

Los Proyectos de La Gamba:
Gender Issues in Rural
Sustainable Development
Projects in the Southern Zone
of Costa Rica

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LOS PROYECTOS DE LA GAMBA:
GENDER ISSUES IN RURAL SUSTAINABLE DEVELOPMENT
PROJECTS IN THE SOUTHERN ZONE OF COSTA RICA

BY T. COCKRUM

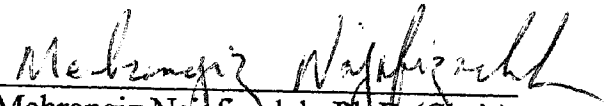
***Los Proyectos de La Gamba: Gender Issues in Rural Sustainable
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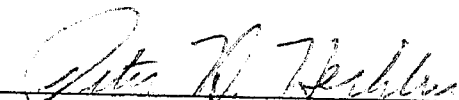
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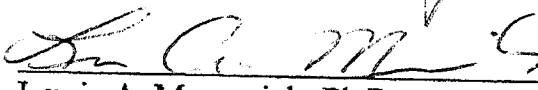
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ABSTRACT

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In 1992 at the United Nations Conference on the Environment and Development (UNCED), Costa Rica pledged to make a political commitment to incorporate the sustainability of the environment into the socioeconomic development of the country. Costa Rica and various governments and non-governmental organizations at UNCED, agreed to use the document, Agenda 21, to design sustainable development programs.

My field research in the community of La Gamba, Costa Rica, examines two small-scale rural sustainable development projects in a *campesino* community. The *first* project promotes the sustainability of an endangered animal called the Tepezcuintle, which the community uses as a potential source of income and protein. The *second* project involves a medicinal plant garden that provides the community with medicines, soaps, and shampoos.

I utilize an analytical framework that examines the extent to which the projects are achieving sustainability according to the guidelines suggested in Agenda 21 for sustainable development programs. In addition, I examine the extent of women's participation in these projects based on the mandates pertaining to gender equality stated in Agenda 21. Moreover, my thesis explicates what the rural participants think about their projects, how they view sustainable development programs, and what suggestions they have for improving their projects.

Acknowledgments

This thesis is the result of numerous people who have willingly and graciously given of their time. I am forever grateful to my mother who offered her advice and editing skills to the thesis. She is my endless source of encouragement and support.

I express my sincere gratitude to the people of La Gamba, without whom this study would not have been possible. Many thanks specifically to the participants in my project for welcoming me into their community and for their warm hospitality.

Many other people played important roles and provided support and assistance. Representatives from the Fundación Neotrópica, Ministerio de Ambiente y Energía (MINAE), Oscar Quirós, director de Estudios Tropicales, Golfito, and the Center of Latin American Studies, University of Kansas. Many thanks also to Profesora Norma Carrillo, who graciously gave of her time and knowledge.

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Thayne J. Cockrum

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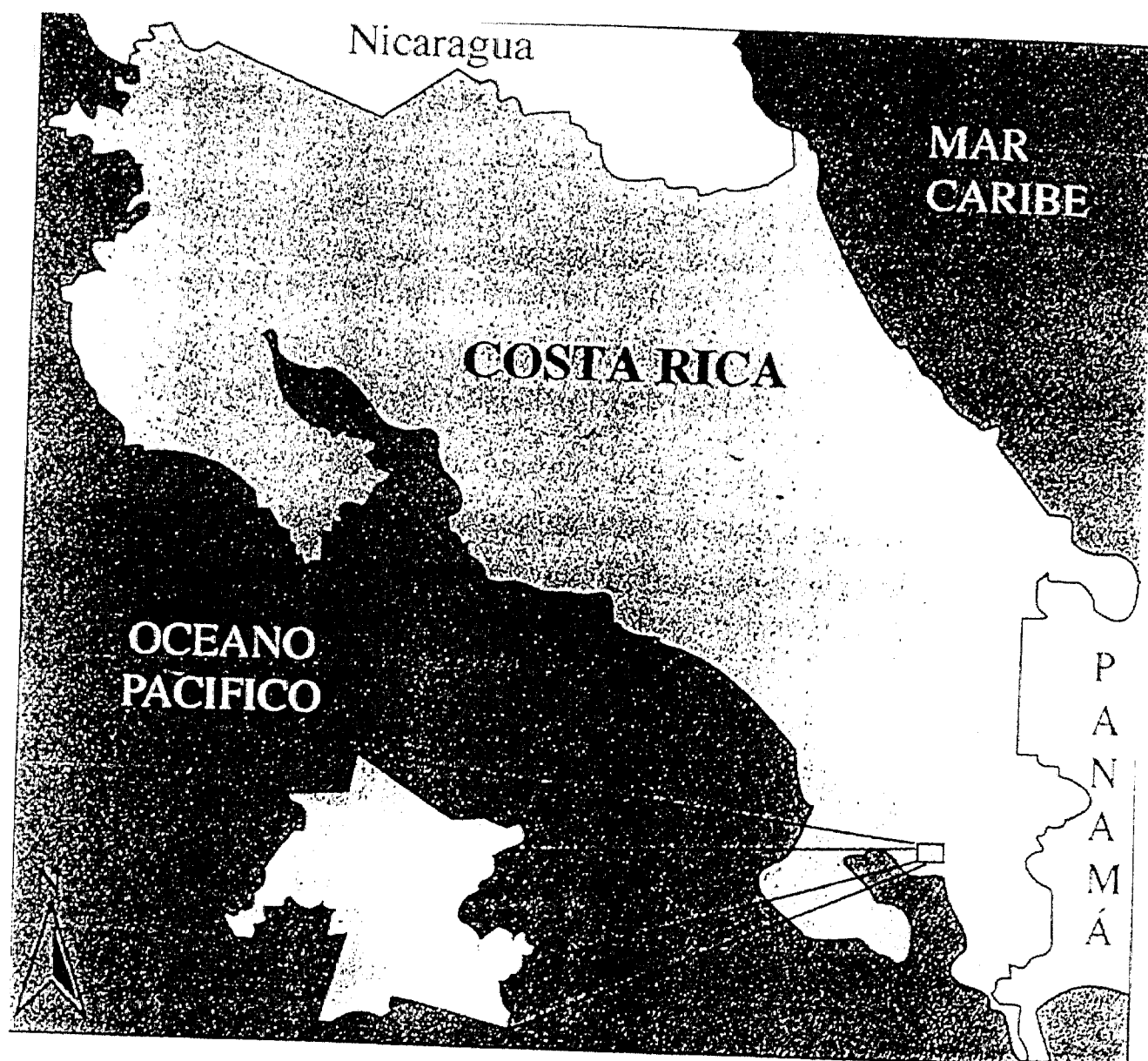


Figura 1: Ubicación geográfica de la Comunidad de La Gamba.
(Fuente: Navarro, L. y Paniagua, L. Propuesta Ordenamiento Territorial, La Gamba, Golfito, 1999)

Nieto and Bonilla, 1999

PREFACE

Through my own upbringing in rural North America, I have long held an interest in issues related to rural communities. Through family ties, I have long held an interest in issues related to Latin America, and over the years, my interests in gender issues and non-governmental organizations (NGOs) have evolved.

During fall 2000, I was presented a very exciting and challenging opportunity: the opportunity to participate in a one-semester study abroad program in the community of Golfito and surrounding rural communities in the southern zone of Costa Rica. Here, I engaged in full-time course work in Golfito, while simultaneously engaging in an exploratory study of small-scale, NGO-based sustainable development projects in the neighboring community of La Gamba. That exploratory research is the basis of this thesis.

While course work occupied my morning hours and evening hours, in the afternoons I was able to make the two-hour walk to La Gamba where I engaged in original field work activities, ranging from formal interviews to informal conversations and participation in community events. The outcome has been an overview of two small-scale sustainable development projects sponsored by the Neotropica Foundation and the formulation of an analytical framework that allows me to examine relevant sustainable development issues and gender issues related to Agenda 21 from the 1992 United Nations Conference on the Environment and Development, held in Rio de Janeiro, Brazil. As an exploratory study, my field work research in La Gamba lays the groundwork for future research regarding sustainable development projects and the roles of women and men both in La Gamba and in similar settings in Costa Rica and elsewhere in Central America. My subsequent

analysis of sustainable development activities in La Gamba in relation to Agenda 21, in turn, provides a conceptual framework for continuing examination of the dynamics of gender issues, the functioning of NGOs, and local communities in rural Latin America.

INTRODUCTION

During the past several decades, environmental issues have gained major attention on both the national and international levels. Indeed, in the 1990's, many world leaders realized an urgent need to incorporate environmental issues into national and international development policies. In 1992 at the United Nations Conference on the Environment and Development (UNCED)¹ in Rio de Janeiro, 179 countries pledged to make a political commitment to address environmental problems. (Aggarwal-Khan, 1997:1). Countries throughout the world agreed to formulate policies that combined economic development, social equality, and the sustainability of natural resources. Based on these issues, various government and non-governmental organizations designed sustainable development programs to help fulfill the commitments they made at UNCED. The blueprint for global sustainable development programs presented at the Earth Summit was known as Agenda 21.

The environmental and human development themes included in Agenda 21 compelled numerous non-governmental organizations (NGOs) in various regions of the world to adopt the earth-saving agenda for themselves. Many NGOs are dedicated to environmental management and social issues, and they seek to encourage and assist governments in their quest to prioritize the objectives stated in Agenda 21 and the 1992 Earth Summit. Moreover, an issue that received paramount attention at

¹ The Conference on the Environment and Development (UNCED) is also referred to as the Earth Summit. The terms UNCED and Earth Summit will be used interchangeably throughout the thesis.

the summit and was ranked highly among NGOs as a priority issue was the subject of women and the environment.²

Among the participants at the Earth Summit Conference in Rio de Janeiro, Costa Rica emerged as a very aggressive proponent of environmental conservation. Indeed, compared to its Central American neighbors, “Costa Rica has the reputation...for having taken the boldest steps to protect the environment” (Lara, et al, 1995:119). Numerous NGOs and other international environmental organizations such as the World Wildlife Fund and the Nature Conservancy have become very active in Costa Rica in the past decade; moreover, sustainable development has been established as an integral part of political ideology in recent government administrations.

Focus of this research and study

My thesis, *Los Proyectos de La Gamba: Gender Issues in Rural Sustainable Development Projects in the Southern Zone of Costa Rica* examines two small-scale rural sustainable development projects and the extent of women’s participation within these projects in La Gamba, a small *campesino* community in the southwestern region of Costa Rica. The *first* project promotes the sustainability of an endangered animal called the Tepezcuintle, which the community uses as a source of income and protein. The *second* project involves a medicinal plant garden that

² A March 1997 publication by the Environment Liaison Centre International (ELCI) listed a ranking of issues which NGOs deemed important. The issue of Women and the Environment ranked third behind Sustainable Agriculture and Forest Sustainability (Aggarwal-Khan 1).

provides the community with medicines, soaps, and shampoos. Through these two projects, I will examine how the organization in charge of these two projects promotes gender equality within the projects, and more specifically I will examine the extent of women's participation in these projects based on the mandates pertaining to gender equality stated in Agenda 21. In addition, I will examine to what extent the projects are achieving sustainability according to the guidelines suggested in Agenda 21 for sustainable development programs.

With a 10-year anniversary of the Earth Summit and Agenda 21 approaching, the world curiously looks to see how the environmental, social, and economic policies have progressed within government and non-governmental organizations. NGOs, government agencies, and community members around the world are working together to find viable strategies to sustain the earth's natural resources for future generations while fulfilling the needs of the present population. An issue at the forefront of sustainable development policies is the full participation of every member of society, and especially the participation of women. In addition to men's participation, women's participation is seen as vital to the success of development projects. Yet, gender bias and cultural barriers sometimes either prevent women from fully participating in development projects or do not recognize women's contribution when women do participate in the projects.

As part of my analysis, I will compare the projects based upon an analytical framework of evaluation of sustainable development projects that I developed.³ I use the analytical framework as a tool to look at important factors that sustainable development projects seek to accomplish. The elements utilized in my assessment framework are based on the ideas and issues addressed at the Rio Earth Summit and in Agenda 21 in 1992. Therefore, the questions addressed in my thesis are as follows:

- Are the mandates stated in Agenda 21 that pertain to the inclusion of women within sustainable development being accomplished?
- Are the rural sustainable development projects achieving sustainability and their other goals of economic and technological development?
- What lessons for successful sustainable development can be learned from the participants' experience?

Relevant Literature

My review of relevant literature has focused primarily on publications concerning women and development, women and the environment, United Nations documents and documents from its branch organizations, publications on sustainable rural livelihoods, Costa Rican government documents, NGO literature, and articles

³ The analytical framework was created under the guidance of Dr. Norma Carrillo in the Fall of 2000 in Golfito, Costa Rica. To review my framework of assessment for a rural sustainable development project refer to Appendix A.

written by Costa Rican economists and ecologists. All government documents and scholarly publications cover the period from 1970 to 2000.

Initial works addressing women and development have tended to focus on the negative impact of development upon women. Many scholars examined how industrialization or “modernization” in Third World countries caused environmental degradation, and increased the number of disadvantaged women. Consequently, “inappropriate” development greatly impacted the most marginal groups of society, and rural women had no choice but to exploit their natural resources simply to survive (Aidoo, 1985 in Dankelman and Davidson, 1988: xii).

The seminal work of Ester Boserup, the author of *Women's Role in Economic Development* (1970), addressed the danger of development to the livelihood of women, especially rural women in Third World countries. Boserup is considered one of the first scholars to analyze the element of gender within development. In its early stages, the literature on Third World women and the environment largely focused on rural situations in India and Africa. For example, Dr. Vandana Shiva, coordinator of the Indian Research Foundation for Science, Technology and Natural Resource Policy, wrote numerous reports on rural Indian women and the Chipko movement. Kenya's Green Belt movement also spurred women and environmental research in Africa, but Latin American women and environmental development had yet to form a voice among these movements.

Scholars such as Maria Mies and Vandana Shiva developed an ecofeminist argument that promoted women's conceptions and relationships to the environment as

somewhat superior to that of men. Moreover, Shiva and Mies's *Ecofeminism* emphasized that women's connections to the environment are key to creating a more sustainable approach to development policy because women harbor a type of women-and-nature connection due to their position within a patriarchal society. *Ecofeminism* also proposes that women are more concerned with subsistence agriculture than men who tend to focus on commercial agriculture. Mies and Shiva link the women-nature connection and its relation to subsistence with women's biological position. The biological link has brought the authors much criticism; however, an important element of Shiva's argument is her questioning of the Western framework of development and the emphasis for new sustainable and environmentally conscious development frameworks to be created based on the knowledge and experiences of marginalized people (Agarwal 1992, Jackson 1993, Braidotti, et al., 1994: 93-96).

Another work within the women, environment, and development discourse is Dankelman and Davidson's (1988) *Women and Environment in the Third World*. The authors' theoretical analysis reflects views that are similar to Shiva's women and nature connection within environmental development discourse. In contrast to the Asian and African emphasis of research on women and the environment in the 1970's and 1980's, Dankelman and Davidson included commentary on women and natural resource issues in Brazil. This is one of the few publications during the 1980's to include Latin American women's sustainable development issues.

Studies on women and development in Latin America have emphasized women's accessibility to economic and educational resources. In *Women and*

Change in Latin America (1986) Nash and Safa compiled a collection of feminist research by women scholars and addressed women's struggles to survive in the economic arena of Andean markets, and factories in Brazil, Mexico, Puerto Rico, and Jamaica. The majority of their research focused on women in urban areas with less attention given to rural women or environmental concerns.

Throughout the 1970's and 1980's women and environmental issues continued down separate paths, but in the late 1980's the two paths began to merge "...impelled in large part by the actions of women in Latin America" (Brasileiro, 1996: 5). Previously, women's roles gained attention in Mexico City in 1975 at the first women's world conference and sparked the UN Decade for Women. In 1985, the decade culminated in the Third World Conference on Women in Nairobi. Organizations such as UNIFEM, United Nations Development Fund for Women, were born out of the decade as well as United Nations' research on women and development.

In 1984, various Third World feminists met to reevaluate the development frameworks implemented into their countries, and this convergence led to the creation of DAWN (Development Alternatives for a New Era) where "...they challenged the prevailing development framework, which was based on economic growth, and its consequences of food security and environmental degradation..." (Brasiliero, 1996:6). Reports published as a result of the UN women's decade were the *Forward-looking Strategies for the Advancement of Women* from the 1985 Nairobi women's conference, and in 1988 the Brundtland Commission's *Our Common*

Future: The Report of the World Commission on Environment and Development.

The first report promoted women in conjunction with environmental conservation, and the second report linked the sustainability of human beings and the environment with development policy. Not until 1992 at the UN Conference on Environment and Development (UNCED) did the two agendas converge, and women's needs and gender roles were addressed as key components to development and environmental policy (Brasileiro 1996, 7).

A 1997 publication titled *Desarrollo Rural Sostenible en Costa Rica: Avances y Perspectivas* compiled articles by Costa Rican economists and ecologists involved with state organizations associated with CECADE, the Center of the Capacitance for Development (Centro de Capacitación para el Desarrollo). The first article, "Los Actores del Desarrollo Sostenible" by William Reuben Soto, discussed the actors of sustainable development. He examined public institutions, voluntary organizations, the world market, internal markets and civil society's roles within sustainable development. The second article, "Metodología para el Análisis Socioeconómico y Agroecológico en el Marco de un Desarrollo Sostenible" by Gerardo Barrantes a researcher at the International Center of Political Economy for Sustainable Development (CINTERPEDS), proposed an implementation framework for sustainable development programs in Costa Rica based on socioeconomic and agro-ecological studies. He proposed to divide the country into regions based on environmental problems that the regions wanted to analyze and resolve; this method

would allow sustainable development programs to be designed with relevant information.

A third article in the text addressed gender issues within sustainable development. Fabiola Campillo's article, "Gènero y Desarrollo Rural Sostenible: Hacia una Relaciòn Mayor Igualdad," discussed the existing relationship between sustainable development and the perspective on gender. Campillo's article suggests ways to incorporate the element of gender into sustainable development, but the article is written more as a reflection of how gender concepts receive little emphasis within the development debates. An article by Sabine Müller from the Inter-American Institute for Cooperation on Agriculture (IICA) titled "Evaluaciòn de la Sostenibilidad de Actividades Agrícolas y de Recursos Naturales" presented a methodology that helped to identify and select indicators of sustainability in the tropical regions of Central America. She based part of her method of evaluation on three aspects of sustainable development: ecological sustainability, economic sustainability, and social sustainability.

Laura Pèrez Echeverría, an economist for IICA, wrote the concluding chapter of the compilation. In "La Nueva Visiòn del Desarrollo Rural Sostenible," she expressed her views on the future of micro-regional or rural development in Costa Rica. The author states that the rural sector is a micro-region which should be a specific area of analysis within development studies. Within the analysis of micro-regions, Echeverría refers almost exclusively to *campesino* populations, and other

rural communities such as indigenous or rural mining communities are not mentioned.

