

Jürgen Carls and Warren R. Haffar  
With the participation of  
Lauren E. Jones and Jessica E. Morey

# **Conflict Resolution of the Boruca Hydro-Energy Project**

Renewable Energy Production in  
Costa Rica

# Conflict Resolution of the Boruca Hydro-Energy Project

*This page intentionally left blank*

# Conflict Resolution of the Boruca Hydro-Energy Project

Renewable Energy Production in Costa Rica

**By Jürgen Carls, Warren R. Haffar,  
Lauren E. Jones and Jessica E. Morey**



NEW YORK • LONDON

2010

**The Continuum International Publishing Group Inc**

80 Maiden Lane, New York, NY 10038

**The Continuum International Publishing Group Ltd**

The Tower Building, 11 York Road, London SE1 7NX

[www.continuumbooks.com](http://www.continuumbooks.com)

Copyright © 2010 by Jürgen Carls and Warren Haffar

All rights reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of the publishers.

**Library of Congress Cataloging-in-Publication Data**

Carls, J. (Jürgen)

Conflict resolution of the Boruca hydro-energy project: renewable energy production in Costa Rica/by Jürgen Carls, Warren Haffar.

p. cm.

Includes bibliographical references.

ISBN-13: 978-1-4411-1755-7

1. Conflict management–Latin America–Case studies. 2. Sustainable development–Latin America–Case studies. 3. Power resources–Latin America–Case studies. I. Haffar, Warren R. II. Title.

HD42.C368 2010

333.91'4097286–dc22

2009015842

ISBN: PB: 978-1-4411-7416-1

Typeset by Newgen Imaging Systems Pvt Ltd, Chennai, India  
Printed in the United States of America

# Contents

Preface	xi
List of Acronyms and Abbreviations	xiii
<b>CHAPTER 1 INTRODUCTION</b>	<b>1</b>
The Boruca Project as Case Study	1
Stakeholders	3
<i>Analysis of the Systems, Institutions and Actors of the Region</i>	3
<i>Assessment of the Attitudes and Actions of Primary Actors</i>	5
<i>General Observations</i>	6
<i>Conclusion</i>	8
Traditional Approaches to Development: Theory and Practice	8
Rethinking Project Design using Mediation and Conflict Resolution	12
<b>CHAPTER 2 ENERGY PRODUCTION AND NEEDS IN DEVELOPING COUNTRIES</b>	<b>15</b>
Current Situation in Latin America	15
<i>Plan Puebla Panamá and Future Economic Integration at     the Regional Scale</i>	19
<i>Conclusion</i>	21
Analysis of the Energy Sector in Costa Rica	22
<i>Policy Setting</i>	25
<i>Legal Landscape</i>	27
<i>The 2005 Generation Plan</i>	29

<b>CHAPTER 3 ANALYSIS: HYDRO-PROJECT BORUCA, COSTA RICA</b>	<b>33</b>
History of the Project	33
Legal Framework and Policies	37
<i>Electricity Policy</i>	43
<i>Interinstitutional Cooperation Related to Hydro-Project Boruca</i>	44
<i>Communication, Trust, and Coordination within</i>	
<i>the Electricity Sector</i>	44
<i>Planning Tools</i>	46
<i>Funding Mechanisms</i>	46
Human Rights	47
<i>International Law and Human Rights</i>	48
<i>The Right to Development</i>	49
<i>Rights Related to Resettlement and Land</i>	51
<i>Property Rights</i>	53
<i>The Right to Self-Determination</i>	55
<i>Economic, Social, and Cultural Rights</i>	56
<i>Environmental Rights for Peoples</i>	58
<i>National Laws and Human Rights Violations</i>	59
<i>Conclusion</i>	60
Stakeholders	61
<i>Boruca Hydroelectric Dam Project Stakeholder Participation</i>	65
Boruca Indigenous Community	65
Térraba Indigenous Community	66
Indigenous Reserve “Rey Curré”	69
Environmentalists	71
United States of America	72
Canada	73
<i>Involvement of Institutions</i>	73
The National Commission for Indigenous Affairs (CONAI)	73
Inter-Development Bank/World Bank/Financial Institutions	74
<i>Plan Puebla Panamá</i>	75
SIEPAC	75
<i>Public Understanding and Participation</i>	76
<i>Conclusions</i>	76
Sociocultural and Economic Aspects	77
Ecological and Environmental Impacts	89
<i>Biophysical Characteristics of the Térraba Watershed</i>	89
<i>Downstream Ecological Impacts</i>	94

