

12,814  
MFN  
1033

# POVERTY, NATURAL RESOURCES, AND PUBLIC POLICY IN CENTRAL AMERICA



U.S. - THIRD WORLD  
POLICY PERSPECTIVES  
NO. 17

*Sheldon Annis and contributors*

*Oscar Arias, James D. Nations,  
Stephen B. Cox, Alvaro Umaña,  
Katrina Brandon, Stuart K. Tucker,  
John D. Strasma, Rafael Celis*

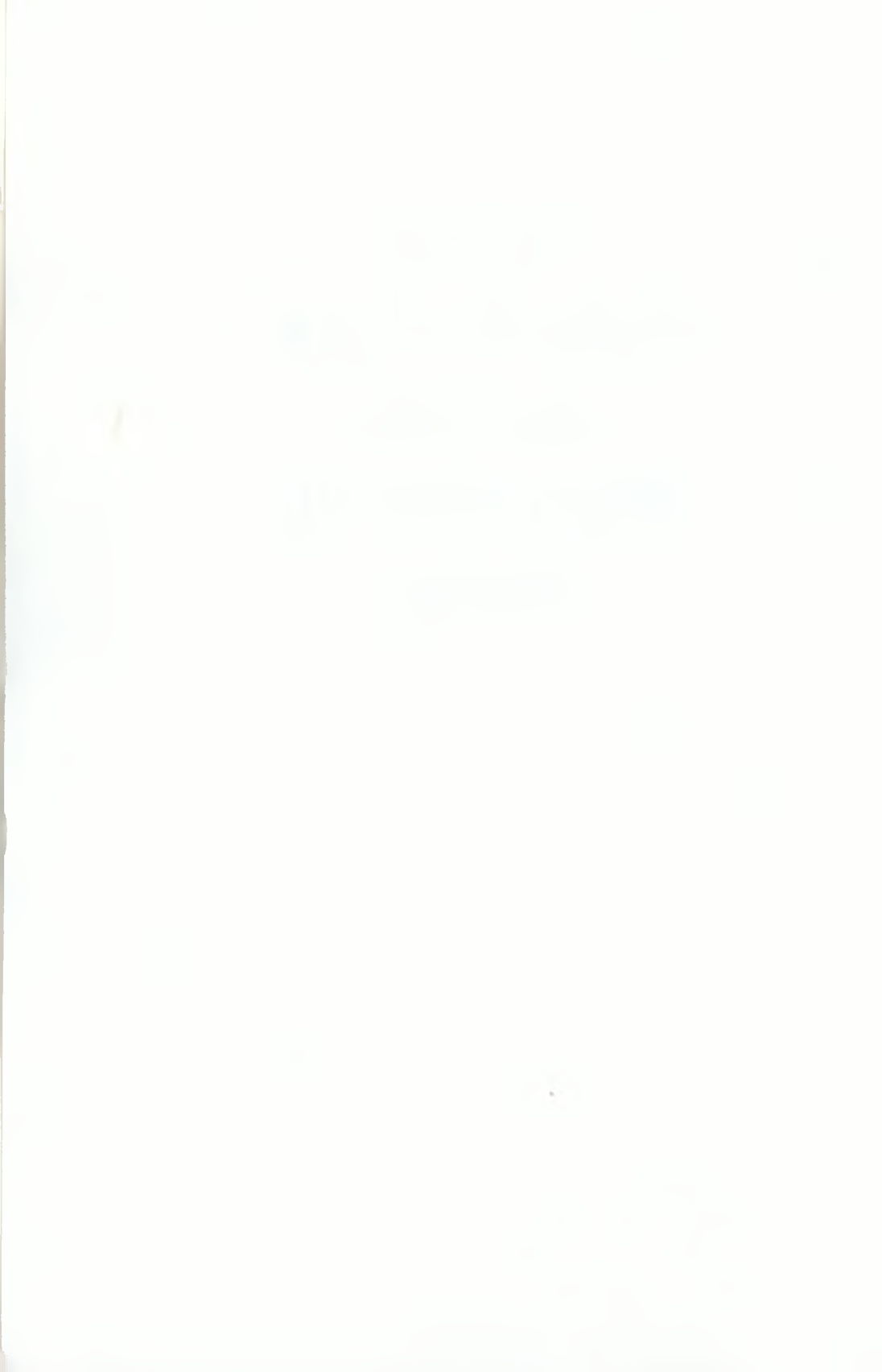


O | D | C

9728



**POVERTY,  
NATURAL RESOURCES,  
AND PUBLIC  
POLICY IN CENTRAL  
AMERICA**



# **POVERTY, NATURAL RESOURCES, AND PUBLIC POLICY IN CENTRAL AMERICA**

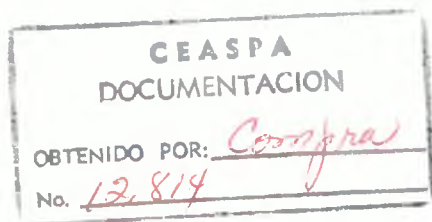


*Sheldon Annis and contributors:*

Oscar Arias  
James D. Nations  
Stephen B. Cox  
Alvaro Umaña  
Katrina Brandon  
Stuart K. Tucker  
John D. Strasma  
Rafael Celis



**Transaction Publishers**  
New Brunswick (USA) and Oxford (UK)



Copyright © 1992 by Overseas Development Council, Washington, DC

All rights reserved under International and Pan-American Conventions. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage and retrieval system, without prior permission in writing from the publisher. All inquiries should be addressed to Transaction Publishers, Rutgers—The State University, New Brunswick, New Jersey 08903.

ISBN: 1-56000-015-5 (cloth)

ISBN: 1-56000-577-7 (paper)

Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Annis, Sheldon.

Poverty, Natural Resources, and Public Policy in Central America/Sheldon Annis and contributors.

(U.S.-Third World Policy Perspectives: No. 17)

Includes bibliographic references.

1. Central America—Economic policy. 2. Agriculture and state—Central America. 3. Rural poor—Government policy—Central America. 4. Rural development—Government policy—Central America. 5. Conservation of natural resources—Government policy—Central America. I. Annis, Sheldon. 1944— . II. Series: U.S.-Third World Policy Perspectives, No. 17.

HC141.P68 1992 333.7'09728—dc20

92-29662

CIP

SPA

ISBN: 1-56000-015-0 (cloth)

ISBN: 1-56000-577-7 (paper)

333.709728  
P869  
1992  
2.1

Director of Publications: Christine E. Contee

Publications Editor: Jacqueline Edlund-Braun

Edited by Anne M. Byers

Cover and book design by Tim Kenney Design, Inc.

The views expressed in this volume are those of the authors and do not necessarily represent those of the Overseas Development Council as an organization or of its individual officers or Board, Council, Program Advisory Committee, and staff members.

-América Central - política económica  
-Caracas - política económica

9110.193077

# Contents

<b>Foreword</b> .....	vii
<b>I. Overview: Poverty, Natural Resources, and Public Policy in Central America</b>	
Sheldon Annis .....	3
<b>II. Summary of Chapter Recommendations</b> .....	31
<b>1. A Call for Central American Peace Parks</b>	
Oscar Arias and James D. Nations .....	43
Introduction .....	43
A Regional Approach .....	44
Learning from the Peace Process .....	45
Seeking Solutions to Regional Environmental Problems .....	48
Benefits of Parks for Peace .....	49
Peace Parks and People .....	54
The Challenge Ahead .....	55
Toward a Process of Creating Peace Parks .....	57
<b>2. Citizen Participation and the Reform of Development Assistance in Central America</b>	
Stephen B. Cox .....	59
Obstacles to Effective Development Assistance .....	59
An Alternative: Rigor in Process .....	66
Institutional Reforms in Delivering Development Assistance .....	76
Conclusion .....	81
<b>3. Inventing Institutions for Conservation: Lessons from Costa Rica</b>	
Alvaro Umaña and Katrina Brandon .....	85
Introduction .....	85
Costa Rica's System of Protected Areas .....	86
Reorganization of Conservation Management .....	88
Integrating Conservation into the Development Process .....	99
Conclusion .....	106

<b>4. Equity and the Environment in the Promotion of Nontraditional Agricultural Exports</b>	
Stuart K. Tucker .....	109
Introduction .....	109
The Promise of Nontraditional Crops .....	111
Obstacles to Easing Poverty Through Nontraditional Agriculture .....	114
Environmental Impacts .....	121
Policy Failings in the Promotion of Nontraditional Agriculture .....	122
Policy Recommendations .....	128
Principles for Advocacy .....	134
<b>5. Land Taxation, the Poor, and Sustainable Development</b>	
John D. Strasma and Rafael Celis .....	143
Introduction .....	143
Poverty, Population, and Fragile Lands .....	144
Overview of Land and Tax Policies in	
Central America .....	145
Nonrevenue Advantages of Land Taxes .....	149
Problems and Accomplishments of Land Reforms in	
Central America .....	151
Land Markets and Land Banks as a Proposed Solution for the Landless .....	155
Squatters and Trees .....	156
Agricultural Credit: A Market or a Welfare System? ..	157
Trees, Tenure, and Taxes: A Suggested Strategy .....	159
Creation of a Modern Land Tax .....	162
Revenue Potential of a Modern Land Tax .....	164
Uses of the New Revenue .....	165
Conclusion .....	165
<b>IV. Appendix</b>	
Compiled by Beatrice Bezmalinovic and Cynthia Knowles ....	171
About the Overseas Development Council .....	194
About the Authors .....	197



## Foreword

---

Given Central America's tiny size, populations, and economic resources, it would have been impossible to predict the extent to which this impoverished region has consumed U.S. foreign policy interest over and over again during the twentieth century. In this final and truly remarkable decade launching the post-Cold War era, the United States has an obligation to be closely involved in this troubled region, but the nature of its ties no longer need be overwhelmed by strategic military interests.

Responding more to Washington's short-term political interests than to Central America's long-term development needs, the United States squandered millions of dollars in poorly conceived aid programs throughout the 1980s. And it should be of no surprise that there is shockingly little to show for these efforts.

An effective foreign policy for the 1990s requires that security concerns be balanced against increasingly prominent political, economic, humanitarian, and environmental issues which are also of vital interest to the United States. Moreover, its longstanding relationship with the governments, economies, and militaries of Central America gives the United States a responsibility to take action on a new set of cooperative policies which recognizes these fundamentally changed interests.

For nations that have been devastated by wars, this has not come a moment too soon. Not only must much of Central America rebuild itself, but it must do so in the context of fragile and vulnerable democratic governments, enormous and still growing poverty, and economies still largely dependent on the export earnings of a few primary commodities. Also, this agrarian region must greatly accelerate its pace of development with less help from a once rich and vast base of natural resources. Instead, Central American development planners now contend with poisoned waters, eroded soils, disappearing forests, depleted fish stocks, etc. In short, their old development models *failed*, leaving weak political systems, still undiversified economies, much more poverty, and a greatly deteriorated environment in their wake.