Desarrollo Rural Sostenible en Costa Rica: Avances y Perspectivas

specifically addresses sustainable development in Costa Rica's rural sector. While the articles compiled in the book are written based on the authors' experiences in the rural sector through their development organizations, they do not include the opinion or perspectives of rural people in their analysis, nor do the authors describe any specific development projects in which they participated. Most of the articles mention the importance of gender equality within sustainable development; however, within their frameworks and analysis for sustainable development, gender equality receives scant attention. Fabiola Campillo's article "Gènero y Desarrollo Rural Sostenible" is an exception. Overall, the articles emphasize socioeconomic development in rural agricultural areas and propose economic frameworks that insure the sustainability of the natural resources of the agricultural communities without addressing other needs that the communities might have or the diversity of rural communities that exist in Costa Rica.

My research builds upon and extends prior research and examines sustainable development on a micro-level as it encounters the individual and the household. With this approach I examine to what extent the two small-scale rural sustainable development projects are achieving the goals that were presented in Agenda 21 at the Earth Summit in Rio de Janeiro in 1992; these are the same goals to which Costa Rica and NGOs promised to adhere to in the design of their development policy. In

contrast to other studies, my study examines how sustainable development is being carried out in rural areas. Moreover, my thesis explicates what the rural participants think about their projects, how they view sustainable development programs, and what suggestions they have for improving their projects. The perspective of rural participants is an important element that I believe is missing from other rural development studies in Costa Rica.

Methodology

I conducted my research for this thesis while in Costa Rica as a student at Estudios Tropicales in Golfito, Costa Rica. My thesis revolves around the analysis of two small-scale or household sustainable development projects in the community of La Gamba, Costa Rica. The decision to analyze small-scale or household sustainable development projects reflects my beliefs that sustainable development must begin with the individual. A person's daily patterns and practices reveal his or her personal conscious decisions to make the earth's resources survive for future generations. These practices are as small as turning off the lights to conserve energy or the recycling of aluminum cans.

To analyze the small-scale sustainable development projects, I devised an analytical framework based on the issues addressed in Agenda 21, which is a combination of social, economic, and environmental dimensions. Agenda 21 is a

900-page⁴ document divided into 40 Chapters that suggests methods and financial sources for the implementation of sustainable development as it is defined by the United Nations. Agenda 21 is designed in “full respect of all the [27] principles contained in the Rio Declaration on Environment and Development” (Agenda 21, 1992: Preamble). Agenda 21 and the Rio Declaration were presented at the Earth Summit in Rio de Janeiro in 1992. All countries that participated in the Earth Summit pledged to develop a program of action within their countries based on Agenda 21 and the Rio Declaration. Among the participants at the Earth Summit was Costa Rica.

The analytical framework is based on five elements which examine to what extent small rural sustainable development projects are compatible with the United Nations’ vision of sustainable development.⁵ These five elements or goals’ themes which can be found in varying degrees within Agenda 21,⁶ are as follows:

1. Goal of conserving and/or preserving the environment for the future
2. Goal of promoting gender and social equality
3. Goal of promoting socioeconomic development within specific contexts.
4. Goal of improving the quality of life.
5. Goal of using technological development that will improve the sustainability of the area.

In addition to using Agenda 21 to develop my framework, I also visited and studied different sustainable development projects of various sizes in the southern zone of Costa Rica. By familiarizing myself with different projects, I was able to

⁴ Agenda 21 can be found in a condensed format of approximately 300 pages on the internet at www.un.org/esa/sustdev/agenda21.

⁵ The framework was written under the guidance of Dr. Norma Carrillo in Golfito, Costa Rica

study to what degree certain factors or goals received emphasis within individual projects.

The different projects I visited consisted of day trips to agroindustrial sustainable development projects which exposed me to large-scale sustainable development projects. These included one agro-industry which developed products from African Palm Oil trees, and another project which was a cooperative of banana growers who sold to the Del Monte Cooperation. I also hiked several hours through the rainforest to spend a few days with a Guaymi indigenous group who operate a sustainable development project of medicinal plants. Shortly after this excursion I traveled to an indigenous reserve of Borruca people who operate a sustainable development project focused on making arts and crafts by using forest resources in a sustainable manner. I also traveled into Corcovado National Park and spent three days with a cooperative of gold miners who live in a sustainable manner isolated within the tropical rainforest of the Osa Peninsula.

The material gathered for the La Gamba projects was accumulated over a longer time-span through community visits, personal interviews, participant observations, community meetings, questionnaires, and volunteer work. During the fall of 2000, I visited La Gamba on 16 occasions. I chose this community because of its location on the edge of the Parque Nacional Piedras Blancas and its proximity to Golfito where I was living at this time. In addition to the interviews in La Gamba, I also interviewed people working on the outskirts of Golfito in projects related to environmental conservation.

Several of my informal interviews resulted from my volunteer work in a men's drug and alcohol rehabilitation center, which utilized the serenity of the forest to heal the addicts. My volunteer work allowed me to discuss with men their views of the environment and to learn why these men think that participating in the conservation of the environment is important. The rehabilitation center was located on the outskirts of Golfito in a protected forest area⁷ that housed a small abandoned orchard. As part of the rehabilitation program, the men were responsible for the conservation and protection of the surrounding forest and the maintenance of the small orchard. They were also required to protect the area from hunters by monitoring who entered the area.

I visited the rehabilitation center once a week over a three-month period and helped with the conservation and maintenance of the grounds. The center housed approximately five to seven men who rotated out of the center every two to three weeks. My encounters with the men allowed me to discuss with them their views on the environment. I compared their views to women's views of the environment. This comparison helped me understand how men and women view their natural resources and how their view relates to their participation in sustainable development projects. The only formal interview with this group of men was conducted with "Julian," the manager of the rehabilitation center.

⁷ "Protected Area" means that the land has been deemed by the government of Costa Rica as an area of forest reserve. No cutting of trees or hunting is allowed. The area is promoted under this regulation as a place of primary and secondary forest resources that is to be conserved in its natural state.

In order to learn women's views on their natural resources, I talked to a group of women who worked near the drug rehabilitation center. These women were part of a reforestation program operated for battered women. There were approximately 10 to 20 women working on the project at various times. I gave questionnaires to these women participants to learn about their views on the reforestation project and their role within the environment.

To conduct my research in La Gamba, I began by attending community meetings organized by community members and the Neotropica Foundation, an NGO. I later visited two different small-scale or household sustainable development projects and began gathering information from the project participants and observing them in their daily activities. The interviews were recorded on cassette tapes using open conversations and occasionally questionnaires. To augment my research, I visited the office of the Neotropica Foundation in Río Claro, as well as the office of the Ministry of Energy and Environment (MINAE) in order to gather demographic material on the area of my research and also to converse with the Neotropica officials in the area. In accordance with University of Kansas research procedures regarding human subjects, I obtained informed consent from the interviewees. Further, to maintain confidentiality, the names of all interviewees in La Gamba have been changed.

Organization of Study

This thesis is organized into five chapters with an introduction.

Chapter 1 covers the history of conservation and sustainable development in Costa Rica. I emphasize the role that different government administrations have played in the fate of Costa Rica's present status as a "green republic," a country that promotes environmental conservation within its policies.

Chapter 2 provides a history of the ideology of gender in sustainable development as well as a discussion on cultural obstacles to women's participation in sustainable development in Costa Rica.

Chapter 3 describes the community of La Gamba where I conducted my research and the studies of the two small-scale rural sustainable development projects. In addition to the community profile of La Gamba, I examine the NGO, Neotropica, which operates the projects within La Gamba.

Chapter 4 analyzes the Tepezcuintle project I studied and is followed by an assessment of this project. In this chapter, I also discuss and assess the second project that I studied, a project of medicinal plants.

Chapter 5 concludes my thesis by discussing Neotropica's La Gamba projects within the context of my theoretical framework. I also reiterate issues stated in the projects' analysis such as the extent of the projects' achievements, women's participation within the La Gamba projects, and the participants' views of their projects.

Theoretical Framework

The theoretical approach of my research is best exemplified through an article written in 1988 by Robert Chambers titled “Sustainable Rural Livelihoods; a Key Strategy for People, Environment and Development,” and also through questions posed by Michael Edwards in “How Relevant is Development Studies?” written in 1993. I will first explain the context of these two articles, and secondly I will explain where my project falls in relation to the articles.

Chambers’ article opens with a concise statement about past problems with development policy and the issues which development seeks to address. He explains,

“These [policies] start with things rather than people, the rich rather than the poor, men rather than women and numbers rather than qualities. They bear the imprint of interests that are urban, industrial and central in location rather than rural, agricultural and peripheral. Poor rural children, women and men have been treated as residual not primary, as terminal problems not starting-points” (Chambers, 1988:1).

Chambers argues that environment and development policies begin at the wrong end of society they seek to help, and in order for environment and development policies to be effective and to bring about positive change, they need to create programs which target the needs of the people who reside at the bottom of the social stratum, the poor. Furthermore, the author emphasizes that often the poor become the victims of blame in terms of environmental degradation.

The poor, especially the rural poor, have been forced to exploit resources in order to survive. Deforestation, soil erosion, overgrazing, and other forms of

environmental damage have been attributed to the rural poor. Moreover, Chambers argues that “[the rural poor] are often victims in the scramble to exploit public and common resources in which the rich and powerful get in first” (Chambers, 1988:2). Contrary to previous thought, much research supports the notion that when the rural poor are secure in food and other assets they practice sustainable methods in their surrounding environment. Therefore, the solution to the “problem” of the poor is to change development policy to think of the poor as part of the solution to protect the environment and create sustainable livelihoods. Development frameworks have most often been designed at the macro-level and have resulted in ineffective development for rural and poor sectors of society. Therefore, Chambers calls for an alternative framework of development, which takes the grassroots approach. Chambers’ argument supports the basis of my thesis in analyzing sustainable development by looking at the rural poor, especially poor rural women.

The second article by Michael Edwards also partly explains and defines both my theoretical and methodological approach. In “How Relevant is Development Studies?” the author addressed the relationship between research and practice. Edwards stated, “Why is so much that is said, written and spent on development having so little effect on the problems it seeks to address?”(Edwards, 1993:77). The author contends that development research produces inaccurate analysis due to its lack of incorporating the “views, aspirations, wisdom and imperfections of real, living people” into its suggestions and frameworks (77). The traditional Western trend of development studies has excluded the knowledge, opinions, and suggestions from the

very people it intends to help. To promote a new approach to development studies, Edwards states,

“We cannot change the world successfully unless we understand the way it works; neither can we understand it fully unless we are involved in some way in the processes that change it. To this extent, ‘development cannot be studied at all: we can participate in the processes that underlie development and observe, record and analyze what we see, but we can never be relevant to problems in the abstract’” (Edwards, 1993:78-79).

I have researched the La Gamba sustainable rural development projects not only through relevant literature and primary documents, but also through personal experience. I became partly involved in the community’s activities in order to gain a better understanding of the daily lives and activities of the participants in the sustainable rural development projects. My contacts and interactions with the community people involved in the projects provide the foundation for my analysis of these projects. Moreover, my examination of the La Gamba projects reflects my personal observations, my review of relevant literature, and more importantly the perspectives of the people participating in the projects.

CHAPTER 1

HISTORY OF CONSERVATION AND SUSTAINABLE DEVELOPMENT IN COSTA RICA

This chapter discusses the history of conservation and sustainable development in Costa Rica. The discussion provides an historical perspective of the evolution of environmental issues among Costa Rican academics and within government policies.

The evolution of development and sustainability in Costa Rica offers insight into how and why the sustainable development projects were formed. The issue of development has been center stage in the Third World for decades. A human geography textbook by James Rubenstein, which was used in a university in Costa Rica, suggested that the development level of a country could be measured by the amount of consumer goods a family is able to buy. The author focused on describing a country within terms of the “haves” and the “have-nots”; furthermore, the quantitative labeling of countries was based on man-made consumer goods such as televisions, cars, or telephones. The textbook described development as “the process of improving the material conditions of people through diffusion of knowledge and technology” (Rubenstein, 1997:350). A country with prosperity was defined as a country whose people could buy televisions and radios, not a country whose people were saving diverse ecosystems by resisting commercial logging practices or other environmentally destructive development. Natural resources and the environment received scarce attention due to the inability to place upon them a monetary value.

Tropical forestland, rare species of plants and animals, and ecosystems of extreme biodiversity fell into the “have-not” category among quantitative analyses due to the indicators of development being strictly focused on economic development.

Countries such as Costa Rica, which have an abundance of dense, diverse ecosystems, fell into the “have-not” category of the world ranking system. Clearly, however, Costa Rica contains important resources for the future of life on the planet, and the monetary value of these resources is indeterminable. Within the past decade, the definition of development became more malleable and world-governing bodies, such as the United Nations, have broadened the scope of development to include more than just economic growth and the ability to buy consumer goods.

As global population increases began to have ecological consequences, intellectuals decided to focus on ideas of conservation within the realm of development. Costa Rica and many other countries realized that in order for development to continue, the world’s natural resources must be maintained. The issue of sustainable development has saturated the environmental programs of Costa Rica in the past decade. The concept of sustainable development acquired national recognition in Costa Rica during the presidency of José Figueres Olsen (1994-1998), “...and has been a matter of preoccupation with Costa Ricans for many years” (Nájera, 1994:9). In its infancy stage, the principal definition of sustainable development, as policy-makers interpreted it, was the satisfaction of the present needs of the population without destroying the environment; moreover, sustainable development guaranteed resources for the future generations.

In the 1960's to the 1980's Costa Rican academics initiated concepts of conservation by creating and establishing a National Park System within the country. In comparison to other conservation practices during that period time, Costa Rica appeared somewhat radical. "A difference to other park systems, the Costa Ricans made more emphasis on the protection of entire ecosystems rather than an emphasis on a specific species" (Nájera, 1994:31). The decade of the 1980's marked the beginning of a stabilization period in the ecological policies of Costa Rica

Anthropologists estimate that Costa Rica had a pre-Columbian population of approximately 80,000 inhabitants (Evans, 1999: 4). The relationship between humans and nature revolved around the need for food. Land was used for the cultivation of frijoles, yuca, maiz, cotton, chile, and nispero; animals were hunted and fish were caught to supply protein for the indigenous people. Scholars believe the indigenous people were primarily a nomadic people, and that the damage caused by their cultivation and land abandoning practices had little ecological impact to their environment. Scholars agree that the pre-colonial inhabitants lived more or less in a sustainable manner to their tropical environment (5).

The arrival of the Spaniards to Costa Rica "...planted a seed of change for the natural equilibrium..." of the forest (Nájera, 1994:13). The conquistadors viewed the forest as a dense, dark unknown region in need of "conquering." The tropical rainforest contained myths of jaguars and coyotes that hunted humans, and to augment this fear venomous snakes and other reptiles were also a danger to man (13). To eliminate the fears of the people to the myths of the forest, the conquistadors

developed the forest for Spanish settlements. However, due to the dense mountainous terrain only a few thousand Spaniards settled in Costa Rica before the mid 1800's.

When Costa Ricans discovered that coffee grew well in the volcanic soil, the population and agricultural production began to slowly grow (Evans, 1999: 6).

The Colonial period in Costa Rica had unique characteristics in comparison with surrounding settlements. For example, Costa Rica had very little agricultural production or population in comparison to Guatemala City (Hall, 1984:59).

Nevertheless, environmental impacts were visible to the extent that laws were passed as early as 1775 concerning forest management.

In 1775, Governor Juan Fernàndez de Bobadilla prohibited the burning of fields for agricultural production. He believed that burning the forest sterilized the soil and rendered it useless for crop production. Fifty-three years later⁸, the government of Costa Rica declared that the waters and lands of the coastal regions be protected from activities that hindered the labor of fishermen and *salineros*⁹ (Nájera, 1994:15). The Costa Rican government created these laws to improve production and not to protect the ecosystem.

However, evidence of environmental impact was also recorded at this time. A shipment of 500 *quintales*¹⁰ of wood from the dry tropical forest in Costa Rica was shipped to Panamá y Guayaquil; moreover, the Costa Rican government gave one

⁸ Costa Rica obtained its independence in 1821.

⁹ Salineros are people who extract salt from saltwater.

¹⁰ A quintal is equivalent to 100 pounds.

*manzana*¹¹ of land to any individual for the cultivation of cacao in the region of *Matina* and five additional *manzanas* if the individual had a family (Nájera, 1994:15). The amount of land used by Costa Rican farmers was small in comparison to the *latifundista* system of large-scale plantations that occurred in other parts of Latin America. The coffee farmers of the late 1800's have been called "responsible land stewards" in contrast to neighboring countries' farmers (Evans, 1999: 6). Eventually, the activity of the nineteenth century colonizers began to largely impact the natural resources of the dry tropical forest and the rainforest of Costa Rica. The slow-growing population began to alter the ecosystem through deforestation for the selling of wood and the cultivation of coffee and cacao.

Between the years 1821-1850, the Costa Rican government produced contradictory legislation in relation to the forest. During a cholera epidemic in 1833, the government ordered the destruction of the forest near infected areas. Government officials believed the trees contributed to the cholera infection in the air. Ironically, in contrast to the government order for deforestation, the government mandated that the central provinces plant seeds of certain types of trees due to the scarcity of particular tree species. In certain regions in Costa Rica, the government required the official permission to fell any species of tree (Nájera, 1994: 17-18). Evidence suggests that the idea of conservation had entered into the political area. One should be aware that the government created the legislation in response to the environmental degradation that had already occurred; the damage had reached a visible level.

¹¹ One manzana is equal to 7,056 meters².

In the latter half of the nineteenth century, two foreign nationals with contrasting agendas came to Costa Rica and had an everlasting effect on the biodiversity of the country. A Swiss naturalist named Henry Francois Pittier was contracted through the *Colegio Superior de Señoritas* and the *Liceo de Costa Rica* as part of a group of European professors to teach and carry out research. Pittier created the Physical Geographical Institute, the National Agriculture Society, and the National Observatory in Costa Rica. Costa Ricans revere Pittier as the individual who began "...the golden age of Costa Rican natural history" (Evans, 1999: 19). Many scholars frequented Costa Rica during this epic to explore, collect, and record the diverse botanical and zoological species of the country.

The second foreign national to greatly impact Costa Rica was Minor C. Keith, a North American investor responsible for building the country's railroad and for establishing Costa Rica as a banana republic. "For the development of this business, the richest and most diverse ecosystem was eliminated, the tropical rainforest" (Nájera, 1994: 20). The influence of Pittier's conservation movement had little impact in the area of Limón and the Zent Valley. By the end of the nineteenth century, this region economically depended on a monoculture of bananas and the majority of its biodiversity disappeared.

