1986

A Cultural Geography of the Embera and Wounan (Choco) Indians of Darien, Panama, With Emphasis on Recent Village Formation and Economic Diversification.

Peter Harry Herlihy

*Louisiana State University and Agricultural & Mechanical College*

Follow this and additional works at: [https://digitalcommons.lsu.edu/gradschool_disstheses](https://digitalcommons.lsu.edu/gradschool_disstheses)

**Recommended Citation**


[https://digitalcommons.lsu.edu/gradschool_disstheses/4299](https://digitalcommons.lsu.edu/gradschool_disstheses/4299)
INFORMATION TO USERS

While the most advanced technology has been used to photograph and reproduce this manuscript, the quality of the reproduction is heavily dependent upon the quality of the material submitted. For example:

- Manuscript pages may have indistinct print. In such cases, the best available copy has been filmed.

- Manuscripts may not always be complete. In such cases, a note will indicate that it is not possible to obtain missing pages.

- Copyrighted material may have been removed from the manuscript. In such cases, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, and charts) are photographed by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each oversize page is also filmed as one exposure and is available, for an additional charge, as a standard 35mm slide or as a 17”x 23” black and white photographic print.

Most photographs reproduce acceptably on positive microfilm or microfiche but lack the clarity on xerographic copies made from the microfilm. For an additional charge, 35mm slides of 6”x 9” black and white photographic prints are available for any photographs or illustrations that cannot be reproduced satisfactorily by xerography.
Herlihy, Peter Harry

A CULTURAL GEOGRAPHY OF THE EMBERA AND WOUNAN (CHOCO) INDIANS OF DARIEN, PANAMA, WITH EMPHASIS ON RECENT VILLAGE FORMATION AND ECONOMIC DIVERSIFICATION

The Louisiana State University and Agricultural and Mechanical Col. Ph.D. 1986

University Microfilms International 300 N. Zeeb Road, Ann Arbor, MI 48106

Copyright 1987 by Herlihy, Peter Harry All Rights Reserved
**PLEASE NOTE:**

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark ✓.

1. Glossy photographs or pages ✓
2. Colored illustrations, paper or print 
3. Photographs with dark background ✓
4. Illustrations are poor copy 
5. Pages with black marks, not original copy ✓
6. Print shows through as there is text on both sides of page 
7. Indistinct, broken or small print on several pages ✓
8. Print exceeds margin requirements 
9. Tightly bound copy with print lost in spine 
10. Computer printout pages with indistinct print 
11. Page(s) _________ lacking when material received, and not available from school or author.
12. Page(s) _________ seem to be missing in numbering only as text follows.
13. Two pages numbered _______. Text follows.
14. Curling and wrinkled pages 
15. Dissertation contains pages with print at a slant, filmed as received ✓
16. Other

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

University Microfilms International

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
A CULTURAL GEOGRAPHY OF THE EMBERÁ AND WOUNAN (CHOCÓ) INDIANS OF DARIEN, PANAMA, WITH EMPHASIS ON RECENT VILLAGE FORMATION AND ECONOMIC DIVERSIFICATION

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in

The Department of Geography and Anthropology

by

Peter H. Herlihy
B.S., Syracuse University, 1975
M.A., University of Vermont, 1979
December 1986
Acknowledgements

I would like especially to acknowledge the love, advice, and support of my parents and family who have always been understanding of my somewhat different career and interests. I wish also to thank the governments of the United States and Panama for awarding my Fulbright Grant and the Geography and Anthropology Department at L S U for my Robert C. West Field Research Award. In the United States, William V. Davidson, as my advisor at L S U, has provided constant advice, support, and criticism of my work, believing in me as a student and my work as a part of geography. Both Dr. Davidson at L. S. U. and Dr. Daniel W. Gade, my advisor at the University of Vermont, have set good examples for me and made my graduate student experience rewarding. For the review of my study, my thanks go also to my dissertation committee, Miles E. Richardson, Sam B. Hilliard, Nigel J. R. Allan, and especially Donald E. Vermeer. I also thank Clifford P. Duplechin for the superb job of the final drafts of my maps.

In Panama, the support of the Instituto Nacional de Cultura is gratefully acknowledged as is Lic. Pedro L. Prados (Museo de Hombre), who provided me with letters of endorsement for officials in Panama City and Darién. Ursula Teresita Alpin of the United States Information Service
administered my Fulbright Grant in Panama and provided me with letters of endorsement from U. S. and Panamanian military authorities. The Smithsonian Tropical Research Institute allowed the use of their library and facilities while in Panama City, and Dr. Olga Linares and Carol Jopling gave freely of their time and energies to make my stay more pleasant and productive. Marcela C. Cooke at the Archivo Nacional was also very helpful.

Among those to be thanked in Darién, I would especially like to acknowledge the support of the new Chocó leaders: Cacique General Sr. Isidro Guaynora, Cacique Regionales Sr. Reneiro Guaynora, and Sr. Jose Idasio Teucama. The help and support of other Chocó leaders, Hon. Franklin Mesua, Anselmo Lino Guaynora, and Daniel Castaneda was also welcomed. The cooperation of the National Guard in Darién was essential for the successful completion of my research. (In early 1983, I spent one afternoon with General Parades explaining my work and Chocó culture when he paid an unprecedented visit to my village of Lajas Blancas.) Students and professors of the Universidad Popular Del Darién provided me with rides, food, and friendship when I seemed to need them most along the Pan-American Highway. The Catholic missionaries in Yavisa, in particular Padre Mario Artavia and Joaquin Arnaiz, gave me food, shelter, and moral support when my travels in interior Darién seemed most desolate.
most debilitating. But, without the extensive support of the Darién Chocó themselves, this story would not have been written. They trusted me, a foreigner, to give an accurate account of their culture, something they feel has not yet been done. Most of all, I want to thank them. I hope that I have not let them down.

To all, I convey my deepest gratitude.
The rational for studying a distant, little-known region or culture group and the logistics of how to do it, regardless of the outcome (Denevan 1980), can, in some ways, be as instructive as the results of the research itself. In 1981, from the writings of a number of field geographers, especially Charles F. Bennett, Burton L. Gordon, and Robert C. West, I knew the Chocó Indians as a remote rain forest group. At that time, I had just finished my M. A. thesis at the University of Vermont under Daniel W. Gade on Amazonian fish poisoning practices and I had worked as an assistant on his project about pet-keeping practices in Amazonia (Gade 1985). With Gade, I had developed many interests in the New World tropics and I wanted to learn more about rain forest Indians. The Chocó seemed to be an ideal group. According to what I had read, they lived intimately with their surroundings and practiced agriculture and animal husbandry adjacent to their isolated river bank settlements.

As a doctoral student in the Department of Geography and Anthropology at Louisiana State University, my interests included Indian subsistence and culture history, especially in Amazonia and the Maya area. I noticed, with insights provided by my advisor at L S U, William V. Davidson, that little had been published about the Chocó or eastern Panama.
Dr. Davidson had, in fact, proposed a study of an existing Indian reserve on the Río Chico, Darién, as a part of a larger study of Indian reserves in Central America. I also talked at length with Dr. West about his work among the Chocó of Colombia in the 1950s. Finally, the decision was made—I would study the Chocó. First on the agenda was a brief, preliminary investigation of their dooryard orchard-gardens. To support the research, which I proposed to do in late summer 1981, I applied to the Robert C. West Graduate Student Field Research Fund at LSU. By coincidence, at the first of the summer, I was invited by Fred Wiseman, another faculty member at LSU, to be a student assistant on the Maya agriculture project of B. L. Turner and Peter D. Harrison at Pulltrouser Swamp, Belize. Serendipity plays, fortunately, a valuable and often significant role in any research undertaking, particularly in the remote areas frequented by geographers. Such was the case when I met Alan Covich, a zoologist at the University of Oklahoma, then serving as the Pulltrouser ecologist. Covich is one of the few North American scientists to study the Chocó Indians; he also co-authored the only article on the dooryard cultivated clearings of the Chocó (Covich and Nickerson 1966). He further sparked my interests with discussions of his field work among the Chocó in the 1960s.

I arrived in Panama City in August 1981 and took a
15-hour boat ride from the capital over the Gulf of Panama to reach Darién Province. At the time, the Pan-American Highway stretched to a point just west of Yaviza, but the last 26 kilometers could, at the time, be passed only during dry season in a four-wheel drive vehicle. The old wooden boat in which I traveled was one of the vessels that has served as the historic link between Panama’s capital and the most remote province. I reached the colonial Negro town of Yaviza determined to visit many of the same areas about which Covich had written and talked. My first contact with the Chocó came at Común, Río Chico, where I met Sr. Temistocles Ortega.

In Común, I established temporary residence at Ortega’s house and I began to map dooryard gardens. I became frustrated, however, at not finding the patterns I had expected. I was confused and at first attributed my reaction to being in a different cultural setting. I realized eventually the source of my disorientation: the Chocó at Común lived in a village! What had happened to the single family settlements scattered along the river margins that Covich had described? The existing literature did not mention villages. As I continued to map gardens, I spoke to Ortega and other Chocó about recent changes. Were there other villages like Común and, if so, why and how did they form? The answers were not simple. One night as I sat on
the high bank behind Ortega's home overlooking the river's moonlit surface, he began to unravel a complex tale of the Chocó struggle for the support and acknowledgement of a country and government that knew little of Indian life. Most Panamanians, Ortega believed, considered his people as primitive savages. I later learned that Ortega was the first chief of the Darién Chocó. He knew much of the recent changes because he had, nearly singlehandedly, initiated many of them.

I wanted to learn more of his people. Something quite different was occurring among the Chocó in this remote and little-known region, and for me it was, as James J. Parsons (1977) suggested, the "interest in the unique" that fueled my geographical curiosity. I traveled to distant agricultural fields and worked with Sr. Ortega. We talked as we worked long days weeding his maturing rice crop. It was hard work and I was unaccustomed to the heat. Adjusting to changes in food and cultural setting was also difficult. I fished, farmed, hauled drinking water, and learned more. Still, I felt disoriented by the intensity of my introduction to Indian life. Chocó relocation into villages was generally unknown and I knew a long field period would be necessary to gain an understanding of the changes. I decided to prepare myself for a return trip to study the group for my doctoral project. At the time, I did not
relish the idea of living in Darién's forests under such different cultural conditions. I tossed uneasily to sleep as the mosquitos bit within my mosquito netting. Truely, the idea of living a year on plantains, rice, and fish, as a native, alone in Darién's forests, did not then appeal to me. From past research in Amazonia with Dr. Gade, I knew that prolonged field work can be physically debilitating, especially when working in remote rain forest areas. Nonetheless, upon return to the United States, I applied for a Fulbright Grant that would support a year of field work.

I returned to Panama in August, 1982; and established residence in the Emberá community of Lajas Blancas, along the Río Chucunaque. I lived and worked as a community member, contributing to subsistence production whenever my abilities permitted. With my guide and friend, Gregorio Guaynora ("Porra") of Lajas, I traveled widely over Darién's rivers and trails and spent about 250 days in the Province between August, 1982, and July, 1983. Porra's help was indispensable as he ever so delicately introduced me to Indian ways. I slowly learned what was necessary to survive and to live in Darién. Lajas Blancas was also the home of one of the recently appointed chiefs, Renerio Guaynora. He, like Chief Ortega, was a key figure in Chocó society, and knew more about the most recent changes among his people.
Living in Lajas, I helped families with subsistence tasks when I felt useful. I worked in agricultural fields, fished, hunted, constructed houses, carried produce to market, and much more, gaining an intimate understanding of the group's changing subsistence patterns. Indian life was hard, but it agreed with me. Carrying produce meant cash to the family I helped and I rotated from one family to another week after week. My activities were not designed to integrate me into the confidence of the community, but that was the result. I slept in the unoccupied health center, but spent most of my time at Porra's house. As months passed, I became friends with several villagers, especially relatives and friends of Porra.

Lajas Blancas served as my base while I ventured out to explore Darién's river basins. Letters of introduction and support were provided by the Chocó leaders. Field trips involved lengthy, arduous travel in a dugout canoe. Over the year, I visited 43 Chocó communities staying enough time in each to feel that I had a sense of the village and its place in Darién.

Information was often gathered through participant observation. This method fits deeply into the field tradition of Latin Americanist geographers, particularly well-developed in North America though the influence of Carl
It seems that at Berkeley during the Sauer years field work was an unstated requisite for most Ph.D. dissertations. Sauer (1956) believed that the principal training of a geographer should come, whenever possible, by doing field work. He embodied this philosophy in his own research in Latin America (West 1981). Field work for the "Berkeley Ph.D." normally meant long periods among foreign, non-industrial societies, and frequently concerned American Indian cultural survivals (Parsons 1979). This tradition has remained strong among Latin American geographers (Aschmann 1970; Davidson 1981). Recent examples come from the works of Nietschmann (1973) among the Nicaragua Miskito, Henkel (1971) with the Chapare of Bolivia, and Bergman (1980) among the Shipibo of Peru.

Personal observation provided most of the data in this study. Emerged in Indian daily life, I wrote notes and organized observations by oil lamp at night. I also interviewed, formally and informally, village officials, family heads, and others knowledgeable of the Chocó. On sketch maps, I plotted settlement locations while traveling by dugout along Darién's rivers. To understand past patterns, I spoke with village elders.

My direct participation in Chocó society was indispensable to this dissertation. Working alongside my
hosts, I gained their trust and friendship. They went out of their way, sometimes traveling great distances, to tell me their part in the story. Thus, this dissertation records much that is, in many ways, a part of their emerging folklore. My prolonged and intimate involvement gave me understanding and empathy for the Indians' condition. Documents, both published and unpublished, supplemented field data and allowed for verification of oral accounts. Still, errors or deficiencies in this study are, of course, my own fault.
Table of Contents

Acknowledgements ................................................................. ii
Preface ................................................................. v
Table of Contents ................................................................. xiii
List of Tables ................................................................. xvi
List of Figures ................................................................. xvii
Abstract ................................................................. xviii

Part I: Introduction

Chapter One. A Geographical Study of the Chocó
Indians of Panama ................................................................. 2
The Indians of Panama ................................................................. 7
The Darién Chocó ................................................................. 15
Review of the Literature ................................................................. 19

Chapter Two. The Physical Setting: Darién Province, Eastern Panama
Physiography and Hydrography ................................................................. 26
Darién Forests ................................................................. 26
Monsoon Forest ................................................................. 31
Darién Wildlife ................................................................. 37
Mammals ................................................................. 46
Birds ................................................................. 47
River Life ................................................................. 54
Animals in Regrowth Vegetation ................................................................. 59

Chapter Three. Ethnohistorical Brief of the Darién Chocó
Nomenclature and Linguistic Relations ................................................................. 62
Chocó: A Culture Group and a Province ................................................................. 70
Colonial Period ................................................................. 73
Westward Expansion, 1780-1960 ................................................................. 78
Panama’s Chocó Population in the 1960s ................................................................. 91
Bayano-Panama Populations ................................................................. 93
Darién Population ................................................................. 95

Part II: Historic Settlement and Subsistence Patterns

Chapter Four. Dispersed Settlement ................................................................. 104
The Kindred ................................................................. 104
Chapter Five. Subsistence Patterns .................................................. 117
Agriculture
Slash-Mulch Cultivation .................................................. 120
Slash-Burn Cultivation .................................................. 124
Dooryard Orchard-Gardens ........................................ 126
Hunting ........................................................................ 130
Fishing ....................................................................... 135
Animal Husbandry and Pet-Keeping .................................. 139

Part III: A Period of Transition, the 1960s
Chapter Six. Agents of Change .................................................. 145
Western Products .................................................................. 146
Commercialism .................................................................. 148
Missionary Influences and Education .................................. 151
The Pan-American Highway .............................................. 153
Hoof-and-Mouth Disease .................................................. 156

Part IV: The Modern Chocó of Darién
Chapter Seven. Settlement in Villages: A Territorial Imperative .. 161
The First Chocó Villages .................................................. 162
Outside Influences ................................................................ 164
Village Formation: A Political Policy .................................. 170
Village Form and Size .................................................. 172
The Political Quest for a New Indian Territory ...................... 183
The Comarca .................................................................. 186
Location and Occupants .................................................. 186
Land Ownership .......................................................... 187
Administration .................................................................. 187

Chapter Eight. Village Economics ............................................. 190
Agriculture ..................................................................... 190
Slash-Burn Cultivation .................................................. 193
Plantains and Bananas .................................................. 198
Rice ........................................................................... 200
Yams ........................................................................... 204
Other Crops .................................................................. 207
Slash-Mulch Cultivation .................................................. 207
Dooryard Orchard-Gardens .............................................. 208

xiv
<table>
<thead>
<tr>
<th>Chapter Nine. The New Commercial Economy</th>
<th>234</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stores and Cooperatives</td>
<td>238</td>
</tr>
<tr>
<td>The Commercial Crops</td>
<td>240</td>
</tr>
<tr>
<td>Plantains</td>
<td>240</td>
</tr>
<tr>
<td>Rice</td>
<td>243</td>
</tr>
<tr>
<td>Yams</td>
<td>244</td>
</tr>
<tr>
<td>Corn</td>
<td>245</td>
</tr>
<tr>
<td>Other Commercial Activity</td>
<td>245</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter Ten. From Dispersed to Village Settlement: The Case of the Village of Lajas Blancas</th>
<th>249</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash-Oriented Subsistence</td>
<td>253</td>
</tr>
<tr>
<td>Dooryard Orchard-Gardens</td>
<td>256</td>
</tr>
<tr>
<td>Slash-Burn Agriculture</td>
<td>258</td>
</tr>
<tr>
<td>Plantains and Bananas</td>
<td>259</td>
</tr>
<tr>
<td>Agroforestry</td>
<td>259</td>
</tr>
<tr>
<td>Regrowth Cultivation</td>
<td>260</td>
</tr>
<tr>
<td>Hunting and Fishing</td>
<td>261</td>
</tr>
<tr>
<td>Commercial Economy</td>
<td>263</td>
</tr>
<tr>
<td>Summary</td>
<td>266</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part V: Indians and Rain Forest Converge</th>
<th>278</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter Eleven. Summary, Discussion, and Conclusion</td>
<td>269</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>References</th>
<th>288</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A. Village Leaders of Darién Chocó, 1983</td>
<td>301</td>
</tr>
<tr>
<td>Appendix B. Boundary of Comarca Emberá-Drua</td>
<td>302</td>
</tr>
<tr>
<td>Vita</td>
<td>304</td>
</tr>
</tbody>
</table>
List of Tables

Table 1. Chocó in Panama, 1960s ...................... 100

Table 2. Dates of Village Formation for the Darién Chocó ............................................. 169


Table 4. Trees and Palms Spared by Chocó farmers ......................................................... 195

Table 5. Common Dooryard Orchard-Garden Plants ....................................................... 210

Table 6. Composition of a Finca, Común, Río Chico, Darien ........................................ 213

Table 7. Game Animals of the Darién Chocó ................................................................. 218

Table 8. Common Freshwater Fish and Game of the Darién Chocó ..................................... 219

Table 9. Forest Plants Collected by the Darién Chocó .................................................... 230

Table 10. Cash Crops and Market Orientation of the Darién Chocó .................................. 236

Table 11. Areas and Income from Agricultural Lands of Lajas Blancas, 1983 ............. 257

xvi
List of Figures

Figure 1. Indian Groups of Panama, 1985 .................. 8

Figure 2. Pacific Lowlands-Chocó Population Dispersed 1960s .................. 12

Figure 3. Panama's Chocó Population, 1960s .............. 92

Figure 4. Emberá Settlement, Lajas Blancas, 1968........ 114

Figure 5. Traditional Agriculture Pattern .................. 119

Figure 6. Darién, Panama, Chocó Population, Villages, 1983 ............. 174

Figure 7. Nuevo Vigia, February 1983 and Bajo Chiquito, February 1983 .... 175

Figure 8. Boca Mono and Pueblo Nuevo, August 1982 and Puerto Lara, August 1982 .... 176

Figure 9. Village Settlement 1983: Chucunaque-Tuira Area .............. 178

Figure 10. Village Settlement 1983: Jaque, Sambú, and Balsas Areas ......... 179

Figure 11. Village Settlement 1983: Congo-Sabana Area .......... 180

Figure 12. Lajas Blancas, Río Chucunaque, Darién, 1983 ............. 252

Figure 13. Agricultural Lands of Lajas Blancas 1983 ............. 254
A Cultural Geography of the Emberá and Wounan (Chocó) Indians of Darién, Panama, with Emphasis on Recent Village Formation and Economic Diversification

The Chocó Indians of Darién Province, eastern Panama, are one of the least accessible and unacculturated aboriginal groups in Central America. Divided into Emberá and Wounan speakers, they number just over 11,000, or about one-fourth of the Chocó who live throughout the Pacific lowlands of Colombia and Panama. This study, a traditional cultural geography, documents Chocó life in Panama, with emphasis on the process of recent village formation. One village, Lajas Blancas, served as an example for a detailed documentation of agricultural systems and settlement forms. Data were also collected from 42 other communities during August 1981, and from August 1982 to July 1983.

For centuries the Chocó hearth has been along the Pacific coast of Colombia. During the colonial period, the Indians gradually moved northward into Panama where, by the late nineteenth century, they had settled the lower sections of most large rivers. By the 1950s, they reached the Canal. The Darién Chocó have lived in relative isolation with few notable cultural changes. Dispersed in single-family households, they have practiced slash-mulch, slash-burn, and dooryard orchard-garden cultivation adjacent to their post-dwellings. Hunting, fishing, animal husbandry, and
pet-keeping round out their economy.

Traditional Chocó life was altered during the 1960s. Missionary influence and Chocó desires to educate their children brought teachers, schools, and settlement agglomeration. Government involvement and international concerns about the spread of hoof-and-mouth disease from Colombia brought more contacts with Panamanian nationals. Another profound agent of change was a peculiar individual nick-named Perú. Living inside Chocó society, he helped initiate a movement to gain national support and a semi-autonomous political unit (comarca). The movement was supported strongly by the popular government of Omar Torrijos.

The most obvious recent change in the human landscape of Darién is settlement agglomeration. Since 1953, 75 percent of the Chocó have clustered into 53 villages. Village life has a new spatial organization of economic activities. Agriculture remains the major component, but now slash-burn fields produce for a growing cash market, as well as for local consumption. Deforestation and subsistence hunting pressures have depleted plant and wildlife resources. Still, the future appears bright for the Darién Chocó and one might conclude that Panama has performed well as its Indians confront modernization.
Part I: Introduction
Chapter One

A Geographical Study of the Chocó Indians of Panama

Panama is a country known mostly for its canal, not for its Indians. However, among those who are knowledgeable of Amerindian cultures, Panama is also recognized as a country that has demonstrated great empathy for the plight of its native population. Indeed, the aboriginals' quest for autonomy and territory has been more successful in Panama than in any other country of Central America. While social change has brought political turmoil and military violence over much of the region, changes among Panama's Indian communities have not seriously damaged their populations or culture. As a model of culture change without accompanying disaster, the recent activities of Indians in Panama are worthy of attention. This dissertation, as a cultural geography, focuses on the two most important manifestations of recent change among the Chocó Indians in Panama: village settlement and economic diversification of subsistence activities.

This treatise is set in Panama's eastern interior, in the remote province of Darién. Here, along the numerous streams that flow through lush tropical rain forest, the Chocó Indians have lived for centuries in relative isolation. During the last two decades, however, influences
from outside have increased. Cultural changes have been initiated by the national government, missionaries, and other outsiders, some of whom have entered via the new Pan-American Highway. Their presence has altered significantly the long-standing associations between the Indians and their lands.

This study focuses on the relationship between one culture group, the Chocó Indians, and their habitat, the tropical rain forest of Darién Province, eastern Panama. The way humans interact with their natural environments has long been the concern of practitioners of the man-land tradition in cultural geography. As a reaction to strong deterministic thinking that placed the environment in the dominant role of shaping human activities, this approach developed initially with studies that portrayed man and the environment as independent variables. The mutual relations between man and his natural environment were, early on, called "human ecology" by Harlan H. Barrows (1923). Carl O. Sauer, however, is recognized as the foremost proponent of this tradition (Leighly 1963:1). He particularly emphasized a temporal as well as a spatial perspective for viewing relationships between man and his environment (Sauer 1941).

The Darién Chocó provide a rare opportunity to view a changing man-land relationship in a tropical rain forest
setting. Their experiences concern many issues of international importance, including the establishment and management of parks and Indian reserves, the development of agroecosystems, fisheries, and commercial production in such environments. Equally important, the Choco present an exception of what happens as a native population comes in contact with the national society. Normally, such contact has meant acculturation and integration into the national society, with the loss of traditional ways. Recent changes in man-land relations among the Darién Chocó, however, have brought increased autonomy and an emerging sense of ethnic pride to the natives. Also addressed in this study are issues of ethnicity or tribalism of representatives of the "so-called" Fourth World. Further, and more broadly, the contents of this dissertation pertain to theories of settlement and culture change. But while the Chocó experience bears upon these themes, this study was undertaken primarily to determine the origin and dispersal of the most conspicuous feature of this changing man-land relationship, that of a new landscape feature—village settlement.

In examining the changing man-land association of the Chocó, this dissertation touches on the five implicit themes in cultural geography (Wagner and Mikesell 1962). Concerning culture, this study points out that culture
change need not necessarily spell the demise of native traditions because the Darién Chocó retain past features as components of their new tribal organization. Regarding the culture area, this document describes the distribution of Chocó populations to distinguish the Darién Province as a separate region where social and economic changes have transformed Chocó lifeways and where native political organizations have gained control of territory. The Darién Province provided a unique study area for my field work because the developments that initiated and propelled changes in Chocó society occurred only there. With reference to the cultural landscape, the work examines the sharp contrasts between past and present Chocó settlement and subsistence patterns. The new village pattern does not blend as closely to its surroundings as the historic dispersed one and affiliated economic activities have different spatial arrangements and commercial priorities. With regard to culture history, the dissertation reconstructs historic migration to explain the present distribution of the Indians. Also, the agents that originated change in Chocó society are discussed. Finally, bearing on matters of cultural ecology, the study points out that the new Chocó settlements place great pressures on Darién's resources and prime agricultural lands, along with fish, game, and certain forest products, are becoming scarce.
The results of my research on settlement and subsistence changes among the Darién Chocó are presented in five parts. Part one, the introduction, places the Indians of Panama, and specifically the Chocó, in their natural settings and describes the size and distribution of their populations. A detailed description of the physical environment of eastern Panama focuses on the habitats used for Indian subsistence. Next, the culture history of the group is discussed from the colonial period onward to explain the westward migration of the group from Colombia into Panama. Part two is a description of the "traditional" dispersed settlement and subsistence economy that the Chocó have employed for centuries. The traditional patterns of the 1960s serve as this study's baseline to gauge changes that have occurred during the last two and one-half decades. Part three explains the period of transition (1960s) when outside influences first brought significant alterations to the Darién Province. The economic, cultural, and ecological factors that set the stage for the changes are also delineated. Modern Chocó of Darién are the concern of part four. With the adoption of a new village settlement model, patterns have also changed to include the Indian's new cash-oriented economy. The village of Lajas Blancas is presented to illustrate in detail the progression from dispersed to agglomerated settlement. The dissertation ends
with a summary, discussion, and conclusion of how village settlement and the new subsistence patterns have a different spatial and ecological impact on Darién. The whole is the story of a remote Indian group struggling to change its own culture faced with pressures from an outside world.

The Indians of Panama

Panamanian Indians, generally, are clustered some distance east and west of the Panama Canal (Fig. 1). Such a distribution is perhaps best explained by the Spanish occupation and heavy use of the trans-isthmian routes across Panama during the colonial era. For 400 years, Spanish and mestizo populations, pushing east and west away from central Panama, have incorporated or destroyed the natives or pushed them toward the margins of the country. At present, Indians account for 6.7 percent (140,000) of the country's population—half live in the west, half live to the east.

West of the Canal, three Indian groups occupy the northwestern part of the country (Fig. 1). The Guaymí, Panama's largest indigenous population, include two linguistic groups: the Ngawbere and Buglere. The Ngawbere Guaymí live on some of the most resource-depleted lands in the country, in Bocas del Toro Province, but others live in
the savannas of the Pacific slope of Chiriquí and Veraguas. The eastern Bulgere (Bokata) Guaymi cluster around the eastern boundary of Bocas del Toro Province from the Río Chucara to the western tributaries of the Río Calovebora on the Atlantic slope (Young 1971; Torres de Arauz 1980:214,295; Gordon 1982:22-24; Cooke 1982:57).

Two lesser Indian populations are found adjacent to Guaymi lands in western Panama. The Teribes (or Terraba), a small tribe near the Costa Rican border, inhabit the valley of the Río Teribe, the largest tributary of the Río Changuinola (Gordon 1982:24; Cooke 1982:31). The other group, the Bribri, recently entered Panama from Costa Rica. They are a small branch of the Talamancan tribe that lives along the Yorkin tributary south of the middle Sixaola River (Gordon 1982:25).

Census information concerning indigenous populations lacks detail, but does indicate the approximate size of Panama's major Indian groups. The 1970 census lists 44,794 Guaymí in Panama or 59.1 percent of the country's native populations (Panama 1978). (The 1980 national census had not been tabulated at the time of my field work.) Using the 1970 population figure and assuming a modest annual growth rate of 2 percent, a 1985 population of 60,287 Guaymí can be calculated. Considering the likely inaccuracy of the
population data and the low annual rate of increase, the population seems certainly larger and there may be as many as 80,000 Guaymí in Panama today. Recent ethnographic research shows that more than 1,500 Teribes live in Panama (Torres de Arauz 1980:271).

The Cuna Indians are Panama’s second largest Indian group. The 1970 census shows a population of 25,231, accounting for one-third of Panama’s native population (Panama 1978). With an annual growth rate of 2.7 percent (Torres de Arauz 1980:101; 1970), the Cuna population would be 37,626 by 1985. The Comarca de San Blas (called Kuna Yala locally) is a political territory formed in 1938 to give the Indians semi-autonomous control of homelands that stretch more than 200 kilometers along Panama’s Caribbean coast. Kuna Yala contains over 30,000 Cuna Indians, most living in more than 60 villages located on small, near-shore islands or at river mouths (Howe 1974; Stier 1979; Chapin 1983, personal communication; Breslin and Chapin 1984:31). Another less well-known and little-studied population of more than 3,000 "Inland Cuna" occupies lands outside the comarca. One segment of Inland Cuna inhabits the drainage basin of the Río Bayano where they were recently resettled following the construction of the Bayano hydroelectric dam (Wali 1983). The other segment, the "Darién Cuna," are a relic of a population that once occupied much of the
province. Today the Darién Cuna are restricted to two small headwater areas, one in the upper Río Chucunaque, the other in the upper Río Tuirá (Fig. 1).

The Chocó Indians, subjects of this study, are Panama's third largest and least-known Indian group. Chocó settlement in Panama marks the western extension of a large, tropical rain forest group that inhabits the Pacific lowlands from northern Ecuador to the Panama Canal (Fig. 2). The ethnic term Chocó refers to two distinct linguistic groups, the Emberá and Wounan. Historically, they were largely confined to the Department of Chocó, western Colombia, from whence came their popular name. The Chocó are not new to Panama, however, and the area of the Jaque-Puerto Piñas in the southeastern extension of the country may have been occupied by "Caribs" (relatives of the present-day Chocó) in Balboa's time. Chocó expansion into Panama, beginning largely in the eighteen century, has accelerated until recent years.

Statistics concerning the actual numbers, density, and distribution of Chocó populations are scarce and notoriously unreliable. Census information does not detail population size and ethnographic accounts vary considerably in population estimates. In the 1960s, the missionary-scholar, Jacob Loewen (1963:241) estimated that Colombia contained
18,000 Chocó (15,500 Emberá; 2,500 Wounan). In the 1970s, Padre Constancio Pinto Garcia (1978:24) recorded 30,000 Colombian Chocó (with a Departmental breakdown: Chocó 20,000; Antioquia 2,000; Caldas 5,000; Cauca 1,000; Cordoba 2,000). Most recently, the Hermanas Misioneras de Santa Teresita (Botero 1982) estimated that 20,000 Chocó lived in Colombia (with a linguistic breakdown: Baudó 2,000; Tadó 1,000; Citará 3,500; Catío 4,500; Chami’ 2,000; S. Jorge 1,000; R. Verde 1,000; Saija 1,500; Wounan 3,500).

Panama’s Chocó population is much larger than the estimate of 5,000 for the Sambú division given in the sources above. Chocó occupy most of the Pacific slopes and inland river basins of southeastern Panama. Darién Province contains the largest segment of Panama’s Chocó population; fewer live in the Provinces of Panama and Colón. The 1970 census lists 5,713 Chocó in Panama, or 7.6 percent of the native population (Panama 1978). At an annual growth rate of 3.4 percent (Torres de Arauz 1980:101; 1970), there would be 9,433 Panamanian Chocó in 1985. However, if census data are low, such projections lead to underestimated populations. My own estimate of Panama’s Choco population is considerably larger: more than 11,000 live in Darién Province, with another 2,500 in the provinces of Panama and Colón. Over 13,000 Chocó Indians reside in Panama today (1985). All data suggest a total Chocó population (Panama
and Colombia) of 30,000 to 40,000. I am led to accept the larger figure.

Panama's Indians are a major component of the rural population outside the central isthmus. They occupy most of the land in the provinces of Boca de Toro, Chiriquí, Veraguas, Darién, Panama and the Comarca de San Blas (Fig 1). According to the 1970 national census, the indigenous population of Panama was 75,738 (Panama 1978). However, the Instituto Indígenista Interamericano calculated that 30 percent of the natives were not included in the census (Torres de Arauz 1980:100). Allowing for an 30 percent underestimation, Panama probably contained 140,000 indigenous people in 1985, or 6.7% of the 1985 national population of 2,090,956. This means, except for Guatemala and Belize (Davidson 1984:32), Panama has a larger percentage of Indians than any other country in Central America.

Panama has the least-disturbed native population in Central America. While Indian groups elsewhere lose territory, resources, and sometimes human rights in confrontations involving the national society, Panama's Indians have made progress towards securing territorial claims and local autonomy. Semi-autonomous reserves, called comarcas, can be established on traditional Indian lands as
part of the national territory. The Cuna experience with their comarca is particularly germane to this dissertation: the Comarca of the Cuna Indians (Kuna Yala) provides a model for the Darién Chocó. The Guaymi Indians are also planning for comarca status. Guaymi lands in western Panama, however, are well-settled by mestizo populations and Indians there confront a host of problems including land tenure, natural resources, and development projects (Comite 1982). The future of the Guaymi comarca did not look good at the close of my field work. Nevertheless, Guaymi efforts to secure political territory have brought a higher level of group solidarity and local leadership. Prospects for a comarca for the Darién Chocó, on the other hand, look bright.

The Darién Chocó

The traditional organization of the Darién Chocó has recently been altered. For centuries, Chocó Indians settled along Darién’s rivers in a simple pattern of scattered family settlements. They migrated freely through the area having a modest impact on the natural environment. No structured social or political organization occurred beyond the family level. Each Chocó household stood as a self-sufficient economic unit with the eldest male serving
as the highest authority. These patterns no longer dominate. Now, most Darién Emberá and Wounan live in villages. They have adopted a social and political organization with chiefs and village leaders. Now more unified than before, the Darién Chocó are developing a sense of fixed territory and seek the establishment of a semi-autonomous reserve or comarca.

My brief preliminary field work in 1981 suggested three socio-economic segments of the Chocó in Darién. One segment, found in remote headwaters, lived in isolated family settlements and appeared to have only minimal contact with the outside society. These folk maintained traditional Indian ways. Another larger segment, occupied newly-organized, government-sponsored villages. These villages, while still predominantly subsistence based, were involved in external monetary systems. In sharp contrast, the third segment lived away from subsistence lands in so-called libre settlements (former colonial towns) where their principal source of income was wage labor. Although maintaining certain traditional practices, Chocó families in towns developed ladino lifestyles. These three segments of Chocó society represent different degrees of involvement in the market economies of the region and country.

My field work in 1982-83 showed, however, these
segments are not neatly compartmentalized. Dispersed populations are only slightly less integrated into the market than those who opted for village life. Indians living in the libre towns are not inexorably drawn into non-Indian life when they become involved in cash economics. While a tendency does exist for some Indians to leave their settlements, this was clearly not the norm. Rather, many farmers stay in libre towns only temporarily, perhaps while they sell their produce or shop and visit friends. Others stay longer while their children attend secondary school. The Darién Chocó do not display the familiar rural to urban population movement that results in abandonment of Indian ways for wage income. Generally, the entire society is at the same level of market integration. No discrete socio-economic constructs fit the Chocó experience.

Culture change among the Darién Chocó is not a clear case of market involvement, acculturation, and abandonment of Indian ways. Nor does the example of the Darién Chocó exemplify the stereotype of the national society over the subservient indigenous one. Indeed, most recent changes have been initiated by the Indians themselves. In most cases, village organization has brought some acculturation and integration into the national society at the expense of traditional ways. But I found that the Darién Chocó are adopting village settlements and dramatic political and

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
ecological changes primarily to secure control of their lands in Darién. They still maintain many features of their traditional culture including language, dance, custom, and subsistence.
Review of the Literature. Systematic studies of the Chocó Indians first occurred during the 1920s. At the time, some descriptive works and general surveys of Panamanian and Colombian Indian populations contained sections on the Chocó, but most were based on limited field experience and carried religious or political overtones. To a large degree, knowledge of Indian populations came from early travel accounts and broad regional surveys, some of which provided valuable and precise ethnographic information (see for examples, Reclus 1881; Pittier 1912; Marsh 1934). Most of this genre are not so useful. Unfortunately, some studies rely heavily on the misleading sources and thus compound inaccuracies.

During the late nineteenth and early twentieth centuries, several expeditions from the United States entered the Pacific lowlands to study the prospective canal site. Often, artifacts of native life were collected and returned to the United States. The most extensive collection, deposited at the Smithsonian Institution, was described in "Material Culture of the People of Southeastern Panama" (Krieger 1926). This work is remarkably accurate and useful as an introduction to Chocó material culture.

Erland Nordenskiold, the famed Swiss ethnographer, also crossed the isthmian region in 1927 with his wife, son, and
Sigvald Linne. The latter produced the first archaeological study of Darién (Linne 1929). While the expedition’s research was primarily archaeological, Nordenskiöld and Linne published broader studies that included observations on the history and anthropology of the Chocó. To date, Nordenskiöld’s valuable ethnography is available only in Swedish (Wassen 1935:36), but several of his minor essays in English, German, and French contain information on Chocó culture (Nordenskiöld 1927; 1928a; 1928b; 1930). Nordenskiöld died in 1932 before completing his extensive work on the group, but fortunately, Henry Wassen edited his mentor’s notes into a famous ethnographic study (Wassen 1933). Wassen later conducted his own field work in areas not reached by Nordenskiöld. He wrote one of the best ethnographic pieces on the Chocó (Wassen 1935).

Other anthropologists wrote on the group in the mid-twentieth century. Some articles were published on Chocó myth and religion at the time (Milciades Chaves 1945; Rivet 1929). In 1948, David B. Stout (1963) summarized and interpreted the scant ethnological record in an article for the Handbook of South American Indians. Stout’s forte, however, was the San Blas Cuna and his experience with the Chocó was limited. While his article reviewed the known Chocó material culture, it sheds little new light on the culture. Seminal contributions to the literature on the
Choco were made by the linguist-missionary Jacob Loewen. He lived and worked for years among the Chocó in both Colombia and Panama. His Master's thesis was on the Wounan language (Loewen 1945) and his doctoral dissertation was on the Emberá language (Loewen 1958). Much of his writing deals with Chocó languages (Loewen 1960; 1963a; 1963b), but he also discussed culture change (1972) and the alphabetization of the group (1971). About the same time, Louis C. Faron (1961:94) observed that the published accounts of the Chocó, both Panamanian and Colombian, were "altogether sketchy and, in themselves, inadequate to significant sociological interpretation." He found particular problems with Stout's article. Faron stayed with the Emberá along the Río Chico and studied the kinship, marriage, and residence patterns of the group. His two related articles refuted Stout's remarks (Faron 1961) and described in detail the traditional social organization of the group (Faron 1962).

Also during the 1960s, Geraldo Reichel-Dolmatoff, a Colombian anthropologist, wrote on the group. He observed native life as he traveled through the Pacific lowlands, first spending four months in 1960 among the Wounan and Emberá along the Ríos San Juan, Baudó, and their affluents. The result of his field work was a detailed ethnographic survey on the group (Reichel-Dolmatoff 1960). He later traveled to another part of the Pacific lowlands for eight
months during 1961 and 1962 and published additional observations on the group (Reichel-Dolmatoff 1962). During his explorations, he traversed the entire Colombian littoral, providing detailed description of Chocó settlement.

Reina Torres de Arauz, a Panamanian anthropologist, began her work among the Chocó about the same time. In 1957, she first visited the Darién Province, thereafter writing a short general article on the Darién Chocó. She stayed in the province for several, roughly month-long intervals over the following years and wrote on various aspects of Choco culture. In 1959, she visited Chocó in Panama and Colombia as part of the Trans-Darién Expedition. Her doctoral dissertation (1963) was a study of the ethnology and history of the group. Motivated by her expressed desire to write an ethnographic study that would "include as much of the Colombian Chocó as the Panamanian, on an ethnographic and historic plan," the dissertation was published as a popular book (1966:12). Later, she joined Marcia A. de Arosemena (1973) and studied Chocó settlement relocation resulting from the construction of the Bayano Dam. Her last major work (1980) before her untimely death included all of Panama's Indian groups and contained a long section on the Chocó. The total effort of her labors provided some of the most valuable materials available on
the Chocó.

Reina Torres stimulated many university students to study the Chocó. Vicente Caballero D. and Bolivar Arauz L. (1962) wrote their thesis on the Chocó migration into the Panama Province (especially to the Río Pequenís, an affluent of the Río Chagres in the former Canal Zone). The socio-economic condition of the Emberá migrants was summarized later in a short article (1962a). Another student, Raul Gonzalez Guzman (1966) produced another thesis on Chocó migration into the Province of Panama. The author produced an excellent map and description of the culture and economy of the populations there. Two theses on Chocó women were also completed at the University of Panama. The earlier project, by Ayala W. Damarýs I. and Nimia L. Rojas De Massiah (1968), was a general study; the later one, by Teresita Icaza S. (1977), was an in-depth analysis of the status of women in Chocó society.

Non-anthropologists have also contributed to the literature on the Chocó. Most notable are field geographers who studied in Colombia. Robert C. West (1957), after two lengthy periods of field work in western Colombia, wrote a classic historical geography of Chocó territory south of Panama. While he treated the broader Negro culture region of Colombia, much of his study is relevant to Indian
settlement in Darién. His detailed map of the distribution of Chocó population is the best for the period.

Contemporaneously, geographer Burton L. Gordon was working among the Chocó on the opposite coast of Colombia in the Sinú area. Gordon (1957) described the culture history and human ecology of the group and provided details of Chocó subsistence. Herbert Eder (1963) produced an equally valuable geographical reconnaissance of the Wounan populations along the Río Siguisura, an affluent of the Río Docampadó, and mapped the dispersed settlement pattern. A Colombian geographer, Victor Manuel Patino, also worked in the Pacific lowlands about this time. He wrote (1956, 1962) on the unique slash-mulch agricultural system of the Chocó.

The geographer Charles F. Bennett (1968) wrote the first detailed cultural ecology of the Darién Chocó based on field work he did along the Río Chucunaque. His work added a needed ecological perspective to the Panamanian literature. Covich and Nickerson (1966) saw cultivated dooryard clearings as a distinct component of Chocó subsistence. Soon afterward, another geographer, Louis Paganini (1970), wrote his dissertation on the agricultural systems of Darién's ethnic groups, including the Negroes, Colonists, Cuna, and Chocó Indians. A Panamanian scholar, Teodoro E. Mendez (1979) also wrote on Darién's geography.
including much concerning the Indians, with a good descriptive section on the Chocó. Another important contribution along these lines came from the Colombian scholar Sven-Erik Isaccson (1976). Based on field work in the Atrato Basin of Colombia, he completed a case study of traditional Chocó subsistence. Elsewhere, he documented (1973) the plight of the wild Indians (cimarrones) including Chocó who, when faced with Spanish demands, fled to isolated headwater areas.

Other works from Colombia include that of Padre Constancio Pinto Garcia, a Claretiano missionary, who for years worked among the Katío, an Emberá population of northern Colombia. Padre Constancio (1978) provided a sensitive, yet informative chapter on the dilemmas facing Chocó confronted with the political and economic realities of national society. Anthropologist Hector Castrillon C. (1982) wrote a book based on his thesis that looks at Chocó ethnohistory in Colombia and the changing socio-economic conditions of the group there.
Chapter Two
The Physical Setting:
Darién Province, Eastern Panama

The Province of Darién, study area of this dissertation, has been recognized as a region since Balboa first visited it at the onset of the sixteenth century. Today, Darién remains the most remote and least-known province in the country. It is Panama’s largest province (16,803 square kilometers), bounded to the north by the Comarca de San Blas, to the east by the international boundary with Colombia, and to the west by the Province of Panama (see Figure 1). From all these areas influences have entered to alter Chocó society in Darién. Still, it is from the forests and streams of the region that the Chocó gain their livelihood. It is from the local physical environment that the very survival of Indian lifestyles at its present socio-technological level depends.