<i>Impacts of Flooding the Reservoir</i>	95
<i>Impacts on Watershed Management</i>	96
<i>Construction and Development Impacts</i>	97
<i>Mitigation</i>	97
<i>Large-Scale Hydroelectric Power Plants</i>	98
Violence and Conflict Resolution	99
<i>Resistance from Local Communities</i>	100
<i>Resistance from International and Domestic Law</i>	101
<i>Conflict Resolution</i>	103
Conclusions about the Boruca Dam	104
Project El Diquís	113
<i>Implications for the Road Infrastructure</i>	115
<i>Implications for the Térraba–Sierpe Wetland</i>	116
<i>Implication for the Communities</i>	117
<i>Implications with Regard to the Use of the Río General</i>	117
<i>Implications for Productive Activities</i>	117
<i>Generation of Employment</i>	118
<i>Investment Attractiveness due to an Improved Infrastructure</i>	118
<i>Touristic Development and Other Economical Activities</i>	118
<i>Implications for the Management of the Watershed</i>	118
<i>Implications for the National Electricity System</i>	119
<i>Control of the Flooding in the Lower Parts of the Watershed</i>	119
<i>Implications for the Archeological Heritage</i>	120
<i>Perspectives</i>	120
<b>CHAPTER 4 RETHINKING PROJECT DESIGN</b>	127
Renewable Resources as a Key to Sustainable Development	127
<i>Demand Management and Efficiency</i>	127
<i>Wind Power</i>	130
<i>Biomass</i>	131
<i>Geothermal</i>	132
<i>Solar</i>	133
<i>Hydropower</i>	134
Economic Sustainability	135
<i>Renewable Energy is Cost Competitive</i>	138
<i>Green Power: A Business Opportunity for Costa Rica</i>	139
<i>Full Cost Accounting</i>	140
<i>Economic Benefits of Distributed Generation</i>	142
<i>Carbon Financing</i>	142



Social Sustainability	144
<i>The Need for Greater Adherence to Good Practices</i>	144
<i>Decision-making</i>	146
<i>Institution Building</i>	146
Overcoming Barriers to the Implementation of the	
Sustainable Power Projects in Costa Rica	147
<i>Addressing the Policy and Legal Limitations</i>	148
<i>Legislative Limitations to Renewable Energy Projects</i>	148
<i>Improving National Policy for Indigenous Rights</i>	149
<i>National Level Strategic Commitment to Alternative Energy</i>	151
<i>Create Communication, Trust, and Coordination</i>	
<i>within the Sector</i>	153
<i>Institutional Coordination</i>	153
Participation of Stakeholders	155
<i>Identifying Dividers and the Connectors</i>	156
Government of Costa Rica	156
Costa Rica's Electricity Institute (ICE)	157
Environmentalists' View of the Dam Projects	158
<i>Indigenous Peoples of Costa Rica</i>	159
Generational Conflict	159
Land Conflict	161
<i>United States of America</i>	162
<i>Canada</i>	162
<i>The Institutions and Systems Involved</i>	162
The National Commission for Indigenous Affairs (CONAI)	162
Inter-American Court of Human Rights	163
Institute for Agrarian Development (IDA)	164
Associations of Indigenous Development (ADI)	164
Inter-American Development Bank/The World Bank,	
and Others	165
<i>Public Understanding and Participation</i>	165
Consultation/Mediation and Conflict Resolution	166
Monitoring and Evaluation	168
<i>Dividers and Tension Builders</i>	169
<i>Connectors and Local Capacities for Peace (LCP)</i>	172