Between 1900 and 1930, Costa Rica achieved intellectual progress in the area of conservation. The University of Costa Rica inaugurated a naturalist, Rubèn Torres, as the Dean of Sciences, and José María Orozco of the National School of Agriculture (established in 1926) pioneered the conservation of the mangroves.

Moreover, José María Arias, another member of the National School of Agriculture, formulated ideas of conservation of the environment that resemble today's modern vision of conservation. Arias proposed: "1. the sustainable use of the forest. 2. the reconstruction of altered ecosystems, and 3. strict control of activities which damage the biodiversity of the forest" (Nájera, 1994: 21). The same ideas proposed by Arias constitute a large part of the sustainable development policies used by countries all over the world today.

Academically, Costa Rica progressed slowly in its conservation efforts between 1930 and 1960. Very few courses on natural history were offered at the National University of Costa Rica. Nevertheless, the National School of Agriculture continued studying biodiversity and conducted studies on the life cycles of certain organisms, such as plagues, that proposed a threat to agricultural production and forest resources. In addition to agricultural advancements, a study of marine turtles of the Caribbean began which years later evolved into a protection program for the turtle population (Nájera, 1994: 23).

Between 1930 and 1969, the effects of the monoculture of bananas, population growth, and the great depression surfaced in Costa Rica. An inter-American organization known as CATIE, Centro Agronómico Tropical de Investigación y Enseñanza (Tropical Agronomical Research and Higher Education Center), initiated new agricultural techniques to reduce the strain placed on the land. In reaction to the shrinking international market caused by the Great Depression, many farmers diversified their cultivation to sugar cane and raised livestock to

increase their market options, therefore causing Costa Rica's available land for agriculture and cattle to diminish. American biologist Alexander Skutch described man's impact on the land in Costa Rica in this manner,

“...[man] covers larger areas with his highways and constructions, destroys thriving forests to make cultivated fields and pastures for his beef cattle, contributes to the spread of deserts by over-exploiting lands, and poisons seas with his wastes” (in Evans, 1999: 23).

By 1963 the Costa Rican population grew to half a million inhabitants and “...in order to satisfy the needs of the growing population, one-fifth of the national territory was incorporated into production” (Nájera, 1994: 24). Industry and Agriculture formed the basis for Costa Rica's economy, and in response to their economic role, the government established legislation to insure their sustainability. For example, the forest industry implemented *guardabosque*¹² activities to preserve the trees used in paper production. Unfortunately, a project intended to protect the oak trees, which bordered the Southern Inter-American Highway, failed. Nevertheless, the government of the 1950's had made concerted efforts to promote conservation projects, and in 1956 legislators created the first law for the protection of wildlife, water, and soil. In Costa Rica's environmental history, this time period marks the early stages of an establishment of a national sentiment towards the conservation of natural resources.

¹² Guardabosque is a person or an entity that “guards” the forest such as a forest ranger.

The government also implemented agrarian reform programs during the decades of the 1950's, 1960's and 1970's. In order to promote the economic development of the growing rural populations, the government sought to equalize the distribution of the land to *campesinos*. The government also attempted to resolve the inadequate use of the lands. For example, Carolyn Hall states that "...in some areas, the natural resources were under-utilized; in larger zones, the land was over-exploited, a process that leads to the destruction of potentially renewable resources" (1984: 261). In addition to the growing sentiment of environmental conservation, Costa Rica was also addressing its problems of rural development in relation to its natural resources. The growing rural population was putting more pressure on the environment.

Intellectual conservationists made notable advancements in their tropical studies of Costa Rica during the decades of 1960 and 1970. Entire ecosystems such as that of *Corcovado* were analyzed and documented. Rainforest and tropical forest organizations were born which dedicated themselves to the study, conservation, and rational use of resources in the environment. The studies carried out by these organizations and other universities led to the creation of a biological reserve in 1963, and in 1964, the first forest reserve (Nájera, 1994: 28).

In 1974, Costa Rica designated its first territories to become part of a national park system. Combating with the conservation movement was the "...growing demand by the *campesinos* for new lands to cultivate" (Nájera, 1994:28). The nations growing infrastructure placed immense pressure on the natural environment. An

increase in migration to urban areas led to the construction of more highways and other public works which greatly impacted the country's ecology. The country struggled to meet the demands of the growing population while establishing lands for conservation.

Nevertheless, the National Park Service of Costa Rica was created with the aid of two men, Mario Boza and Alvaro Ugalde. Boza graduated in 1968 and wrote his masters thesis on a plan for a national park for Volcán Poás (Evans, 1999: 24). Ugalde dedicated himself to examining the problems associated with managing a park system, and together with Boza the two men formed a team that was able to obtain the political and economic support to fund and maintain a park system.

The first years of the park system encountered many problems. The National Council for the Investigation of Science and Technology for Conservation folded, and the implementation of courses at the University of Costa Rica on the administration of protected areas and wildlife failed (Nájera, 1994: 29-30). Throughout the 1970's the national park system rested on unstable ground. The following decades allowed for the park department to stabilize and grow roots in the academic and political spheres of Costa Rica.

A serious problem that the conservation movement encountered involved the lack of government funds to keep the projects functioning; moreover, the different administrations that came into power did not always support the conservation movement. However during the period between 1975-1990, an international idea circulated that conservation organizations such as the World Wildlife Fund and the

World Fund for Flora and Fauna purchase some of Costa Rica's external debt in exchange for the conservation of the environment (Lara, et al., 1995: 119). The debt exchange program became known as the Debt-for-Nature Swap program. Other countries in situations similar to Costa Rica's approved this exchange system as well.¹³ To promote the Debt-for-Nature Swap program, Costa Rica created a system of protected areas of its land and designed 29 different categories of areas for conservation (Nájera, 1994: 32).

In addition to the lack of appropriate funding, the government appointed a multitude of institutions to manage the conservation projects, but specific individual duties were not designated. This resulted in a collision of responsibilities and an overlapping of functions. The mismanagement and unorganized systems caused many projects to be ineffective.¹⁴ Furthermore, the introduction of ecotourism into areas of conservation intensified the problems.

The preliminary visions of ecotourism sought to bring funding to the conservation movement by bringing people to protected areas to study or observe natural resources that were in danger of depletion. However, the most serious criticism ecotourism received was that "...the majority of earnings from tourism [went] to private businesses that [did] not support the parks nor the surrounding

¹³ The first nation that approved the idea was Bolivia. Although it was not until 1987 that the World Foundation for the Environment announced in agreement with Costa Rica to buy 270,000 dollars of external debt for 100,000 dollars. The country corresponded in exchange for reacquiring the debt note for a 20% discount (Nájera, 1994: 32).

¹⁴ L.A. Fournier examined this situation in a 1984 study on the ineffective management of the protection, production, and use of water in Costa Rica. For further analysis see, Fournier, L.A. 1991, Desarrollo y perspectivas del movimiento conservacionista costarricense. Universidad de Costa Rica, San José, Costa Rica.

communities; in addition to this ecotourism [disguised] massive tourism that damages the ecosystems directly” (Nájera, 1994: 33). Tourism has been heavily criticized for impacting protected areas and not conserving or preserving the environment. The intentions of the ecotourism projects were to secure funding and to raise awareness of the conservation movement. Unfortunately, very few of these projects fulfilled this objective or contributed to the environmental development of the country.

To coincide with the struggling nation park system was the increasing rate of deforestation. The United Fruit Company relocated its banana production from the east coast of Costa Rica to the west coast due to a fungus that destroyed the east coast banana crop. “United Fruit records show that from 1900 to 1965, nearly 185,000 acres of forest were cleared for bananas” (Evans, 1999: 36). Unfortunately, when the company relocated to the west coast of Costa Rica, the rate of deforestation accelerated rapidly to nearly 153,000 acres a year which accounted for approximately 20 percent of Costa Rica’s total annual rate of deforestation (Evans, 1999:37).

In the 1990’s Costa Rica was forced to confront its problem of the external debt and its dependency on the importing of goods and services. Many international companies from the United States, Japan, and Europe established corporations within the country. The dependency on imported goods and services was now joined by the commercialization of the country by multinational companies (Nájera, 1994: 35). The level of optimism in the area of conservation fell in response to Costa Rica’s need to improve its economic development to reduce its foreign debt. The

government shifted its focus from the environment to the progress of the nation in economic terms by means of commercialization.

Fortunately, environmental issues were not neglected for very long. Globally, governments were working together to combine economic progress and environmental issues into one development theme. The Earth Summit in Rio de Janeiro in 1992, combined the world's need to conserve its resources and protect the environment for future generations with the need for countries to be economically capable of supplying their populations with the necessities of life.

Presently Costa Rica's National Development Plan is based on sustainable development and the ideas presented in Agenda 21. The government has established a system of indicators and monitors to successfully implement economic development plans and the sustainability of the environment into its public policies. The system of indicators of sustainable development (SIDES) evaluates three components: social and demographic, economic, and environmental. These components guide public policies and decision makers in the public and private sectors (United Nations, 1997).

The Presidency of Oscar Arias Sánchez (1986-1990) was responsible for setting the tone of sustainable development issues for the future administrations in Costa Rica. A well-known supporter and promoter of Costa Rica's National Park System and protected area policy, Arias initiated plans of incorporating sustainable development issues into Costa Rica's development policies. In a presidential speech, Arias stated,

“In just a few short years we have been able to consolidate a system of protected areas...But we should recognize that until now the concept of sustainable development has not formed part...of the ways implemented for socioeconomic development” (Evans, 1999:154).

However, the United Nations Earth Summit in Rio de Janeiro caused a global preoccupation with integrating sustainable usage patterns of natural resources with the overall development of a country. The term “development” no longer signified strictly economic development. Countries such as Costa Rica struggled to form policies that combined economic development, the sustainability of its rich natural resources, and social equality. In Costa Rica, the presidency of José Figueres (1994-1998) was “...in the forefront of [environmental] changes” (Evans, 1999: 251). At this time the government defined sustainable development as fulfilling the needs of the present population while simultaneously conserving the environment for the future population.

In 1994, the Figueres administration made sustainable development officially part of its public policy. Under this administration the National Council for Sustainable Development (CONADES) was created in order to promote sustainable development among all sectors. “CONADES consists of representatives from government, the academic sector, business/cooperatives, non-governmental and social organizations” (Rio+5, 1997:1). A Unit of Sustainable Development in the Center of Investigation (UNED) was established as well. Furthermore, previous areas of contention, such as ecotourism and failed reforestation programs, were evaluated and reorganized to benefit the environment and be economically efficient. Only time will

show if Costa Rica's environmental efforts have a real effect on the overall development of the country.

Chapter 2

THE HISTORY AND IDEOLOGY OF GENDER IN SUSTAINABLE DEVELOPMENT

This chapter provides a history of the ideology of gender issues within sustainable development and within Costa Rican governmental policies. I will also discuss obstacles to women's participation in sustainable development in Costa Rica.

Within the evolution of development activities in Costa Rica, a more obscure evolution occurred as well. The issue of gender roles and women's equality has slowly gained recognition as a fundamental component of development policies. The issue of gender in sustainable rural development has encountered difficulty in establishing itself as a legitimate platform for support by policy makers. This, in large part, is due to the lack of data on women's presence and roles in rural areas. Policy makers cannot create and implement policy and programs that positively benefit women due to the lack of gender-sensitive data (Bifani, 1997:3-4).

In Costa Rica, women's organizations have received governmental support since the 1950s, and in the last ten years the government implemented legislation promoting women's social equality.¹⁵ Unfortunately, in the areas of agriculture, bank credit, and training programs, women have virtually been excluded (Lara, et al.,

¹⁵ Women's rights gained precedence in the 1989 creation of the office of Women's Defender and the 1990 passage of the "Law to Promote the Social Equality of Women." The 1990 Law guarantees women's rights to family patrimony and inheritance in married unions and free unions. Women also gained the right to maternal leave and government childcare facilities (Lara et al, 104). Previously established institutions were the 1975 creation of the first Women's Office which eventually evolved into the 1979 Office of National Women and Family Office and the National Center for the Development of Women and the Family in 1986 (Bifani, 1997:3).

1995:105). The exclusion stems from the lack of government organizations to collect gender-sensitive data, especially from rural areas. This lack of information on rural women was highlighted in a case study done in Costa Rica in 1997, through the Food and Agricultural Organization's (FAO) Women and Development Service. The study found that before 1997, initiatives in favor of women were characterized by an urban bias (Bifani, 1997:3). Moreover, the policies and laws passed that emphasize women's positions tend to be modified or ignored. For example, legislation that supported setting a quota of female candidates in the electoral register was modified to require political parties only to "...encourage female participation in positions of leadership" (Lara, et.al, 1995:104). The absence of unbiased statistical data hinders the creation of fair and just gender policies. Gender gaps and the lack of gender-sensitive data in Costa Rica can also be examined through a historical, cultural perspective.

Women in Latin America have historically been surrounded by a multitude of dichotomies. Many Latin American women struggle with living in public and private spaces; in other words, the gender division of spaces allocates the public sphere to be a male arena and the private sphere (the home) to be a female arena dominated by males. Therefore, social development must erase the dividing line and converge the two spheres in order to have gender equality.

Another dichotomous cultural legacy that has heavily impacted Latin American women is the juxtaposition of *Machismo* and *Marianismo*. "The key aspects [of *marianismo*] are moral superiority and spiritual strength combined with a

submissiveness towards men” (Craske, 1999: 12). The embodiment of the characteristics of the Virgin Mary, *Marianismo*, has been an accepted social behavior of Latin America women since the colonial period. In opposition to this role is the aggressive male attitude of *machismo* which seeks to control female spaces by participating in offensive social conduct, such as *piropos* (catcalls), maintaining a dominant breadwinner position, and having complete control of the family income. These values tend to be deeply ingrained in the Latin American culture. An anthropologist of Costa Rican Culture, Richard Biesanz, describes *machismo* and *Marianismo* in this manner:

“The myth of *machismo* rests on belief in the natural, inborn superiority of men over women in anything political, economic, or intellectual; the myth of *Marianismo*, belief in the equally natural and inborn moral and spiritual superiority of women. The first justifies male dominance and privilege; the second, female submissiveness and self-denial” (Biesanz, et al., 1982: 90).

In the *machismo* culture of Latin America, the diminishing of gender inequality has been a slow and laborious process. Biesanz explains that women are content with their subordinate situation and that while women do not see themselves as men’s equals, women feel they are morally and spiritually superior (Biesanz, et al., 1982: 109). Some scholars feel that these social constructs perpetuate gender gaps in Latin America (Campillo, 1997; Romero, 1986).

Historically, within the international political arena, much dialogue exists about the importance of gender equality. The roots of the issue as it developed in North America surfaced in the 1960’s when anthropologists such as Margaret Mead,

Kate Millet, Betty Friedman and Julie Mitchell denounced the patriarchal domination that existed within the western industrialized countries (Campillo, 1997: 29).

The women scholars contemplated the subordination of women in economic, social, and political spheres; furthermore, they discussed how western countries' patriarchal political systems perpetuated women's inferiority and the need to overturn this mentality. Unfortunately, this debate circulated only among feminist scholars, and many outsiders deemed the debate radical, which created yet another barrier to break through by women. The principal argument by scholars was not a complete immediate overhaul of every element of Western society, but the argument emphasized women's equality, proposed their well-being and demanded the opening of more opportunities for females in different sectors of society (Campillo, 1997:30).

During the same epic as feminist issues gained recognition in Western societies, issues of gender and social equality emerged in Latin American politics as well. Social or class equality in Latin America surfaced within the realm of agrarian politics by making land available to *campesinos*. Agrarian reform policies of the 1960s did little to alter power relations among the established social order, and unfortunately, within the agrarian policies, women's issues made little headway among the political debates of land reform. However, the important change that occurred during this time period was a shift in political policies from an emphasis on urban development to rural development.

Latin American political debates at this time "...made an emphasis on the reorganization of productive assets, especially the land, reforming nonfunctioning

agrarian structures with respect to the needs of the development of the nation”

(Campillo, 1997: 30). The new plans for rural development sought to restructure an agrarian system that had strong colonial roots. Unfortunately, the restructuring of traditional colonial gender roles did not find a voice among politicians in the agrarian reform arena. Many *campesina* women searched for agency among their *compadres* and

“...in spite of the active participation of women in the *campesina* mobilization for the land, the agrarian reform and colonization plan limited the perceptions of women as potential beneficiaries of welfare programs and the improvement in the domestic realm, this was not clearly articulated with resources and technical priorities”
(Campillo, 1997:30).

The exclusion of women from agrarian reform merely perpetuated their subordination by continuing the disequilibria that existed between male and female positions in rural cultivation practices and veiled their involvement in agricultural production.

Lauris McKee’s study of the effects of rural development on indigenous and *mestizo* rural communities in Ecuador found that the national development policies negatively affected the gender division of labor by making women’s work invisible. “One characteristic of women’s labor in less-developed countries is that it remains ‘officially’ invisible. Partially this is because women’s housework is unsalaried, as is their agricultural labor in family fields” (McKee, 1997: 24). Men’s work in the *campo* is considered salaried because the male is usually the one who sells the remainder of a crop after the harvest has provided sufficient food for the family. Darryl Cole-Christensen, a Costa Rican farmer in the 1950’s, described his journeys

to market to sell his produce in his autobiography *A Place in the Rain Forest*. He traveled twice a week to the port town of Golfito along a narrow, muddy mountainous road while his "...wife and ...girls [waited] at home" (Cole-Christensen, 1997: 223). Earlier in the book, the author discussed how women participate in the harvesting of the crops, but women are absent from his description of the market and the sale of the family harvest.

To the dismay of the mobilized *campesina* women, the patriarchal organization of land control was merely rewritten into the national society through the Latin American agrarian reform policies of the 1960's. Latin American governments took land from the large landholders of the colonial *latifundio* system and redistributed the land to the *campesinos*. Land titles continued to be in the name of the male head of the household, reinforcing the "...patriarchal version of social organization and an ideology of labor division whose origins are traced to Hispanic invaders in the sixteenth century" (McKee, 1997: 13). The agrarian reform programs ignored the unequal division of the rural woman's role and strengthened the social and economic power of the male by creating development policies around a male agenda.

In the years following agrarian reform in Costa Rica, and many other Latin American countries, policy makers recognized that rural development, to be successful, would need more complex policies than merely restructuring land distribution. A word that began to appear in political and economic spheres was "integration." In the 1970's the concept of *Desarrollo Rural Integrado* (DRI) or

integrated rural development emerged as an economic development theory for rural communities. In essence this was a state program that sought to combine social and productive components by mobilizing rural resources to improve the income and productivity of the rural poor. One scholar summarized Integrated Rural Development's objectives as

1. "To correct the disequilibria between the *campo* and the city."
2. "To produce more foods that would improve nutrition and increase the income of the rural poor and eliminate their external dependencies."
3. "To generate employment and retain the rural migrants."
4. "To integrate the marginalized society of the *campo* into the national society." (Machado, 1993 in Campillo, 1997: 31).