Physiography and Hydrography

Darién Province has only one coastline—along the Pacific where small inlets dominate. The most conspicuous feature along the coast is the Gulf of San Miguel into which Darién’s major rivers empty. Around this gulf are many small islands, bays, and rocky inlets. Darién’s northeast
boundary with the Comarca de San Blas follows the continental divide of the Cordillera de San Blas and Serrania del Darién. The range runs roughly parallel to the Caribbean coast about 10 to 15 kilometers inland. These mountains form a curved, igneous ridge running northwest to southeast and have been uplifted along faults on both sides (Terry 1956). The geologic structure of Darién is characterized by grabens with sedimentary basins resting between horsts (O.E.A. 1978:186). The hills of the continental divide are generally irregular. They form a discontinuous range with general elevations at 1,000 to 1,500 meters. The highest peak, Tacarcuna, reaches 2,280 meters (Mendez 1979:18).

The Chucunaque-Tuira Basin lies south of the continental divide. It covers an area of roughly 8,250 square kilometers (Comision 1975) and is the most important area of Chocó settlement in the province today. The Chucunaque-Tuira lowlands form a level surface of tilted sediments. The Chucunaque is the most important river, flowing 172 kilometers from Cerro Pitrigantí (894 m.), or 70 miles as the crow flies, to its confluence with the Río Tuira (Comision 1975; Faganini 1970:16). Many large tributaries drain the north flank with only small streams on the south side. During dry season, these smaller streams cease flowing along their mid reaches, particularly where
lands are deforested. The drainage pattern of the Río Tuira system is similar in that most major tributaries occur on the north flank. The Río Tuira flows about 180 kilometers from the headwaters in the Pirre range to La Palma, the provincial capital.

To the south of the Chucunaque-Tuira Basin are the discontinuous ranges of Serranía de Pirre, Serranía El Filo del Tallo, and Serranía de Canazas. Trending northwest to southeast, the ridgelines parallel the flow of the Ríos Chucunaque and Tuira. The Pirre Range is a fault block, separating the upper Tuira valley from that of the Balsas (Terry 1956; O.E.A. 1978:186). The Serranía de Pirre has its highest peaks of Cerro Pirre at 1,568 meters and Cerro Setetule at 1,220 meters (Mendez 1979:19). The Serranía El Filo del Tallo and Serranía de Canazas are even more discontinuous with generally lower elevations. The highest elevations are along the Sanson Ridge where hills reach over 500 meters.

The Balsas Basin is separated from the Sambú (Figure 2) by the Sierra de Jungurudó fault block. Like other physiographic divisions of Darién, these ranges trend generally northwest to southeast. The Pirre block and the Sierra de Jungurudó approach each other at the Colombian border. The Serranía del Sapo, just inland from the Pacific
coast reaches elevations of 1,145 meters. The southernmost extension of the province is drained by the Río Jaque lying between the end of the Serranía del Sapo and the Cordillera de Jurado (Mendez 1979).

Other rivers drain the headlands of Serranía de Canazas in northwestern Darién. From there, three fairly large rivers drain into the Gulf of San Miguel. Mendez (1979:23) stated that San Miguel Bay and its eastern continuation, the estuaries of the Ríos Tuira and Sabanas, as well as the northward fingers of the Ríos Congo, Sucio, and Cunatí, are the results of flooding because of the rise of seas in recent geologic time.

The character of the many streams and rivers that make up Darién varies greatly. The headwaters incise youthful valleys with steep gradients and rock channels. The headwaters are crystal clear and have pools and river bend conditions that favor spear fishing. Along wider stretches, channels have pebbly shoals that villagers often clear to make dry season passage possible. In the mid-sections, channels broaden, being stony, with channel bars covered with weedy vegetation. The lower sections are most important for Indian settlement. Here, rivers deepen as they cut through alluvial sediments. The high banks are often sandy, but the river bed is silty. The increased flow
carries a heavier load of suspended sediments making the waters earth brown. The lower river valleys flood seasonally on low lying areas. Riversides have natural levees extending out into a lower backslope. The dendritic pattern of the uplands becomes trellis-like on the alluvial lowlands. The main flows of the larger rivers meander little.

The tropical monsoon climate (Koppen's Am) of Darién has a wet-dry cycle brought by the seasonal migration of the Trade Winds. The average annual temperature is about 25 degrees Centigrade (O.E.A. 1978:157) with slight seasonal variation. The rainy season, called invierno locally, extends from May to December and receives most of the rainfall. The dry season (veranog) occurs when the northeast Trade Winds dominate the region between December and April. Extended periods without rain occur during these months. The amount of rainfall in any area of Darién is also closely linked to topography. Rainfall is greatest on the eastern slopes along the Atlantic coast (3,000-4,000 millimeters). In the central alluvial lowlands where most Chocó settlement occurs, however, rainfall is reduced considerably varying from 1,700 to 2,800 millimeters annually (O.E.A. 1978:157-184).
Darién Forests

The tropical forests of eastern Panama are among the most diverse in Latin America. The area has long been considered a wilderness area with extensive tracts of pristine rain forest. While modern deforestation shows the finite nature of Darién's forest, and while it is questionable whether or not these forests could ever be considered "virgin," it is clear that large expanses of mature forest once covered continuous tracts of land in the province. In the mid twentieth century the Río Chucunaque and its tributaries flowed through "unbroken virgin jungle for nearly their entire lengths" (Breeder 1946:128). In 1953, Bruce Lamb (1953:128), who spent two years studying the vegetation in the province, estimated that forests covered approximately 1,522,000 hectares or about 90 percent of the province. Although these forests are now being cut at an accelerated rate, the Darién remains the largest area of rain forest in Central America.

Darien's vegetation associations can be grouped into five major categories that vary with precipitation and elevation. As one proceeds inland and upslope from the Gulf of San Miguel, the vegetation types are 1. salt and fresh water swamp forest, 2. monsoon forest, 3. evergreen seasonal forest, 4. premontane forest, and 5. cloud forest.
The lowlands surrounding the Gulf of San Miguel and reaching up Darién’s major rivers to the limit of tidal influence are covered by salt and fresh water swamp forests. The canopy of both associations is nearly continuous and dominated by one tree species. Underneath, the ground is quite clear and often waterlogged from seasonal or daily floods. The forest floor is shadowy, streaked with rays of sunlight that penetrate the canopy. Tree roots are buttressed or propped.

The salt water swamp forests, called manglares in Spanish, are located on expansive silt deposits directly surrounding the Gulf of San Miguel. Red mangrove (Rhizophora brevistyloa) is most abundant along the shoreline. It is a medium-sized tree with propped roots that reaches 30 meters in height. Around the gulf, the red mangrove forms solid stands inland along the brackish waters lower Ríos Sambu, Taimati, Mogue, and adjacent lowlands, along the lower Río Tuira and its tributaries (the Ríos Setegantí, Marea, Balsas, Iglesias, and Sabanas). On the northern side of the gulf, red mangrove forms nearly continuous stands along the lowland and up the Ríos Cucunatí, Sucio, and Congo. Another small mangrove patch occurs along the Pacific coast at the mouth of the Río Jaque.
With the progressive reduction of salinity, the *Rhizophora* gradually gives way to black mangrove (*Avicennia germinans*). It occurs as an inland strip landward of the red mangrove. Black mangrove also forms solid stands about 20 meters high. This species is easily recognized by the large quantities of pneumatophores that emerge vertically from the soils around the base.

Up the Río Tuira, salt water gradually gives way to fresh. In the lower reaches, tidal flux still plays a role, pushing a sub-surface wedge of salt water upriver, causing the rise and fall of the fresh waters along the mud banks. A rare fresh-water vegetation develops as a result of these rising and falling waters. Along the Río Tuira upriver from its confluence with the Río Sabana, to a point upriver from the mouth of the Río Balsas, the banks are covered with the woody aroid called *castaño* (*Montrichardia arborescens*). This species develops in dense stands. In a 100-meter-square sample (10m x 10m), 728 individual stalks with an average height of about 6 meters were counted (Mayo Melendez 1965:339). The width of the *castaño* belt varies depending on the terrain.

Tidal influence can be observed far up the major rivers of Darién. Along river margins that flood seasonally
between May and December, specialized fresh-water swamp forests have developed. The most important economically is the *cativo* (*Priaca copaifera*) forest. The *cativo* is a tall forest tree that forms dense (sometimes nearly pure) stands along the damp, periodically inundated river margins of Darién. *Cativo* forests once covered much of the waterlogged riverside soils and lagoon areas of the basin drained by the Ríos Chucunaque, Tuirá, Balsas, Sambú, and Congo (Lamb 1953:129). They develop as extensive evergreen tracts approximately 1,000 meters wide parallel to the larger rivers:

"In the first 400 meters the *cativo* is associated principally with the *jobo* and *coco*. From 400 to 700 meters from the river, *cativo* occurs in pure stands. In the ultimate 300 meters, one finds *cuipo bongas* and *numa" (D.E.A. 1978:289).

Elsewhere along the Río Marea, an affluent of the Río Tuirá, the diversity of trees occurring in the *cativo* stands has been noted (Mayo Melendez 1965:340-41). While the forest is diverse, Melendez pointed out the composition was clearly dominated by the *cativo*. Of the 473 individuals sampled, 429 (91 percent) were *cativo*. The next most important member was the *alcornaque* (*Mora olifera*) which in certain areas is more frequent (Holdridge and Budowski 1956:99-101). *Cativo* has been Darién’s primary commercial hardwood. The species is easily extracted from the solid stands along the wetter, lower parts of Darién’s riverbanks. Since the early 1960s, most of the accessible stands of *cativo* have been
Other fresh water swamp forests contain palms. In certain areas, the palms form a well-developed understory. The palms do not have large buttressed roots but may have prop roots. The ground level contains many palm seedlings. Locally, low swampy lands may be dominated by a palm association. Such an area along the mid-reaches of the Río Chico, now site of the Emberá village of Corozal, once contained an extensive tract of corozo palm (*Corozo oleifera*).

Farther inland from the gulf, the broad interfluves are covered with monsoon forest—the most prevalent forest type of Darién. The forest is two-storied, the uppermost canopy normally reaching over 30 meters high. Monsoon forest differs from evergreen forest by having a greater understory biomass (Duke and Porter 1970:20). Monsoon forest occupies the expansive lowland alluvial soils across the Darién and, because it is of primary importance to Indian subsistence in the region, it will be discussed below in detail.

The hills above the monsoon forest are covered with seasonal evergreen forest. This forest is restricted to higher, moist slopes. Three strata can be discerned. Uppermost is a highly discontinuous layer with emergent
trees reaching 35 to 50 meters high. The middle stratum is the most continuous of the three forming a fairly dense sun-blocking canopy, roughly 15 to 30 meters above the ground. The lower story is not so dense. Because of increased orographic rainfall, this forest is lush with many more lianas and epiphytes than in the lower monsoon forests. In terms of floristic composition, however, the forests are similar. While primarily evergreen, these forests contain a large number of deciduous species (Duke and Porter 1970:15-16).

Darién's other important vegetation types, the premontaine and cloud forest, are not extensive and are restricted largely to headwater areas. These forests, away from most human use, are old and well-developed. They cover mountainous portions of the Serranías del Sapo, Pirre, San Blas, and Alto de Limon (Cerro Tacarcuna). Little is known of their flora (O.E.A. 1978:288). Up Darién's rivers, at elevations between 250 and 800 meters, wetter premontane forests have smaller crowns and a denser, more compact appearance. The formation contains two strata, a canopy layer roughly 25 to 30 meters high and a lower story, 3 to 15 meters high. In Darién, this forest forms a virtually undisturbed belt of vegetation along the slopes of mountain ranges (Duke and Porter 1970:21-22).
Covering the highest mountains is cloud forest. Year-round wet and cool conditions allow an exuberant herbaceous growth with woody epiphytes on densely crowned, low-branching trees. Cloud forest covers the upper slopes of the Serranías del Sapo, Pirre, San Blas, and Canazas, with isolated areas on the Cerro Setetule and upper Río Congo. The cloud forest association has a low dense stature, containing an abundance of lianas, mosses, and epiphytes. These forests include isolated disjunct plant and animal species not found elsewhere throughout Darién (Dalfelt y Morales 1978:193; Duke and Porter 1970:14).

Monsoon Forest

The largest vegetation formation in the province is monsoon forest, the habitat of most Chocó settlement. Some indications suggest the monsoon forest is culturally derived from past Indian agricultural practices. Nearly all Chocó economic activities occur within these forests below 200 meters in the Chucunaque, Tuira, Balsas, Sambú, and Congo basins. Much of the woodlands have remained undisturbed for a long time—for centuries in some areas, but elsewhere for only decades. Because Chocó life and livelihood alter the floristic and physiognomic structure of the forest, some discussion of the monsoon forest as influenced by Chocó
agricultural practices seems useful.

Darién’s monsoon forest is a tall, semi-deciduous rain forest that becomes largely evergreen under moist atmospheric conditions (Mayo Melendez 1965:344; Duke and Porter 1970:19; Dalfelt y Morales 1978:33,192-194). Monsoon forest differs from evergreen forest in having a greater understory biomass. Average height of the upper canopy is about 40 meters with emergents up to 50 meters or more. Trees have straight, relatively slender boles that are unbranched for the first 25 to 35 meters. Most upper canopy trees are less than 100 centimeters in diameter at breast height, but others can be nearly twice that size. The discontinuous A-canopy is usually dominated by several deciduous trees, most frequently including the cuipo (Cavanillesia platanifolia) and occasionally others like Ceiba pentandra and the marañón (Anacardium excelsum). Lamb (1953), who studied Darién’s upland forests over a two-year period, noted the thirteen most important species of this forest:

1. **cuipo** (Cavanillesia platanifolia)
2. **espavé** (Anacardium excelsum)
3. **cedro espinosa** (Bombacopsis guinatám)
4. **bongo** (Ceiba pentandra)
5. **caoba** (Swietenia macrophylla)
6. **cedro amargo** (Cedrela mexicana)
7. **cedro cibolla** (Cedrela sp.)
8. **tachuela** (Zanthoxylum sp.)
9. **nazareno** (Peltogyne purpurea)
10. **roble** (Tabeuia pentaphylla)
11. **biquero** (Ficus sp.)
12. caucho (Castilla elastica) 
13. maria (Calophyllum brasiliense).

The understory is largely discontinuous and contains saplings of upper canopy species. Two poorly stratified understory levels can be recognized: one reaches from 20 to 30 meters, and the other from five to 20 meters. These layers contain palms and small mature plants mixed with pole-sized canopy saplings.

Darién’s monsoon forest has distinct seasonal characteristics. During the dry season many dominant members of the upper canopy drop their leaves, including the cuipo, jobo (Spondias mombin), cedro (Cedrela odorata), ciruela (Spondias purpurea), and cedro espinoso (Bombacopsis guinata). With the loss of leaves, sunlight penetrates to the forest floor to benefit the dense understory. Thus, the monsoon forest has an open, discontinuous upper canopy that allows sunlight to filter through to strike the forest floor.

The cuipo is not only the most conspicuous component of Darién’s monsoon forest, it is also the most abundant. The species is easily recognized from the ground or air by its pastel trunk that reflects sunlight and its immense umbrella-like crown. The trunk, branchless for 25 meters, reaches tremendous sizes—sometimes two meters in diameter.
above the buttresses. The cuipo-mixed forest, considered here synonymous with monsoon forest, covers most well-drained lowlands of Darién. Physiognomically dominant in parts of the upper Chucunaque and Tuira Basins, cuipo represents 70 percent of the total volume of wood including 30 to 40 percent of the total number of trees (O.E.A. 1978:288; Lamb 1959). In a study of the Darién National Park (an area of 597,000 hectares along the Colombian border), cuipo was the most conspicuous emergent representing 25 percent of the total wood volume (Dalfety Morales 1978:33). These findings are remarkable because the Darién National Park contains what might be considered the largest, least-altered, and most continuous area of mature forest in Darién and probably in the rest of Central America.

The dominance of cuipo in monsoon forest is difficult to explain through natural processes. While the species appears dominant in tall monsoon forest in Darién, the tree apparently cannot reproduce itself under tall forest conditions. Duke (Duke and Porter 1970) considered it a late secondary species because, while finding seedlings, he never found saplings in the monsoon forest. Other investigators have also noted the absence of cuipo as an understory component of tall canopied forest (Dalfety Morales 1978:33). The species is opportunistic, invading
open habitats (Duke and Porter 1970:19). Others have selected cuipo as an indicator of tropical moist forest transition. Across the isthmus near the Canal Zone, the giant cuipo is restricted to the edges of moist and dry forest in a narrow strip, but in Darién it occurs over a very wide section (Holdridge and Budowski 1956:98-99). Apparently, the dominance of cuipo in Darién cannot be explained by natural processes alone.

Darién's monsoon forest represents a relict association resulting from past agricultural land use (Mayo Melendez 1965:345). Mixed cuipo forest occurs at varied successional stages throughout the province. It seems likely, as Budowski (1965:42) suggested, that secondary forest species such as the cuipo remain in the forest for a great period of time, perhaps centuries, and attain a great size, but they are unable to reproduce themselves. The cuipo is a heliophyte requiring open-field conditions for germination. Therefore, cuipo-mixed association or monsoon forest is old seasonal rain forest of variably-aged secondary or successional development. The dominance of tall, mature trees that cannot regenerate themselves indicates the forest probably began to establish itself a long time ago, perhaps centuries, as a by-product of cultural practices.

Other rapidly growing "weedy" species that develop...
after the abandonment of agricultural lands are also found in the monsoon forest. Along the upper Chucunaque, the bongo (Ceiba pentandra), another member of the Bombacaceae family, may locally share dominance with the cuipo. Mayo Melendez (1965:345) believed that Swietenia macrophylla (caoba), Cedrela odorata (cedro amargo) and Bombacopsis guinata (cedro espinosa), combined with the two above mentioned, are the principal species that indicate a secondary vegetation association.

A cyclic pattern has characterized vegetation change in Darién. Settlement and economic activity—agriculture, hunting, and fishing—have focused, until recently, along Darién's more accessible waterways. Following the predominant manner of traditional Indian settlement, a pattern of land use, over time, can be suggested. Tall monsoon forest is cut and burned for crop cultivation. After harvest comes abandonment to weedy successional regrowth that is gradually followed by early secondary forest. A former agricultural field colonized by regrowth vegetation ("jungle") is called rastrojo. In Darién, wherever lands have been cleared of trees, this regrowth vegetation is prevalent. Rastrojo is thus a human-induced vegetation type of variable age and diverse species composition. Two types of rastrojo vegetation are associated with Chocó subsistence; one is managed by the
Indians while the other results simply from abandonment of a cleared plot. In time, incipient forest develops into monsoon forest and the cycle is ready to start again with new agricultural disturbance or other clear-cutting activities. Natural and human factors also affect the establishment and maintenance of forest species as they mature.

The lands along the lower and mid-reaches of most of Darién's rivers have been farmed repeatedly since before Spanish Conquest. In these areas especially along river margins and extending outward for a distance of a day's walking distance, castrojo regrowth is prevalent. These river margins have been cut-over and reforested so many times that structurally they are quite variable and distinct from forests found in more remote and headwater areas.

The development of quipo-mixed monsoon forest begins with the field abandonment and development of castrojo growth. During the earliest stages of the agricultural cycle, within weeks after the initial clearing of a field, certain species can be found competing with crops. These weedy plants are often cut back by the farmers during early stages of cultivation, but with below surface rootstocks, they are ready to become established as soon as the agricultural plot is left untended or abandoned. The
earliest stages of rastrojo development in the Chucunaque Basin are characterized by rapidly growing herbaceous plants. Among the first plants to be found are heliophytes of the Musaceae family, especially the platanillo (Heliconia spp.). Naguala, or "Panama hat plant" (Carudovica palmata), also sprouts up rapidly. Both plants develop from underground rhizomes that are little affected by burning. Several species of Piper are also common at this stage. Amidst these herbaceous plants one can also see shoots of the noxious thorny vine salsagueca (unidentified). Within months, the rastrojo vegetation exceeds waist height. Other herbaceous components become conspicuous. A ginger called cana acia (Costus villoissimus), the pokeweed (Phytolacca orinoides), pega palo (Desmodium ascendens), and the granadilla (Passiflora quadrangularis) are among the early members.

Certain woody plants become increasingly noticeable as the plot ages. Year-old plots have small trees that reach above the lower herbaceous growth. Most conspicuous, guaruma (Cecropia spp.) and balsa (Ochroma pyramidale) have large floppy leaves. Some species with harder wood, including Irema micrantha and Cordia spp., occur as small shrubby trees. Small clusters of the white palm (Bactris sp.) also develop. Combined, the plants form a real "jungle" with masses of the thorny salsagueca, which can.
tear clothing and cut skin, making it nearly impossible to pass without clearing a path.

At the end of two years, small trees are prominent. The rapid-growing softwoods balsas and guaruma appear first. The cuipo and bongo are also now noticeable. Other species, which occur in nearby monsoon forest become more common, including the guava de monte (Inga spp.), jobo (Spondias spp.) and the membrillo (Gustavia spp.). These species do well in the open man-made landscape. Three to five years after abandonment, the emergent crowns of small to medium sized trees begin to dominate. The undergrowth is still impenetrable, but the rastrojo regrowth is now taller and more-mature. As yet, however, tree girth—up to three or more inches in softwoods—has not surpassed the cutting power of a man yielding a long-bladed machete. Rastrojo growth of this age is often selected for return to agricultural production.

Much of Darien’s potentially monsoon-forested lands are actually covered with rastrojo growth and incipient monsoon forest. The variable nature of Darien’s monsoon forest forms a distinctive patchwork of forest at varying stages of successional development (Mayo Melendez 1965:344; O.E.A. 1978:288-89). Agroecosystems, savannas, and rastrojo have replaced much of the tall monsoon forest in areas settled by
the Darién Chocó. Considering the nature of native agricultural practices, it seems more than a coincidence that the cuiioo-mixed association occupies Darién's best well-elevated alluvial agricultural lands. Under the use of native farmers, these lands have been farmed and abandoned since antiquity.

Darién's monsoon forests have not been occupied continuously by native horticulturalists since the pre-Hispanic period. Historic gaps (such as during the eighteenth and nineteenth centuries, see Chapter Three) occurred when Darién's rivers were largely unsettled. While the Cuna were well-settled throughout Darién in the 1600s, Spanish colonial activities caused abandonment of inland Cuna settlements. This left large tracts of previously farmed and rastrojo lands to regenerate to forest for more than a century without significant human settlement. Darién's forests slowly matured with the weedy remnants from abandoned agricultural fields forming the dominant forest.

Darién Wildlife

Darién contains a tremendous variety of animal life. This diversity is of considerable scientific interest because of the region's unique isthmian position between the
continents and because many rare and endangered birds and mammals survive in restricted pockets of undisturbed forest. Some species, like the bush dog (*Spethos venaticus*), have never been adequately studied in the wild. Beyond their scientific importance as a genetic resource, Darién's fauna are an invaluable source of fresh meat for Chocó families. For these reasons, much detail on the most used animals and their habitats is presented here.

**Mammals.** Six primates live in Darién's tall forests: 1) the *mono de noche* (night monkey, *Aotus trivirgatus*); 2) the *mono colorado* (red-brown monkey, *Ateles geoffroyi*); 3) the *mono arana* (spider monkey, *Ateles fusciceps*); 4) the *mono negro* (howler monkey, *Alouatta villosa*); 5) the *mono cariblanco* (capuchin, *Cebus capucinus*); and 6) the *titi* monkey (*Sangunis geoffroyi*). Two of these occur at the margins of their natural distributions. The *titi* extends northwestward to a point in central Panama; the *mono arana* reaches southward only into western Colombia.

New World monkeys are primarily arboreal. As forests are destroyed, the primates' range becomes more restricted. Only the *titi* is normally found near human settlement; apparently it can tolerate disturbed secondary habitats. The rest of Darién's primate population survives in pockets
of tall forest in headwater and other remote areas. As one travels along the more-isolated river margins and interfluves, monkeys are more conspicuous but still not common in the tall forest. Only once during my fieldwork did I encounter a group as large as 12 (howler monkeys along the upper Río Chucunaque near its confluence with the Río Membrillo).

The order Xenarthra is represented in Darién by three families, anteaters (Myrmecophagidae), sloths (Bradypodidae), and the armadillo (Dasipodidae). There are three anteaters. The tiny, exclusively arboreal tapacara or silky ant-eater (Cyclopotes didactylus) is a quiet and reclusive little creature, one hard to find in the forest. The large semi-arboreal species called oso homiguero (Tamandua tetradactyla) and the larger terrestrial anteater oso caballo (Myrmecophaga tridactyla) are now greatly reduced and are apparently found only in the largest expanses of remaining tall forest. None of the large anteaters were seen during my travels through the province. Only once, while clearing an agricultural plot during the dry season, did I see the shy tapacara that we saved from the fallen canopy debris. It died shortly afterward as a child’s pet in the village.

The sloth family (Bradypodidae) is also represented.
Both species, the *perezoso de dos dedos* or two-toed (Choloepus hoffmanni) and the *tres dedos* or three-toed sloth (Bradyvugus variegatus), suffer the pressures of hunting and deforestation. I saw neither species during my fieldwork, but the Emberá assured me that they can still be found.

Darién has only one armadillo species, the familiar nine-banded variety (*Dasyues novemcinctus*). Even this species, which becomes a pest in some areas, is severely reduced near settlements. Around headwaters and along the more remote stretches of the Ríos Ucurganti, Tuquesa, and Tupisa, armadillo trails extend along the leafy floor of the natural levee. The species is adaptable and tolerates man-made conditions. Its populations do not seem endangered because of its ability to occupy areas of secondary vegetation.

Darién also has a rabbit (*Lagomorph*). The *muleto* (Sylvilagus brasiliensis) is considered an agricultural pest more than a game animal because of its tendency to raid gardens and graze on young crop sprouts. When shot and cleaned, however, they are a welcome addition to any Chocó stew.

Darién has a variety of rodents. The ubiquitous rat populations (*Rattus rattus, R. norvegicus* and *Mys musculus*...
of the Muridae) disrupt many facets of Indian life. They eat stored grains and other foods. On one occasion we opened an underground nest connected through tunnels to the village store where the rats ate supplies at night. Twenty-three rats were killed in the process, some nearly a foot long.

The remainder of Darién’s rodents forms a diverse group of great importance to subsistence economies. Several of the rodents are very important game animals. The conejo pintado (Agouti paca) is considered the most savory meat among the Chocó. It is bought and sold among local hunters. While the species is rarely seen, hunters manage to kill them from time to time. The species is probably still fairly common away from human settlement. Another rodent, the negue (Dasyprocta punctata), is also widespread in low forested areas. Like the rabbit, negue invades Indian gardens. But the tasty negue, unlike the conejo pintado, does well in secondary castrojo and is sought widely by Indians, Negroes, and colonists alike. While reduced near human settlements, its population does not seem endangered.

The world’s largest rodent, the poncho (Hydrochaeris hydrochaeris), also lives in the province. Because this species requires a forested river-edge habitat, it is now restricted to only the most isolated headwater areas.
Elsewhere, habitat destruction from hunting, settlements, and logging has brought a severe reduction or elimination of its populations. Unlike the other rodents, the goncho competes more directly with man for its water-edge habitat. Emberá hunters have shown me the footprints of this shy creature along the upper Ríos Chucunaque, Membrillo, and Ucurganti. Without protection, the species seems in danger of extermination in the province.

Other mammals in Darién include the prehensile-tailed porcupine (Coendou rothschildi) and an arboreal squirrel (ardilla, Sciurus granatensis), both inhabitants of tall forest. The latter is widely sought for soups and stews. One of Darién’s most curious mammals, the dolphin, lives in the Gulf of San Miguel and ranges inland to the fresh waters of Darién Harbor at the confluence of the Tuira, Balsas, and Sabanas Rivers. The Chocó do not kill the dolphin, but admire it.

Darién’s fauna include a number of carnivores. Of the Canids, the rare perro de monte or bush dog (Speothos venaticus) is known in Panama only from Cerro Pirre (Mendez 1983:76). Supposedly, it hunts in groups and is extremely elusive. Among the three raccoons (Procyonidae), the well-known gato solo (coati, Nasua nasua) is the family’s only member with a diurnal habit. It may still be
widespread throughout the province away from human settlement. They were killed as game on several occasions during my field work. Other raccoons are the gato manglatero (Procyon cancrivorus) and the cusumbi (kinkajou, Potos flavus), but I saw neither. Nutrias, skunks, and other Mustelidae carnivores are also present. The smallest representative of the family in Darién is the lince (Mustela frenata); the largest is the gato de agua (Lutra longicaudis). A final carnivore, the lobo de gallinero (Galictis vittata) also lives here.

Five species of cats are native to eastern Panama. El tigre (jaguar, Panthera onca) has no rival in size, strength, or beauty. Standing at the top of the food chain in the forest, its only competitor for game and habitat is man. Chocó hunters say that jaguars are solitary, and a few can still be found even today in isolated headwaters. The puma (Felis concolor) is also reported. Smaller cats include the tigrillo (ocelote, F. parvidis), tigrillo negro (jaguarundi, F. yagouroundi), and the trigrillo (F. weidlil). I never saw these species in the wild, and apparently they are reduced and increasingly confined to remote backland and headwater areas where tall monsoon and premontaine forests prevail. Trade in animal skins is not widespread in Darién, but Indians, Negroes, and colonists do kill the spotted cats to sell their skins to anyone who will
buy them.

The Central American tapir (*Tapirus bairdii*) is the largest mammal in Darién. Its distribution is greatly restricted, but the Indians say individuals still roam the low to hilly lands from the Río Ucurganti to the Río Subcuti and down from Cerro Firre in the headwaters of the Río Tuira. One is kept as a pet at Unión Chocó on the Río Tuira, but I saw no other evidence of them anywhere I traveled in the province.

The peccary family (*Tayassuidae*) and the deer family (*Cervidae*) include some of Darién's most important game species. Of the two peccaries in the province, one with a collard neck (*saijo*, *Tayassu tajacu*) travels in small groups; the other with a white lip (*puerco de monte*, *Tayassu pecari*) runs in larger packs. The Indians regularly shoot the *saijo* and, somewhat less frequently, the *puerco*. The adaptable nature of these natural born scavengers makes them good pets on the one hand and nasty agricultural pests on the other. They frequently invade remote gardens. Subsistence hunting and destruction of rain forest habitats gradually are decreasing their populations. Only one deer species occurs in Darién, the *venado colorado* (*Mazama americana*). It has the reputation of being one of the tastiest game meats. The species adjusts well to secondary
regrowth habitats and continues to be widespread throughout the province, but like the other aforementioned large mammals it is being reduced under subsistence demands.

**Birds.** The great diversity of avifauna in Darién is obvious to all who travel quietly along the region's waterways. The *garza pales* (*Crotaphaga* spp.), *cuervos* (*Phalacrocorax* spp.), and *garzas* (*Egretta* *egretta*) are commonly seen gliding over the water in advance of canoes. *Oropendula* (*Psarocolius* sp.) nests dangle over the rivers from tall *cuipo* trees.

Many endangered birds are seen along those stretches of unoccupied banks away from human settlement. Two species of eagles, considered rare or endangered in most of Latin America, still find favorable ecological conditions in remote areas of Darién's forests. Natives say the formal-looking white-throated *aguila monuda* (*Morphus guianensis*) and the massive, short-winged *aguila* (*Harpyia harpyia*) still hunt in the headwaters of the Ríos Tupisa, Tuquesa, Ucurganti, and Membrillo and likely also survive in other isolated pockets in the upper Ríos Tuira, Balsas, and Congo.

Certain gallinaceous fowl, rare or exterminated
elsewhere, reside in Darién’s tall forest away from human settlements. In the Cracidae family, the **pavón** (*Crax rubra*) and the **pava roja** (crested guan, *Penelope purpurascens*) still occupy tall monsoon forests. Guacamayos (macaws), once conspicuous in the forests, are now reduced along with other large parrot species and are now only occasionally seen in the least accessible parts of the province. During my field work, I saw the blue-and-yellow macaw (*Ara ararauna*), the blue-and-green macaw (*Ara chloroptera*), and the Severa macaw (*Ara severa*). The green macaw (*Ara ambiguа*) and scarlet macaw (*Ara macao*) are also here. These parrots are sought for sale as pets—the Choco might receive 20 to 30 dollars for a healthy bird. The Choco also eat guacamayo roasted or in a stew.

Ducks are almost completely absent around settlements. The native Muscovy duck (*Cairina moschata*) can still be seen and it is sometimes taken as game. Yet, in general, all the large game birds of Darién have a rare or endangered status.

**River Life.** Darién’s river life has not been well studied, but includes many reptiles, amphibians, and other species that are rare or endangered elsewhere. The American crocodile (*Crocodylus acutus*) and the caiman crocodile (*caiman crocodilus fuscus*) live in the upper Chucunaque and
Tuira basins. Forty years ago crocodiles were abundant along the lower and middle Chucunaque and could be seen in streams scarcely wider than the animal itself. Some were 18 and 20 feet in length (Breeder 1946:430). The smaller caiman was less frequently encountered. Today, however, representatives are small; no full-grown members were seen. While the crocodilians are not common as game among the Choco, many Indians do consider them pests. The Indians say that the crocodiles disrupt fishing and eat fish. While on two extended fishing excursions on the upper Río Ucurganti (February–March 1983), small crocodiles were killed. Destructive exploitation by pelt hunters and "sportsmen" have caused decline of the crocodiles (for description of such wanton exploitation, see Marsh 1934).

Iguanas (Iguana iguana) are common along unpopulated stretches of river, especially where Ficus trees are present. On one trip up the Río Ucurganti, I counted 32 individuals, but my Emberá companion assured me that many more were nestled along leafy branches. Iguanas lie exposed to the sun on limbs, fallen debris, and weedy, river-edge vegetation. They do well in secondary forest. Iguanas were the most commonly taken game in the village where I lived and they are probably the most common forest game animal in Darién today. Elsewhere in Panama, hunting pressures have so depleted iguanas that they are endangered and under
protected status. In Darién, the iguana or gallina de palo, literally "chicken of the tree" as the natives jokingly call them, are still a fairly conspicuous component of the fauna.

Turtles also share the river margins. They perch on exposed rocks, sloping clay banks, fallen tree trunks, limbs, and other debris. There are three different species of turtles in Darién: Geomyda annulata, Geomyda punctularia, and Pseudemys scripta ornata. All are eaten and thus scarce near human settlements.

Small tennis ball-sized openings riddle the firm clays (lajas) of the cut banks in Darién. Extending up to high water levels, these holes, a meter or more deep in the lajas, are the homes of freshwater shrimp (Macrobrachium) and crabs (Pseudothelphusidae). Chocó catch these crustaceans all year long but especially during the summertime when river waters are low and clear. Crabs and shrimp can also be found under the rocks along fast-moving headwater stretches. Seasonal high river water allows the crustaceans to recolonize empty holes in the lajas to renew populations.

Perhaps the most economically important fish is the guacuco, an armored catfish with a suckerfish habit. They are numerous in the headwaters and sometimes gather in
large schools, particularly if flushed from a river bend by a team of fisherman. In streams and rivers, the guacuca is normally found clinging to fallen debris or rocks on the river bottom. The guacuca manteca (Lasiancistrus planiceps) and coroma (Plecostomus plecostomus) occupy similar habitats in the clear tributary rivers of the Chucunaque-Tuira, Balsas, Sambú, and Congo basins. The trout-like doncella (Ageniopus caucanu) and the scaly sébalo (Brycon sp.) are found in the open river channel. Both are highly sought, along with the guacuca, as the tastiest fishes. The macana (Stergoonous darianis), which reaches a length of two feet, lives amidst the decaying leaf litter on the bottoms of slow moving river waters. Where the Río Tuira reaches the salt water of Darién Harbor, the aquatic fauna changes. Salt waters have sharks, dolphins, corvinas, and a variety of different fish (Mendez 1979:43).

Insects are also a noticeable component of Darién's fauna. Flies, gnats, and mosquitoes are bothersome to forest travelers. Morongoes (unidentified) are one of the most troublesome. They seem especially common along rapidly moving clear headwater streams. These insects are so numerous around Canaán up the Río Membrillo that long-sleeved shirts and trousers are worn by Indians even when lounging in the village. In the tall forests, mosquitoes can be almost unbearable at times. Large ant
mounds and termite nests can be seen while traveling along forest trails. Conga ants, avipes (wasps), and the recently introduced African "killer bees" make one cautious while working or walking in the forest. A note concerning the curious habit of the introduced bees in Darién: On the arrival of the Trade Winds and the dry season, bee populations no longer form their characteristically enormous and dangerous swarms, but adapt by dispersing towards anything sweet.

Many snakes are native to Darién, but they are not commonly seen. The Indians are nevertheless cautious. Youngsters can identify the poisonous species, including the deadly equis (Bothrops spp.). Indian children were observed stoning a large equis to death, but an equally large but harmless boa was allowed to pass unharmed.

Animals in Regrowth Vegetation. Many animals do well in man-modified habitats. According to B. L. Gordon (1957, 1982), who for 30 years has studied regrowth sites, certain species adapt easily to the secondary forest and weedy regrowth. There, they become more resilient and not as susceptible to extermination resulting from habitat destruction. Many species, including certain game animals, become more abundant in regrowth vegetation than in tall
forest. A _rastrojo_ provides a favorable habitat for many small forest mammals. Some species, like certain rodents and the iguana, play an important role in Chocó subsistence.

Animals eat and move freely amidst the vegetation while humans and other predators are restricted. The Ñogué (_Dasyprocta punctata_), for example, after grazing on fruits and leafy plants, can scoot into the dense cover out of a hunter’s aim. Young weedy growth also produces large biomass in leafy herbaceous plants, shrubs, and small tree species that have a large number of fruits eaten by birds and mammals (Gordon 1982:99-111). Of the mammals, armadillos seem more common in secondary growth than in tall forest. They are sought widely by the Chocó, however, and are occasionally over-hunted in this habitat. The rabbit ruins crops when it leaves the tall forest habitat to live in secondary growth. While there is abundant food in the _rastrojo_ plot for this species, it prefers to graze on sprouting crops, particularly rice. Rodents also do well in _rastrojo_; rats and field mice appear more common.

Some larger mammals move in and out of _rastrojo_ plots. Deer and peccaries are often found in plots near isolated garden sites. Peccaries are notorious for disrupting root crops. Once I saw 20 percent of a yam crop damaged by a group of peccaries. The pigs normally do not invade fields
near human settlements, but they pillage more isolated fields.

Many birds do well in rastrojos. The greatest diversity is in the small bird life. Fruit-eaters, like tanagers, orioles, and caciques, are frequent. While these birds are exploited by Indians in western Panama (Gordon 1982), the Darién Chocó do not normally kill them. This fact may relate to the reduced availability of game under areas of Guaymi settlement and perhaps one day the Choco will find it necessary to adopt new hunting techniques to bring these little birds into their subsistence diet.

A few large birds are found in the rastrojos too. The chachalaca (Ortalis cinereiceps), perdiz (Crypturellus spp.) and the tinamou (Tinamus major) are all commonly heard. Some birds prefer the boundaries of the regrowth areas. Toucans (Ramphastos spp.) and Muscovy ducks, for example, perch at field margins and await opportunities to raid crop plants. Many large parrots (Amazonas spp.) and macawa (Ara spp.) do the same.
Chapter Three

Ethnohistorical Brief of the Darién Chocó

Nomenclature and Linguistic Relations

"Chocó" was not the name applied to the natives of Darién by the earliest chroniclers. The term came into use during the late sixteenth century and referred to the geographic region and to the people of the Pacific lowlands of present-day Colombia and Panama. For some writers, the term Chocó meant all Indians living in the Department of Chocó, Colombia. Following this, a "Chocó" Indian could refer to Cuna Indians who lived in the region. Even today, a small Cuna population lives in Colombia at Arquia and Cuti, Municipio de Acandi, Departamento del Chocó.

A similar sounding Spanish term, Cholo, is sometimes used, especially in Colombia. In general, this term has been used since early colonial times in a derogatory manner to indicate a racial mixture or acculturated Indian. In the Pacific lowlands, town folk (Spanish-speaking Negro and mestizo populations) use the term generically describing both Chocó and Cuna Indians, acculturated or not. Sambú and Sambo are other terms sometimes used to describe the Chocó. These terms, of limited use in the literature, were used
almost exclusively in ethnographic descriptions of Chocó Indians along the Río Sambú in Darién.

Although misnomers—Chokó, Sambú, or Sambo—tend to confuse the ethnographic and ethnohistoric literature, the term "Chocó" is not itself altogether appropriate. The ethnic term Chocó refers to two distinct linguistic groups. Nordenskiöld recognized this quite early during his travels:

"Emperá and Nonamá are names the Indians themselves are acquainted with. Where the word Chocó has come from I cannot tell. The Indians do not know it. My reason for employing it here is that it has come into such general use in the literature, and one should avoid to cause confusion by unnecessarily altering tribal names" (Nordenskiöld in Wassen 1935:38).

Henry Wassen (1935), Nordenskiöld's student, preferred to employ the term "true Chocó" to describe the Emberá, but confirmed the widespread use of the name Nonamá. Reichel-Dolmatoff (1960:77-78) also recognized two distinct languages—Noanamá and Emberá.

The Darién Chocó designate themselves as either Emberá or Wounan. Both terms are recognized across the Darién where the Indians acknowledge their language with pride. Apparently neither term was used by the early sixteenth and seventeenth century chroniclers. Both names translate to mean not only the single individual Indian (hombre), but also the broad linguistic group (gente). Emberá and Wounan
speakers recognize a common cultural heritage that separates them from the Cuna.

Neither Chocó language has been written. Some linguistic studies have been conducted and extensive vocabularies compiled, yet until recent literacy efforts by missionary groups in the twentieth century, the spelling and writing of words from these languages has depended largely on the records and transcriptions made by non-Indian researchers. Emberá occurs in the literature as Emperá and True Choco, but it is also written as Himberá, Enverá, Emberá-k, and Humberá (Rivet 1943:135). Sometimes phonetic distinctions can be very subtle. In Darién, one often hears the Indians say Emberá, Embená, or Empená, but the nasal intonation in their speech makes it easy to confuse the sounds of ñ and r, b and p. Loewen (1963:241) pointed out that Emberá, once phonemicized, must be written ñberá, because homo-organic nasal continuants develop allophonetically whenever a consonant is preceded by the nasal vowel. Yet, while Loewen’s transcription is technically correct, the Darién Chocó, many of whom are developing a competent degree of literacy, formally designate themselves as Emberá, using it on all official documentation concerning their populations. An Emberá student from the University of Panama, working as a national representative for his people, wrote a short paper entitled
"Charle Sobre la Reivindicación del Pueblo Emberá." He stated that the term Chocó has no significance among his people:

"El término chocó o chocoes, para nuestra sociedad o pueblo no tiene ningún significado, consideramos en término de categoría que la misma fue un concepto impuesto al pueblo Emberá por el grupo dominante, bajo criterio concepto geográfico o administrativo y divulgado por los que han escrito sobre nuestra cultura. El concepto chocoes para nosotros entonces es insignificantes o intranscendente" (Castenadas 1982:3).

Indeed, Emberá and Wounan Indians never recognize themselves as Chocó. While some do recognize the term, they identify themselves with their linguistic affiliation. This is true for populations in Colombia (Constancio Pinto García 1978:23) and Panama too. Nevertheless, like Nordenskiöld, I do not wish to add any confusion to the literature on the group. For simplicity, the term Chocó is still employed below. Its use also reflects an emerging group solidarity between Emberá and Wounan speakers in Darién.

An abundance of terms has also been used to designate the Wounan Chocó language. Wounan speakers are most frequently called Nonamá or Noanamá in the literature, terms that date to the early Spanish contact with the San Juan River Basin (Ortega Ricaurte 1954). Yet, Noanamá is a site, now a predominantly Negro Spanish-speaking town on the west bank of the Río San Juan, Colombia (a couple of meanders downriver from the confluence with the Río Sipi). The Río
San Juan has been a Wounan stronghold since the early Spanish contact and likely much earlier. Noanamá was settled as a colonial reducción or forced settlement of Wounan Indians. In historic and recent times, the Indians who lived there and in surrounding areas were called Nonamá. As a linguistic division, the group is also often referred to as Waunana. In Darién, however, a similar term Wounan refers to the whole group while Woun translates as both the individual or broad culture group. Woun-meu is correctly used to refer to the language. Wounan speakers are also referred to as Waunama, Waunana, Waunan, Noumamas-noaminas, Noanes, Noanabes, Nonamá, Nonamae, Chocama, Nonamá-Chocó (Loewen 1963:242; Wassen 1933; West 1957:93,225; Lucen Salmoral 1962:141). The term Wounan has been formally adopted by leaders among the Darién Chocó.

