Walker et al. 1998, 212). Women who have been isolated in remote areas such as mountain villages "have long been engaged in tourism in ways that overlap with their domestic responsibilities; they provide home-cooked meals and hospitality for guests staying in their homes. . . . However, not until the latter years of the second millennium have increasing numbers of women been gaining the knowledge, skill and confidence to create enterprises across mountain regions and to transform domestic

production into public earning" (Walker et al. 1998, 213). Thus, women begin to assert greater control over their own lives and earn respect and leadership roles within their communities.

Zimmerman and Rappaport (1988) describe empowerment as "a sense of personal competence, a desire for, and a willingness to take action in the public domain". Thus empowerment decreases alienation and increases leadership tendencies (Zimmerman and Rappaport 1988, 726). Evaluation of the effects of community participation may be qualitatively measured by surveying for "favorable change in people's self-concepts, their perception of their neighbors, their desire and ability to work in groups, and their urban image" (Stea and Coreno 1997, 6). Other signs of empowerment through community participation include such social aspects as changes in attitudes towards personal abilities, environmental health, and cultural pride (Stea and Coreno 1997, 7). A community that is strong in these areas has a greater chance for successful project planning and implementation.

CHAPTER 4

METHODOLOGY

This research is an example of using a micro-geographic approach to describe a

community's response to a phenomenon, or change in environment. The "intensity" and

"exactitude" of micro-geography (Blaut 1953, 37) promotes a detailed understanding of

the cooperative members' behavior and feelings within the historical and cultural context

of their community. Phenomenology is appropriate for this study because this approach

describes people's holistic reaction to a change in their environment, attaching meaning

to their experience of their "life-world" (Lash 2001, 51; Li 1999, 866; Holstein and

Gubrium 1998, 138). Furthermore, a phenomenological approach answers *what* and *how*

using information given by the people interacting within the setting of the research

question (Atkinson and Hammersley 1998, 111; Lash 2001, 50). Fieldwork is based on a

site-specific design with a twelve-person sample group. Therefore, a compilation of the

women's individual experiences and perceptions creates the best knowledge base for

comprehension of the cooperative's evolution and its influence on daily life.

Data is collected in two ways: 1) by individual in-depth interviews and 2) by on-

site observation (Fetterman 1989; Webb et al. 2000). All twelve available current

members of the women's cooperative in Alta Cimas were asked the questions in

Appendix A. All interviews were done in Spanish. Questions may have been re-worded

with special consideration to appropriate level and style of language. A key informant

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(Rosanna [M8]) introduced the interview participants and purpose. Interviews were done at participant homes and at the cooperative store and restaurant.

Observations made during the initial site visit during November 15-21, 2001 support the conclusion that this women's cooperative is a successful example, according to criteria stated earlier in the research question. This visit also guided evaluation of the appropriateness of research methods and interview questions. Moreover, successful contacts were established with three female key informants in Gomez Farías, Alta Cimas, and San José and all agreed upon a return date for study during January-February 2002.

## On-site Observation

Site observations record who works at the cooperative, when they work, and what work is included, related to questions of involvement and flexibility. Other observations include descriptions of what the cooperatives have established for tourists and types and amounts of tourism activity, including where tourists come from, how long they stay, and what they do during their stay. Observations aid in describing the physical setting and cultural character of the *ejido*. Some conclusions are drawn through comparison with the dormant cooperative in the *ejido* of San José, consisting of seven homes.

## Interviews

Interview questions are written to correspond with expected components of successful cooperatives as outlined in the conceptual model. The objective is to compare the characteristics of the Alta Cimas cooperative with characteristics of successful participation established in the current literature. Ages and number of children are also recorded.

Table 4.1  Framework for Interview Questions

| Characteristics | Question |
|---|---|
| **Involvement -** <br> Voluntary, inclusive <br> Who, why | **Who participates? Who does not? Why?** <br> Do you work in the cooperative? <br> How long have you worked in the cooperative? <br> Why did you decide to work in the cooperative? <br> Are there people who worked and no longer work? Why? |
| **Involvement –** <br> What, how <br> **Organization –** <br> Represents interests <br> How | **What do participants do?** <br> Which jobs do you do well? <br> Which jobs do you like most? <br> What do you do in your free time? <br> What positions have you/do you have? |
| **Involvement -** <br> Throughout stages <br> How <br> When <br> Inclusive <br> **Organization -** <br> Self-designed <br> How (roles, scheduling) <br> Accountability, flexibility <br> Fairness <br> **Purpose** <br> **Education** | **When do participants participate? (work and meetings)** <br> How many days a week do you work? What hours? <br> When do the most tourists come? <br> Do you work more or do more people work? <br> Do you work when you are sick? Who does? <br> Have you attended a - group meeting , eco course, forum? <br> How do you know when there is a meeting? <br> During the meetings, does everyone talk or one person? <br> What do you talk about? <br> Is there a leader? <br> Is there someone who writes? <br> Other positions? <br> What do you do during meetings? <br> Do you think meetings help the group/*ejido*? |
| **Communication -** <br> Involvement - who <br> Inclusive <br> Self-designed <br> Level of community control | **Problem solving and decision-making** <br> Who do you tell when you have a problem with your work? <br> What do they do? <br> How does the group make a decision? <br> Are there rules? Who decided? Do they evolve? |
| **Purpose -** <br> Community empowerment <br> Ability to met purpose <br> Involvement | **Purpose** <br> Why do you have a cooperative? <br> Is the cooperative working? <br> Did all want the cooperative or only a few? <br> What would you be doing today if there was no coop? |

Table 4.1 continued

| Profit - <br> Shared <br> Fair <br> Invested | **Economic Profit** <br> Is part of the profit kept for group projects or is it all divided?  How is it divided?  How often? <br> How much is kept? <br> Are there any future projects the cooperative would like? |
|---|---|
| **Education -** <br> Who <br> What <br> How <br> Why | **Education** <br> Will your daughters work in the cooperative?  At what age? <br> What do you need to know before starting work? <br> How do you learn this? <br> What do you know about the forest that you could teach tourists? |

## Photographic Research

Photographs add a personal dimension to research. They are realistic records that can illustrate social and cultural relationships and symbolic meanings (Collier 1967, 5 and 49; Fetterman 1998, 66). Photographs of products of community work, such as buildings and handiwork, are especially representative of cultural and environmental relationships (Collier 1967, 27). Documenting the process of production photographically may demonstrate roles indicative of social structure (Collier 1967, 30). Photographs also supply permanent references that support other data and aid the researcher during analysis.

## Human Subjects Protocol

Kvale (1996) recommends ethical guidelines to follow during fieldwork. When beginning a survey or interview of any form, the individual should be informed of the research purpose and design in culturally-appropriate language. Any possible consequences to the individuals and community that may result from research findings must be addressed. Interviewees should understand that they are giving voluntary consent and can refrain at any time. Confidentiality should be discussed. There is no need to know the names of survey participants in this research, therefore interviewees are numbered and assigned pseudonyms. (Kvale 1996, 112-117)

CHAPTER 5

DATA ANALYSIS

Preliminary field notes and key informant contacts were established during

November 17-21, 2001. During this initial site visit, four days were spent in Alta Cimas

and one in the neighboring *ejido* of San José.

Interviews and extensive field notes were collected in Alta Cimas between

Monday, January 21, 2002 and Wednesday, February 6, 2002. Frequent Spanish

responses are indicated by an italicized translation in succeeding parentheses. Contact

began with the key informant of the women's cooperative at the store on Tuesday,

January 22, 2002. Interviews began the following day at the sites listed in Table 5.1.

M1-M12 refers to the individual interviewees with all twelve current members. Names

listed and used throughout are fictitious pseudonyms.

Table 5.1  Interview Sites and Date

| Cooperative Member | Interview Sites | Date |
|---|---|---|
| M1 - Lucia | restaurant table | 23 January 2002 |
| M2 - Cristina | restaurant table | 23 January 2002 |
| M3 - Felicia | store window | 24 January 2002 |
| M4 - Claudia | store window | 24 January 2002 |
| M5 - Lilia | store window | 25 January 2002 |
| M6 - Sylvia | store window | 25 January 2002 |
| M7 - Gloria | outside cooperative | 26 January 2002 |
| M8 - Rosanna | restaurant table | 27 January 2002 |
| M9 - Nora | outside home | 28 January 2002 |
| M10 - Miriam | inside home | 28 January 2002 |
| M11 - Elena | outside home | 3 February 2002 |
| M12 – Antonia | inside home | 3 February 2002 |

The first ten interviews were conducted on six sequential days. The final four interviewees were interviewed at their homes because of reasons causing them to miss or exchange a day of work. Nora (M9) had a gallbladder operation and was unable to work for six months, (Miriam) M10 had a hurt back as well as a son needing an operation, Elena (M11) had to take her son to the hospital for several days, and Antonia (M12) had obligations at her own family store to fulfill. Therefore, these interviews were conducted towards the end of the field visit. In the meantime, initial interviewees were available at the store or home for additional clarifying discussion.