Thus, Integrated Rural Development sought a solution to economically and socially stratified regions by focusing development theories strictly on agricultural productivity. In this process, while socioeconomic equality received emphasis, gender equality was not the theme.

On the international level, however, the issue of gender equality emerged. In 1975, the United Nations held the World Conference in Mexico City and named the year "the International Women's Year." Furthermore, the United Nations decided to declare the decade from 1975 to 1985 the decade for women. "In the early 1970's, efforts to end discrimination against women and to ensure their equal participation in society provided the impetus for most initiatives taken at [international] levels" (United Nations, 1986:1). The United Nations began developing strategies to

investigate women's positions in all cultures, and for the first time on an international political level, gender awareness was an important issue.

“Those efforts were also inspired by the awareness that women's reproductive and productive roles were closely linked to the political, economic, social, cultural, legal, educational and religious conditions that constrained the advancement of women and that factors intensifying the economic exploitation, marginalization and oppression of women stemmed from chronic inequalities, injustices and exploitative conditions at the family, community, national, subregional, regional and international levels” (United Nations: 1986:3).

The International Decade for Women focused on incorporating women into world development plans based on the aforementioned conditions. To ensure the effective pursuance of the United Nation's strategies, world conferences were held every five years to examine and evaluate women's participation in development programs.

In 1980 at the World Conference in Copenhagen, policy makers once again revisited the definition of equality, the definition of legal rights, and the definition of the elimination of discrimination, and concluded that these definitions needed to encompass a broader spectrum of issues within socioeconomic conditions. World leaders declared that eliminating inequality should imply the opening of more opportunities, rights, and responsibilities. In relation to development policies, the opening of opportunities would ensure women “both as beneficiaries and as active agents” in urban and rural development programs (United Nations, 1986: 5). The participants at Copenhagen discussed how women were excluded from certain opportunities not only because of institutional discrimination, but also because of cultural and behavioral attitudes, which did not view women's skills and talents as

beneficial to national political, economic, and social development (United Nations, 1986: 5). As the decade for women continued, policy makers hoped that economic growth in lesser-developed countries would spur the participation of women in economic sectors.

During the Nairobi conference in 1985, two other objectives in addition to the gender equality objective received paramount attention; these objectives were “development” and “peace.” These issues were considered interlocking and the success of one would contribute to the success of another. In this year, the words “women” and “development” began to form a bond that also included elements of environmental issues as well as social development. Nations began transforming the definition of development to include more than just economic growth.

Total development encompassed political, economic, social, and cultural progress and change. The Nairobi discussions defined “total development” with the previously mentioned characteristics, but they also stated that “Development...[required] a moral dimension to ensure that it is just and responsive to the needs and rights of the individual and that science and technology are applied within a social and economic framework that ensures environmental safety for all life forms on our planet” (United Nations, 1986:6). Slowly through the decade of women, one can see the evolution of gender issues being linked with development and environmental issues. The accumulation of these platforms had yet to be defined as “gender roles and sustainable development,” but the stage had been set for these

topics to receive paramount attention at the Earth Summit conference of the United Nations for the environment and development held in Rio de Janeiro 1992.

In the years preceding the Earth Summit of 1992, women convened internationally to discuss the mechanics of their struggle. In November of 1991, 1500 women from all over the world met in Miami for a meeting called the World Congress for the Health of Planet Earth. This union of women declared that in order to improve the health of the planet and its living organisms, all men and women must unite for a "...profound transformation of human values to restore the health of the planet" (Niehauss, 1992:115). During the Miami meeting the women formed an objective which stated that the politicians and institutions of influence of the world have the responsibility to facilitate harmony between Mother Nature and human needs; moreover, within this responsibility was included the guarantee of long-term security of the planet and its population. Consequently the conference declared, "...only politicians can successfully formulate the full participation of women" (115). In basic terms, the World Congress mandated that women have a say as to what and how they should be included in the development arena, but the responsibility of implementation lies with international and national policy makers to facilitate development programs in a successful manner. One year after the world conference in Miami, the topic of women and the environment received unprecedented emphasis at the Earth Summit in Rio de Janeiro.

From June first to the twelfth in 1992, world leaders convened in Rio de Janeiro for the Earth Summit Conference of the United Nations for the Environment

and Development. The main item of discussion was sustainable development. Development had evolved from the goal of eradicating poverty to include the conservation of the environment. Within this evolution, women were cohesively linked with the revitalization of the environment. Principle 20 of the Rio Declaration on Environment and Development stated, “Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development.” Moreover, Agenda 21, the blueprint for sustaining the environment and improving development, presented at the Rio conference specifically addressed women’s issues in nearly all its chapters.

In chapter three of the agenda titled “Combating Poverty,” women were considered a vulnerable group susceptible to poverty. The strategy for raising women above the poverty level included granting women equal rights to land ownership, giving them decision-making positions, supporting women’s productive and reproductive roles, and extending credit to women. In order to implement these objectives, Agenda 21 called for governments to create programs which gathered information on women’s needs and aspirations and designed facilitation strategies based around gender-specific evaluations (Agenda 21, 1992: 3.9).

Linking the combating of poverty and the sustainability of the environment, Agenda 21 mandated that unsustainable consumption patterns must be eliminated, especially with the increase in the world population. This manner was one manner to sustain the environment on an individual level. More specifically, “...particular attention [was paid] to the significant role played by women and households as

consumers and the potential impacts of their combined purchasing power on the economy” (Agenda 21, 1992: 4.27). Historically, governments separated socio-economic and environmental factors when creating development policies. Agenda 21 sought to combine these factors in all planning and management levels. Moreover, the evaluation of women’s participation in the economy, society, and the environment was needed to create effective policies. Chapter Five of the Agenda on “Demographic Dynamics and Sustainability” mandated that

“Specific attention should be given to the critical role of women in population/environment programmes and in achieving sustainable development. Projects should take advantage of opportunities to link social, economic and environmental gains for women and their families. Empowerment of women is essential and should be assured through education, training and policies to accord and improve women’s right and access to assets, human and civil rights, labour-saving measures, job opportunities and participation in decision-making. Population/environment programmes must enable women to mobilize themselves to alleviate their burden and improve their capacity to participate in and benefit from socio-economic development” (Agenda 21, 1992: 5.48).

The need for gender-specific evaluations permeated every theme addressed by Agenda 21 at the Rio conference. The inclusion of women into the public sphere was an international priority.

The incorporation of women within the development agenda increased and became a common theme in the political discourse. However, many scholars argued that women’s issues were only a rhetorical topic and the actual implementation of physical, visible changes in development programs to involve women remained absent. Fabiola Campillo, director of Consultorias FUTURA, stated,

“...these orientations have the limitation of searching for the integration of women in the paradigms of previously established development, almost always without the input of the women who are actually participating. This situation [is reflected] in the [development] argument by maintaining the inclusion of the theme of women in politics and rural development programs: maximize their contribution, make their participation more efficient and functional in relation to the purpose of improving their income and quality of life, and to transcend poverty. Aspects of autonomy, differentiated interests, and power relation, are still not part of the development agenda” (Campillo, 1997: 31-32).

The author explains that gender issues were addressed in abstract ways and while concerns were expressed about including women into development policies, the actual question of “how” was not explained. For example, the discourse stated to “...make [women’s] participation more efficient and functional,” but a plan for implementing these changes in relation to preexisting cultural or social constraints was not dictated (31-32).

A study done in Latin America in the 1980’s by Maria Romero titled, “Mujer Popular y Participación” found three significant factors that limited the incorporation of women into the development of a Latin American country. The study revealed that women’s domestic work, the problem with the double shift¹⁶, and the limitation of remunerated work of women were byproducts of the cultural ideology of gender roles. The researchers of this study believed that ideological factors contributed to creating subtle barriers that did not permit women to transcend the domestic sphere. These ideologies were manifested within the state institutions such as the education

¹⁶ The double shift signifies that women have two jobs, one paid job and one unpaid. In some Third World countries, women are estimated to work 18 hour days, compared to 8 to 12 hours for men (Jacobson 1992).

system and within the social culture in the ways men and women communicated.

“[The ideological barriers were] intimately related with the economic and social structure of the country” (Romero, 1986: 129). Furthermore, the characteristics of these three fundamental issues, women’s domestic work, the problem of the double shift, and the limitation of remunerated work, trickled down to affect and restrict the involvement of women in urban and rural national development.

Anthropology Professor Henrietta Moore and other anthropologists explained that even in those countries that promote women’s participation through their policies, women experience barriers in female emancipation because “...the institutions of state power, as well as formal political roles, remain male-dominated....[therefore,] the state is not neutral...and as a result they serve to institutionalize male privilege” (Moore, 1990: 150). The result of a male-dominated state signifies that males, not females, more likely make many of the decision about integrating women into sustainable development programs.

The discourse on gender and development emphatically explicates the importance of women’s roles and the dissolution of existing barriers. The transference of these concepts specifically to rural development opens up an arena with centuries of patriarchal order. The struggle for gender equality in development programs in the *campo* possibly has a much harder battle to fight. In recollection of the aforementioned lack of gender consideration in the Latin American agrarian reform programs of the 1960’s and 1970’s, “...the majority of the rural development programs contain old vices and have the patriarchal stamp” (Campillo, 1997: 35).

Many rural development programs continue gathering data based upon the number of families and do not gather data according to the sex and age of individuals living in rural areas, such as the Costa Rican agrarian reform policies did in the 1960's (Campillo, 1997:30).

Reoccurring phrases that appeared in the political discourse of the 1970's and 1980's were "...ending discrimination against women and equal rights and opportunities for women." In the development policies of this era, however, policy makers were not cognizant of other cultural barriers that might prevent women from procuring these opportunities. These policies were "...based on an acceptance of existing social structures and traditional development objectives" (Thrupp, et al., 1994: 44). The discourse of the 1990's changed the language of development policies from women and development to Gender and Development (GAD). Social conduct differs from culture to culture; therefore, development programs seeking to integrate women must consider the different relationships between the sexes to plan a successful project. "GAD is less concerned with women per se than with the assignment of specific roles, responsibilities, and expectations to women and men" (44). Moreover, combining the concept of sustainability and gender within development policies requires an analysis of how men and women use resources. The collection of gender-sensitive data is pertinent to understanding how to implement sustainable projects.

Unfortunately, within Costa Rica the areas of agriculture, bank credit, and training programs have historically excluded women (Lara, et al., 1995: 105).

Statistically, within census data women are barely present. Costa Rican women contributing to the rural economy were estimated at only 6,000 from a 1992 census; however, the Inter-American Institute for Agricultural Cooperation (IICA) changed this estimation to between 60,000 and 80,000 women contributors (105). This fact exemplifies the problems associated with the gathering of community and state data in that the data tends to be gender biased.

Politically, women in Costa Rica show little presence as well. For example, "...the number of female deputies in the 57-member Legislative Assembly has barely expanded in the last 40 years" with an expansion rate of three members to only nine women deputies (Lara, et al., 1995:105). The lack of female political presence in Costa Rica can only hinder the efforts of policy that includes gender equality. Furthermore, cause for alarm emerges when one recognizes that political decisions about gender issues are made with almost the complete exclusion of women's opinions and views.

Many countries have already begun gender-sensitive research. For example, the Ministry of the Environment and Energy (MINAE) in Costa Rica asked both women and men their opinions about conservation issues in a recent survey in the community of La Gamba. Moreover, in June of 1997 Costa Rica established a Gender Unit in the office of SEPSA (Mixed Farming and Sector Planning Executive Secretariat) which is responsible for retargeting policies to answer the needs of men and women agricultural producers (Bifani, 1997:3). Efforts are being made in relation to gender-specific investigations; however, successful implementation of sustainable

development projects based on gender-specific investigations has been difficult for the authoritative entities in charge of the projects. The progress on the mandates of Agenda 21 presented at the Rio Conference is scheduled to be evaluated in 2000 and 2002.

The incorporation of gender issues into sustainable development projects continues to be a heavily debated topic among scholars and policy makers. Social equality and women's participation appears in development discourse, but the actual evidence of specific goals accomplished regarding gender equality is scarce. Fabiola Campillo, director de Consultorias FUTURA, stated in 1997, "...the concept of gender already appears in many of the arguments of rural development as a constitutive element, although its development is incipient and incomplete" (Campillo, 1997: 34). Strategies to successfully execute gender equality into rural sustainable projects in the past decade have not prevailed.

The spectrum of issues that sustainable development encompasses remains a debatable issue today. For example, the organization in charge of the La Gamba projects in Costa Rica claims that policy makers do not have a concrete plan for combining social, economic, and environmental development, and the policy process is constantly being modified to discover the best way to integrate all three sectors of development (Neotropica Foundation, 1998:1). After years of restructuring and redefining the responsibility of sustainable development programs, the general consensus among Costa Rican politicians and academics is the inclusion of three dimensions of sustainability: ecological, economic, and social (Muller, 1997: 44).

The main component of social sustainability is the promotion of social equality among men and women. Policies supporting the issues of Agenda 21 from UNCED dictate that sustainable development projects have the responsibility to combat gender inequality between men and women by promoting women's participation as a key element in the success of sustainable development projects.

In order for sustainable development to function, the social constructs must change. "Half of the world's population is made up of women, yet for the most part they still do not have equal access to land, credit, technology, education, employment, and political power" (Thrupp, et al., 1994: 43). Sustainable Development's objective seeks to diminish the existing gender inequalities by promoting women's participation within the community and in positions traditionally held by men.

Within the context of economic and ecological sustainability, women play a crucial role in determining the success of both these dimensions. In rural communities, studies show that women have the most contact with the environment where all natural resources are located.¹⁷ Therefore, their knowledge is needed to protect and rehabilitate endangered environments. "In general the concept of sustainable development is based on the recognition that a nation cannot reach its economic goals without also achieving social and environmental goals--that is, ...equitable access to and distribution of resources, stable populations, and a sustained natural resource base" (Thrupp, et al., 1994: 43). Furthermore, women's

¹⁷ "This fact is clearly documented in the diagnostics fulfilled by ORCA, between more than 50 women's organizations in seven Central American countries. Of the studies, [ORCA] deduced that women have intimate relationships with nature and their family members greatly depend on them for their sustainability" (Niehauss, 1992: 116).

participation in rural sustainable development projects is an important element to the success of these projects.

CHAPTER 3

LA GAMBA AND NEOTROPICA

This chapter begins with the establishment of a community called La Gamba in the southwestern zone of Costa Rica and its involvement in sustainable development projects through the organization known as the Neotropica Foundation. I will focus on rural women, discussing their participation in the community. The profile of La Gamba is to provide a context for the reader to understand characteristics of a rural *campesino* community, and the profile also enables the reader to understand the environment in which the projects were situated.

Community of La Gamba

La Gamba is located in a valley near the Golfo Dulce, a gulf on the southwestern coast of Costa Rica. Parque Nacional Piedras Blancas borders the community on the west and the Inter-American Highway is the eastern border. The community of La Gamba was established in the 1940's with five families who worked in agriculture. A decade later when the United Fruit Company arrived in the nearby town of Golfito and developed the region for banana production, the community began to grow. The surrounding forest contained rich woods that were exploited for profit, and eventually 90 families inhabited the area (Altrichter, et.al., 1999:10, Appendix A).

Approximately 50 families live within the center of La Gamba, and in addition to this settlement, 40 families live dispersed around the valley area and in the mountains. Along a rough gravel road that connects La Gamba and Golfito are the communities of El Bonito and La Bolsa, and some families live within the national park limits. “In order to arrive at El Bonito and the surrounding communities, the families travel by horse or on foot crossing ravines and rivers; many of these families live with little communication or contact with La Gamba or Golfito” (Altrichter, et.al., 1999:10).

The majority of the families who migrated to La Gamba came from the northern regions of Costa Rica. About 33 percent of the men migrated from Guanacaste while only 15 percent of the women came from this region. Other regions of origin are Puntarenas, Cartago, Limón, San José, Alajuela, and the southern zone which includes the towns of San Vito, Río Claro, and San Isidro (Altrichter, et. al., 1999:10). From a study completed in 1999 by the Ministry of the Environment and Energy (MINAE), of the 50 families that live in the principal community of La Gamba, the average family size consists of 4.5 persons. The average age of the inhabitants is 47.3 years with a range of 22 to 82 years, and the majority of families have lived in the region for 17.9 years (Altrichter,et.al., 1999:10).

The majority of the families in La Gamba rely on agriculture for food and a small income. “Fifty-seven percent of the families have a farm (larger than 1 hectare), 18.7 percent have small plots (less than 1 hectare) or land given to them by the Institute of Agrarian Development (IDA), the remaining 20 percent do not have a

farm, [and] 94 percent of the [inhabitants] possess the titles to their property” (Altrichter, et. al., 1999:15). The average family farm contains between one and 20 hectares and was acquired through land donated by the IDA.

Occasionally, the people who live in the principal community hunt in the forest although hunting is prohibited. From the interviews I conducted, one gentleman told me that no one hunts anymore, and the people acquire the majority of their meat from their chickens or livestock. Two additional families reported that they eat iguana from time to time, but they did not consider this meat from the forest. However, the iguana is a protected animal in this area due to its scarcity, and currently there are repopulation projects in La Gamba to insure survival of the iguana in this region. The people in the community also hunt and eat the *saino* (collared peccary) and the *tepezcuintle* (*paca*), also endangered animals. Two projects exist within the community to raise the *tepezcuintle* in order to protect the forest populations of these animals in the Parque Nacional Piedras Blancas. Hunting also provides people with income; for example, the meat of a *tepezcuintle* can be sold for around 3,000 colones per kilogram.¹⁸ According to reports, selling of meat is the principal motivation for hunting in the national park. The aforementioned animal projects will be a subject of analysis in the section on sustainable development.

The Ministry of the Environment and Energy’s (MINAE) 1999 survey of La Gamba labeled the living conditions in the community as “regular.” Houses are mostly constructed of wood and concrete. Thirty-four percent of the houses have

¹⁸ 3,000 colones per kilogram is approximately \$5.00 per pound.

kitchens powered by gas and firewood, and 81 percent of the people have electricity for lighting their homes and powering radios, refrigerators and televisions. MINAE reported that eventually "...firewood will be replaced with gas in the central community because it is more costly to buy the firewood than the gas" (Altrichter, et al., 1999: 11). This observation that firewood is more costly than gas to the people in La Gamba is questionable considering that three families I interviewed in the main community obtained their firewood from the forest at no cost to them, and on more than one occasion I witnessed men entering the forest with chainsaws to cut wood, possibly to sell or supply their families with firewood.

The community buries or burns its trash on their individual properties; however, recently Neotropica implemented a recycling program using an old school building for storage until a time when the items are transported to recycling centers located outside the community. Other sanitation practices are not as advanced; no water treatment program exists, and over thirty percent of the families use latrines instead of modern sanitation services (Altrichter, et al., 1999: 11). Moreover, the lines of communication with the outside communities are limited. In the center of town exists one telephone line which is owned and operated by the owners of the community store, and people occasionally travel by foot, taxi, horse, or bicycle to the nearby towns of Rio Claro and La Gamba.