The linguistic picture is more complex than the simple division between Emberá and Wounan suggests. The Chocó "family" contains several groups differentiated by history, geographic location, and certain characteristics of language including phonetics (Pineda 1956). Loewen (1963:242-243; 1960) separated the Emberá language into nine dialects based on phonology, morphology, and a lexical inventory. Each dialect has a geographic focus usually on a particular river basin:

1. Saija is spoken by the inhabitants of the
river of the same name along the south Pacific Coast of Colombia.

2. Citará, also called Río Sucio, is spoken by the inhabitants at the Sucio River along the Atrato River and eastward to the Pacific.

3. Baudó is spoken on the Ríos Baudo and Nuqui.

4. Tado is spoken on the upper course Río San Juan and Atrato away from Wounan settlement.

5. Chami is spoken farther eastward on the Marmato River in the Department of Antioquia, Colombia.

6. San Jorge (N’gverá) is spoken in the northeast on the San Jorge River, Antioquia Department, Colombia.

7. Katio (Catio) is spoken along the eastern affluents of the lower Atrato, being widespread in the Departments of Chocó and Antioquia.

8. Río Verde is spoken along the upper Río Sinú in the north.

9. Sambú is spoken westward on the Río Sambú and other rivers of Darién.

Each dialect is found in areas geographically isolated, and without frequent contact with each other for long periods. The Emberá dialects seem to have resulted from the isolation of Chocó populations over time. Separated, they developed their own linguistic features, particularly phonetics. The greatest difference is between the northern and southern groups. Apparently, the most separated groups have difficulty understanding each other (Loewen 1963:243; Alba C. 1950:78-123).

No such dialects are recognized among Wounan speakers.
Until recently, Wounan were localized in an area centered on the Río San Juan (see Figure 2). Since the 1940s, however, Wounan families have been migrating to Panama in ever-increasing numbers. The question remains whether any dialectic differences will develop with a fairly large populations of Wounan speakers now disjunct in Darién.

Some questions linger concerning the classification of Chocó languages. Loewen (1963:241) pointed out that while Wounan is unintelligible to monolingual speakers of Emberá dialects, its phonology, morphology, and syntax exhibit very similar structural models, including cognate roots and affix morphemes, suggesting a close relationship. Evidently, the groups have a common prehistory. Maybe groups of Chocó Indians migrated over the Andes from the Amazon Basin thousands of years ago. Chocó material culture, from post-dwellings and spoked kitchen fires to complicated use of poisons to tip blowgun darts, indicates a close relationship with Amazonian tribes. Chocó settlement and subsistence are also riverine based. The Chocó are not normally coastal dwellers, but are riverine folk like Amazonian populations. Finally, while Loewen’s work shows relationships between the Chocó languages, affinities at the broader family level are still not clear. At first, Chocó languages were considered an entirely independent linguistic family. Then, mainly based on the large number of Chibchan
words, Chocó was considered by some writers to be a Chibchan tongue. Other research (Jojon y Caamano 1936-43; Rivet 1943-44) suggests that Chocó languages are Cariban. This classificatory confusion may have resulted from the fact that Chocó languages contain a large number of loan words not only from Chibcha and, like many Carib languages, from Arawak, but also from Quechua (Rivet 1943:190) and Spanish too.
Chocó: A Culture Group and a Province

Exactly when the term Chocó first referred to the Indians of the Pacific lowlands is difficult to determine. While the early conquistadors—including Balboa, Andagoya, and Pizarro—roamed the Darién, the land to the south, inhabited by "Caribs," was then called "Birú." In mid-sixteenth century, after Pizarro's conquest of the Inca, "Birú" became known as "Chocó." The term Chocó referred to the Carib-speaking inhabitants and the geographic region of forested hills and Pacific coast lowlands of present-day Colombia and Panama. The geographic region and the culture area were defined by the same territorial limits. An official document dated 1553 portrays the Chocó as an area westward from Anserma inhabited by various Indian groups (Ortega Ricaurte 1954:7-9). Aside from this mid-Atrato site, the locations of Chocó-settled provinces are vague in the historic records.

The use of the term Chocó became somewhat more precise during the late sixteenth century. At the time, the area west of Anserma down from the Cordillera Occidental (then called the Cordillera del Chocó), was considered part of Chocó territory. A document describes in 1572 the Chocó region as being situated "behind" the city of Anserma (Ortega Ricaurte 1954:41). By 1608, the provincias of the
Chocó, Dabaibe, and the Valley of Baeza, all areas of Chocó Indian settlement, were described as:

"the province of Indians called chocóes, who have been seen by Spaniards and news of the province of the Indians called Noanamá's who live on the shores of the mar del Sur, near the port of Buenaventura..." (Ortega Ricaurte 1954:96).

The area inland behind Buenaventura, Colombia, was then inhabited by the Noanamá Chocó or Wounan speakers. This same document also mentions other Chocó provinces called Catrues and Debaibes:

"running along a band of land to the north, there are other provinces of Indians called Catrues, who are on the shores of the Mar de Sur running towards the city of Panama, and that farther north toward the rio Darién (Atrato), is another province of Indians called Debaibes..." (Ortega Ricaurte 1954:97)

Another Chocó province mentioned was that of the Ziramibiraes. The northward limits of the Chocó at the close of the sixteenth century was apparently near the Atrato:

"...on the margins of the Río Darién (Atrato) that flows from the provincias of the Chocó to enter the ensenada of Acla in the Mar del Norte, to the edge and coast of the ocean, between Cartagena and Puerto Bello, is the provincia of the Indians called tunicanaes..." (Ortega Ricaurte 1954:98).

The Tunicanaes are thought to be Cuna Indians. If so, the northern lowlands and coastal strip of the Atrato-Darién region were occupied by Cuna Indians, neighbors of the Chocó in the sixteenth century.

Chroniclers provided further definition of the Chocó
towards the end of the sixteenth century. The region was shown to contain several Indian provinces, probably linguistic divisions, that could all be considered Chocó. In a relación of 1605, reciting the riches of the provinces of the Chocó, the entire geographic region was defined. While not precisely delimited, the Chocó included the ribbon of land along the Pacific lowlands between Cordillera del Chocó and the Gobernación Santafé de Antioquia, the lands between Buenaventura and Cali in the south, and to the Gulf of San Miguel and Uraba in the north (Ortega Ricaurte 1954:85). Two decades later, this general location was confirmed by Vázquez de Espinosa (1948:313). The approximate distribution of certain Chocó linguistic groups also began to emerge in late sixteenth century documents. At the time, three provinces were recognized (Isacsson 1973:30) as being Chocó: Noanamás, Chocó, and Citará.

The distribution of sixteenth century Chocó populations probably also extended into the area of present-day Darién. Remarks by the early chronicler, including the conquistador Andagoya, the buccaneer Wafer, and others, indicate the land southeast from Garachine was occupied by "wild" Indians quite different from the Cuevan or Cuna Indians that occupied the rest of Darién. These "wild Indians" spoke different languages, used blow guns, had a different house type, and lived on the south side of the isthmus toward...
Peru. These may have been Chocó, but if so they were restricted to the Río Jaque and coastal areas, perhaps extending into the upper Río Sambú, occupying only the extreme southern corner of Darién.

Colonial Period

The Spaniards who entered Chocó territory found settlements widely separated by stretches of river and forest. Such a pattern was not well-suited to emerging Spanish colonial organization. The Spanish administrators wanted to relocate Indians into villages so missionaries could spread the teachings of the Church. Yet, most attempts to agglomerate the Chocó met with only marginal success. The difficulties of resettlement were recounted by one missionary in a letter dated 1674:

"...the Indians live two or three leguas distant from one another and in order to get them and bring them together to administer the sacraments it is necessary to find a person that they recognize" (Isaccson 1973:32-33).

During the early seventeenth century, Chocó families dispersed along the eastern flank of the upper Atrato River basin were organized into villages to facilitate the administration of royal tribute and the forced labor for gold-mining. But by the eighteenth century, the Chocó province of Citará contained only six Chocó villages that
paid tribute. When the census was taken in 1777, Loro and Quido were the largest settlements with about 100 dwellings in each (Isaccson 1973:36-37).

Chocó migration into Darién resulted from Spanish Indian policy in the region. Apparently the Chocó families occupied lands abandoned by Cuna Indians, but several questions remain. Why were lands available for Chocó settlement? Where did the Cuna populations go and why? The mass abandonment of the Darién by the Cuna Indians and subsequent colonization by Colombian Chocó populations resulted from a Spanish colonial policy aimed at the retribution of the rebellious Darién Cuna.

Cuna Indians controlled Darién from the time of Spanish contact until the mid eighteenth century. The Spaniards had some footholds in the region. The gold-mining settlement of Santa Cruz de Cana was developed early in the sixteenth century by one of Padrarias’ captains on a beautiful meseta of the Serranía de Espíritu Santo. Cana reportedly once contained 20,000 individuals; if correct, this was for only a brief period. Another settlement, El Real de Santa María on the south bank of the Río Tuirá (one mile up the Río Pirre), served as a depository for the gold taken at Cana. It was also the municipal jail (Cuervo 1892:277). These were the only important non-Indian centers at the time, but
some other small isolated non-Indian settlements did exist. Fray Adrian de Santo Tomas, a Dominican priest who lived and worked in Darién, verified that outside these Spanish settlements Cuna Indians dominated the region (Torres de Arauz 1966; 1980). Don Julian de Carrisolo y Alfaraz, a European who was raised by Cuna Indians, worked with Fray Adrian to relocate a large number of Cuna Indians into communities (Torres de Arauz 1980:63). Still, the bulk of the Cuna population remained outside effective control of any colonial authority.

Chocó populations in Colombia did not make major advances westward into Darién during the eighteenth century. Darién was still Cuna territory. Europeans also avoided the area of monsoon forest and hostile Indian populations. Selfridge (1874:10) wrote: "In 1719 the Catholic missionaries had succeeded in establishing a number of towns on the Atlantic coast and upon the rivers flowing into the Gulf of San Miguel, but they were all destroyed by the Indians." The Spaniards had introduced placer mining, exploited Indian populations as miners, and generally warranted Indian animosity. The Darién Cuna rose against Spanish authority in 1719 and destroyed the few missions previously established (Cullen 1853:48; Cuervo 1892,II:359). In 1725-1726, the turmoil spread across Darién and Cuna Indians even allied with pirates hiding along Darién's...
rivers to fight the Spaniards (Joyce 1934:169). The pirate Bartholome Sharp recorded that Cuna Indians went with him to fight the Spaniards (Torres de Arauz 1980:64). The situation was clearly out of Spanish control. An anonymous Spanish document of 1739 spells out the rebellious nature of the Cuna and proposes their pacification and conquest. The "conquest" of the Darienes or Cunacunas, as the Cuna were then called, should be undertaken both from the north and south:

"From the Province Citará which is one of the four in Chocó and the leading one, and furthermore that which borders Darién, there could be called up 500 additional men, 300 of them native Indians and 200 of different castes such as Negroes, Mulattoes, etc. These people to be selected by the governor of the above-mentioned Chocó are those which will mean most for the expedition"..."The Citaráes are bitter enemies of the Darienes (Cuna) who have the greatest fear for the cunning with which the Citaráes have always surprised and continue daily to surprise them with the use of new strategy which the Darienes do not understand. The Citaráes are also more persevering in the work of pushing forward and orienting themselves in these mountains where they have been accustomed, with very small numbers, to destroy even very great numbers of Darienes. They make a surprise attack on them at night after having in the daytime orientated themselves by use of columns of smoke from the places where the Darienes move forward. For these reasons and others which I shall not go into here, the above mentioned Indians are the best suited for the expedition if they are helped and escorted by other of the country's people, and in case of need one should be able to make use of a hundred or two hundred more" (Wassen 1940:104).

Spanish authorities combined political and military strategies for the conquest and colonization of the Darién
during the late eighteenth century. Apparently, there was only one serious Spanish offensive to win Darién (Arosemena 1972:227). Until this time, Spanish political strategy was improvisational at best, consisting of extractive economies and short-term defensive measures. In 1778, the Governor of Darién wrote to the crown that defensive measures alone were not enough and that slowly the Indians and pirates were destroying and depopulating Spanish lands. The situation was chaotic. In 1783, Spain approved a real orden calling for the "reducción" or "extinción" of the Cuna Indians in order to occupy the coasts of Darién with permanent Spanish settlements to secure control of the area (Arosemena 1972:228). A number of socio-military tactics was recommended to control the situation.

Permanent Spanish settlements were to be established on the coast, some by Canary Islanders. A fortified site called Seteganty was placed in front of the Río Sabanas to guard the mouth of the river when the Cuna came to attack the gulf. At the time, the Cuna had already abandoned that river to a point 4.5 leguas from the mouth, from there advancing into the Chucunaque basin (Cuervo 1892,II:302). Upriver migration probably occurred along other rivers too. Armed troops were to be formed of mulattos, free Negroes, and native Chocó as part of the tropas de chogue or attack troop. Chocó Indians would be used in the offensive armed
with their bows and arrows, blowguns, and poisonous darts.

An informe of the Governor of Cartagena, documented clearly the employment of the Chocó Indians "to look for and to annihilate the Cuna." It was intended to remove the Cuna from their native land and to establish settlements and fortified sites (Arosemena 1972:230).

The Cuna had been pushed into Darién’s backlands by the late eighteenth century. They settled the more isolated headwaters of the Ríos Chucunaque and Tuira (Cuervo 1892;II:276-281). Spanish political-military strategy was clearly directed toward the pacification, extermination, and removal of the Cuna population from Darién. Nevertheless, frustrated by repeated unsuccessful colonization attempts, particularly in comparison to other New World regions, a real cédula in 1789 ordered the Spanish to abandon and dismantle their forts so the Indians could not take control of them (Mendez 1979:122-23). From then on, the native character of region would change. Once again Darién’s forests would return to Indian control, but this time the Chocó became the overseers.

Westward Expansion, 1780-1960

The first Chocó Indians to enter Darién during the
eighteenth century were Emberá speakers. No significant Wounan settlement appeared in Darién until the present century. An early notice of settlement outside the Jaque-Sambú area was recorded in a document of 1789 that noted 11 Chocó Indians, of both sexes, established in households along the Río Mogue, inland from the Gulf of San Miguel (Cuervo 1892,II:303). At the time, Cuna settlements had been pushed into headwater areas along the margins of the Serranía del Darién. Cuna settlements occurred on the upper reaches of the Chepo, Chiman, and Congo, on the Tuquesa, Ucurganti, Jubganti (?), and Chueti, branch of the Chucunaque, and on the Pucro and Paya (Cullen 1853). By the close of the century, Colombian Chocó families were moving in greater numbers into the Darién, pushing Cuna settlements still farther up Darién’s headwaters.

The Chocó made their westward advances into Darién along three primary migration routes. The first route, following the Atrato, Cacarica, Paya, and Tuira rivers, had an overland stretch that can be walked in two or three hours (Fig. 2 & 3). The second route led up the Río Juradó to a trail connecting with the headwaters of the Río Balsas. The Río Juradó was also used, although less-frequently, as a passage into the Río Jaque. This route, shorter than the first, has a short portage apparently passable carrying a canoe filled with belongings. The final route followed the
Pacific coast and used large dugout canoes and temporary encampments along the way. From the Pacific coast overland passage could be made into the Río Sambú Valley through the twin Ríos Pavarandó connecting the headwater areas of the Ríos Jaque and Sambú.

Darién showed stronger Chocó influence in the nineteenth century. The canal explorer Bertold Seemann (1853:178-179) described the distinctive Chocó landscape at the time:

"The Cholo Indians are one of the most widely diffused tribes of tropical America, extending as they do, from the Gulf of San Miguel to the Bay of Chocó, and thence with few interruptions, to the northern part of the Republic of Ecuador. We can follow them along the coast, from latitude 2° 0' to 8° 30' north, recognizing them by their peculiar mode of raising their habitations upon posts 6 or 8 feet above the ground."

Settlements extended into the Tuira and Chucunaque Basins. To be sure, populations were small and dispersed, restricted to certain parts of the basins. Another canal explorer, Lucien Wyse recorded (1886:51) the distinctions between Chocó and Cuna populations in the Darién during the 1880s, noting the former placed the suffix "dó" and the latter "tí" at the end of words to designate rivers. The Guaynoras, an Embera family, are said to have been the first family to settle the area, coming directly from the Río Juradó, Colombia (Isidro Guaynora 1983, personal communication). Wyse (1886:154) actually described the location of this
family's settlement in the upper Río Tuira. Within a decade more Emberá were attracted to the area by the re-opening of the gold mines of Espíritu Santo de Cana.

Toward the close of the century Emberá dominated settlements along the Río Sambú. The Darién explorer, Alphonse Pinart (1887:125) recorded that "Sambo-Chocoes" were found in reduced numbers along the Río Sambú, approximately 500 individuals mixed racially with Negroes. Considering the present-day racial endogamy of the group, Pinart's remarks concerning miscegenation are curious. Pittier (1912:657) who later visited the Sambú area noted:

"They are several hundred in number and their dwellings are scattered along the meandering Sambú and its main reaches, always at short distances but never near enough to each other to form real villages. Like their houses, their small plantations are close to the river, but mostly far enough to escape the eye of the casual passer-by."

Choco settlement also occurred across the Gulf of San Miguel, up the Río Tuira along the Río Sabanas. Indians there told me that the Emberá family of Chombolo Dojirama first settled the river in the late 1800s. By the mid 1920s, the area well-occupied:

"On a lower tributary, unmistakable an affluent of the Savanna, we discovered another group of entirely different settlements. These were large isolated houses on both banks of the river, separated from each other by a couple hundred yards, some round, some rectangular, all elevated upon posts above ground, and surrounded by extensive plantations. They were unmistakable Chocoi Indian settlements—the largest and most
Prosperous looking found anywhere in Darién" (Marsh 1934:46).

Emberá families also settled along the Río Chucunaque and its tributaries in the late nineteenth century. The early Emberá colonists respected upriver Cuna settlements and located settlements in the mid to lower reaches of the river. Cuna settlement was then found along headwaters, but the main banks of the Chucunaque were unoccupied:

"On the Chucunaque there are no villages below the Sucubti (Subcurti), which was visited by the expedition in 1870" (Selfridge 1874:36).

Oral histories of the Darién Chocó corroborate written accounts. Conelio Berrugates, the so-called "founder" or initial colonist of the Río Chico, first settled the lower Río Chico near Calle Hondo in the 1880s (Temistocles Ortega 1983, personal communication). The main banks of the Chucunaque were also settled by Chocó Indians about this time. Canal explorer Armando Reclus (1881:210) noted in the late 1870s that an Indian family from the Río Sambú had recently settled near the mouth of the Río Tupisa. While Emberá informants claimed the Río Chico was settled before the Río Chucunaque, this may not be strictly correct. This family near the mouth of the Tupisa was one of the first, if not the first, Emberá family to settle along the main flow of the Chucunaque. Clearly, no Chocó or other settlement occurred upriver from there until the confluence of the Río Subcurti where Cuna Indians were settled. Marsh (1934:47)
observed that outside these few isolated settlements, the lower valley of the Chucunaque was still unoccupied by either Cuna or Chocó Indians.

Most of Darién's river basins began to show some Chocó influence by the early twentieth century. The Río Tupisa was occupied at the onset of the period. The Cachupí family first settled there in 1901, coming directly from the Río Sambú (Icioro Cachupí 1983, personal communication). By 1915, both the Tupisa and Chico were more densely settled with families coming from the Ríos Sambú, Balsas, and directly from Colombia. The densest Emberá settlement then occurred along the Río Sambú with smaller populations along the Ríos Balsas, Tuira, and individual households scattered elsewhere throughout the province. Fifteen families were reportedly settled along the Río Chico at the time; 10 lived on Río Tupisa. Initial settlement concentrated along the lower river. Within three decades, Chocó settlement extended to the headwaters of canoe navigation along the Río Tupisa:

"At the head of canoe-navigation on the Tupisa we found a scattering settlement of friendly Chocó Indians, and another beautiful big "round house" such as we had seen at the mouth of the Yape River on the lower Tuira. On the Ucunati River we found no inhabitants" (Marsh 1934:135).

While Cuna settlement still occurred in the province, the Chocó were the most numerous (Verrill 1921:216). Along the
Río Tuiara, upriver from El Real, Chocó settlement occurred above the mixed settlement of Pinogana:

"Soon after leaving Pinogana one may expect to see Indians at any moment, for the first villages are only a few hours distant and usually the first sight one has of the aborigines is a big dugout, drifting down the river towards the settlement, filled with fruit and rice and with naked Chokois standing at bow and stern guiding the craft with their long poles" (Verrill 1921:191).

The Tuiara population extended upriver a considerable distance:

"All along this river route (Tuiara), at least as far up as the Paya River, there is an understanding that the right bank belongs to the negroes and the left to the Indians"..."The Yape River valley is occupied by Chocoi Indians, and near its junction with the upper Tuyra is one of the largest and most beautiful circular Chocoi houses in Darien--one hundred feet in diameter, at least, with a high conical roof" (Marsh 1934:103-4).

While Chocó settlement was beginning to dominate twentieth century Darién, Cuna settlements were still noted. To be sure, Chocó advances pushed surviving Cuna settlement farther into headwater areas. The upper Tuiara affluents of Paya and Pucuro were still Cuna strongholds not tempting Chocó settlers. The Río Capetí was also still occupied by Cuna (Marsh 1934:104). Indeed, Cuna populations occupied the Río Capetí until the 1970s (Paganini 1970:96), but today they no longer live along that river. The lower Río Chico was populated by Chocó in the late 1920s, but the headwaters were still Cuna territory. At the time, Chocó settlement
extended upriver to the confluence with the Río Tigre. Above, the river was settled by Cuna (Verrill 1921:195; Marsh 1934:84).

Emberá settlement was slow to reach the upper Río Chucunaque above the Río Tupisa. Above that confluence was Cuna territory. While they apparently respected Cuna land holdings, the Chocó normally settle areas gradually. The initial occupation of the Ríos Chico and Tupisa occurred family by family as relatives and friends of the initial colonists followed to the new lands. With ample agricultural lands and good hunting resources, Emberá families began to settle the rivers of the lower Chucunaque Basin.

Emberá settlement reached the Río Tuquesa in the late 1930s. The river was reportedly first visited by Emberá hunting parties from the Río Sambú hearth in the late 1920s. At the time, the Sambu was said to be overcrowded; game resources were depleted and most good agricultural lands were occupied (Anulfo Chango Aji 1983, personal communication). Some natives said that plantains did not produce well in the Río Sambú, dying after two years. It was a common practice for a man to explore potential settlement sites while hunting and fishing. After a man hunted and fished along a river in an unsettled area a
number of times he might decide, at some future date, to build a house there. If a site is selected, an encampment is made and an area cleared for settlement. This area would then often be planted with plantains and fruit trees before the family arrives. In a similar way, the Emberá family of Contantino Aji was apparently the first to settle along the Río Tuquesa (at Quebrada Chonta), coming from the Río Sambú in the early 1930s. His relatives and friends followed. Another family came in 1939 from the Río Pirre which was also occupied by Emberá settlement at the time. Other families followed gradually until the river was well-settled by the 1950s (Anulfo Chango Aji 1983, personal communication).

The upper Chucunaque, above its confluence with the Río Tuquesa, was not occupied until the mid 1960s. The banks of the Río Chucunaque had remained largely unoccupied for nearly a century. Around 1960, an Emberá family (Chango) first settled the area just above the juncture. In 1964, another Emberá family (Guaynora) moved there from the Río Balsas. Gradually, the riversides around the mouth of the Río Ucurganti were settled by relatives and friends who came from the Manene sector along the Río Balsas. In 1968, eight Emberá families from the Río Balsas had settled along the Río Chucunaque near its confluence with the Río Ucurganti.
The gradual migration of Colombian Choco into Panama has continued since the late eighteenth century. This movement seems closely linked to their subsistence life. While based on agriculture, the Choco economy depends on hunting, fishing, and collecting. Since colonial time, a prime motivation behind Choco migrations has been game depletion within a settled area. Their historic tendency toward migration thus has, in part, an ecological base. The impoverishment of wild game is not always the exclusive reason for migration. Choco fled to isolated headwaters during colonial times to escape from Spanish administrators. Colombian Choco moved more recently to Darién to buy firearms that were prohibited in Colombia. Other migrations were motivated by individual desires to settle among friends and relatives in newly established riverine sectors. Yet, despite an apparent tendency toward periodic migration, Choco families should not be considered nomadic or even semi-nomadic. (The Choco house is substantial structure, requiring much time and manpower for construction.) Most families relocate their residence only after eight to twelve years or longer.

Waunan settlers, the other branch of the modern Choco, came to Darién in more recent time. They first occupied the Río Sabanas in 1943 (B. Bacoriso 1983, personal communication). The Río Maje along the Pacific lowlands
north of the Gulf of San Miguel was occupied shortly
afterwords, possibly in 1948, by Wounan from the Río San
Juan, Colombia (McKay 1971:56). The first important center
for Wounan settlement developed around the Río Jaque.

Reichel-Dolmatoff (1963:184) reported:

"The population of Jaque, in Panama, is an
important center of acculturation and the Chocó
Indians travel frequently to this region to work
there for a few months and to buy later shotguns,
cooking utensils, clothes, and personal
adornments. Many return periodically to Jaque and
eventually establish themselves there permanently.
Following what the Indians told me, in Panama, not
only are working conditions more favorable, but
also they treat them better and they respect them
and their welfare, while in Colombia they are
continually victims of persecution and abuses by
colonists. It follows thus the migration to
Panama, depopulating slowly the rivers of the
Chocó coast."

Loewen (1963:241) pointed out that since 1949, when martial
law in Colombia forbade the sale of firearms, Wounan Indians
have been migrating to Panama. Another important impetus
bringing Wounan to Darién occurred some years later. Loewen
and other missionaries were expelled from Colombia during
the 1950s. Loewen had worked as a missionary and linguist
among the Wounan along the Río San Juan, Colombia at the
time. He taught the Indians to read and write, reportedly
giving them a sense of worth and well-being. Loewen decided
thereafter to set up his work and residence in the Río
Jaque, Panama. Wounan families that knew Loewen in Colombia
followed him to Darién after 1958 (Herta Voth 1983, personal
communication).
Wounan also spread into the Río Tuira near the Río Capetí in the mid twentieth century. Examples of this movement suggest the overall pattern of migration and settlement into the region. Carpio Chamarra (1983: personal communication) who lives there now was born in 1931. At 20 years old he left the Colombian Chocó to visit Darién. He traveled by sea to the Río Juradó then to the Sambú where he lived five years, reaching the Río Tuira at Capetí about 1958. Another Wounan informant told me that only two other Wounan families were there when he arrived in 1962 (Jorge Mepaquito 1982, personal communication). This man came over the often used Cacarica route traveling from the San Juan to Quibdó by road and then down the Atrato and up the Cacarica to the village of Faya in only one week. The Río Aruza along the Río Tuira was occupied by Wounan in 1966 when two families (Balalan Cheucarma and Rosendo Conquista) settled there.

Settlement of the northwest coast of the Gulf of San Miguel occurred somewhat later. Wounan families occupied the Río Chitola in 1958. The Wounan there came from the Jaque and Tuira Basins of Darién and directly from Colombia’s Río San Juan. Calderon Membora is considered the founder of Chitola. Wounan families also began to settle along the Río Sabanas. In 1963, Anicasio Malagas and
Diafalinor Ismare left Lucas along the Río Jaque to migrate there. The Sabanas basin was at the time occupied by an expanding Emberá population and Wounan settlement gradually concentrated near Punta Grande, at the point of high tide. Farther west along the gulf, Wounan arrived in the Río Sucio at Quebrada Cana Blanca in 1964. The Cardina family came there directly from the San Juan. More recently, other families have moved there from the Río Sabanas.

The Ríos Chagres and Pequení, that presently flow into Panama Canal waters, mark the limit of western expansion of Choco populations. The first Embera families arrived in 1956 or 1957. Of the 45 families in the Río Pequení in 1962, 15 came from the Río Sambú, 16 from the Río Chico, three from the Balsas, four from the Bayano, and only one directly from Colombia (Caballero y Vicente 1962:60). Later, more families came from the Tuira Basin under pressure from Panamanian agricultural colonists (Paganini 1970:125). As the natives moved westward through Panama they first settled along the Río Bayano. In 1965, Guzman (1966:220) observed that some of the Chocó along the Río Calobre were abandoning the area to enter the headwaters of the Río Bayano and also of the Río Pequení. This movement was accelerated with the construction of the Bayano hydroelectric dam, causing the Chocó to abandon lands there. Wounan populations settled the north coast in the Province.
of Colón east of Nombre de Dios along the Ríos Cuango and Culebra in 1963. The Río Cuango families moved from the Río Jaque while the Río Culebra families came from the Bayano area (Drolet 1962:16).

Panama’s Chocó Population in the 1960s

The ethnohistoric record provides an accurate account of the sequence of the Chocó expansion into Panama, but it does not allow for an accurate assessment of the population. While it may have been well-known that Chocó Indians occupied the Pacific lowlands from the Cayapas River in Ecuador to the Panama Canal, few areas have been accurately mapped. Before the 1960s, few fieldworkers traversed Chocó inhabited lands. One notable exception is Robert C. West (1957) who mapped the native populations of the Chocó for the 1950s in his volume on the Pacific lowlands.

The distribution of the Chocó Indians inhabiting the Pacific lowlands during the 1960s is mapped in Figs. 2 & 3. These maps are based on field, census, and ethnographic reports available for the decade. While only Panamanian populations are discussed below, information on Colombian populations can be found in Gordon (1957:27), Reichel-Dolmatoff (1960:78-79; 1962:171-172; 1963:30), Eder...
Figure 3.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
(1963:40), and Loewen (1963:239). At the time, Chocó settlement in Colombia extended to the upper Río Sinú and some western tributaries of the Río Cauca. The Ríos Atrato, Baudó, San Juan, and many of the coastal rivers were well-populated, with the most southerly groups reaching Ecuador. The distribution of Panama’s Chocó populations during the 1960s provides a base from which changes in modern Chocó populations in Darién can be evaluated. During the 1960s, Chocó Indian were settled in three of Panama’s eastern provinces: Colón, Panamá, and Darién.

**Bayano-Panama Populations.** Within the Province of Panama, Chocó populations centered on the Río Bayano (Fig. 3). The Bayano River meanders through the center of the isthmus with the Serranía de San Blas to the north and the Serranía de Maje to the south. Its headwaters reach the boundary of Darién Province to the east and then flow west and south to empty into the Gulf of Panama. Chocó populations were scattered along its banks, away from mixed towns and Cuna Indian settlements. At the time, all Chocó settlements within the Río Bayano drainage were Emberá. The majority of these Emberá came from Darién’s two most populated rivers, the Sambú and Chico. Most migrants sought open agricultural lands and better market access.
In the 1960s, Chocó lived in two areas along the Río Bayano and its affluents. The first was near the mixed town of Chepo; the second encircled the Cuna reserve on the mid and upper reaches of the Río Bayano. A strong nucleus of Chocó settled near Chepo along the Río Mamoní around the confluence with the Río Charare. On the Río Trapiche, only one house was occupied. On the Calobre, an upriver affluent of the Bayano, four more houses were occupied. Three or four families settled along the Río Majecito, a tributary along the mid reaches of the Bayano. The Río Maje had only one family. Various miles along the headwaters of the Río Diablo, a northern tributary of the Bayano, were inhabited by Chocó, and only one family lived on the Río Diablito. Along the Río Ipetí and Tortí, southern tributaries, two families were settled along the former while "various" occupied the latter (Guzman 1966:219-222).

South of the Bayano River, over the divide of the Serranía Maje, a number of small rivers drain into the Gulf of Panama. There, in the District of Chiman, Wounan speakers settled in two areas outside the mixed coastal town of Chiman. A western nucleus occurred along the Río Hondo. Lands to the east were more densely settled by Wounan speakers along the mid reaches of the Río Maje and its affluents the Ríos Chucanti and Tuti. The Río Maje area contained more than 180 natives in 1965 (Guzman 1966:161).
In 1968, 111 Chocó lived in the Río Maje alone. Of these, 42 migrated directly from the Río San Juan, Colombia, 63 were born in Chiman, and the remainder came from the Ríos Pirre, Congo, and Chico in Darién (McKay 1971:56-60).

The Ríos Chagres and Pequeni marked the western limit of Chocó expansion. In 1962, 45 Chocó lived along the Río Pequeni while 21 lived along the lower Río Chagres (Caballero y Vicente 1962:54,60). Chocó also migrated northward into the Province of Colón. There, Wounan speakers live along the margins of the Culebra and Cuango which drain northward from the Serranía de San Blas (Drolet 1982:16).

Darién Population. Detailed population data were not collected by fieldworkers among the Darién Chocó during the 1960s. Darién was more densely settled than the Bayano and maybe even the Colombian hearth. All of Darién's major rivers contained Chocó Indians. Torres de Arauz (1966:18) saw them on the tributaries of the Chucunaque, Tuira, Tucuti (Balsas), Sambú, Jaque, and on other smaller rivers draining into the Pacific, with the densest settlement along the Ríos Sambú and Chucunaque. Bennett (1968:26) recorded similarly Chocó families along the mid reaches and deeper tributaries of the Ríos Jaque, Sambú, Marea, Pirre, Tuira, Tucuti,
Chico, Tuquesa, and Chucunaque, noting the margins of many smaller streams also contained populations.

The national census for 1960 lists the "populated places" of all indigenous people (Cuna, Emberá, and Wounan) in Darién (Panama 1964). A "lugar poblado indígena" was defined as a place inhabited totally by an indigenous population. Settlements of a mixed but primarily Indian population were designated "lugar poblado mixto" (Panama 1964:1). Yet, this mixed classification is misleading. Certain localities classified as "mixed" actually contained little racial mixing. In most areas inhabited by Chocó Indians, Spanish speaking blacks may be present. The presence of a Negro family or two in an Indian settlement, however, hardlyJustifies the classification "mixed." The published census did not record the ethnic or linguistic affiliation of each population. Settlements were grouped according to their political division rather than their river basin, but the basins are most important geographic features delimiting Darién's indigenous population. With my field knowledge of Darién, combined with its place names and settlement history, these settlements, in most cases, can be identified according to their linguistic affiliation and river basin.

Chocó families lived along the Quebrada Delgado and
Cocalito in southeastern Darién along the Pacific Coast near the border between Panama and Colombia. Northwest along the coast toward Jaque other families lived at Playa Brava and Quebrada Lisa. The Río Jaque and its tributaries, the Tortadó, Pavarandó, and Lucas contained both Emberá and Wounan families above the reach of tides. Emberá families also settled along the mid Río Chado. Farther north, along the Pacific coast, no Chocó settlement occurred until the Río Playa de Muerto.

Around Punta Garachine, the Sambú Basin contained a major concentration of Emberá settlement. Some families opted to live in the mixed town of Garachine as others had in Jaque, but they were few. East of town, some Chocó lived along the Qda. Celorio (a tributary of the Río Pinoguilla). The banks of the Río Sambú were settled by the largest numbers of near contiguous Emberá settlement in the Darién during the 1960s. No families lived along the lower tidewaters, but from Qda. Morviche upstream, the Sambú's banks were settled by Chocó. Densely populated stretches also occurred along the Ríos Jesus, Jesucito, Sabalo, Tigre, and Venado, all southern affluents of the Río Sambú. Near the mouth Wounan settlement occurred along the Río La Chunga.

The coastal lowlands around the Gulf of San Miguel
contained some Choco settlement. Some Wounan families lived along the Río Taimatí. Still farther inland along the Gulf, a couple of Emberá families settled in Qda. Honda, beyond the fishing port of Punta Alegre. The largest concentration in the area occurred along the Río Mogue.

No Choco settled the up-river, southern bank of the river inland beyond the provincial capital of La Palma. Some Indian families lived in the predominantly black, Spanish-speaking capital, La Palma. Emberá families also lived above tidal flux on the Río Marea, a southern tributary. The Río Balsas, a major southern affluent of the Tuira, was another important area of Emberá settlement. Indian houses were situated along its main flow upriver from a point near the confluence with the Río Pahuita to its headwaters, with dense concentrations near the mouth of the Río Chamurucate. Families also settled its western tributaries of the Ríos Arretí, Urugantí, Chiatí (Sabalo), and Tucutí. All Choco settlement in the Balsas drainage at the time was by Emberá speakers.

Some Choco families lived in the Spanish-speaking settlement of El Real near the confluence of the Río Chucunaque and Tuira. Behind the town, Emberá also lived along the Ríos Piirre and Perricenega. Farther up the Río Tuira, some Choco settled along the Qda. Uruti. Indian
settlement occurred to greater or lesser degrees along the river margin from Malineca to the confluence with the Río Funusa. All these were Emberá families except near Qda. Chupeti and at Calle Larga where some Wounan families settled. The Río Yape, a northern affluent of the Tuira, had both Emberá and Wounan speakers settled along its banks. The Negro town of Yape, just upriver from its confluence with the Río Tuira, probably also contained some Indian families. Upriver, the Capeti river margins were settled by Wounan. The Río Cupe, a southern affluent of the Río Tuira, had sparse Emberá settlement and the Río Aruza had a few Wounan settlements. The Tuira’s upriver affluents, the Ríos Funusa and Cube, probably also contained dispersed Chocó settlement.

The lower basin of the Chucunaque was the most important area of Chocó settlement in Darién during the 1960s. Only Emberá lived here. The main banks of the Río Chico had the largest concentration, but tributary areas were also settled. The Tupisa was somewhat less-densely settled than the Chico. The Icunati, the next upriver affluent of the Chucunaque, was never an area of Chocó settlement. Next upriver, the Río Tuquesa banks supported a sizeable population. A few families lived along the Río Urcuganti. Choco settlements did not extend upriver beyond the confluence with the Ucurganti.
<table>
<thead>
<tr>
<th>Location</th>
<th>Language</th>
<th>Comment</th>
<th>Population</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayano</td>
<td>Emberá</td>
<td>&quot;strong nucleus&quot;</td>
<td></td>
<td>Guzman 1966:219</td>
</tr>
<tr>
<td>Rio Hamsón</td>
<td>Emberá</td>
<td>&quot;three houses&quot;</td>
<td></td>
<td>Guzman 1966:219-220</td>
</tr>
<tr>
<td>Rio Trapiche</td>
<td>Emberá</td>
<td>&quot;four houses&quot;</td>
<td></td>
<td>Guzman 1966:219-220</td>
</tr>
<tr>
<td>Rio Calobre</td>
<td>Emberá</td>
<td>&quot;four families&quot;</td>
<td></td>
<td>Guzman 1966:221</td>
</tr>
<tr>
<td>Rio Majecito</td>
<td>Emberá</td>
<td>&quot;one family&quot;</td>
<td></td>
<td>Guzman 1966:221</td>
</tr>
<tr>
<td>Rio Majé</td>
<td>Emberá</td>
<td>&quot;various miles&quot;</td>
<td></td>
<td>Guzman 1966:222</td>
</tr>
<tr>
<td>Rio Diablo</td>
<td>Emberá</td>
<td>&quot;two families&quot;</td>
<td></td>
<td>Guzman 1966:222</td>
</tr>
<tr>
<td>Rio Tortí</td>
<td>Emberá</td>
<td>&quot;various families&quot;</td>
<td></td>
<td>Guzman 1966:222</td>
</tr>
<tr>
<td>Chagres</td>
<td>Emberá</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rio Pequení</td>
<td>Emberá</td>
<td></td>
<td>45</td>
<td>Caballero y Vicente 1962</td>
</tr>
<tr>
<td>Rio Chagres</td>
<td>Emberá</td>
<td></td>
<td>21</td>
<td>Caballero y Vicente 1962</td>
</tr>
<tr>
<td>Colon</td>
<td>Wounan</td>
<td>&quot;small population&quot;</td>
<td>111</td>
<td>Caballero y Arauz 1962</td>
</tr>
<tr>
<td>Rio Cuibra</td>
<td>Wounan</td>
<td></td>
<td>15</td>
<td>Drolet 1982:16</td>
</tr>
<tr>
<td>Rio Cuango</td>
<td>Wounan</td>
<td></td>
<td>15</td>
<td>Drolet 1982:16</td>
</tr>
<tr>
<td>Darién</td>
<td>?</td>
<td></td>
<td>16</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Qda. Delgado</td>
<td>?</td>
<td></td>
<td>4</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Playa Brava</td>
<td>?</td>
<td></td>
<td>3</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Qda. Lisa</td>
<td>?</td>
<td></td>
<td>16</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Rio Jaque</td>
<td>Emberá/Wounan</td>
<td></td>
<td>504</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Rio Sambú</td>
<td>Emberá</td>
<td></td>
<td>1425</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Rio Changa</td>
<td>Wounan</td>
<td></td>
<td>58</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Rio Talmaturi</td>
<td>Emberá</td>
<td></td>
<td>32</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Qda. Honda</td>
<td>Emberá</td>
<td></td>
<td>15</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Rio Mogue</td>
<td>Emberá</td>
<td></td>
<td>135</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Rio Marea</td>
<td>Emberá</td>
<td></td>
<td>21</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Río Balsas</td>
<td>Emberá</td>
<td></td>
<td>387</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Rio Picra</td>
<td>Emberá</td>
<td></td>
<td>152</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Río Tuira-Bajo</td>
<td>Emberá/Wounan</td>
<td></td>
<td>24</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Río Yape</td>
<td>Emberá/Wounan</td>
<td></td>
<td>98</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Rio Capetí</td>
<td>Emberá</td>
<td></td>
<td>48</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Rio Cupe</td>
<td>Emberá</td>
<td></td>
<td>43</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Rio Azuca</td>
<td>Wounan</td>
<td></td>
<td>22</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Alto Tuira</td>
<td>Emberá</td>
<td></td>
<td>107</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Río Chico</td>
<td>Emberá</td>
<td></td>
<td>1000</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Río Tupisa</td>
<td>Emberá</td>
<td></td>
<td>750</td>
<td>Estimated</td>
</tr>
<tr>
<td>Río Tuquesa</td>
<td>Emberá</td>
<td></td>
<td>500</td>
<td>Estimated</td>
</tr>
<tr>
<td>Río Chucunaque</td>
<td>Emberá</td>
<td></td>
<td>250</td>
<td>Estimated</td>
</tr>
<tr>
<td>Río Sabanas</td>
<td>Emberá/Wounan</td>
<td></td>
<td>300</td>
<td>Estimated</td>
</tr>
<tr>
<td>Río Cucunatí</td>
<td>?</td>
<td></td>
<td>22</td>
<td>Panama 1964</td>
</tr>
<tr>
<td>Río Sucio</td>
<td>Wounan</td>
<td></td>
<td>30</td>
<td>Estimated</td>
</tr>
<tr>
<td>Río Congo</td>
<td>Emberá</td>
<td></td>
<td>227</td>
<td>Panama 1964</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
The Chocó settled on other rivers flowing into the Gulf of San Miguel. Emberá settled along the upper Río Sabanas, but downriver Wounan settled along the Río Lara and its affluent, the Qda. Hinestrosa. Farther west, Emberá occupied the Río Cucunati. Several Wounan families lived along the Río Sucio. A major concentration of Wounan speakers located along the Río Chitola, an affluent of the Congo. Emberá families also lived on the Congo's tributaries of the Antadocito, Qda. Dos Bocas, and Santa Barbara.

The ethnographic and census information does not allow for an accurate appraisal of the size of Panama's Chocó population during the 1960s. My attempt to estimate Panama's Chocó population based on the literature and census data yields roughly 6,500 Panamanian Chocó for the 1960s (Table 1). Yet, this is likely an underestimate of a considerably larger population. Panama's census, for example, reported the entire indigenous population of the Corregimiento of Yaviza, an area including the Emberá strongholds of the Ríos Chico, Tupisa, Tuquesa, and Chucunaque, to be a mere 285 individuals. Faron (1962:13-14) estimated in 1960 that the Río Chico alone contained 1,000 Chocó! One riverine sector there (Naranjal) contained 27 households of 137 Emberá. Towards the end of
the decade, Paganini (1970:105) recorded 75 Chocó families along that river. The main Chucunaque from Yaviza to its confluence with the Quebrada Canglon had 117 Choco living in 13 dwellings at the time (Covich and Nickerson 1966:289). Other rivers contained similar densities.