# Involvement

*Who is involved: demographic characteristics*

Table 5.2  Interviewee Characteristics

| Interview Order | *Name | Age | Married | # Children | *Children's' ages | *Time worked | Current position | *Past positions |
|---|---|---|---|---|---|---|---|---|
| M1 | Lucia | 31 | Yes | 2 | 1 girl -1 <br> 1girl -3 | 8 yrs | Treasurer | Yes |
| M2 | Cristina | 15 | No | 0 | n/a | 2 mos. | None | None |
| M3 | Felicia | 52 | Yes | 5 | 4 boys >14 <br> 1 girl – 12 | 8 yrs | Consejo de Vigilancia | Yes |
| M4 | Claudia | 28 | Yes | 3 <br> pregnant | 1 girl – 4 <br> 2 boys –2,6 | 8 yrs | None | Yes |
| M5 | Lilia | 19 | No | 1 | 1 girl – 3mos. | 2 yrs | None- Acting secretary in place of mother | None |
| M6 | Sylvia | 32 | Yes | 4 | girls- 4, 8 <br> boys –10, 13 | 8 yrs | None | Secretary Store manager |
| M7 | Gloria | 64 | Yes | 5 | >21 | 8 yrs | None | Consejo de Vigilancia |

| M8 | Rosanna | 38 | Yes | 0 | n/a | 8 yrs | Promotore | President, Promotore Treasurer, Store Manager |
|---|---|---|---|---|---|---|---|---|
| M9 | Nora | 43 | Yes | 9 | girls – 19, 15, 12, 9, 3 boys – 14, 10, 7, 5 | 8 yrs | Secretary | Yes |
| M10 | Miriam | 42 | Yes | 5 | girls – 19, 17, 14 boys – 11, 7 | 8 yrs | Restaurant manager | 1$^{st}$ President Store manager |
| M11 | Elena | 51 | Yes | 10 | 9 boys > 7 1 girl - 4 | 8 yrs | President | President Store manager |
| M12 | Antonia | 41 | Yes | 4 | 1 girl – 16 boys – 14, 12, 8 | 8 yrs | Store manager | Secretary Store manager Restaurant manager |

*Names are pseudonyms.
*Several children's ages are approximate.  Female children <5 accompany mother to work consistently.
*Those working 8 yrs have worked since the cooperative beginning.
*Past positions are related specifically only when information was received during interviews.

The women's cooperative was begun by a group of seventeen women in 1994. Interviewees asserted that, in 1994, all women in the community were invited to participate in the cooperative (*invitar todos*) (Rosanna [M8], Miriam [M10], Elena [M11], Antonia [M12]). Lucia (M1), Rosanna (M8), and Nora (M9) remarked that only a small group joined because "not all want to work". The greatest number of workers at one time has been eighteen (Lucia [M1]). However, because some women have left the cooperative and others have recently joined, more than eighteen women in the community have participated in the cooperative.

There are currently twelve workers, who range in age from 15 to 64. The youngest acceptable age for entrance into the group is fifteen. A member must be at least eighteen to hold a position. Interviewees consistently explained that one younger girl about thirteen worked for a few months and left feeling it was too much work.

10 of the 12 current members have been involved since the cooperative's founding in 1994. The youngest two members, Cristina (M2) and Lilia (M5), ages 15 and 19, have worked two months and two years, respectively. When a member leaves, she attempts to find a person to replace herself. This may be a relative or friend, or another woman invited by another member (*socia*).

All but the youngest member and the key informant have children. In Alta Cimas, school attendance is divided into three age groups. Children ages 3-5 attend the preschool in the morning. All seven of these students observed during the extensive field visit were male. Grades 1-3, roughly ages 6-8, attend the primary school in the mornings. Grades 4-6, roughly ages 9-12, attend the primary school in the afternoons. Otherwise, if it is not possible to leave children at home with another family member, children may

accompany women to work, playing in and around the outskirts of the cooperative throughout the day.

Figures 5.1 and 5.2  Alta Cimas'preschool and primary school
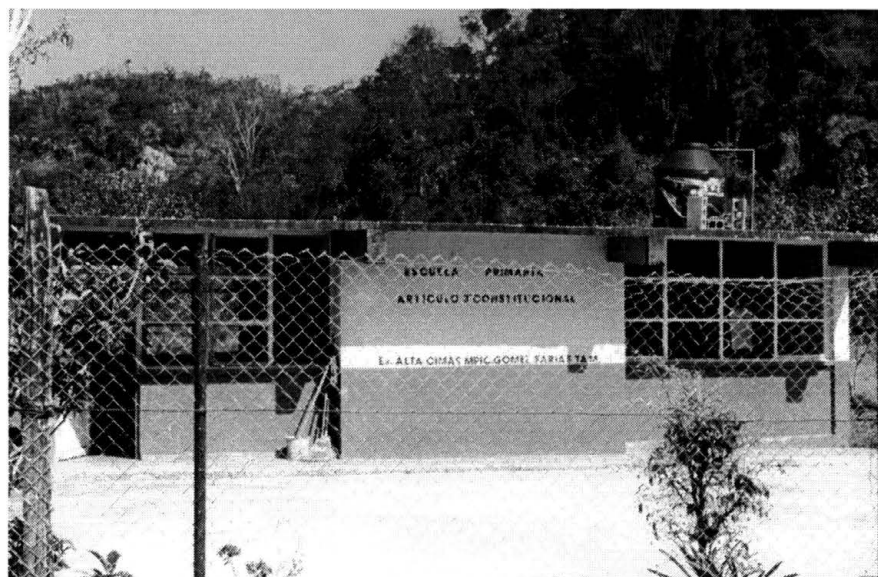




*Source:*  Personal photograph.  2002.

The following children were observed at the cooperative for a significant portion of the day during the field visit: Lucia's (M1) two daughters, Felicia's (M3) daughter (visiting with an infant niece), Claudia's (M4) youngest two children, Sylvia's (M6) two daughters, and Antonia's (M12) son (for lunch on a weekend). Lucia (M1) believes that bringing daughters and nieces during the workday will influence whether they will work in the cooperative in the future. Others disagree with having children at the cooperative because young children have caused problems, breaking jars of marmalade and creating messes (Lilia [M5], Elena [M11]). Lilia (M5) believes that it will be her own children's choice whether they would like to work in the cooperative. She expresses the view that it is best if you work only if you so desire (Lilia [M5]).

Figure 5.3

Members' Responses: Predictions for Own Children Working in Cooperative
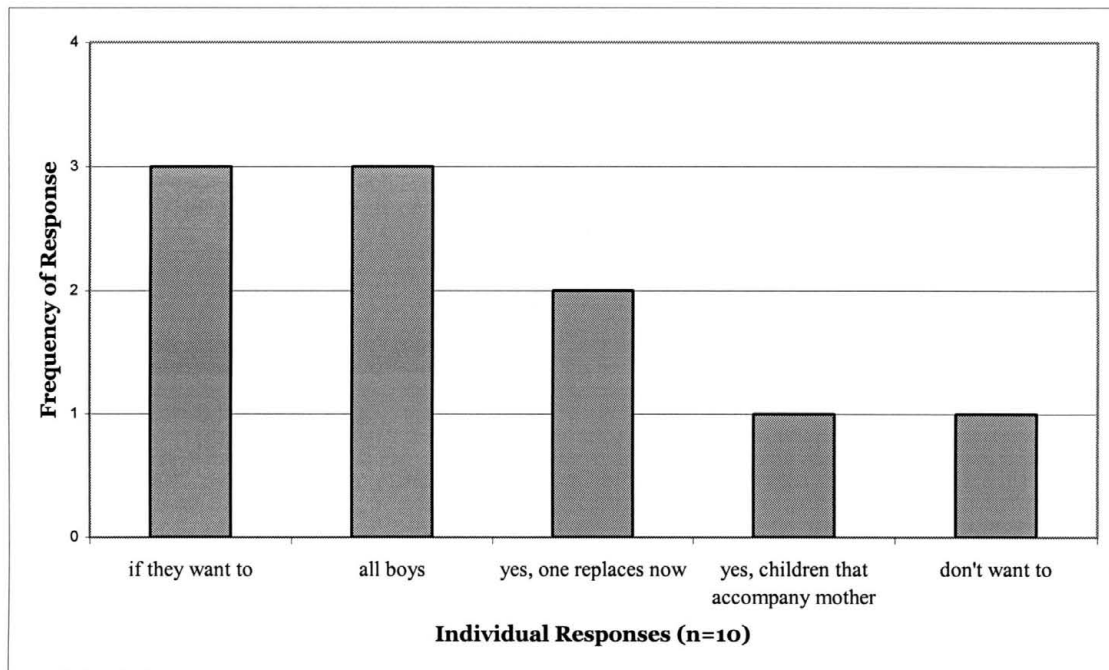
*Who is not involved*

Seven women were named as having worked in the past but no longer working in the cooperative. These women have all returned to their homes, mostly to take care of young children (Lucia [M1], Cristina [M2], Lilia [M5], Gloria [M7], Miriam [M10], Elena [M11], Antonia [M12]), and three leaving upon marriage (Rosanna [M8]). Lilia [M5] states that some women's husbands do not allow them to work outside of the home. Lucia (M1), Gloria (M7), and Elena (M11) discussed women quitting the group because they felt it was too much work. Recently, some women have left the group because the cooperative has been experiencing little patronage, and therefore the amount of work exceeds the amount of monetary reward (Elena [M11]).

It remains unclear whether there exists another demographic characteristic that divides the community over the involvement variable. Membership is not divided so that only particular families in the community are involved while others are excluded (Elena [M11]). Perhaps Lucia (M1) best expresses the question of involvement: "because others don't want to work and it takes a lot of time. It is to hard to have a group because not all have the same opinions".