Secondary education in La Gamba does not exist; high school age children must travel to Rio Claro for school after the sixth grade. No buses pass through La Gamba; therefore, children must walk a few kilometers to the Inter-American

Highway and flag down buses headed to Rio Claro. The elementary school is located in the center of town, and approximately 70 students attend it (Altrichter, et. al., 1999:11).

MINAE's study of 50 families in La Gamba reported that women have a higher secondary education level than men, and "...62.8 percent [of women] read and write while only 34.6 percent of men read and write" (Altrichter, et. al., 1999:13). The survey also reports that the majority of those who do not read and write are older people over the age of sixty-one, and only three people out of the fifty interviewed had attended the first year of high school. Based on my interviews, a family's economic situation was the primary reason for not attending high school, followed by a lack of interest in pursuing a higher level of education.

The majority of people in La Gamba obtain their income from the sale of livestock. Other sources of income include commercial activity from the town store and domestic work in a nearby rainforest lodge or private homes in the surrounding towns. Very little daily wage labor exists. Occasionally, people sell lottery tickets, ice cream, or bread. In the time I spent in the community, I observed the women in the community were major contributors to their family's income. This observation was also documented in MINAE's 1999 survey. (Table 1)

<i>Obtaining of income contribution</i>	<i>Percentage from the samples</i>	<i>Women's</i>
Livestock	26.5	-
Agriculture and wage labor	14.3	-
Agriculture and other	6.1	33%
Daily work and other	10.2	19%
Commerce	8.1	24%
Employee and other	18.4	11%
Pensioned and other	16.3	12%

Table 1. Modes of acquiring income from the families interviewed and the contribution of women in the community of La Gamba. Taken from a survey of 50 families in La Gamba that was complete by MINAE in 1999 (Altrichter, et al.,1999:16)

The table reveals that the principal source for women to contribute economically to their household appears to be from selling their agricultural products and other items.

On one occasion during a small weekend soccer festival that I attended, every person selling food and other miscellaneous items were women. MINAE also documented that three women in the community are heads of households and obtain their incomes from a pension, and/or the selling of ice cream, pastries, items from their harvest, and shoe repair. MINAE contributed the active economic participation of women to their higher level of education in comparison to the men and surrounding rural communities. While this analysis is a valid observation, most of the informal work in which the community women are engaged to earn income are extensions of their cultural domestic activity. None of the women's work appears to be a result of their higher education although their literacy levels could contribute to the ability to manage money or successfully market their products. However, the men in La Gamba are economically more active regardless of their education levels. MINAE appears to imply that higher education levels in women serve as a motivator

for economic activity. The connection between women's productive work and their education levels could offer insight into the gender differences in the community; unfortunately, at the time of this study, time did not permit further analysis of this issue.

Another source of income for the women in La Gamba is the Esquinas Rainforest Lodge which is located a few kilometers from the center of town. The Austrian government funds the operation of this ecotourism project in the Parque Nacional Piedras Blancas and also operates a biological research station for students. The lodge employs twelve to thirteen people from La Gamba; seven of the positions receive salaries, and the remainder positions are temporary. Of the thirteen employees at the lodge, four are women with permanent positions, and three women hold temporary positions. The women's jobs consist of cooking in the hotel's restaurant, gardening and lawn maintenance, and housekeeping. Esquinas also supplies employment indirectly by occasionally funding development projects within La Gamba¹⁹.

From the community profile, La Gamba can be classified as a rural agricultural community surrounded by primary forests. The people's use of natural resources taken directly from the surrounding forests appears to be minimal, and their contact with the forest seems to be limited to the gathering of firewood and occasional hunting. In comparison to other rural communities in the area, MINAE feels that La Gamba uses fewer resources than nearby rural communities. However,

¹⁹ This information came from a personal interview with Natalia, the manager of Esquinas Lodge.

based on my research one possible reason for the use of fewer resources could be the presence of a non-governmental organization in the community. Agenda 21 addressed the need to target and adjust environmentally unfriendly consumption patterns, and many of the participating organization's sustainable development projects in the community focus on this issue.

Neotropica Foundation

The Neotropica Foundation of Costa Rica was founded in 1985 as a private non-profit organization. Costa Rican companies, international companies, and international development organizations provide the foundation with financial contributions. Neotropica also operates its own income-generating activities; for example, the organization recently published a book called *Costa Rica, Wildlife of the National Parks and Reserves*. However, the European Economic Community gives the foundation its majority of support and financial backing. A few of the major donors include the Federal Ministry of Foreign Affairs of the Federal Republic of Austria and the Danish International Development Agency. Other international agencies include The Nature Conservancy and the World Wildlife Fund. In 1998, Neotropica received a total of \$1,107,389 in donations and contributions, and the foundation directed \$815,952 of that amount towards development projects (Neotropica Foundation, 1998: 30).

Neotropica's official goal states, "...the Neotropica Foundation assesses and promotes the wise use and protection of natural resources and improvement in quality

of life for the communities, businesses and individuals with which the foundation works directly”(Neotropica Roundation, 1998:1). The organization explained that political decision makers do not have a concrete plan for combining social, economic, and environmental development, and the policy process is constantly being modified to discover the best way to integrate all three sectors of development. Therefore, through the foundation’s development projects, the organization strives to transform traditional development strategies by integrating the environmental sustainability into socioeconomic development (2).

Neotropica focuses its development in buffer zones where people have direct contact with protected areas. Buffer zones are areas of land located next to national parks or inside protected areas. Currently, the foundation operates projects in Tortuguero, Corcovado, and the Piedras Blancas national parks. The organization strives to stabilize the buffer zone through environmental, social, productive, economic, and legal improvements (Neotropica Foundation, 1998: 3). The organization enters into a community such as La Gamba and teaches the people who live in the buffer zones about the value and importance of natural resources and how to live with less impact in these areas.

The impetus for Neotropica’s work derives from the disappearance and fragmentation of the forest from logging and the conversion of land into agricultural and livestock areas. Neotropica educates the communities on ways to sustain their resources and protect the environment, and also offers the people alternatives for generating income.

Presently, Neotropica's projects include teaching farmers sustainable management and diversification practices, working with timber producers to manage their farms in a sustainable manner, implementing reforestation programs through community organizations and school groups, and improving communities' infrastructures and administration procedures while teaching them how to live with less impact on the surrounding environment. One of Neotropica's strategies for the successful implementation of its projects involves working directly with Costa Rica's institutions and organizations such as the Ministry of Public Education or the Latin American Network for Strategies toward Sustainability (Neotropica Foundation, 1998: 10-11). With the help of these institutions, Neotropica develops problem-solving strategies to insure the success of their projects.

The specific projects in La Gamba receive their finances from the Federal Republic of Austria; however, Neotropica implements and monitors the development programs in conjunction with the Asociación Pro-Bienestar de La Gamba. The Asociación Pro-Bienestar has 27 members from the community of La Gamba, and they cooperate with the foundation so as "...to contribute and to support the conservation of the rich biodiversity which exists in the region, promoting an environmental consciousness in the community that procures efficient sustainable development" (Fundacion Neotropica, 1998: 1). Another goal of the association is to work with the ecotourism of the area to generate income for the community. Neotropica works primarily with the association's *junta directiva*, a group comprised only of men, to coordinate the community projects.

The first projects initiated within the community by Neotropica focused on improving the community's infrastructure. These included building a fence around the perimeter of the school, constructing a house for the local teacher, roofing the community center, installing electricity within the building, and buying books and teaching materials for the school and purchasing a lawnmower to cut the school's grass. These projects were completed within a budget of twenty-five thousand dollars. In addition to these development projects, the community expressed the need for a doctor and a policeman stationed in the town (Fundacion Neotropica, 1998: 2). Many of the first projects initiated by the community members and Neotropica were successfully completed with exemplary effort by people working together to meet the community's needs.

Two projects that I studied in the community were sustainable development projects to raise tepezcuintles through individual breeders and to grow medicinal plants in the area. Both projects have been in operation for little more than one year and are financed by the Neotropica Foundation.

CHAPTER 4

CASE STUDIES OF SUSTAINABLE RURAL DEVELOPMENT PROJECTS

Tepezcuintle Project

In this chapter I will provide an overview of the tepezcuintle project and examine more specifically to what extent this project is meeting the mandates of Agenda 21 for sustainability and women's participation.

The sustainable development projects of the tepezcuintle began in December 1999, and presently two projects are in operation in La Gamba²⁰. The tepezcuintles, also known as pacas in English, are rodent-like animals with short tan hair and white spots. These small animals are nocturnal and sleep inside hollow trees or other enclosures provided by the tropical rainforests. Tepezcuintles feed mostly on fruit and other plants and are hunted for their delicious meat, which is very expensive and difficult to find. Currently, the government prohibits hunting tepezcuintles due to their dwindling population. Even though the females are capable of reproducing every three months, the number of births in captivity in the La Gamba projects remains very low. The animal is easily domesticated, and many families have tepezcuintles as family pets.

Neotropica states the goals of the tepezcuintle project to include four objectives:

1. To improve the family diet without endangering the natural populations

²⁰ Personal interviews were conducted with Carlos and Juan . See Appendix B interview questions.

2. To produce more tepezcuintles in order to establish other breeders
3. To develop educational activities to teach others about the environment
4. To generate economic activity through tourism (Zoocriaderos, 2000: 5)

One project contains two tepezcuintles, one male and one female that is pregnant. The other project has one male, one female, and one three-month-old offspring. The animals live in a cage outside and near the homes of the breeders. Within the cages, the breeders built a box that resembles a tree trunk in which the animals sleep or hide, and added fruit trees to provide food and shade for their diet. The cage also includes two water sources, one for defecating and one for drinking. Neotropica requires the breeders to construct the animals' cages according to specifications mandated by the foundation and MINAE, thus assuring a recreation of the animal's natural environment.

The idea for the projects came from the participants who presented the idea to Neotropica in 1998. The foundation had previously expressed to the community the need to implement projects that would help sustain the area's populations of wildlife, thus leading some members of the community to propose the tepezcuintle project. Neotropica supported the project due to the community's knowledge of the tepezcuintle and also because of the people's consumption pattern of the animal.

Carlos of La Gamba manages one of the projects with the help of his son. Carlos also works as a nature guide at the Esquinas Rainforest Lodge, and has lived in the community for 12 years. In the past he hunted quite often, but since his

involvement with the hotel his hunting activities ceased, and he was compelled to begin his project to raise the tepezcuintles.

At the moment Carlos cares for a male, female, and baby tepezcuintle in a cage built beside his home. The adults arrived from other breeders near Limón, and Carlos emphasized that the animals did not come directly from the surrounding forest. Approximately half of the funds to build the cage and buy the animals came from Neotropica (Nieto and Bonilla, 1999: 27). The foundation required Carlos to attend a class on the care and maintenance of the animal, and a veterinarian visits the breeders frequently to examine the health of the tepezcuintles.

In my interview, Carlos expressed that he supported the idea for the project because of the scarcity of the animal in the forest. With his project he hopes to teach the children of the community the importance of wild animals as a natural resource and to help the children understand that frequent hunting of the animal places it in danger of extinction. Carlos explained,

“The purpose of the project is not necessarily to repopulate the animals in the forest, but the project is to improve everyone’s knowledge [of the tepezcuintle] to bring the people to it and not them to the forest. It is for the schools to come [to the projects] so that more people can be taught about conservation of this animal. It is good to teach the children so that they may know that they cannot hunt it because tomorrow they will not be able to hunt [the tepezcuintle]”

Carlos also hopes to educate adults who hunt in the forest and to teach them about conservation. I asked Carlos about the reaction of the community to his project and if he felt the project altered his role in the community. He responded that some

members of the community felt there was no future for the project, but he thought the project had definitely changed the community's mentality about wild animals. He reiterated that in the past he had hunted for sport almost every Sunday, but now he and the majority of the community have stopped hunting, and most of the community's meat intake comes from poultry. Carlos explained,

“We have a poultry project so that the people won't have a need to hunt. We have cows also, but we don't eat much beef; we are better off to sell the cattle or use them to produce milk, but we rarely eat the meat from our livestock.”

When I asked Carlos and the other project participants if they ate the tepezcuintle, they replied that consumption was illegal. Neotropica stated that one of the goals of the project is to improve the family's diet. Once the tepezcuintles begin to reproduce and the breeders maintain a sustainable level of the animals, then the project will be able to meet the goal of improving the family diet.

In a recent publication Neotropica stated that the community can “sleep with ease because they know that with their efforts that their grandchildren will have the possibility of eating such exquisite meat” (Zoocriadero, 2000: 6). Costa Rican biologist Gloriana Chaverri explained that Costa Rica's laws against the consumption of endangered animals only applies to those animals that live in the forest. She stressed that once the animals become pets or are in the care of an individual, that the laws do not apply; therefore, the two families with the tepezcuintle projects can legally consume the animals. Neotropica's project descriptions appear to support the consumption of the tepezcuintles; however, the project's goal strives to do this

without lowering the existing tepezcuintle population in the surrounding forest by supplying the community with a sustainable source of tepezcuintles. The availability of the tepezcuintles to the community through the projects will lower the incentive to hunt the populations in the wild and in the surrounding national park, thereby preserving the populations of the tepezcuintles. According to the participants, an important goal is to educate the community about the conservation of the endangered animal.

One of Neotropica's ideas for the projects is to encourage tourism in the area by having tourists visit the tepezcuintles. As a result of tourism, Neotropica thought the projects would provide more income for the families who operate the projects. Carlos stated that Neotropica did not permit him to charge tourists to see the animals; however, he does accept donations. Earning money is not the purpose of the project claimed Carlos; he felt that educating people about conservation is more important than charging a fee.

"The people that come here are not charged, we don't charge, if they want they can give a simple donation, I'll accept that with pleasure, but I don't charge. The foundation doesn't allow me to charge. People from [surrounding towns] come but I don't charge. This project is small but it is important. The purpose of the project is to maintain nature and this is what I teach, it's important," Carlos stated.

Recently, however, the Neotropica Foundation stated in a publication that the project contains an economic goal of elevating the income of the project participants by charging tourists who visit the site. On my first visit to La Gamba, I visited the

projects with a group of university students, and we were not charged or asked for donations. Moreover, Carlos never charged me when I visited the projects or when I solicited information from him about the animals or his project.

The incentive to use the animals as a source of income remains strong. Tepezcuintle meat can be sold for 3,000 colones per kilo, which is equivalent to approximately five dollars per pound. The expensive price for the meat gives the poorer rural populations incentive to trap and sell the tepezcuintle. In addition to the families participating in the sustainable development projects of tepezcuintles, other people in La Gamba have caged tepezcuintles which they trapped in the forest and intended to eat or sell. Although the educational process to convince the entire community of the benefits of conserving the wild population is slow, evidence exists that community members are becoming more concerned about the need to sustain their natural resources.

On one of my visits with some of the children in La Gamba, a child named Pedro proudly showed me a tiny cage with a hot tin roof. Inside was a pair of adolescent tepezcuintles which Pedro's dad found in the forest after his dad had killed the babies' mother for food. I asked Pedro why he had the babies caged, and he replied, "Because they are pretty, no?" The other children later explained to me that Pedro's dad intended to raise the pair to sell for money because the meat could provide the family with a lot of cash. The community hopes that the current tepezcuintle projects will produce offsprings so that more families in La Gamba may have their own animals and thus curtail the incentive to hunt the wild populations.

Neotropica permits Carlos to sell his animals only to other breeders and not to commercial buyers. The selling of the tepezcuintle meat as a source of income is prohibited in order to discourage others from going into the forest to trap the endangered animal. Carlos explained the difficulties in changing their consumption patterns,

“We have to learn how to live in this manner. Many come here looking for land. We have cattle and crops to grow, and many of us are not accustomed to working in these small [conservation] projects, but the people of the community recognize the importance of conserving the forest resources for the future. We have a [Piedras Blancas National Park] right here”

For this reason, Carlos reiterated that education of the people about conservation methods is crucial to the sustainability of the animal species in the forest and crucial to the success of the tepezcuintle sustainable development project. The location of La Gamba on the fringes of a national park helps to enforce the message of conservation to the community. As Carlos stated to me, “We are surrounded on all sides [by primary forest]; we have to see how to live with this.” Neotropica and the community are working together to find a way to alter the current consumption patterns, but as Carlos explained, the changing of unsustainable habits is a learning process.

Explanation of Analytical Framework

To examine the extent of sustainability and women’s participation in both tepezcuintle projects and the medicinal plant projects, I utilize an analytical

framework which contains five-factors.²¹ I have compiled this framework based on the mandates of Agenda 21 and the recommendations of Costa Rican economists and environmentalists on development policies such as William Reuben Soto, president of CECADE Center of the Capacitance for Development, Laura Pérez Echeverría, an economist from IICA (Inter-American Institute for the Cooperation of Agriculture), Sabine Müller, also of IICA, and Gerardo Barrantes, researcher for the International Center of the Political Economy for Sustainable Development (CINTERPEDS) of the National University (UNA) in Heredia, Costa Rica.

The five factors are:

1. The conservation and/or preservation the environment for the future
2. The promotion of gender equality
3. The promotion of economic development within specific contexts.
4. The improvement of the quality of life
5. The use of technological development available in the area to improve the sustainability of the project.

Agenda 21 does not state any regulations for the size of a sustainable project.

However, from the tone of the Agenda any size sustainable development project has relevance. Words weaved throughout the chapters such as “individual,” “appropriate level,” “household,” and “local” indicate small-scale and individual activity within sustainable development. However, words such as “global,” “national,” “state,” “regional,” and “provincial” indicate large-scale activities. The scale of sustainable development projects varies, and all projects are important to the sustainability of the environment.

²¹ I developed the analytical framework under the guidance of Dr. Norma Carrillo in the Fall of 2000 in Golfito, Costa Rica.

The projects examined in my thesis, the tepezcuentles project and the medicinal plant project, are small-scale projects. To emphasize the relevance of small-scale projects, the Agenda states in Chapter 15, “Conservation of Biological Diversity,” that farmers’ fields and gardens are small, but significantly contribute to the conservation of the variety of genes, species, and ecosystems. Chapter 28 of the Agenda, “Local Authorities’ Initiatives in Support of Agenda 21,” discussed the importance of increasing household awareness of sustainable development issues (Agenda, 1992:28.3). Furthermore, Gerardo Barrantes, Costa Rican researcher of CINTERPEDS, stated that every community, regardless of its size, has an obligation to live in a sustainable manner (1997:107). These references emphasize that the size of the project or the size of the community is not an issue when promoting sustainable development projects

A project of any size should have a viable strategy of sustainability for the future, but the projects should have aspects of the five factors and a monitor to evaluate the project to help insure its effectiveness. Projects should be flexible in their strategies because sustainable development is a progressive process that constantly needs evaluation and changes to reach its goals (Echeverría, 1997: 259). Explanations of the five factors:

1. **Conservation** and **preservation** signify a guarantee that natural resources will exist in the future. Moreover, within the concept of natural resources, languages, traditions, culture, and the biological biodiversity should be included in the conservation goals. According to Julian Monge-Nájera, the head of UNED, this

concept is simple, “there is sustainable development when the needs of the population are satisfied without destroying the sustainability of natural resources” (Nájera, 1994: 5). Moreover, Chapter 15 of Agenda 21 stresses that the “planet’s goods and services depend on the variety and variability of genes, species, populations and ecosystems.” The world’s biological resources constitute the majority of its capital assets and energy sources as well as what allows for human life to continue on the planet. The preamble of Agenda 21 states that the lack of resources perpetuates poverty, ill health, and hunger and therefore the conservation of biological diversity is paramount for healthy populations and a healthy planet.