<b>CHAPTER 5 REGIONAL DEVELOPMENT IMPLICATIONS IN THE SOUTH OF COSTA RICA</b>	<b>183</b>
Development Aspects for the Regional Indigenous Reserves in the South of Costa Rica	183
<i>Social Organization</i>	183
<i>Action Plan for Linking Indigenous Groups to State Influence</i>	185
<i>Local Services</i>	186
<i>Training and Job Creation</i>	186
<i>Potential Projects for the Indigenous Reserves</i>	187
<i>Action Plan</i>	188
<i>Estimated Principal Training Needs of the Indigenous Groups</i>	189
Regional Development of the Indigenous Reserves	189
<i>Quality of Life Improvement for the Indigenous Peoples (PNDPI 2002)</i>	191
<i>An Aid Program for the Boruca Region</i>	193
 <b>CHAPTER 6 CONCLUSIONS ON MAIN THEMES AND ISSUES</b>	 <b>196</b>
Energy Needs and Production Are Increasing in the Region	196
Alternative Energy Options Are Feasible in Costa Rica	197
Regional Indigenous Development Opportunities in the South of Costa Rica Exist	199
Conflict Resolution of the Boruca Hydroelectricity Dam Is Possible	200
 Bibliography	 203

*This page intentionally left blank*

# Preface

In 2002, The Ombudsman Center for Environment and Development (OmCED) was asked by the Government of Costa Rica to mediate between the national and local interests of the Government of Costa Rica, the interests of the main stakeholder group, the indigenous peoples, and the interests of potential financing institutions such as the World Bank and others in regards to the construction of the Boruca Hydroelectric Dam, located in Southern Costa Rica.

On behalf of OmCED, a working group was established, comprised of an independent international finance expert, a representative of the Government of Costa Rica, and a UN-mandated University for Peace (UPeace) representative responsible for development issues and international cooperation. The main objective of this working group was to promote the dialogue between the national institutions involved and the Indigenous Reserves in the Buenos Aires region potentially affected by the Boruca Dam.

In 2003, the International Peace and Conflict Resolution Program at Arcadia University (IPCR) and the UPeace embarked on a major study examining the conflict surrounding the proposed construction of the Boruca Hydroelectric Dam, located in southern Costa Rica. This project-based learning experience was developed to bring together theory and practice, illuminating for students the inexorable link between peace and conflict resolution and sustainable development. Through partnerships with the Kan Tan Ecological Project and the indigenous communities in the region, and field visits to the Inter-American Court of Human Rights and local civil society organizations, faculty, and students utilized the mediation framework to identify the underlying needs and interests of the stakeholders of the primary conflict. The mediation framework was in turn

tested as a suitable model for the resolution on environmental conflicts for Latin America.

This book represents the outcomes of the OmCED working group and the field research results of the International Peace and Conflict Resolution Master's program at Arcadia University.

A project of this scope required the determination of several individuals: Sandra Jones, Safeer Bhatti, Daniel Moscovici, Rolain Borel, Manfred Peters, Giselle Borraser, John Chisman, Alexander Bonilla Duran, the Indigenous Peoples in the project region, and the representatives of the Government of Costa Rica. The authors want to express their sincere thanks to Jessica Morey and Lauren Jones for their valuable contributions developing the book.

# List of Acronyms and Abbreviations

ADI	Asociación de Desarrollo Integral (Association of Integral Development)
ARESEP	Autoridad Reguladora de los Servicios Públicos (Regulatory Authority of Public Services)
AWEA	American Wind Energy Association
CAFTA	Central American Free Trade Agreement
CCSS	Caja Costarricense de Seguro Social (Costa Rican Social Insurance and Savings)
CDM	Clean Development Mechanism
CEDIN	Centro de Desarrollo Indígena (Centre for Indigenous Development)
CEJIL	Center for Justice and International Law
CEPAL	Comision Economica Para America Latina y el Caribe (Economic Commission for Latin America and the Caribbean)
CERs	Certified Emission Reductions
CINDE	Coalición Costarricense de Iniciativas de Desarrollo (Costa Rican Trade and Development Board)
CONADRO	La Comisión Anti-drogas (National Drug Council)
CONAI	Comisión Nacional de Asuntos Indígenas (National Commission on Indigenous Issues)
CNP+L	Centro Nacional de la Producción Más Limpia (the National Center for Cleaner Production)
DNHP	Do No Harm Project
DSE	Dirección Sectorial de Energía (Sectorial Direction of Energy)
EEC	European Economic Community