Figure 5.4  Immediate Family Relations Between Cooperative Members

Lucia (M1) - Rosanna (M8)  ◄——  sisters (family of 11 siblings)

↑ sister-in-law          cousin

Claudia (M4)                      Sylvia (M6)


Gloria (M7)  ◄——  Mother  ——►  Nora (M9)

|                                        |

Miriam (M10)  ◄—  Daughter  —►  Lilia (M5)
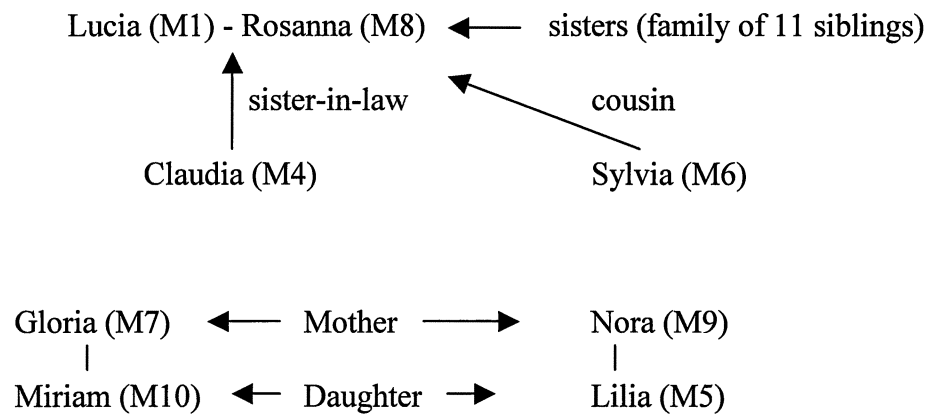
*Reasons for involvement*

The women who work at the cooperative express their involvement as a personal choice. Overwhelmingly, the women expressed a need for the work because the families otherwise had no resources, as the only other job was the collection of *palmilla* (Felicia [M3], Claudia [M4], Rosanna [M8]). Moreover, Lilia [M5] needed money to support a new baby, and Gloria's (M7) and Miriam's (M10) husbands were unable to work because of physical maladies. Lucia (M1) answered simply that this avenue fulfills a desire to work, to earn extra money for the family. As the youngest, Cristina (M2) desires the money to be able to purchase clothing independently. Those who placed less emphasis on financial need said they became involved to fill free time (Sylvia [M6], Nora [M9], Antonia [M12]) and because there are no other opportunities for community and social involvement.

Figure 5.5  Given Reasons for Cooperative Membership
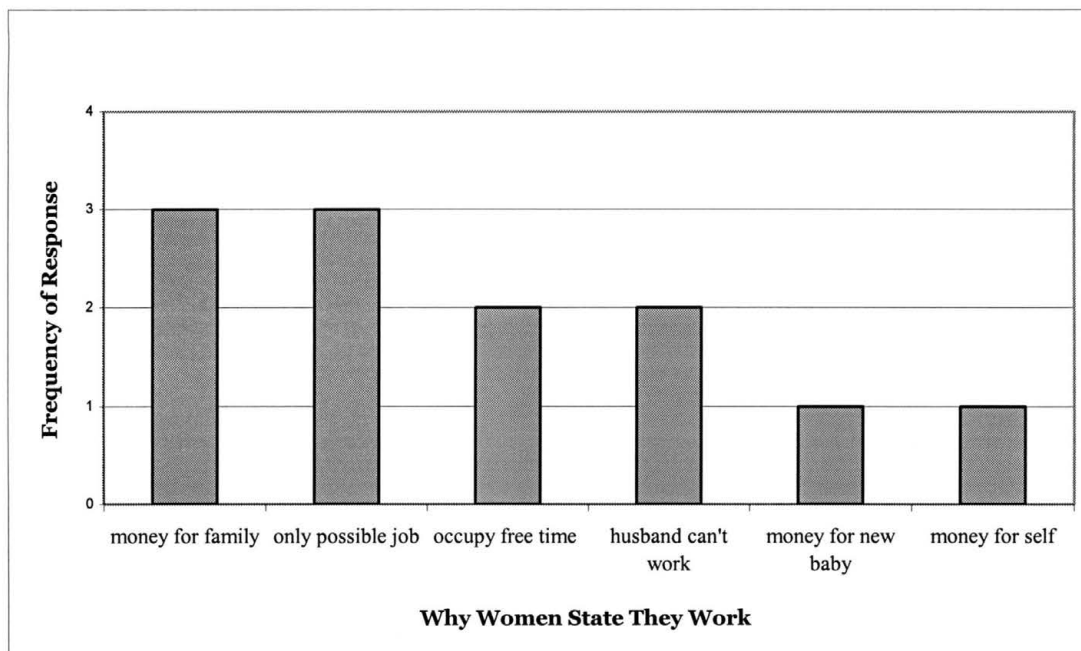
## Organization

*Work responsibilities*

The twelve women are divided into six pairs or partners (*compañeros*). Two women, or one pair, work at the cooperative daily. They prepare and serve the ordered meals jointly. There were two meal choices available between January 22, 2002, and February 5, 2002: egg and potato tacos with black beans or egg and sausage (*chorizo*) tacos with black beans, except for the two days when Rosanna (M8) worked and served *nopal* (a type of cactus) tacos. The women also crush native peppers for a salsa.

During the average, off-peak workday, the women can be found embroidering and chatting in or in back of the store (depending on weather) for several hours midday. The last hour of the workday, approximately, is the busiest. Three types of inventory are required daily. The first is a record of all items sold during the day and their prices. The second is a full inventory of stock in the store. The third is an inventory of food supplies, including Coca Cola and coffee. Work partners depend on one woman having the ability to read and write and perform simple math (*computación*) in order to be able to keep these records. This woman calculates the records (*cuentas*) and reports to the store owned by Antonia's (M12) family to purchase any anticipated necessities for the following day, such as eggs, beans, or tomatoes. The other woman commits more time towards a final cleaning of the kitchen, restaurant, and store, including sweeping and washing sidewalks, tables, chairs, and shelves.

*Work schedule*

Cooperative members attend the store and restaurant daily between 9:00 am and 5:00 pm. The pairs rotate sequential workdays so that each pair works once every six days, and then the pattern repeats itself. Each of the six groups has two support pairs (*apoyos*). As illustrated in Table 5.3, Group 1 is supported by Group 3 and subsequently, when needed, by Group 5. Correspondingly, Group 2 is supported by Group 4 and, when necessary, Group 6.

Table 5.3 Established Pairing and Work Schedule

| Group | Partners | Supports |
|-------|----------|----------|
| 1 | Rosanna (M8) and Nora (M9) | |
| 2 | Elena (M11) and Antonia (M12) | |
| 3 | Lucia (M1) and Cristina (M2) | |
| 4 | Felicia (M3) and Claudia (M4) | |
| 5 | Lilia (M5) and Sylvia (M6) | |
| 6 | Gloria (M7) and Miriam (M10) | |

When one of the women is unable to work, she (1) asks her partner for permission to leave, and (2) asks her support to switch workdays. In place of an established support, a woman may also chose a family relation, who may or may not be an established member, to replace her (Cristina's (M2) grandmother, Lilia's (M5) sister, Rosanna's (M8) sister, Nora's (M9) daughter). This was a very frequent practice during my field study. If the woman is unable to switch days and make up the work time during the month, she does not receive equal pay. However, filling the responsibility with a family member keeps the profit within the family.

Table 5.4 Observed Pairs with Substitutions

| Date | Partners | |
|------|----------|---|
| January 23, 2002 | Lucia (M1) and Cristina (M2) | |
| January 24, 2002 | Felicia (M3) and Claudia (M4) | |
| January 25, 2002 | Lilia (M5) and Sylvia (M6) | |
| January 26, 2002 | Lilia (M5) and Gloria (M7) | |
| January 27, 2002 | Lilia (M5) and Rosanna (M8) | |
| January 28, 2002 | Felicia (M3) and Sylvia (M6) | |
| February 1, 2002 | Cristina (M2) and Nora's daughter (M9) | |
| February 2, 2002 | Elena (M11) and Antonia (M12) | |
| February 3, 2002 | Claudia (M4) and Lilia (M5) | *monthly meeting day |
| February 4, 2002 | Lucia (M1) and Cristina (M2) | |
| February 5, 2002 | Felicia (M3) and Claudia (M4) | |

The number of women who work per day depends on the number of tourists. Most days, a single worker pair is sufficient. However, if a group of six tourists or larger, or four groups/families of tourists arrive, the supports (*apoyos*) are called to help prepare food. This is accomplished simply by one of the workers walking to, or sending a child to, the supports' homes. In order of response frequency, the busiest tourist times are during Easter week (*Semana Santa*), Christmas vacation, summer school vacation, and long weekends. During the busiest times, such as during Easter week (*Semana Santa)*, half of the group, or six women work each day, and rotate days. During these times, the women acknowledge, and are prepared, to meet the demand.

During both of my field visits, I was the sole restaurant patron during the weekdays, Monday through Friday. During the last weekend of January 2002, one young man ate and a young couple had Coca Colas on Saturday. During the first weekend of February 2002, which was a three-day weekend in celebration of the Day of the Constitution, a young couple, one man, and four young men ate on Saturday, a group of approximately ten university students ate on Sunday, and a couple ate on Monday. Many other tourists, mostly large truckholds of Mexican university students and urban couples, passed through Alta Cimas without eating in the restaurant.

The work schedule is affected by seasonal rhythms in two ways. The first is by the impact of holiday seasons, notably summer break. The second is by the timing of crop harvests. When the fruit trees are ripe, all women meet to prepare marmalades and jarred fruit. Fruits harvested by the women include apples, peaches, and loquats. These fruits grow throughout the community. Loquats are ripe in February, apples in April-May, and peaches in August. The women invest from one weekend to two three-day

periods for the preparation of marmalades, depending on the amount of fruit available and the number of women aiding the process.