Thus, one of the most pressing challenges for Central America is advancing more sustainable development alternatives in both an economic and environmental sense. The contributors to this volume are among the most perceptive analysts of the dual economic-environmental challenge that the region faces. In the pages that follow, they help to fill the crucial gap in our understanding by setting forth a concrete agenda and giving specificity to the ambiguous but critical task of charting a course for the economy that meets economic and social objectives while also maintaining the health of the environment.

When getting down to business at the national and local scale, as this study does, it becomes increasingly obvious that the interventions needed are complex, costly, and time-consuming, and require skilled and committed institutions and individuals. There are no short cuts—especially to setting in motion those measures that can reduce poverty, stabilize rapidly expanding populations, and safeguard the environment and natural resources on which these countries so greatly depend.

Two earlier works by the Overseas Development Council set the stage for the more focused discussion here: John P. Lewis's *Strengthening the Poor: What Have We Learned?* and *Environment and the Poor: Development Strategies for a Common Agenda* by H. Jeffrey Leonard. As Lewis shows, there is much that is known and can be done about improving the well-being of poor people in poor countries. *Environment and the Poor* focuses specifically on the huge and still rapidly growing numbers of very poor people (perhaps as much as six out of ten of all of the developing world's poor) who are being forced onto ecologically vulnerable lands—tropical forests, hilly areas, arid zones and the periphery of large urban centers.

This study builds on the analytical frameworks provided by Lewis and Leonard. In particular, *Poverty, Natural Resources, and Public Policy in Central America* devotes considerable attention to measures that alleviate poverty and empower the poor. This is no accident. Better environmental policies must deal head on with reconciling fiercely competing interests over how resources should be used—or not used. Fortunately, in most cases, policies that eradicate poverty will also ease pressures on natural resources.

Much of the local, national, and international dialogue on sustainable development, however, still focuses on the tensions rather than the fundamentally common agenda between strengthening the poor and protecting the environment. Indeed, preparations leading up to and during the 1992 Earth Summit were filled with tensions over how to balance environment and development priorities. The South wanted the conference to take concrete action on their unmet development needs, while the North pressed to keep the agenda more targeted on environmental concerns, especially global warming and massive species and forest loss. ODC's recent *Policy Essay* on "North-South Environmental Strategies, Costs, and Bargains" by Patti Petesch examines this unparalleled environmental diplomacy.

The contributors to this volume have provided valuable analyses and proposals for a Central American policy agenda that is at once pro-poor and pro-environment. Both rich and poor countries can only make progress on priorities of concern to them by taking up this challenge.

The Overseas Development Council gratefully acknowledges the support of the Rockefeller Brothers Fund and The Tinker Foundation, Inc. for their grants in support of this project. In addition, The Ford Foundation, The Rockefeller Foundation, and The William and Flora Hewlett Foundation contribute generously to the Council's overall program, including the U.S.-Third World Policy Perspectives series of which this study is a part.

October 1992  
John W. Sewell, President  
Overseas Development Council





# Overview



# Poverty, Natural Resources, and Public Policy in Central America

*Sheldon Annis*

---

It is now hardly necessary to tell anyone that Central America faces an environmental crisis—or that this environmental crisis mirrors an even deeper poverty crisis.

But it is wrong to say that nothing is being done. To the contrary, Central America's policymakers have responded with a plethora of new ministries, task forces, and high-level commissions. They have issued a stream of urgent priority statements, strategy documents, laws, and regulations. Bilateral and multilateral aid agencies have supported their efforts with tens of millions of new dollars for natural resource and rural development programs. International foundations have mobilized to support rainforest protection, biospheres, population programs, and research into sustainable agriculture. The airwaves of Central America now resound with exhortations not to litter, not to pollute, not to destroy. The region's school children are being taught to draw their own tapirs, guacamayas, and toucans (rather than elephants, giraffes, and zebras). And ever more loudly, their parents are voicing concerns about local resource problems—not just in universities and among the middle class, but in village committees, in urban *barrios*, and through well-organized popular organizations.

Central Americans understand perfectly well that poverty and environmental deterioration are mutually reinforcing. Yet despite anger and debate, new policies and programs, and a substantial investment of public and private money, three inescapable realities remain:

- Poverty has generally gotten worse, not better.

■ The region's physical resources are being depleted at an ever accelerating rate.

■ Current responses—though often positive—are neither reversing poverty nor stemming the drain of physical assets.

This book examines these troubling realities and sets forth several concrete proposals on what can be done. In presenting these ideas, we are all too aware of underlying obstacles that tend to undercut all such programs of good intention—a \$28 billion debt overhang,<sup>1</sup> a weak international trade position, a legacy of violence, and enduring political conflict. Moreover, a region that had a population of about 12 million in 1960 will have a population of approximately 63 million in 2025 (Appendix, Figure 1).<sup>2</sup>

Yet, if the situation is not exactly bright, neither is it hopeless. Central America is changing, and many of the changes are for the better.

Perhaps the most significant change is relative peace. Since the peace process began in the mid-1980s, formerly contentious parties have been talking to each other, and a mood of reconciliation has prevailed. After 12 years of bitter warfare, a political settlement has finally been reached in El Salvador. After more than a century of dispute, Guatemala has formally acknowledged Belize as an independent nation with recognizable borders. With more than 45,000 dead in a country of less than 4 million people, Nicaragua continues to disarm.<sup>3</sup> And the parties to the region's longest and most intractable war—the guerrilla insurgency in Guatemala—are at least negotiating an end to the strife.

It is premature to say that economic recovery is taking place. It isn't, and certainly not for the poor. But some positive signs are visible. Costa Rica, Guatemala, and El Salvador registered positive real growth rates in 1990 (3.5, 3.8, and 2.5 percent, respectively)—far stronger than the negative or flat rates of the early and mid-1980s. Compared to the mid-1980s, inflation is coming under control.<sup>4</sup> Some economic sectors, such as tourism, are vigorous and promise to expand. In Costa Rica and Guatemala, nontraditional agricultural exports have increased. Investor confidence, relative to the 1980s, is up; capital flight is down. Although only Costa Rica has actually negotiated a significant reduction package for commercial debt, at least the precedent has been established, and the Enterprise for the Americas Initiative formalizes a procedure for reducing official debt.

In general, Central American governments are more stable and technocratic (in a good sense) than they used to be. The transition from military to civilian rule, though far from complete, is probably irreversible. The region's governments share a remarkable consensus on the need for market-driven economies, freer trade, continued restructuring of the public sector, and greater regional economic integration. With the cooling



of external and internal warfare, they have an opportunity to redirect substantial military expenditures into economic and social investments. For almost the first time in history, these countries are in approximate agreement with their powerful northern neighbor on economic policy goals, especially in regard to foreign investment.

Finally, the extraordinary groundswell of popular revolution that has swept the world in the last three years also has reached Central America. Though less dramatically apparent than elsewhere, fundamental political changes are taking place. Throughout the region, a broadening spectrum of social actors—including the poor—are becoming engaged in debate and decisionmaking. Democracy is taking on practical meaning beyond nominal elections.

This book asks whether and how these positive trends can offset the continuing expansion of poverty and environmental depletion. In addressing this problem, we pose several future-oriented questions:

- What kinds of regional arrangements can address cross-border environmental problems? How can national boundaries be respected, yet accommodate natural ecological boundaries and reduce political tension?

- How can the new social energy and political activism of the poor be better incorporated into the political process? Specifically, can development assistance programs be reformed to reinforce and constructively build upon these new energies and capabilities?

- What types of public-sector institutions need to be created to link the sometimes contrary objectives of poverty alleviation and resource conservation? In particular, how do Central American nations establish multiple-use protected areas that fairly reconcile human needs with the protection of forests and wildlife?

- What agricultural strategies will the region need to embrace? In particular, how can modern, nontraditional agriculture include the poor?

- What can be done about the inherent maldistribution of land in market-oriented economies? Are there practical measures that can redistribute assets in ways that are fair and conducive to rural development and environmental protection?

## POVERTY IN CENTRAL AMERICA TODAY

No one knows, really, how many poor people there are in Central America. Indicators are imperfect, at best, and data are uneven.<sup>5</sup> However, estimates are that about 14.5 million Central Americans, or 56 percent of the population, are "poor." Of these, about 9.1 million people, or 35 percent of the population, are "extremely poor." In *rural* areas only, about

70 percent of the population is “poor,” 47 percent of which is “extremely poor.” (For a breakdown of poverty distribution by country, see Appendix, Figure 10.) Even with a wide margin for possible overstatement or error, this is a huge and unacceptable amount of poverty by any reasonable moral standard.

If poverty is clearly endemic in Central America, is it improving, stabilizing, or worsening?

For some countries there is no doubt. Nicaragua, for example, had a 1990 real growth rate in GDP of -5.5 percent; in Honduras it was -3.8 percent.<sup>6</sup> Even though hard statistical data are scarce, no one who has witnessed firsthand the economic devastation in Nicaragua, the visible malnourishment in Honduras, or the effects of a bloody war in rural El Salvador doubts that poverty has worsened.

The situation in Guatemala is mixed. On the one hand, the Guatemalan economy grew at a moderate 3.5 percent rate in 1990, following several years of positive growth; but, at the same time, substantial inflationary pressure hit the poor especially hard (see Appendix, Figure 8).<sup>7</sup> During the 1980s, both poverty and inequality increased in Guatemala. According to the World Bank and the Economic Commission for Latin America and the Caribbean (ECLAC), the proportion of Guatemalan households under the poverty line rose to nearly 70 percent by the mid-1980s, of which 43 percent were considered “extremely poor.” The gini coefficient (the most commonly used statistical measure of relative inequality) for family income rose from 0.48 in the 1979-1981 period to 0.53 in the 1986-87 period—meaning that family income distribution worsened in a society that was already among the most inequitable in the hemisphere.<sup>8</sup>

Costa Rica is the only Central American nation in which it is plausible to argue that absolute and relative poverty may have declined overall in recent years. From the early 1960s through the end of the 1970s, Costa Rica enjoyed a period of sustained economic growth. Poverty and income inequality declined substantially. But at the outset of the 1980s, the economy collapsed. Real per capita income fell by nearly 25 percent and poverty shot up. Since the mid-1980s, the economy has expanded steadily. Yet the evidence on poverty and income inequality is mixed and contradictory. Economist Gary Fields, who has done the most systematic review on this subject, says that *if* indeed there have been improvements in inequality, they could not have been large ones.<sup>9</sup>

One simple way to translate abstract data about poverty into human terms is to think about what most rural Central Americans earn in light of what it actually costs them to live. Consider, for instance, the prevailing daily wage rates paid to agricultural laborers: about \$2 per day in Guatemala, \$4 a day in Costa Rica, \$6 to \$7 per day in Belize, \$2.50 per day in El Salvador, and \$3 per day in Honduras.<sup>10</sup> Whether working on

their own land or on someone else's, most rural people earn cash or in-kind incomes relatively close to these rates.