ERU	Emission Reduction Units
EU ETS	The European Union Emissions Trading Scheme
ETSAP	The Energy Technology Systems Analysis Programme
EWEA	The European Wind Energy Association
FECON	Federación Costarricense de Grupos Ambientales (Federation for the Conservation of the Environment)
FMAM	Fondo para el Medio Ambiente Mundial (World Environment Fund)
FONAFIFO	Fondo Nacional de Financiamiento Forestal (National Forestry Financing Fund)
FTAA	Free Trade Area of the Americas
GEF	The Global Environment Facility
GEX	Global Exchange
IACHR	Inter-American Court of Human Rights
IADB	Inter-American Development Bank
ICC	Indigenous Circumpolar Conference
ICE	Instituto Costarricense de Electricidad (Costa Rican Institute of Electricity)
ICT	Instituto Costarricense de Turismo (Costa Rican Institute of Tourism)
IDA	Instituto de Desarrollo Agrario (Institute of Agrarian Development)
ICOLD	International Commission of Large Dams
IIASA	International Institute for Applied Systems Analysis
ILO	International Labour Organization
INA	Instituto Nacional de Aprendizaje (National Institute of Learning)
INBio	Instituto Nacional de Biodiversidad (National Institute of Biodiversity)
INEC	El Instituto Nacional de Estadística y Censos (National Census Bureau)
INVU	Instituto Nacional para Vivienda y Urbanización (National Institute for Housing and Urban Development)
JUDESUR	Junta de Desarrollo Regional de la Zona SUR (Joint Regional Development of the Southern Zone )
LCP	Local Capacities for Peace
MAG	Ministerio de Agricultura y Ganadería (Ministry of Agriculture and Cattle Ranching)
MEP	Ministerio de Educación Pública (Ministry of Public Education)

MER	Mercado Electrico Regional (Regional Electrical Market)
MIDEPLAN	Ministerio de Desarrollo y Planificación (Ministry of Development and Planning)
MINAE	Ministerio de Ambiente y Energía (Ministry of the Environment and Energy)
MOPT	Ministerio de Obras Públicas y Transporte (Ministry of Public Work and Transport)
MPPE	Ministerio de Planificación y Política Económica (Ministry of Planning and Economic Policy)
NAFTA	North American Free Trade Agreement
OAS	Organization of American States
OCIC	Oficina Costarricense de Implementación Conjunta (Costa Rican Office on Joint Implementation)
OECD	Organization of Economic Cooperation and Development
OmCED	Ombudsman Center for Environment and Development
PDR	Programa Estatal de Desarrollo Rural (State Program of Rural Development)
PNDPI	Plan Nacional de Desarrollo de los Pueblos Indígenas (National Plan for the Development of Indigenous Reserves)
PPP	Plan Pueblo Panamá
PH Boruca	Proyecto Hidroeléctrico Boruca (Hydro-electric Project Boruca)
RUTA	Regional Unit for Technical Assistance
SETENA	Secretaría Técnica Nacional Ambiental (National Environmental and Technical Secretariat)
SIEPAC	Sistema de Interconexion Electrica para America Central (Central American Electrical Interconnection System)
UCR	Universidad de Costa Rica (University of Costa Rica)
UICN	Union Mundial para la Naturaleza (International Union for Conservation of Nature and Natural Resources)
UNDP	United Nations Programme for Development
WB	World Bank
WCD	World Commission on Dams



*This page intentionally left blank*

# 1

---

## Introduction

### **The Boruca Project as Case Study**

Since the mid-1990s, growth in electricity consumption in Latin America has averaged about 5 percent per year, one of the highest and most sustained growth rates in the world; one that is expected to continue at least until 2015. To meet this rising demand, governments and, increasingly, the private sector and multinational financing institutions are developing new power projects throughout the region.