Additionally, once a month, or more often if needed, all members meet to clean the entire cooperative area. This includes collecting trash on the interpretive trail behind the cooperative, *Cerro de la Cruz*, and dusting and washing all items (dishes, chairs, walls, windows) inside and outside the restaurant and store. Attendance on these days, as well as during fruit preparation, is taken by the *consejo de vigilancia* (explained in the following section) and figured into the distribution of profits.

*Positions*

There are seven titled positions within the cooperative: president, secretary, treasurer, store manager (*jefe de la tienda*), restaurant manager (*jefe del restaurante*), counsel of the watch (*consejo del vigilancia)*, and promoter (*promotora*). Current and past positions are listed in Table 5.1. The president is described as the coordinator who must oversee, evaluate, and plan all activities by the month (Rosanna [M8] and Elena [M11]). In the words of Elena (M11) the current president, the president must "have very big brain". The secretary transcribes what is discussed only during the monthly group meetings. The treasurer consolidates the daily inventories (brought to her by the heads of store and restaurant) and creates a report for monthly meetings. The report is read through during the meeting, stating each date, the amount sold, and the total amount sold for the month. The treasurer divides profits and each woman approaches in turn to receive her pay. The head of the store keeps track of the daily store inventory notes and is in charge of replenishing needed materials. During off-peak times, the head of the

store can manage this job during her regular workday. During busy times, such as Easter week, she must check nearly daily to see what needs replenishing, especially Coca Colas (Elena [M11]). The head of the restaurant is a similar position except that she keeps stock of restaurant supplies.

The title *"consejo de vigilancia"* does not translate well into English. This woman's job is to keep track of the women's work hours, marking daily work arrival and attendance, as well as participation in monthly cleaning days and fruit canning periods. Lastly, the *promotora* coordinates and organizes jobs and activities by overseeing the functioning of the cooperative. She assembles all records and monthly meeting notes, serving as an historian. Specifically, she collects and communicates records of how many maps, books, and pamphlets are sold, as these are printed by *Pronatura*. All of these responsibilities culminate in close work with Sergio Medellín and *Pronatura* to create and submit written requests for financial support. There are seven *promotores* throughout El Cielo, including a *promotore* for the male cooperative in Alta Cimas, and representatives in other *ejidos*. As the link between the non-profit organization and the community, the *promotore* invites all community members to meetings announced by Medellín and serves as a spokesperson, communicating community needs. The *promotore* coordinates what community members decide as subjects they are interested in learning about during ecotourism courses. Medellín heads the organization of ecotourism courses and yearly forums. He informs the *promotores* of meeting times. During meetings, he brings a notebook and asks questions (Elena [M1]).

All women who have been involved since the cooperative's initiation in 1994 have held positions within the group. Positions are determined every two years, in a

system that includes voting based on expressed desire and rotation. Only the two youngest and newest members, Cristina (M2) and Lilia (M5), have not held positions. A member must be at least 18 years old to hold a position.

*Rules and new membership*

Cooperative members acknowledge an unwritten list of rules of work conduct that are discussed during meetings. These rules have more or less evolved. They are passed on to new members during the training. New members must attend one day of work with each of the six pairs over a period of a month. At the end of this period, the group evaluates the best partnership for the new member.

*Meetings*

Table 5.5  Types of Meetings: Frequency, Structure, and Purpose

|  | Frequency | Who attends | Who leads | How notified | Purpose |
|---|---|---|---|---|---|
| *Monthly reunions*: | First Sunday of each month | All group members | President or *promotora* | Members know frequency | Review month's work, amount sold, materials needed, discuss group problems |
| *Ecotourism courses:* | Requested, when needed, have a project | Any interested female and male cooperative members | Sergio Medellín or specialist in knowledge area | Medellín invites *promotores, promotores* invite community | Learn about principles of ecotourism, tourist needs, forest information |
| *August forums:* | One week each August | Anyone interested throughout El Cielo | Medellín | Invited, aware of yearly meeting | Combination of above two in larger format, other reserves |

The above table presents the frequency, brief organizational structure, and purpose of the three types of meetings. Although the president, *promotora*, and Sergio Medellín are identified as leaders, all women expressed that more than one member speaks during the meetings. Some answered that all speak (Cristina [M2], Claudia [M4], Rosanna [M8], Elena [M11], Antonia [M12]), others answered that some speak and some don't (Felicia [M3], Sylvia [M6], Gloria [M7], Nora [M9], Miriam [M10]). Through observation, and in conjunction with position status, this variable reflects personality types. As in any group, some individuals display a leadership tendency, others a tendency towards mediation, and others quiet, reflective, analysis. Women described their role as listening (Lucia [M1], Cristina [M2], Felicia [M3], Claudia [M4], Sylvia [M6]), asking questions (Cristina [M2], Felicia [M3], Claudia [M4]), and giving opinions (Felicia [M3], Claudia [M4], Antonia [M12]).

During the observed February group meeting, the *promotora* led by reading and writing notes. A few women's voices were dominant (Lucia [M1], Rosanna [M8], Elena [M11], Antonia [M12]) and a few seldom spoke (Felicia [M3], Claudia [M4], Sylvia [M6], Gloria [M7]). The only other reader and writer was Lilia (M5), who was filling in for her mother, Nora (M9) the secretary. There were times when one person talked, times when a few women were in an uproar, another when laughter dominated, another when one woman was asked a direct question. All were seated in a rough circle and some tended female children younger than four years old. Two women continued to watch for, and prepare food for, tourists. All women are needed to prepare food for the large number of attendees to the August forums, with many attendees arriving from outside of Alta Cimas. Claudia (M4), Gloria (M7), and Miriam (M10) cited this as a reason why

they do not attend forums.  It is unknown whether these women chose the responsibility of cooking and did not have a high interest in attending the forums, or whether this responsibility is assigned according to individual skills.

Figure 5.6  Physical arrangement of cooperative members in shade of kitchen,

during monthly meeting, February 3, 2002

———————————————— Kitchen wall ————————————————

◄——————— Benches ———————►

Writing notes          Rocking child          Reading and writing          Clarifying, expanding

| Claudia (M4) | | Lilia (M5) | Felicia (M3) | | Rosanna (M8) | | Antonia (M12) |

table

Lucia (M1)          embroidering

Gloria (M7)          plant          Elena (M11)          Sylvia (M6)

Nora's (M9) daughter                                    embroidering          embroidering

Watching for patrons
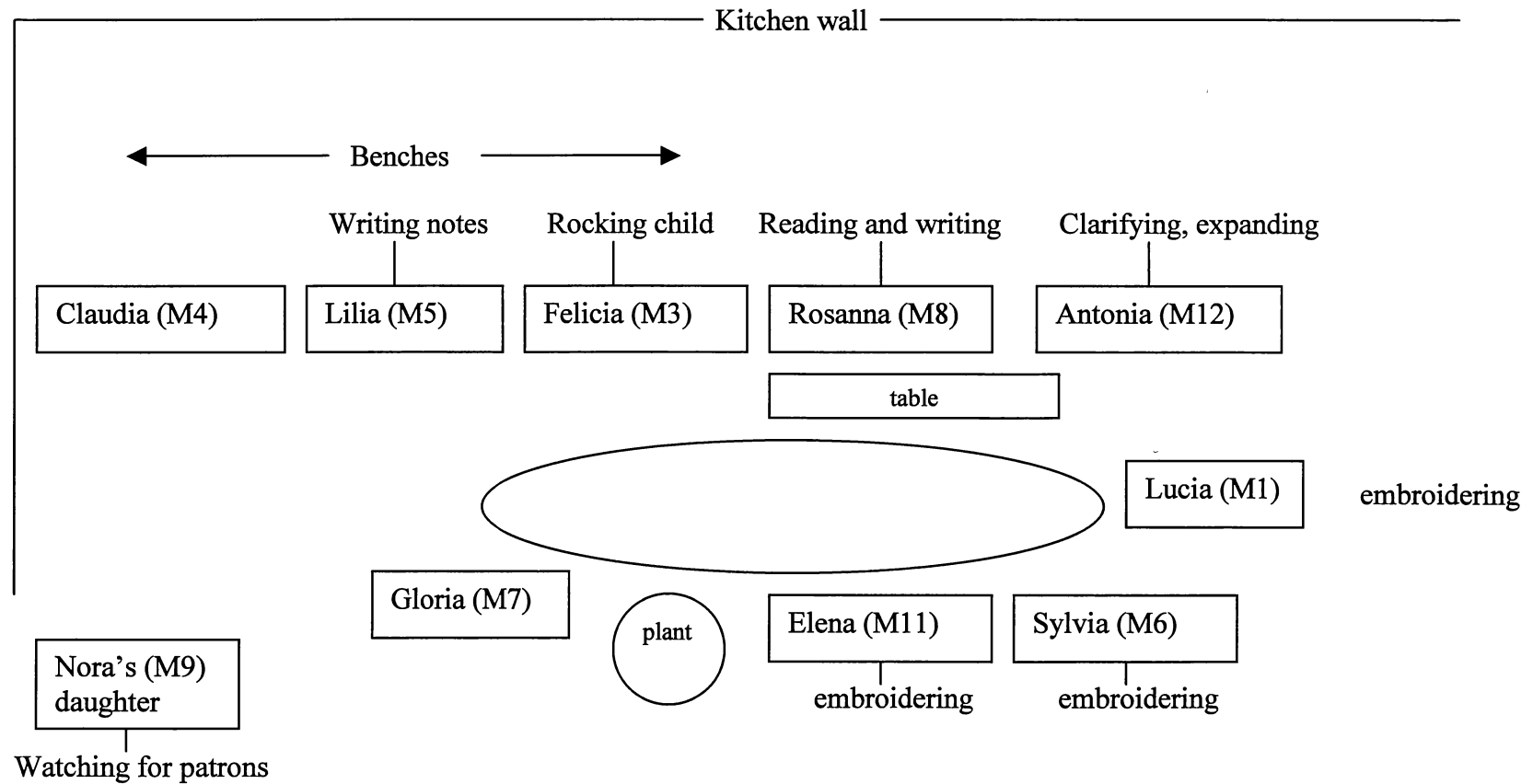
Ecotourism and forum meetings include role-play. Lucia (M1) mentioned playing the role of a guide, even though this is designated by Rosanna (M8) as a male job because it requires lots of strenuous walking over significant distances.