Now, compare these incomes for a full day of backbreaking labor to the cost of common goods and services:

■ In Guatemala, most rural people eat tortillas and salt as a staple food, beans sometimes, eggs if they have their own poultry, and meat and milk rarely. That is because a gallon of milk costs about \$1.60—more than 80 percent of a rural worker's daily salary; the price of a kilogram of ground beef is about \$3.25, more than a day and a half of a full-time salary. A single gallon of gasoline to operate a truck is roughly equivalent to a co-op member's total daily income. If a landless farmer wants his own farm, a single hectare of high-quality land will cost about \$1,600—roughly twice his income for a year.<sup>11</sup>

■ In the Nicaraguan countryside, the price of a minimal food basket for a family of four is about \$110 a month, approximately *twice* the salary of a primary school teacher or rural nurse.<sup>12</sup> To build a home, a rural family will have to pay about 60 cents apiece for cinder blocks and about 30 cents a pound for 3-inch nails—just under the price for similar materials in a country hardware store in the United States. But the relative price in Nicaragua is much higher: 90 cents for the block and nails represent nearly *half a day's* wage for a rural Nicaraguan *albañil* (a skilled mason who builds homes), while they mean about 3 or 4 *minutes* of wages to a skilled American carpenter.<sup>13</sup>

■ In rural Belize, the average food expenditure for a family of six, living in a United Nations-funded refugee settlement project, is about \$86 per month. That allows approximately 50 cents a day to feed each person. Yet the prices for goods, such as eggs (\$1.20 per dozen), milk (90 cents a quart), a coke (50 cents), a bottle of local beer (about \$1) are approximately the same or more than they are in the United States.<sup>14</sup> Meanwhile, if wages are a fraction of real food costs, the price for helping development is relatively much higher. A box of perforated computer printer paper used by a relief organization runs about \$60 in Belize's capital, Belmopan (compared to about \$25 in the United States); a ream of 500 sheets of photocopy paper costs approximately \$10 in Belmopan (about \$3 in the United States).

One need not search very far to see what these discrepancies between wages and the cost of living mean. Central America's "pockets" of endemic poverty have stretched so large as to now take in most of the region: virtually all of Nicaragua; most of Honduras; nearly all of Guatemala's northwest highlands and much of the east; war-ravaged departments in El Salvador, such as Chalatenango and Morazán; sizeable sections of Costa Rica, such as Nicoya and Puriscal; Colón and much of central Panama; and the large Toledo district that makes up southern Belize.



Even in relatively prosperous areas—the modern cotton farms along Guatemala's Pacific coast, the well-to-do small coffee and vegetable farms of Costa Rica's Central Valley, and the new melon-exporting regions of Honduras—poverty is displaced rather than truly absent. The poor live between prosperity's cracks as squatters on public land or camped out on vacant property, as seasonal laborers in temporary housing, and as tenant farmers, refugees, and urban slum dwellers who often commute to the countryside for low-paying harvest jobs.

It is no accident that environmental problems (deforestation, massive erosion, watershed destruction, agrochemical saturation, and degradation of marine estuaries) tend to be worst in the areas of most extreme poverty. Take, for example, Choluteca on the Pacific coast of Honduras. Once green, it is now deforested and sprouting cacti. Despite occasional satellite dishes and Mercedes diesels roaring between the capital city and the coast, the landscape is ragged; crops grow indifferently; houses are left unattended as workers seek jobs elsewhere.

The central highway that connects Choluteca with Tegucigalpa is pitted with potholes. To the south, traffic slows every few kilometers for what appears to be road construction. As a motorist approaches, the workers raise their hands to wave . . . well, not actually to wave, but to beg; for these workers are ragged gangs of roadside children—two here, three there, perhaps as many as 20 in small groups.

Some of these children are as young as four; few are older than 10. Their job is to fill in the potholes that they already "repaired" yesterday. With a busy flurry of activity to slow the speeding traffic, the youngest children pile sod or scoop roadside gravel onto scraps of plastic. They then dump this material into the potholes, sweeping in more roadside gravel and stomping on the fill. They beg for tips from the motorists who must slow and swerve to miss both the potholes and the waving children.

The homes in which these children live have dirt floors rather than concrete, cooking fires rather than stoves, and latrines rather than toilets. Much of their family diet consists of salted tortillas and store-bought sweets. Food is scarce, there are few possessions, and little or no cash is kept at home. Their parents typically came to this area a generation ago. When these children are older, they too will probably move on.

## How Poverty in Central America is Different Today

In traveling and talking with rural Central Americans such as these, it is clear that the social character of poverty in the 1990s is very different from that of previous generations. These changes have important implications for the ways in which the population uses natural resources.

*First, though as economically impoverished as ever, the rural poor of the 1990s are no longer necessarily isolated or "traditional."*

Today's rural poor are not generally self-contained subsistence farmers or a backwater population waiting for development to happen. In Choluteca, for example, modern agriculture and the Green Revolution arrived years ago; mechanized farms, roads, power lines, and billboards stretch in every direction. The hardware of development projects peppers the landscape: Peace Corps rabbit hutches, CARE latrines, World Neighbors terraces, EEC farm implements, USAID schools, and IDB health posts, and government officials hurry in their acronym-initialled, four-wheel drive vehicles.

Rather, these rural poor are what is left over *after* development. They are not waiting for the modern economy; they *are* the modern economy. And for precisely this reason, the poverty they face is in many ways more deeply ingrained and more intractable than the "traditional" village poverty of their parents' generation.

On the other hand, these people are better educated and more media connected than their parents were. Between 1960 and 1980 alone, rural literacy rose from about 38 to 62 percent.<sup>15</sup> Few people still live in villages where no one can read a newspaper and where petitioners must sign documents with thumbprints. Virtually everyone is a radio listener, and most are television watchers. By now, their consciousness has been raised by Freirian educators, their souls contested by evangelical preachers, their children vaccinated by health post workers, and their communities organized by a half-dozen brands of community organizers. Of course none of this means that they are not still poor and powerless. But they are nonetheless better informed, better connected to ideas and to the outside world; and in some respects, they are better posed to challenge the conditions of their lives.

*Second, today's rural poor are less rooted to place.* To have asked a Honduran *campesino* 20 years ago, "Where are you from?" would have been pointless because the answer was largely self-evident: "From here." Now, however, the query seems as natural and conversational as it does in, say, transient Washington, DC. The rural population is mobile. As many as 3 million people—roughly a fifth of the rural inhabitants of Central America—have been displaced by war, fear of political violence, endemic poverty, and depletion of physical resources.<sup>16</sup> This displaced population also includes a very large number of rural offspring who did *not* inherit their parents' farms. To say that someone is "among the poorest of the rural poor" no longer suggests a poor but stable *campesino*, but rather a person who is transient, probably unwelcome among more permanent neighbors, and in many respects a "forager" on the landscape. Neither subsistence farming nor rural wage labor can fully absorb this widening fraction of the population.

In many cases, these uprooted people move from country to country—the human flotsam of the region's bitter warfare. For example,

Belize, with a 1991 population of about 200,000, has absorbed some 30,000 refugees from El Salvador and Guatemala, ranking it tenth in the world in the proportion of refugees to native-born citizens.<sup>17</sup> During the early 1980s, Mexico absorbed as many as 200,000 political refugees from the highlands of Guatemala (and an estimated 42,000 still remain).<sup>18</sup> In turn, Guatemala has endured cross-border incursions from landless Mexican farmers (as well as waves of archaeological looters and wildlife poachers).

In the late 1980s, tens of thousands of Nicaraguan contras operating in southern Honduras destroyed much of the forested border zone. As many as 20,000 ex-contras have laid down their arms and, with their dependents, are now seeking land.<sup>19</sup> While up to 350,000 Nicaraguans were internally displaced by the war, perhaps as many as half a million refugees fled the country.<sup>20</sup> Some 20,000 "official" refugees and an estimated 100,000 undocumented Nicaraguans are expected to remain in Costa Rica for the foreseeable future.<sup>21</sup>

*Third, because much of the social fabric of rural Central America has been shredded by violence, dislocations, and loss of resources, today's poor are now less bound together within families and stable social institutions.* "Village" once implied a web of multigenerational, extended family households. Today's rural poor are more likely to be "family fragments." The proportion of the poorest population that is made up of single, adult females has increased enormously. In countries such as El Salvador and Guatemala, where as many as a quarter of the households are now headed by women,<sup>22</sup> this perverse "feminization of poverty" can be partially attributed to men being killed or forced to flee. In less violent places, it has more to do with the splitting up of families because of poverty and work-related migration. One way or another, female-headed households have fewer working members, lower average wage earnings, and less access to productive resources.<sup>23</sup>

Indirectly, the dramatic increase in street children<sup>24</sup> in many of the region's cities is caused by the fragmentation of family life that is taking place in the countryside. In Guatemala, it is estimated that about 5,000 abandoned, homeless children sleep on the streets, while as many as 1.45 million children and youths (though they may have some kind of family or home base) earn their livelihood and roam the streets at least semi-independently.<sup>25</sup>

Men, women, and children of rural Central America who were previously bound within webs of linked nuclear families now find themselves in social situations that were once atypical of village life: serial, common-law unions that produce children who do not fit easily into the social space or inheritance structure; polygamy, especially by men who move between city, coast, and village; renting or homelessness among elderly villagers not incorporated into the households of their children; and semi-independence among rural teenagers who are the children of



family fragments. Domestic servitude in middle-class urban households has long been an escape route for unattached village women. But while live-in maids once worked a lifetime as "members" of a family, now they tend to change employers frequently, usually without security or job benefits.

## THE ENVIRONMENTAL COST OF CHANGED POVERTY

Most of these changes in the social character of modern Central American poverty have a direct and devastating impact on the environment. This is because resource use by the new "very, very poor" (i.e., squatters, landless laborers, refugees, sub-subsistence farmers, family fragments) is fundamentally different from resource use by the old "merely poor" (i.e., most *campesinos*). Moreover, the deepening structural entrenchment of poverty, the separation of the poor from place, and the tearing of the social fabric have all increased the number of people who are "very, very poor" relative to those who are "merely poor."

The problem is that the more modern "very, very poor" have neither the minimum assets nor the economic incentives to invest in conservation of physical resources. This is not because of a lack of education, environmental insensitivity, or agronomic ignorance. It is a matter of practical survival. Necessarily, the "very, very poor" have a short time horizon when it comes to investing in places in which they themselves are impermanent. They have fewer personal disincentives to cut forest cover, consume wildlife, and plant annual crops on slopes that will erode.

By contrast, "merely poor" farmers (i.e., *campesinos* with secure land tenure) are committed to place, and their livelihood depends on the continued integrity of the resource base. It makes sense for them to invest in windbreaks, fallowing, terracing, and protecting springs. Such poor, but not impoverished, farmers typically manage resources with great care, even elegance. They optimize the use of every microscopic scrap of resource—every ridge of soil, every tree, every channel of water, and every angle of sunlight.<sup>26</sup> They protect what they must depend on for their families' future. It is for this reason that the changed character of modern poverty—which has increased wealth for a few but caused landlessness and rootlessness for a great many more—has had such a deleterious effect on the environment.

The population boom, too, has accelerated environmental consumption. The more people there are in a small area, the harder it is to conserve what remains, despite the importance of conservation. When faced with this dilemma in the past, one solution for the "very, very poor" was to leave. And, indeed, there was usually somewhere else to go—to the agricultural frontier, to cities, to vacant tracts of land, to agrarian reform or colonization projects.