In Central America, electricity from new and existing plants is being transmitted from countries that have excess capacity to countries in need of electricity. This situation has made the region one of the world's hotbeds for the development of hydroelectric projects. This has occurred alongside growth in ecotourism and the region's identity as being a leader in sustainable development.

Currently, there are as many as 120 hydroelectric projects under construction in Latin America. Collectively, these plants are estimated to produce 22,000 MW of new electrical capacity during the coming years; from 2003 onwards.

Many national and international researchers and activists have argued that the costs—social, financial, and environmental—of large dams outweigh the benefits. The World Commission on Dams has concluded that, “on balance, the ecosystem impacts of large dams are more negative than positive and they led, in many cases, to significant and irreversible loss of species and ecosystems. In Costa Rica they are particularly controversial, especially the Boruca Project on both environmental and social justice concerns.”<sup>1</sup>

The Boruca Project will be analyzed as a case study wherein a mediation approach has been put into place by the Instituto Costarricense de Electricidad (ICE) as a means to secure increased electrical capacity in Costa Rica. Specifically, this analysis assesses the value of this approach, how it has been put into practice, and its utility in securing agreement for energy policy in Costa Rica. The “mediation framework” will be used as a new paradigm for identifying differing positions and underlying interests of all stakeholders involved, as well as a method for achieving or moving closer to sustainable development. An additional component of this analysis explores what lessons from this approach are transferable and whether they serve as a useful model for other countries in the region.

Renewable energy resources in Costa Rica as a key to sustainable development will be discussed in detail. Finally regional development opportunities in the south of Costa Rica will be addressed. In 2002, it was decided to jointly create the Ombudsman Center for Environment and Development (OmCED) with the International Union for Conservation of Nature and Natural Resources (IUCN).

OmCED was asked by ICE in 2002 to mediate and negotiate between the interests of the Government of Costa Rica, the interests of the indigenous peoples involved in the Boruca Project, the local government in the south of Costa Rica, and the interests of potential financing institutions such as the World Bank and others.<sup>2</sup>

In 2004, a working group was established, comprising of an independent financial expert, one representative of the Government of Costa Rica, and a person responsible for development issues and conflict management.

The main objective of this working group was to promote the dialogue between the national institutions such as the National Electricity Company of Costa Rica (Instituto Costarricense de Electricidad [ICE]), the Ministry of Environment and Energy (MINAE), and the indigenous reserves in the Buenos Aires region potentially affected by the “Boruca Dam.”

Seven workshops were carried out with representatives from the indigenous reserves and representatives from national institutions, such as ICE and other institutions involved in the process.

The main issues were related to the lack of information about the dam, the infrastructure, the potential relocation of indigenous communities, the organization of these communities to face the situation, the lack of jobs in the region, and potential degradation of natural resources and other implications caused by the dam.

Additionally, with the idea to get more insights about the problems of the indigenous reserves and as measures of confidence building, several

studies and construction improvements were carried out related to the specific situation of the reserves affected by the dam, such as

- the reconstruction of a bridge;
- a study on organizational needs of the indigenous reserves;
- a feasibility study on the production of toasted cassava chips;
- an analysis about medicinal plants in the region; and
- an overall analysis about the documents and studies related to the Boruca Dam.

## **Stakeholders**

Costa Rica is a country in midstream in the process of development. Like other countries in the past, however, the government and people of Costa Rica are facing great challenges. The following is an assessment of the tensions within the Central American state, focusing on the Boruca Dam Project.