2. *Gender equality* signifies the equality of women, social classes and ethnic groups. The equal participation of all people is of central importance for the success of the projects. Gabriela de Neihauss, the president of the ecological commission for the Ministry of Foreign Relations in Costa Rica, wrote, “...sustainable development cannot be possible without the central and beneficial participation of women, without the incorporation of their needs, aspirations, and perspectives in all sectors and levels of the political process”(1992: 116). These thoughts apply not only to women, but also to different levels of social classes and ethnic groups. Many chapters of Agenda 21 address the importance of targeting women as a vulnerable group in the development arena, but Chapter 24 titled “Global Action for Women Towards Sustainable and Equitable Development” states that in order to successfully implement Agenda 21 women must be actively involved in economic and political decision-making processes as well as having equal access to resources, education and

safe employment. Moreover, the chapter mandates that data collection, information systems, and research be gender-sensitive in order to accurately acknowledge women's roles and participation in all aspects of society so that sustainable development can incorporate fully every member of society.

3. *Economic development* implies, "...the sustainable management of natural resources to produce finances for the continuation of the said management" (Muller, 1997: 44). In the context of each project and its scale, economic development can have a different significance. Every sustainable development project is not necessarily going to largely augment the participants' income, but economic development will be maintained and evaluated "...with respect to its own objectives" (45). Agenda 21 states in Chapter 2 that economic policies are cohesively linked to the sustainability of natural resources. Furthermore, "...more efficient allocation and use of resources...contributes to an increase in production and incomes and to lessening demands on the environment" (Agenda 1992: 2.19)

4. The *improvement of the quality of life* and maintaining this in a sustainable manner should include aspects of health, education, water quality, sufficient food, clothes, living conditions and working conditions. Chapter 6 of the Agenda reiterates that sustainable development should "develop and strengthen primary health care systems that are practical, community-based, scientifically sound, socially acceptable and appropriate to the [community's] needs"(6.5).

5. A project of sustainable development should use the type of *technology* that will lead the project to achieve its goals. Technology varies from region to region;

therefore, technology does not necessarily imply complex concepts. For example, technology can be applied to improving the structure of a fence which guards a medicinal plant garden, or technology could be the passing of information from one project to another so that one's project can use the information to improve its operation. Technological development is simply using the available technology to enhance the success of a project. The Agenda's Chapter 31 titled "Scientific and Technological Community" explains that the acquisition of knowledge and transfer of knowledge is enhanced through science and technology. However, every community does not have access to highly advanced technological systems, but this lack of access is not an obstacle because every sustainable development project will not demand such technology. Accordingly, Agenda 21 states that the community and the participating organization should "...implement strategies for sustainable development on the basis of the best available knowledge" (31.2). In order to be a successful sustainable development project, the project does not have to be of a grand scale, but a small household project can have a significant impact on the natural environment

Analysis of the Tepezcuintle Project

The project strives to fulfill factor one, the goal of *conserving and/or preserving the environment*, by breeding tepezcuintles in order to provide families with a better diet and at the same time preserve the wild populations of tepezcuintles. The preservation is achieved by giving the community of La Gamba their own supply

of tepezcuintles so that the community people will not hunt the diminishing populations in Piedras Blancas National Park. Therefore, the people of La Gamba will be encouraged to stop hunting because the raising of this resource in a controlled habitat helps to satisfy the community's demand. This goal fulfills not only the mandate of Chapter 15 on conserving biodiversity, but it fulfills Chapter 4 of Agenda 21 which stresses the need to change unsustainable consumption patterns.

The project was established in 1999 and has encountered difficulty in producing more tepezcuintles so that other families may have their own household projects. However, one tepezcuinte in the project recently gave birth after a year in her new environment. The two families which participate in these projects feel that slowly the animals are growing more accustomed to their surroundings and will reproduce more frequently allowing for more household projects to be established in La Gamba.

The promotion of *gender development*, factor number two, remains hidden within the project. Gender development signifies the equal participation of people regardless of sex, class, and ethnic group. Neotropica encourages the participation of all community members in the sustainable development projects in La Gamba, and presently, two families operate a tepezcuintle project. Neotropica does not specifically encourage women's participation within the tepezcuintle projects. Women's participation is encouraged through family participation. The Foundation encourages "...families of La Gamba to put into practice their knowledge and passion of wild life..." to operate a tepezcuintle project (Zoocriaderos, 2000, 2). However,

in a published consultation by Neotropica titled, *Potencial Ecologico y Ecoturistico de la Comunidad La Gamba*, the tepezcuintle projects are referred to as the male-heads of the households' projects. Furthermore, in the La Gamba community newsletter (12 Oct, 2000), the men of the two families who operate the tepezcuintle projects were called the *dueños*, or owners of the projects.

Nevertheless, the women participate in the care and the maintenance of the animals. Although, male participants do not mention the contribution of women participants to the projects. Furthermore, women's participation is not discussed in articles about the tepezcuintle projects in the community newsletter. During my interviews with Carlos, I asked him if his wife or other family members contributed to the project. He stated that his younger son cares for the animals while Carlos works as a guide at the nearby Esquinas Rainforest Lodge. Ironically, his wife later came out and threw some vegetables into the cage and she also showed me all the paperwork on the project. It appeared as though whoever was present in the home tended to the animals.

Of the participants in the second tepezcuintle project in La Gamba, I interviewed Juan. He is the 19-year old son of Romero, the "*dueño*" or owner of the second tepezcuintle project. Juan stated that he and his dad are in charge of the project. However, when my university group visited this project, the female members of the household were home, but the male members were not home. Romero's wife, Aracely, and their daughter, Sara, gave my group a lecture and tour of the project. Romero's wife, Aracely, played a vital role in the project that day. She participated

in the actual education of people about the plight of the tepezcuintle. However, in my interview with Aracley and Romero's son, Juan, the participation of his mother and sister was not acknowledged.

The fact that the male participants of the project overlooked female participation reiterates the issues addressed in Agenda 21 about the need to legitimize women's participation and labor in non-cash circumstances and especially within their participation in sustainable development projects. Chapter 5 of the Agenda states that empowerment of women is essential in achieving sustainable development and sustainable development programs should help alleviate any burdens that prevent women from participating. "Gender bias is a worldwide phenomenon, but it is especially pernicious in the Third World, where most of women's activity takes place in the non-wage economy for the purpose of household consumption" (Jacobson, 1992: 6). A potential problem concerning women's participation in the tepezcuintle project is that by not getting acknowledgement for their efforts in and contributions to such projects, their roles in sustaining the environment are not validated. The lack of recognition could lead to a decrease in their motivation to participate. Based on my observations, it was evident that men and women were contributing on rather equal terms to the care and maintenance of the project animals. Yet, men were acknowledged as the owners.

Lack of recognition of women's participation and contribution can be attributed to the gender relations that exist in Latin American cultures. This reflects what Biesanz (1984), Romero (1986), and Campillo (1997) have stated that cultural

views concerning men and women's roles affect women's presence in certain spheres in Latin American culture.²² Accordingly, these ideological factors contribute to creating subtle barriers that do not permit women to transcend the domestic sphere. Within the domestic sphere or the household, women are seen participating in the tepezcuintle projects, and consequently, Biesanz (1984: 77-79) noted that *campesino* women commonly spend more time in the home. However, outside of this sphere, in public newsletters and Neotropica publications, women are not acknowledged for their contributions to the projects. The lack of recognition creates a subtle barrier for the women.

According to the third factor, the goal of *economic development*, the tepezcuintle project has yet to be a viable economic solution for the participants. The process of raising tepezcuintles is slow in terms of generating income. However, there are indications that economic benefits will occur with these projects. These indicators are the recent birth of an offspring, which can be sold to another breeder, and more school groups and tourists are visiting the projects and being encouraged to donate money.

Tourism has not been a source of revenue for Carlos. He lamented recently that not many tourists visit his project because the tourists prefer to see waterfalls and walk the paths through the rainforest; they do not prefer to see his animals.

Neotropica covers half of the costs to establish the project; the remainder of the

²² Biesanz discusses *machismo* and *Marianismo*'s effects on women's social roles. Romero studies the gender gaps present in education and socioeconomic structures in Latin America. Campillo describes how patriarchy affects rural development programs.

expenses comes out of the participant's pockets. The tepezcuintle project appears to be more of an economic investment for the families and as with any investment it takes time to recover your initial investment costs. Fortunately, Neotropica tries to offer the necessary support that will help the project be successful such as the veterinarian services and some financial support for the initial investment.

The project seeks to promote the fourth factor, *the goal to improve the quality of life* of the community, by improving the family diet, sustaining the food source through conservation of the wild populations, and educating the community on conservation methods. Efforts have been made to reach these goals. The caged tepezcuintles have not yet been used for food due to the lack of offsprings, which insures their sustainability for the future. Meanwhile, the community is being educated on the importance of sustainable consumption patterns and conserving natural resources. According to community people, the tepezcuintle project has been a positive, educational experience not only for the La Gamba people, but for the surrounding towns and communities such as Rio Claro, Buenos Aires, and Golfito. Carlos stated that La Gamba is revered by its neighbors as an environmentally conscious community.

The fifth factor, *the goal to use available technology to improve the sustainability of the project*, is reflected in the frequent monitoring by veterinarians on the health of the tepezcuintles. The technological efforts by the Neotropica foundation to guarantee the survival of the tepezcuintle include the creation of the projects and the monitoring of the animals' health by veterinarians to promote

successful reproduction. However, the animals have only produced one offspring in the past year, and Carlos reported that the veterinarians are uncertain why the tepezcuintles, which can reproduce every three months, have only produced one offspring.

Carlos explained that Neotropica involves the community in the decision-making processes of the projects. The Neotropica foundation and the community work together to develop projects, and participation in the sustainable development projects is voluntary. Neotropica encourages the implementation of the tepezcuintle projects into a family's household, and based on my observations, family members work together to care for the tepezcuintles. Neotropica supports the family's efforts to sustain their projects by supplying veterinarian visits to monitor the tepezcuintles reproductive health, and by paying for half of the initial investment costs of the projects. Carlos expressed an idea that could improve the projects. He stated that more contact with other breeders to exchange information could possibly help him solve various problems that arise. Nevertheless, the participants stated that the tepezcuintle project has educated the community on the importance of sustaining natural resources.

Medicinal Plant Project

In 1998 Neotropica began a sustainable development project with medicinal plants in La Gamba²³. The idea came from a group of women in La Gamba to grow medicinal plants in order to provide the community with easier access to medicines. Neotropica supported the idea and invited all interested people to participate in the project. Presently, only women participate in the La Gamba projects. In the same type of projects in other communities, men predominate.

The initial goal of the medicinal plant garden was to utilize the plants to make medicines for the community due to the distance between La Gamba and the nearest health clinic. However, after a few months in operation, other goals were added to enhance the overall economic well-being of the community. In La Gamba's March 1999 community pamphlet the project's goals were stated as "the plants will be utilized in the elaboration of medicinal products (syrops and other things) and cosmetics, such as soaps and shampoos."

The first plants in the garden came from plants that community members grew in their yards or from plants that grew in the surrounding forest. Therefore, the garden began with plants that community members donated from their household gardens. The project coordinator and monitor augmented the species of plants by bringing in other species from outside of the community. He traveled to other medicinal plant gardens in Costa Rica and selected plants based on their ability to

²³ Interviews for this project were conducted with Doña Teresa and Maria, see Appendix C for interview questions.

adapt to the climate in La Gamba and their benefits for the people in the community. Currently the garden contains twenty-five different species of plants.²⁴

Seven women worked in the medicinal plant project in its initial stages; however, disagreements ensued among the women and presently three women work in the garden. Doña Teresa and two of her daughters, Angela and Maria, work in the garden and make shampoos and medicines. Doña Teresa's house is located across the street from the garden and she controls access to the garden by being in charge of the keys to the main gate. However, the person in possession of the keys has been a source of contention between the women.

My extensive interview with Doña Teresa revealed that ultimately the other women lost interest. She is 67 years old and learned about medicinal plants from her father, she has used medicinal plants from time to time throughout her life, but her real passion is in the making of the shampoos and soaps. She loves the project because she likes helping people, and she believes that many people come to her believing that she can offer them a cure or relief from the symptoms of their infirmities.

Doña Teresa encounters many obstacles in maintaining the garden. Neotropica does not compensate the women financially for their participation in the project. Any money earned comes from the selling of the medicine or shampoo. Doña Teresa explained that the women have an agreement that if they do not

²⁴ Neotropica plans to continue to increase the variety of plants in the garden. Currently, the garden contains 25 species of plants. However, see Appendix D for a list of 49 plants the participants will have in the garden in the future.

participate in the maintenance of the garden that they will pay a small fee to have the garden maintained.

“There are problems with [the other women]. When they don’t come they have to pay something. They told me that they couldn’t pay because they didn’t have any money....some live alone and they can’t pay, but others are married. So at the moment, it is only me and Angela and Maria working to maintain the garden”

However, Doña Teresa has received nothing from the women who are not currently participating, and the “garden will not function for much longer,” Doña Teresa laments. She feels that one reason that the women do not participate is because they do not want to make and sell the shampoo and other cosmetics. The women did not want to meet with her and learn the methods of preparing the plants for the different cosmetics; furthermore, she offered to teach the women her practices, but “they do want to come and learn,” Doña Teresa reiterated.

Doña Teresa believes the project is sustainable for the future. She passed all of her information about medicinal plants and shampoo practices to her daughters who participate regularly in the project. Doña Teresa also recorded much of her information into a personal record, and the Neotropica project coordinator helped her with the scientific and common names of the plants.

From my visits with Doña Teresa I found her to be a very proactive individual. She empowers herself with as much knowledge as possible about her project. On my last visit to her house, she had recently returned from a four-day convention of people working to sustain medicinal plants in Costa Rica. With

funding from Neotropica, she and two other people from La Gamba traveled to a seminar in order to learn about improving their conservation methods with their gardens and also to learn of other medicines to make from their medicinal plants.

On one occasion, as I entered her house, she gave me a glass of water and excitedly pulled out her new books and pamphlets that she acquired at the convention. We stood in her kitchen digging through all of her new information. She smiled the entire time, and would pull one pamphlet out of my hand before I finished reading it in order to show me another she found more interesting.

In a previous interview, I asked Doña Teresa if she thought of herself as revolutionary in comparison to the other women in the community. Doña Teresa is one of three women in the community who are heads of households. Therefore, in asking her this question, I wanted to learn her views about her activities with the medicinal plant project and also how she perceived her activities in relation to the activities of other women in the community. She replied hesitantly,

“yes, I feel like that, I feel a little revolutionary, it is that I like to do things, I like to learn, and it pleases me to help people. I only wish I were younger, to tell you the truth, so that I could do more of my activities, it would help to be more agile, but I have enough spark and I am already so old.”

This string of comments by Doña Teresa, weaves together her personality and expresses her motivation to work hard at everything in her life.

In comparison to other women in the community, Doña Teresa and her daughters have a high level of social and economic activity. However, they are also

the heads of their households, which puts them in a position of taking complete economic responsibility for their children. Doña Teresa has very little formal education and has worked since she was a teenager in Guanacaste. After years of domestic employment with the United Fruit Company families in Golfito, Doña Teresa cooked for the elementary school in La Gamba until a few years ago. She retired and receives a small pension from the state for her work at the school.

To maintain the garden, Doña Teresa and her daughters cut the grass around the plants, sow seeds, and monitor the plants' health. Doña Teresa explained that she enters the garden approximately two or three times a week. She feels that her project is important for the preservation of the plants. Before the project began, Doña Teresa believed that the people in La Gamba did not know a lot about medicinal plant resources in the forest, but now people have a lot of enthusiasm about the forest.

“I think the project is a form of conservation, before ...no it wasn't. We need to protect our resources and the people are beginning to learn what is good and what is bad, because of the lack of animals and trees and things like this. Reforestation is beginning. I think that I should buy some small trees to plant by the river to help with the reforestation and then maybe I can sell them. I have so much interest in this and the older kids show a lot of interest too, but the young kids, they don't show any interest in conserving more of the natural world.”

Furthermore, Doña Teresa lamented that the youth in the community show no interest in learning about the medicinal plants, but she is thankful that her daughters and a few other women show interest, because she feels as though her future with the medicinal plants may be short due to her old age.

Maria, Doña Teresa's daughter, commented in one of our visits that the men in La Gamba show no interest in the medicinal plants in terms of growing them for conservation and preservation purposes. However, when men have an illness, they go to Doña Teresa's house looking for a cure. Doña Teresa and Maria believe they look at Doña Teresa as more or less the community's *curandera*, or healer. Interestingly, Maria believes that her role or image in the community has not changed since she began her participation in the project; however, Doña Teresa believes that her value to the people in La Gamba increased because of the fabrication of the medicines. Maria explained that her mother has more responsibilities than the other women in the project. When I asked her to elaborate on what responsibilities Doña Teresa had that Maria and her sister did not have, Maria only stated, "well, my mother has the keys to the gate of the garden." The keys contain great significance to the women in the project, even though the women can stop at Doña Teresa's house, located approximately thirty feet from the garden, and ask for the keys, the women believe that the key holder is the *jefe*, or person in charge of the project, regardless of the fact that the women divided up the duties and responsibilities equally between themselves.

All the women in the project refer to themselves as *compañeras* which means companion or partner. The women organized their positions in an egalitarian manner; however, the significance they placed on the keys unbalanced that equality and created contention between them. From talking with Doña Teresa and her daughters, it appears that this situation caused many of the women to "lose interest" as Teresa previously explained.

Another reason for the schism within the project could be lifestyle or cultural pressure. Doña Teresa and Maria are both heads of their households; no men are present in their homes. Maria has a fifteen-year-old son who lives with her, and she also has a twelve-year-old daughter who goes to high school in San José and lives with Maria's sister; Maria sends a small percentage of her meager income to her daughter to help pay for her education.

In comparison to the other women in La Gamba, Maria expressed that she is different from the other women, and she proudly stated, "I am more independent, I am single and that is better, I think I'm a little revolutionary." I continued to ask her why her lifestyle appeared so different and she replied, "Oh it is the culture, I am different because it is part of the culture." Maria's lifestyle contrasts greatly with the other women in La Gamba; moreover, within the community only three women are the head of their household.