Today, the safety-valve places are mostly filled, and the welcoming frontiers are gone. In immense areas of Central America—virtually *all* of El Salvador for example—deforestation is now so complete that a potential slash-and-burn settler is hard pressed to find somewhere left to slash. The Pacific coast, Central America's great agricultural frontier of the past generation, is now cut by highways, urbanized, and given over to cotton, cattle, sugar, bananas, and African palm almost everywhere from southern Mexico through Panama City. A resident work force, primarily in new cities, now supplies most of the seasonal and permanent farm labor that used to be drawn from the highlands.

In highland Guatemala, which can no longer shed surplus population to the Pacific, departments such as Totonicapán have population densities approaching those of Sumatra or rural Belgium.<sup>27</sup> Cities provide a partial answer at best. In the recessionary 1980s, life for the urban poor in Central America became so bad that in many cases the flow of migration was *reversed*, back to the countryside.

In Guatemala, one historic option for the landless has been migration to the Petén, the country's last remaining large tract of sparsely populated forestland. But since the late 1960s, agriculture has penetrated and is now virtually irreversible as far north as Flores. And aside from the fact that the Petén's tropical soils are not particularly well suited for the subsistence crops of the highlands, today's land seekers are discovering that they must join a long, combative line of others who also want access to the remaining territory—commercial loggers, Mexican lumber poachers, wildlife poachers, marijuana growers, nature tourism operators, petroleum companies, Mayan archaeologists, chicle tappers, *xate* growers, 40,000 Guatemalan refugees living in Mexico, and conservationists who want to establish an international Mayan biosphere reserve.

## The Environment and the Rich

The preceding discussion does not imply that Central America's worsening environmental crisis is the fault of the poor. To the contrary, there is another side to the story: the environmental crisis was created by the well-to-do, who, like the poor, are accustomed to viewing natural resources as the stuff from which personal wealth is manufactured.

Agrarian elites in Central America tend to be wealthy precisely *because* they have been able to convert public resources into personal wealth. Like the new "very, very poor," wealthy farmers typically inhabit an economic environment that is not based on incentives to conserve or even necessarily to produce. During the 1960s and 1970s, in particular, large farmers throughout Central America greatly benefited from the ease with which they could transfer resources to themselves by using political clout to manipulate states that were weak, corrupt, or controlled



by the military. They were able to put in place policy choices and incentives that transferred resources to make the rich richer, the poor poorer, and helped to accumulate the region's dual "economic and environment debt."<sup>28</sup> These measures, which created grist for the economic reform agenda of the late 1980s, included:

- plentiful production loans for large farmers at negative real interest rates;
- overvalued exchange rates that effectively lowered the cost of expensive imported machinery and heavy equipment;
- reductions of and exonerations from tariffs on imported agricultural inputs;
- government-financed crop insurance programs that strongly favored large-farm crops;
- low tax rates on the traditional commodity exports;
- low rates or nonexistent taxes on land;
- generous fiscal incentives for export agriculture;
- privileged access to agricultural ministries;
- a banking system heavily biased toward large-farmer loans;
- research and agricultural extension services geared toward the needs and technology of large farms;
- willingness of banks to make seemingly endless bridge loans and to tolerate low repayment rates in bad crop years;
- strong reluctance by almost anyone to look critically at the environmental consequences of these measures.

The expansion of the cattle industry was the most environmentally egregious example of how large farmers preempted public resources to finance marginally productive, resource-consuming agriculture.<sup>29</sup> In Costa Rica, for example, about one-third of all state-financed agricultural credit—an extraordinary \$1.2 billion between 1969 and 1985—went to finance cattle ranching.<sup>30</sup> Large farmers, who had easy access to the national banking system, received most of these loans.<sup>31</sup> This disproportionate allocation of capital (largely borrowed internationally) produced relatively little foreign exchange and helped drive deforestation at a voracious rate. Between 1950 and 1973 total pasture more than doubled to include almost half of total agricultural land, so that cattle occupied about 1.6 million hectares—approximately one-third of the country's total land mass.<sup>32</sup>

The disproportionate, politically driven investment in cattle ranching was in almost all ways a poor investment. First, the massive extension of public credit was far out of proportion to the relatively modest foreign exchange earnings or the cattle industry's contribution to Costa Rica's domestic agricultural economy. Indeed, the export earnings were not as great as the loans.<sup>33</sup> Second, the loans were consistently in arrears; they required constant rescheduling and moratoria on repayment; and

they were defaulted upon by the same farmers who then went back for new loans.<sup>34</sup> Third, they were socially biased. Well-to-do cattle ranchers were among the most powerful lobbies in the country. Not only were loans easier for them to obtain, but they also were easier for them to *not* pay back.<sup>35</sup>

Easy borrowing from the banks accelerated easy “borrowing” from the land. So long as credit was subsidized and land was cheap, ranchers had little incentive to invest in intensified production, much less in long-term measures to protect or restore what was ruined. Instead, they simply borrowed back and forth until external bank credit was exhausted on the one hand, and “environmental credit” was exhausted on the other.

Central America’s skewed credit system is only one reflection of this historical pattern of “wrong-way” resource flows.<sup>36</sup> Another example, as John Strasma and Rafael Celis point out in Chapter 5, is the region’s maldistribution of land and general ineffectiveness in fairly taxing wealth. And yet a third example, according to Stuart Tucker in Chapter 4, is the two-track, socially biased structure of opportunity in modern, non-traditional agriculture.

Central America’s “development model” has been based on international borrowing, environmental consumption, and foreign aid. Running on borrowed time, the economies of the region *did* grow overall during the last 30 years. Yet international borrowing, environmental consumption, and foreign aid are not sustainable. (see Appendix, Figure 4.) The world and Central America have changed. What worked in the past will not work in the future.

## AN END TO ENVIRONMENTAL BORROWING

During the 1950s, 1960s, and 1970s, agricultural production more than kept pace with the expanding population. But the strategies and technologies that boosted output over those decades cannot necessarily reproduce the same miracles in the 1990s and beyond.

In the first place, the region’s richest, best-watered, and most accessible agricultural zones are all in production. There are no more vast, unused tracts of land. Furthermore, the natural fertility of areas brought under cultivation 20 to 30 years ago is now declining.

Fertilizers, pesticides, and high-yielding seed varieties can offset declining fertility up to a point. Certainly, Green Revolution seeds, combined with relatively inexpensive chemical fertilizers and pesticides, increased the production of such crops as coffee, cotton, and rice, especially in the 1970s. But while commodity prices have declined since the early 1980s,<sup>37</sup> agrochemicals (particularly those that are petroleum-based) have generally become far more costly, both in absolute terms and relative to

the value of the commodities they help produce. In addition, the associated health and environmental hazards have reached unacceptable levels in many areas.

Water diversion and gravity-flow irrigation were relatively easy in the 1960s and 1970s, because groundwater was generally abundant where agriculture was expanding. But much of the "easy water" has now been tapped, dammed, used, or polluted. Streams, watersheds, and aquifers have been damaged and retain less water than they used to. Once-fertile lands are now denuded and degraded, initiating a desert-producing cycle that feeds on itself and that has caused long-term changes in the soil, climate, plant and animal life.

Take, for example, Zacapa in Guatemala, Choluteca in Honduras, La Unión in El Salvador, or Nicoya in Costa Rica. These are regions that once absorbed settlers. Today, they are dry, deforested, and worn out. The land cannot support the population, and there are few choices for a new round of outward migration. Economically, the region can scarcely afford to protect critical watersheds in the highlands and best agricultural zones, much less finance irrigation and rehabilitation to restore high productivity in these ecologically devastated lowlands.

In the 1970s a world surplus of easily borrowable "petrodollars" helped fuel the expansion of unsustainable agriculture in Central America. The Cold War kept dollars flowing through the end of the 1980s. (Between 1978 and 1990 Central America received about \$10 billion from the United States in loans and grants.)<sup>38</sup> But today the capacity to borrow is constrained by past debt; and the prospects for extraordinary aid flows, such as the \$4.0 billion that El Salvador received during the past 12 years, are negligible.

## NEW POLITICS FOR THE 1990s AND BEYOND

There is another reason why the basic development model of the past—in which the elite used politics to convert natural resources to personal wealth and more clout—is no longer sustainable: Central America's politics has also changed. At every level competition is increasing over who has access to fiscal and physical resources. In particular, poor rural majorities constitute an increasingly important element in checks and balances among a gradually widening field of political players.

An underlying theme of this book is that new frameworks must evolve for political bartering and decisionmaking over the allocation of resources. To reverse poverty or environmental degradation, poor majorities must be able to negotiate fairly their needs in relation to those of agricultural exporters, urban professionals, middle-size farmers, tour operators, conservationists, and all the other groups who lay claim to a piece of

the pie. Where they do not exist, mechanisms need to be invented for dialogue and deal making among the plethora of competing interests that collectively control the fate of the region's natural resource base.

Each author in this volume hammers home this theme from a slightly different angle:

- By calling for a "park process" as an extension of the "peace process," former Costa Rican President Oscar Arias and James Nations reinforce the point that parkmaking, like peacemaking, begins by bringing adversaries to the table. Conservation, too, they argue, should focus on recognizing mutual interests and reconciling conflicts.

- Stephen Cox traces the failure of much of what we call "development" to a bureaucratically driven system that inherently denies citizen participation. The alternative that he proposes, "rigor in process," is an attempt to redress this fundamental weakness.

- Alvaro Umaña and Katrina Brandon provide an illuminating case study of how Costa Rica struggled to "invent institutions" that would simultaneously reconcile the state's desire to have a unified national strategy for resource management—and at the same time decentralize actual decisionmaking, control, and financial responsibility to a widening network of regional actors.

- Stuart Tucker argues that emphasis on nontraditional agricultural exports is indeed a good idea for Central America, but that the mainstream development policy reflects and reinforces exclusion of the poor. What is needed, he says, is multilayered reform that widens social access to market opportunities.

- John Strasma and Rafael Celis dispute conventional wisdom that dismisses taxation as politically impossible in Central America. To the contrary, they argue that site-specific land taxes are possible precisely *because* decisions can be made and enforced by a consensus of local representatives.

## NEW COMMUNICATIONS NETWORKS AND THE POOR

Democratization is beginning to penetrate decisionmaking over the allocation of natural resources. In one important respect, time favors democratization. The same extraordinary communications technology that was so crucial in the political upheavals of Eastern Europe and the Soviet Union also has reached Central America. Faxes, videos, telephones, computers, and optical fibers allow previously disconnected people to talk to each other, exchange information, and form new political networks.<sup>39</sup>

Of course, the poor are still poor, and poverty still means powerlessness. But the *informational* environment today is different—in gen-



eral, improving—and that creates one more building block toward real democracy.

In remote corners, as well as cities, one sees evidence everywhere:

■ In Guatemala *campesinos* who cannot operate typewriters, much less computers, can now fax messages about massacres to foreign journalists and human rights monitors. As reports accumulate, they can set off a chain of international action alerts and generate thousands of protest telegrams to the government within a matter of days. Tomorrow these *campesinos* may still be repressed; but as repression is made visible internationally, it becomes more difficult to sustain locally.