### ***Analysis of the Systems, Institutions, and Actors of the Region***

There are two primary actors within Costa Rica—(1) the Costa Rican, or non indigenous peoples, and (2) the indigenous peoples. Although the conflict about the Boruca Dam was originally presented as a tension between the government of Costa Rica and the indigenous peoples, this depiction is oversimplified. After some research into the Boruca Dam Project, it becomes apparent that the Government of Costa Rica is acting on behalf of the energy dependence of the nonindigenous peoples and the wider community of Central America. Thus, for the purposes of this assessment, the conflict will be viewed as having two primary actors, the indigenous and the nonindigenous peoples, with the Government of Costa Rica acting on behalf of the latter.

The systems involved in the process are capitalism, expansionism (similar to the Manifest Destiny of the United States, except south), and globalization. As far as Costa Rica is concerned, each of these systems, more often than not, is a divider rather than a connector. The reason is rather straightforward; when one group of peoples has a desire to expand beyond their natural borders (nonindigenous peoples), a weaker community must pay the brunt of the costs (indigenous peoples); this has been the case in examples throughout history.

Capitalism is an engendering factor in expansionism and thus a great divider. Further, since capitalism widens the gap in resource allocation, this system of economics leaves most marginalized communities weak and vulnerable to exploitation. However, capitalism is also a connector for both actors. For instance, there should be a larger amount of imported goods offered to the peoples of Costa Rica, which, given the relative deprivation, will attract more individuals to consumerism. Thus, where on the one hand, capitalism will deter the marginalized from growing, it will at the same time bring the two communities closer to assimilation into the new “pop” culture.<sup>3</sup>

Globalization is a by-product of capitalism and expansionism and can both be a connector and divider of the primary actors. For example, both actors can unite in a general protest of the War on Iraq or global poverty. However, globalization is a larger divider; for instance, the indigenous peoples of Costa Rica can view indigenous communities of other regions and become engrossed in their cause to a greater extent, especially if that community is “well off.”<sup>4</sup>

The institutions involved as indirect actors include, but are not limited to, ICE; the Inter American Court of Human Rights; and various indigenous councils around the world, for example Indigenous Circumpolar Conference (ICC); as well as foreign governments involved in both the affairs of indigenous communities and the market system of the Americas (states involved in Plan Pueblo Panamá) (PPP).<sup>5</sup>

ICE is rather ignorant of the interests of the indigenous peoples of Costa Rica (at least as far as nondevelopment is concerned). Direct sources within Costa Rica have indicated that ICE appears to be somewhat of a national hero. The energy organization is often depicted as such because it had made available telecommunications and infrastructure lines to the majority of the citizens of Costa Rica, both indigenous and white, in a time of predevelopment. Although ICE is considered a dividing factor between the two primary actors, the organization is also a connector because it provides the local indigenous communities with the funding for their own radio stations, as well as their power needs. While traveling in the most rural communities of Costa Rica, it appeared that there was no shortage of power or telecommunications. It should be noted, however, that the infrastructure in the rural communities is of a lesser quality than in the urban centers (although this should be expected and is considered normal). Also, the funding for the radio stations could be counterproductive to the wider interests of the affected community, for example, if the funding is provided by an antagonist, the station cannot use its airwaves to broadcast politically motivated messages.

In general, one reason for implementation of the Boruca Dam Project is to bolster energy reserves and enable exporting to other regions. The revenues from exporting energy would be used to continue development and pay the large sums of debt which has accrued from the beginning of the westernization of Costa Rica. These payments would be made via the World Bank and International Monetary Fund. Thus, the PPP is a divider for the status quo individual indigenous peoples within the Mayan community. Essentially if the PPP is passed, the indigenous community would lose much of its land and way of life.

Indigenous groups appear to fail at protecting the indigenous peoples of Costa Rica. This failure is generally because of a lack of overall resources. Indigenous communities are almost inherently a marginalized group of peoples within their own state, thus the allocation of resources to protect and provide are most notably based on donations and are hard to acquire. Also, since these groups are marginalized, more often than not, each ethnicity is fighting for its own causes and in some cases is not able to sympathize with an outside community. There are however, some exchange programs in place with the Mayan community and North America, including both the United States and Canada. This is at least a cultural exchange, which may engender activism.