A comment that I heard from Maria and Doña Teresa regarding the fee that the women are supposed to pay when they do not help attend to the garden was "most of the *compañeras* have husbands; they can work or help pay to maintain [the garden]." They were implying that other women have the economic contribution of their husband's income to the home, and therefore, have less of an economic burden and can donate their free time or a little money to the maintenance of the garden. Doña Teresa and Maria both have children in their homes to care for; moreover, Doña Teresa has several young grandchildren living in her home. In addition to their domestic activities within their homes, Doña Teresa and her daughters tend to the

garden, maintain and sell poultry, make and repair shoes, prepare medicines and shampoos, take care of children and grandchildren and at times participate in small-scale farming. The daily lives of Doña Teresa and Maria explicate the vast responsibilities that women have when they are the female heads of household.

Analysis of the Medicinal Plant Project

The sustainable development project of medicinal plants to a large extent succeeds in meeting its *goal to conserve and/or preserve the environment* for the future. The garden contains 25 different species of medicinal plants collected from the area of La Gamba and surrounding areas. Doña Teresa and her two daughters care for the garden on a weekly basis. The garden is organized into long rows of each individual plant, and a fence guards the garden to keep out animals that might destroy the plants. Doña Teresa believes that when she dies that her children and other participants will continue to maintain the garden. The garden insures that the medicinal plants will be a sustainable resource by changing the community's consumption patterns as Chapter 4 of Agenda 21 stated as being vital to achieving sustainability. The garden prevents community members from having to take the plants out of the forest, which can disrupt the biodiversity that the Piedras Blancas National Park, which borders La Gamba, tries to preserve. The goal of conserving the environment is aided by altering the consumption patterns of the community by providing them with a sustainable supply of medicinal plants.

The involvement of the women in the medicinal plant project promotes factor number two, *the goal of gender development*, in terms of promoting the equal participation of the women in the community. Initially, three women of the La Gamba community proposed the idea to Neotropica which supported the idea in order to provide the community with easier access to medicines and foods. Everyone who desired to participate in the project was invited to do so; however, only women became involved with the project. During my interviews with Doña Teresa and Maria, I asked them why men were not involved with the project. They responded that men do not have any interest in such things. In the community of La Gamba the *curanderos* and people involved with medicinal plants tend to be women. However, during my other visits to medicinal gardens in the southwestern region of Costa Rica the majority of gardeners were men. Therefore, the gender roles involved in medicinal plant projects tend to change from one community to another based on various reasons. For example, geographical, economic, and cultural factors can effect gender participation in projects. A 1994 World Resources publication explicates the differing views of men and women concerning forest resources. "As in the case of agriculture, women see forest resources as multifunctional and use them in various ways to meet basic family needs. Men tend to use the same resources for commercial purposes, as well as for their families" (Thrupp et al. 1994, 46).

The other medicinal plant communities that I visited were not *campesino* communities. They were an isolated Guaymi community and an isolated cooperative of gold-miners. This factor may affect the gender roles concerning the medicinal

plant project. Furthermore, I asked the Neotropica official in charge of the medicinal plant projects why no men participated in this particular project. He stated that men have no interest in the plant project, and the other sustainable development projects in the community are of more interest to the men such as livestock-raising and organic farming. Maria explained that the men in La Gamba have no interest in medicinal plants. She stated,

“The views of men and women are different about the forest. Women think more about conservation. For example, only the women work with the plants, no men, they don’t have any interest in this. They are interested in different types of things, like cattle, hunting and money, things like this.”

The *campesino* community of La Gamba’s economic development is largely based around agriculture and cattle. In reference to Maria’s statement, the men of La Gamba may not view the medicinal plants as fulfilling an economic purpose or any other need for their families; therefore, they do not have the incentive to participate in the project.

The women involved in the project use the medicinal plants to make medicines and shampoos and soaps. They sell the shampoos for approximately two dollars per liter; however, I am uncertain about the price of the medicines or whether Doña Teresa charges a consultant fee for the medicinal advice that she offers people. The *goal of economic development* is met to some extent from the selling of the products made from the plants; although, the amount of income earned from these products appears to be minimal. The women only sell the products within the community, which limits their market to very few buyers. The participants have

other sources of income to supplement their cosmetic sales, for example, Doña Teresa sells chickens and Maria makes and repairs shoes. The medicinal plant project is not a viable economic solution for the participants if they depend on the project as their only source of income. However, the project does generate a small amount of income. If one compares the amount of time the women spend in the garden (as stated by the interviewees, a couple of hours three times per week) to the amount of income earned, participation in this project within this context appears to be beneficial to the women. The possibility exists for the women to augment their income if they could expand their market to nearby communities and to the nearby rainforest lodge.

The medicinal plant project to a large extent fulfills factor number four, *the goal to improve the quality of life*. Neotropica stated the primary goal of the project to be to utilize the plants in the production of medicines due to the distance between La Gamba and the nearest medical facilities. According to Doña Teresa, the community members use the plants to treat their illnesses. During one of my visits, she allowed me to taste some cough syrup that she made for a gentleman. He would arrive later in the day to retrieve his medicine and pay Doña Teresa. It was evident that the plants were being used for the benefit of the community. The project is not a solution for all the illnesses in La Gamba, but it offers the community a way to treat their symptoms until they have the opportunity to visit a nearby medical clinic.

The medicinal plant project receives a large amount of *technical assistance* from its monitor from the Neotropica Foundation. I frequently saw the representative in La Gamba and at his office in Rio Claro, and he appeared to have much contact

with the project and its participants. The Neotropica official aids in the transfer of knowledge and technology by traveling to other medicinal plant projects in the area to acquire plants or information to augment the project. Neotropica recently sent three participants, including Doña Teresa, to a three-day seminar about the uses of medicinal plants and organic soils. The foundation and the participants utilize the technology available to improve their project. The use of technology to improve the quality of the program has been very beneficial to the sustainability of the project.

According to community members, the medicinal plant project has been extremely beneficial in providing them with access to medicines, soaps, and shampoos. In addition to this accessibility, the garden helps preserve the plant species in the forest by offering the community a sustainable supply of resources. The community benefits economically because the people in La Gamba do not have to spend money on a trip to the nearest medical clinic or on certain medicines. Moreover, the participants earn money from selling their cosmetics.

The women in the medicinal plant project make all the decisions and all the participants hold equal positions. In the case of the La Gamba project, one factor that seems to be contributing to the success of the women's participation and women's leadership roles within the projects is that the project was established outside of any patriarchal constraints that may be present within the household. Patriarchal constraints in the household tend to mask the presence of women in the project by making women an invisible element in the project. The medicinal plant project was established outside of a household environment and outside existing gender

constraints. The medicinal plant project exemplifies women in leadership roles. Furthermore, women's contributions are recognized and are having a positive effect on the success of the project. Through the efforts of the women participants, the community benefits from a sustainable medicinal plant garden that provides them with medicines, soaps, and shampoos.

CHAPTER 5 CONCLUSION

The sustainable rural development projects in La Gamba represent the evolution of development strategies after the United Nations mandated new development policies at the Earth Summit Conference of the United Nations for the Environment and Development in Rio de Janeiro in 1992. The La Gamba projects were implemented by a nonprofit, nongovernmental organization following guidelines established during the Rio conference. The Neotropica Foundation claims that it strives to transform traditional development strategies by integrating environmental sustainability into socioeconomic development (Neotropica Foundation, 1998: 2). The projects exemplify the foundations strategies by integrating the sustainability of the environment with social and economic development.

The La Gamba projects are to a large extent achieving the mandates set forth in Agenda 21 at the Earth Summit in Rio de Janeiro in 1992. While there is room for improvement in some areas within the projects, there is promise that as the projects evolve these improvements will be made and the projects will serve as major resources within community. Neotropica and the La Gamba participants' achievements are due in large part to their approach to the development and implementation of the La Gamba projects. A significant element in their approach is using the people of La Gamba as their "starting points" for the design of the

sustainable development projects. As Chambers states in his article, “Sustainable Rural Livelihoods: a Key Strategy for People, Environment, and Development,” environment and development policies historically begin at the wrong end of society they seek to help; “...poor rural children, women and men have been treated as residual not primary, as terminal problems not starting-points” (1988: 1). Chambers argues that the needs of poor rural men and women should be targeted when designing effective development policy. The La Gamba projects exemplify a community which states their needs, and the projects are designed with those needs in mind.

Moreover, the projects portray Edwards’ suggestions in the article, “How Relevant is Development Studies?”. Edwards claimed that the “...views, aspirations, wisdom and imperfections of real, living people...” are missing from development frameworks. Based on my interviews, the tepezcuintle project and the medicinal plant projects were suggested by community members to Neotropica for sustainable development projects because of the community’s previous knowledge of the animals and medicinal plants. To promote the tepezcuintle project in La Gamba, Neotropica encouraged families to put into practice their “knowledge” and their “passion” for the animal to insure its sustainability for future generations (Zoocriaderos, 2000: 2). Accordingly, this evidence suggests that a transfer of knowledge, ideas, and aspirations is occurring between the community members and Neotropica in the design and implementation of the rural sustainable development projects.

Many of the community members of La Gamba are participating in the sustainable development projects initiated with Neotropica's assistance. The projects are addressing some immediate concerns and needs that the community expressed. The projects are supplying the community with medicines, cosmetics, sources of protein, and an alternate source of income while promoting the conservation of the environment and socioeconomic development. Among these needs, which are being addressed, is the hidden agenda of gender equality. Neotropica recently stated that the issue of gender and self-help were elements they promoted within their projects. Yet, within the tepezcuintle project, women are participating, but they are not acknowledged for their contributions. Thus, the issue of gender equality confronts a barrier. This barrier being that women's roles in the tepezcuintle project are not recognized.

Within Agenda 21, women were cohesively linked with the revitalization of the environment; moreover, the Rio Declaration stated, "women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development" (United Nations, 1992:20). The medicinal plant project in La Gamba exemplifies a project that considers women a vital part of its success. Neotropica's support of the women in leadership positions is reflected in the Foundation's efforts to send Doña Teresa and other women to medicinal plant conferences. The project also demonstrates how differing gender views on forest resources affect the participation of men and women.

From interviews with different men and women in the area in and around La Gamba, I discovered that a few men and the majority of women that I interviewed feel that women consciously think about conservation, but men are not concerned with the issue. Sofia, a woman from Golfito, explained in a questionnaire, how men and women view the forest (see appendix D). She stated that men do not have an emotional attachment to the forest, and men do not care about “trees, rivers, animals, or plants.” Another woman from the same community wrote in her questionnaire that women “know more about nature” in comparison to men. Julian, the manager of the rehabilitation center, who grew up in a rural *campesino* community in the southwestern region of Costa Rica believes that the majority of the people that think about conservation are women (see appendix E). When I asked why he believed this he stated,

“I think that is because women are caregivers and more observers of life. It is not exactly because women have more contact with the forest or use the forest more. They just think more about conservation; it serves well for them.”

The majority of men I spoke with felt that women were more conscious of the preservation of environmental resources. However, all the men I spoke with were participating in some form of environmental conservation.

Gabriela de Niehauss, President of the Ecological Commission of Foreign Affairs in Costa Rica, explained how gender constructs affect environmental resources. She stated, “in the majority of societies, the women are principally responsible for the basic well-being of the family. In rural societies--where by

definition, one finds the majority of natural resources--the woman utilizes the natural environment to satisfy her family's basic needs" (Neihauss, 1992: 116). The people participating in the medicinal plant project are women whose primary role throughout their lives has been a caregiver. Furthermore, in rural communities where the more natural resources reside, the indications that women concern themselves more with conservation indicates a need to specifically target their participation to aid in the success of sustainable development projects. Moreover, within the tepezcuintle projects, women's roles in sustaining their environment are not acknowledged outside of the household. Fabiola Campillo, Director of Consultorias FUTURA, stated that giving visibility to the participation of women in rural development projects is vital to the sustainability of human resources within sustainable rural development (1997: 35).

Sustainable rural development requires that people gain awareness of new ideas about men and women's roles and new ideas about the environment and one's consumption patterns. It also means developing a program based on gender-sensitive data. Sustainable development promotes not only the well-being of the environment, but also the well-being of individuals and the countries in which they live. In order for sustainable development to work, an entire community's consciousness needs to grow and all members of society must participate.

The design of a rural sustainable development project must consider whom the development is for and determine obtainable objectives and strategies to ensure its success. In the community of La Gamba women's cultural gender roles indicate that

they have the most contact with the natural resources and are more conscious of conservation. Therefore, organizations of sustainable development projects must begin including women as principal participants of a project and not just recipients or invisible participants. Furthermore, the authoritative entity must work with the participants at a local level as the Neotropica Foundation does in La Gamba. Any barriers that exist economically, socially, and culturally must be analyzed and strategies to overcome the barriers must be sought before the implementation of sustainable development projects begins.

The Neotropica Foundation believes that the people are working hard to learn about conservation. Furthermore, the participants feel that the small size of the projects has been rewarding. The community participants explained that the size of the project promotes an individual responsibility to encourage conservation. Overall, the participants expressed that they enjoy being involved with the sustainable development of their community and enjoy the economic benefits that some of the community members have experienced from the projects. One element that every participant viewed as one of the greatest benefits of the projects was the education of the community on conservation issues.

Every community meeting that I attended included the theme of conservation in its agenda and a Neotropica official was present at the meeting. Through the efforts of Neotropica and the community, recycle bins are located at their central store and everyone is encouraged to recycle. The Neotropica Foundation is succeeding in its efforts to teach conservation methods. Furthermore, Neotropica is evaluating the

community on its potential to be an area of ecotourism. In a 1999 evaluation done by the Neotropica Foundation in La Gamba, the report suggested that the Foundation develop new projects focused on ecotourism because of La Gamba's close proximity to the Piedras Blancas National Park. The evaluation also commented that all the projects being carried out in La Gamba were important for the sustainability of La Gamba's natural resources (Nieto and Bonilla, 1999: 36).

The La Gamba projects are to a large extent achieving the mandates set forth in Agenda 21 at the Earth Summit in Rio de Janeiro in 1992. While there is room for improvement in some areas within the projects, there is promise that as the projects evolve these improvements will be made and the projects will serve as major resources within community.

As an exploratory study, my field work research in La Gamba lays the groundwork for future research regarding sustainable development projects and the roles of women and men both in La Gamba and in similar settings in Costa Rica and elsewhere in Central America. My subsequent analysis of sustainable development activities in La Gamba in relation to Agenda 21, in turn, provides a conceptual framework for continuing examination of the dynamics of gender issues, the functioning of NGOs, and local communities in rural Latin America.

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APPENDIX A

“Participacion comunitaria para la educaciòn en conservacion.”

Altrichter et al. 1999. MINAE

Study acquired at the office of MINAE in Río Claro, Costa Rica

VII. COMUNIDAD LA GAMBA

8.1-INTRODUCCIÓN:

La Gamba se encuentra en el sureste del país, cerca de Golfito. Está ubicada en una zona baja, de la cuenca del Río Esquinas, rodeada por montañas. Dos ríos, el Bonito y el Río Oro, y varias quebradas se unen al río Esquinas. La Gamba limita con el Parque Nacional Piedras Blancas y el Refugio de vida Silvestre Golfito. El Parque Piedras Blancas se creó en 1990 y tiene 12.500 ha. El Refugio tiene alrededor de 1.5 ha.

Esta comunidad se formó en los años 40 con el establecimiento de unas cinco familias agricultoras. En los años 50 con la expansión bananera y la explotación maderera el pueblo creció rápidamente (Ling y Céspedes 1999). En la actualidad habitan unas 90 familias. Aproximadamente 50 familias viven en el centro del pueblo y el resto están muy alejadas. Hay grupos de familias en diferentes zonas como El bonito, La Bolsa, sobre el camino lastreado que une La Gamba con Golfito, y algunas familias en el límite con el Parque. Para llegar al Bonito y las familias que viven cerca del parque se debe ir en caballo o a pie, ya que hay que cruzar ríos y quebradas, por lo que estas personas viven incomunicadas del pueblo.

8.2-MUESTRA Y CARACTERÍSTICAS DE LAS FAMILIAS

Se entrevistaron 50 familias, representando un 55.6% del total de familias habitantes de La Gamba. De las personas entrevistadas, 26 fueron hombres y 24 mujeres. La edad media de los entrevistados fue 47.3 años, con un rango de 22 a 82 años.

El número medio de personas viviendo por casa fue de 4.5 personas, y el tiempo medio de los entrevistados de vivir en la zona es de 17.9 años. Aunque el sitio se pobló antes que otras comunidades, también existen personas que han llegado a vivir allí en los últimos años.

8.3-ORIGEN DE LOS HABITANTES

La mayoría de las personas entrevistadas provienen del norte del país. El 33.3% de los hombres provienen de Guanacaste, un 11% de Nicaragua, un 11% de Nicaragua, un 11% de Nicaragua, un 11% Puntarenas, un 7.7% de Caragao y el resto de Parrita, Alajuela, Puriscal, La Trocha y San José. Algunos provienen de sitios cercanos de la zona sureste como Golfito, Piedras Blancas y Zancudo. El 15% de las mujeres provienen de Guanacaste y 45% proceden de sitios del norte del país, como Limón, Carago, Puriscal, San José y Los Chiles. El restante 40% proceden de sitios cercanos en la Zona Sur como San Vito, Río Claro, Esquinas, San Isidro, etc.

8.4-SITUACIÓN SOCIOECONÓMICA

8.4.1-Comunicación, instituciones y servicios

a-Comunicación y transporte:

En el pueblo existe un periódico local elaborado por la Fundación Neotrópica, llamado La Gamba, de escasa circulación. No llega la prensa nacional pero mucha gente la consigue en Río Claro. Existe un teléfono público manajado por los dueños de una de las pulperías. El transporte hacia el pueblo más cercano, Río Claro, se realiza caminando, en caballo en bicicleta o en taxi. Algunas familias tienen carro.

b.-Servicios: Hay electricidad en toda la zona central del pueblo. Algunas de las casas más alejadas, donde no llega la electricidad, tienen planta generadora. La basura es enterrada en los patios de las casas o quemada, y no hay tratamiento de aguas

c.-Iglesias: Hay una iglesia evangélica y una católica.

d.-Escuelas: Hay dos escuelas primarias con solo un docente. La escuela del centro de la gamba tiene 70 estudiantes, y funciona en dos turnos. La otra escuela se encuentra en El Bonito con 5 estudiantes. El colegio más cercano está Río Claro.

e.-Instituciones: Una cooperativa Coopegamba, donde se hacen quesos y trabajan en la producción de arroz.

f.-Albergues: Existe un albergue Iguana Lodge administrado por extranjeros austriacos. Este albergue es fruto de una empresa turística para hospedaje de montaña con fondos austriacos canalizados por una ONG de Austria denominada Fundación Bosque Llucioso de los Austriacos.

g.-Pulperías: Hay tres pulperías, dos en el centro del pueblo y una en la entrada.

h.-Bares: No hay.