✓ ■ In a thin band of jungle running some 200 kilometers along Panama's Atlantic coast, Kuna Indians document their customs and prepare videos. On tape they debate the Columbian quinqucentennial. More important, they exchange tapes and coordinate strategies long-distance with the Bribri in Costa Rica, the Kekchi Maya in Belize, even the Cherokee in Oklahoma.

■ In Nicaragua a phone-based computer network called Nicarao connects scores of regional environmental activists, journalists, and grassroots organizations to each other. Through Nicarao's link to PeaceNet/EcoNet in the United States, regional users are joined to thousands of counterparts in support organizations and kindred institutions in about a dozen other activist networks throughout the world. In Costa Rica, a new computer network, Huracán, connects disparate nongovernmental organization researchers at the region's five major public universities. In turn, Nicarao and Huracán are linked to each other . . . and to the Internet in the United States, which means they are linked to thousands of individual *networks*, connecting perhaps a million users in universities, corporations, and nonprofit organizations throughout the United States . . . who in turn are newly joined to similar electronics webs in Europe, Australia, and East Asia and to the incipient networks forming in southern Africa, South America, and Eastern Europe.<sup>40</sup>

Of course all communication is not political. Computer conferences and video linkages do not in themselves make powerless people powerful; and information by itself does not translate to power. The rich, too, have access to new technology (indeed, far greater access); so gains by the poor are hardly one-sided, nor are they necessarily equalizing.

Nonetheless, local struggles are becoming visible and more easily incorporated into wider movements. The assumption that the poor always lose is less certain. In general, technology is cheaper, more portable, more durable, and easier to use. If not necessarily accessible to poor individuals, it is at least reaching service organizations and grassroots networks that incorporate the poor.

Take, for example, a group of artisanal fishermen in southern Honduras along the Gulf of Fonseca. This organization has been bitterly struggling with commercial mariculturists over remaining tracts of mangroves. The fishermen want the estuary mangroves left intact as spawning and fishing grounds and as a source of fuelwood. The commercial growers want to take advantage of the natural hydrology to construct ponds for growing shrimp.<sup>41</sup>

Three years ago the fishermen's group received a camcorder from a foundation grant. At first they used it to record community fiestas and birthday parties. But more recently they have learned to document company-owned bulldozers plowing under mangroves, while a newspaper is held up in the background to verify the date.

These snippets, the fishermen have learned, can be sent to representatives in the Honduran Congress, to newspaper and television journalists, and to international environmental organizations who know that the environmentally sensitive USAID program is helping to finance export-oriented shrimp farming. In effect, the local fishermen have been able to manufacture 15-second sound bites. They may lose their battle anyway; but in taking the fight beyond the local arena, they are improving their odds over the certain loss that they would have faced just a few years ago.

## TOWARD A PRO-POOR, PRO-ENVIRONMENTAL POLICY AGENDA

A new politics is indeed in its infancy in Central America. Representative organizations are emerging, links are being forged between previously unconnected groups and social layers, and formal democratic processes are solidifying. But how can this dynamism be translated into public policy that is both pro-poor and pro-environment? Where is the reform agenda that can bring together new political actors, their ideas, and real-world decisionmaking?

The authors of this volume present several difficult and sometimes contradictory policy shifts that must take place. More important, they set forth a series of concrete proposals. They build toward a convergence in poverty and environmental policy, explained in the following pages.

### The Softening of Borders

The unification of conservation with development is a challenge that transcends borders. In "A Call for Central American Peace Parks," former President Oscar Arias and James D. Nations propose a regionally managed system of Central American "peace parks" that would reduce stress on the environment and, simultaneously, lessen political tension.

Presently, separate initiatives are under way to establish bi- and tri-national parks along four border zones: the Petén (Guatemala, Mexico, Belize); El Trifinio (El Salvador, Honduras, Guatemala); Sí-a-Paz (Nicaragua, Costa Rica); and La Amistad (Costa Rica, Panama).

All of these areas share common characteristics. They are separated by national borders but joined by ecology; they contain unique wildlife, tropical forests, and archaeological sites; they protect shared watersheds that support agriculture and urban populations; and they are under siege by large numbers of poor people, including many who have been displaced by the region's wars and political conflicts.

As Arias and Nations point out, the problems of wise and just land use are hard enough to address within the boundaries of a single country. These difficulties multiply when administration, cost sharing, and political decisions must straddle borders—particularly borders as contentious as these have been. Moreover, peace parks in these border zones will be meaningless if the needs of the displaced poor are not met.

Yet a park process today is no less improbable than a peace process was yesterday. In 1987 President Arias led an effort—for which he was awarded the Nobel Peace Prize—for all Central American nations to promote dialogue and negotiate solutions to regional warfare and political conflict. In this volume, he and Nations argue that the same process can be applied to conservation—an ambitious proposal to bring poor people into the decisionmaking process over natural resource utilization, while joining sometimes antagonistic parties across sovereign borders.

## Aid Reform and “Rigor in Process”

Virtually no one is satisfied with the past decade's multibillion-dollar aid expenditure. In his chapter, Stephen Cox asks, What's wrong? What is it that we don't know about poverty-oriented development assistance? And is there a role for a better kind of development aid in the future?

The problem, Cox maintains, begins with a model of sustainability that is far too narrow. Although development practitioners have begun to worry more explicitly about economic and environmental sustainability, they give far too little thought to social, political, and institutional sustainability.

Cox argues that the conventional practice of development is predicated on mistaken confidence in the degree to which bureaucratic institutions can predict and control what happens in practice. Professional “developers” assume that they influence more than they really do; so, much is planned and little is achieved. In addition, assistance is distorted and driven by the political priorities of governments and donors, not the needs of the poor. And, cutting across all these weaknesses, the model

fails to incorporate citizen participation in the management and structuring of development.

Cox calls first for humility. He argues for the downsizing of institutional hubris coupled with greater faith in democratic process. He calls for "rigor in process" rather than for "rigor in design." This means:

- Securing timely and periodically updated feedback on the actual priorities of the rural poor;

- Improving the analytical and managerial skills of local and national institutions, both private and public, to ensure continuity after international involvement ceases;

- Establishing mechanisms for debate over priorities and methods, and "deal cutting" among local and national interests; and

- Creating "accountability linkages" that give program staff incentives to work flexibly and creatively for results rather than for compliance with workplans.

How might "rigor in process" be introduced into existing and future programs? Cox takes note of several new kinds of "process tools": rapid rural appraisals, multiparty policy dialogues, interagency working groups, horizontal communication among nongovernmental organizations and popular organizations, and training and analytic skills for new participants in development. He discusses these tools in the context of the U.S. bilateral assistance program. Then, he calls for an imaginative new initiative—the creation of a Central American Fund that would provide support specifically for participation-enhancing and process-focused activities.

## Creating New Institutions for Conservation and Development

Perhaps the most perplexing environmental challenge facing Central America is how to conserve remaining forests (especially along the Caribbean coast and undeveloped tracts along the Pacific), simultaneously use and restore already overused slope land in the highlands, and at the same time meet legitimate demands for *more* land by a restless, rapidly expanding, rural population.

Nicaragua is a case in point. It supports more standing tropical rainforest on the Atlantic coast than exists in the other Central American countries combined. Although a 2.7-million-acre region known as Bosawas is nominally "protected," the area—which was devastated by Hurricane Juana in 1988—is today beset by lumberers, hunters, land speculators, ranchers, demobilized contras, and Sandinista agrarian reform beneficiaries whose farms were returned to pre-Sandinista owners. Each group is aggressively asserting its political claim by expanding its territorial control. The once seemingly vast rainforest is shrinking with astonishing rapidity.



Management of the inevitable political cross-currents is no easy task; there is no simple right answer. But grappling as best it can, Nicaragua is nevertheless in the process of creating public-sector institutions that can seriously try to address the challenges. There are four basic requirements: research and scientific information as a basis for policymaking; a central authority that can set and adhere to national priorities; financing to make programs work; and participatory mechanisms that can deal with the complexities of local situations.

Neighboring Costa Rica provides at least a partial guidepost. In their chapter on the Costa Rican experience, former Minister of Natural Resources Alvaro Umaña and Katrina Brandon, an expert on parks and development, describe a different, but relevant, set of initiatives to create an institutional basis for conservation. They include:

- Establishing a high-level, public-sector authority that consolidates responsibility for natural resource management at the national level;
- Creating decentralized regional authorities that links core protected areas with buffer zones and that institutes channels for local-state dialogue over the management of these zones;
- Mobilizing public and private funding to support conservation activities and then sharing control over these funds with those at the regional level; and
- Linking scientific research, especially in tropical forests, to the needs of local development and conservation planning.

Countries such as Costa Rica and Nicaragua are very different of course; and as Umaña and Brandon point out, Costa Rica too has a long way to go to reconcile fully the conflicts between conservation and development and to unite central government authority with grassroots decisionmaking. Yet the institutional experience is nonetheless instructive. It provides Latin America's most fully realized example of a country struggling to link its conservation policies with its development policies.

## Rural Development Versus Export Agriculture

It has often been observed that the success of conservation has less to do with what happens inside protected areas and far more to do with the economic activities and agricultural practices of those who are immediately outside. Parks cannot flourish as islands in a sea of rural poverty. No conservation measure, including peace parks, is likely to succeed where development itself fails.

In Central America—with its unanchored modern poor population—the fate of conservation depends directly on the capacity of each country to restore economic vitality to the tattered agrarian social fabric. The rural poor of the 1990s cannot expect to rely solely on subsistence

agriculture. The poor too—indeed, the poor *especially*—must make a transition to higher-output cash cropping.

In his chapter on the current orthodoxy of nontraditional agricultural export, Stuart Tucker explains that increased exports and rural development are not the same thing. The new nontraditional crops tend to reinforce rather than reverse the region's maldistribution of wealth. They are neither environmentally nor socially neutral.

Tucker maintains that the shift to these crops is not necessarily wrong. But to rectify unequal access to opportunity, four areas of pro-rich bias must be reversed: financial, infrastructural, institutional, and regulatory. In short, he says:

- Timely access to reasonably priced credit is necessary before the poor can invest in nontraditional agriculture;

- Transportation and electrical grids must be extended into hitherto isolated areas, so that the poor also may be assured of getting their produce to market;

- Reform of ministries of agriculture is required (especially in Guatemala and Honduras) in order to decentralize and strengthen extension activities and improve the effectiveness of government credit to small and landless farmers;

- Regulation of the competition of export intermediaries and of land acquisitions is necessary to ensure that nontraditional crops do not result in the re-concentration of economic power by the well-to-do.

Tucker argues for reform not only in Central America but in the United States and other developed countries as well. He argues that the United States should provide substantial external assistance for rural infrastructure and education in Central America, increase research on nontraditional production and integrated pest management on tropical soils, search for substitutes for banned pesticides, and end remaining restrictions on freer import to the U.S. market. The goal, he points out, is not just greater overseas sales of new agricultural products; it is an improved structure for agricultural opportunity.