### ***Assessment of the Attitudes and Actions of Primary Actors***

The attitudes and actions of the indigenous communities are based on the interests, needs, and position of the wider indigenous peoples' nation. First, the interests, needs, and position of the community are hard to define; this problem is based on the divide among the indigenous communities. While traveling through the region, it became apparent that each group had its own view of the Boruca Dam Project and development in general. Not only did each group differ, but inside different cultures was an even greater divide. This divide is not based on any preconceived variable such as age, sex, or occupation. In fact, as far as experience provided, there was no single pattern to understanding whether development was considered desirable by the communities even at the cost of their own heritages.

The needs, interests, and positions of the community should be decided upon through communication and agreement. Currently the action of the indigenous community is to protest, albeit minimally, against the construction of the Boruca Dam and other infringements upon indigenous territories. The community appears to conjure up the power of International Labour Organization (ILO) 169 in the hopes of the wording protecting their "interest." Yet, without clear needs, their position and

actions continue to waver, weaken, and lose credibility in the eyes of the nonindigenous people, which is detrimental to the cause of the indigenous peoples.

The nonindigenous community has clear interests, needs, and positions, as well as actions and attitudes. The needs of the community, as argued by the Government of Costa Rica and ICE are to expand its territory and gain valuable resources that will pay debt and precipitate development. The interests of the community appear to be consumerism, globalization, and westernization of the state. It follows then, that the position of the nonindigenous people is to build the dam, enjoy the tourism benefits of a second great lake (Lake Arenal was the first lake artificially created in a damming process), and to assimilate the indigenous culture into the wider community. Some believe that the attitudes of the nonindigenous people are based on marginalization of the indigenous community.

### ***General Observations***

The following section is a list form of general observations and a brief summary of their importance with regard to the conflict:

1. The government of Costa Rica is exploiting a weakened community for development but cannot capitalize fully because ICE is unable to formulate a coherent strategy for development. According to some sources, the Boruca Dam Project has been in the planning stage for over 40 years.
2. The indigenous community of Costa Rica is untrusting of the government. This is due primarily to the government's renegeing of protection laws created to provide land for the indigenous peoples.
3. The indigenous community is in disarray and unable to fully articulate the interests, needs, and positions of their respective citizens because of historical, social, and economic marginalization and discrimination. As stated above, the leadership of the indigenous peoples must organize each region and provide a cogent stance on further development. If this does not occur, the government will eventually capitalize on their proposed plans and continue to exploit the marginalized community.

A diagram of the actors, their interests and positions, and the advantages and disadvantages of building the dam is shown in Table 1.1.

Table 1.1

Actors	Interests	Positions	Advantages	Disadvantages
<b>CONAI</b> (National Commission on Indigenous Issues)	Preserve the indigenous culture Preserve the land for ceremonial burial grounds	Do not build the dam Ensure that interests are represented if the dam is built	Modern conveniences Employment opportunities Financial reimbursement for land	Potential loss of cultural attributes Assimilation into more urban setting Loss of land rights as symbolic of cultural rights
<b>ICE</b> (Institute for Electricity)	Provide energy to CR citizens Export power to make money Draw in investment and tourism	Build the dam Increase energy production instead of reduce energy consumption	Provide source of income for Costa Rica from other Central American countries	Not a long-term solution for energy needs Need to relocate part of the Inter-American Highway
<b>OmCED</b> (International Ombudsman Centre for the Environment and Development)	Mediate the issue	Build the dam but compensate the affected parties	Objective	Objective
<b>Environmentalists</b>	Preserve the wetlands and mangroves in Térraba	Maintain current RAMSAR sites Utilize other sources of energy such as solar, wind, or biomass energy	None	Destruction of RAMSAR wetlands and mangroves
<b>IDA</b> (Institute for Agrarian Development)	A costly demarcation of the land is not necessary	Demarcate the land using natural borders	Objective	Objective