## Utilization of Available Resources

The women trace the origins of the cooperative to the community diagnostic conducted in February and March 1994 by Sergio Medellín in affiliation with *Terra Nostra A. C.* (now *Pronatura*). During these community workshops, Medellín emphasized the women's knowledge and enjoyment of embroidery. Thus, Medellín suggested the women sell their embroideries during Easter week (*Semana Santa*) when the highest number of tourists visit Alta Cimas. Pictures of native plants (orchids, mushrooms) and animals (jaguars, bears, hummingbirds, guacamayas) decorate t-shirts and cloth napkins. Additionally, the women credit Medellín for teaching the process of canning local apples and peaches, preserving fruit jams, and preparing fruit liquor. These are the types of products that were sold when the store first opened on April 16, 1994 (Gloria [M7], Rosanna [M8]). Presently, a small fenced area next to the store displays plants for sale by individual women members. Sylvia (M6) and Rosanna [M8] specifically expressed an affinity for planting in their free time.

Several responsibilities required during a workday at the cooperative mirror those demanded at home. Women cited cooking, cleaning, and washing as activities they were good at and those they needed to perform at home in free time. Thus, skills required for daily living are applied for profit.

Table 5.6 Cooperative Members' Responses:

Work Activities Done Best and Enjoyed Most in Comparison with Free Time Activities

| Interviewee | Work activities done best/most enjoyable | Free time activities |
|---|---|---|
| Lucia | cooking, washing | embroidery |
| Cristina | understanding tourists, canning, embroidery | computation |
| Felicia | canning, liquors, embroidery | embroidery, clean, childcare |
| Claudia | canning, liquors, embroidery | embroidery, clean, childcare |
| Lilia | all, marmalades | washing, cooking, home responsibilities |
| Sylvia | conserves, talking with partner | embroidery, planting |
| Gloria | weaving (embroidery borders) | care for chickens |
| Rosanna | all, marmalades, cooking, cleaning | embroidery, planting |
| Nora | all | embroidery |
| Miriam | embroidery, marmalades | embroidery |
| Elena | all | embroidery |
| Antonia | all, understanding tourists, marmalades | embroidery |

## Communication

Communication occurs between work partners, between support partners (*apoyos*), among women in informal groups, and in whole group meetings. All women indicated that they chose to tell the president if they had a problem with their work. Sylvia (M7) also mentioned telling the treasurer. When problems arise, the president then calls a group meeting where the problem is discussed among all members (*socias*) until they can agree on a solution (*si acuerda* = if one agrees, we find a solution).

The manner in which women solve their problems demonstrates the nature of the women's decision-making process. Consistently, the women's initial response to how they make decisions is through whole-group (*todos juntos*) discussions. They use the words *platicar* (to chat, discuss) and *acuerdos* (agreement). Some add that they look for the best idea or strive for the majority. When asked if they ever vote, women added they sometimes vote by majority (Felicia [M3], Sylvia [M6], Gloria [M7], Nora [M9], Miriam [M10]). Their descriptions of the process include:

"Say what you can do, think and see if others agree" (Lucia [M1]).

"All tell ideas, if you have an idea see if others agree, until the whole group decides" (Cristina [M2]).

"I believe that all talk and understand" (Lilia [M5]).

"It is necessary to talk to find a solution, otherwise we don't understand" (Gloria [M7]).

"When we are altogether, we chat (*platicar*) and solve the problem that there is" (Nora [M9]).

"We have a meeting, talk with the president, and find a solution by telling comments and agreeing" (Antonia [M12]).

## Profits

Monthly profits are divided into two parts, in equal halves (*la mitad*). One half is distributed according to the amount worked by each member. The other half is used to replenish restaurant ingredients and buy materials for the store. The governmental organizations, including US Fish and Wildlife, and non-governmental organizations that support *Pronatura* projects fund large purchases, such as new chairs and tables. The cooperative president added that supporters of the cooperative added the sidewalk in front of the restaurant and store last year. Additionally, the current president acknowledged assistance in the creation of a new garden plot next to her home. This year, the women hope to ask for improvements for the community's homes, feeling that the cooperative has sufficient resources. Sergio Medellín receives credit for facilitating the installation of solar panels and running water (through pipes from a distant spring) throughout the community.

A commonly-desired future project that would enhance the cooperative is to raise the height of the store ceiling so that more embroidered items can be displayed with greater organization and clarity. Elena (M11) and Antonia (M12) also mentioned a garden area for cultivating vegetable seeds.

The women's cooperative of Alta Cimas also gives financial support to cooperative efforts in the *ejido* of La Gloria. La Gloria's efforts have been realized so far with a short interpretive trail, the building of an environmental interpretation center, and a seamstress workshop. This financial support is in addition to social and educational

support provided by open invitation throughout El Cielo to ecotourism courses and

August forums that meet in Alta Cimas.

Figure 5.7  La Gloria's cooperative sign



"Environmental interpretation center and seamstress. 'La Gloria'.
N.C.P. Emilio Portes Gil, Gómez Farías, Tamaulipas.  Work group
'United We Will Overcome'".

*Source:* Brian Tienert.  Personal gift.  2002.

## Education

Types of education necessary for the women to run a successful cooperative independently fall under three categories of knowledge: (1) daily responsibilities- cleaning, preparing food, reading and writing, computation, (2) how to understand and help tourists, and (3) environmental knowledge.

Daily responsibilities are learned both in the home and from other members. The youngest, newest two members, Cristina (M2) and Lilia (M5), cited the utmost importance of practicing computation learned from previous schooling.

Meetings address how to understand and help tourists (Lucia [M1], Cristina [M2], Sylvia [M6]) and "what tourists come to do" (Felicia [M3]). Sylvia (M6) admits she learns "how to be friendly so that tourists want to return". However, meetings also provide a time to discuss problems the community experiences with tourists (Antonia [M12]). Problems include leaving trash, destroying the area, bothering others, and leaving a negative impression.

Members recognize meetings as helping the group learn many things they otherwise wouldn't know (Lucia [M1], Sylvia [M6], Gloria [M7]). Thus, individual members have been able to develop skills in their interest areas. One individual may be a community historian and one a statistician, while others are certified guides on birds, plants, trees, and bees.

Understanding of the forest originates from growing up within the community and is developed during ecotourism courses and August forums. Lucia (M1) explains she is knowledgeable about the forest "because I've lived here all my life" and learned about

the forest from her father; about what is dangerous, what plants to take for healing, and which for nourishment.

Figure 5.8  What Members Credit for the Acquisition of Needed Knowledge
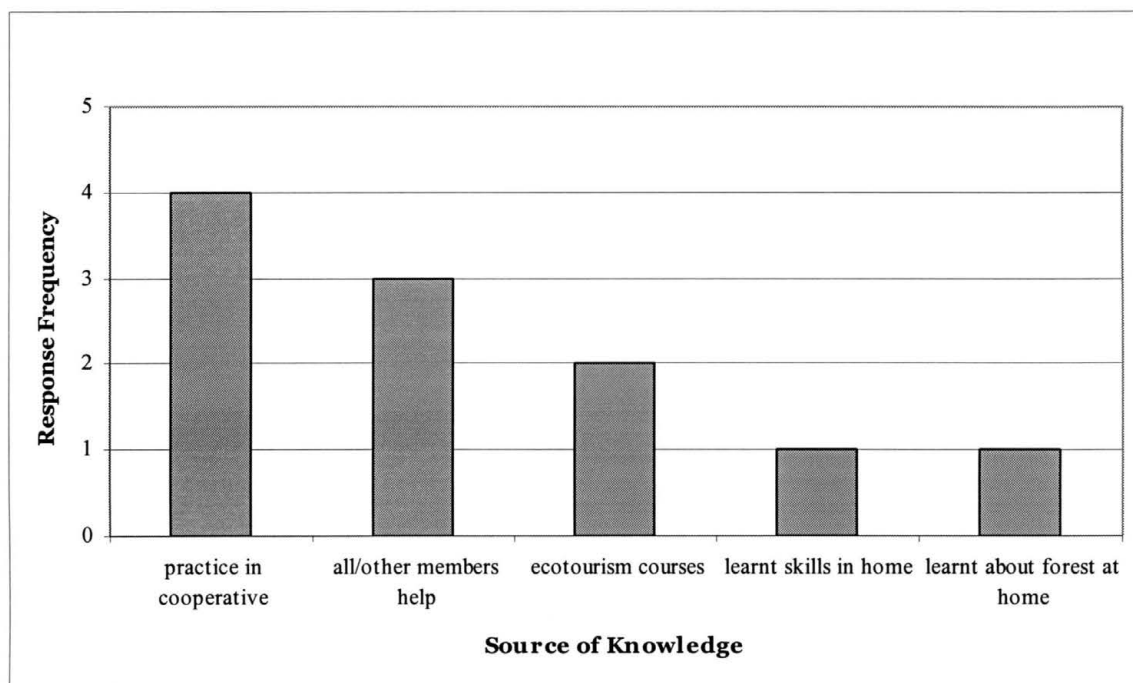
Training in principles of ecotourism is apparent. Women answered the question "what do you know about the forest that you can teach tourists" in one of two ways. One group of women described measures of preservation, usually beginning with a statement about taking care of the forest. Behaviors to be avoided, included in this list, are not setting fires, not cutting plants, not hunting (Miriam [M10]), and not leaving garbage (Felicia [M3], Claudia [M4]). A second approach to this question was to describe special knowledge of forest life. Women felt they could speak about plants (Elena [M11]), snakes (Elena [M11]), rocks (Felicia [M3]), and fossils (Nora [M9]). Several women also expressed that they knew how to keep tourists safe, telling tourists where to go and not to go, identifying types of plants having stingers, and imparting the location and characteristics of predatory animals inhabiting the forest.