## Land and Taxation

Land-extensive, export-oriented farming by the rich coupled with subsistence farming on tiny plots by the poor can only drain the region's remaining physical resources. That may have been a possible "development strategy" in the 1960s and 1970s, when land was available for the taking, especially on the Pacific coast. But now, cheap frontier land is gone.

John Strasma and Rafael Celis argue that land inequity is at the heart of Central America's rural poverty and accelerating deforestation.

Although land reforms have been carried out or attempted in all the countries of the region, they were inevitably underfinanced, paternalistic, and did not reach the majority of the rural poor. Now, the authors say, "It is time for governments to treat the landless as potential small farmers in market economies, rather than as permanent political clients dependent on underfunded, paternalistic government agencies."

How can this be done? One answer is land taxation that is imposed, collected, and spent *locally*.

Strasma and Celis argue that overall tax burdens in Central America are currently relatively light, especially for the very rich. Higher tax burdens are justified. But whether justified or not, with the decline in external aid and with rising pressure to cut fiscal deficits, higher tax burdens are probably also inevitable.

The authors believe that *land* tax, which is generally in disuse, is particularly appropriate for several reasons. First, such taxes make underutilized tracts of land more expensive for rural landowners to hold and, simultaneously, cheaper for the relatively poor to buy or rent. So the taxes are highly redistributive. Second, *locally controlled* land taxes provide an ideal revenue source for rural roads, schools, and other services needed by otherwise impoverished municipalities. They do not directly balance public-sector budget deficits, but they do help finance rural development. And, finally, effective land taxes can be designed to provide incentives for protecting forests and disincentives for cutting them.

One important reason that land taxes are more feasible today than, say, in the 1960s, is because computer-assisted assessment techniques make cadastral surveys and titling less complex than they used to be. Satellite imagery can be used to produce accurate maps. Data from existing land registries can be added to these maps; and the product—Geographic Information Systems (GIS) and Land Registries—are manageable on desktop computers. These sophisticated data bases provide a basis for defining ownership and adjudicating claims. Moreover, open community meetings can and should be held to determine which categories of land are assessed at which rates. These rates are changeable because they require ongoing consensus among competing interest groups; yet they are enforceable and politically feasible for precisely the same reason.

## CONCLUSION

Central America is emerging from what will be remembered as an exceptionally dark period. Peace is within reach. And a more prosperous future—at least for some—seems plausible.

Without doubt, continued peace will depend on the region's success in extending prosperity. To that end, increased manufacturing, tourism, diversified international trade, and increased employment in modern urban services are desirable and worth expanding through aggressive policy initiatives. But realistically, these small, poor countries are going to remain highly agrarian in the near future. In the short term, at least, their economic gearing and comparative advantage in the world economy will remain tied to agriculture and resource-based production. Prosperity will depend, in large measure, on how well the region is able to manage its diminishing endowment of natural resources given its high rural population growth.

Managing resources will require more than a commitment to conservation; the issue is not so simple as parks or environmental education. Rather, rural prosperity has to do with shifting away from a development model based on social exploitation, foreign aid, and environmental borrowing to one based on sustainable growth.

The authors of this book offer analyses and concrete proposals on how to move in the right direction. It is of course a truism that Central America presents politically treacherous terrain. Yet these suggestions are offered at a time when political realities everywhere, including those in Central America, are changing rapidly; and for this reason, we offer these ideas in an environment of hope.

## Notes

---

<sup>1</sup> World Bank, *World Bank Debt Tables* (Washington, DC: 1990).

<sup>2</sup> See Appendix, Figure 1.

<sup>3</sup> Benjamin L. Crosby, "Central America," in *After the Wars: Reconstruction in Afghanistan, Indochina, Central America, Southern Africa, and the Horn of Africa*, Anthony Lake (ed.), U.S.-Third World Policy Perspectives, No. 16 (New Brunswick, NJ: Transaction Publishers in cooperation with the Overseas Development Council, 1990), p. 106.

<sup>4</sup> Stringent price stabilizations have now been in place in most of Central America for several years, and, compared to the early 1980s, inflation has significantly decreased. However, all Central American countries, especially Guatemala and Honduras, registered inflation rates in 1990 that were greater than those of 1989. In El Salvador and Costa Rica, inflation increased slightly. In Nicaragua, after a period of hyperinflation and the adoption of a severe adjustment program, inflation was significantly reduced in the later part of the year. See Inter-American Development Bank, *Annual Report 1990* (Washington, DC: 1991) pp. 3-4.

<sup>5</sup> For a discussion of some basic definitions of poverty and alternative indicators, see Appendix, Figure 10.

<sup>6</sup> Inter-American Development Bank, *Annual Report 1990*, op. cit., pp. 3-4.

<sup>7</sup> Inter-American Development Bank, *Economic and Social Progress in Latin America*, 1991 Report (Washington, DC: October 1991), pp. 92-97.

<sup>8</sup> These analyses were derived from a national household and income expenditure survey conducted during the 1979-1981 period and a national sociodemographic survey that was conducted during the 1986-87 period. They are reported in World Bank, *Guatemala: Country Economic Memorandum* (Washington, DC: 1991), Table 8.5; and CEPAL, *Magnitud de la Pobreza en América Latina en los Años Ochenta* (Santiago, Chile: May 1990), Table 12.



<sup>9</sup> Gary S. Fields, "Poverty and Inequality in Latin America: Some New Evidence," in *Urban Poverty in Latin America*, forthcoming, Wilson Center Press, 1992.

<sup>10</sup> Thanks for assistance to Laura Orlando of the ReSource Institute in Boston and Juigalpa, Nicaragua; Michael Stone, University of Texas; William Barbieri and Keith Oberg, Inter-American Foundation; Beatriz Bezmalinovic of DataPro in Guatemala; The Center for Information, Documentation, and Research Support (CIDAI) at the University of Central America (UCA) in San Salvador; and several other colleagues who helped to estimate and confirm the current market wage rate for rural labor. The following mid-1991 exchange rates were used: 4.9 Guatemalan *quetzales*, 5 Nicaraguan *cordobas de oro*, 121 Costa Rican *colones*, 2 Honduran *lirapira*, 2 Belizean dollars, 8 Salvadoran *colones*, and 1 Panamanian *balboas* to the U.S. dollar.

<sup>11</sup> William Barbieri, Inter-American Foundation; Beatrice Bezmalinovic, DataPro, personal communication.

<sup>12</sup> Because of high inflation and differences of definition on what constitutes a "minimal food basket," it is difficult to translate precisely the cost of a basket versus daily wages in U.S. dollars. But the larger picture is certainly *no better* than what is reported here. For May 1991, The ReSource Institute reported teacher and nurse salaries at 300 *cordobas de oro* a month in Juigalpa (5 to 1 to the U.S. dollar at that time). A basic basket for a family of four of 32 items was calculated at 960 *cordobas*; for 23 items, 778 *cordobas*. In response to pressure from striking primary teachers, the National Commission on Living Standards tried to calculate the cost of a 53-item "basket" for a family of four. The National Workers' Front calculated \$166 a month, the International Foundation for Global Economic Challenge calculated \$152, the National Statistical Institute calculated \$131, and the Central Bank of Nicaragua calculated \$110 (based on USAID food donations). Under terms of the strike settlement, primary teachers' salaries were raised from \$45 to \$56 a month.

<sup>13</sup> Laura Orlando, ReSource Institute, personal communication.

<sup>14</sup> Price data are from two sources: Michael C. Stone, personal correspondence, 1991; and Belize Enterprise for Sustained Technology/European Economic Community, "Report on the Valley of Peace Socio-Economic Survey," unpublished report (Belmopan, Belize: 1990). The Belize report is a survey of 225 households from a United Nations High Commission for Refugees resettlement community. Most of those surveyed were Salvadoran refugees.

<sup>15</sup> Central American and Panamerican Institute for Nutrition (INCAP), *Análisis de la Situación Alimentaria Nutricional en Centroamérica y Panamá* (Guatemala City: INCAP, June 1989, Table 3).

<sup>16</sup> See *Refugees*, No. 62, (March 1989), UN High Commissioner for Refugees, Geneva, which estimates there are about 146,000 "official" refugees, nearly 900,000 undocumented and/or externally displaced persons, about 61,000 returnees, and nearly 872,000 internally displaced persons in Central America (figures include southern Mexico but exclude Panama). The U.S. Committee for Refugees estimates 133,000 "official" refugees, 650,000 to 1.3 million "internally displaced persons," and 200,000 to 1.1 million people living undocumented in Central America under "refugee-like circumstances." For more data, see U.S. Committee for Refugees, *World Refugee Survey 1989* (Washington, DC: 1989). Overall, these estimates are conservative because they probably underestimate the number of persons displaced by endemic poverty and depletion of physical resources. The *World Refugee Survey* estimates as many as 3 million Central American refugees.

<sup>17</sup> *World Refugee Survey 1989*, op. cit.

<sup>18</sup> UNHCR and United Nations Development Programme, *Status Report on Implementation of the Concerted Plan of Action of the International Conference on Central American Refugees* (New York: CIREFCA, March 1991), p. 11.

<sup>19</sup> The 20,000 figure is frequently cited in press reports, e.g., "Battle Over Lands Add New Fuel to Crisis in Nicaragua," *Times of the Americas*, June 24, 1991. See also, U.S. Committee on Refugees, *World Refugee Survey 1991* (Washington, DC: 1991).

<sup>20</sup> *World Refugee Survey 1991*, op. cit., p. 87.

<sup>21</sup> *Ibid.*, pp. 32-33, 88.

<sup>22</sup> Ana Isabel García and Enrique Gomáriz report conservative overall rates of 26.6 percent in El Salvador, 24.3 percent in Nicaragua, 20.4 percent in Honduras, 17.5 percent in Costa Rica, and 15 percent in Guatemala. *Mujeres Centroamericanas: Tomo I, Tendencias Estructurales*, Table 9 (San José, Costa Rica: FLACSO, CSUCA, Universidad de la Paz,

1989), p. 440. Urban rates of women-headed households are much higher, reflecting the fact that impoverished rural women typically migrate to cities to work as domestics. In some Latin American cities, the rate of female-headed households has risen to almost 38 percent; see *La Mujer en el Sector Urbano: America Latina y el Caribe* (Santiago, Chile: United Nations, 1985).

<sup>23</sup> See Mayra Buvinic, "The Vulnerability of Women-Headed Households: Policy Questions and Options for Latin America and the Caribbean," *Serie Mujer y Desarrollo*, No. 8; and Sally W. Yudelman and Michael Paolisso, *Women, Poverty and the Environment in Latin America* (Washington, DC: International Center for Research on Women, September 1991).

<sup>24</sup> The term "street children" encompasses both children "of" the street (no families or homes) and children "on" the street (working on the street but having some kind of family ties or base to which they can regularly return).

<sup>25</sup> G. Baker and F. Knaul, "Exploited Entrepreneurs: Street and Working Children in Developing Countries," Working Paper No. 1 (New York: CHILDHOPE-USA, Inc., 1991), p. 3; and CHILDHOPE-USA, "Guatemalan Street Children Face Death Squads," in *Esperanza*, Vol. 2, October 1990, p. 2.