The distribution of the Darién Chocó during the 1960s was along all of Darién's major river systems. In certain areas their advance was restrained by relict Cuna populations. At the time, the banks of the upper Río Chico and its tributary, the Tesca, were settled by Cuna Indians. The Ríos Yape, Capeti, Pucuro, Paya and the upper Chucunaque above the Río Morti were also areas settled by Cuna. The Chocó did not occupy the upper Tuira and Chucunaque (between the Ríos Morti and Ucurganti). The Chocó, with a riverine oriented subsistence, never tended to settled the interfluvial areas between river basins, nor did they tend to occupy isolated headwater areas. The Chocó also did not generally settle close to Spanish-speaking Negro towns of Sambú, La Palma, El Real and Yaviza. But outside these areas, Darién was Choco territory during the decade of the 1960s.
Part II: Historic Settlement and Subsistence Patterns
Chapter Four
Dispersed Settlement

The Chocó have traditionally lived in a dispersed riverine pattern. Only when forced by soldiers, Spanish officials, and missionaries, did these Indians congregate in villages. Early ethnohistoric accounts suggest the pattern of dispersed riverine settlement was closely linked to kinship ties. In the egalitarian society of the Emberá and Wounan, the household was the central production unit and each consisted of an elementary or, more commonly, extended family. Explanation of Chocó dispersed settlement lies in four fundamental components of Chocó society: 1. The Kindred, 2. The Domestic Group, 3. Marriage and Residence, and 4. the Riverine Sector.

The Kindred

Normally, only through birth can one gain entry to Chocó society. Cultural identity is achieved through language use, family heritage, and the practice of traditional economic activities. Historically, with no claimed tribal lands, populations have moved with little regard for political boundaries. Chocó family heritage and pride are attached to the rivers of birth. One’s river,
occupied by one's family members and linguistic group, provides a sense of identity even though ethnic claims to river basins have changed over time.

The Chocó are normally endogamous. Marriages occur between Emberá and Wounan speakers, but are normally segregated by linguistic group. Wassen (1935:46) observed on Isla Munguido, at the mouth of the San Juan River, that mixed marriages occurred between Nonamá Chocó (Wounan) and True Chocó (Emberá). Emberá living along the Ríos Catru and Dubasa (Chocó Department, Colombia) can marry Wounan on some rivers, but not on others (Reichel-Dolmatoff 1960:109). Chocó settlement in Darién has remained generally linguistically segregated along river basins, but mixed settlements occur. In these, marriages between Emberá and Wounan men and women are more common. Children in such families grow up tri-lingual, learning Emberá and Wounan at home and Spanish in schools.

Since early colonial times Spanish-speaking Negroes have shared the Pacific lowlands with the Chocó (West 1957), but little racial mixing has occurred. Among Emberá along the Ríos Sinú and San Jorge (Cordoba Department, Colombia), Gordon (1957:8) reported that, while the racial background of the adjacent Colombians is very confused, "there appears to have been scarcely any mixing of blood between the Chocó
and their neighbors." This pattern holds for Emberá and Wounan populations in Panama’s Provinces of Darién, Panamá, and Colón. The small number of mixed Indian-Negro marriages that occur usually result in the abandonment of Indian language and cultural traditions. Today, marriages sometimes occur with the colonos or agricultural colonists from Panama’s western provinces. While economic and social interactions bring Chocó together with other native and racial groups, Chocó endogamy maintains racial separation that provides ethnic identity and there are many indications that the Indians realize this.

The exogamous group within Chocó society embraces only first cousins. Marriage between the offspring of a first uncle or aunt does not occur. Financial transactions for profit are also ordinarily taboo. Indications suggest, with a new cash orientation in Chocó agriculture, this economic relationship is now changing (Wassen 1935:46; Faron 1962; Torres de Arauz 1966:62; Pinto García 1978:44).

The Domestic Group

The household serves as the basic domestic group in Chocó society. Each household includes one or more married couples and their offspring. It expands with a sibling’s
marriage and the newly-weds eventually build and occupy their own separate house (bobo). The group grows larger when relatives come to visit from another river basin and then decide to stay indefinitely. Thus, the household can vary considerably in size. Families, at one time or another, usually contain more than one conjugal unit. One seldom finds a single nuclear family residing in a household.

Regardless of its size, the household is unified under a family head referred to as noko in Embera and padre de familia in Spanish. The father normally holds authority over his legitimate children and other residents of the house. Isacsson (1973:25) pointed out: "The political structure is little developed, limited to a jefe conselero within the extended family and often he is only considered as the head of the family." Each family head considers the welfare of his entire family and, in a very democratic way, receives ideas from all present when looking for solutions to any particular problem. The advice of an elderly, wiser man might at times be sought (Wassen 1935:174; Reichel-Dolmatoff 1960:109-10). Yet, the family head makes all important decisions and, after all, he is usually the eldest male and owner of the house and agricultural lands. As long as he has his health, the household leader allocates resources among its membership.
Each river basin usually has an individual, often the first or oldest settler of the river, or a small group of elders that holds venerated status because of their age, experience, intellect, or leadership. These individuals sometimes serve in an advisory role. Along the Río Chico, for example, Temistocles Ortega has long guided an informal group of kinsmen.

Chocó subsistence requires cooperation within the household. The group exploits its surroundings through communal efforts whereby many hands—a man's family and any visitors—share the work. Each important subsistence task requires approval by the family head. Certain activities such as hunting and parts of the agricultural cycle are strictly male activities. Cooking and certain other domestic activities are strictly woman's work. The household is an economic, food-sharing, land-owning settlement unit regardless of its size or composition. In the dwelling, whether it be the permanent post dwelling (de) along the river margin or a smaller field house (rancho) in an agricultural field, the Chocó eat, sleep, and relax. Aside from sexual activity, all household activities occur in open view on the platformed structure.
Marriage and Residence

The marriage ceremony is simple in Chocó society. During the period of courtship, the young man visits his intended father-in-law's house, where he eventually sleeps with his intended bride. The boyfriend is expected to demonstrate his ability to provide for his intended wife. The prospective groom and father-in-law hunt, fish, and work the fields together. (I once saw a father not shoot at a game animal to allow his daughter's betrothed to display his marksmanship.) Approval by the girl's parents, especially the father, is needed for the marriage to take place. If the parents disapprove, the suitor is discouraged from visiting the girl. In bygone days, playful wrestling sometimes occurred between the bride's father, or her brothers, and the groom:

"Fisticuffs are exchanged, and there may also be some tearing of one another's hair. The bride may also have a set-to with the bridegroom. In that case it is usual for the onlookers to catch hold of them both and fling them into the river" (Wassen 1935:42).

Chocó marriage involves no dowry, reciprocal exchange, or formal bride price. An informal bride service, or suitor service, does sometimes occur whereby the new son-in-law works for his future in-laws for several months or longer before taking his wife away to live with him. Thus, the initial phase of marriage usually involves temporary
residence in the bride's father's house. The groom becomes a working member of the girl's family. The parents may see these initial weeks and months of marriage as a watchful period and are concerned with the compatibility of the newly-weds. After a time, however, the new couple becomes impatient to establish their own home.

The construction of the permanent Choco post dwelling is a lengthy and arduous task that requires many strong backs to cut, carry, and assemble posts, cross beams, thatching, and other forest materials. With all subsistence activities requiring attention, efforts can not be diverted solely for the purpose of house construction. The groom's father and other male relatives aid in its construction. Temporary patrilocality residence lasts normally the duration of house construction, a period usually from six months to a year or more. Often around the time of marriage, the father gives his son a portion of his land. When good agricultural land is not available in the husband's natal sector, the couple is forced to look for lands farther away along the same river or in another river valley.

The normal pattern of marriage arrangement entails temporary residence first at the girl's parents, then at the boy's parents, with the ultimate goal of establishing a separate household. Variants from this ideal do exist.
Residence may also be patrilocal, with no temporary residence with the wife’s parents. The couples thus at times bypass the wife’s parents in favor of the husband’s. Sons sometimes prefer to construct their houses on their father’s clearing. Sometimes the marriage takes a neolocal residence pattern when couples establish themselves directly in their own separate house. One effect of this marital residence pattern is to assemble kinsmen in a local area along the river.

The Riverine Sector

Traditional Chocó settlement displays a distinctive riverine pattern. Marsh (1934:78) provided a particularly colorful description from Darién in the early twentieth century:

"From the white man’s point of view, the Chocó houses are the most sensible for the tropics which I have ever seen. They are built on posts with floors elevated six to ten feet above the ground. They have open sides with long overhanging eaves and high thatched roofs. Many Chocó houses are round in plan. Avellino’s was rectangular, about eighty by fifty feet and situated in a clearing on a small knoll thirty feet above and one hundred feet back from the water. The jungle had been cleared back for a space of about 50 yards and planted to bananas and plantains."

Gordon (1957:10) provided more detail on the spatial arrangement of households from his work in Colombia:
"The houses of the Chocó are isolated and widely separated. Homes on opposite sides of a wide stream usually are not much less than half a mile apart; many have no neighbors within a couple of miles. Although more numerous in certain districts than in others, the Chocó do not form villages. Families live alone in tiny clearings."


Dispersed riverine settlement was well suited to its rain forest environs. In Colombia, Padre Severino (1959:83-84) explained the suitability of the Chocó adaptation to the river margin habitat. In Darién, Paganini (1970:106) recorded that the native's selection criteria for a house site included: a. proximity to river, b. a terrace, c. sandy alluvial soil, d. adequate amount of easily clearable agricultural land, e. sufficient slope for drainage to insure a dry dwelling, f. clean water for cooking, g. an acceptable place to do the family laundry, h. a suitable bathing and swimming area, i. accessible canoe landing, and j. suitable building materials close at hand. Houses were normally situated some 100 to 200 meters from the river (Reichel-Dolmatoff 1963:31).

Dispersed settlements appear as small semi-circular

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
plots of cleared land pressed against the river (Fig. 4). Each household is isolated and self-contained. As populations increase, a minimum distance of a river bend or at least beyond a neighbor's view is maintained between houses. This reflects native desires for privacy and their observance of territorial rights, but not a reluctance to be friendly (Paganini 1970:106-7). In time, riverine settlements tend to form loose clusters or "sectors" of closely related households (Faron 1962). These sectors occupy long stretches of the river margin and may contain from four households to more than 20 households. The number of households in a sector may reflect conditions in the local environment or local settlement history. For example, in 1968, the Naranjal sector (Río Chico, Darién), which had recently built a school, contained 24 residential units. Corozal, just upriver and without a school, had only 4 households (unpublished map, Dirección de Estadística y Censo). Sectors often have some attraction for settlement such as high levee ground with a nearby stream, favored fishing or hunting ground, or even a particularly common plant species. Sectors are named after the host river or a particular river bend, common fish, plant, or animal.

Riverine sectors do not appear to be true communities. However, the relationship and mutual interests that the term implies are not completely lacking in Chocó society.
Figure 4.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Cooperative work does occur for house construction and other subsistence activities, but these efforts are normally tied along kin lines. Sector residence, as such, does not require persons to engage in communal activities. The Indians do consider themselves members of a specific geographic locale which has some definable physical boundaries. Indeed, the Chocó identify themselves to strangers by their river and residential sector. Households develop a sense of identity with other families in the same sector. Nevertheless, beyond this, households within a sector show little allegiance or communal spirit.

Each sector had a limit to the number of households it could contain. Often upon marriage a son is given a portion of agricultural land within his natal sector, normally a piece from his father's or uncle's lands. Generally one cabuya, a native land measurement of 3.67 acres, was cleared from the river margin for the house site alone. This cleared area provided much of the house construction materials, and later the plot was planted to fruit trees and other economic plants. Ownership was usually understood to include a delimited portion of land behind the house site. Interviews indicate the quantity of land "owned" varied from individual to individual depending on the amount of time settled in an area. After generations of occupation within an established riverine sector, a scarcity of land developed
causing fragmentation into smaller holdings. Eventually, there would not be enough free land for newly-weds to settle on and they had to relocate in another area along the same river or in another river valley.

The Chocó tend to marry among themselves along their river of birth. This linkage has been described as "concatenate" or chain-like endogamy (Faron 1962:15). The tendency seems to be toward marriage and residence between households within the local sector until marriageable persons are exhausted. The system is flexible enough to incorporate new families into a sector through marriage. No restrictions prohibit newly-weds from locating within sectors, provided agricultural lands are available. Population growth in one sector is eventually accompanied by sector fission. As the population increases in a given sector, rather than move laterally into the forest, Indians settle up or down river. Because this cannot be a permanent solution to population expansion along any river, eventually migration occurs into another river basin. This fission of residential sectors has played a role in developing the network of blood relationships among adjacent valleys.
Chapter Five

Subsistence Patterns

The Chocó Indians traditionally live in dispersed family settlements and place moderate demand on the resources of their rain forest habitat. The fundamental economic unit in traditional Chocó society is the family. Family organization embeds itself in every facet of subsistence life. In general, the labor for agriculture, whether clearing, planting, or harvesting, is organized along family lines. The same holds true for other food-producing activities such as hunting, fishing, and collecting. W. Andrew Archer (1937) once observed among Colombian Emberá that each family acts as a complete, self-sustaining unit, even manufacturing its own utensils and implements. While a rudimentary system of communal labor exists, called cambio de mano in Spanish, it is organized along kin ties. Relatives within a riverine sector, for example, will gather to construct a house, to prepare or harvest a field, and to hunt or fish. The traditional Chocó economy is, for the most part, a closed system united along blood ties, particularly at the nuclear family level. Outsiders are usually not involved.
Agriculture

The spatial arrangement of traditional Chocó agriculture is closely related to their pattern of dispersed settlement (Fig. 5). Within roughly 500 meters of the houses, three zones can be recognized, each with distinct ecological conditions, products, and techniques of exploitation. The first zone, adjacent to the river, contains the house site, an orchard-garden, and contiguous land cultivated primarily to plantains and bananas. An intermediate zone, away from the river, consists of uncleared forest with wild plant and animal resources. The third zone contains a patchwork of agricultural and rastrojo lands located in the forested interior. This generalized pattern is, of course, not without variation.

Each sub-division represents a different ecological zone worked by the Indians. Farthest from the house site, the third zone contains important grains and tubers cultivated by slash-mulch and slash-burn methods. Soil and moisture conditions usually make it quite distinct from the other two zones and Bennett (1968:36-37) reported this band to contain one cabuya or 3.67 acres of cultivated land. In Colombia, Patino (1962:377) observed that no cultivation was more than 500 meters from the river. In Panama, my interviews showed that most families formerly cultivated
Figure 5.
one-half to a full cabuya with corn, rice, name and other crops within 10 to 15 minutes walking distance behind their houses.

Within the third zone, hill slopes are preferred for cultivation. This would seem to be somewhat unwise because hill sides, once cleared, are exposed to the weather, rapid leaching, and soil erosion. In Darién, however, hill slopes often possess favorable soil conditions. West (1957:129) observed similar conditions in Colombia and noted the most desirable hill soils have a thick humus layer (five to ten centimeters) with a black to dark-brown color and friable topsoil. These soils drain well and are desirable for tuber cultivation. Clearing and planting are also less strenuous on steeper slopes, which tend to produce a cleaner burn than flatlands. The Darién Chocó prefer hills for yam (Dioscorea alata) and rice cultivation.

Slash-Mulch Cultivation. The Chocó have a very old and peculiar form of wet-season agriculture. Rainfall makes the use of fire in slash-burn agriculture all but impossible during parts of the year. During these months, in some areas year-round, Chocó farmers use slash-mulch cultivation. Apparently, the method is indigenous. As early as 1577, it was described from the Esmeraldas Province, coastal Ecuador.

The slash-mulch system is one of the simplest cultivation techniques used by agricultural folk anywhere. Mature forest is not cut; rather, fields are cleared from rastrojo. With the initial planting done, fields are largely untended. Slash-mulch fields are not weeded. Indeed, until harvest time, fields rarely receive any additional care after the initial preparation. Chocó farmers prefer to cut slash-mulch plots from areas of rastrojo regrowth, even if access to large tracts of primary forest is possible.

After selecting a plot of desirable land, the farmer brings seeds in a wide-mouth basket or container slung across his shoulders. Corn seeds are broadcast under the uncut bush and rapidly growing softwoods. Most grains hit the surface of a small area in front of the planter. Sometimes, some yam tubers and yuca (Manihot esculenta)
cuttings are planted in the field. Helpers join the land
owner to cut the vegetation over the planted area. A Chocó
labor system (cambio de mano) calls together relatives,
friends, and neighbors who exchange labor for food and
beverage. The team works mostly using a long-bladed machete
that keeps hands and arms away from noxious thorny weeds.
In the humid forest cut vegetable matter decays rapidly into
a mulch through which crop sprouts appear in two to three
weeks. Temporary huts (tambos, ranchos) are often
constructed in the field site. Families sometimes occupy
these as harvest approaches to protect crops from animal
pests and crop thieves. The harvest itself is labor
intensive, usually involving all family members.

Slash-mulch cultivation is not ubiquitous throughout
the Pacific lowlands. West (1957:129) clearly related the
distribution to seasonal rainfall:

"...today its use extends from the latitude of Río
Sucio and the Truandó River in the Chocó southward
to northwestern Ecuador. North of the Truandó and
south of the Río Santiago in Esmeraldas a
sufficiently long, dry season occurs to make
burning possible."

Along the seasonally dryer northern and southern margins of
slash-mulch cultivation, slash-burn agriculture is also
present. West (1957:236) further noted:

"Chocó Indians living along the Truandó burn
hillside plots during the dry season in February,
but in the fertile spots of alluvium along the
rivers they employ the slash-mulch system for
raising maize. To native Esmeraldanos along the coast west of La Tola the slash-mulch system is unknown, but it has been re-introduced into the Santiago River by Colombian immigrants from Barbacoas."

In Darién, the Emberá and Wounan use slash-mulch and slash-burn cultivation. Patino (1962:376) noted that the slash-mulch system was not mentioned by Darién explorers including Pittier, Catat, Blackwell, Wafer, and Ariza who speak only of the typical guema or slash-burn system. But, slash-mulch cultivation is seen in Darién only during wet-season from September through December. Paganini (1970:162) noted correctly: "In certain parts of the Darién, however, particularly those areas settled by Colombiano refugees and Nonameno Indians, a slash-mulch cultivation is practiced."

Slash-mulch cultivation has long been a component of Darién agricultural practices. It is not clear whether Cuna Indians used it, but Emberá families would have introduced it as they migrated from Colombia during the seventeenth century. A relación of 1631 by Capitan Diego Ruiz de Campos (Cuervo 1892,II:21) describing the practice from the "Costa Panameña en el Mar del Sur," noted the postrera, as the slash-mulch system was called, was planted at the end of September and harvested by the end of December. He indicated its yields were lower than the year's first harvest (that probably came from the slash-burn fields).
Today, both Emberá and Wounan use slash-mulch cultivation in Darién. The Indians still use the Spanish term postrera. The word may be derived from postrero meaning the last, or from potrero meaning an open field because the postrera is indeed the last, open field prepared during the agricultural year. The slash-mulch plot is considered as a supplementary or subsidiary crop to the more important slash-burn cultivation.

**Slash-Burn Cultivation.** The slash-burn agricultural system (guema) practiced by the Chocó has three phases: the cutting of underbrush (coza or socola), the felling of the largest forest trees (tumba or derriba), and the burning of dried debris (guema or candela). The Chocó speak of each stage independently. Slash-burn cultivation is areally more extensive than the slash-mulch system and differs primarily because of the use of fire during dry season and the clearing of tall forest.

The slash-burn plots of the Chocó are characterized by monoculture, not polyculture. While two or more crops may be found in the field, plots are normally dominated by one. Fields are planted in an orderly fashion, sometimes in rows. The monocultural plot is not new among the Chocó. An early ethnohistoric source from 1607 (Patino 1965:62)
indicates that the seasonal application of the slash-burn technique has changed little since the time of European contact.

Slash-burn fields are planted with corn seeds at the onset of the rainy season (March and April). Four or five seeds are placed into a hole made with a digging stick amidst a maze of charred debris. The plants are generally spaced at intervals of about two to three feet, depending on the amount of debris and the terrain. Little care is given to the maize field after planting. Sometimes, the more troublesome weeds will be cleared from near the plants, but this is done in a casual, sporadic manner. As the crop matures, men hunt rodents and other animals that come to eat the young growth. Two to three months after planting, during July or August, the maize is ready for consumption. At this time, individual stalks are bent over to allow kernels to dry in the hot sun. After drying, the crop is harvested and then shucked from the cob for storage.

Many varieties of plantains (Musa paradisiaca) and bananas (M. sapientum) constitute the principal food for many Chocó families throughout the Pacific lowlands. To cultivate plantains or bananas, the Indians normally cut and fire tall forest near the water’s edge where sandy, well-drained natural levees and alluvial terraces provide
ideal conditions (Reichel-Dolmatoff 1960:84). As noted above, these conditions are important criteria for selecting a house site and households surrounded by plantain and banana groves characterize the traditional Chocó settlement landscape (Bennett 1968:36; Faron 1962:20; Drolet 1982:18). Musa cultivation is discussed in detail in Chapter 8.

Dooryard Orchard-Gardens. The dooryard orchard-garden (huerto, finca, frutales) is an inconspicuous, though important, component of the Chocó settlement landscape. A house site may initially be cleared and planted for slash-burn cultivation, but later, after a house is constructed, the plot may be planted to fruit trees. The orchard-garden appears to be an incomprehensible maze. To the uninitiated traveler, these gardens appear to be part of the forest backdrop surrounding the house. In reality, they are useful, cultivated assets. In both Colombia and Panama, fieldworkers have observed the large number of fruit trees, and medicinal and ritual plants grown around Chocó houses (Archer 1937:43; Reichel Dolmatoff 1960:84-85, 1963:32; Bennett 1968:36; Isacsson 1976:32-33; Drolets 1982:17).

Orchard-gardens provide important nutritional supplements at certain times of the year. Covich and Nickerson (1966:298) observed:
"...the variety of useful plants growing in the clearings apparently contributes significantly to balancing that diet, even though they occur in small numbers. For example, (one of the house sites) has growing in its clearing the trees Manilkara sapotilla, Persea americana, Manihot esculenta and Guilleima utilis. Consumption of 100 grams from each of these four plants would supply 1.114 grams of N (6.96 g crude protein), 95.6 mg Ca, 4.56 mg carotene, .162 mg thiamin, .534 mg riboflavin, 4.596 mg niacin and 79.3 mg ascorbic acid"..."In terms of dietary recommendations currently listed for a United States male in good health by the National Research Council, these amounts would be equivalent to the following approximate percentages of the minimum daily requirement: protein 10%, Calcium 12%, carotene 150%, thiamin 13.5%, riboflavin 31%, niacin 25% and ascorbic acid 113%.

A well-cultivated yard continues to be used even when a house site is abandoned for economic or ecologic reasons and its ownership is not relinquished. Rather, the area may be continually visited and systematically managed in a system that some modern researchers have come to call agroforestry. Traveling Darién's rivers, only a trained eye might be able to see the orchard-gardens blurring into the natural cover. Gordon (1957:17) noticed them in the Sinú country of Colombia:

"Since their houses last only about a decade and are ordinarily rebuilt at a different spot, numerous plants remain to contend with the forest. These are seasonally revisited until they disappear. An Indian once showed me a group of several avocado trees each nearly two feet in diameter growing in what appeared at first glance to be undisturbed forest."

My observations indicate that the trees are sometimes
visited over much longer periods, even for decades. For example, along the lower Río Chico (near Calle Hondo) the Berrugate family first settled in the 1880s. Although Chocó no longer live there, one can still see the remains of the Berrugate orchard-garden producing healthy fruit after nearly a century.

Dooryard orchard-gardens vary tremendously in size and importance. Some contain hundreds of plants and many species while others have only a dozen plants and fewer species. Generally, the longer a family has been settled in a location, the larger the garden and the greater the diversity. Dooryard gardens are usually prepared and planted by men prior to the family’s arrival at a new house site. After a house site is selected, it is normally cleared for house construction and then the immediate surroundings are planted with various fruit trees. The ideal Chocó plot seems to be one cabuya (3.67 acres) in size and normally includes both musa and fruit trees. During clearing, a few desirable species are saved from the forest; other trees provide beams for house construction. During construction, fruit trees and other economic plants are intermittently planted in the surrounding cleared area. Thus, when the house is completed and the family locates there, the garden is underway.
The dooryard garden is an intensively managed area, largely because of its proximity to the house. Although certain annual and tree crops are reproduced by seed, most dooryard plants are propagated vegetatively. When a cleared space is not available, weedy growth will be cut back and the soil dug up to create a favorable growing area. Attempts are sometimes made to improve local soil conditions by adding vegetable debris or river sands. Plants are frequently watered during the dry season. Small trees may be protected from pigs, dogs, and children by fencing. Trees are pruned regularly and kept clean of tangling weedy growth. Sugar cane (*Saccharum officinarum*) is often placed in patches along the river towards the edges of the dooryard garden. Three to four stem cuttings, thrust at angles to one another, are grown in small mounds. When harvested some three to five months later, the planting is repeated and the patch perpetuates itself. If more land is available for clearing, the field may be expanded.

Within the dooryard garden setting, elevated platforms (*kotees*), often made from abandoned canoes, old pots, and empty plastic containers, are filled with good soils and delicate herbs. Condiment plants are quite common on these platforms, but fruit trees are also propagated for later transplantation (*Reichel-Dolmatoff* 1960:85; *Drolet* 1982:17; *Archer* 1937:431). *West* (1957:143-146), who provided a
detailed discussion of the *zoteg* from the Chocó lowlands of Colombia, believed the platform garden was an ancient trait, for it was described in 1539 among the Nonamá, who used it for growing medicinal plants. He noted that a mixture of macerated termite nests and clay loam was placed on the platforms as a planting surface for vegetables and medicinal plants, most of which have an Old World origin.

Hunting

The Chocó are primarily agriculturalists, spending most of their time tending gardens and fields, but they also love to hunt. Indeed, skilled hunters hold a certain esteem in Chocó society. Fray Severino (1959:131) reported that hunting was the favorite Indian occupation, one that drew men away from work in agricultural fields. Fresh meat is a welcome sight on any man's barbecue (barbacoa) and Chocó have been described as avid meat eaters who "demanded some each day with their meals" (Bennett 1968:39). The Indians consider forest game tastier than domestic pig, cow, chicken, or duck.

The hunt remains an almost exclusively male activity. Women and girls have been involved in a sort of "game drive" where caparabaras were run down by dogs and hacked to death.
with machetes (Gordon 1957:23), but this is not common.

Traditional Chocó hunting equipment is similar to those used by Amazonian Indians. Bows and arrows are used to hunt animals in the lower forest canopy, on the forest floor, and along river margins. The blowgun and dart, once described (1780) as the "arma comun" of the Chocó Indians (Ortega Ricuarate 1954:220), are used for hunting birds, monkeys, and other occupants of the upper canopy. Spears and machetes have also been used in the hunt. Fall-traps, snares, or other types of traps are not normally used by the Chocó.

The blowgun was common among the Chocó until the mid twentieth century. Gordon (1957:22-23) noted that while most Indians were anxious to obtain firearms, there had been virtually no replacement of the blowgun (bídoguera or corbatana). Making a blowgun required great skill and patience, and the product was highly valued property. Nevertheless, the blowgun was ineffective for some game. Small projectiles could not penetrate the thick tough skin of some of the larger game animals. For example, neither blowgun nor bow were useful against tapirs or peccaries. They had to be killed with spears or machetes.

Traditional hunting tools were largely replaced by
modern weapons in the early twentieth century. The rifle became widespread among the Chocó in the late nineteenth century. Oral tradition records that the first Emberá and Wounan to occupy Darién used blowguns upon arrival. More recent immigrants wished to earn enough money to buy rifles. That became possible particularly after World War II when more rifles were available in the Canal Zone. Indeed, the availability of firearms and cartridges in Panama was an important factor attracting Indians from Colombia. With efficient firearms in hand, the Indians abandoned their traditional weapons. Also lost was the knowledge of the construction and use of the blowgun, as well as the use of toxic plants for dart poisons. By the mid twentieth century, the blowgun and bow and arrow were no longer in widespread use. Among Colombian Chocó the use of the blowgun is "very limited" and the bow and arrows were shot infrequently (Reichel-Dolmatoff 1963:174). The same held true for Darién (Reina Torres 1966:34) where adolescents used the latter to hunt small birds.

Chocó like to hunt with 22-calibre rifles and, less commonly, with the 12, 16, and 20 gauge shotguns. The small bore 22-calibre rifle can be used to shoot animals at all levels of the forest canopy and floor. In Darién, this weapon has virtually replaced all other means. The Indians have a variety of rifles, largely from U.S. manufacturers.
Most are bolt-action single shots, or cock action rifles, but some Indians now have "top-of-the-line" semi-automatic hunting rifles. Shotguns were once popular in Darién, because they were effective against birds, but many men who still own shotguns say they are unwieldy. (This writer suspects what is truly unwieldy is the price of shotgun shells which are seven to eight times greater than 22-calibre shells.)

Because the Chocó are crack shots, they are sometimes thought to be indiscriminate killers who over-exploit Darién's wildlife. A Chocó marksman finds iguanas perched on the limbs of a Ficus tree 15 to 20 meters up no true test of his marksmanship and he will get off as many accurate shots as possible before the targets flee. The same holds true when he spots a herd of peccaries or group of monkeys. It would be against his basic instincts not to take as many accurate shots as possible because all animal flesh is consumed and shared with many family members who crave forest game at all meals.

Chocó hunters know the seasonal rhythms of the forest. Most agree that the dry season is best for hunting, but game can be found all year long. During the dry season (Dec.-Feb.), small streams and lowlands dry, bringing forest animals to water in fewer locations around backwater ox-bow
lakes or year-round streams and pools. The Indians know these often isolated sites intimately. During dry season, hunters no longer stalk game, but find animals in these restricted areas. Armed with headlamps and rifles, hunters sometimes station themselves at night in trees at the margins of these water bodies, and wait quietly for hours for game. Some of the best hunters prefer the onset of the wet season when occasional rains dampen leaf litter and the hunter can walk silently across the forest floor.

The hunting party was not an important component of traditional Chocó life. While three or four kinsmen may sometimes have hunted together, hunting was normally a solitary activity. Extended trips were not necessary, because fish and game could be caught near the house. Chocó elders tell stories of by-gone days when they could sometimes shoot game pillaging their fields from the raised platforms of their houses! Seasonal hunting trips, so common among tropical forest villagers in Amazonia, were also not important in Chocó lands.

The depletion of game has been a factor that causes Chocó migration. While traditional Chocó settlement is well-suited to rain forest life, particularly with respect to game depletion, even small settlements can reduce the wild game resources of an area. Reina Torres (1972:174)
noted that wild game still contributed an important part of the animal protein consumed among the Darién Chocó in the 1970s, but she observed that game resources had then already been depleted along certain rivers. Fray Severino (1959:85) noted that when the Chocó depleted fish and game in any particular region they then moved their houses to another resource-rich area. My observations suggest that game depletion is the most important historic factor initiating settlement relocation.

Fishing

If hunting is the most prestigious subsistence activity, fishing has probably always been a more important and dependable source of protein. Small children to adults, both male and female, fish. If an individual is persistent, some fish can be caught, whereas a hunter needs more skill and luck. In 1937, Archer (1937:431) observed among the Citará Emberá that on many days the family had no meat because the hunter returned empty-handed after a long hunt. But fishermen almost always succeed and fish frequently complete the Indian’s daily diet (Torres de Arauz 1966:29; Isaccson 1976:35). Only moments before dinner, with no meat in the house, an Indian may leave for the river with fishing gear and return shortly with fish, shrimp, and crabs to
round out a meal of plantains, rice, or corn.

In the traditional setting fishing occurs near the house site. It may extend several kilometers up and down river when waters are low, but becomes more restricted to nearby tributaries during high waters when rivers are clouded with silt and debris. The area exploited also depends on the population density along the river.

Fishing tackle and techniques employed by the Chocó are relatively few. They use nets, harpoons, arrows, traps, hooks, and piscicides. In any given locale, however, the gear is usually somewhat more limited. Fish poisons (barbascos) and spears (chabualas) may be the only truly native elements found in fishing technologies used by the Chocó. In the Sinú country, Gordon (1957:24) observed:

"They now use the fishhook and the bow and arrow; the former is obtained in trade, and, since the bow and arrow are called arco and flecha and are identical with those used for the same purpose by rural Colombianos in this area, I doubt that they are a part of former Chocó culture; bow and arrow are used for nothing but fishing (not so in Darién). They have no nets and I saw no fish traps. Local Colombianos use cotton cast nets and fish traps of cane."

Farther south, along the Atrato, Isaccson (1976:35) observed that fishing traps and enclosures as well as nets and baskets were missing. Eder (1963) did not see bow and arrow fishing along the Río Siguirisua Valley, though he often saw
the necessary equipment. In Darién, Bennett (1968) noted a decided paucity of fishing techniques, suggesting this might be a function of abundant resources that did not require the invention of a more sophisticated or diversified fishing techniques:

"This lack cannot be simply dismissed as one of the concomitants of acculturation. Rather it appears that the few methods which are employed are adequate to procure the required quantities of aquatic animals. It is the writer's belief that there is a close relationship between the abundance of desired animals and the number of techniques and devices used (or known) to take the animals. An abundance of fish and game usually does not tax the fisherman's or hunter's ingenuity but a diminution in the animal supply may be the factor that motivates men to invent new techniques and tools for hunting and fishing."

Gordon (1957:24) made similar remarks from the Sinu area, but noted the Indians are singularly skillful in the use of those techniques they have.

Ethnographic accounts show piscicides were important in some areas and not in others. By the time most researchers studied the Chocó, however, other fishing techniques had been introduced. Fish poisons were most effective in shallow rivers, stream beds, and land-locked water bodies during the dry season. Wassen (1935:103) mentioned that the Nonamá used a common type of fish poison called duio (Iepbrosia toxicaria). The roots of the plant were mashed and applied to the waters to stupefy fish, which could be easily collected. Along the Ríos Dubasa and Catru he noted
fishing with plant poisons was unknown. A piscicide called chiringchao (probably Phyllantus) was employed by the Noanamás of the lower San Juan (Reichel-Dolmatoff 1960:89). Baskets of mashed leaves were dipped into the slow-moving backwaters. Three fish poison plants were recorded for the Río Docordó, Colombia, including Lonchocarpus nicou, Tephrosia toxicaria, and Clidadium spp. (Eder 1963:57). In the Atrato Basin, Isaccson (1976:35) recorded:

"The limited use of piscicides on the Chicue was blamed on idleness. Leaves of chiringchao (Phyllantus acuminatus) were ground and wrapped up in small bundles of banana leaves which were placed in crevices of submerged rocks in quiet water. After an hour's wait, the stupefied fish easily can be caught with spear or by hand. A fatal variant of piscicides was observed among the Emberá of the upper Baudo who mixed cooked and mashed plantain with DDT, originally meant for the eradication of malaria."

In Darién today, while knowledge of the ichthyo-toxic properties of forest plants has remained, nowhere is it normally employed.

Sparking is preferred over all other fishing methods used by the Chocó. Historically, the spear was thrown or thrust from the bank or flat bow of the Chocó canoe. Fisherman displayed tremendous skill lunging at the refracted image. More recently, with the introduction of diving masks from the Canal Zone, Chocó spear-fishing has become an underwater activity. By the mid 1950s, Indians were wearing rubber masks for dive fishing in Panama (Reina
Torres 1966:29) and Colombia (Reichel-Dolmatoff 1962:175). Along the Rio Atrato, masks were even accused of being a "principal causes of the diminishing fish resources in the rivers" (Isaccson 1976:35).

Indians fish with nets throughout Darién. The Chocó use various casting nets, a large rectangular seine with floats, and hand-held nets. The widespread use of nets implies an ancient practice, but ethnohistoric sources do not confirm their presence. Spear fishing is more important.

Animal Husbandry and Pet-Keeping

Animal husbandry has always been a minor component of Chocó subsistence. Indian farmers have raised dogs, pigs, chickens, and Muscovy ducks. Pigs and chickens are European introductions. One Spanish conquistador, Jorge Robledo, received barkless dogs from the Indians (Cuervo 1892,II:396; Patino 1965:183), but these may have been native bush dogs (*Spethos venaticus*); whether the Chocó had the familiar domesticated dog at the time of Spanish contact is not clear, but it gained early importance for hunting. Domesticated cats, useful for vermin control, were also unknown to the Chocó at the time of Spanish contact, but
were introduced later. Why domesticated animals and, indeed, animal domestication remained unimportant may reflect the abundance of fish and game and Chocó taste preference for wild meat. Or, it may bear upon the practice of keeping tamed forest animals, so-called "pet-keeping."

The Chocó, like other tropical forest tribes in Amazonia (Gade 1985), keep tamed forest animals around their dwellings. The first Spaniards to enter Chocó territory saw pets. Wild peccaries may even have been a sort of semi-domesticated animal in some areas (Cuervo 1892,II:120; Patino 1965:177). Yet, pet-keeping practices were more diverse.

The Chocó keep tamed forest species for a variety of reasons. Animals are kept with little sentimental attachment and may be killed and eaten after fattening (Bennett 1968:53). Indians also enjoy birds, mammals, and reptiles for companionship. These two reasons cannot easily be separated. Monkeys and large birds are widespread as companions, but almost any kind of critter, from large beetles and snakes to the tapir, may be kept for this reason. Peccaries, agoutis, and capybaras tame easily when captured young and are kept as pets and meat reserves. The removal of animals from their natural habitat usually results from a fortuitous event that occurs while hunting,
fishing, or farming. Chocó women sometimes nurse weaning wild mammals, particularly peccaries, to bring them under human care (Anderson 1978; Bennett 1968:53). Macaws hold esteem as prestige ornamental birds, but may be sold for commercial exchange. "Pet-keeping" categories are, therefore, not discrete and even "ornamental" macaws are sometimes killed for their flesh.

The introduced Old World pig fits nicely into the Chocó subsistence. In the 1950s, Gordon (1957:20) found it universal among the Indians: "the shoats are pampered and fondled by the children. Pigs are kept in sturdy, roofed pens usually a little way from the house or, if jaguars and ocelots are numerous, in a pen directly beneath the house." The pig easily adjusted to Chocó dooryards as a scavenger. Apparently, the Chocó did not always eat its meat, but sold it to Spanish and Negro populations. Later, however, the pig became a valued supplement to fresh meat supplies:

"One of the Old World domesticates most quickly acquired by the Indians, the pig is found around almost every hut in the lowland. Of both the Old European razorback and the eastern Asiatic breeds, the pigs are allowed to roam the rasépio near the house during interharvest periods, but are fattened on maize and garbage in pens near or under the huts" (West 1957:146).

"Generally one finds at almost all Chocó houses of Darién some pigs, whose houses (chígueros) occupy the area underneath the house..."below the floor of the house, by the way, the pig corrals are located, that they care with "esmero," to use for
their own food or to sell to Negroes" ... "Principally, it is the raising of pigs that they do not only for local consumption but also for sale. The food that they give the pigs is plantains, bananas, yuca, otoe, and corn kernals; nevertheless, a large part of the time they run free around the houses in such a way that they procure a large quantity of food for themselves" (Torres de Arauz 1966:35,169,176).

Many Darién Chocó boast of the large number of pigs they kept around their houses. Corrals were constructed in dooryard areas or pens were built under houses to protect them from forest carnivores and vampire bats. The Indians note that pigs could nearly feed themselves. They were given only a little shelled corn or household refuse in the evening, in part to assure their return to pens at night for protection. Otherwise, pigs ran free as a sort of roving component of Chocó subsistence recycling plant and animal food otherwise unavailable to the human food chain. Farmers planted excess bananas in riverside plots and simply slashed stalks of ripe plants to make food available for the pigs. Pigs also eat fallen fruits, grub crustaceans in river beds, and sometimes kill small rodents. Many Darién Chocó report that they formerly raised 15 to 30 pigs.

Chickens and Muscovy ducks have also been widespread among the Chocó. A few Indians raise a turkey or two (Gordon 1957:21) or sometimes a Peking duck. Roosts and nests made with slender ploes acting as ladders fit under
the floor of the house with slender poles acting as ladders. Make-shift pens also protect birds from marauding forest animals. Domestic fowl, however, have never been an important component in the Chocó diet. The Indians seldom ate them in Colombia, but sold them in local markets (Reichel-Dolmatoff 1960:89). In Darién today, Indians raise chickens, and less commonly ducks, for family consumption. Muscovy ducks are not kept in large numbers; chickens are more frequently kept. Both occupy a scavenging-foraging niche. Surely it is somewhat significant culturally that all the domesticates kept by the Chocós fend well for themselves, having an adaptive foraging-scavenging habit that allows survival with minimal human care. The Darién Chocós, with no cultural tradition of raising domesticated animals, give them little.
Chapter Six
Agents of Change

Several socio-economic factors have played important roles in changing the culture, economy, and landscape of the Chocó in Darién. First indications of change began with early Spanish efforts to engage natives in economic activities for the Crown. Missionary indoctrination to Western values and beliefs brought about the syncretism of culture traits from the earliest contact period. More recently, the acceptance of Western products and the introduction of commercial economies have increasingly drawn Chocó farmers into cash-earning activities. The availability of Western products coupled with more cash-earning opportunities led to Chocó migration from Colombia into the Darién. These factors alone cannot account for all the changes that have occurred among the Darién Chocó. Additional missionary work, government programs, national and international development schemes to improve the health and education of the natives, as well as the extension of the Pan-American Highway into Darién have all played roles in changing traditional Chocó life. In most cases, however, changes have occurred willingly, if unwittingly, among the Indians who often endorse them.

145
Western Products

The desire for Western products has brought the Darién Chocó into cash-earning activities. Chocó adoption and use of the steel-bladed machete was one of the earliest examples of this phenomenon, but there are many. Pots and pans, ceramic dinnerware, drinking glasses, cups, knives, forks and the like are in all Chocó households. The acceptance of a Western product usually means the loss of a native culture trait or even complex of them. For example, before the introduction of the machete, manipulation of forest species and the clearing and development of agricultural plots was quite different:

"In pre-machete times, plants had to be dealt with individually, felling a few trees at a time, destroying or transplanting seedlings, etc. After the arrival of the machete, old silvicultural practices were modified; larger and less well-sorted quantities of vegetation were dealt with" (Gordon 1982:59-60).

The introduction of the rifle supplanted Chocó use of the blow gun, and thus native knowledge of the pharmacological properties of local plants used as dart poisons has gradually been eroding. Examples of this sort of culture loss are numerous.

Western products are now widely accepted components of Chocó material culture. When a Chocó man wakes, he starts the day with a cup of coffee from a store-bought cup, mug,
or glass. His coffee, except for a small amount he might grow, was bought with cash. His sugar too. Breakfast might include sliced bananas or plantains fried in purchased cooking oil and served on a store-bought ceramic plate. If cash is available, and if he likes the taste of wheat flour, a donut-like fried dough (pialdres) might also be served. Sipping coffee, he takes out his manufactured steel file to sharpen his purchased knife, machete, axe, or fishing spear that will be used for the day's work. Plastic containers originally containing purchased cooking oils are filled with cool river water before he heads off to the fields. This broad-based adoption of Western products has played an important role in the loss of native culture traits, with the consequence of Chocó involvement in commercial economies.

Commercialism became increasingly important with Chocó desires to acquire Western products during the mid twentieth century. At first, small portions of subsistence production were sold at local trading centers of La Palma, El Real, and Yaviza where ocean-going boats buy agricultural produce for Panama City. With cash, Indians could buy certain manufactured goods such as machetes, axe heads, cloth, and kerosene. In the 1950s, Eder (1963:59) noted among the Colombian Chocó that "machetes, mosquito netting, firearms and cartridges, carbide lamps and two-penny nails are new
goods which reflect the penetration of Western consumer oriented culture." In Panama, Reina Torres (1966:143) listed a number of similar "cultural loans" recently adopted by the Darién Chocó. Manufactured cloth replaced bark (Ficus) cloth. Cast iron and aluminum cooking utensils became preferred over clay pots. Beads and jewelry often replaced animal adornments. Foods of foreign origin also gradually found inroads into the Chocó diet:

"Among these, one can mention: salt, oil, vegetables, sugar, macaroni, flour, canned meats and fish. Oatmeal, chocolate and canned milk are considered delicacies and canned juices and liquor one finds also in the diet of the Indians that live in the areas around Yaviza and El Real" (Torres de Arauz 1972:176).

With store-bought foods and Western products widespread, commercialism gradually touched nearly every facet of subsistence production among the Darién Chocó.

Commercialism

Commercial hunting and fishing have never been very important, but they nonetheless occur. This may reflect the short supply of game and the high demand for fresh meat. Bennett (1968:44) remarked from Darién in the 1960s:

"Commercial hunting, that is hunting to procure game meat to sell, is occasionally practiced. This is not an important activity in terms of time devoted to it, but it is interesting in that it demonstrates a certain resiliency in Chocó
culture."

On the Río Chucunaque he noted the Indians did not engage in commercial fishing with any regularity; the only species taken for commercial purposes was the amparrá (Brycon striatulus). Although hunting and fishing activities did not provide the bulk or even large part of the marketable products, the fact that the Indians sold game meats brought another part of their subsistence life into commercial production. The bulk of the marketable products sold by the Darién Chocó has always come from agriculture.