Learning opportunities extend beyond the community on occasion. Antonia (M12) recounts a special course on processing marmalades that she and three other women attended outside of Veracruz, Mexico a few years ago. Additionally, trips for certification in forest life were mentioned by male cooperative members.

Figure 5.9  Members' Responses: Types of Forest Knowledge
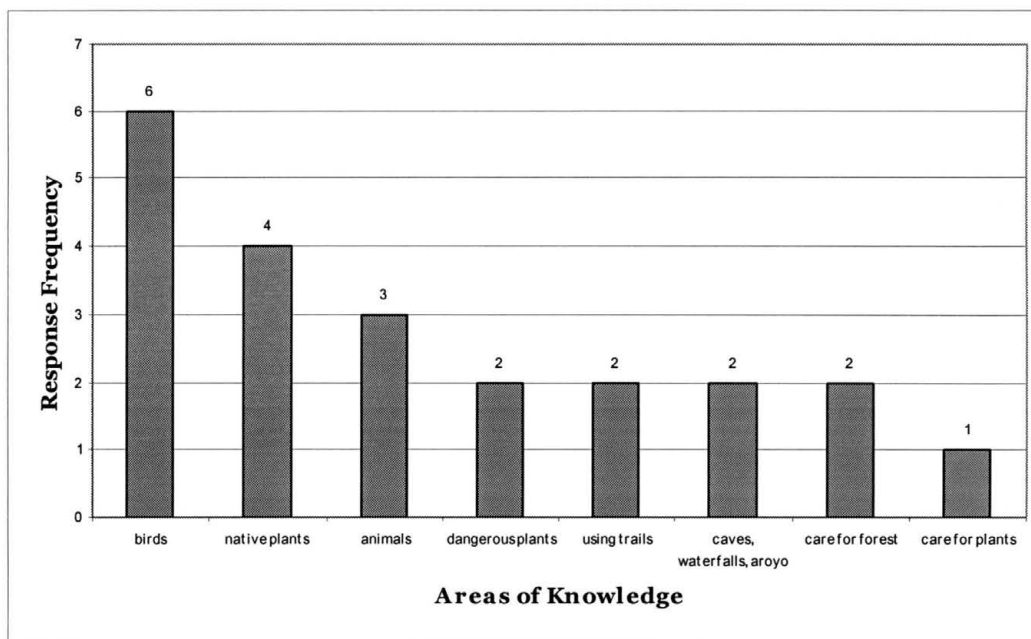
## Empowerment

The cooperative presents the sole opportunity for the women of Alta Cimas to work outside of the home. Although Cristina (M2), the youngest member, responded that she would be studying computation at an urban school, the remainder answered the following to "What would you be doing today if there were no cooperative":

"In my home, nothing more/else (*En mi casa no mas*)" (Lucia [M1], Sylvia [M6]).

"No other work (*No mas trabaja*)" (Felicia [M3], Claudia [M4]).

"Wash, iron, sew, take care of child at home (Lavar, planchar, coser, cuida mi niña en mi casa)" (Lilia [M5]).

"Nothing more/else, take care of animals at my home (*No mas, cuidan animales en mi casa*)" (Gloria [M7]).

"I don't know (*no se*)" (Rosanna [M8]).

"Nothing (*nada*)" (Nora [M9], Elena [M11]).

"Nothing more, no place (*nada mas, no lugar*) (Miriam [M10]).

"Cook, wash, embroider, the same as everyone else (Cocinar, lavar, bordar, la misma como todas)" (Antonia [M12]).

CHAPTER 6

DISCUSSION

**Introduction**

The interviews and site observations collected in Alta Cimas aim to evaluate the

level of the cooperative's ability to develop sustainability within the community.

Definitions of sustainability throughout published literature include environmental,

cultural, and economic dimensions.  The variables specifically examined in this field

study relate to the premise that local community participation throughout community

development project planning, implementation, and evaluation increase possibilities for

sustainability.  Following the conceptual framework (Figure 3.2), this discussion assesses

the categories of involvement, organization, communication, profit, and education.

Examples of fairness, flexibility and accountability are emphasized throughout this

analysis.

**Level of Success**

*Opinions of members*

The women of Alta Cimas provided their own direct input on the state of the

cooperative's success, particularly when answering Question 25, 'Is the cooperative

functioning?', translated to express 'Is the cooperative meeting its mission?'  The women

measure success in relation to amount of profit.  Most feel that the cooperative is

functioning a little (*un pequito pero si*) (Lilia [M5], Sylvia [M6], Gloria [M7]), more or less (*mas o menos*) (Cristina [M2]), or sometimes (*a veces*) (Nora [M9], Miriam [M10]). The cooperative is functioning when tourists come who give money for food (Lucia [M1]) and when the cooperative "helps to sell what we have, like embroidery" (Sylvia [M6]). Gloria (M7) elaborated upon wanting more tourists, answering whether the cooperative functions: "yes, when people come and buy sewings and eat, other times no one comes". However, this is a slow period in the cooperative's operation and some members feel it is currently unsuccessful because "some days they don't sell anything" (Lucia [M1]) and the women may take home as little as 50 pesos a month (roughly equal to five dollars U.S.) (Felicia [M3]). The women feel this is a lot of work for such little pay, and thus a few have left the cooperative (Antonia [M12]). Felicia (M3) and Claudia (M7) desire additional membership to diminish further the number of workdays required.

Table 6.1  Overview: Evaluation of Sustainability as Outlined in the Conceptual
Framework

| Variables | Specific Findings | Conclusion |
| --- | --- | --- |
| *Involvement -* | Community diagnostic, meetings<br>All invited<br>Demographically representative | Throughout stages<br>Inclusive |
| | Reasons to work/not work | Voluntary |
| | Work schedule | Fair, flexible,<br>accountable |
| | Type of work | Available resources |
| | Open meetings | Inclusive |
| *Organization –* | Pairs with supports | Flexible, accountable |
| | Positions – division of responsibilities | Use of available<br>resources |
| | Those worked longest bring children | Seniority |
| *Profit –* | Distribution by amount worked | Fair |
| | Small-scale reinvestment to replenish supplies | |
| | Dependent on large-scale funding | Lack of autonomy |
| *Communication –* | Negotiation, discussion, collaborative | Inclusive, fair |
| *Education –* | Site specific, need based | Use of available |
| | Teach each other | resources |
| | Dependent on interest and motivation | Empowerment |

*Involvement, Organization, Profit, and Communication*

Cooperative involvement exhibits characteristics for success. Answers to the questions "Why do you work in the cooperative", "Why have others who worked in the past no longer work", "Did all want the cooperative or was is it the idea of a few", and "Will your daughters work in the cooperative", indicate membership is voluntary. Participation is determined to be inclusive because member characteristics represent community demographics. Furthermore, community members have been involved with this development project since the idea's conception. The community diagnostic included approximately half of all adult community members. All of those present shared personal information and attitudes, including birthplace, number of children, positions held in the *ejido*, skills, preferred work, free time activities, and favorite food and music. Attendees participated in groups that sketched and acted out community problems and proposed solutions.

The organization of the cooperative has evolved through discussion, informally and in group meetings. Felicia (M3) and Rosanna (M8) declared that the meetings help the group to become more organized. The negotiation style of communication encourages back and forth discussion towards reaching an acceptable agreement (Ury, Brett, and Goldberg 1988, 6). Thus, although the level of the involvement during meetings varies among members, all are invited to participate equally. Since ten of the twelve current members have worked together for eight years, this core group has had an opportunity to establish a functioning group dynamic and build trust.

Cooperative members have identified and utilize distinct personality traits and skills. For example, those who answered that only some speak during meetings are

correlated with a quieter personality, and take the responsibility of preparing food and cleaning the kitchen and restaurant area. Others exhibit strengths in reading, writing, or math. Pairing maximizes positive partnership potential and takes advantage of these individual abilities. However, a hierarchy that affects work involvement and satisfaction is not apparent. Instead, members teach and develop one another's skills.

The impact of seniority was apparent in one instance during the field study. During an interview with Gloria (M7), Lilia (M5) began a discussion about women bringing young children with them to work. She expressed this as a problem because the children cause messes and break things. However, she said that she would not push this as something that needs to change because "the others have worked here longer and they have the right". This is also an expression of respect within the community.

The method of rotation of positions is a characteristic of fairness. The division of responsibility through these seven positions demonstrates how the cooperative members organize their involvement to meet their needs. The defined responsibilities foster accountability. The *consejo de vigilancia* directly traces accountability by marking attendance. Moreover, each member carries responsibility, for example, by tracking the amount of daily patron activity.

Profits from cooperative sales are distributed fairly according to the amount of time worked monthly. The flexibility allowed by worker substitution shapes an understanding of the responsibility necessary for earnings and displays inter-member reliability. This flexibility further reflects a characteristic of Alta Cimas families. Lucia (M1) explained that her husband stays home when she is not able to bring her children to work. Miriam's (M10) daughter served as a replacement worker for the six months until

she healed from her gallbladder surgery. The same 15 year old girl also replaces her sister, Lilia (M5), when necessary.