<sup>26</sup> For a much more detailed discussion of the algorithms of campesino agriculture, see the discussion of "milpa logic" in Sheldon Annis, *God and Production in a Guatemalan Town* (Austin, TX: University of Texas Press, 1987), pp. 31-47; and Gene C. Wilken, *Good Farmers: Traditional Agricultural Resource Management in Mexico and Central America* (Berkeley, CA: University of California Press, 1987).

<sup>27</sup> Centro para Estudios Económicos y Sociales (CEES), *Análisis de la Situación demográfica en el Altiplano* (Guatemala: 1988), unpublished report, Table 12.

<sup>28</sup> This theme is elaborated in Sheldon Annis, "Debt and Wrong-Way Resource Flows in Costa Rica," *Ethics and International Affairs*, Vol. 4, 1990; and Annis, "Costa Rica's Dual Debt: A Story from 'A Little Country That Did Things Right'" (Washington, DC: World Resources Institute, 1987).

<sup>29</sup> For more discussion of the impact of the cattle expansion on Central America's physical environment, see Annis, "Debt and Wrong-Way Resource Flows in Costa Rica," op. cit.; H. Jeffrey Leonard, *Natural Resources and Economic Development in Central America* (International Institute for Environment and Development, 1987), Chapter 4, and Marc Edelman and Joanne Kenen (eds.), *Costa Rica Reader* (New York: Grove Weindenfeld, 1989), pp. 13-19.

<sup>30</sup> Central Bank of Costa Rica, "Crédito y cuentas monetarias 1950-1985" (San José, Costa Rica: 1987).

<sup>31</sup> Sheldon Annis, (*except Costa Rica*): *A Study in Poverty and National Resource Management*, book manuscript in progress, Chapter 5.

<sup>32</sup> Alonso Ramirez Solera and Tirso Maldonado Ulloa, eds., *Desarrollo Socioeconómico y el Ambiente Natural de Costa Rica: Situación Actual y Perspectivas*, Series Informes sobre el Estado del Ambiente No. 1 (San José, Costa Rica: Costa Rica Fundación Neotrópica, May 1988) p. 41 and 53; Gary Hartshorne, *Costa Rica: A Country Environmental Profile* (San José, Costa Rica: 1984), p. 28.

<sup>33</sup> Data from the Central Bank of Costa Rica, "Crédito y cuentas monetarias 1950-1985," op. cit; and Central Bank of Costa Rica, "Cifras de producción agropecuaria 1957-1984" (San José, Costa Rica: 1986). However, it should be noted that some credit for cattle was also sent to finance dairy production. Dairy revenues are not included in revenues reported for beef.

<sup>34</sup> By early 1987 almost two-thirds of the cattle portfolio was in arrears. It should be noted that to be "in arrears" does not necessarily mean that the borrowers will default. Also, because beef prices are cyclical, rates of default and the proportion of loans in arrears vary from year to year. Available data indicate that, in the early 1980s, cattle growers were poor though somewhat better off than were average borrowers. For example, while about 51 percent of all loans granted by the Banco Nacional in 1983 were nonperforming, about 37 percent of the cattle loans were in this category. See Thais Acosta Rosales, et. al., "Análisis de los factores determinantes de la morosidad de la cartera agropecuaria del Banco Nacional de Costa Rica," thesis prepared for Facultad de Ciencias Económicas (San José, Costa Rica: Universidad de Costa Rica, 1985), p. 30. With widespread default threatened, cattle growers were able to secure concessionary rescheduling from the government in 1985. Moreover, by

early 1987, the cattle growers had one of the *worst* payback rates in the loan portfolio. (Information on loan repayment rates prior to 1980 is not available.)

<sup>35</sup> Accurate data on loan default and arrearage are difficult to obtain, and repayment information is not normally broken down sociologically, i.e., by "large farmer" or "small farmer." However, personal interviews with several knowledgeable high-level Costa Rican banking officials (1987-88) strongly reinforced the conclusion that large farmers were far more problematic borrowers than were small farmers. Even the IMF was unsuccessful in stopping repeated moratoria against the collection of nonperforming loans by large cattle farmers and the extensions of new bridge loans.

<sup>36</sup> Annis, "Debt and Wrong-Way Resource Flows in Costa Rica," *op. cit.*, provides further illustration of pervasive patterns of "wrong-way" resource flows.

<sup>37</sup> For most commodities, these declines are expected to continue. See International Monetary Fund, *World Economic Outlook* (Washington, DC: May 1991).

<sup>38</sup> Congressional Research Service, "Central America: Major Trends in U.S. Foreign Assistance, Fiscal 1978 to 1990," p. 64. The total includes all U.S. bilateral aid, i.e., disaster assistance, development assistance, Economic Support Funds, PL-480 Title I and II, Peace Corps, Inter-American Foundation, and military assistance programs. For regional aid levels, see Annex, Table 5.

<sup>39</sup> This theme is developed more fully in Sheldon Annis, "Latin Democracy: Giving Voice to the Poor," in *Foreign Policy*, Fall 1991; and "Evolving Connectedness of Grassroots Groups and Environmental Organizations in Protected Areas of Central America," *World Development* (Washington, DC: Pergamon Press, April 1992).

<sup>40</sup> For the first systematic attempt to "map" the global spread of computer networks, see John S. Quaterman, *The Matrix: Computer Networks and Conferencing Worldwide* (Bedford, MA: Digital Press, 1990).

<sup>41</sup> Example cited in Annis, "Latin Democracy: Giving Voice to the Poor," *op. cit.*, pp. 97-98.







# Summary of Chapter Recommendations



# Summary of Chapter Recommendations

## 1. A Call for Central American Peace Parks

*Oscar Arias and James D. Nations*

Far more than war and refugees spill across the borders of Central America's nations—so do poverty and environmental destruction. Not confined by national borders, these problems are shared with, or caused by, one's neighbors. Consequently, Central American leaders are beginning to focus on *regional* approaches to what are *regional*, not purely national, dilemmas.

One concept being implemented to deal with the interrelated problems of poverty and environmental depredation is peace parks. These are binational or multinational protected areas, such as national parks and biosphere reserves, that lie along international borders. Conservationists refer to these lands as peace parks because they promote peace between neighboring nations, ease environmental ills, and help protect biological diversity. First officially proposed in Central America in 1974, these cross-border parks have won major consideration by the region's political leaders during the past decade.

International peace parks already exist along the borders between Costa Rica and Panama, Panama and Colombia, Mexico and Guatemala, and in the trinational areas adjoining Guatemala, Honduras, and El Salvador. New peace parks have also been proposed.

In this chapter, Oscar Arias and James D. Nations discuss the potential political, biological, and economic benefits of Central America's

peace parks. In the political arena, the potential for binational or multinational protected areas to neutralize a site of possible conflict has resulted in a proposal to establish parks in at least five zones of past or latent military conflict in Central America. Biological advantages include providing larger habitats for the region's rare and endangered plants and animals, more effectively preserving biological diversity. Coordinating wildlife and watershed protection across borders can save scarce resources for all countries involved and, thus, provides both biological and economic benefits.

Peace parks' design and management emphasize human communities. The people who inhabit the buffer zones of parks frequently depend on natural resources for their livelihood. As a result, improving the agricultural practices of these communities helps the people and should also curb such destructive activities as deforestation and poaching in the parks. Conservationists are increasingly attempting to balance the needs of the poor with the protection of the environment. They realize that the long-term preservation of a natural area depends less on what happens inside the park than outside it—in the lives of the people living nearby. Unless Central Americans protect the natural resources on which their economies are based, they have little hope for making social and political progress.

These internationally protected areas can open the door between nations for talks on issues more controversial than the environment. In doing so, they can provide a mechanism for international attacks on the basic social and environmental problems shared by all the region's countries. The authors suggest that the new Central American Commission on Development and the Environment (CCAD) is the most logical institution to advance such efforts. One of its goals is "to promote coordinated actions . . . for the optimum and wise utilization of the natural resources of the area, the control of pollution, and the establishment of ecological balance." What's more, the CCAD is the obvious vehicle for monitoring the region's efforts in the peace park process. Industrialized nations, as well as multilateral institutions, should support this initiative.

A system of international peace parks in Central America offers great hope for the future of the region and other people of the Western Hemisphere. Peace parks can play a crucial role in reducing conflicts in the region, achieving environmental protection, promoting sustainable development, and alleviating poverty.

## 2. Citizen Participation and the Reform of Development Assistance in Central America

*Stephen B. Cox*

Central America has received more than \$10 billion in economic aid since 1979 from the United States alone but remains poorer than it was at the beginning of this period. Some 35 percent of the population lives in conditions of extreme poverty, and the region's natural resource base is seriously jeopardized by rapid environmental degradation. The persistence of these problems is due, to a significant degree, to ineffective international development assistance. If Central America is to have a reasonable chance to reduce its endemic poverty and protect its resource base, it must try new modes of channeling development assistance that allow for much broader social participation and that demand more accountable public institutions. Stephen B. Cox proposes practical measures for orchestrating greater public participation and suggests institutional reforms for the more effective delivery of development assistance.

The model of development assistance conventionally employed by national and international agencies and institutions suffers from three basic weaknesses: 1) it characteristically fails to incorporate the social, political, and institutional factors that determine a development project's effective and sustainable outcome; 2) it is premised on mistaken confidence in the capacity of large institutions to predict and control what will happen in complex development programs; and 3) it is distorted by national and international political objectives that may be antithetical to the interests of the poor.

The consequences of the model's weaknesses are the following: 1) large, unwieldy megaprojects that cannot be properly guided once they are launched; 2) inadequate commitment from beneficiaries, bureaucrats, and other key participants who have limited incentive to take the programs seriously; and 3) the reinforcement of undemocratic habits of social and political behavior that are inimical to the evolution of healthy patterns of democratic governance in the region. The antidotes to these ills include paying greater attention to the processes of democratic decisionmaking and problem solving and fundamentally reforming institutions or creating new organizations better suited to address the demanding challenges of sustainable development.

Cox recommends an alternative model to conventional development assistance—one that rigorously assesses the quality of the processes by which program decisions are made and the ways in which projects are chosen, designed, implemented, monitored, and evaluated. He also sug-



gests a number of concrete measures that may be used to manage more broadly participatory and effective development programs.

Novel field research techniques, such as rapid rural appraisal, offer promising new ways for securing concrete and relatively reliable information quickly and regularly, for ensuring that initial program hypotheses ring true, and for helping to keep development programs on target. Multiparty policy dialogues and interagency working groups are consultation mechanisms that can ensure that all relevant decisionmakers and participants are adequately involved before projects are launched. These measures also serve to bring together key players on a regular basis to discuss and solve problems that arise during the course of a complex initiative. Horizontal linkages among nongovernmental organizations (NGOs) and grassroots organizations are promising means for rapidly and effectively disseminating new programs and technological innovations. They also facilitate partnerships involving the NGOs and grassroots groups and development bureaucracies. Last, training in analytical and managerial skills is required to ensure that programs can be sustained after international technical assistance ends.