The development of the banana industry during World War II had far-reaching effects in Darién. While the Indians were previously involved in some cash-economies, the commercialization of bananas provided the first opportunity for widespread and sustained involvement in market production. Commercial banana production introduced a new element to Chocó society, a cash income. A Swiss sea captain, one Hans Elliot, apparently sparked local interest in marketing bananas when he established a "demonstration plantation" along the Rio Yape (Mendez 1979:355-356). Commercial cultivation spread along the margins of the Ríos Tuira and its tributaries the Pirre, Yape, Capeti, Cupe, Chucunaque, and Balsas, and elsewhere along the Sambú and Jaque Rivers. The advent of "bananas-for-cash" brought considerable prosperity to the Indians. Bennett (1968:29)
observed from Darién:

"Indian trade in bananas and plantains is well-developed and some Indians earn large sums of money in this manner. Most of the plantains and bananas are transported by dealers to Panama City but rice is consumed in the towns where it is sold (Bennett 1968:29).

The affluence was readily visible in Chocó settlements—the Indians had recently acquired luxury items (Loewen 1972:166; Mendez 1979:357). Eventually, gas refrigerators and stoves, sewing machines, and shotguns could be seen throughout Darién.

The affluence provided by the "green gold" was short lived. The "sickness of Panama," presumably a virus disease, ruined the plantations (Mendez 1979:358). In early 1962, the American refrigerator boats discontinued services to the Río Jaque area and the inhabitants there suffered economically with the fall of the banana market (Loewen 1972:166). Despite these setbacks, banana cropping continued at a much reduced level. On the other hand, plantains, which had always been an important part of subsistence production and had long been cropped for their cash value, became more widespread.
Missionary Influence and Education

Proponents of Christianity have for four centuries attempted to influence Chocó life. Without a doubt, missionary activities are responsible for many modifications of traditional Chocó culture. However, only since the 1950s has there been a concentrated effort to instruct the natives to read and write. Clergymen considered literacy important primarily because the Indians could more effectively receive the word of God. Secondly, the missionaries hoped more knowledge would prevent Indians from being cheated by Darién's entrepreneurs. "Campaigns of alphabetization" began with missionary and government cooperation during the 1950s.

Since Spanish Conquest, the Catholic Church had played a minor role among Emberá and Wounan living near non-Indian towns, emphasising the need to have the Indians baptized and brought into the Church. Sustained missionary activity by non-Catholic groups, however, did not begin until much later. Glenn Prunty and his wife, independent missionaries of a Southern Baptist affiliation, were apparently the first to take the Christian message and ministry to the Darién Chocó in recent time. The Pruntys arrived in the mid 1950s. They were soon joined by linguist Jacob Loewen (sponsored by the Mennonite Brethren, Hillsboro, Kansas) and another North
American, Professor David Wirsche. With the support of Panama's Ministry of Education, these four began the program of alfabetization. It was decided that if the Chocó were to learn to read Spanish, "the path more certain and possibly shorter, would be first through their own dialect, transcribed into Spanish orthography" (Vargas y Loewen 1963:125). The plan was 1. to reduce the spoken Choco languages to writing; 2. to translate materials into those languages; and 3. to teach and minister to the Chocó (Herta Voth 1982, personal communication). The connection between religious values and the ability to read was so close: Loewen (1972:161) recorded that one Indian who learned to read explained to a group of illiterate natives that their ignorance was the product of "a mind not cleaned by the message of God."

Within a decade, the literacy campaign had produced significant results. The missionaries not only taught the natives to read, but the Indians were also trained to instruct others. Some of these new teacher-disciples traveled widely to tributary areas of the Jaque and Chucunaque rivers. By 1972, 600 Emberá and 200 Wounan had benefited from these efforts (Loewen 1972:163). The stage had been set for government participation in broader educational activities. Another change brought by the missionaries was in health care. The introduction of modern
medicines and first-aid techniques, in many cases, placed the traditional shaman in a subordinate position.

The Pan-American Highway

The historic fluvial-maritime orientation of commerce in Darién declined with the extension of the Pan-American Highway (Carretera Panamericana) into Darién. Prior to the mid-1970s, the Chocó sent produce to market over Darién's rivers. Goods moved down the Tuira River, into the Gulf of San Miguel for a 15-hour trip to Panama City. Thus, the advent of the highway caused a dramatic shift in the spatial flow of commodities. The shift from water to land also played a major role in the Westernization of the Darién Chocó.

The Pan-American Highway opened the Darién Gap in the 1970s. Roadwork, limited to the dry season (January thru April), progressed rapidly. By 1975, the Darién stretch between Canazas and Canglón was completed. Yet another forested gap, between Ipetí in the Bayano Basin and Canazas, was not officially opened until 1980. In 1983, the two-lane gravel road, with modern bridges, reached a point 26 kilometers from Yaviza. To this point, the highway can be driven at speeds up to about 60 kilometers per hour. From
Canglon, the road continues to Yavisa as a jeep track easily passable only during the dry season. A U.S. District court injunction halted U.S. financing of the Pan-American Highway at Canglon when the environmental impact statement (prepared by the U.S. Department of Transportation) was declared inadequate. The study failed to analyze such major problems as controlling the spread of hoof-and-mouth disease and the impact of the highway, including subsequent exploitation and settlement, on the Indians inhabiting the region (Anonymous 1977). In August, 1983, the Panamanian Government began improvements of the Canglon-Yavisa section and attempted to make that 26 kilometer stretch meet travel standards similar to the rest of the road in Darién.

The new highway almost immediately altered the trade routes of the Darién Chocó. Commerce formerly moving via rivers to non-Indian provincial centers or to markets in Panama City now reaches its destination, in increasingly larger proportion, via the highway. Secondary roads penetrate Darién's forests to reach remote interiors. Six feeder roads existed in 1983: 1. Canazas-Alto Congo, 2. Sante Fe, 3. Puerto Lara, 4. Arretí, 5. Meteti-Punto Zuimba, and 6. Lajas Blancas. Most of these secondary roads, however, are not well-constructed and they are often seasonally washed out, muddy, and blocked with fallen trees.
The road network that penetrates Darién has become the life-line that links the province to the national economy. Goods move into and out of the Darién. The linkage by roads and trails to formerly remote Chocó lands changes the market accessibility of many areas. For example, the folks of Lajas Blancas along the upper Chucunaque formerly shipped their agricultural products to markets in Yaviza, a full day downriver. With the highway opened to Canglon, Emberá farmers floated their produce to a trail just downriver from the village, and from there they carried it overland to buyers at the highway. Prices received at the road were higher than in Yaviza. In 1983, a secondary road was opened, largely following this former trail, to connect the Chucunaque with the highway near Lajas Blancas. Now it is no longer necessary to carry produce overland when the road is dry and passable for cargo trucks. Emberá living along the Río Tuquesa, after a considerable upriver trip, also use the port at Lajas. In other areas, the roads have even greater impact. Chocó settlements near the Río Sabanas are situated directly alongside the highway. At Puerto Lara, Wounan houses have been built along a secondary road that stretches from the highway to the Río Lara. Obviously, the highway will play an even greater role in attracting Chocó settlement away from the traditional riverine setting.
Hoof-and-mouth Disease

One of the most pervasive and enduring factors to affect the Darién Chocó was the establishment of a buffer zone in Darién against the spread of hoof-and-mouth disease (aftosa) from Colombia. By executive decree, Panama in September, 1960 established a strip of land 20 miles wide on its side of the border where domesticated animals susceptible to the disease were prohibited. Decree No. 80 (December 23, 1964) further established an animal inspection agency along the Colombian border to remove or eliminate cattle. Later, decree No. 121 (May 12, 1966) regulated animal husbandry in two zones, an Animal Inspection Zone and a Control Zone. Within the Animal Inspection Zone, "all animal raising, feeding, buying and selling of livestock, hogs and other cloven-hoofed animals, as well as, the processing for selling purposes, products derived from this type of animals, are prohibited" (Robles 1966:2). The consumption of cloven-hoofed animal products and the raising of hogs on a small scale for local consumption were excepted from these prohibitions. Within the Control Zone, the number of livestock was restricted to its actual level at that time. Apparently, the government would expropriate livestock at the request of an owner. Otherwise, cloven-hoofed animals had to be fenced (Robles 1966:2-3). The decree was criticized for its harm to pig and cattle.
production in Darién.

The extension of the Pan-American Highway into Darién brought new impetus to control hoof-and-mouth disease. In 1972, a cooperative agreement was signed between the United States and Panama to prevent the spread of the disease. This agreement was amended on April 24, 1974 (Anonymous 1974). A joint Panama-U.S. commission (La Comisión Panama-Estados Unidos para la Prevención de Fiebre Aftosa, or C.O.P.F.A.) provided additional support for the Ministerio de Desarrollo Agropecuario de Panamá (M.I.D.A.). With the natural barrier penetrated by the highway, COPFA would need to develop and to reinforce its vigilance and to develop instructional programs. The boundaries of inspection and control zones remained, but the National Guard joined efforts to police the area, particularly along the highway. In the Control Zone, surveillance posts were erected to regulate the movement of livestock and animal products in and out of Darién.

The attack on aftosa caused problems for the Darién Chocó in the restricted areas. At first, the consequences were minimal; the Chocó did not raise cattle. However, they had kept pigs since the early colonial introduction of this Old World domesticate. The pig fit well into Chocó subsistence as a natural scavenger. It was consumed
locally, but also occasionally provided cash income (in a few areas pig-rearing was apparently the primary cash-earning activity). The Indians raised large numbers of pigs in their dooryard areas, and recall remorsefully when they were ordered to kill their pigs. At the time of slaughter, some animals were consumed and some meat was dried for short-term storage, but much was lost. The Chocó were particularly upset when they heard that members of the National Guard shot some of the free-ranging pigs.

Without pigs, the Darién Chocó sought other ways to supplement their cash income and fresh meat supply. After all, they had already adopted many Western products that could only be bought with cash. More importantly, they would have to provide all their fresh meat from the wild. Initially, in the late 1960s, the acquisition of wild meat was a problem only in the more densely settled river valleys such as along stretches of the Ríos Sambó, Chico, and lower Tuira. Elsewhere, wild game was plentiful. In time, however, the relentless search for wild fauna caused severe reductions in game animals. Eventually, the increasing scarcity of game nudged the Chocó into an increasing involvement in the cash economy to buy canned meats and fish. The combined impact of these modifications of native life set the stage for the most conspicuous and pervasive manifestation of culture change in modern Choco...
society—village formation.
Part IV: The Modern Chocó of Darién

160
Chapter Seven

Settlement in Villages: A Territorial Imperative

The Darién Chocó began to settle into modern villages only during the 1950s. Before, except for a few mission sites, the Indians lived in the dispersed riverine pattern of colonial times. Only four villages were organized during this initial decade, but they represented a divergence from the standard pattern. During the next decade, however, a number of outside influences—mentioned in the previous chapter—instituted a largely indigenous movement that accelerated the agglomeration. During the sixties, seventeen new villages were formed; the seventies brought thirty more. In 1983, when research on this study concluded, over three of every four Chocó had been relocated into 53 villages.

The early development of the village model was a slow, evolutionary process. At first, villages were composed of a few huts surrounding a thatch-roofed schoolhouse. A sense of common purpose to improve educational conditions set these settlements apart from the previous. An older Chocó generation had experienced the gradual, yet persistent, increase in contact with the outside non-Indian economy. They came to realize that they and their children could not deal effectively with the outside commercial economy without
reading and writing skills. Increasingly, a generation of illiterate parents wanted their children to be educated so they could deal with the Panamanians who bought Chocó plantains and sold their own products. Illiteracy also hurt Indians in their conflicts with Negroes and, more recently, colonos who claimed Indian lands. Unable to read legal documents or to apply for land titles, the Chocó were left with few options in the confrontation—to abandon their lands was sometimes a response. Faced with the new dilemmas brought from outside, the Chocó chose formal education and agglomerated settlements.

The First Chocó Villages

The first modern agglomeration of Chocó in Darién developed at the Emberá sector of Pulida along the Río Tupisa (Fig. 9). The Indians along the river had had contact with the buyers at Yaviza for decades, but at least one Tupisa Emberá (Iícioro Cachupi, the "Baron") recognized that the market town was too far to send children to school. In 1953, the Indians complained that their sacrifice would be too great; they could not afford the cost of boarding and the children were needed to work at home. Seeking a better solution, with the aid of the government, Emberá families of the Pulida sector built a school. A teacher was appointed.
by the government to live at the school, thereby endorsing education of the natives as a priority. Some families sent children to stay with kin near the school; others literally picked up their houses and relocated near the schoolhouse.

Ideas diffuse rapidly along Darién's rivers no matter how isolated the region may seem. Emberá families, hearing of the success of the educational center, were quick to seek the location of schools near them. On the Río Chico, the initial effort to obtain a school began in 1956 when Temistocles Ortega (later to become the first recognized chief of the Darién Chocó) was sent to plead with provincial officials. He was successful; within the year, a teacher arrived at the school built in the Naranjal sector. Another community, apparently with no recognized relationship to any existing one, was established on the Río Tuquesa about the same time. Covich and Nickerson (1966:289) saw a school-hut complex there in the early 1960s:

"In at least one place, the Indians live in a village-like settlement along the Río Tuquesa; they have thus departed from the usual habit of living at considerable distances from one another. In this one instance, the Indians have grouped their houses around a house which is used as a school. At the time of our study, the population of this complex consisted of 27 inhabitants; all were Chocó Indians."

I could not ascertain, however, what happened to this school-settlement.
A few early communities had religious origins. Glenn Prunty and his wife founded a Baptist community at Lucas (Rio Jaque) in 1954 (Augustin Membora 1983, personal communication), and another upstream at El Mamey two years later (Fig. 10). In 1960, Prunty was asked by Wounan who had recently migrated there to help them form a community at Chitola, along the Quebrada Chitola (Río Congo). Through the aid of missionary contacts, financial support from the Alliance for Progress was obtained to construct a school in each of these communities (Loewen 1972:164). With the construction of an Emberá school on the upper Sambú at Favarandó in 1960, Chocó had established three communities associated with schools and three with missions. While these early initiatives reflected the wishes of some Darién Chocó, settlement relocation was not, at first, widely accepted. Nevertheless, village organization was, at least, becoming widely recognized among the Darién Chocó as an alternative settlement strategy.

Outside Influences

Harold Baker Fernandez, a mysterious explorer-adventurer-turned-missionary, first settled on the Río Urugantí, an affluent of the Balsas in the early sixties. There, he bought land from a Negro and planted
avocado, chocolate, bananas, and breadfruit. He lived like the Emberá, even adopting the guayoco or traditional loin cloth. He experienced Chocó problems from an insider’s perspective as he too confronted Spanish-speaking Blacks and colonos. Perú, like other missionaries, believed that if the Indians could read and write they could deal more effectively with social and economic problems.

Perú’s initial house site on the Río Urugantí (not populated by Emberá at the time) proved to be too distant from the Indians he admired. He then moved to the sector of Manenê. There he lived with the Emberá family of Loro Cansare. Tales abound of the further education of Perú to Emberá ways. To the Darién Chocó, Perú is a larger than life folk hero. His direct involvement to improve the Emberá apparently stemmed from his contact with a sick Black man (Juan Alberto Roman) who lived in the vicinity of Manene. Finding the debilitated man in need of care, Perú left in search of medicine in Panama City. Upon return with government medical supplies, Perú built a small shed to store the cache of medicines. Gradually, from that time on (probably early in 1963), Emberá up and down river sought his aid and advice (Gregorio Guynora 1982, personal communication). Afterward, Perú initiated a pan-Darién quest for the advancement of Chocó society and he saw settlement agglomeration as a positive step.
Perú understood the dilemmas that the uneducated natives faced with the advancing agricultural colonists from the overpopulated western provinces of Panama. Conflicts had already emerged through contacts with Negroes from Colombia. He instructed the Indians of their need to secure rights to lands as the only way to combat the inevitable advances of agricultural colonists and others who would threaten the underlying resource base of their traditional lifestyle. He envisioned village formation as a mechanism by which Chocó could request government aid to build schools, hire teachers, buy medical supplies, and ultimately obtain a comarca, or semi-autonomous political region that would guarantee their rights to land and resources.

Perú pursued these goals with activistic fervor. He helped the Emberá along the Río Balsas to draft petitions to government officials requesting teachers and medical supplies. The government responded positively to the Indians' requests. In 1963, a teacher was sent to the first formally agglomerated village in the Manené sector. From Manené, Perú traveled to other rivers to develop villages and to mobilize Emberá control of their lands. He organized Boca de Trampa on the Río Sambú in 1965. Next, an Emberá man (Fabio Mesua), who lived with Perú at Manené, brought
the activist to his recently settled sector along the middle Río Chucunaque to form the village El Salto in 1967. Perú resided in Salto. Using El Salto as a base, he traveled throughout the Chucunaque-Tuira Basin introducing the village model.

As the news of village settlement spread throughout the areas of Chocó settlement in Darién, local interest in education and the "outside" religion spurred some village formation. On the Río Tupisa, downstream from Pulida, Emberá concentrated around a school built at Punta Grande in 1964. On the Pacific Coast at Puerto Piña, a local missionary, Idlasio Parneso, led a group overland via Río Pavarandó (Jaque) and Quebrada Pavarandó (Sambú) to found Churuco on the Río Sambú in 1967. Village formation was a cooperative effort. Most family heads participated in the planning, selection, and clearing of the village site. Some built new homes while others simply disassembled their existing house and transported them via canoes to the new location; thatch from the forest surrounding the new village site completed the re-assembly of the house.

General Omar Torrijos added new impetus to the Chocó movement after seizing control of the Panamanian National Guard in 1968. Before that time, the Chocó movement was primarily an indigenous effort. Eleven villages had
developed with little outside support (Table 2). Torrijos, however, of modest campesino upbringing, empathized with the plight of Panama's poor rural population. He was particularly sympathetic towards the Chocó and, on five occasions, visited Unión Chocó, the administrative seat of emerging Chocó political organization. Daniel Castaneda (1982:4), an Emberá student working as a representative for his people with the Ministerio de Gobierno y Justicia, explained the impact of Torrijos' government on the Darién Chocó:

"General Torrijos invited us into discussion to define the politics within the area inhabited by the Emberá. In this discussion he established some very important aspects for the group and they are to fight for and to support the delimitation of the Comarca, medical attention among the population, creation of schools in each community, and help for the development of the group."

Thus, Torrijos commenced an effort to improve the Indians' position in the national society. To guide the Choco toward this goal, he enlisted Estanislao Lopez, the third chief of the San Blas Cuna Indians. The San Blas Cuna already possessed their own political organization and territory called a comarca and the General must have approved of their situation. His first step was to ask Lopez to call a meeting of Indian representatives for a National Indian Congress.

The first National Indian Congress (1968), held in the
<table>
<thead>
<tr>
<th>VILLAGE</th>
<th>RIVER</th>
<th>LANGUAGE</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulida Tuquesa</td>
<td>Eberá</td>
<td>1953</td>
<td></td>
</tr>
<tr>
<td>Lucas Jaque</td>
<td>Eberá</td>
<td>1954</td>
<td></td>
</tr>
<tr>
<td>Mamey Jaque</td>
<td>Eberá</td>
<td>1956</td>
<td></td>
</tr>
<tr>
<td>Naranjal Chico</td>
<td>Eberá</td>
<td>1956</td>
<td></td>
</tr>
<tr>
<td>Pavaramó Sabú</td>
<td>Eberá</td>
<td>1960</td>
<td></td>
</tr>
<tr>
<td>Chitola Chitola</td>
<td>Wounan</td>
<td>1960</td>
<td></td>
</tr>
<tr>
<td>Manané Balsas</td>
<td>Eberá</td>
<td>1963</td>
<td></td>
</tr>
<tr>
<td>Punta Grande Tupisa</td>
<td>Eberá</td>
<td>1964</td>
<td></td>
</tr>
<tr>
<td>Boca de Trampa Sabú</td>
<td>Eberá</td>
<td>1965</td>
<td></td>
</tr>
<tr>
<td>Salto Chucunáque</td>
<td>Eberá</td>
<td>1967</td>
<td></td>
</tr>
<tr>
<td>Churucu Sabú</td>
<td>Eberá</td>
<td>1967</td>
<td></td>
</tr>
<tr>
<td>Villa Caleta Tuquesa</td>
<td>Eberá</td>
<td>1968</td>
<td></td>
</tr>
<tr>
<td>Corozel Chico</td>
<td>Eberá</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Bocá de Tigre Chico</td>
<td>Eberá</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Común Chico</td>
<td>Eberá</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Marranantí Tuquesa</td>
<td>Eberá</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Bajo Chiquito Tuquesa</td>
<td>Eberá</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Aruza Aruza</td>
<td>Wounan</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Capenzirra Tuira</td>
<td>Wounan</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Viste Alegre Tuira</td>
<td>Wounan</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Puente Yepe</td>
<td>Wounan</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Unión Chocó Tuira</td>
<td>Eberá/Wounan</td>
<td>1970</td>
<td></td>
</tr>
<tr>
<td>Mono Carretera</td>
<td>Eberá/Wounan</td>
<td>1970</td>
<td></td>
</tr>
<tr>
<td>Buenos Aires Balsas</td>
<td>Emberá</td>
<td>1970</td>
<td></td>
</tr>
<tr>
<td>Lajas Blancas Chucunáque</td>
<td>Emberá</td>
<td>1970</td>
<td></td>
</tr>
<tr>
<td>Reserva Congo</td>
<td>Eberá</td>
<td>1970</td>
<td></td>
</tr>
<tr>
<td>Nogue Nogue</td>
<td>Eberá</td>
<td>1970</td>
<td></td>
</tr>
<tr>
<td>Bayamón Sábalо</td>
<td>Eberá</td>
<td>1970</td>
<td></td>
</tr>
<tr>
<td>Esperanza Tupisa</td>
<td>Eberá</td>
<td>1970</td>
<td></td>
</tr>
<tr>
<td>La Chunga Chunga</td>
<td>Wounan/Eberá</td>
<td>1970</td>
<td></td>
</tr>
<tr>
<td>Peña Bijual Chucunáque</td>
<td>Emberá</td>
<td>1971</td>
<td></td>
</tr>
<tr>
<td>Nuevo Vigia Tuquesa</td>
<td>Emberá</td>
<td>1971</td>
<td></td>
</tr>
<tr>
<td>Calea Balsas</td>
<td>Eberá</td>
<td>1972</td>
<td></td>
</tr>
<tr>
<td>Pejibassal Pirra</td>
<td>Emberá</td>
<td>1972</td>
<td></td>
</tr>
<tr>
<td>Puerto Indio Sábalо</td>
<td>Emberá</td>
<td>1972</td>
<td></td>
</tr>
<tr>
<td>Barraquillita Tupisa</td>
<td>Emberá</td>
<td>1972</td>
<td></td>
</tr>
<tr>
<td>Mazare Chico</td>
<td>Eberá</td>
<td>1974</td>
<td></td>
</tr>
<tr>
<td>Condoto Vanado</td>
<td>Eberá</td>
<td>1975</td>
<td></td>
</tr>
<tr>
<td>Marea Marea</td>
<td>Eberá</td>
<td>1975</td>
<td></td>
</tr>
<tr>
<td>Bidoquera Jaque</td>
<td>Wounan</td>
<td>1975</td>
<td></td>
</tr>
<tr>
<td>Camañ Membrillo</td>
<td>Wounan</td>
<td>1975</td>
<td></td>
</tr>
<tr>
<td>Aguardiente Taimati</td>
<td>Wounan</td>
<td>1975</td>
<td></td>
</tr>
<tr>
<td>Beién Carretera</td>
<td>Emberá/Colonist</td>
<td>1976</td>
<td></td>
</tr>
<tr>
<td>Atalaya Jesus</td>
<td>Eberá</td>
<td>1976</td>
<td></td>
</tr>
<tr>
<td>Puerto Lara Sabana</td>
<td>Wounan</td>
<td>1976</td>
<td></td>
</tr>
<tr>
<td>Tirao Carretera</td>
<td>Emberá</td>
<td>1978</td>
<td></td>
</tr>
<tr>
<td>Yingurudó Sabú</td>
<td>Eberá</td>
<td>1978</td>
<td></td>
</tr>
<tr>
<td>Balsal Tuira</td>
<td>Eberá</td>
<td>1978</td>
<td></td>
</tr>
<tr>
<td>Caña Blanca Sucio</td>
<td>Wounan</td>
<td>1978</td>
<td></td>
</tr>
<tr>
<td>Chulef Balsas</td>
<td>Wounan</td>
<td>1979</td>
<td></td>
</tr>
<tr>
<td>Pueblo Nuevo Carretera</td>
<td>Wounan</td>
<td>1980</td>
<td></td>
</tr>
<tr>
<td>Boca Guinea Sabú</td>
<td>Emberá</td>
<td>1982</td>
<td></td>
</tr>
<tr>
<td>Bajo Jete Cepe</td>
<td>Emberá</td>
<td>1982</td>
<td></td>
</tr>
</tbody>
</table>
village of Quena (Alto de Jesus), Province of Veraguas, western Panama, had as its objective "the advancement of Indians in Panama." At the time, the Chocó were still without chiefs or recognized leaders for Lopez to contact. Communications with interior Darién were poor, but Lopez broadcast over Radio Mía (the "voice of Darién") an invitation to the Chocó. Two Emberá, Eto Berrugate and Temistocles Ortega, responded. Both were from the Río Chico. Ortega was known among officials at the meeting because he had been involved in administrative matters along the Río Chico. He still can recall well how the national officials expressed concern for the needs of the Chocó and guaranteed that no longer would the Chocó be "a forgotten people" (Temistocles Ortega 1981, 1982, 1983, personal communications).

Village Formation: A Political Policy

The instigation of a pan-Chocó political organization came at the Indian Congress in 1968. At the meeting, the Cuna Chief Lopez told Ortega and Berrugate of the Cuna political system. Later, by the authority given him by General Torrijos, Lopez appointed Ortega as the first Chief of the Darién Chocó. Following the Cuna plan, three other chiefs were nominated. The appointees were appropriately
sensitive to the geographic realities of the Darién Province. One chief was selected from each of the major zones of Chocó settlement. The first tribal leaders included:

1. Cacique General, Sr. Temistocles Ortega, Común, Río Chico
2. Cacique General, Sr. Fabio Mesua, Punta Grande, Río Tupisa
3. Cacique General, Sr. Sixto Olea, Río Sambú
4. Cacique Commercial, Sr. Isidro Guaynora, Unión Chocó, Río Tuira

Cuna social and political organization held considerable prestige among the Chocó and under the guidance of the Cuna Lopez, Chocó resettlement into villages accelerated. In late 1968 and 1969, Lopez (as a member of a national "Commission for the Solution of Indigenous Problems") traveled widely with the newly appointed Chief Ortega to instruct Chocó elders concerning the advantages of village life. Some Chocó knew of the well-organized nature of the San Blas Cuna; many had crossed the divide to visit San Blas. Others remained skeptical and did not support the radical notion of clustering for education, religion, and political clout. Nor did people always accept the new authority of the chiefs. As one villager told me, "the common response of the Embera was, 'chief of what?'" Nonetheless, Lopez and Ortega continued to travel the
well-populated riverine areas and to woo the most prominent families. Evidently, the ideas on village settlement were well-received overall. In 1969, nine new villages sprang up along the Ríos Chucunaque and Tuira.

Formal adoption of a new Chocó political organization came in 1970 under the leadership of the four appointed Chocó leaders. At the time, the first regional reunions were held in Darién, one at Boca de Trampa on Río Sambú (Feb. 12 & 13), the other at El Salto on Río Chucunaque (Feb. 23 & 24). At these two congresses village settlement was adopted as a formal strategy. The congresses provided strong impetus for agglomeration of dispersed settlement. Family leaders returned to their respective riverine sectors to hold meetings to convince families to form villages. Seven formed in 1970 alone. Between 1968 and 1972, 25 new villages were established. Another 17 villages have formed since that time.

Village Form and Size

Village settlement now dominates the cultural landscape of the Darién Chocó. Population growth is no longer accommodated by mere up and down river migration. Houses now are clustered and extend back from the river into the
forest. The villages are usually placed on the largest areas of high, well-drained land along levees and alluvial terraces, but some are on hill sides. Most villages are situated along the middle reaches of the river, a considerable distance from the mouth, but below limits of year-round canoe navigation (Fig. 6). Village settlement, with few exceptions, is presently confined to one side of the river.

The new Chocó settlement landscape differs greatly from the traditional one. Fields no longer surround the house. Dwellings are now clustered in a large area cleared of its natural vegetation. Settlement tends to develop in a linear fashion, along the natural levee and parallel to the river bank (Fig. 7). A central plaza-like area with a basketball court also frequently develops. The distance between individual homes varies considerably, but it may be as little as five meters. The village model includes a school, teacher's dorm, and meeting hall. Some villages have health centers, but few have medical supplies or personnel. The school usually stands apart at the margin of the clearing to keep the educational environment somewhat removed from village activity. The communities along the Pan-American Highway display a different settlement pattern. Boca Mono, formed before the highway, still has the riverine pattern; the communities formed since 1976 show a linear arrangement
Figure 8.
along the highway (Fig. 8).

Chocó villages are found along all of Darién's major rivers (Figs. 9, 10, 11). In 1983, 53 communities contained an estimated 8,622 individuals (Table 3). Most villages have a single language. At the time of my survey, 38 villages were Emberá and 11 were Wounan, although most of contained a family or two from the other linguistic stock or a Negro or mestizo family. The remaining four villages contained significantly-mixed populations. Two of these, Unión Chocó and Mono, were dominated by Emberá speakers. Another, La Chunga was primarily Wounan. Bélen, along the Pan-American Highway, contained Emberá and colonists from western Panama. It is notable that the Chocó "capital," Unión Chocó, is a mixed community. Overall, seventy-seven percent of the total population in villages is Emberá; 23 percent is Wounan (mixed communities were counted according to their predominant linguistic affiliation).

Village populations range from 25 to 452 (Table 3). The average village contains 25 households of 163 individuals. The median size is 21 households and 146 people. Older villages tend to be larger, but the Emberá community of Reserva (Río Congo), formed in 1970, today has only four families.
VILLAGE SETTLEMENT 1983:
CHUCUNAQUE-TUIRA AREA

- Emberá Village
- Wounan Village
- Mixed Emberá/Wounan
- Households
- Comarca Boundary

Figure 9.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
VILLAGE SETTLEMENT 1983: JAQUE, SAMBU, AND BALSAS AREAS

- Emberá Village
- Wounan Village
- Mixed Emberá/Wounan
- Households
- Comarca Boundary

Figure 10.
Village Settlement 1983: Congo-Sabana Area
- Emberá Village
- Wounan Village
- Mixed Emberá/Wounan
- Households

Figure 11.
Table 3. POPULATION ESTIMATES OF THE DARIEN CHOCO, 1983

<table>
<thead>
<tr>
<th>AREA</th>
<th>VILLAGE</th>
<th>LANGUAGE</th>
<th>POPULATION</th>
<th>HOUSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: RIO BALSAS</td>
<td>Manzan 2</td>
<td>Emberá</td>
<td>244</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Buenos Aires 2</td>
<td>Emberá</td>
<td>122</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Galales 2</td>
<td>Emberá</td>
<td>169</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Chulef 2</td>
<td>Woman</td>
<td>117</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Mareas</td>
<td>Emberá</td>
<td>40</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>85</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>777</td>
<td>118</td>
</tr>
<tr>
<td>2: RIO CHICO</td>
<td>Maranjal</td>
<td>Emberá</td>
<td>95</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Corozal</td>
<td>Emberá</td>
<td>315</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Boca de Tigre</td>
<td>Emberá</td>
<td>225</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Común</td>
<td>Emberá</td>
<td>158</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Nazaret</td>
<td>Emberá</td>
<td>350</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>189</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>1332</td>
<td>218</td>
</tr>
<tr>
<td>3: RIO CHUCANQUE</td>
<td>Lajas Blancas</td>
<td>Emberá</td>
<td>304</td>
<td>41</td>
</tr>
<tr>
<td>Chucanque</td>
<td>Salto</td>
<td>Emberá</td>
<td>146</td>
<td>24</td>
</tr>
<tr>
<td>Chucanque</td>
<td>Peña Bijagual</td>
<td>Emberá</td>
<td>124</td>
<td>18</td>
</tr>
<tr>
<td>Membrillo</td>
<td>Canáno</td>
<td>Woman</td>
<td>278</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>202</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>1055</td>
<td>155</td>
</tr>
<tr>
<td>4: RIO TUTISA</td>
<td>Punta Grande</td>
<td>Emberá</td>
<td>217</td>
<td>23</td>
</tr>
<tr>
<td>Tutisa</td>
<td>Esperanza</td>
<td>Emberá</td>
<td>81</td>
<td>16</td>
</tr>
<tr>
<td>Tutisa</td>
<td>Barranquillita</td>
<td>Emberá</td>
<td>75</td>
<td>14</td>
</tr>
<tr>
<td>Tutisa</td>
<td>Pulida</td>
<td>Emberá</td>
<td>130</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>234</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>737</td>
<td>107</td>
</tr>
<tr>
<td>5: RIO TUQUESA</td>
<td>Villa Caleta</td>
<td>Emberá</td>
<td>177</td>
<td>26</td>
</tr>
<tr>
<td>Tuquesa</td>
<td>Marrangantí</td>
<td>Emberá</td>
<td>104</td>
<td>24</td>
</tr>
<tr>
<td>Tuquesa</td>
<td>Bajo Chiquito</td>
<td>Emberá</td>
<td>176</td>
<td>22</td>
</tr>
<tr>
<td>Tuquesa</td>
<td>Nuevo Vigia</td>
<td>Emberá</td>
<td>250</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>215</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>922</td>
<td>144</td>
</tr>
<tr>
<td>6: RIO TUIRA</td>
<td>Unión Choco</td>
<td>Emberá/Wounan</td>
<td>452</td>
<td>75</td>
</tr>
<tr>
<td>Tuiro</td>
<td>Capetuira</td>
<td>Wounan</td>
<td>280</td>
<td>34</td>
</tr>
<tr>
<td>Tuiro</td>
<td>Vista Alegre</td>
<td>Woman</td>
<td>85</td>
<td>18</td>
</tr>
<tr>
<td>Tuiro</td>
<td>Balsal 2</td>
<td>Emberá</td>
<td>130</td>
<td>20</td>
</tr>
<tr>
<td>Aruzu</td>
<td>Arusa</td>
<td>Wounan</td>
<td>90</td>
<td>14</td>
</tr>
<tr>
<td>Cabe</td>
<td>Bajolea 2</td>
<td>Emberá</td>
<td>46</td>
<td>7</td>
</tr>
<tr>
<td>Yape</td>
<td>Puente</td>
<td>Woman</td>
<td>70</td>
<td>19</td>
</tr>
<tr>
<td>Pirre</td>
<td>Pejibasal 2</td>
<td>Emberá</td>
<td>78</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>338</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>1569</td>
<td>251</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
<table>
<thead>
<tr>
<th>AREA</th>
<th>VILLAGE</th>
<th>LANGUAGE</th>
<th>POPULATION</th>
<th>HOUSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>7: RIO SAMBU</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sambu</td>
<td>Pavarandó</td>
<td>Emberá</td>
<td>150</td>
<td>30</td>
</tr>
<tr>
<td>Sambu</td>
<td>Boca de Trampa</td>
<td>Emberá</td>
<td>158</td>
<td>27</td>
</tr>
<tr>
<td>Sambu</td>
<td>Churuco</td>
<td>Emberá</td>
<td>180</td>
<td>16</td>
</tr>
<tr>
<td>Sambu</td>
<td>Jingurudó</td>
<td>Emberá</td>
<td>36</td>
<td>8</td>
</tr>
<tr>
<td>Sambu</td>
<td>Boca Quina</td>
<td>Emberá</td>
<td>73</td>
<td>15</td>
</tr>
<tr>
<td>Chunga</td>
<td>Chunga</td>
<td>Wounan/Emberá</td>
<td>196</td>
<td>24</td>
</tr>
<tr>
<td>Jesus</td>
<td>Atelaya</td>
<td>Emberá</td>
<td>180</td>
<td>21</td>
</tr>
<tr>
<td>Sabalo</td>
<td>Bayamón</td>
<td>Emberá</td>
<td>440</td>
<td>55</td>
</tr>
<tr>
<td>Sabalo</td>
<td>Puerto Indio</td>
<td>Emberá</td>
<td>188</td>
<td>32</td>
</tr>
<tr>
<td>Venado</td>
<td>Condoto</td>
<td>Emberá</td>
<td>191</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>423</td>
<td>65</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>2215</td>
<td>320</td>
</tr>
<tr>
<td>8: RIO Mogue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talmatl</td>
<td>Aguardiente</td>
<td>Wounan</td>
<td>85</td>
<td>15</td>
</tr>
<tr>
<td>Mogue</td>
<td>Mogue</td>
<td>Emberá</td>
<td>180</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>247</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>512</td>
<td>71</td>
</tr>
<tr>
<td>9: RIO Jaque</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jaque</td>
<td>Lucas</td>
<td>Emberá</td>
<td>96</td>
<td>15</td>
</tr>
<tr>
<td>Jaque</td>
<td>Naoey</td>
<td>Emberá</td>
<td>117</td>
<td>18</td>
</tr>
<tr>
<td>Jaque</td>
<td>Bidoquera</td>
<td>Wounan</td>
<td>325</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>273</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>811</td>
<td>125</td>
</tr>
<tr>
<td>10: RIO Congo</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congo</td>
<td>Reserva</td>
<td>Emberá</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Chitola</td>
<td>Chitola</td>
<td>Wounan</td>
<td>80</td>
<td>17</td>
</tr>
<tr>
<td>Sucio</td>
<td>Caña Blanca</td>
<td>Wounan</td>
<td>60</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>195</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>360</td>
<td>62</td>
</tr>
<tr>
<td>11: PAN-AMERICAN HIGHWAY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carratera</td>
<td>Hono</td>
<td>Emberá/Woman</td>
<td>380</td>
<td>38</td>
</tr>
<tr>
<td>Carratera</td>
<td>Pueblo Nuevo</td>
<td>Wounan</td>
<td>112</td>
<td>21</td>
</tr>
<tr>
<td>Carratera</td>
<td>Tirao</td>
<td>Emberá</td>
<td>72</td>
<td>11</td>
</tr>
<tr>
<td>Carratera</td>
<td>Bilen</td>
<td>Emberá/Colonist</td>
<td>39</td>
<td>6</td>
</tr>
<tr>
<td>Río Sabana</td>
<td>Puerto Lara</td>
<td>Wounan</td>
<td>230</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>[Dispersed]</td>
<td>Mixed</td>
<td>117</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>850</td>
<td>128</td>
</tr>
</tbody>
</table>

Total Village Settlement........ 8,622
Total Dispersed Settlement...... 2,318
Total Darién Chocó Population... 11,140

1Data based on interviews with village leaders, community members, and individual house counts.

2Villages not visited by author. Estimates based on extensive interviews with various government and local officials and the leaders of the Darién Chocó.
Approximately one-fourth of the Darién Chocó remains in dispersed households. These settlements occur scattered between villages along the main rivers and also along headwater streams. Most dispersed families have reasons for living apart. Some like being close to their fields. Others feel life is more tranquil away from the "congested" villages. Some say the hunting is better. Yet, while dispersed settlers often speak disparagingly of village life, most send their children to village schools. The linguistic composition of the total dispersed populations is about that of the village population, roughly three Emberá (1,939) to one Wounan (579). For all of the Chocó in Darién Province in 1983, therefore, 8,553 are Emberá and 2,587 are Wounan.

The Political Quest for a New Indian Territory

Chocó political organization revolves around the concept of a semi-autonomous political territory called a comarca. Emberá along the Río Chico obtained reserve land in 1957, but because the area was shared with Negro and mestizo families, the Chocó felt their cultural ways threatened. Over a decade, their aspirations gradually shifted towards the acquisition of a comarca. Torrijos' new government supported the emerging movement, and asked the
Chocó to define their own political structure within the areas they inhabited. At the first Chocó congresses in 1970, the proposal to seek a comarca was presented to the people. Other regional congresses and village meetings followed—as prescribed in the Cuna model of political organization. Positions of village leadership (called ngko in Emberá, dirigente in Spanish) were adopted and Chocó officials were elected for each new community.

The national government also began to provide an infrastructure to support Indian affairs. In 1972, under new constitutional reforms, campesinos and indigenous groups were given rights to participate in the political system (Poder Popular). At the time, Lic. Freddy Enrique Blanco began to restructure the Office of Indian Policy (Política Indígenista). Law 27 of 1958 had created the agency within the Ministry of Government and Justice, but without adequate funding and administrative structure. It was unable to function. Under Blanco, representatives of the Cuna, Guaymi, and Chocó were invited to work in the office. Three young, well-educated Emberá—Franklin Mesua, Manuel Ortega, and Bernardo Rosales—were the Choco administrators.

The Choco regional congresses provided opportunities for discussions of government policy. At the XXIV Congress at Unión Chocó in 1980, Chocó complained that the office of
Politica Indígenista still did not meet Chocó needs. The President of Panama, Sr. Royo, was present and suggested that representatives be appointed formally to act as "ambassadors" between the "nation of Chocó" and the "nation of Panama." These new officials would act in all matters of nation-Chocó relations (Anselmo Lino 1983, personal communication). The first "ambassadors" Claudio Rosales and Daniel Castaneda, and later Anselmo Lino, were employed at the office of Política Indígenista in Panama City. They drafted the bill (Antiproyecto de Ley) that established the prerequisites for the comarca, thereby legally beginning the comarca effort.

The first draft of the bill was presented at the 1981 XXV Congress at Boca Mono. Much of the bill followed an earlier document ("Carta Organica De La Comarca Bayano y Darién De Los Indígenas Nonamá y Chocóe") which stipulates the functions of leadership and political organisms adopted by the group (Anónimo 1970). In August, 1983, at the close of my field work, the comarca bill, then in its third revision (Anónimo 1983), had not been passed by the national legislature. While not a legal document in the eyes of the national government, the bill has been adopted by the leaders of the Darién Chocó. Shortly after I left Panama, the final version of the bill (Proyecto De Ley) was approved by the National Assembly in their 1983 session (Anónimo
The Comarca

The Comarca Emberá-Drua, literally translated as Embera-Land, is a largely autonomous geographic area established for the cultural preservation of Emberá and Wounan populations. The general administration conforms to guidelines established by the national government, Chocó General Congresses, and provincial and municipal authorities.

Location and Occupants. Emberá-Drua falls completely within the Darién Province and encompasses roughly 4,000 square kilometers, or about one-fourth of the province. The comarca is divided into two "districts" centered on Darién's major river basins: the Chucunaque-Tuira (Fig. 9), and the Sambú (Fig. 10). (For a detailed delimitation, see Appendix 2.) Two smaller areas of Chocó settlement lie outside the comarca. One centers on three rivers, the Ríos Balsas, Marea, and Pirre; the other includes Ríos Congo and Sabana (Figs. 10 & 11).

All settlers in Emberá-Drua, except for some dispersed Negro families, are Chocó. Twenty-five villages are Emberá,
four are Wounan, and two contain a mix. Twenty-one villages are in Area One, the Chucunaque-Tuira basin, and ten are in Area Two, the Sambú basin.

Land Ownership. All comarca lands are held for the use of Emberá and Wounan populations. The land and sub-surface belongs to the community and the transfer of title to outsiders is strictly prohibited. Those who abandon their lands for more than two years lose title and the land reverts to the collective use of the comarca. Although most accessible land is already worked by the Indians, land can still be acquired through use and transfers along kin lines. When an individual dies without relatives, however, the land reverts to common use.

The present rights of non-Indian landowners in the comarca are respected. Such landholders, however, must demonstrate that they have been farming their lands; unused properties are otherwise offered for sale to comarca officials. Persons that do not comply with these restrictions will be relocated outside the Comarca (Anónimo 1983, 1983a).

Administration. The Chocó General Congress is the decision-making body of Darién's Embera and Wounan communities. The General Congress is open to all
inhabitants of the Comarca. Proclamations of the Congress are made through written resolutions of the "Directiva del Congreso," a group of Chocó leaders selected to preside over each Congress. The General Congress meets once a year (initially, they were held more frequently, sometimes three or four times a year). Twenty-seven Congresses have been held since the first ones in Salto and Boca de Trampa during 1970. Recent sites have been: XXV in Boca Mono (1981), the XXVI in Puerto Indio (1982), and the XXVII (1983) again in Unión Chocó. These Congresses are expensive and some Chocó leaders believe that Unión Chocó, as the comarca "capital," should be the permanent headquarters.

Regional Congresses are held periodically for local leaders to meet with government officials. Such meetings usually include the leaders from more remote areas, maybe along a single river basin. Also, Extraordinary Congresses convene when emergency situations prevail. Village meetings are held periodically to discuss local problems with the village leader. Another political group composed usually of village leaders (Consejo de Nokoes), and ideally including the noko from each community along a river, meets periodically to discuss problems peculiar to their area. While most villages have an elected noko (see Appendix A), in 1983, only one functioning Consejo de Nokoes existed—along the Río Chico, under the direction of the
former Chief Ortega. Ideally, this group should serve as an advisory body for the Congresses and chiefs.