The most overt variable weighing against evaluating the cooperative as sustainable is the necessary dependence on outside funding for large-scale improvements. The women express appreciation for the help, acknowledging Sergio's instrumental aid in the realization of the cooperative and citing international funding for the store, restaurant, and kitchen building and for bringing water and solar power to the homes.

In Alta Cimas, cooperative members arrive at decisions by a collaborative approach. Each woman is given an opportunity to voice her opinion to another individual or during a meeting of the whole group. No one individual, neither a community member nor an outside source, holds power of the 'final say'. Rather, open group discussion is encouraged until the best solution is found. Moreover, those involved in discussion are those directly impacted. Participants have been involved in the decision-making process since the project initiation, and consistently assess monthly and yearly achievements. The result is that everyone does not necessarily fully agree, "but rather there is no substantial disagreement; participants can live with the consequences" (Roseland 1998, 182). With adequate information and background knowledge, participants can engage fully in conversation, better ensuring a system of fairness.

*Education*

Where women lack proficiency in the necessary skills for regular daily work at the cooperative, they teach each other. Otherwise, women perform duties similar to those

performed in keeping their homes. Some women, especially the younger members, are self-motivated to practice reading, writing, and computation independently.

Members endeavor to "understand people" (Rosanna [M8], Elena [M9]) and "know how to help the tourists" (Lucia [M1]). Such vested interest not only further indicates the level of the community members' involvement in the project but, moreover, is important for sustaining business. Women exercise an amount of control over their own education because meetings address the areas of knowledge while that the women desire. Interviewees expressed that the meetings help the members and community because "we learn much we otherwise would not know" (Lucia [M1], Sylvia [M6], Gloria [M7]).

Members are educated about their home area to various extents. While some have experienced more exposure to environmental knowledge growing up, the spectrum of types and degrees of environmental education amongst the members particularly demonstrates how education is somewhat dependent on individual interest in a field of knowledge. Members of both the female and male cooperatives in Alta Cimas offer their environmental knowledge, formally, to the community's children during yearly forums and open ecotourism workshops.

CHAPTER 7

CONCLUSION

A combined analysis of the independent variables: involvement, organization, communication, profit, and education, indicates the impact of the development project on the local community (Scheyvens 1999, 247). The nature of these variables influences community empowerment. A final analysis of psychological, economic, social, and political empowerment generates a conclusion demonstrating the extent of the community project's sustainability.

Since this is not a longitudinal study, it is not possible to measure changes over time. Initial perceptions of the Alta Cimas cooperative as a successful example originated through comparison with other examples of community development projects in rural, remote, or under-developed areas. Conclusions concerning the degree of sustainability are possible because these perceptions have been tested through interviews with those directly involved and affected and through engagement with the field site.

**Empowerment for Sustainability**

*Psychological Empowerment*

Psychological empowerment first examines the effect of the project on the individual participant's self-esteem, confidence, and status. This is aligned with goals of self-esteem, participation in decision-making, equality, leadership, and self-promotion identified during one yearly forum (Medellín and González 1999). With this objective,

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the cooperative created a place where women could develop their leadership potential and intellectual, physical, and creative strengths. Despite discouragement because of the small amount of patronage and profit, the women express appreciation for the cooperative's existence by acknowledging that otherwise there are no other jobs except for the collection of *palmilla* (Felicia [M3]). Sylvia (M5) enjoys working in the cooperative because "otherwise I would do nothing", and feels important because "if the women weren't here, it would no longer function".

Lucia (M1) expressed pride of accomplishment, emphasizing "we were the first group". Using their experience, the Alta Cimas cooperative aids the development of other women's groups in El Cielo. Medellín and González (1999) write:

> the experience and the resources generated during 1997 allowed La Fé to organize and finance the operation of a women's group in La Gloria, by means of the construction and equipment of a *costurero* [seamstress workshop], as well as the qualification of the partners. La Fé was the inspiration and the guide for the development and sprouting of eleven other work groups of men and women in El Cielo, allowing that the great central objective of ¡*Organizate*! was fulfilled (. . . that the local inhabitants make the decisions about the handling and conservation of the natural resources in El Cielo Biosphere Reserve).

Confidence resulting from productive involvement boosts motivation for further achievement. The women exercise their abilities by assuming positions of responsibility and by taking advantage of educational opportunities. For example, Lucia (M1) reported that the meetings aid the group members because "we learn much we otherwise would not know". What areas of knowledge the women develop is based on personal interest. Cristina (M2) stressed the importance of mathematics. Rosanna (M8) is proud of her planting skills. Different women expressed different levels of factual or scientific knowledge of the forest. Antonia (M12) proudly provided examples of bird plumes and

songs she could identify.  By valuing these abilities, the cooperative increases its degree

of self-reliance.  The amount of faith members have in the project's future is thus not

primarily contingent on individuals but more so on economic potential.

*Economic Empowerment*

The community cooperative created the sole opportunity for the women of Alta

Cimas to work outside the home and gain income for the family.  Although at times there

is very little profit to be divided, members recognize the need to reinvest a portion to

keep the cooperative functioning.  The distribution of profit among several families

advances community sustainability.  Nevertheless, Elena (M11) articulated that some of

the women not involved in the cooperative felt that wealth is distributed unevenly

throughout the community.  Elena (M11) disagrees.  She feels all have the same wealth,

just as all experience the same troubles.  Poverty touches everyone's life.  All are simply

trying to provide food and care for their family.  Very little economic hierarchy is visible

in the community.  For example, approximately half of the homes have incredibly rusty,

two-toned, or generally beat-up trucks parked nearby.  The exceptions are the shiny truck

labeled *Pronatura* displayed in Rosanna's (M8) driveway and the neatly painted truck

belonging to Antonia's (M12) family, who owns the other store in the village (a third

store is run by the government).  However, all families share transportation by offering an

extended invitation when traveling into town and to other *ejidos*.  This is a very valuable

community service because the roads are essentially paths of rough, slippery, steep rocks

and gas is remote and very expensive.  On the day of my departure, I was offered rides by

three families, including the two specifically mentioned above.  When I arrived for my

ride, I was accompanied by what appeared to be half of all the women in the community, crowded into all three truck beds in order to wait in turn outside the free health clinic in the nearest town throughout the drizzly day.

Although the cooperative's sustainability may ultimately rely on economic success, the profit that is accumulated remains within the community. Furthermore, international recognition of the project itself and the women's work has resulted in funding of "social development projects" (Scheyvens 1999, 248) that greatly benefit the entire community.

*Social Empowerment*

Social empowerment refers to the effect of the project on the entire group. It is difficult to measure the "community's sense of cohesion and integrity" (Scheyvens 1999, 248). Yet, the women's group seems strong; a core group has remained committed and evolves to meet organizational needs. Women did not emphasize competition, resentment, or jealousy (Scheyvens 1999, 247). Voluntary and inclusive involvement and a collaborative communication structure specifically demonstrate constructive group dynamics that promote harmony through appreciating fairness, flexibility, and accountability. Roseland (1998) credits collaborative processes as "an alternative which can lead to better communication and understanding" (182). Although requiring patience, time, and respectful, open, listening, collaboration, with the objective of consensus, can strengthen relationships within the community by valuing individual member viewpoints. On the other hand, members are dependent on the group's success, and the building trust, expecting all to share responsibility.

*Political Empowerment*

The women of the cooperative have been involved in the decisions affecting them throughout the planning, implementation, and monitoring stages. Project development represents members' interests. Sergio Medellín continues to visit Alta Cimas and the other *ejidios* of El Cielo every fifteen days. Women have a voice within the group and further convey their needs to Medellín, who extends guidance and provides connection to a larger support network. Participation in the cooperative provides experience, personal development, and recognition of the role of women in the community.

## Contribution to Literature and Further Research

The Alta Cimas cooperative gave women the opportunity to realize, use, and develop their skills. The areas of success identified in the discussion give merit to the abilities of remote, disadvantaged, marginal populations where "expert knowledge" is most often recognized solely as capable of executing development projects.

Literature that was consulted for this study focused on singular components of local participation, for example, either the benefits of including community members throughout the project, beginning with the planning stage; or the process of cultivating a collaborative communication structure; or the impact of funneling profits to a small group. Instead, this research unites participation components so that the conceptual model may be applied as a recipe for empowerment in similar communities.

This research contributes to the literature of participation theory by exemplifying several principal components. It demonstrates that the characteristics of the community

design approach described by Wisner, Stea, and Kruks (1991) are interchangeable with characteristics of a community centered development project. The cooperative is a small-scale project using local resources, low cost appropriate technology, a bottom-up design approach centering on people and meaningful actions, and an inclusive, democratic process. The findings agree with Furze, de Lacy, and Birckhead's (1996) assertion that local participation empowers local people by including them throughout project development. By representing community values, communicating project conservation goals, and distributing profits among members, the Alta Cimas cooperative supports Calegari's (1997), Campbell's (1999), Drake's (1991), and Harper's (1997) propositions that these factors encourage sustainability. It exemplifies Murphy's (1985) hypothesis that when local community members and outside supporters work together, both sides obtain education in different areas of knowledge.