8.42-Situación de las viviendas

Las viviendas están en condiciones regulares (62.2%). Muy pocas fueron consideradas en muy mal estado (Cuadro 1), y la mayoría (61.4%) están construidas con madera y cemento (Cuadro 2). La mayoría de las casas (34.9%) tienen cocinas de gas y de leña. La leña se va reemplazando gradualmente por el gas en el centro del pueblo porque es más costoso comprar la leña que el gas. A diferencia de los otros pueblos, también se usan bastante las cocinas electricas (Cuadro 3). La mayoría (81.1%) de la gente tiene electricidad para alumbrado (Cuadro 4). El 70.4% de las viviendas tienen servicios sanitarios en lugar de letrinas (Cuadro 5). En cuanto a la posesión de artefactos, la mayoría tiene televisor, equipo de música y/o radio y refrigeradora. (Cuadro 6). Todo esto demuestra una mejor condición económica que en las otras comunidades, sin embargo, también se observan más desigualdades económicas.

Cuadro 1: Estado de las viviendas visitadas en la comunidad La Gamba

Estado de las viviendas	Porcentaje de las casas visitadas
Bueno	22
Regular	62.2
Malo	13.3
Muy malo	2

Cuadro 2. Materiales con que están construidas las viviendas visitadas en la comunidad La Gamba

Materiales de construcción	Porcentaje de las casas visitadas
Madera	34.1
Madera y cemento	61.4
Cemento	4.5

Cuadro 3. Forma de cocinar en las viviendas visitadas de la comunidad La Gamba

	Porcentaje de las casas visitadas
Leña	23.2
Gas y leña	34.9
Sólo gas	20.9
Eléctrica	20.9

Cuadro 4. Tipo de iluminación en las viviendas visitadas de la comunidad La Gamba

Iluminación	Porcentaje de las casas visitadas
Candelas	14.4
Electricidad	81.1
Planta eléctrica	4.5

Cuadro 5. Servicios sanitarios en las viviendas visitadas de la comunidad La Gamba

Servicio sanitario	Porcentaje de las casas visitadas
Letrina	13
Servicio interior	70.4

Cuadro 6. Tenencia de electrodomésticos en las viviendas visitadas de la comunidad La Gamba

Electrodomésticos	Porcentaje de las casas visitadas
Radio y/o equipo de música	66.7
Televisor	71.1
Refrigeradora	53.3

8.4.3-Educación

Considerando las personas que no asistieron a la escuela y los que asistieron solo hasta primer grado, resulta que un 34.6% de las personas no saben a ler y escribir (Cuadro 7).

Considerando las personas que asistieron solo hasta tercer grado, resulta un 18.3% que pueden leer y escribir pero con dificultad y muy lentamente. Las mujeres tienen un nivel de 2educación más elevado que los hombres, ya que el 62.8% leen y escriben mientras que solo 34.6% de los hombres sabe ller y escribir (Cuadro 8). El hecho de que casi la mitad de las personas saben ler y escribir indica que una forma de capacitación escrita, complementada con cursos orales, sería lo más conveniente.

Cuadro 7. Nivel escolar alcanzado por los entrevistados en la comunidad La Gamba

Nivel escolar	Número de entrevistados	Porcentaje de la muestra
No asistieron	11	22.4
Primer grado	6	12.2
Segundo grado	1	2
Tercer grado	8	16.3
Cuarto grado	4	8.2
Quinto grado	3	6.1
Sexto grado	11	22.4
No especifican el grado	3	6.1
Primer año de colegio	3	6.1

Cuadro 8. Nivel de lectoescritura de las personas entrevistadas en la comunidad La Gamba

Nivel escolar	Total (%)	Mujeres	Hombres
No saben leer ni escribir	34.6	16.6	49.4
Leen y escriben con dificultad	18.3	21.1	15.4
Leen y escriben	48.9	62.8	34.6

Analizando los grados alcanzados según las edades, se observa que muy pocas personas mayores saben leer y escribir (considerando que se lee y escribe a partir de Segundo grado), mientras que la mayoría de las personas jóvenes tienen más de tres años de escolaridad, por lo tanto, leen y escriben (Cuadro 9). En este cuadro no se consideraron las personas que mencionaron haber ido a la escuela pero que no especificaron el grado alcanzado. Esto debería tenerse en cuenta al diseñar el material educativo considerando los grupos meta. Si el grupo meta está compuesto principalmente por jóvenes, el material escrito podría ser conveniente.

Cuadro 9. Rango de edades y grado escolar de los entrevistados en la comunidad La Gamba.

Ultimo grado Asistido	Rangos de edades					
	20-30	31-40	41-50	51-60	61-70	más de 70
No asistió	2	0	0	6	1	2
Primero	0	0	1	2	1	2
Segundo	0	0	0	0	1	0
Tercero	2	0	2	1	3	0
Cuarto	1	1	1	0	1	0

Quinto	1	1	1	0	0	0
Sexto	2	4	4	0	1	0
Primer año colegio	2	0	1	0	0	0

8.4.4-Seguro de salud:

El 73.5% de los entrevistados tiene seguro de salud y el resto no. De los que tienen seguro, el 45.7% tiene seguro del estado, el 25.7% tiene seguro por cuenta propia, otro 25.8% tiene seguro por el patrono y el resto 2.8% tiene otro tipo de seguro.

8.4.5-Propiedades y situación legal de las tierras

En 57.1% de las familias tiene finca (mayor de 1 ha.), el 18.7% tiene parcelas (menor de 1 ha.) o terrenos dados por el IDA, y el restante 20% no tiene finca. El 93.8% de los propietarios poseen papeles de su propiedad. Aparentemente, en esta comunidad la situación de tenencia de la tierra está mejor que en las otras comunidades. Por un lado las familias llevan más tiempo viviendo allí, y por otro el hecho de que muchas de las parcelas hayan sido dadas por el IDA hace que la extensión de fincas sea más uniforme.

Sólo un entrevistado se ha acogido a los incentivos, pero otros tres están en trámites de obtenerlo, sin embargo, muchos propietarios (56.5%) aún no conocen los beneficios de los incentivos. Sería importante dar más información al respecto.

8.4.6-Área de las fincas

El tamaño de las propiedades de las familias entrevistadas varía entre 1 ha y 140 ha. La mayoría de las fincas tienen entre 1 ha y 20 ha por el hecho de que son parcelas del IDA. (Cuadro 10).

Cuadro 10. Área de las fincas de las familias entrevistadas en la comunidad La Gamba

Área	Porcentaje de familias que poseen fincas
Entre 1 ha y 20 ha	75.8
Entre 21 ha y 50 ha	10.3
Entre 51 ha y 100 ha	6.9
Más de 100 ha	6.9

8.4.7-Repatriación de la tierra

En este pueblo se observa una repartición bastante equitativa de las tierras si consideramos solo las fincas menores a 50 ha, sin embargo es necesario considerar que el 35.1% de la tierra en propiedad de las familias entrevistadas pertenece a dos familias, y el resto de la tierra pertenece a 27 familias (Cuadro 11).

Cuadro 11. Repartición de la tierra en propiedad de las familias entrevistadas en la comunidad La Gamba

Área	Porcentaje del total de tierra en propiedad	Número de propietarios
150ha	35.1	2
277ha	36.1	5
222ha	28.8	22

8.4.8-Ocupación y modo de obtención de ingresos de las familias

La ganadería de doble propósito es la principal fuente de ingreso. Algunas familias obtienen otros ingresos mediante jornales, alguna actividad comercial como una pulpería o venta de artículos caseros (Cuadro 12). Los empleados son mayormente del hotel y de bananeras. Como actividades comerciales se encuentran venta de lotería, taller de ebanistería, fabricación de pan, etc. En la categoría de pensionados y otros se incluyen actividades como artesanías de herramientas de campo y venta de helados. En esta comunidad se observa que hay mayor aporte financiero de la mujer al ingreso familiar. Esto se puede deber al hecho de que la comunidad tiene una estructura urbana y existe mayor información. Por otro lado tres mujeres son cabeza de familia y obtienen ingresos mediante pensión y venta de helados, venta de repostería, y agricultura más arreglo de zapatos. Otro factor que podría estar influyendo es la escolaridad de las mujeres, más alta que en las otras comunidades. Entre otras fuentes de ingresos para las mujeres están la venta de artículos de repostería y de artesanías.

Cuadro 12. Obtención de ingresos de las familias entrevistadas y aporte de la mujer en la comunidad La Gamba.

Obtención de ingresos	Porcentaje de la muestra	Aporte de la mujer
Ganadería	26.5	-
Agricultura y jornales	14.3	-
Agricultura y otro	6.1	33%
Jornales y otro	10.2	19%

Comercio	8.1	24%
Empleados y otros	18.4	11%
Pensiones y otros	16.3	12%

8.4.9-Uso de las fincas

La mayoría de las fincas tienen una porción de bosque, pasto y algo de agricultura (cuadro 13). La ganadería de doble propósito es la principal fuente de ingreso, sin embargo, no hay muchas fincas grandes con gran número de cabezas de Ganado como en San Juan. Algunas fincas tienen palma africana como cultivo extensivo, aunque aun no se obtienen ingresos de esta actividad, y también hay plantaciones de melina. Además existen plantaciones de palmito pejibaye que no se comercializan a gran escala, sino como ventas locales. El resto de los cultivos, como raíces, maíz, frijol, y arroz es en general para autoconsumo o venta dentro del mismo pueblo o pueblos vecinos. La mayoría de las familias no tienen gallinas, ni cerdos para autoconsumo ya que no es permitido en el pueblo por cuestiones de salubridad pública. Sólo las familias que viven alejadas del pueblo pueden tener gallinas y cerdos.

El 41.2% de las propiedades posee alguna porción de bosque (Cuadro 13). Esto se debe a que la mayoría de las tierras son parcelas pequeñas dedicadas a agricultura. El total de superficie de bosque de las fincas de las familias entrevistadas suma 209 ha, lo que representa un 27% de la suma de tierra de fincas. En total La Gamba tiene alrededor de 1,167 has de Bosque (Ling y Céspedes 1999).

Cuadro 13. Uso de las fincas según las familias entrevistadas en la comunidad La Gamba

Uso	Porcentaje de las fincas
Cultivos, pasto y bosque	38.5
Cultivos y bosque	3.8
Cultivos y pastos	23.1
Sólo cultivos	0
Pasto y bosque	15.4
Sólo pasto	15.4
Sólo bosque	3.8

APPENDIX B

Questions asked in interviews with Carlos and Juan
Zoocriaderos of the Tepezcuintle Project, La Gamba

1. *Digame sobre sus animals en su proyecto de desarrollo sostenible, por favor*
Tell me about the animals in your sustainable development project, please.
2. *De donde viene los animals? Tiene que pagarlos?*
Where do the animals come from? Do you pay for them?
3. *Va a repoblar el bosque con los tepezcuintles que tiene?*
Are you going to repopulate the forest with the tepezcuintles that you have?
4. *Es ilegal cazar el tepezcuintle en Costa Rica?*
Is it illegal to hunt the tepezcuintle in Costa Rica?
5. *Es possible comprar el carne de los animales en este area en bars o en restaurantes?*
Is it possible to buy the meat of the animals in this area, in bars, or in restaurants?
6. *Cuando empezò su proyecto de Tepezcuintles y porque escojò este? Y que piensa la comunidad sobre su proyecto?*
When did you begin your Tepezcuintle project and why did you chose this one? And what does the community think about your project?
7. *Piensa que la actitud de la comunidad sobre conservacion cambio despues empezò su proyecto?*
Do you think that the community's attitude about conservation changed after you began your project?
8. *Quien son los jefes de este proyecto, y su familia ayuda, su esposa o hijas participan? Què hace su esposa y su hijas con el proyecto?*
Who all is in charge of this project, and does your family help, do your wife and daughters participate? What do you wife and your daughters do with the project?
9. *Digame sobre su meta para educar los niños y la gente aqui sobre Tepezcuintles?*
Tell me about your goal to educate the children and the people here about the Tepezcuintle?
10. *Por què piensa que este recurso es muy importante para conservar?*

Why do you think that this resource is important to conserve?

11. Crea que su proyecto va a mantenerse o sostener para el futuro? En que manera es sostenible?

Do you believe that your project is going to maintain itself or sustain itself for the future? In what way is it sustainable?

APPENDIX C

Questions posed in interviews with Teresa and Maria
Participants in the Medicinal Plant Project, La Gamba

1. *Què es el nombre de su proyecto desarrollo sostenible y què hace?*
What is the name of your sustainable development project and what do you do?
2. *Comò este proyecto conserva el ambiente y porquè es importante?*
How does this project conserve the environment and why is it important?
3. *Comò empezó este proyecto y de quièn fue la idea?*
How did you begin this project and where did the idea come from?
4. *Quièn en su familia ayuda con el proyecto?*
Who in your family helps with the project?
5. *Quièn en su familia o grupo es encargado del proyecto o quièn tiene màs responsabilidad en el proyecto?*
Who in your family or group is in charge or who has more responsibility in the project?
6. *Puede describir que hace la paersona que es encargado del proyecto?*
Can you describe what the person in charge of the project does?
7. *Què es su puesto en el proyecto? Y comò son los puestos distribuidos entre la gente en el proyecto y quièn decide cuàl personl recibe un puesto en particular?*
What is your position in the project? And how are the positions distributed among the people in the project and who decides which person receives a particular?
8. *Piensa que su participaciòn en esto proyecto ha cambiado su rol en su casa o su rol entre la comunidad? De que modo lo ha cambiado?*
Do you think that your participation in this project has changed your role in the home or your role in the community? In what way has it changed?
9. *Piensa que su opinion del bosque y los recursos naturales ha cambiado por su participaciòn en este proyecto? Comò y por què?*
Do you think that your opinion about the forest and its resources have changed since your participation in this project? How and why?
10. *Què son los recursos le ofrece el bosque? Y comò los usa?*

What are the resources that the forest offers? And how do you use them?

11. *Piensa que su proyecto va a sostener un recurso para el futuro, y cuál?*
Do you think your project is going to sustain a resource for the future, which one?

APPENDIX D

List of medicinal plants of the La Gamba medicinal plant project.
The list is taken from *Consultoría: Potencial Ecologico y Ecoturistico de la Comunidad La Gamba* by Francisco Javier Ling Nieto and Sebastian Céspedes Bonilla. March 1999. Published by Fundación Neotropica.

Nombre Científico	Nombre Común
uuu	Altamisa
Bixa orellana	Achiote
Brosimum utile	Baco
Buddleia Americana	Salvia Virgen
Caesalpinia pulcherrima	Hoja sen
Cananga odorata	Hilán-hilán
Carica papaya	Papaya
Cecropia sp	Guarumo
Cydista sp	Ajillo
Cymbopogon citrates	Zacate de limón
Cymbopogon nardus	Citronella
Eucaliptus spp	Eucalipto
Hibiscus arboreos	Amapola
Jatropha gossypifolia	Frailecillo
Justicia Pectoralis	Tilo
Justicia tinctoria	Azul de mata
Kalamchoe pinnata	Hoja de aire
Lantana camara	Pazarrin
Lantana sp	Pujagülla
Lippia alba?	Juanilama
Lippia sp	Hierba Buena
Lippia sp	Oregano
Ludwigia sp	
Malva sp	Malva
Maranta arundinaceae	Sagú
Maranta sp	Sagú
Mikania sp	Oja de guaco
Mimosa sp	Dormilona
Neurolana lobata	Gavilana
Ocinnun sp	Albahaca (Clavo de olor)
Ocinnun sp	Albahaca
Pechlantis sp	Leche de sapo
Pedilantis sp	Hoja plástica
Phothomorpha sp	Anicillo
Plecthranthus amboinicus	Oregano extranjero
Plumeria alba	Jazmín
Ruta graveolens	Ruda
Sambucus mexicana	Sauco
Sansevieria Trifasciata	Lengua de suegra
Senna reticulata	Saragundi
Solanum mammosun	Pichichio

Nombre Científico	Nombre Común
Solanum sp	Uña de gato
Stachytarpheta sp	Rabo de alacrán
Tagetes sp	Canario
Tecoma stands	
Thevetia peruviana	Chirca
Triunfetta semitriloba	Mozote
Zebrina pendula	Cucaracha
Zingiber officinale	Jengibre

APPENDIX E

Questionnaires with a women's group in Naranjal, Golfito, Costa Rica.

Nombre (name)_____ Edad (age)_____

1. *Què se hace en su proyecto con *****?*
What do you do in your project with *****?
2. *Tienen una meta para conservar el bosque en su proyecto?*
Do you have a goal to conserve the forest with your project?
3. *Crea que el bosque es importante para conservar, porque si o no?*
Do you think that the forest is important to conserve, why or why not?
4. *Què saca del bosque? Por ejemplo saca leña o fruta?*
What do you take out of the forest? For example do you take firewood or fruit?
5. *Què tipo de recursos crea que el bosque se ofrece para sere humanos?*
What type of resources do you believe the forest offers human beings?
6. *Crea que su vista o opinion sobre el bosque es igual o diferente en comparision con los opinions de hombres? Explica?*
Do you think your views about the forest are the same or different in comparison with the views of men? Explain.
7. *Tiene un esposo o novio quien viva en su casa? Y que tipo de trabajo se hace?*
Do you have a spouse or boyfriend who lives in your home and what type of work does he do?
8. *Tiene niños y cuantos tiene?*
Do you have children, how many?
9. *En su casa, crea que su y su esposo o novio contribuyen igualmente a su casa, en terminos de responsibilidad en la casa, explica?*
In your home, do you believe that you and spouse/.boyfriend contribute equally to your home in terms of responsibilidad to the house, explain?

Approximately 8 women answered the questionnaire in writing; other women chose to simply discuss the questions with me as they worked. I intentionally

left out the name of the project to protect the privacy of the women. The project is a reforestation project to help rehabilitate battered women.

APPENDIX F

Questions posed to Julian, the manager of the rehabilitation center

1. *Què tipus coses se hacen en el bosque, o que tipus cosas obtiene del bosque?*
What type of things do you do in the forest and what do you obtain from the forest?.
2. *Durante su vida diario, como usa el bosque? Usa plantas medicinales, o obtiene frutas o otras cosas para comer?*
During your daily life, how do you use the forest? Do you use medicinal plants or obtain fruit or other things to eat?
3. *Los otras personas de este àrea tiene el mismo vista, opinion sobre el bosque como uds. ?*
Do the people in this area have the same view or opinion about that forest that you have?
4. *En su opinion, las mujeres tiene el mismo idea sobre el bosque como los hombres?*
In your opinion, do women have the same views about forest as men?
5. *Por què razòn es como esto? Por què las mujeres piensa màs sobre conservacion del bosque?*
Why is it like this? Why do women think more about conserving the forest?