The leader of the comarca is the General Chief (Cacique General). He represents the comarca and is elected by a majority vote of the nokoes at the General Congress. Two regional chiefs are elected from the districts. The chiefs of the Darién Chocó in August 1983 were:

1. Cacique General, Sr. Isidro Guaynora, Unión Chocó, Río Tuira.

2. Cacique Regional, Sr. Reneiro Guaynora, Lajas Blancas, Río Chucunaque.

3. Cacique Regional, Sr. Jose Idasio Teucama, Puerto Indio, Río Sambú.
The modern Chocó engage in a wide variety of farming, hunting, fishing, and collecting activities. While the Chocó may have arguably been classified as a nomadic hunting society or roving slash-burn horticultural group in the past, these characterizations are no longer valid. The move into villages has been accompanied by spatial changes of economic activities. Cultivated plots no longer surround individual houses, but are away from the village. Agriculture now includes outfield systems for subsistence crops and the increasing commercial production. Dooryard orchard-gardens are reduced or not present. This re-organization of Chocó agriculture is associated with the shift toward commercial production. Each year larger portions of land are planted to commercial crops. Hunting, fishing, and collecting activities are now more distant as villagers travel greater and greater distances from their communities in search of game and materials found only in tall forest.

Agriculture

Agricultural technology of the Darién Chocó remains
quite simple despite spatial changes. The most important
implements are still the machete, axe, hoe, and digging
stick. The use of fire is of particular note because it is
not employed by most Colombian Chocó. Except for a few
experimental efforts, farming is organic and does not rely
on synthetic fertilizers and pesticides. Mulching and
manuring are generally not practiced.

Chocó agriculture remains an adult male activity. Men
make all major decisions concerning the location, clearing,
planting, and tending of fields. Each forested area cleared
for cultivation is the property of the man who clears it.
Farmers know the location and limits of their plots and
those of their fellow villagers. Land abandoned to
secondary growth (castrojo) does not return to the
community, but it is still considered private property
because much of it continues to be managed and harvested.
Agricultural lands of the parent generation are normally
passed to the male siblings much as they were in the past.
Outside of widows and females with peculiar inheritance
situations, females do not, as a general rule, own land.
The age at which the young Chocó man clears and plants his
first fields usually depends on the economic conditions
within his family. Normally by the time a boy reaches his
mid to late teens, he has assumed certain agricultural
responsibilities. Clearly, cultivated land is a
prerequisite for marriage.

The Darién Choco still hold no legal titles to their lands, a situation that is expected to change with the recent establishment of the comarca. Nevertheless, among themselves and to other non-Indian settlers, the Indians' claims to the land arise from the principle of usufruct from the initial clearing and plantings. These rights are not normally violated in the region.

Communal work in agriculture has increased under village organization. While such activities are usually organized along kin lines, a strong participation of friends and neighbors also occurs during the year. Many villagers consider group efforts a desirable outcome of community life. Agricultural labor is still male-dominated, but women and youngsters do work during harvest, and women often provide food and drink in the fields. A field owner often provides rice or corn beer to his laborers as part of a broad exchange labor system (cambio de mano). He becomes obligated in return to provide his labor to those who helped him. Increasingly, a sort of informal payment in kind (reparto) occurs during harvest. When harvesting rice, for example, a helper may fill up a small basket with the inflorescences that have fallen to the ground during the harvest.
In many ways modern Chocó agriculture is much the same as it was in the past. Monocultures (e.g., plantain groves and corn fields) and polycultures (e.g., dooryard orchard-gardens) continue to play important roles in Chocó agriculture. Yet, while polycultures may maximize the use of agricultural lands by emulating the ecological stability of the natural forest, in Chocó agriculture polycultures are less important than monocultures. Monocultures allow Chocó farmers to adjust to conditions of drought, pests, and the like by overproduction of staple and cash crops by simply expanding the area cultivated. Both forms of cultivation fit into a time tested agricultural system that is, overall, well-adapted to the ecological variability found throughout Darien province. Today, however, under village organization with a declining resource base, much appears different. Each agricultural system used by the Darien Choco illustrates what changes have resulted from village life.

**Slash-burn Cultivation.** The Darién Chocó normally prepare slash-burn plots during the early dry season (Dec.-Jan.). Both tall monsoon forest (*monte alto*) and secondary growth (*castrojo*) are cut. The slashed and chopped debris is allowed to dry before burning it in late dry season (March-April). Firebreaks are not cut and the flames often
spread into adjacent *rastrojo* plots and surrounding forest floor, especially in particularly dry years. Planting occurs at the onset of the wet season (April-May). Harvest times vary, but most crops ripen between late July and September. The Chocó slash-burn plot is normally burned and cultivated for only one season, followed by semi-abandonment to secondary growth.

Field sites are selected according to the crops to be cultivated. Some crops need sandy soils of the river levee; others favor damp, clay lowlands of the backswamp forest. Increasingly, the availability of unclaimed lands has a great deal to do with new field location. After selecting a field site, a careful inventory occurs of trees to be cut or spared (Table 4).

Clearing monsoon forest is among the most strenuous work done by the Darién Chocó. Extremely laborious and sometimes dangerous, forest clearing is almost exclusively men’s work that noticeably toughens them. An axe, machete, file, and strong back are the only prerequisites. This is not a task for older men.

The first effort in clearing is to slash the undergrowth with machetes. To an outsider this is a memorable occasion; as the small group of kin and friends
<table>
<thead>
<tr>
<th>Local Name</th>
<th>Scientific Name</th>
<th>Reason for Sparing, Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acarín</td>
<td>Unknown</td>
<td>Too hard, dugout</td>
</tr>
<tr>
<td>Balsamo</td>
<td>Myroxylon sp.</td>
<td>Too hard, house post</td>
</tr>
<tr>
<td>Caiche</td>
<td>Prioria copeifera</td>
<td>Lumber sale</td>
</tr>
<tr>
<td>Caiche Negro</td>
<td>Castilla elastica</td>
<td>Latex</td>
</tr>
<tr>
<td>Caivo</td>
<td>Unknown</td>
<td>Too hard</td>
</tr>
<tr>
<td>Cedro Amargo</td>
<td>Cedrela odorata</td>
<td>Lumber sale, dugouts</td>
</tr>
<tr>
<td>Cedro, Caoba</td>
<td>Swietenia macrophylla</td>
<td>Lumber sale</td>
</tr>
<tr>
<td>Ceiba, Bonga</td>
<td>Ceiba pentandra</td>
<td>Too large</td>
</tr>
<tr>
<td>Cero Espinoso</td>
<td>Bombacopsis quinata</td>
<td>Dugouts, lumber sale</td>
</tr>
<tr>
<td>Chonta</td>
<td>Bactria spp.</td>
<td>Fruits</td>
</tr>
<tr>
<td>Chugua</td>
<td>Astrocaryum standleyanum</td>
<td>Fruits, cabbage, house post</td>
</tr>
<tr>
<td>Cuipo</td>
<td>Cavaniila platanifolia</td>
<td>Too large</td>
</tr>
<tr>
<td>Espave</td>
<td>Anacardium excelsum</td>
<td>Dugouts, fruits</td>
</tr>
<tr>
<td>Guascimo</td>
<td>Guazuma ulmifolia</td>
<td>Cooking logs</td>
</tr>
<tr>
<td>Guagara</td>
<td>Sabal alleni</td>
<td>Thatch</td>
</tr>
<tr>
<td>Guavito</td>
<td>Inga spp.</td>
<td>Fruits, cooking logs</td>
</tr>
<tr>
<td>Guayabildo</td>
<td>Unknown</td>
<td>Cooking logs</td>
</tr>
<tr>
<td>Jira</td>
<td>Triatea sp.</td>
<td>House floors</td>
</tr>
<tr>
<td>Jira</td>
<td>Socrates spp.</td>
<td>House floors</td>
</tr>
<tr>
<td>Jobo</td>
<td>Spondias spp.</td>
<td>Fruits</td>
</tr>
<tr>
<td>Membrillo</td>
<td>Gustavia spp.</td>
<td>Fruit, wine, oil</td>
</tr>
<tr>
<td>Palma Vino</td>
<td>Acrocoma panamensis</td>
<td>Dugouts, house posts</td>
</tr>
<tr>
<td>Pino Amarillo</td>
<td>Lafoensia punicifolia</td>
<td>Lumber sale, ornament</td>
</tr>
<tr>
<td>Roble</td>
<td>Tabebuia pentaphylla</td>
<td>Too hard, dugouts</td>
</tr>
<tr>
<td>Sorro</td>
<td>Enterolypium cyclocarpus</td>
<td>Fruit, latex, lumber</td>
</tr>
<tr>
<td>Zapote, Nispero</td>
<td>Manilkara sp.</td>
<td></td>
</tr>
</tbody>
</table>
gather and work begins, shouts fill the forest. Each man has his own particular yell that distinguishes him from his fellow workers. Shouts serve as expressions of greeting, exhuberance, and danger.

The forest is usually felled in sections. The trees of a delimited area are cut or notched about half way through their boles at breast height. When trees have tall buttressed roots, the Indians hack footholds into the roots and balance themselves while cutting the bole. With the trees of a small area notched, one strategically situated tree is felled bringing down the area of forest in a domino-like fashion. (Once, I worked with a team of three Emberá men clearing a half hectare plot in this manner and the land shook on impact of the falling trees.) Certain trees are spared. Exceptionally large trees, like the cuipo or bongo, or those with hard woods, like sorpo or baléamo, are not considered worth the effort to cut. The taller palms with some economic value are also left (Table 4). This practice of sparing trees relates directly to the management of rastrojo and the development of fruit groves (fincas) discussed below.

The clearing of rastrojo also occurs during the dry season. After three to five years, regrowth vegetation is thought to be ready for a clean burn. First, the thick
jungle growth is cut with a long-bladed machete. This is difficult, time-consuming work that has irritants such as the spiny and poisonous plants that often cause infections when touched. Most Indians wear rubber boots, a heavy shirt, and long pants while doing this work (when clearing monte alto, they may wear only a loin cloth). Such clothing is reasonable, because a careless machete swing in rastrojo regrowth can disrupt an unnoticed nest of wasps that swarm and sting. Plants are seldom spared from these regrowth sites because normally they cannot survive the burn. A rastrojo plot that has been cultivated a number of times can be nearly clear after a burn, free of the debris found in recently cleared tall forest plots. Thus, regrowth areas can be more intensively cropped than new forest clearings.

Chocó also recognize advantages in fresh monte alto rather than rastrojo plots. Because slash-burn plots are now some distance from the community, farmers only seasonally visit fields and weed only once or twice during each growing season. In the rastrojo plots weeds develop rapidly which leads to early abandonment. In comparison, fields derived from monsoon forest are more likely to be rich and friable with considerable organic content. Weed invasion is less troublesome. Villagers also clear tall forest because they wish to place more land in cultivation each year in order to acquire more acreage for their
involvement in commercial agriculture.

Plantains and Bananas--Plantains, almosts everywhere in Darién, are the most important commercial crop (see Table 10). Production has distinct spatial and seasonal aspects. Plantains do well on the well-drained, sandy river levees and in the high alluvial soils. They are grown on hillsides too. Tall forest is preferred for cultivation, but castrojo is also used. As a rule, plantains are monoculturally cultivated. They need direct sunlight and also protection from winds that tear and dry leaves. Seasonal rainfall affects yields. Plantains are especially productive during the dry season (locally called the abundancia) when fruits are green, thick, and long. During the rainy season, fruits are thin and small. One cabuya with 1500 plants and kept free of choking weeds, will yield four to five thousand plantains every 15 days during the rainy season. In the dry season, this same field will yield eight to ten thousand plantains every eight days.

Plantains are vegetatively reproduced. Therefore, to improve one's stock, small shoots (corms) are taken from the healthiest, largest plants available. They are cut, with rhizomes intact, from the parent plant with a careful
machete slash. Soil debris and roots are cut away from the corm and the dry sheaths are stripped from the base. The corms are then slashed angularly at the base to expose new plant tissue for rapid root propagation. These clones develop into small plants with a thick base that narrows toward the apex.

Before planting, all weeds and small trees are removed from the plot. Only the most desirable plant species are spared, because plantains require large amounts of sunlight. Planting occurs during the early rainy season. Cuttings are normally spaced about one palo (palo is a Chocó measurement of 8 feet). Such density allows some 1500 plants per cabuya, but of course plantings are not always uniform amidst the maze of fallen debris and variable terrain. The actual cultivation of the young shoots is very simple. A shallow hole is dug in moist, friable soil with a machete or digging stick. The shoot is then placed in the hole and covered with soil and surrounding vegetable debris. The cutting matures in about seven months, bears fruit, and dies after producing only one raceme.

The poltano barton and the poltano dominico are among the most commonly cultivated of the several plantains present. The former can reach about four meters tall and 45 to 50 centimeters in diameter. Its large raceme produces
35-40 thick, one-pound fruits of white and yellow meat. The red-stalked *dominico* is about the same height and diameter. Its raceme is smaller with about 15 long, angular fruits. Some other important varieties cultivated by the group are the *dominica colemocha* or *dominica negra* and the *quiniento*. More than 20 varieties were reported by West (1957:139) from the nearby lowlands of Colombia.

The banana (*Musa sapientum*) and the dwarf banana (*M. acuminata*) are cultivated much like the plantain. However, bananas are not tolerant of constant direct sunlight and require shade plants (*madre de guineo*). Shade trees spared from the tall forest while others spontaneously grow on the cleared plot. These shade plants should not be deciduous. *Guaruma* (*Cecropia spp.*), *higueroon* (*Ficus citrifolia*) and the *laurel* (*Cordia alliodora*) are common shade trees. The Darién Chocó cultivate many different banana varieties, including the *guineo ecuatoriano*, the *guineo anano*, *huevo buce* and the *primitivo*.

Rice—Rice has, over the past two decades, replaced plantains and corn as the most important staple in the diet of the Darién Chocó. In 1966, Reina Torres (1966:27) wrote: "In recent years one observes an increase in the cultivation
of rice among the Darién Chocó, with commercial ends."

Today, many Indians consider no meal to be complete without rice. Nearly all families cultivate rice. The bulk of the rice produced is locally consumed, but increasingly much of it enters commercial markets.

The Chocó cultivate several varieties of upland rice. In the Chucunaque/Tuira Basin, at least 19 different types have been cultivated (Paganini 1970:183). The most frequent kinds are the blanco (also called plata) and the amarillo, but most Indians will plant any variety that is available.

Rice is planted in outfield slash-burn plots. Fields are prepared from either tall forest or castrojo, depending on the availability of land and the planter's preference. Chocó prefer to cultivate rice on the backswamp alluvial soils close behind the natural levee. These soils have a high clay content and retain moisture, but are rarely flooded. Rice is also planted on hillslopes and alluvial terraces.

Most farmers save seeds from the last harvest. Men cultivate more than they expect to consume and sell what will not be needed for the next planting. The surplus sold serves as a buffer for loss to insects, vermin, crop diseases, and climatic variation. Yet, regardless of these
safeguards, some people inevitably use up their seeds and must buy or barter for more. One five-gallon container holds enough seeds to plant one cabuya (3.67 acres). Yields depend greatly on the diligence of the planter, age of the field (the fallow period), and soil conditions. How closely the rice is planted and how frequently the field is weeded are also factors. Nevertheless, while yields vary tremendously, Indian farmers expect to harvest from 40 to 90 quintales (4,000-9,000 lbs.) of rice per cabuya. This quantity, of course, is greater than a single family's consumption and few harvest such amounts. Again, most rice is grown only for family consumption.

Rice is harvested twice a year. The most important planting occurs at the onset of the rainy season (Apr.-May) in slash-burn plots. Fields are harvested in September. A second, lesser planting sometimes occurs in slash-mulch plots in late August or September with ensuing harvest in December or January.

Rice seeds are planted, not broadcast. The farmer merely opens a small, two to three inches deep hole in the soil with a thrust of his fire-hardened digging stick. A pinch of seed, containing ten to 15 grains, is taken from his shoulder bag and is dropped into each hole. With a brush of the foot, followed by a firm tamp, the hole is covered.
Rats and rabbits often molest the newly planted seeds; the latter become particularly damaging when they graze on newly sprouted plants.

Rice requires four to five months to mature. Fields must be tended or weeds will entangle the plants and inhibit their growth. Weeding is tedious work that usually involves nearly the entire family. Chocó farmers realize that weeded fields have higher yields and many take pride in keeping their plots clean. Nevertheless, the battle is relentless and by the time a farmer finishes weeding his field, he must start again. Some Indians are beginning to experiment with herbicides on their rice crop, but this is not widespread.

As harvest approaches, marauding birds, rodents, and mammals pillage the crop. Small ground doves (Columbina spp. and Claravis spp.) are constant pests. They are difficult to shoot and are considered "a wasted shot." Unlike other rain forest peoples, Chocó do not use traps to capture birds. The larger and more desirable game birds and mammals are seemingly enticed to rice fields to make hunting easier. Such garden-hunting is a common phenomenon among the Chocó and will be discussed below. Some farmers construct scarecrows or noise makers to ward off birds, but they become less necessary as time is spent in the fields in August and September as harvest approaches. Harvest
involves the whole family and the rice is cut by the handful with a short, sharp knife or sawed-off machete.

Yams—Chocó cultivate two species of yams. One, locally called the Kampi or vampi (Dioscorea trifida), is native to northern South America and is cultivated throughout the Caribbean (Coursey 1967:62). This plant produces several small tubers about 15 to 20 centimeters long. Two varieties are important in Darién, the morado and the blanco. The other yam, called hemp (Dioscorea alata), was originally domesticated in the Old World, but now is grown throughout the tropics (Coursey 1967:45-46). Unlike the native Kampi, the tubers of hemp are single and much larger. Individual tubers can weigh 60 kg and reach over 2 meters in length (Coursey 1967:46). Hemp is sometimes propagated by the viviparous bulbils that develop in the leaf axils. These "aerial tubers" are well-suited for reproduction, but Chocó farmers prefer cuttings, which produce larger yams. A relationship seems to exist between the weight of the "seed" and the yield of the plant.

Indians prefer the easily worked, well-drained hill soils away from the river for yam cultivation. Unlike many places in the Old World where yams are planted in mounds,
ridges, or on raised beds, the Chocó cultivate both species in "natural plots." Early in the rainy season, yam seeds are planted on slope soils with a coarse texture. The small pieces of tubers are buried five to ten centimeters deep. A one-cabuya (3.67 acres) field normally will have no more than 30,000 plants, but most have one-half that number. Plants preferably are one meter apart, but terrain makes actual spacing inconsistent. Sometimes the Indians stake plants to support the vines, because this greatly enhances yields. Normally, however, the plants trail naturally over castrojo regrowth. Mulching is not usually practiced except when tubers become exposed by erosion. Then, farmers will cover them with soil and leaf debris. Sometimes, one can find small plots of manioc, plantains, bananas, or corn scattered amidst yam plants.

Yams are first harvested towards the end of the rainy season (Nov.-Dec.). Name requires seven months to produce tubers of desirable size. The first tubers are soft and delicate, but during the secondary harvest from January to March they have increased in weight to 3 to 10 kilograms with thick protective skins. Harvests can be delayed at the whim of the farmer. The tubers grow as long as the vine remains alive and they do not suffer from being left in the ground. Chocó farmers harvest only what is needed for consumption or sale at the time. So-called Name visio
refers to unharvested tubers that continue to grow into the next season. These develop amidst weedy castrojo and can be recovered any time, except during the early rainy season when they sprout again.

The actual digging of the yams is done with a cote, an aboriginal farming tool that today has a chisel-shaped steel tip. Harvesting yams is laborious and back straining. Care must be taken not to cut, bruise, or break the tubers. Physical damage leads to rotting and makes tubers undesirable for sale. The smaller, more numerous tubers of the ñame are, as might be expected, more easily harvested than the larger ñame. The yields from ñame fields vary tremendously, ranging from 100-300 quintales (10,000-30,000 lbs.) per cabuya.

Ñame fields are rarely abandoned, being cropped and managed as castrojo. The appearance of an old ñame field is deceiving—it looks like fallow land without production. Instead, these "abandoned" fields are replanted during April or May when farmers cut away weedy vegetation around old ñame vines and then plant new cuttings. Ñame also will become volunteers in such fields and does well climbing on weedy regrowth.
Other Crops—Choco farmers, depending on their preferences, cultivate many other crops in slash-burn plots. Corn remains an important traditional crop. Otte (Xanthosoma spp.) is sometimes grown for subsistence. Yuca (Manihot esculenta) is also common; three varieties, blanco, amarillo, and morado, are widespread. Crops that have gained acceptance since the Pan-American Highway extended into the province are green peppers (Cucumis sativus), cabbage (Brassica oleracea), and watermelon (Citrullus vulgaris). The tomato (Lycopersicum esculentum) and chayote (Sechium edule), once largely confined to dooryard gardens, are now found under open field conditions.

Slash-Mulch Cultivation. Slash-mulch (gostera) cultivation follows the pattern described for traditional Chocó subsistence (Chapter 5). During the rainy season, from late August until late December, when fields cannot be burned, slash-mulch farming becomes important. It is always of secondary importance to dry season slash-burn cultivation. Whether one plants a slash-mulch plot depends on economic and ecologic factors.

Slash-mulch plots are usually cleared from old rastrojo in late September and early October. Planting occurs during
the process. Plots are cultivated almost exclusively to corn, but most of that crop still comes from slash-burn. Yields are lower in postrera. Nonetheless, postrera supplies a second corn crop that allows for year-round household supply. Some rice is cultivated in postrera plots, but conditions are not optimal for the plant. Rastrojo rice sometimes develops from seeds lost months earlier during the harvest of a guema crop. Rice kernels that broke from the shaft sprout with the onset of the rainy season and produce a minor secondary harvest. Abandoned postrera fields are often returned to guema production the following April.

Dooryard Orchard-Gardens. Dooryard orchard-gardens (huertos) remain prominent in the settlement landscape of the modern Darién Chocó. The rich green hues of the tropical palm and fruit trees contrast sharply with the sun-bleached thatched roofs making a picturesque setting. Yet, while visually prominent in villages where surrounding rain forest has been removed, dooryard gardens no longer contribute greatly to subsistence.

Today's dooryard orchard-gardens are similar to those of the past (Chapter 5). Plants are arranged in a seemingly haphazard fashion that, upon maturity, resembles
the structure of the forest. Tall trees, like avocado
(*Persea americana*) and cashew (*Anacardium excelsum*), form
the emergent stratum. The development of a canopy takes
considerable time. A ten year-old garden could have trees
roughly ten meters high with a breast height diameter of
eight to ten centimeters. A poorly stratified understory
four to eight meters in height forms and includes trees such
as the gourd (*Crescentia cujete*), *achiote* (*Bixa orellana*),
and *jobo* (*Spondias mombin*). Herbaceous plants mix with
perennials like *Xanthosoma*, *yuca*, and *Capsicum* at the ground
level. Tree saplings and small palms are also found at the
ground level. Herbaceous annuals are rarely cultivated
here. The intercropped structure, once developed, makes
maximum use of sunlight and protects young delicate plants
and tree saplings because only streaks of sunlight penetrate
the canopy. The ground layer is kept clear of weeds.

Plant diversity is great in the dooryard
orchard-gardens (Table 5). Although some gardens contain
staple crops (bananas, plantains, yams, yuca), native fruit
trees dominate. Certain species, such as *Inga* spp., *corozo*,
nance, and *naguala* (*Carudovic gaimata*), are not
fully-domesticated, but are transplanted into gardens from
the surrounding forest. Fruit seeds are commonly germinated
in tin and plastic containers or *azoteas* (no longer common),
later to be transplanted into dooryard soils. Most garden
<table>
<thead>
<tr>
<th>Species</th>
<th>Spanish</th>
<th>Embera</th>
<th>Use</th>
<th>Months when ripe or harvested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anacardium occidentale</td>
<td>Maraño</td>
<td>Kurassao</td>
<td>Fruit</td>
<td>JFMANJASOND</td>
</tr>
<tr>
<td>Ananas comosus</td>
<td>Piña</td>
<td>Chijó</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Annona muricata</td>
<td>Guanambana</td>
<td>Forususu</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Annona reticulata</td>
<td>Anón</td>
<td>Jauchira</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Artocarpus altilis</td>
<td>Arbol de pan</td>
<td>Panta</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Bixa orellana</td>
<td>Achiote</td>
<td>Canchi</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Bryonima crassifolia</td>
<td>Nance</td>
<td>Nance</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Calocarpus marmosum</td>
<td>Maney</td>
<td>Maneyo</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Capsicum spp.</td>
<td>Ají</td>
<td>Ají</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Carica papaya</td>
<td>Papaya</td>
<td>Papayajo</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Chrysophyllum cainito</td>
<td>Calmito</td>
<td>Tuko</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Citrus aurantia</td>
<td>Agría</td>
<td>Agría</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Citrus limetta</td>
<td>Lima</td>
<td>Lima</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Citrus lemon</td>
<td>Limón</td>
<td>Limón</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Citrus reticulata</td>
<td>Mandarina</td>
<td>Mandarina</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Citrus sinensis</td>
<td>Naranja</td>
<td>Naranja</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Conidosculus chayensis</td>
<td>Chaya</td>
<td>Igería</td>
<td>Shade</td>
<td>—</td>
</tr>
<tr>
<td>Cocoa nucifera</td>
<td>Coco</td>
<td>Pita</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Coffea arabica</td>
<td>Cafe</td>
<td>Cafe</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Corozo oleifera</td>
<td>Corozo</td>
<td>Turrikita</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Crescentia cujete</td>
<td>Calabasa</td>
<td>Sauburi</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Cymbopogon nardus</td>
<td>Hierba limon</td>
<td>Hierba limon</td>
<td>Leaves</td>
<td>—</td>
</tr>
<tr>
<td>Eryngium foetidum</td>
<td>Culantro</td>
<td>Culantro</td>
<td>Leaves</td>
<td>—</td>
</tr>
<tr>
<td>Genipa americana</td>
<td>Jagua</td>
<td>Jagua, kiparra</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Guanacastepus hirtata</td>
<td>Algodon</td>
<td>Arakorona</td>
<td>Fiber</td>
<td>—</td>
</tr>
<tr>
<td>Guadua angustifolia</td>
<td>Guadua</td>
<td>Chogoro</td>
<td>Cane</td>
<td>—</td>
</tr>
<tr>
<td>Guillemina gasipaeas</td>
<td>Pizbæ</td>
<td>Gaa</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Inga edulis</td>
<td>Guavo</td>
<td>Tutoejo</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Mangifera indica</td>
<td>Mango</td>
<td>Chikuru</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Manihot esculentus</td>
<td>Yuca</td>
<td>Yuca</td>
<td>Root</td>
<td>—</td>
</tr>
<tr>
<td>Manilkara zapota</td>
<td>Zapote, Níspero</td>
<td>PatÉ</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Musa paradisiaca</td>
<td>Plátano</td>
<td>Kombasa</td>
<td>Leaves</td>
<td>—</td>
</tr>
<tr>
<td>Musa sapientum</td>
<td>Guineo</td>
<td>Guineo</td>
<td>Leaves</td>
<td>—</td>
</tr>
<tr>
<td>Nicotiana tabacum</td>
<td>Tabacco</td>
<td>Tabacco</td>
<td>Leaves</td>
<td>—</td>
</tr>
<tr>
<td>Passa americana</td>
<td>Aguacate</td>
<td>Bego</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Saccharum officinarum</td>
<td>Cane</td>
<td>Chanso</td>
<td>Steak</td>
<td>—</td>
</tr>
<tr>
<td>Spondias mombin</td>
<td>Jobo</td>
<td>Canaja</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Spondias purpuresa</td>
<td>Ciruelas</td>
<td>Ciruelas</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Theobroma cacao</td>
<td>Cacao</td>
<td>Chocolote</td>
<td>Fruit</td>
<td>—</td>
</tr>
<tr>
<td>Theobroma sp. (Pupurea ?)</td>
<td>Cacao</td>
<td>Cacao</td>
<td>Fruit</td>
<td>—</td>
</tr>
</tbody>
</table>
plants are perennials. Even when a Xanthosoma is uprooted for its corms, it is replanted. The dooryard garden is an area of experimentation where Chocó horticulturalists tend newly acquired economic plants with care and interest.

The food value of the dooryard fruit trees is little recognized, yet can be significant seasonally for individuals with large gardens. Fruits are delicious and understandably prized. The zapote produces a large olive-brown fruit that has a tasty, stringy flesh. Mamey and annonas also produce large savory fruits. Orange, avocado, and mango trees are among the most esteemed and commonly planted. Coconut, peach palm, and palma vino are the most important and widespread palm species. Palm fruits are not only consumed directly, but many are made into fermented drinks and cooking oils. Some plants grown in the huerto hold a special ceremonial or medicinal place in Choco culture, while others are grown for ornamental reasons or as condiments. Many might simply be considered "snack" foods for household consumption.

As agricultural sites, modern dooryard gardens are much less important than in the past. In the process of forming villages, Chocó did not always replant their dooryards because of the destruction brought by communal use of space. Only at the margins of the community, away from the daily
traffic, can one find well-developed gardens. These vary
tremendously in size and numbers of plants ranging from a
few to hundreds. No one garden in the village setting
contains near the total inventory of cultivated plants found
in all the dooryards combined. Recently constructed houses
and recently established villages, as should be expected,
have the least developed gardens.

Agroforestry. The agroforestry component (locally called
fincas or frutales) represents a recent addition to Chocó
agriculture. Domesticated and semi-domesticated trees and
other crops, once cultivated in dooryard gardens, are now
grown in outfield plots. The planting arrangement mimicks
the structure and diversity of the taller rain forest. The
fincas develops into a polyculture with long term perennials
that can survive castrojo encroachment. Under Indian care
the agroforestry plot passes through successional stages,
first under slash-burn cultivation, later managed as
castrojo fallow, and ultimately developed into a finca
(Table 6).

The notion that slash-burn plots are abandoned to
fallow does not always apply in Chocó agriculture. In the
past, before village organization and when fruit trees were
tended around houses, such fields may have been abandoned to
Table 6. COMPOSITION OF A FINCA, COMÚN, RÍO CHICO, DARIEN

<table>
<thead>
<tr>
<th>Species</th>
<th>Number</th>
<th>Spanish</th>
<th>Embera</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Anacardium occidentale</em></td>
<td>3</td>
<td>Marañón</td>
<td>Kurasaó</td>
</tr>
<tr>
<td><em>Ananas comosus</em></td>
<td>10</td>
<td>Piña</td>
<td>Chijó</td>
</tr>
<tr>
<td><em>Annona muricata</em></td>
<td>10</td>
<td>Guanábana</td>
<td>Porususu</td>
</tr>
<tr>
<td><em>Bororoa Patinoí</em></td>
<td>1</td>
<td>Bororoa</td>
<td>Bororoa</td>
</tr>
<tr>
<td><em>Byrsonima crassifolia</em></td>
<td>30</td>
<td>Nance</td>
<td>Nance</td>
</tr>
<tr>
<td><em>Calocarpus mammosum</em></td>
<td>1</td>
<td>Mamay</td>
<td>Mamay</td>
</tr>
<tr>
<td><em>Calycophyllium candidissimum</em></td>
<td>10</td>
<td>Conejo</td>
<td>Conejo</td>
</tr>
<tr>
<td><em>Citrus reticulata</em></td>
<td>10</td>
<td>Mandarina</td>
<td>Mandarina</td>
</tr>
<tr>
<td><em>Citrus sinensis</em></td>
<td>60</td>
<td>Mandarina</td>
<td>Mandarina</td>
</tr>
<tr>
<td><em>Cocos nucifera</em></td>
<td>1</td>
<td>Coco</td>
<td>Pita</td>
</tr>
<tr>
<td><em>Coffee arabica</em></td>
<td>100</td>
<td>Café</td>
<td>Café</td>
</tr>
<tr>
<td><em>Crescentia cujete</em></td>
<td>2</td>
<td>Totuma</td>
<td>Sansóra</td>
</tr>
<tr>
<td><em>Eugenia ?</em></td>
<td>4</td>
<td>Guayaba</td>
<td>Punijo</td>
</tr>
<tr>
<td><em>Guillemia gasipaes</em></td>
<td>10</td>
<td>Pizbae</td>
<td>Gea</td>
</tr>
<tr>
<td><em>Inga edulis</em></td>
<td>30</td>
<td>Guavo</td>
<td>Cajetano</td>
</tr>
<tr>
<td><em>Manilkara zapota</em></td>
<td>8</td>
<td>Zapote, Nispero</td>
<td>Zapote</td>
</tr>
<tr>
<td><em>Manihot esculentus</em></td>
<td>200</td>
<td>Yuca</td>
<td>Yuca</td>
</tr>
<tr>
<td><em>Musa paradisiaca</em></td>
<td>19</td>
<td>Plátano</td>
<td>Paté</td>
</tr>
<tr>
<td><em>Papaya americana</em></td>
<td>50</td>
<td>Aguacate</td>
<td>Begó</td>
</tr>
<tr>
<td><em>Psidium guajava</em></td>
<td>10</td>
<td>Guava de Peru</td>
<td>Puríjo</td>
</tr>
<tr>
<td><em>Rheedia ?</em></td>
<td>15</td>
<td>Cero</td>
<td>Cero</td>
</tr>
<tr>
<td><em>Tetiae olivaeformis</em></td>
<td>20</td>
<td>Mamón</td>
<td>Mamón</td>
</tr>
<tr>
<td><em>Theobroma cacao</em></td>
<td>23</td>
<td>Cacao</td>
<td>Chocolate</td>
</tr>
</tbody>
</table>

Note: The high number of mamón, aguacate, and cacao plants reflects some involvement in the cash economy.

Source: Field observation, August, 1981.
regrowth. With village settlement, and the decline of house gardens, fruit trees are now frequently cultivated in old slash-burn fields. The finca is therefore a relatively recent adjustment to village life and it is not yet well-developed.

Modern Chocó farmers think of future fincas during the initial preparation of slash-burn plots. When the farmer first clears the forest, he selectively culls for useful species. Some trees are spared because of their wood density. Palms are left because they have considerable economic value. Jira (Iriartea spp. and Socratea durissoma), for example, supply the Chocó with a preferred flooring material. The guagara palm (Sabal allenii), as mentioned, provides Darien's most important roofing thatch. Other saved plants are recognized as recurring resources of fronds, fruits, fiber, nuts, and other material.

If a particular slash-burn plot is contemplated as a finca, some trees may be planted during the agricultural cycle. As the crop matures, Chocó farmers systematically plant fruit trees, plantains, yuca, Xanthosoma, Mani, and other economic plants. With harvest of the main crop, and as fields are phased out of cultivation, small fruit tree saplings, normally germinated at the house site, are transplanted into the plot. Plants are carefully staked to
mark their locations as wild vegetation rapidly colonizes the harvested fields. Secondary growth seemingly competes with the saplings, but it actually protects them from too much sunlight.

During the *rastrojo* phase, weeds are systematically cleared from young fruit trees as well as other economic plants. Manioc, plantain, *Xanthosoma*, and bananas may be added among the small trees after clearing, but the area cannot be burned again. While the ground crops produce within a few months, the mature finca will not emerge for five or more years. Citrus needs about four years for fruit production; a peach palm needs about six years. The development of a productive finca may take 15 years.

Finca also result from deserted dooryard gardens. The abandonment of a traditional house site means leaving the orchard-garden, but the residents retain the possession of them and they may maintain a house of secondary stature (rancho) at the site. Families visit periodically to collect, hunt, and fish in the surrounding area. Sometimes a plots of plantains, bananas, yams, or rice are also maintained, but this is not important because damage results from crop pests. Still, some evidence suggests that the Indians plant these areas to attract game. One can locate previous house sites by the presence of fruit trees when
traveling up and down the rivers of Darién. At the mouth of the Río Ucurganti, for example, the Guaynora family that now lives just downriver in Lajas Blancas maintains a large finca that was the former huerto of their house there until 1970. If continually tended, such fincas remain productive indefinitely.

Sand Bar Cultivation. The cultivation of seasonally exposed mud flats and sand bars is not of great importance among the Darién Chocó. This may reflect the fact that Darién’s rivers have limited cultivable margins. Mud flats along the lower Río Tuira have been planted with rice by non-Indian farmers (Paganini 1970:188-192), but the only significant area of sandbar cultivation by Chocó occurs downriver from Unión Chocó where watermelons are grown as a cash crop between January and March. Some Indian families, particularly among those living in dispersed settlements, cultivate small amounts of corn and beans along exposed river banks.

Hunting and Fishing

To the Darién Chocó, the term montear means simultaneous hunting and fishing, often for longer than a
Monte is "untamed" woodland and to go there in search of fish, birds, and animals, and sometimes forest materials, means montear. Hunting and fishing are no longer daily and solitary activities done by Chocó near their houses. The depletion of game near settlements has caused the Chocó to adjust their fishing and hunting practices spatially and temporally. While certain types of hunting and fishing still occur relatively near the village, groups of men must increasingly make lengthy trips to headwater areas to find game; large mammals are found only in remote interfluves (Tables 7 & 8).

The Indians hunt and fish all year long. The late dry season (Feb.-Apr.), however, is a particularly good time; fields have been cut and burned and they await rains for planting. Trips are also undertaken during mid wet season (June-Aug.) when crops are growing and weeding has been completed. Seasonally (May-Nov.), river waters are swollen by rains and fish are then dispersed and difficult to catch when the river waters are dark with soil and forest debris. Only headwaters have good underwater visibility needed for spear fishing during those months. High waters also carry tree limbs and trunks that clog nets. Only a hook and line are used effectively during times of highwater. During dry season (Dec.-Apr.), on the other hand, fish concentrate in clear, shallow waters enabling spear fishing. A huge catch
### Table 7. GAME ANIMALS OF THE DARIEN CHOCO

<table>
<thead>
<tr>
<th>Species</th>
<th>Spanish</th>
<th>Embera</th>
<th>Status in Darien</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agouti paca</td>
<td>Conejo Pintado</td>
<td>Berogara</td>
<td>Reduced</td>
</tr>
<tr>
<td>Ateles fusciceps</td>
<td>Mono Negro</td>
<td>Kotutu</td>
<td>Endangered</td>
</tr>
<tr>
<td>Ateles geoffroyi</td>
<td>Mono Araña</td>
<td>Yaré</td>
<td>Endangered</td>
</tr>
<tr>
<td>Cebus capucinus</td>
<td>Mono cariblanca</td>
<td>Misura</td>
<td>Endangered</td>
</tr>
<tr>
<td>Dasypodium punctatum</td>
<td>Ñeque</td>
<td>Curíguas</td>
<td>Reduced</td>
</tr>
<tr>
<td>Dasypus novemcinctus</td>
<td>Armadillo</td>
<td>Tro, curu</td>
<td>Reduced</td>
</tr>
<tr>
<td>Hydrochaeris hydrochaeris</td>
<td>Poncho</td>
<td>Dokuma</td>
<td>Endangered</td>
</tr>
<tr>
<td>Nasua nasua</td>
<td>Venado</td>
<td>Beguí</td>
<td>Endangered</td>
</tr>
<tr>
<td>Saquipus geoffroyi</td>
<td>Gato Solo</td>
<td>Susuma</td>
<td>Reduced</td>
</tr>
<tr>
<td>Sciurus granatensis</td>
<td>Ardilla</td>
<td>Bichichi</td>
<td>Reduced</td>
</tr>
<tr>
<td>Sivitalagus brasiliensis</td>
<td>Muleto</td>
<td>Kukudi</td>
<td>Common</td>
</tr>
<tr>
<td>Tayassu pecari</td>
<td>Puerco de Monte</td>
<td>Bido</td>
<td>Endangered</td>
</tr>
<tr>
<td>Tayassu tajacu</td>
<td>Sajino</td>
<td>Bido-be</td>
<td>Endangered</td>
</tr>
<tr>
<td><strong>BIRDS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ara ararauna</td>
<td>Guacamaya</td>
<td>Pagará</td>
<td>Endangered</td>
</tr>
<tr>
<td>Ara macau</td>
<td>Guaco</td>
<td>Pagará</td>
<td>Endangered</td>
</tr>
<tr>
<td>Amazona farinosa morrata</td>
<td>Loro</td>
<td>Kare</td>
<td>Common</td>
</tr>
<tr>
<td>Amazona ochrocephalis</td>
<td>Cabeza Amarilla</td>
<td>Common</td>
<td></td>
</tr>
<tr>
<td>Amazona salvini</td>
<td>Loro</td>
<td>Common</td>
<td></td>
</tr>
<tr>
<td>Cairina moschata</td>
<td>Pato</td>
<td>Patu</td>
<td>Rare</td>
</tr>
<tr>
<td>Crax rubra</td>
<td>Pavón</td>
<td>Samo</td>
<td>Rare</td>
</tr>
<tr>
<td>Crypturellus kerriae</td>
<td>Perdiz</td>
<td>Truatra</td>
<td>Reduced</td>
</tr>
<tr>
<td>Crypturellus soui</td>
<td>Perdiz</td>
<td>Tusi</td>
<td>Reduced</td>
</tr>
<tr>
<td>Odontophorus spp.</td>
<td>Perdiz</td>
<td>Common</td>
<td></td>
</tr>
<tr>
<td>Ortalis cinereiceps</td>
<td>Faisan</td>
<td>Endangered</td>
<td></td>
</tr>
<tr>
<td>Penelope purpurascens</td>
<td>Pava Roja</td>
<td>Samo</td>
<td>Endangered</td>
</tr>
<tr>
<td>Pionus menstruus</td>
<td>Casanga</td>
<td>Nichi-ta</td>
<td>Reduced</td>
</tr>
<tr>
<td>Pionus sp.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramphastos torquatus</td>
<td>Pico aji</td>
<td>Kenuas</td>
<td>Reduced</td>
</tr>
<tr>
<td>Ramphastos sp.</td>
<td>Perdiz</td>
<td>Sokorro</td>
<td>Reduced</td>
</tr>
<tr>
<td>Selenidra spectabilis</td>
<td></td>
<td>Bichipa</td>
<td></td>
</tr>
<tr>
<td><strong>REPTILES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iguana iguana</td>
<td>Iguana</td>
<td>Opoga</td>
<td>Reduced</td>
</tr>
</tbody>
</table>

1 My rough estimate of population status was based on extensive travel along Darién's waterways and on extended hunting and fishing excursions taken during 1982 and 1983.
<table>
<thead>
<tr>
<th>Species</th>
<th>Spanish</th>
<th>Emberá</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ageneiosus caucanus</td>
<td>Doncella</td>
<td>Doncella</td>
</tr>
<tr>
<td>Brycon sp.</td>
<td>Sabaleta</td>
<td>Toa</td>
</tr>
<tr>
<td>Brycon sp.</td>
<td>Sáballo</td>
<td>Amparra</td>
</tr>
<tr>
<td>Centropomus sp.</td>
<td>Róbalo</td>
<td></td>
</tr>
<tr>
<td>Cichlasoma umbriferum</td>
<td>Mojarra</td>
<td>Pema</td>
</tr>
<tr>
<td>Chaetostoma fisheri</td>
<td>Guacuco</td>
<td>Jumpé</td>
</tr>
<tr>
<td>Geophya sp.</td>
<td>Tortuga</td>
<td>Sibi</td>
</tr>
<tr>
<td>Hoplias microlepis</td>
<td>Peje-perro</td>
<td>Chicaro</td>
</tr>
<tr>
<td>Lasiaciartus planiceps</td>
<td>Guacuco Mantaca</td>
<td>Jumpé</td>
</tr>
<tr>
<td>Macrobrachium sp.</td>
<td>Camarón</td>
<td></td>
</tr>
<tr>
<td>Pimelodus claras punctatus</td>
<td>Congo</td>
<td>Charre</td>
</tr>
<tr>
<td>Plecostomus plecostomus</td>
<td>Corromá</td>
<td>Corromá</td>
</tr>
<tr>
<td>Pseudemys scripta ornata</td>
<td>Tortuga</td>
<td>Morokó</td>
</tr>
<tr>
<td>Pseudochelphusidae</td>
<td>Cangrejo</td>
<td>Conchurro</td>
</tr>
<tr>
<td>Prochilodus sp.</td>
<td>Boca Chica</td>
<td></td>
</tr>
<tr>
<td>Rhabdias sp.</td>
<td>Barbudo</td>
<td></td>
</tr>
<tr>
<td>Sternoptygus darianis</td>
<td>Macana</td>
<td></td>
</tr>
<tr>
<td>Unidentified</td>
<td>Liso</td>
<td></td>
</tr>
<tr>
<td>Unidentified</td>
<td>Mesedor</td>
<td></td>
</tr>
<tr>
<td>Unidentified</td>
<td>Pega Palo</td>
<td></td>
</tr>
<tr>
<td>Unidentified</td>
<td>Barbón</td>
<td></td>
</tr>
<tr>
<td>Unidentified</td>
<td>Aventí</td>
<td></td>
</tr>
</tbody>
</table>
can be taken along a single meander of the river. The Río Ucurganti is fished by the folks of Lajas Blancas during the dry season and on one occasion in late January 1983, I accompanied a group that pulled 240 fish with a single sweep of a large net through one river bend. The prized doncella accounted for 170 of those caught.