The Alta Cimas cooperative illustrates the positive effect of collaboration on the power structure and organization of those involved. As put forth in literature by Furze, de Lacy and Birckhead (1996), Roseland (1998), and Wisner, Stea, and Kruks (1991), this case shows the importance of evaluating the role of membership dynamics, specifically the extent of a group's ability to assuage individual egos and reach consensus, in efforts toward sustainability. The characteristics of involvement and organization shown by the women's cooperative match those proposed by Roseland's (1998) framework for successful participation based on consensus. In sum, the manner of use of human and physical resources in the Alta Cimas cooperative aligns with predictions for sustainability in the literature.

However, despite its remoteness, Alta Cimas is part of Mexico's larger cultural context. How does the level of women's empowerment in Alta Cimas compare with current transformations in Mexican society? Would the cooperative's sustainability persist if tourists created greater cultural and environmental impacts? What variables are specific to this setting that would limit the application of these findings to other situations? These are some of the many questions proposed for following research.

Overall, geography affects the extent to which this theoretical framework might apply to another area. Locating the cooperative in Alta Cimas, as compared to other *ejidos* in El Cielo, has two overt advantages for cooperative sustainability. Alta Cimas is the first *ejido* encountered after the end of the paved road. Therefore, it is the first *ejido* at which tourists arrive and, in general, is the *ejido* that receives the greatest amount of tourist traffic. Secondly, with increase of distance from the paved road, the population of a given *ejido* decreases. Therefore, Alta Cimas is the only *ejido* along this route (an area that also includes San José, La Gloria, El Elefanté, and Joya de Manatiales) that has population substantial enough to support the additional work of women outside of the home.

The women of the cooperative desire more tourist patronage. In November 2001 and January-February 2002, the majority of tourists were either urban Mexican couples visiting El Cielo on a drive-through day tour or truckloads of rowdy Mexican students who continued on to camp in San José, bringing all of their supplies from outside of the preserve. During these periods in the field, I encountered only five individuals desiring an ecotourism experience in El Cielo. These individuals were interested in seeing birds, vegetation, and physical features, left their cars in Gomez Farías or Alta Cimas to

continue by foot or horseback, and were open to hiring guides if necessary. Ecotourism developments in Alta Cimas and other *ejidos* in El Cielo cater to this type of tourist. However, the sustainability of ecotourism is threatened because El Cielo, and Tamaulipas in general, is off the beaten track for ecotourists (often backpackers) in Mexico. Whether the limitations proposed by Morales (1998) including the lack of adequate infrastructure, marketing, and distribution of information will be overcome in strides remains a question for a longitudinal comparison.

Those ecotourists that do reach Alta Cimas will find that its relative isolation has contributed to an identifiable sense of place. The unique diversity of El Cielo's physical geography, of its topography, flora, and fauna, is the initial attraction. However, the human community is as notable. To the visitor, it becomes evident that the lack of resources due to the remoteness of Alta Cimas contributes to a subsistence way of life and a reliance on the solidarity of community members. Those visitors who do interact with members of the community also discover the warmth of appreciative, generous people. Members of the cooperative convey the value of using domestic, intellectual, and creative skills for economic survival. Moreover, Alta Cimas provides an intimate setting in which to sample rural Mexican culture: the food, music, and fraternity of community.

Along trails, in store windows, outside the cooperative hotel, and at the soccer game, residents of Alta Cimas expressed pride in, and appreciation for, this place. Many who had experience visiting family in other places, or working outside El Cielo, preferred the tranquility and safety of Alta Cimas. The cooperative and family groups rely on a culture of interdependence. Consequently, as communication and exposure to the outside

world increases, the residents' ties to home and sense of belonging will ultimately be the greatest factor in maintaining the community's sustainability.

Kropotkin (1902) articulated strong belief in the power of interdependence and fraternity, such as that observed in the community of Alta Cimas during this research, and which was expressed in a smaller scale at the women's cooperative. Kropotkin asserted that this phenomenon of "mutual aid" is a primordial tendency toward cooperation in human communities. In tribal groups, villages, and towns, community interaction nurtures mutual support and unity, which in turn fosters social organization and development. Kropotkin observed that while society at large has been consumed by competitive struggle over money, land, other resources, and power, the tendency for mutual aid "continued to live in the villages and among the poorer classes in the towns; it still kept them together" (1902, 223).

The theory of sustainability presented in this research depends most strongly on the character of human relationships. In application beyond Alta Cimas, the degree of participatory success can be predicted, first, in proportion to the degree that the independent variables of involvement, organization, communication, distribution of profit, and education reflect efforts toward cooperation based on accountability, fairness, and flexibility. Thereafter, cooperation at these levels will continue to facilitate empowerment, and empowerment in turn will serve to further the probability of cooperative success. A community must remain faithfully interdependent in order to cope with the main impediment in the struggle for community autonomy: inadequate material resources.

# APPENDIX A

## ENGLISH INTERVIEW

1. How long have you worked in the cooperative? (years, months)

2. Why did you decide to work in the cooperative?

3. Do you have family who also works here?

4. A. Are there persons who worked here before and no longer work here?

   B. Why do they no longer work here?

5. When a woman wants to join the group, does she need to come to the cooperative and ask for work or do the women of the cooperative ask her?

6. Which jobs do you do well and which jobs do you like the most?

7. What do you do in your free time?

8. Did everyone make the things for sale or only a few?

9. What positions have you had in the group?

10. Who made the interpretive trails? How did you decide where they would go and what the signs would be about?

11. How many days a week do you work?

12. Do you work in the morning, afternoon, or evening/how many hours do you work?

13. A. When do the most tourists come?

    B. Do you work more when more tourists come?

    C. Today two women are working.  When many tourists come, do more women work?

14. A. Do you work when you are sick?

    B. Who works when you don't work?

15. A. Have you attended a group meeting, an ecotourism course, or a yearly forum?

    B. How are these different?

    C. How many are there per year?

16. How do you know when there is a meeting?

17. During the meetings, does everyone talk or one person talks?

18. What do you talk about?

19. Is there a leader?

20. Is there someone who writes what is said?

21. What are the other positions?

22. What do you do during the meetings?

23. A. Do you think the meetings help the group?  B. The ejido?

24. A. When you have a problem in your work, who do you talk with?

    B. What do they do?

25. A. How does the group make a decision?

    B. When you decide something, do you discuss, or vote, or does one person decide?

26. Are there rules?  Who decided the rules? Are they the same since the beginning?

    How do you know them?  Are they written?

27. Where are other ejidos near here that have cooperatives?

28. Why do you have a cooperative?

29. Is the cooperative working?

30. Did all want the cooperative or it was the idea of a few?

31. Is a part of the profit saved for group projects or is all divided among members?

    How much?  How often do you receive pay?

32. Will your daughters work in the cooperative?

33. At what age?

34. What do you need to know before starting to work?

35. How do you learn this?

36. What do you know about the forest that you could teach tourists?

37. Are there future projects the cooperative hopes for?)

38. If there was no cooperative, what would you be doing today?

APPENDIX B

SPANISH INTERVIEW

1. Cuanto hace que Usted trabaja en la cooperativa? (cuantos años, meses)

2. Porque decidió trabajar en la cooperativa?

3.  Tiene familia que trabaja aqui tambien?)

4. A. Hay personas que trabajaban antes y ya no trabajan mas?

    B.  Y porque no trabajan mas?

5. Cuando viene un mujere nueva del grupo, ella necesita venir y preguntar por

   trabajar o las mujeres de la cooperativa preguntan a ella?

6. Cuales trabajos hace bien y cuales trabajos le gustan mas?

7. Que hace en su tiempo libre?

8. Todos hacen los cosas por vender o un pocos hacen?

9. Que cargoes ha tenido en el grupo?

10. Quien hecho los senderos interpretivos?  Como decidió adonde va el camino y de

    que habla los señales?

11. Cuantos dias trabaja por semana?

12. Trabaja en la mañana en la tarde o en la noche/ cuantos horas por dia?

13. A. Cuando viene la mayoria de los turistas?

    B. Trabaja mas durante el fin de semanas, los vacaciónes, los dias festivos?

    C. Hoy dos mujeres trabajan.  Durante " " trabajan mas mujeres?

14. A. Usted trabaja cuando esta enferma?

    B.  Quien trabaja si Usted no trabaja?

15.  A. Ha asistido una reunion del grupo, un curso ecoturismo o un agosto foro?

    B.  Como son diferentes?

    C.  Cuantos hay por mes?

16. Como se sabe si hay una reunion?

17. En la reunion, todas las personas hablan o es una sola persona?

18. De que habla (n)?

19. Hay un jefe?

20. Hay alguien que escribe lo que dicen?

21. Que son los otros cargoes?

22. Y usted, que hace?

23. A. Usted piensa que las reunions ayudan el grupo?  El ejido?

    B.   Como?

24. A. Cuando hay un problema en el trabajo, con quien habla?

    B.  Y el/ella, que hace?

25. A.  Como es que el grupo decide algo?

    B.  Cuando Ustedes deciden algo, Ustedes discutan o votan o es una persona que decide?

26. Hay reglas?  Como se sabe?  Son el mismo del principo?

27. Adonde hay otros ejidos cerca que tienen cooperativas?

28. Porque Ustedes yienen la cooperativa?

29. La cooperativa funciona?

30. Todos querian la cooperativa o fue la idea de unos pocos?

31. Una parte del dinero del grupo queda para proyectos del futuro o se divide entre todos? La mitad? Cuantos veces por mes?

32. Sus hijas van a trabajar en la cooperativa?

33. A que edad?

34. Que necesita aprender antes de trabajar?

35. Como van a aprender?

36. Que sabe Usted sobre el bosque que les puede enseñar a los turistas?

37. Hay otros cosas que la cooperativa quiere hacer en el futuro?

38. Si no tuviera la cooperativa, que estaría haciendo hoy?

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