Usually one man organizes a trip for hunting and fishing. He seeks a small group that agrees to share costs. Outboard motors may not be used. When used, the cost of gasoline is shared ($3.75/gallon in 1983). Salt is also bought to preserve the meat and fish. Plastic five gallon containers, native baskets, and other containers are brought to carry the catch and camping equipment. For extended trips, a supply of cooking oil, kerosene, matches, coffee, sugar, and other camp supplies are needed. Most meals during the trip are prepared from the catch.

The group leaves at daybreak. Two or three canoes are used to carry eight to ten individuals. If the outboard is used, only one large dugout is needed. Otherwise the Chocó boatman stands on the flattened, overhanging bow or stern of the dugout and poles the craft. Most of Darien's waterways are shallow enough to pole the dugout upstream during the dry season. Yet, paddles are useful over depths and on the downriver return. The length and sturdiness of the
lanceolate-shaped Chocó paddle may have developed from the necessity of using it like a pole to push off from shallow bottoms and river banks.

Polemen push the craft upriver all morning. A few fried plantains and maybe some leftovers from breakfast make a mid-morning snack. At lunch time, with the sun high and hot, some playful fishing takes place. In the heat of the mid-day sun, an anxious youngster may leap into shallow pools for spear fishing. As the canoe continues upstream at a slower pace, the youngsters try to keep apace and toss speared fish into their boats. Eventually, the canoes slide onto a sand bar for a lunch break. While a woman or young girl may accompany the group as a cook, men also cook on such trips. Lunch consists of fresh fish soup boiled in a huge pot with onions, salt, and chile peppers. After lunch, the group continues upriver until a good bivouac or the desired hunting lands are reached.

Spearing is an important method of fishing among the Darién Chocó who are skilled with the underwater use of a spear (chahuala) and diving mask (mascara). The Chocó spear is a finely balanced weapon designed for jabbing or lancing fish beneath the water. The shaft, about two meters long, is usually made from the chonta palm (Astrocaryum standleyanum), but sometimes from jica (Socratea durissima)
and gixbae (Guilhelma gasipaes). The head is mounted with a lance (chuzo) made today from worn-out hand files fashioned into formidable barbed points. Solid metal spears (chahuale de alambre) are also fairly common, made from thin (3/16") construction rods filed to a barbed point.

Spearing fish requires poise and quickness. Spearmen make precise jabs, the length of the spear making it easy to reach fish in habitats difficult of access. Chocó fishermen know intimately the particular niche occupied by their favorite fish. Working against the current, they find the guacuco, corromá, and guacuco manteca clinging to fallen logs, rocks, and ledges. These are easy targets and among the first species speared. The doncela, like the sábalo, sabaleta, a venti, and others, occupies the open channel of the river and is much more difficult to spear. The macana, a large savory fish, lives just beneath the decomposing leafy litter. Natives sift carefully and systematically through the litter to find them. This can take considerable time and energy, and some spearmen stay submerged for more than two minutes while swimming against the current and fishing.

Spear fishing is as much sport as it is hard work. The activity seems to relax the men who hoot and howl as they drop the catch over the canoe side and turn to dive down
again. A Chocó diver may spear several fish in a matter of seconds. When this occurs, each fish is usually not dead until the spearman breaks its spine, often with his teeth. A man may surface with several fish on the spear shaft, a couple stuck under his waist cord, one in his free hand, and sometimes even one between his teeth. The men pride themselves on such abilities.

The Chocó use a small three-pronged spear (chuyee) to fish for crustaceans in small burrows along the the submerged parts of the bank. Freshwater shrimp and crabs are itinerant occupants of burrows in the firm clay banks (lajas) common along Darién's waterways. The burrows usually number into the thousands along certain stretches, but not all are occupied by crustaceans. Once underwater, the diver stabilizes himself against the current by holding on to one of these holes. Each hole is probed to see if it is occupied. If the crab or shrimp attempt to escape, it is jabbed and the spearman must slowly pull the spear from the burrow to keep the animal from sliding off the barbs. With skill and care many shrimp or crabs can be accumulated on a lance before resurfacing.

Chocó hunt less now than in the past. The decline clearly relates to the depletion of game and habitat destruction. Tall forests are removed near settlements.
Normally, only *rastrojo* species occur near villages. Today, good hunting is found only in the more remote headwaters and interfluve areas. However, with their agricultural responsibilities, Chocó farmers must remain close to their villages; it is simply too costly to venture on many long hunting excursions. Only during seasonal lulls in agricultural activities can the Indians travel to game areas.

The Chocó are sometimes characterized as hunters and fishermen who wantonly exploit their game resources. This is a simplistic view. Chocó love fresh barbecued meat. Unlike Indian groups who place emphasis on domesticated animals such as the pig, the Darién Chocó must meet practically all their demands for fresh meat from the wild. Deforestation, natural habitat destruction, and Indians hunting pressures have all but removed game from the lower, inhabited areas along Darién's rivers. Under these pressures, game is in short supply and men commonly return empty-handed after a day's hunt. Therefore, when given the opportunity to kill game, the hunter takes full opportunity to shoot as many animals as possible. Because of the declining availability of game and given that domesticated animals are no longer available in Darién, the Chocó meet much of their protein needs from canned meats and other imported products.
Dogs play a vital role in Chocó hunting. While many Indians consider them a handicap to hunting, others believe they are essential. They are small mongrels generally weighing less than 20 kilograms. They move through the forest and chase indiscriminately after anything that moves. Such free-running dogs are noisy and often scare off would-be targets. Nevertheless, many hunters consider them indispensible to the hunt because they are fast, range widely, and locate game unseen by hunters. Although dogs chase game far ahead of the hunter, they are easy to follow because they yelp and howl. They hold prey at bay until the hunter arrives. Dogs are also useful for running down wounded game. For example, an iguana, shot with a 22-calibre bullet in any part of the body except the head or neck, will often live. Knocked from a limb, a wounded iguana might flee out of the hunter’s sight, but a hunting dog can run it down and kill it or hold it in place until the hunter arrives. A wounded peccary (Tayassu pecari) can also outrun a hunter and be lost unless dogs are present. Dogs are encouraged to locate and to kill wounded game, but they are not allowed to devour it. They further aid hunters by flushing game out of burrows and hiding places. During river travel in remote areas, a hunter often releases his dogs to roam the riverbank. The dogs dart through the forest margins, often flushing game into open rifle range.
Regrowth and Garden Hunting

The role of regrowth vegetation and garden sites as wildlife management areas has been largely overlooked until quite recently. Probably these areas have always been an important component in the subsistence systems in lowland tropical America. Gordon (1957) recognized the significance of these areas in his work among the Chocó in Colombia and later among the Guaymi in Panama and he (1982) discussed the ecological conditions of regrowth vegetation that promote this sort of hunting. The practice is widespread in Central and South America, and apparently has existed for several centuries in western Panama (Linares 1976).

While regrowth plots provide wild and cultivated plant products, the areas are also important to the Chocó as habitats for certain game species. At an immature stage of succession, rastrojo plots contain a large quantity of fruits, shoots, and tubers and they supply foodstuffs for a larger number of small rodents and birds, than does undisturbed forest (Gordon 1982:96-107). Some rastrojo commensals exploited by the Darién Chocó include the kachipolate (Basilicus galeritus), agouti, titi monkey, paca, and iguana. Various forest birds are also common (as
described in Chapter 2).

The Darién Chocó also stalk game at their garden plots. Cultivated fields make desirable feeding grounds for many forest animals. During early morning and late evening, various birds and mammals pillage fruits, grains and tubers. Rats and small birds are considered pests, while others are not viewed quite so disdainfully. Many forest animals act as commensals in Darién, perhaps because of the removal of large tracks of forest. Birds pillage grains during daylight hours when nobody is around. The Indians usually shoot only large game birds and often construct scarecrows to ward off the smaller ones. Mammals, on the other hand, usually appear only under the cover of darkness. Chocó hunters use headlamps and 22-calibre rifles at dusk and after dark. Some farmers spend nights at their fields. They find a good vantage point and remain concealed until animals can be seen by moonlight moving onto the field. The hunter suddenly flicks on his headlamp and the prey stands momentarily immobilized leaving time for a shot. The best time to hunt garden plots is shortly before or just after harvest, when food abounds.
Animal Husbandry and Pet-keeping

The Darién Choco normally keep only the chicken and Muscovy duck (*Cairina moschata*) around villages. The chicken is more common than the duck, but many families have neither. Pigs, once prominent, are no longer allowed around settlements because of government regulations established to eliminate the spread of hoof and mouth disease. Pigs can no longer range freely. They must be enclosed and fed from plots of bananas, corn, tubers, or other fodder. With no such custom, the Indians are uncertain about raising them. Many government and international programs have attempted to reintroduce pig rearing, but almost all have failed. (Isolated families do raise pigs in some areas, such as along the Río Sambú around Quebrada Bado.)

The practice of keeping tamed forest animals around households has changed little since the move into villages. As described in Chapter 5, "pets" are kept for numerous economic and aesthetic reasons. Pet-keeping is a sporadic, fortuitous event that follows few rules. Once, on the Río Membrillo, I saw a hunter and his dogs flush out a doe and her fawn; the fawn was caught while trying to cross the river. Back in the village the fawn ate well, but was ill-suited to domestic life. The confining ropes cut the fawn's sensitive legs causing infections. Rather than lose
the animal, it was eaten. The paca is also sometimes captured, but it never seems comfortable under human care. Wild peccaries, on the other hand, are kept and do quite well as pets. In the village of Común, a man has an adult collared peccary that is better trained than some house dogs. Agoutis are also quite common household pets. Some become so tame that they forage in the nearby forest and return to the house.

Collecting

Collecting is a year-round activity that complements agriculture, hunting, and fishing. The smooth functioning of Chocó village life depends on the easy access to various wild resources. Boys and girls from childhood onward develop an intimate knowledge of forest life. During the periods when certain fruit trees and palms provide a substantial quantity of food (Table 9), collecting might be considered more than supplementary to Chocó subsistence.

Collecting can be casual or systematic. The seasonal rhythms of the forest are closely watched. When a Chocó walks through the forest, he may verbally claim fruits, frons, other forest product. Such verbal claims are usually respected and the items will be collected on a return trip.
Table 9. SOME FOREST PLANTS COLLECTED BY THE DARIEN CHOCO

<table>
<thead>
<tr>
<th>Species</th>
<th>Spanish</th>
<th>Embera</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acronia panaeensis</td>
<td>Palma Vino</td>
<td>Jivaa</td>
<td>Seeds, oil</td>
</tr>
<tr>
<td>Astrocyrtum standleyanum</td>
<td>Chunga</td>
<td>Chonta</td>
<td>Fruit, house posts</td>
</tr>
<tr>
<td>Bactris spp.</td>
<td>Bija</td>
<td>Jatorka</td>
<td>Leaves</td>
</tr>
<tr>
<td>Calathea allouia</td>
<td>Maguala</td>
<td>Oropo, tangará</td>
<td>Fiber, fronds</td>
</tr>
<tr>
<td>Carludolica palmata</td>
<td>Escoba</td>
<td>Bibiruka</td>
<td>Thatch</td>
</tr>
<tr>
<td>Cryosophila warscewiczii</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Datura stramonium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genipa americana</td>
<td>Jagua</td>
<td>Kaparra</td>
<td>Fruit</td>
</tr>
<tr>
<td>Geonoma congesta</td>
<td>Cortajera</td>
<td>Doquidus</td>
<td>Fronds</td>
</tr>
<tr>
<td>Gustavia spp.</td>
<td>Membrillo</td>
<td>Chia</td>
<td>Fruit, wood</td>
</tr>
<tr>
<td>Cynorium assittatum</td>
<td>Caña Brava</td>
<td>Jira</td>
<td>Stake</td>
</tr>
<tr>
<td>Iriartea sp.</td>
<td>Jira</td>
<td>Jira</td>
<td>Bark</td>
</tr>
<tr>
<td>Jasminia polyacarpa</td>
<td>Trupa</td>
<td>Sokarjó</td>
<td>Fruits</td>
</tr>
<tr>
<td>Mantilkara sp.</td>
<td>Zopote, Níspero</td>
<td>Zopote</td>
<td>Fruits</td>
</tr>
<tr>
<td>Oncocarpus sp.</td>
<td>Maquenque</td>
<td>Neme</td>
<td>Fruits</td>
</tr>
<tr>
<td>Orbignya sp.</td>
<td>Pejibaje</td>
<td>Tapara</td>
<td>Fruits</td>
</tr>
<tr>
<td>Piper spp.</td>
<td>Duermeboca</td>
<td></td>
<td>Leaves</td>
</tr>
<tr>
<td>Sabal allenii</td>
<td>Gúgara</td>
<td>Guágara</td>
<td>Fronds</td>
</tr>
<tr>
<td>Socratea sp.</td>
<td>Jira</td>
<td>Epa</td>
<td>Bark</td>
</tr>
</tbody>
</table>
Youngsters venture into the forest in search of ripe fruits from known or likely locations. Women and men, while going to and from agricultural fields, will walk off the trail to cut a ripe fruit, palm leaf, vine, or other material needed at the house. Certain collected items, such as thatch and house supports, are normally collected only by men, whereas fibers used in basketry and certain dyes are normally collected by women.

Palms are among the most important collected plants. *Biiae* (*Heliconia bihai*) is collected from the sunny, sandy banks along the river margin. Large quantities of thatch palm leaves are collected from *guágara* (*Sabal allenii*), the most important thatch material in Darién. Along the Río Sambú *cortajera* (*Geonoma congesta*) is locally important as a source of thatch. Some palms benefit from horticultural activities and they are also seasonally collected from abandoned garden plots. One eagerly sought fruit grows in large bunches on the spiny-trunked *pixbae* (*Guiliema gasipaes*) which commonly grows along waterways in abandoned dooryard garden sites or in old *rastrojo* plots. The *pixbae* fruit is tasty and the yields are high. It is one of Darién’s few domesticated native palms. Another, the *corozó* (*Corozo oleifera*) is also sought throughout Darién’s forest and is planted in dooryard gardens. In damp forests it becomes abundant. Its fruit, which produces a favored
cooking oil, occurs in large numbers on the palm inflorescence. The fruit pulp is cooked with mashed bananas to make a tasty, hot drink.

Chocó do not produce enough wild palm products to meet demands. Near villages along most of Darién's rivers and along the Pan-American Highway, palms have been severely depleted. Along the Ríos Chico and Tupisa, for example, guágara has been exhausted and Indians there substitute naguala (Carlyudovica palmata) and even planutanillo grande (Calathea allouia) leaves for thatch. Considering the importance of forest materials in Chocó material culture, it is surprising that so little is done to ensure a supply. The selective sparing of guágara and regeneration of naguala in swidden plots are among the few indigenous management practices of the Darién Chocó.

Fibers obtained from the forest are used to construct baskets, mats, containers, hats and more items. The small naguala palm, is of greatest importance. Containers and baskets of this fiber are the most common. Basketry is women's work, although men will sometimes collect stalks. Long slender strips are peeled from the green stalks and soaked before the women weave them. Large baskets (chiles), for heavy loads of cargo (60-130 pounds) are made from the bejuco chile (unidentified). This thick, bulky forest vine
is cut into 10 to 15 foot sections and then striped to produce thin durable strands. Smaller containers (for less than 60 pounds) are fashioned from the beijuco real (unidentified), a thin, cord-like liana that is pulled from the canopy. The vine is also used in house construction.

The Chocó use many other forest items. Women cut termite and ant nests from the boles of trees for duck and chicken fodder. Boys seek bee hives for the sweet honey-combed reward. Young girls know the location of the nearest jagua tree (Genipa americana) that yields a dye used for creating designs on their skin. The Indians also collect a number of animals from the water's edge. Bennett (1968:49) recorded that freshwater mussels (sutata, Neabronaias everyi) are gathered from gravel bars in shallow water, but are not particularly important in the daily diet. Snails are also collected occasionally. Highly-prized turtle and iguana eggs are sought in the sandy river-margin.
Cash cropping is the most important component of an increasingly diversified village economy. Today, Indians grow both subsistence and market crops and sometimes they are involved in other cash-earning activities. To increase cash, the farmer normally increases the area of a particular subsistence crop and sells the surplus.

To verify the perceived move toward marketing, 37 villages were surveyed to determine new crop emphasis and the presence of stores and cooperatives in new villages (Table 10). Musa cultivation retains its dominance. Improved accessibility to markets in Panama City has, however, allowed the Chocó to diversify the crops grown for sale. Rice and yams have increased. Corn continues to be an important cash crop and fruits may be locally important. Wage labor in logging, tourism, and even gold mining diversifies the economic activity. As a cash-oriented economy emerges under village settlement, stores and cooperatives have developed to meet the needs of the villagers.

Market accessibility is important. Each river basin has its market place where the Indians sell their crops. In
the Chucunaque Basin, the historic orientation has been
toward the Negro Spanish-speaking town of Yaviza reached by
ocean-going vessels (Fig. 9). From the more remote parts of
the basin, the transport of goods to the port is lengthy and
arduous. Villagers along the upper Ríos Tupisa and Tuquesa,
for example, must travel two days by dugout to reach Yaviza.
From Canaán on Río Membrillo, travel is three days downriver
by dugout to Yaviza. The recent extension of the
Pan-American Highway into Darién, however, has brought
changes in the historic fluvial-maritime orientation of
commerce. Canaán villagers now carry produce overland to
Mete ti, a small settlement of agricultural colonists from
western Panama along the highway. Just downriver from Lajas
Blancas on the upper Río Chucunaque, a secondary road (4.5
kilometers long) was built in 1983. It now connects the
river with the highway. Since completion of the road, Lajas
folk have sold their produce to truckers from Panama City.
Many farmers from the Río Tuquesa also take advantage of
this connection to sell their produce. Indeed, farmers as
far downriver as Salto have profited by paddling their
produce upriver to sell at this road, rather than in Yaviza.

In the Tuira Basin, past market orientation focused on
the confluence of the Chucunaque and Tuira where boatmen
still buy produce. A secondary center is at the Negro town
of El Real. Recently established government warehouses
## Table 10. CASH CROPS AND MARKET ORIENTATION OF THE DARIEN CHOCO

<table>
<thead>
<tr>
<th>Village</th>
<th>River</th>
<th>Market Location</th>
<th>Cooperative</th>
<th>Store</th>
<th>Plantains</th>
<th>Rice</th>
<th>Maize</th>
<th>Corn</th>
<th>Avocado</th>
<th>Beans</th>
<th>Olive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maranjul</td>
<td>Chico</td>
<td>Yaviza</td>
<td>0 X 1 3 *</td>
<td>2 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corozal</td>
<td>Chico</td>
<td>Yaviza</td>
<td>0 X 1 3 4 2 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boca de Tigre</td>
<td>Chico</td>
<td>Yaviza</td>
<td>0 X 1 2 *</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comín</td>
<td>Chico</td>
<td>Yaviza</td>
<td>0 X 1 3 4 2 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nazaret</td>
<td>Chico</td>
<td>Yaviza</td>
<td>0 X 1 2 *</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lajas Blancas</td>
<td>Chucanaque Carretera</td>
<td>X 0 1 2 *</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salto</td>
<td>Chucanaque Yaviza</td>
<td>0 X 2 4 1 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paúl Bijagual</td>
<td>Chucanaque Yaviza</td>
<td>0 0 1 4 2 3 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canasán</td>
<td>Chucanaque Meteti</td>
<td>0 0 * 1 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punta Grande</td>
<td>Tupilas</td>
<td>Yaviza</td>
<td>X 0 1 3 2 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Esperanza</td>
<td>Tupilas</td>
<td>Yaviza</td>
<td>0 0 1 3 2 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barranquillita</td>
<td>Tupilas</td>
<td>Yaviza</td>
<td>0 0 1 2 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulida</td>
<td>Tupilas</td>
<td>Yaviza</td>
<td>0 0 1 2 3 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Villa Caleta</td>
<td>Tuquesa</td>
<td>Yaviza</td>
<td>0 0 1 3 4 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marranqui</td>
<td>Tuquesa</td>
<td>Yaviza</td>
<td>0 X 1 2 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bajo Chiquito</td>
<td>Tuquesa</td>
<td>Yaviza</td>
<td>0 0 1 2 *</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuevo Vigia</td>
<td>Tuquesa</td>
<td>Yaviza</td>
<td>X 0 1 3 2 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unión Chocó</td>
<td>Tuira</td>
<td>Boca Real</td>
<td>0 X 1 3 2 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capetuira</td>
<td>Tuira</td>
<td>El Real (INA)</td>
<td>X X 3 1 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vista Alegre</td>
<td>Tuira</td>
<td>El Real (INA)</td>
<td>X X 1 2 4 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aruta</td>
<td>Tuira</td>
<td>El Real (INA)</td>
<td>0 0 1 4 2 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puente</td>
<td>Tuira</td>
<td>El Real (INA)</td>
<td>0 X 1 3 2 4</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pavarando</td>
<td>Sambú</td>
<td>Sambú (INA)</td>
<td>X 0 1 2 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boca de Trampa</td>
<td>Sambú</td>
<td>Sambú (INA)</td>
<td>X X 1 2 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churucú</td>
<td>Sambú</td>
<td>Sambú (INA)</td>
<td>X 0 1 3 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jirardó</td>
<td>Sambú</td>
<td>Sambú (INA)</td>
<td>X 0 1 2 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boca Guinín</td>
<td>Sambú</td>
<td>Sambú (INA)</td>
<td>0 0 1 3 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chunga</td>
<td>Sambú</td>
<td>Sambú (INA)</td>
<td>X 0 3 1 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atalaya</td>
<td>Sambú</td>
<td>Sambú (INA)</td>
<td>X 0 1 3 2 4</td>
<td>* *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bayamón</td>
<td>Sambú</td>
<td>Sambú (INA)</td>
<td>X X 2 1 *</td>
<td>3</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condoto</td>
<td>Sambú</td>
<td>Sambú (INA)</td>
<td>X 0 1 2 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aguardiente</td>
<td>Mogue</td>
<td>Taímatí</td>
<td>X 0 1 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mogue</td>
<td>Mogue</td>
<td>La Palma</td>
<td>0 X 2 1 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserva</td>
<td>Congo</td>
<td>Boca</td>
<td>0 0 1 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chitola</td>
<td>Congo</td>
<td>Congo</td>
<td>0 0 1 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caña Blanca</td>
<td>Congo</td>
<td>Congo</td>
<td>0 0 1 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mono</td>
<td>Pan-American</td>
<td>Highway Carretera</td>
<td>X X 4 2 1 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pueblo Nuevo</td>
<td>Pan-American</td>
<td>Highway Carretera</td>
<td>X X 2 3 1 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puerto Lara</td>
<td>Pan-American</td>
<td>Highway Carretera</td>
<td>0 X 2 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Order of Value:**
1. Most Important
2.
3.
4. Less Important

* Trace

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
(puesto de compra) of the Ministerio de Desarrollo Agrícola also buy Chocó produce at Unión Chocó and downriver at El Real. A businessman in Yape also sometimes buys corn.

The Negro town of Sambú has served as the commercial center of the Sambú Basin. Until recently, a small number of businessmen, some of them notorious for their unfair dealings with the Chocó, have dominated economic transactions. The Sambú businessmen, like those in the other Negro towns along Darién's rivers, buy Indian produce and sell merchandise at the same time. Products are shipped downriver to Sambú from as far away as Pavaranda, a two days trip by dugout. For more than a decade, the government has purchased quantities of corn, rice, and beans at its warehouse just downriver from Sambú town. Still, the Indians complain they cannot sell on a regular basis, nor will the government buy plantains. Also, government checks for purchases are frequently late.

Extension of the Pan-American Highway, while dramatically altering market accessibility, has introduced competition into Chocó society. A few businessmen of the largest towns historically controlled the market. Now Chocó villagers with access can sell directly to truckers along the highway. Indians at Mono along the upper Río Sabanas once sold their produce to merchants and boatmen in La
Palma, but now sell their produce to merchant truckmen along the highway. Other recently formed communities along the highway look towards Panama City markets. The Indians receive higher prices for produce sold to truckers along the highway than to boatman along the river. In 1983, for example, Chocó farmers were paid $1.50 per 100 plantains along the Río Chico and Tupisa, and $1.35 per 100 along the Río Tuquesa; along the highway near Lajas they were paid $2.50-$3.00 per 100. Thus, a reorientation of commerce is developing among the Darién Chocó as many communities sell their produce to truckers along the Pan-American Highway, a connection that rapidly is becoming the lifeline of Darién.

Stores and Cooperatives

The new cash-oriented interest of the Darién Chocó is manifest by the presence of stores and cooperatives in villages. Many of these are quite recently formed, usually after a community displays a certain permanence and success. Of the 39 villages, 12 had stores, 9 had cooperatives, 6 had both, and 11 had neither (Table 10). The store has become a focal point of village. Women congregate and chat in the early morning while buying breakfast supplies. Chocó on their way to and from the river seem deliberately to pass the store. In the evening, men come to buy single
cigarettes and gather to exchange tales of the day's activities. The stores and co-ops are usually situated toward the center of the village; they symbolically portray the broader integration and participation of the village in commercial activities.

Village cooperatives also sell merchandise. They do not function very differently from stores because they normally only buy commercial merchandise for sale and profit in the village. This was not always true and a large cooperative of the Chucunaque-Tuira Basin once benefited the entire Chocó population in Darién. The cooperative was established during the mid 1970s when the Chocó uncharacteristically struck twice in protest of low plantain prices. A $70,000 boat was bought to transport plantains directly from Yaviza to Panama City, but poor management resulted in default of the loan on the boat. Today, cooperatives are little more than village stores run by a community or a small group of villagers. Cooperatives generally only sell goods and do not buy them. Co-op representatives who buy its goods travel on one of the merchant boats or trucks passing between Panama City and Darién.

The development of cooperatives has been largely promoted by missionaries working among the Chocó. In
particular, the missions of Fa y Alegre and the Catholic Church have helped establish cooperatives. The harvest in many cases has been sold to buy materials to build the co-op. In other instances, co-ops are formed from the contributions of a membership, and only members receive the advantages of the co-op marketing. Bad debts, theft, and poor management often threaten the success of the cooperatives.

The Commercial Crops

Plantains. Plantains continue to be the most important cash crop among the Darién Choco. Reina Torres (1966:28) observed that the Indians of the Tupisa, Yaque, Chucunaque, Yape, Balsas, and Sambú Basins sold plantains. While economic activities have diversified since her observations, plantains maintain preeminence. In 25 of 39 villages sampled (Table 10), plantains are the most important cash crop.

The Indians continue to sell plantains to boat owners as they did in the past, but now fewer vessels make the journey to the remote province. During the 1960s, as many as 8 or 9 boats made the passage. Today, only three vessels
travel regularly into the Chucunaque-Tuira Basin. The Indians know the owners and how many plantains each boat can hold. The vessels Sopresa and Titanic, owned by Ricardo Checa, can carry 400,000 and 600,000 plantains, respectively. The smaller Jincinta, owned by Abigail Bayar, can hold 200,000 plantains, but Bayar does not regularly buy from the Chocó. Instead, he works with Ciro Ayala who owns 40 cabuya of choice plantains along the Río Chico.

The amount of cash a Chocó family receives for plantains varies greatly. Those few Indians with outboard motors and established relations with buyers do much better than others. Isolation also plays a role. Indians living on the Tuquesa River or the headwaters of the Tupisa or Chico Rivers have difficulty marketing their products because of the distance to Yaviza. Gasoline is expensive and shallow waters during summer make transport difficult and expensive. The boat owners send messages (avises) to each river over Radio Mía to tell how many plantains will be bought. Chocó intermediaries with established relations with the boat owners buy plantains from other Indian farmers in distant communities like Barranquillita and Esperanza along the Río Tupisa, and Bajo Chiquito and Marranquinti along the Tuquesa River. Sometimes villages in these distant areas lack basic food items such as salt, coffee, sugar, and cooking oil, because they have fewer
opportunities to sell their produce. Emberá along these rivers and in other areas of poor market access often cannot sell their plantains and much of the crop is lost each year.

What Indians receive for their plantains also varies primarily according to where the fruit is sold. The highest prices are paid directly at the boat (1983, at $2.10 per 100). When a boat owner sends a radio message to a client to bring a specified quantity, usually 10 to 20 thousand, often the seller cannot supply that amount and must buy plantains from other Chocós farmers. An unwritten agreement exists whereby the seller divides the quantity of the aviso among his fellow villagers. Only an authorized seller with an aviso can sell directly to the boat and get the higher prices. In both the Ríos Chico and Tupisa, the recipient of the contract buys plantains from individual farmers (1983, at $1.50 per 100). In the isolated headwaters of the Ríos Tuquesa and Tupisa, farmers receive an even lower price (1983, at $1.30-1.45 per 100). The reduction is understandable given the price of gasoline ($3.75 per gallon). The actual quantity of plantains sold by each family head usually reaches eight to ten thousand plantains each 15 days in summertime. Considerably fewer are sold in wintertime, perhaps seven thousand each 22 days.

The intensive cultivation of the plantain and its
importance as a commercial crop diminish among the Chocó of western Darién. In the Sabanas and Congo basins, the dry season is prolonged and the Indians say plantains do not endure more than a couple seasons. This was one of the factors that caused the 1975 mass migration of Wounan people from Chitola (Rio Congo) to Canaán (Rio Membrillo) where plantains do well and fish and game are abundant. In general, villages away from sandy river bank soils in headwater and interfluve areas cultivate plantains only for subsistence needs.

Rice. Rice plays an expanding role in the commercial agriculture of the Darién Chocó. Several reasons account for the change. One is ecological. Communities with rice as the most important commercial crop are situated on small streams in headwater or interfluvial areas where plantains do not grow well. Six villages—Caña Blanca, Chitola, Reserva, Aguardiente, Bayamón, Chunga—of the 39 sampled have rice as their most important cash crop and all are located away from the sandy levee soils of the lower river valleys. Around these villages plantains must be replanted periodically whereas along river margins plantains are perennial.

A more economic consideration for increasing rice
cultivation is its high market value. Rice normally sells for $12.00 per 100 pounds (one quintal). Rice is also not bulky and is easy to transport. Rice was one of the four most important cash crops among all villages sampled. Also, the Indians have developed a strong preference for rice as food. Thus, as a crop already under cultivation for local consumption, it was relatively easy to increase the amount of rice land. Rice is generally not sold to boat owners, but it is sold to government depositories, local businessmen, and truckers along the highway.

Yams. The Old World yam (*Dioscorea alata*) is another subsistence crop that has recently gained importance as a cash crop. In 1983, when plantain production in the Chucunaque-Tuira Basin plummeted because of drought, many Indians recognized the value of the yam as a drought-tolerant alternative. While yams are cultivated in all Chocó communities, 14 villages have them among the four most important cash crops. Presently, yams are the most important cash crop in three villages, two of which, Lajas Blancas and El Salto, have access to the Pan-American Highway. The third, Capetuira, sells through a cooperative. The importance of this crop will probably increase with improved road access to Panama City markets. Yam prices fluctuate seasonally according to the market supply and
demand. In late August and early September when the first yams become available, the price is high at $.26 per pound. In January and February when yams flood the market, the price is at its yearly low of $.06 per pound.

**Corn.** Corn is the most important cash crop in only three communities, all of which are along the Pan-American Highway where producers command the highest market prices. Corn fits nicely into Chocó agriculture as a cash crop. All villagers grow some corn for household consumption. While usually depending on another major cash crop, like plantains, most farmers simply cultivate larger areas of corn for supplementary income.

**Other Commercial Activity**

While agriculture accounts for an overwhelming proportion of the cash earned, the Darién Chocó practice other economic activities. Some villagers make baskets or wood carvings for sale. Elsewhere some logging and mining occur. Nearly every component of subsistence production has been somewhat commercialized. Beyond the important cash crops, fruits are seasonally important. Avocados have a high market value ($25.00 per 100) and some Chocó have a
number of trees in their fincas. Seasonally abundant products like citrus, bananas, zapote, and sugar cane, are sold. Commercial exchange now occurs between villagers when individuals sell surplus production.

The Darién Choco have long sold forest and other products. Natives formerly harvested *digero* (Manilkara sp.) and *raicilla* (Geoffelia sp.), but these are of little importance today. With most accessible river margin forests already cut, commercial logging, while widespread, appears important only locally among those few who have chain saws. As in the past, however, natives work for cash wages at non-Indian logging operations. The Darién Choco have worked as wage laborers in all the major gold mining operations in the province, from the largest and earliest at Cana in the upper Río Tuira to the recent smaller placer operations along the Ríos Tuquesa, Tuira, and Mogue. Indians, some with handmade wooden pans, still pan for gold along Darién’s rivers, the small output of which they sell to businessmen in non-Indian towns.

Wild and domestic meats also enter into village commerce. Villagers will commonly sell any surplus catch after the family has taken its allotment. With government restrictions against the raising of cloven-footed animals, however, fresh meat is in short supply. Pigs are sometimes
brought into a community from outside the restricted zones particularly near the highway; there they are butchered and sold. The meat sells at $1.00 per pound. Chicken sells at the same price while duck brings $.70 per pound. Wild meats also have commercial value. Paca and white-lipped peccary sell for $.60 per pound. Deer, collared peccary and two prized fish species (the sabalo and doncella) bring $.50 per pound. Eggs ($.10 each) also sometimes enter into commerce.

Chocó baskets, prized by tourists in Panama City, are sold by some individuals. Marketing efforts have not been made by Chocó leaders to augment these sales. Chocó wood working, when available, is also prized by tourists, but carving skills are not widespread among the natives. One of the most recent commercial ventures of the group took place at Mogue where tourism is being developed. A tour boat owner made arrangements with village leaders to have the natives meet the tourists to show off their village and to sell their handicrafts. The natives enjoy the activity and often make jokes about the fat tourists, but it also seems to provide the Emberá with a sense of worth for the traditional components of their culture. Before the tourists arrive, villagers put on traditional dress and the women paint their skin with jagua. Village leaders express desires to maintain an agricultural base and they realize that tourism provides additional income without the
difficulty of opening new lands.
Chapter Ten

From Dispersed to Village Settlement: The Case of the Village of Lajas Blancas

Emberá colonization and settlement of Lajas Blancas along the mid Río Chucunaque show past and present Chocó landscape patterns. Initial settlement resulted from sector fission at Manené along the Río Balsas. Lajas' founders migrated in search of agricultural lands and abundant fish and game. They first settled the high banks around the mouth of the Río Ucurganti. The riverine sector at Lajas was the most recent upriver extension along the Río Chucunaque and illustrates the Chocó historic tendency to settle resource-rich lands. Settlement there produced the typical Chocó landscape of post-dwellings dispersed along the rivers (Fig. 4).

The Lajas Blancas sector was first occupied by Emberá during the 1960s. At the time, the Manené sector on the Río Balsas was reportedly well-settled with little unclaimed arable land. Reneiro Guaynora (now the second chief of the Darién Chocó) arrived first at Lajas in 1964. At the time, the Chucunaque was, except for a few Negro lumbermen, unoccupied from the mouth of the Tuquesa upriver until the confluence of the Subcuti. Guaynora heard tales of the rich game and good agricultural lands there from former Manené residents who had settled the Río Chucunaque downriver at El
Salto. Guaynora built his house and other Manene kin and friends followed (Reneiro Guaynora 1983, personal communication). Within a year or so, four other Manene families settled in the Lajas sector, including Narciso Marmolejo, Angel Mesua, Olbadia Guaynora, and Pheledesmo Dequia. They helped each other to clear house sites, to cut agricultural plots, and to build houses. One cabuya of land was reportedly cleared for each house site. They had brought grain and produce with them from their previous harvest in Balsas, and hunted and fished for food. House construction took time. Some of the family's members stayed with Reneiro while others stayed with friends who had previously settled at the mouth of the Río Tuquesa. More families followed gradually from the Río Tuquesa and Chico until the end of the 1960s, when the Lajas sector was well-settled by about 50 individuals.

Village organization came to Lajas Blancas in 1970 following the General Congress at El Salto (see Chapter 7). At the Congress, it was proposed that dispersed Lajas settlers be relocated downriver at El Salto. Reneiro Guaynora went to the Congress and returned to discuss the relocation with Lajas families. A missionary, David Escobe of New Tribes Mission, had some influence among Lajas settlers. Upon discussion, family leaders decided Salto was too far from their newly settled lands, cleared fields, and
game supply. They resolved to form their own Christian community of the Lajas sector.

The new settlement represented little more than the relocation of dispersed households of kin into an agglomeration. Several extended families formed the core. Eight family heads are recognized as the founders: Hemenegildo Dequia, Gregorio Guaynora, Juan Guaynora, Olbadia Guaynora, Reneiro Guaynora, Teodolinda Guaynora, Narciso Marmolejo, and Angel Mesua. The house site of Narciso Marmolejo was chosen as the village site because it occupied the largest area of land above flood waters. The community was named for the "white clays" (lajas blancas) that form the high cut bank there. The men cleared the village site and relocated their homes. Useful materials from the former houses were loaded into dugouts for shipment to the village clearing. Families working collectively helped one another to collect the large quantities of guagacá palm leaves for roof thatching. Somewhat later, they built a school, teacher's dorm, and meeting hall of local materials. A new school and health center have since been built of cement blocks with funds provided through international development agencies (Fig. 12).

Lajas settlers continued to cultivate previously cleared fields at their former house sites. Some farmers
Figure 12.
began to cultivate lands behind the village. Gradually more families moved to Lajas. The village structure was initially clan-like with few outsiders, but steadily families of friends diversified the population. In 1983, 18 different surnames were recorded, but Guaynora continued to be the dominant family name. Lajas has become one of the largest and most prosperous Chocó communities with about 300 villagers, but population counts varied considerably throughout my study period (with 285 were counted in October 1982; 279 in April, 1983; and 304 in July, 1983), when relatives visited and then stayed and others moved from the village. Lajas Blancas is predominantly an Emberá community, but also contains two Wounan families, one Chiricano, and one Negro family.

Cash-Oriented Subsistence

Lajas Blancas is a picturesque village of thatched-roofed post dwellings nestled among palm and fruit trees along the middle Río Chucunaque, just downriver from the Río Ucurganti (Figs. 13). The village of 35 extended families, sits atop a high cut-bank with all dwellings confined to the south bank. Almost all lands within a couple of kilometers behind the village have been cultivated and are presently covered with cultivated plots amidst
Figure 13. AGRICULTURAL LANDS OF LAJAS BLANCAS - 1983

- Rastaña and Cultivated Lands
- Monsoon Forest of Varying Age

kilometers

Panamerican Highway

Dirt Road (4.5 km)
variably-aged castrojo.

Life in Lajas is representative of other Chocó villages. Still, it should not be considered "average." Lajas Blancas is larger than all but five Chocó communities. Village political structure is somewhat better organized, because Lajas is the home of the second chief of the Chocó. Most atypical, however, is the community's dependence on the yam as its most important commercial crop, a distinction shared with only one other village. Such emphasis may distort the size of the cultivated area because yams are continually cultivated in castrojo, enlarging the size of individual holdings. Also, Lajas has relatively easy access to market. Otherwise, conditions in Lajas Blancas are similar to those in other Chocó villages.

In 1983, the subsistence region adjacent to the village included a large area of agricultural, hunting, and fishing lands. Hunting grounds extended farther from the community than fishing or farming activities with some areas up to 20 to 35 kilometers away. Generally, all farm lands were within five or six kilometers of the settlement. Families continued to manage groves of fruit trees around their former house sites. With village growth and increasing involvement in cash cropping, however, Indians cleared the tall monsoon forest away from the river behind the village.
Lands across the Chucunaque towards the Pan-American Highway came under cultivation shortly after the road reached Canglon in the mid 1970s when villagers began to clear forests along a foot path connecting the river with the highway. The holdings of all landowners in the village are mapped generally (Fig. 13) and cataloged in detail (Table 11) based on field work. The subsistence region, of course, includes other distant garden plots and areas of fishing and hunting.

Dooryard Orchard-Gardens. Dooryard gardens are well-developed only around houses belonging to the earliest village settlers. Generally, these are located behind households at the margins of the settlement (Fig. 12). These gardens contribute little to village subsistence or commerce. While several families cultivate sizeable areas, most do not. Cultivation is so reduced that the gardens can be considered in terms of the number of plants grown rather than the area of land cultivated (Table 11). Nevertheless, while unimportant in the overall agricultural production, dooryards produce useful fruits (sometimes abundant enough for sale), medicines, condiments, and ornaments—all quickly available from around their houses.
<table>
<thead>
<tr>
<th>Family</th>
<th>Total Land (Ha.)</th>
<th>Quema (No. of Plants)</th>
<th>Area of Maize Cultivation</th>
<th>Area of Rastrojo</th>
<th>Total Cash Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7.0</td>
<td>40</td>
<td>1.5</td>
<td>.5</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2.5</td>
<td>12</td>
<td>1.5</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>8.0</td>
<td>44</td>
<td>4.0</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>25</td>
<td>1.25</td>
<td>.25</td>
<td>1.25</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>25</td>
<td>1.25</td>
<td>.25</td>
<td>1.25</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>14</td>
<td>3.0</td>
<td>.5</td>
<td>2.5</td>
</tr>
<tr>
<td>7</td>
<td>19.25</td>
<td>50</td>
<td>3.25</td>
<td>.25</td>
<td>2.0</td>
</tr>
<tr>
<td>8</td>
<td>19.25</td>
<td>50</td>
<td>3.25</td>
<td>.25</td>
<td>2.0</td>
</tr>
<tr>
<td>9</td>
<td>5.5</td>
<td>15</td>
<td>1.5</td>
<td>1.0</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>10.25</td>
<td>50</td>
<td>3.0</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>11</td>
<td>6.5</td>
<td>20</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td>3</td>
<td>2.0</td>
<td>1.0</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>9.0</td>
<td>20</td>
<td>.75</td>
<td>.5</td>
<td>.25</td>
</tr>
<tr>
<td>14</td>
<td>5.5</td>
<td>15</td>
<td>1.0</td>
<td>1.0</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>13.25</td>
<td>20</td>
<td>1.0</td>
<td>.5</td>
<td>.5</td>
</tr>
<tr>
<td>16</td>
<td>8.75</td>
<td>25</td>
<td>1.25</td>
<td>.25</td>
<td>1.0</td>
</tr>
<tr>
<td>17</td>
<td>4.65</td>
<td>20</td>
<td>1.3</td>
<td>.5</td>
<td>.5</td>
</tr>
<tr>
<td>18</td>
<td>19.25</td>
<td>40</td>
<td>.75</td>
<td>.25</td>
<td>1.0</td>
</tr>
<tr>
<td>19</td>
<td>2.5</td>
<td>8</td>
<td>1.50</td>
<td>.25</td>
<td>1.25</td>
</tr>
<tr>
<td>20</td>
<td>13.25</td>
<td>12</td>
<td>3.0</td>
<td>1.1</td>
<td>1.0</td>
</tr>
<tr>
<td>21</td>
<td>7.0</td>
<td>50</td>
<td>1.5</td>
<td>.25</td>
<td>.75</td>
</tr>
<tr>
<td>22</td>
<td>10.0</td>
<td>7</td>
<td>2.0</td>
<td>.5</td>
<td>1.5</td>
</tr>
<tr>
<td>23</td>
<td>1.75</td>
<td>0.0</td>
<td>.25</td>
<td>.25</td>
<td>1.0</td>
</tr>
<tr>
<td>24</td>
<td>30.75</td>
<td>55</td>
<td>1.5</td>
<td>.5</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>14.5</td>
<td>4</td>
<td>3.5</td>
<td>2.3</td>
<td>1.25</td>
</tr>
<tr>
<td>26</td>
<td>5.75</td>
<td>12</td>
<td>2.75</td>
<td>5</td>
<td>2.25</td>
</tr>
<tr>
<td>27</td>
<td>13.0</td>
<td>30</td>
<td>1.50</td>
<td>.5</td>
<td>1.5</td>
</tr>
<tr>
<td>28</td>
<td>17.0</td>
<td>6</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>29</td>
<td>18.0</td>
<td>30</td>
<td>2.25</td>
<td>.25</td>
<td>1.50</td>
</tr>
<tr>
<td>30</td>
<td>7.5</td>
<td>30</td>
<td>1.5</td>
<td>.5</td>
<td>1.0</td>
</tr>
<tr>
<td>31</td>
<td>5.0</td>
<td>15</td>
<td>1.5</td>
<td>.5</td>
<td>1.0</td>
</tr>
<tr>
<td>32</td>
<td>6.65</td>
<td>20</td>
<td>.75</td>
<td>.5</td>
<td>.5</td>
</tr>
<tr>
<td>33</td>
<td>4.0</td>
<td>50</td>
<td>1.3</td>
<td>.5</td>
<td>.5</td>
</tr>
<tr>
<td>34</td>
<td>6.65</td>
<td>20</td>
<td>2.0</td>
<td>.5</td>
<td>1.5</td>
</tr>
<tr>
<td>35</td>
<td>9.0</td>
<td>12</td>
<td>2.5</td>
<td>1.0</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Information based on interviews with land owners and field checking when possible. All land areas are listed in cabuyas; one cabuya equals 3.67 acres.

When the land owner could not recall cash income, I estimated the cash income based on a weekly average number of quintales (100 lbs. each) that the farmer sold, multiplied by the average harvest period of 20 weeks.

Land holder living with relatives.

Intercropped species of some importance.
Slash-Burn Agriculture. Slash-burn cultivation accounts for only 18 percent of the total agricultural land (Table 11), but is the most important agricultural system of the village. All landowners have plots. Yam, rice, and corn dominate the 62 cabuyas under cultivation. The largest area, just over half (52%), is planted to yam, the villagers most important cash crop. Rice is grown on one-third (32%) of the land and almost all harvested is eaten in the village. Corn covered only one-sixth (16%) of the land. Only small portions of these fields are intercropped with other plants especially yuca, otoe, and fampi.

Where the Chocó locate their fields is primarily determined by crop type. Another factor is the length of time a farmer has lived in the village because the earlier settlers claimed nearby lands. Rice is cultivated in both the hilly interfluves and rich low-lying soils behind the natural levee. The latter, however, are most desirable, producing the highest yields. Yams are grown on hilly slopes where soil texture is better-suited for tuber development. Corn, yuca, and otoe are cultivated on interfluvial soils outside the floodplain. An individual’s fields are thus not normally contiguous, but often are separated by a one to two hour walk.
Plantains and Bananas. Plantain and banana cultivation accounts for 11.5 percent of the agricultural land with a total of 38.75 cabuyas under cultivation. Unlike other Chocó communities where plantains are the most important cash crop, in Lajas they are grown largely for household consumption. All landowners have plantains; bananas are considerably less important.

The musas are cultivated on the natural levees and hilly interfluves. Most of these lands are situated away from Lajas because nearby lands are not suitable and the fruits tend to be pilfered by transients. Generally, interfluvial musa plots (sometimes with only 500 plants per cabuya) are less intensively cropped than levees. Other musa cultivation continues at the "abandoned" orchard-gardens at former dispersed house sites. These have been maintained through periodic replanting over the past 15 to 20 years.

Agroforestry. As a recent adjustment to village life, farmers raise fruit trees in outfield areas (fincas), away from the heavy traffic and compacted soils of the village. Not all Lajas farmers have fincas. Only 4.4 percent (15 cabuyas) of the agricultural lands are under this orchard-like cultivation. Fincas are generally on elevated
interfluvial soils that are not subject to flooding.

Some fincas were former dooryard orchard-gardens from the era of dispersed settlement. The older ones have been maintained since initial colonization of the Lajas sector. These gardens are impressive multi-storied orchards planted to a diversity of domesticated and semi-domesticated fruit trees. While fincas are not normally considered as a part of the villager's commercial production, some produce a seasonal surplus of fruit that can be sold.

Regrowth Cultivation. Rastrojo lands are a fundamental component of subsistence life in Lajas. In 1983, the natives recognized 214 cabuyas or 63.8 percent of the total agricultural land under rastrojo management. Of this, 84.5 cabuyas or roughly 40 percent were replanted with yam. Land under rastrojo regrowth is recognized as the private property of the individual who initially cleared and cultivated it. Rastrojo lands surrounded Lajas, resulting from the abandonment of agricultural fields. The distance to any particular field varies greatly. Some are adjacent to the community while others are near the Pan-American Highway or along the upper reaches of the Río Ucurganti. Most rastrojo lands, however, are located within two hours walking distance from the village.
All farmers in Lajas "own" castrojo land. Most manage part of these lands to some degree. Farmers tend fincas in some plots and yams in others. Lajas Emberá create themselves a sort of "natural bank" where the cash value of the farmer’s yam tubers is stored in his castrojo lands, like an account gaining interest, to be withdrawn when needed. Villagers replant their castrojo fields seasonally, some with from ten to 20 thousand or more "seeds" (Chapter 8).

Regrowth vegetation serves another role in Lajas subsistence as fallow for slash-burn and slash-mulch cultivation. Slash-mulch cultivation, however, is relatively unimportant and only six families cultivated a total of 5.5 cabuyas. A multiple use resource area, regrowth areas are frequented by village hunters and useful plant products are collected from them.

Hunting and Fishing. Hunting remains the most prestigious economic activity in Lajas, but it no longer contributes greatly to subsistence. The amount of time devoted to hunting and fishing depends on the villager’s involvement in agriculture. Most landowners hunt only three or four times a month, usually on day trips. Only 22 villagers had
functioning firearms (all being some variation of the 22-caliber rifle). With lulls in the agricultural schedule, however, villagers take time to travel to isolated hunting and fishing grounds.

Game has been severely reduced near the village. Within one-day, round-trip foot travel, a distance of 10 to 15 kilometers, large mammals have been virtually removed. Only castrero commensals survive. This is less true for birds and fish. Some fish and crustaceans can still be caught near the village, although they are not as abundant or as easily caught as in unsettled areas. During summer, fresh-water shrimp and crabs are taken from the clay banks that extend upriver to the mouth of the Rio Ucurangi. The depletion of the wildlife around Lajas is noteworthy, however, because the area has been settled for only two decades. To find game, Lajas hunters travel distances to remote hunting and fishing grounds when time permits. February and March, when fields have been cut and are drying for the burn, has become an important time for hunting, which is also easier and more effective during the dry season. During these months, Lajas farmers may take a week (or two) long hunting trip into the distant headwaters of the Ríos Ucurangi, Tuquesa, and Membrillo.

The hunting region for Lajas Blancas in 1983 included a
large zone beyond agricultural lands. Generally, hunting territories fit into two types: (1) those nearby, frequently visited, but largely exploited of wild resources, covering an area from the highway to the Quebradas Quatro, Logia, and Felix to the lower Ucurganti; and (2) those isolated areas where villagers traveled on extended hunting and fishing forays.

Commercial Economy

Commercial agriculture in Lajas Blancas has changed in recent years. Historically, residents of the sector floated downriver in dugouts for 20 hours to sell their plantains to boat owners at Yaviza. Even after village formation in 1970, villagers continued this practice. Towards the end of the 1970s, with the opening of the Darién Gap Highway, farmers began to carry produce to the road. At the same time, the villagers, upon hearing advice of agricultural specialists and missionaries who were in the area, chose collectively to concentrate on the yam market at the highway.

The Emberá village earned nearly 90 percent of its total income from yams (Table 11). The harvest lasted from late August until March. Over the year, prices
fluctuated according to market supply and demand. In August, when yams were in short supply (available only from Cástrojo), the price was highest at $.25 to .29 per pound. As the slash-burn crop matured, the market price fell with monthly prices from $.25 per pound in September; to $.16 per pound in October; $.09 per pound in November; $.07 per pound in December; and to a low of $.06 per pound in January. Toward the end of harvest, as production dropped off, the market price rose again.

Lajas commercial activity had focused on the Pan-American Highway by the late 1970s. A five kilometer long jungle trail connected the road with the Río Chucunaque a couple of river bends below the community. Lajas folks simply floated their yams downriver to the "port," from where they carried basket loads overland to the highway (Fig. 13). There, truckers weighed the produce on spring scales and paid by the pound. Most families carried from 150 to 350 pounds (1.5-3.5 quintales) each week. A grown man could carry a full quintal (100 pounds), while a woman or boy took half as much. Even youngsters carried some tubers in their baskets.

Market day was a festive outing that drew most villagers to the highway each Sunday. Some villagers came to the road without any produce just for the fun of it.
After the sale, they could buy merchandise (cloth, sneakers, pants, or any of a wide variety of items unavailable in the community) that truck vendors sell along the highway. The merchandise for the village cooperative was also picked up from these merchants and Lajas folk then divided the weight among themselves to carry back to the community's co-op. The Indians treated themselves with cold soft drinks, sweets, and general playfulness at the highway juncture after business.

Another profound change in market access occurred in early 1983 when a dirt road was constructed between the Pan-American Highway and the Río Chucunaque, largely along the former foot path. The completion of this secondary road put an end to the periodic market. Now, when the road is passable, truckers can reach the river. Lajas villagers simply float their produce downriver for sale. The secondary road has altered other aspects of community life. Commerce is increasing. Yams are no longer sold on a regular basis, but can now be sold to truck merchants nearly any day of the week. In the past, the quantity of yam tubers any farmer sold was limited to the total tuber weight he and his family could carry to the highway, but now some farmers sell two or three times as much directly from their loaded dugouts.
During 1983, economic conditions within the village were strained from June to August when yam fields were not in production. Villagers try to plan for these lean months when yams are not in production because they must continue to supply many daily food and household items bought with cash. Now that yam tubers can be sold more easily, however, a danger exists that some farmers, in need of cash, will deplete their yam fields and thus their cash supplies too rapidly, leaving them without sufficient reserves to sustain the family throughout the year. The secondary road has also brought some social dissent among the villagers. With easier access to market, the village cooperative no longer serves its previous important role. In June, 1983, two community members began selling commercial items for profit, opening up free enterprise, but disrupting the harmonious cooperative spirit of the community.

Summary

Lajas Blancas is a large Emberá village of 300 individuals in 35 extended family units. The family serves as the fundamental economic unit for both subsistence and commercial production. The average family size during 1983 was about eight, but family size reached as high as 17. Agricultural lands covered 335.25 cabuyas (4.98 sq. km.), or
an average of 9.32 *cabuyas* per family. Of this average, 1.77 *cabuyas* were under slash-burn, 1.07 *cabuyas* under plantains and bananas, .41 *cabuyas* under agroforestry, and 5.94 *cabuyas* under *castrojo*, of which 2.34 *cabuya* were planted with yam tubers.

Of course, villagers used additional lands beyond the agricultural fields. Fish and game, as well as forest materials, were exploited from a much larger zone surrounding the village. While hunting parties often traveled greater distances on extended hunting and fishing trips, lands most frequently exploited were within one day’s round-trip travel by canoe and foot. Around Lajas these lands were usually within 10 to 15 kilometers in any direction from the village, including the upper Quebradas Sanson and Felix, to the Río Tuquesa, and up the Río Chucunaque and Ucurganti. These lands (roughly 550 square kilometers), considering Lajas’ frontier situation, might cover a larger area than other villages. In the Lajas case, each person requires roughly 2 square kilometers under the present cash-oriented subsistence economy of the village.
Part V: Indians and Rain Forest Converge
The Chocó Indians have had contact with colonial and national societies for centuries, yet much of their culture remained little changed until two decades ago. For centuries, Chocó social structure has been essentially egalitarian, without formal tribal leaders, chiefs, councils, or a structure of elders. Traditional Chocó culture can be defined by common language, kinship ties, subsistence, and custom. Territoriality never characterized the group and the Chocó did not delimit tribal lands. Instead, they settled along river margins regardless of political boundaries and maintained a nostalgic pride for their river of birth. Not surprisingly, however, the ethnic claims to Darién's rivers have changed over time and the Chocó now live on lands once settled by Cuna Indians.

The absence of territoriality and formal leadership to solidify political unity are implicit in the past Chocó landscape. Settlement consisted of dispersed household units in a distinctive riverine pattern. The extended family served as the settlement unit. The family head held the highest authority and allocated household resources and settled disputes. Only sometimes was a kin group along a river guided by the eldest or most-respected male. No large
agglomeration of dwellings existed. Thatched-roofed, post dwellings were scattered along the river banks, usually on levees and high alluvial terraces. Settlement densities varied depending on river settlement history, but houses generally sat at least a couple of hundred meters from one another, with intervening forests and river bends blocking the neighbor’s view.

Chocó families formed loose clusters or "sectors" of closely related households as they occupied vacant stretches along the river. These sectors were often named after a local stream, river bend, common fish or plant. The most densely settled sectors were usually located in the mid reaches of the river, normally below the seasonal limits of canoe navigation. Land ownership within each sector developed with usufructuary rights and the transfer of property occurred along kinship ties. At marriage, the son usually received a parcel of his father’s land from his natal riverine sector. Should no high bank land be available, newly-weds settled on unclaimed land farther up or down river. High population densities within the sectors along one river eventually led newly-weds into to another river valley rather than agglomeration and expansion into the surrounding forest.

Traditional Chocó subsistence patterns related closely
to the dispersed settlement pattern. Economic activities were arranged in three zones surrounding the house. The first zone, on the best levee soils, contained the house and animal pens, then up- and down-river was the plantain-banana grove with the cultivated dooryard orchard-garden behind surrounding the house. The second, intermediate zone, consisted of swamplands and monsoon forest of a varying extent, but was generally less than a kilometer wide. Many useful plants and animals were found here. The third zone, away from dooryard pigs, contained important grains and tubers. Occasionally, other areas were cleared for additional grain cultivation across the river.

Traditional Chocó settlement and subsistence patterns appear well-suited to the rain forest environment. Dispersed settlement does not lend itself to group hunting, fishing, or collecting. Faced with the fragile nature of game resources under rain forest conditions, the slight population density of traditional Chocó settlement would seem to permit a more stable subsistence strategy than village life. This is not to suggest the Chocó consciously selected this settlement pattern to adapt to environmental conditions. Rather, traditional Chocó settlement reflects historical events unrelated to rain forest ecology. Despite how ecologically well-adapted Chocó settlements appear, they do deplete game in a local area (Eder 1963:54,57; Torres de

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Arauz 1966; Severino 1959:85). Indeed, game depletion is the most important historic factor, albeit an ecological one, initiating settlement relocation. It is a propelling migratory mechanism in traditional Chocó society, causing Indian families to move three, four, or more times in a lifetime.

During the 1960s, Chocó life was deeply altered. Basic economic considerations set the stage for the changes. With increasing exposure to Western products in the early twentieth century, the Indians entered the cash economy, trading for certain products, especially machetes, axe-heads, pots, pans, then later, rifles, bullets, and manufactured cloth. In traditional Chocó culture, reciprocity and exchange occurred in kind, but in a cash economy, paper money rules. To earn cash, Chocó farmers began to sell agricultural produce. This brought them into contact with Spanish-speaking Negros in Darién’s market centers of Yaviza, El Real, La Palma, Sambú, and Jaque. To deal with merchants, communication in Spanish became a necessity. Chocó participation in the cash economy contributed, in a big way, to their adoption of Spanish as an important second language, a sort of lingua franca of commercial and educational significance, at the expense of their native dialects.
Ecological conditions have pushed the Chocó further into cash-earning activities. Much of the Darién Province has been set-up to serve as a buffer zone against the northwestward spread of hoof-and-mouth disease from Colombia into Panama and Central America. National laws and international agreements place restrictions on the raising of domestic cloven-footed animals. Emberá and Wounan populations, prohibited from practicing their traditional pig husbandry, rely on wild fauna for fresh meat. Game animals are now reduced or completely removed from all but the most remote interfluves and headwater areas. The Indians pay cash for canned meat and increasingly depend on other imported foodstuffs and Western products. Most Chocó earn cash, almost exclusively, by selling their agricultural produce, including plantains, rice, corn, and yams. They simply increase the amount of land cultivated to earn more cash.

The early development of village settlement was a slow evolutionary process. The first “villages” were little more than a handful of hut-households surrounding a thatch-roofed school. The older generation of Indians had experienced the gradual, yet persistent, increase in contact with the outside non-Indian economy. Parents realized that their children would not be able to deal effectively with outsiders without being able to communicate in Spanish.
Some complained to local political authorities that the government should provide teachers and schools for their riverine sectors. The government complied with their wishes and the first agglomeration of Chocó settlements began in the 1950s. Some villages formed as a result of missionary indoctrination. By 1960, six communities had developed: three around schools and three around missions. While these early initiatives reflected the wishes of some Indians, relocation into villages was not, at first, widely accepted.

In the 1960s, a mysterious explorer and adventurer, Harold Baker Fernandez, who later worked as a missionary among the Choco, arrived in the Darién. Nicknamed "Perú" by the Emberá, he adopted certain Indian ways, learning Chocó problems from an insider’s perspective. The Darién Chocó say he taught them the importance of educating youngsters, securing land rights, and gaining effective control of their traditionally occupied territory. To many Chocó, Perú is a larger than life folk hero. He envisioned village formation as the mechanism by which the Chocó could ask government officials to provide teachers, schools, medical supplies, and, ultimately, a comarca, or semi-autonomous political region under Panamanian law that guarantees Chocó rights to land and resources. The prior knowledge of the Cuna experience of establishing their own comarca may underlie the broad acceptance and adoption of village settlement.
among the Chocó. The village settlement model, however, resulted from a complex of factors, including economics and educational and missionary influences coupled with national and international policies. After 1963, the village model spread widely across Darién. During the early stages, Perú played a vital role and traveled to many riverine sectors to instruct the natives of the need to organize. Perú's initiative marked the first attempt towards province-wide mobilization to organize the dispersed Chocó populations.

The government of General Omar Torrijos invited the Chocó to define their own political structure within the area they inhabited. The first National Indian Congress was held under the new Torrijos administration in 1968. The General enlisted Cuna Chief Estanislao Lopez to aid in the effort. Lopez instructed Chocó representatives of the need to organize their populations. Lopez, given authority by General Torrijos, appointed a chief for the Darién Chocó who in turn nominated other chiefs. In one swift action, the traditional egalitarian organization developed a ranked social structure. Formal adoption of a new political organization came in 1970 when the Darién Chocó held their first provincial congresses at two newly-formed villages. The nominated chiefs were confirmed by popular vote. Village leaders (nokos) were chosen for certain riverine sectors and populations were encouraged to settle into
communities. By forming villages the Chocó were told they would receive government aid and support. Between 1968 and 1972, 25 new communities were established. Another 17 communities have formed since that time.

Village settlement now dominates the cultural landscape of the Darién Chocó. In 1983, 53 Chocó villages lined Darién's rivers; 37 were Emberá, 12 were Wounan, and 3 contained a mix of both language groups. One village along the Pan-American Highway had Emberá living with agricultural colonists from western Panama. Three-fourths (8,622) of the entire population (11,140) of the Darién Chocó have adopted village settlement. Roughly one-fourth (2,518) of the Darién Chocó remain in scattered riverine settlements.

Population growth is no longer accompanied by simple up and down river extensions. Households now form villages. Settlements normally occur on the high levee lands and alluvial terraces, but a few are on hillsides. While villages vary in size, from 25 to over 450 individuals, some general conditions are widespread. Households are clustered in a large area cleared of its natural vegetation. Village settlement, with few exceptions, is confined to one side of the river. The "village model" focuses on the construction of a schoolhouse, teachers' dorm, meeting hall, and usually also a village store, basketball court, and sometimes health
center. The native monsoon forest has been removed for two to six kilometers behind the village, depending on settlement size. The intervening zone is covered with a patchwork of small cultivated clearings and extensive tracts of regrowth vegetation. Most lands within reasonable round-trip walking distance are claimed and under cultivation or regrowth. Agriculture is now composed of a number of outfield systems for both subsistence and, increasingly, commercial crops. Chocó horticulturalists now tend fruit trees in orchard groves distant from the village. Their diverse agricultural system includes slash-burn and slash-mulch plots, banana/plantain plantations, agroforestry, castrojo management and even some sandbar cultivation. Collecting and especially hunting and fishing occur distant from the village (Herlihy 1985, 1985a).

Village settlement and the extension of the Pan-American Highway into Darién have brought a drastic reduction in wild plant and animal resources. Natural savannas do not occur in Darién. With intensification of land use, however, the establishment of tropical savannas on previously forested lands seems inevitable. The role of fire in the establishment of savannas has long been understood (Budowski 1956:24; Parsons 1980). Under moderate population intensity, Chocó agriculture permits the regeneration of tall monsoon forest. Some Indians even grow
tree gardens that are capable of sustained agricultural use. But, increasing demands for agricultural lands under rapidly expanding cash economies interrupt the re-establishment of taller monsoon forest. The traditional long-cycle agricultural system of Chocó farmers gradually changes to a shorter one. Man-made savannas result from this repeated cutting and burning of agricultural lands. Localized savanna-like vegetation already surrounds many of Darién's more densely settled communities. The invasion of exotic grasses and other ruderal plants along the Pan-American Highway suggests the process may accelerate in the near future. During the drought of 1983, fires swept over fallow lands and regrowth plots along the highway from Canazas to Canglon giving much of the landscape an open savanna-like aspect. As yet, exotic grasses have not crossed the Chucunaque-Tuira barrier, but with secondary road development such introductions seem inevitable. Intensifying demands on agricultural lands, coupled with the further establishment of castrojo, and the impact of run-away fires during extended dry seasons suggest that soon savannas—with drought resistant pyrophytic plants—will become a widespread component of the Darién landscape.

The population and range of Darién's fauna declines with these changes. This is especially true of the larger birds, mammals, reptiles, and amphibians (see estimated
population status of various game animals in Table 7). Hunting and deforestation pressures are responsible for these changes. Ever-growing demands for agricultural lands by cash-oriented subsistence economies accelerate habitat destruction. Today, commercial loggers further threaten to reduce animal populations with roads that allow access to more remote areas of forest away from the Pan-American Highway. Such broad removal of forested habitats will hasten the extermination of wild animals.

In some areas of Darién wildlife is protected. The Darién National Park includes a forested area of roughly 597,000 hectares along the border with Colombia. While this is a massive area, Indian land use (both Chocó and Cuna live in the area) is more significant than their moderate level of technology might suggest. Even in the more remote areas within the park along the upper Tuira, Balsas, and Sambú, game animals are reduced. Indian subsistence needs are exacerbated by the restrictions against raising pigs. Wild fauna must meet demands for fresh meat and fish. Game is so depleted in areas nearby settlements that without domestic sources the Chocó eat canned meats when they can afford them. As yet the park has no zoning, but a Master Plan proposes zones of absolute conservation, cultural conservation, cultural activity, and development. As it stands now, Indians from within and outside the park travel
to isolated stretches to find good hunting.

Another "protected" area in Darién is the Indian reserve established along the Río Chico in 1957. In reality, however, this area holds no special natural or cultural status. A national forest is situated between Canglon and Yavisa at the terminus of the Pan-American Highway, but it also lacks delimitation. The area is protected by law, but is presently being dissected by the Canglon-Yaviza link of the highway and is already colonized by Colombian Negros and Panamanian mestizos.

Chocó Indian subsistence depends on the tropical rain forest habitat. Despite the presence of officials from the Department of Renewable Natural Resources (Dirección Nacional de Recursos Naturales Renovables), regulation of subsistence hunters, farmers, and fishermen in Darién's isolated forests is all but impossible. With present restrictions against pig and cattle husbandry, increasing pressures will be placed on Darién's wild fauna regardless of arbitrary park boundaries. Subsistence demands alone can cause the eventual loss of many species rare and endangered elsewhere—a process already underway.

Village settlement has quickened these changes. Near villages within an hour or two walking distance, nearly all
forms of edible game and desirable wild plant products are reduced if not completely removed. Unión Chocó, the recognized "capital" of Chocó-occupied Darién, is considered by many Indians to be a prosperous and desirable place to live. But, as the largest Chocó community, agricultural lands, forest game, fish, palms, and other resources are hard to find. These depleted conditions will eventually worsen around all Chocó villages. Under traditional Chocó settlement, game depletion causes settlement relocation. In Amazonia, overdepletion of game resources has led to abandonment and relocation of village sites. Most villages of the Darién Chocó are now 15 to 20 years old and plant and game resources are reduced around all but the most remote settlements. The large number of villages in the circumscribed Darién region, however, restricts the possibilities for future village relocation. Most rivers have four or more communities and any new settlement would push into more confined hilly headwaters and interfluves where agricultural lands are poor.

Economic conditions of the Darién Chocó can no longer be considered favorable as in the past. The affluence of the "green gold" or banana boom was short lived. The recent shift toward store-bought goods and foods has meant that products once considered luxury items are now common. Cash is needed to meet the villagers' expanding commercial needs.
Involvement in the market economy also reflects the difficulty of supplying animal protein through traditional means. Food items, once rare in Chocó diets, now form part of the daily fare. Imported cooking oil, coffee, sugar, flour, salt and other such basic commodities—all bought with cash—are now considered necessities. Western products permeate the material culture of the Darién Chocó. Items of Western manufacture like rifles, knives, machetes, kerosene, pots, pans, plates, glasses, silverware, clothing, transistor radios, and tape players are characteristic. In the 44 communities with elementary schools, parents must also provide children with uniforms, notebooks, pencils, and pens, all bought with dollars. Indeed, it might be said that the once "home spun" material culture of the Darién Chocó is gradually shifting to a "store-bought" base.

With Indian groups throughout Central America leaving their traditional lands for economic or political reasons, the Chocó stand somewhat apart in their efforts to maintain their lands and cultural heritage. The process that brought village settlement has as its ultimate goal the acquisition of a comarca that will not only delimit tribal lands but also allow the Indians largely to govern themselves. The national government and international agencies have given support to these efforts. But the ultimate success or failure of the village model remains unclear.
Some changes are definitely positive. The Darién Chocó have now developed a tribal organization. The movement to organize the Chocó originated in the eastern part of the province in the 1960s and spread rapidly. In less than two decades, a cultural landscape that had been largely intact since colonial time had been transformed. The movement continues to diffuse throughout other provinces inhabited by the Chocó in Panama and reportedly in Colombia too. As Chocó leaders work to structure the emerging political system, they learn how to deal more effectively with the economic and political problems that are now common in the more accessible Darién Province. The group had delimited the territorial boundaries of their Comarca Emberá-Drua that becomes important with the advance of agricultural colonists from western Panama. The Darién Chocó seek to solidify their territorial claims and rights to determine their own social and economic destiny. To date, their efforts have been quite successful. Indeed, the Darién Chocó maintain respectable cultural identity. Their heritage, racial endogamy, subsistence ways, and recently their stance against outside exploitation suggest they may be able to adapt to moderate cultural changes when other groups cannot.

There are, however, other less desirable features.
Life in villages has changed subsistence patterns and cultural values of land ownership and inheritance. A tendency now exists to view agricultural lands as commercial assets, compounding the emerging territoriality of the group and complicating goals to establish a comarca. Population agglomeration and increased commercialization of subsistence economies associated with village life place pressures on natural resources. The resulting accelerated deforestation and wildlife extermination suggest a pattern of destructive exploitation that may ultimately endanger Chocó lifeways. Indeed, while the Comarca Emberá-Drua contains about one-fourth of Darién, these lands are inadequate to support all of Panama's Chocó population at their present level of socio-economic development. Indeed, the area probably could not support the Chocó population of Darién alone.

The story of the Darién Chocó exemplifies a larger ecological dilemma that confronts other indigenous groups in Central America. Insightfully, Erland Nordenskiold captured the essence of the problem from his early contact with the Chocó over 60 years ago:

"The fact of the Chocó being able to occupy a very large tract of country in single, scattered families is naturally an important advantage. If they lived concentrated into villages, their cultivations would in part be far away from the village, or there would not be enough of cultivable ground for everybody (Nordenskiold 1930:27)
In Darién, there appears presently to be sufficient agricultural lands for all Indian farmers, but some land disputes in larger communities suggest this will soon not be the case. Many ecologic, economic, and socio-political problems confront the Indians, most initially unforseen by the emerging leaders of the group, including resource depletion, availability of agricultural lands, and local sanitation conditions.

Given combined subsistence and commercial needs under Chocó land-extensive, cash-oriented subsistence, village size would seem to have an upper limit. Villages would thus have a threshold population beyond which they exceed the carrying capacity of their surrounding rain forest habitat at their given socio-technological level. Unlike under more pristine cultural conditions, the decline in hunting productivity no longer limits village size given the availability of other domestic and "store-bought" meats.

Broader national and international programs encourage the future success of Chocó political efforts (Herlihy 1986). A final version of the law to establish a Chocó comarca was approved by the National Assembly in their 1983 session. The other protected geographic area, the Darién National Park, at the borderlands with Colombia, was established as a World Heritage Site in 1981 to safeguard
its diverse tropical ecosystems and to protect the cultural heritage of colonial Negro, Cuna, and Chocó occupants. Combined, the two cultural parks cover roughly 60 percent of the Darién Province. Darien’s isolated frontier position makes it a priority for conservation. The region serves as a buffer zone against the northward spread of hoof and mouth disease and Colombian immigrants into Panama and Central America. Further conservation may insure the preservation of natural resources and the unique isthmian ecology in Central America’s largest refuge of tropical rain forest life. These efforts are also intended to ensure the protection and survival of Darién’s Indian populations. Yet, conflict exists between resource management goals and Indian subsistence exploitation.

Some broader implications of the village settlement model of the Darién Chocó concern ecological conditions associated with long occupancy of tropical rain forest. Clearly, the establishment of cultural parks in Darién is encouraging, especially considering conditions elsewhere in Central America today. There is little disagreement among those concerned that the Indians should be given access to the resources they need for survival under their established cash-oriented subsistence base. Yet, Indian life conflicts, in many ways, with desired conservation goals. Accelerated deforestation and wildlife extermination associated with
changing patterns of Indian subsistence place greater pressures on the region’s resource base. While the master plan for the Darién World Heritage Site addresses conservation issues and proposes zoning categories, it does not reflect the reality of Chocó economic life in Darién. The law establishing the Comarca Emberá-Drua does not address such matters. Without planning, the future success of the cultural parks faces many potentially serious problems. Issues of land use and ownership, ethnic segregation, zoning, health conditions, and carrying capacity concern the survival and stability of Darién’s Indian populations, as well as its unique flora and fauna. Despite these conclusions, regardless of whether the Darién Choco are successful in their recent adoption of the village model, one thing remains certain: at a time when most indigenous peoples are being overtaken by the national societies, the Darién Chocó are developing an adaptive strategy that may allow them to maintain control of lands and resources that they might otherwise lose.
References

Alba C., M. M.
1950. *Introducción al estudio de las lenguas indígenas de Panamá.* Panamá, Panama City.

Andagoya, Pascual De

Anderson, Dr. C. L. G.

Andersson, Kingsley S.

Anonymous


Anonymous


Archer, Andrew W.
Arosemena, Marcia A. 

Aschmann, Homer 

Barrows, Harlan H. 

Bennett, Charles F. 

Bergman, Roland W. 

Bilbao, Ion and Ricardo Falla, Eduardo Valdes 

Bort, John R. 

Botero, Hna. Livia Correa 

Breslin, Patrick and Mac Chapin 

Budowski, Gerardo 
Caballero D., Vicente y Bolivar Arauz L.


Castaneda, Daniel

Castrillón C, Hector

Chaves Ch., Milciades

Comisión del atlas de Panamá

Comité Patrocinador del "Foro Sobre El Pueblo Guaymí y su Futuro" (Eds.)

Cooke, Richard G.

Coursey, D. G.

Covich, Alan, P. and Norton H. Nickerson

Cullen, Edward

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.


Duke, James A. and Duncan M. Porter
1970. *Darién Phytosociological Dictionary*. Columbus,
Battelle Memorial Institute. Photocopy.

Eder, Herbert M.
1963. *A Geographical Reconnaissance of the Río Siquiriras
Valley, Chocó District, Colombia*. Berkeley, Department of
Geography, University of California.

Faron, Louis C.
1962. "Marriage, Residence, and Domestic group among the

Gade, Daniel W.
Fauna in Amazonia," *Research Reports, National Geographic

Gonzalez Guzman, Raul
1966. "Las migraciones chocoes a la provincia de Panama,"
Trabajo de Graduacion, Universidad de Panama.

Gordon, B. Leroy
1957. *Human Geography and Ecology in the Sinú Country of
Colombia*. Berkeley, University of California Press
(*Ibero-Americana* 39).
1982. *A Panama Forest and Shore: Natural History and
Amerindian Culture in Bocas del Toro*. Pacific Grove, Calif.,
The Boxwood Press.

Henkel, Ray
Agriculture in Transition*. Unpublished Ph.D. Dissertation,
The University of Wisconsin-Madison (Ann Arbor, University
Microfilms).

Herlihy, Peter H.
1985. "Settlement and Subsistence Change Among the Chocó
Indians of the Darién Province, Eastern Panama: An
Overview," *Yearbook, Conference of Latin Americanist
Geographers*, 11:11-16.
Herlihy, Peter H.


Hernández, Alejandro

Herrera, Francisco

Holdridge, L. R. and Gerardo Budowski

Houseal, Brian, Craig MacFarland, Guillermo Archibald, Aurelio Chiari

Holz, Robert K.

Howe, James

Icaza S., Teresita

Isacsson, Sven-Erik
Isaacson, Sven-Erik  

Joyce, L. E. Elliot  

Krieger, Herbert W.  

Lamb, Bruce F.  

Leighly, John  

Linares, Olga  

Linna, Sigvald  

Laewen, Jacob A.  


López, Etanislao  
Lucecna Salmoral, Manuel

Mckay, Alberto

Marsh, Richard D.

Mayo Melendez, Enrique

Mendez, Eustorgio

Mendez, Teodoro E.

Nietschmann, Bernard

Nordenskiold, Erland


C.E.A.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Ortega Ricaurte, Enrique y Ana Rueda Briceno

Paganini, Louis A.

Panama, Republic of


Parsons, James J.


Pastor, Aníbal

Patinó, Víctor Manuel

Pinart, Alphonse

Pineda Giraldo, R. y V. Gutierrez De Pineda

Pinto García, Constancio

Pittier, Henry

Reclus Armando

Reichel-Dolmatoff, Geraldo


Rivet, Paul (ed.)


Robles, Marco A.
Sauer, Carl O.  

Seeman, Bertold  

Selrfrige, Thos. Oliver  

Severino de Santa Teresa, Fray  

Stier, Frances R.  

Stout, David B.  

Terry, Robert A.  

Torres de Arauz, Reina  
Torres de Arauz, Reina


Torres de Iselino, Reina


Torres de Arauz, Reina y Marcia A. De Arosemena
1973. Estudio de antropología social y aplicada de la comunidad Chocó de Majesito que sera movilizada con la construcción de la represa hidro-electrica del Bayano. Panamá, Dirección de Patrimonio Histórico.

Vargas, Nicasio A. and Jacob A. Loewen
Vazquez De Espinosa, Antonio
1948. *Compendio y descripción de las Indias Occidentales.*
Transcrito del Manuscrito Original por Charles Upson Clark.

Verrill, A. Hyatt

Walker, Lionel
1934. *A New Voyage and Description of the Isthmus of America.*

Wagner, Philip L. and Marvin W. Mikesell
The University of Chicago Press.

Wali, Alaka
Colombia, Missouri: The Museum of Anthropology (Monographs in Anthropology #6). Pp. 103-27

Wassen, Henry
1933. "Cuentos de los Indios Chocós recogidos por Erland Nordenskiold durante su expedición al Istmo de Panamá en 1927 y publicados con notas y observaciones comparativas," *Journal de la Société des Américanistes* 25:103-37

West, Robert C.

Young, Philip
Urbana, University of Illinois Press.
## APPENDIX A. VILLAGE LEADERS OF THE DARIEN CHOCO - 1983

<table>
<thead>
<tr>
<th>Community</th>
<th>River Basin</th>
<th>Noko</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Manesé</td>
<td>Balsas</td>
<td>Not visited</td>
</tr>
<tr>
<td>2. Buenos Aires</td>
<td>Balsas</td>
<td>Not visited</td>
</tr>
<tr>
<td>3. Celeste</td>
<td>Balsas</td>
<td>Not visited</td>
</tr>
<tr>
<td>4. Chulati</td>
<td>Balsas</td>
<td>Not visited</td>
</tr>
<tr>
<td>5. Mareas</td>
<td>Balsas</td>
<td>Not visited</td>
</tr>
<tr>
<td>6. Manzanal</td>
<td>Chico</td>
<td>Jose Levy Barcario</td>
</tr>
<tr>
<td>7. Corozal</td>
<td>Chico</td>
<td>Catalino Chancore</td>
</tr>
<tr>
<td>8. Boca De Tigre</td>
<td>Chico</td>
<td>Tereso Tocamo</td>
</tr>
<tr>
<td>9. Común</td>
<td>Chico</td>
<td>Temistocles Ortega</td>
</tr>
<tr>
<td>10. Nazaret</td>
<td>Chico</td>
<td>Anulfo de Gaiza</td>
</tr>
<tr>
<td>11. Lejas Blancas</td>
<td>Chucanaque</td>
<td>Nolberto Musua</td>
</tr>
<tr>
<td>12. Salto</td>
<td>Chucanaque</td>
<td>Francisco Agui</td>
</tr>
<tr>
<td>13. Peña Bijigual</td>
<td>Chucanaque</td>
<td>Diomedas Guaynora</td>
</tr>
<tr>
<td>14. Canán</td>
<td>Membrillo</td>
<td>Arco Peña</td>
</tr>
<tr>
<td>15. Punta Grande</td>
<td>Tupiza</td>
<td>Sextino Musua</td>
</tr>
<tr>
<td>16. Esperanza</td>
<td>Tupiza</td>
<td>Reli Ortega</td>
</tr>
<tr>
<td>17. Barranquillita</td>
<td>Tupiza</td>
<td>Alexio Dojijama</td>
</tr>
<tr>
<td>18. Pulida</td>
<td>Tupiza</td>
<td>Alberto Dobela ma</td>
</tr>
<tr>
<td>19. Villa Celeta</td>
<td>Tuquesa</td>
<td>Regulo Lino</td>
</tr>
<tr>
<td>20. Marrangantí</td>
<td>Tuquesa</td>
<td>Clemente Dequía</td>
</tr>
<tr>
<td>21. Bajo Chiquito</td>
<td>Tuquesa</td>
<td>Regil Rosales</td>
</tr>
<tr>
<td>22. Nuevo Sigia</td>
<td>Tuquesa</td>
<td>Dionisio Zarco</td>
</tr>
<tr>
<td>23. Union Choco</td>
<td>Tuira</td>
<td>Demetrio Dojromá</td>
</tr>
<tr>
<td>24. Capetuira</td>
<td>Tuira</td>
<td>Carpio Chamerro</td>
</tr>
<tr>
<td>25. vista Alegre</td>
<td>Tuira</td>
<td>Tenistas Cheucarama</td>
</tr>
<tr>
<td>26. Balral</td>
<td>Tuira</td>
<td>Casimiro Mingizama</td>
</tr>
<tr>
<td>27. Aruza</td>
<td>Tuira</td>
<td>Rosendo Conquista</td>
</tr>
<tr>
<td>28. Bajoilete</td>
<td>Tuira</td>
<td>Not visited</td>
</tr>
<tr>
<td>29. Purante</td>
<td>Tuira</td>
<td>Alfredo Martinez</td>
</tr>
<tr>
<td>30. Pejibasal</td>
<td>Tuira</td>
<td>Not visited</td>
</tr>
<tr>
<td>31. Pavarandó</td>
<td>Sambú</td>
<td>Crimelo Cardena</td>
</tr>
<tr>
<td>32. Boca De Trampa</td>
<td>Sambú</td>
<td>Idamour Olea</td>
</tr>
<tr>
<td>33. Churucó</td>
<td>Sambú</td>
<td>Wilfrido Dequiza</td>
</tr>
<tr>
<td>34. Jingurudo</td>
<td>Sambú</td>
<td>Eleodoro Rosales</td>
</tr>
<tr>
<td>35. Boca Guina</td>
<td>Sambú</td>
<td>Delio Achito</td>
</tr>
<tr>
<td>36. Chunga</td>
<td>Sambú</td>
<td>Sicero Sala</td>
</tr>
<tr>
<td>37. Atalaya</td>
<td>Sambú</td>
<td>Joaquin Machuca</td>
</tr>
<tr>
<td>38. Bayamón</td>
<td>Sambú</td>
<td>Carlo Brin Berrugate</td>
</tr>
<tr>
<td>39. Puerto Indio</td>
<td>Sambú</td>
<td>Not visited</td>
</tr>
<tr>
<td>40. Condoto</td>
<td>Sambú</td>
<td>Uldarico Berrugate</td>
</tr>
<tr>
<td>41. Aguardiente</td>
<td>Mogue</td>
<td>None</td>
</tr>
<tr>
<td>42. Mogue</td>
<td>Mogue</td>
<td>Emiliano Caisano</td>
</tr>
<tr>
<td>43. Lucas</td>
<td>Jaque</td>
<td>Not visited</td>
</tr>
<tr>
<td>44. Masay</td>
<td>Jaque</td>
<td>Not visited</td>
</tr>
<tr>
<td>45. Bidoquera</td>
<td>Jaque</td>
<td>Not visited</td>
</tr>
<tr>
<td>46. Reserva</td>
<td>Congo</td>
<td>None</td>
</tr>
<tr>
<td>47. Chichala</td>
<td>Congo</td>
<td>Alasio Chamar</td>
</tr>
<tr>
<td>48. Caña Blanca</td>
<td>Congo</td>
<td>Antonio Hosa</td>
</tr>
<tr>
<td>49. Mono</td>
<td>On Highway</td>
<td>Bernardo Baccorsi</td>
</tr>
<tr>
<td>50. Pueblo Nuevo</td>
<td>On Highway</td>
<td>Anicasio Malaga</td>
</tr>
<tr>
<td>51. Tira</td>
<td>On Highway</td>
<td>None</td>
</tr>
<tr>
<td>52. 4elen</td>
<td>On Highway</td>
<td>None</td>
</tr>
<tr>
<td>53. Puerto Lara</td>
<td>On Highway</td>
<td>Angelino Duran</td>
</tr>
</tbody>
</table>
Appendix B. Boundary of Comarca Emberá-Drua

In late 1983, the national assembly of Panama established the Comarca Emberá-Drua (Anonimo 1983; 1983a). Its boundaries are delimited below.

Area One: The Chucunaque-Tuira Drainage (Fig. 10). Beginning at the juncture of the Darién-San Blas-Colombia border (known as "Taca"), the boundary of Area One heads south-southwest to the headwaters of the Río Capetí. It then follows downriver along the right margin to the confluence with the Río Tuira, then downriver to Quebrada Chupeti. The boundary crosses overland to the old mouth of Quebrada Chayo on the Río Chico. Next, it continues overland northeast to Quebrada Aguacate on the Río Tupisa. The border then crosses to the mouth of the Quebrada Olla on the Río Chucunaque. Going upriver, the right margin serves as the boundary for almost 100 km. until the confluence with the Río Chiatí. It then runs northeasternly up the right margin of the Chiatí to the headwaters, there following the divide between the waters of the Subcurti and Cilicardi to the Comarca de San Blas whose boundary it follows southeast to the starting point.

Area Two: The Sambú Drainage (Fig 11). Leaving the headwaters of the Río Sambú, the boundary leads over the
ridge to the headwaters of the Quebrada Sabatela, before heading downstream to the confluence with the Río Pavarando. It follows upriver to the Río Sambucito, then into the headwaters and to the peak of Cerro Piña. From there, the boundary continues along the crest of the Serranía del Sapo northwestwardly to the headwaters of the Río de Jesus. It turns down the right margin of that river to its confluence with the Qda. Jesucito where it crosses overland eastward past Colonia Bijagual to the Río Sabalo. It continues down this river along the right margin to the Río Sambú. There, the boundary runs downriver along the right margin to the confluence with the Río La Chunga. Following this stream to the headwaters the border continues along the divide to the headwaters of the Río Taimati. The boundary then turns southeasterly crossing to the headwaters of the Qda. La Punalada, from where it passes along the divide between the waters of the Río Sambú and Balsas. It then crosses just south of the headwaters of Qdas. Limón, Arro and back to the headwaters of the Río Sambú.
Vita

Peter Harry Herlihy was born in Glens Falls, New York of Edward Joseph and Marie DePan Herlihy on December 16, 1951. He graduated from Cardinal Farley Military Academy in 1971. Herlihy received his undergraduate degree from Syracuse University in 1975. Touring parts of Central and South America in 1976 sparked his interests to begin graduate studies in geography. He began the Master's Program at the University of Vermont in 1976 and completed his thesis, under the direction of Professor Darien W. Gade, on fish-poisoning practices in Amazonia based on field work in eastern Peru during 1978. In 1980, after completing language study in Mexico, he began the Doctoral Program in geography at Louisiana State University. During his graduate study at LSU, he did field work in Mexico, Belize, and Panama. The field work for his dissertation research among the Chocó Indians of Darién, eastern Panama, was supported under a Fulbright Grant from August 1982 to July 1983, with Professor William V. Davidson as his advisor. Since 1984, he has served as an instructor of geography and anthropology at Southeastern Louisiana University. In 1986, he was selected as a Rotary International Fellow for Group Study Exchange to India. Later that same year, he received a fellowship from the Organization of American States to
return to Panama and the Chocó Indians.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Peter H. Herlihy

Major Field: Geography

Title of Dissertation: A CULTURAL GEOGRAPHY OF THE EMBERÁ AND WOUNAN (CHOCÓ) INDIANS OF DARIEN, PANAMA, WITH EMPHASIS ON RECENT VILLAGE FORMATION AND ECONOMIC DIVERSIFICATION

Approved:

[Signatures of Major Professor and Chairman, Dean of the Graduate School]

EXAMINING COMMITTEE:

[Signatures of Committee Members]

Date of Examination:

June 10, 1986