Cox suggests that the responsibility for promoting more rigorous attention to process in designing and implementing assistance programs must be shared by all. Multilateral and bilateral agencies managing flows of official development aid should encourage broader public participation in setting development agendas. They also should plan for more useful and regular feedback on whether they are accomplishing worthwhile objectives. Nongovernmental organizations and popular groups should become more actively involved in discussions of official development programs and they should undertake aggressive advocacy efforts to demand greater accountability. International private voluntary organizations can play important roles as liaisons in supporting the more direct interaction of indigenous NGOs and grassroots organizations in public policy debates.

Finally, institutional reforms are required to create a more receptive environment for greater attention to process. The U.S. Agency for International Development (USAID)—compromised by political objectives and lacking a clear vision of development—is ill-suited to meet the challenge. U.S. bilateral assistance to Central America should be channeled through alternative mechanisms. The Overseas Development Council's proposal for a new U.S. Sustainable Development Fund (SDF)—as well as an older experiment in development aid, the Inter-American Foundation—merit strong support.

Nevertheless, the complexity of the United States' role in Central America and the demands for efficacy call for serious attention to the search for vastly improved multilateral mechanisms through which an

increasing proportion of development assistance can be channeled. Such mechanisms would serve as an alternative to bilateral programs. The author proposes the creation of a multilateral Central American Fund (CAF) as an institutional alternative that could pay greater attention to issues of process. Supported by a number of countries, overseen by a socially diverse and representative board, and staffed by seasoned professionals from a number of countries and disciplines, the fund would make it possible to deliver development assistance in ways that would be more conducive to sound, flexible, and democratically managed development aid.

### 3. Inventing Institutions for Conservation: Lessons from Costa Rica

*Alvaro Umaña and Katrina Brandon*

Tremendous worldwide attention has been focused on saving the world's biologically significant ecosystems and on maintaining biological diversity. Toward this end, most countries have established systems of national parks and reserves. Particularly in developing nations, protecting such areas is often impossible—parks and reserves must be integrated into a broader process of sustainable development that links conservation and development. For this connection to occur, it is essential that governments integrate natural resource management and conservation objectives into their economic decisionmaking process. Yet in most Central American countries, agencies responsible for conservation and natural resource management typically are politically weak and have little power to promote reforms that can bring about substantial changes.

Successful management of important conservation lands—subject to increasing development pressure from surrounding communities—will also ultimately depend on the cooperation and support of local populations. People living on the lands that buffer parks and reserves must perceive that the protected areas can contribute to overall economic development. Thus, conservation must be connected to development at the local, as well as the national level.

Alvaro Umaña and Katrina Brandon explain how Costa Rica has attempted to create such linkages. Specifically, the government:

- 1) Created a new ministry that consolidated disparate environmental agencies and gave greater power and legitimacy to natural resource management. Beyond improving coordination and clarifying jurisdictional boundaries between agencies, the new ministry demonstrated the government's commitment to the environment.

2) Decentralized the management of parks and reserves, and implemented regional conservation units (URCs) that linked “core” protected areas with surrounding buffer lands. These URCs coordinate government agency plans, link public- and private-sector initiatives, and encourage local participation in decisionmaking concerning protected areas.

3) Developed a series of creative financing arrangements and aggressively sought funding for conservation. Costa Rica used debt-for-nature swaps and privatized financing for conservation by turning the control of funding over to the National Parks Foundation.

4) Created the National Biodiversity Institute (INBIO), which catalogues Costa Rica’s biological diversity and identifies ways that this natural wealth can be used to generate socio-economic development.

Enormous changes will still have to take place before sustainable development is truly achieved in Costa Rica. Nevertheless, the actions already taken offer substantial insights into how conservation can be furthered elsewhere in Central America. According to the authors, these actions form the social and administrative infrastructure needed to promote change. The authors recommend the following steps to create such an infrastructure in other countries:

1) Increase the legitimacy and power for natural resource management and conservation at the national level by consolidating existing agencies and improving coordination between them.

2) Link protected areas to the lands that surround them by decentralizing decisionmaking authority to the regional levels and increasing local participation in resource planning and use.

3) Use creative mechanisms to finance conservation, such as debt-for-nature swaps, trust funds, endowments, and public- and private-sector ventures. Decentralize control over funding to the regional levels, to better link conservation and development priorities.

4) Understand what biological elements are being protected and how to manage them. Consolidate in-country technical expertise in tropical science, and link the nation’s scientific research capacity not only to the management of protected areas and to national development efforts, but to the international scientific community as well.

Other countries stand to learn a great deal from Costa Rica’s experience as the country has established a basic structure that reflects the enhanced role of conservation as a necessary component of development.

#### 4. Equity and the Environment in the Promotion of Nontraditional Agricultural Exports

*Stuart K. Tucker*

Central America is finally pursuing an export-led development strategy. For these largely agrarian societies, new, nontraditional agricultural crops—such as winter fruits and vegetables—must play a key role. The region's five major traditional export crops—coffee, cotton, beef, bananas, and sugar—now face volatile prices, stagnant or declining demand, and a host of competing suppliers. None of these conditions favor continued income growth. Producing corn and beans for domestic consumption offers little hope in alleviating poverty, as the population is growing far faster than is productivity of these crops. In contrast, nontraditional agricultural crops provide large returns on investment and can yield substantial export earnings.

Furthermore, if Central America's rural poor are to play a positive role in sustaining the environment while simultaneously pursuing ways to escape their poverty, they will need alternative sources of income derived from existing agricultural lands. Limited production choices lead the poor to destroy and pollute their surroundings. At the same time, environmental degradation undermines the ability of impoverished people to support themselves. A properly designed nontraditional export strategy offers hope that this vicious cycle can be broken.

Such a strategy requires great changes in current Central American and international public policies. These changes may be expensive, long-term, or even politically difficult, but without them, increasing nontraditional agricultural export production will exacerbate rather than alleviate rural poverty, and thereby indirectly contribute to environmental damage.

In this chapter, the author analyzes existing policies and recommends new ones that are needed to implement a more equitable agricultural development strategy—one that lessens poverty without destroying the environment as much as current production does.

The key policy changes the author suggests for Central American nations are: credit reform; improved agricultural extension; improved rural infrastructure; reformed agricultural ministries; regulated land tenure; and improved access for the poor to education and family planning services.

Major policy reform in Central American countries is fundamental, but the United States and other industrial countries must improve their own policies to support a nontraditional agricultural export strategy



that is pro-poor and pro-environment. Some of the major policy changes suggested for industrialized nations are:

- Support credit and public administration reform, the strengthening of agricultural extension, and the improvement of rural infrastructure in Central America;
- Cease U.S. marketing orders and the ban on aid to citrus growers;
- Improve information flow on U.S. pesticide regulations and on integrated pest-management techniques;
- Reduce subsidies to domestic farmers that distort world markets; and
- Support education and family planning in Central America.

Agricultural production in Central America is destroying the very environment on which it depends. Environmentalists and development experts in the region share the task of finding a path to sustainable development, with assistance from external actors. Any policies intended to foster sustainability must be evaluated according to their effects on efficiency, equity, and environmental conservation in the region. To pursue any one of these three objectives and neglect the others will prove destructive to the people and the environment.

The challenge then is to alter public and private practices to overcome the obstacles that presently prevent nontraditional agriculture from being equitable and environmentally sound. Ultimately, success in environmental terms will be achieved when nontraditional agricultural production and exports truly help alleviate poverty.

## 5. Land Taxation, The Poor, and Sustainable Development

*John D. Strasma and Rafael Celis*

Land taxes are one of the most effective potential policy measures now available in Central America to reduce poverty and curb the destruction of natural resources in a manner compatible with sustainable development. Land-tax reform, already under way in Costa Rica, is a feasible solution elsewhere. If land values are established with community involvement, and if revenues are earmarked to local governments, infrastructures, and schools, a land tax could promote decentralization and participatory democracy, while increasing production and reducing poverty.

In this chapter, John Strasma and Rafael Celis analyze the present taxation of agricultural lands in Central America, finding it both inadequate and counterproductive. A land tax could encourage landlords to sell some parcels outright, on credit, to their present tenants. The buyers



would then pay taxes, but as owners they also would have reason to conserve soil, plant trees, and care about the land they would leave their children.

The authors also examine the potential relationship between agrarian reforms and pressure on fragile land. Existing laws, regulations, and policies largely encourage abuse of the land—not only by squatters but also by those with power (the land owners) who have only short-term profits in mind. For example, forest lands are often regarded as unimproved and underutilized. Agrarian law defines the clearing of forests as an improvement, because it prepares the land for “productive” pursuits, such as raising crops or grazing cattle. Laws that do take a long-term view are seldom implemented.

A new strategy that favors both the poor and natural resources would have a modern land survey and tax as key components. As a first major step, a cadastral survey or inventory of land would more clearly define the rights to land and would demarcate holdings (e.g., state lands, protected and not, and private holdings of all sizes, cooperatively or individually held). Next, the participants in state land programs should have clearly defined terms on which they could buy full, negotiable, legal rights to the land they till. The next step is to determine unit values of land, preferably with broad citizen participation, and then to merge the cadastral survey with the tables of unit values to create a tax roll.

For the authors’ strategy to protect tropical forests and also be pro-poor, it must enable unemployed, landless laborers to see a future for themselves in saving, rather than destroying, the forests. Therefore, for instance, part of the revenues from an effective land tax could be used to hire the poor as forest guards. In short, policies need to make protecting trees more attractive than stealing them.

Among the numerous other benefits of a modern land tax and its revenues are:

- A modern land tax would define rights more clearly and could easily support a system under which the tax rate is lower when the forest is managed in a sustainable way, and much higher when it is pillaged.

- A land tax can provide powerful incentives for better land management and accurate information about land rights.

- Land-tax revenues could help finance community infrastructure or support a land bank to provide the landless and small farmers with mortgage loans to purchase land.

- Land-tax proceeds could leverage significant external resources to finance conservation plans for environmentally threatened lands.

Land taxation can contribute greatly to protecting the environment by requiring an inventory of natural resources, defining rights, and

identifying occupants and owners. And when the tax is high enough to be noticeable to owners, exemptions from it for environmentally sound practices will become valuable incentives.

Land taxes are no panacea; more direct land distribution programs are also needed. But taxation is a significant policy tool to help solve the problems of poverty, underdevelopment, and environmental destruction.



Part III

Poverty,  
Natural Resources,  
and Public Policy  
in Central America



# A Call for Central American Peace Parks

*Oscar Arias and James D. Nations*

---

## INTRODUCTION

During the past five years, the Central American republics have successfully ended most of the civil wars that have marred the region for so many decades. As these conflicts subside, Central Americans are turning their attention toward the equally serious issues of poverty and environmental degradation, which are now widely recognized throughout the region as interrelated problems. How to resolve them, however, remains a matter of ongoing investigation and activity.

Central American leaders have also begun to realize that all of these ills—warfare, poverty, and environmental decay—bleed across national borders into the lives and territories of their neighbors. Thus, these leaders are beginning to focus on *regional* approaches for *regional* problems.

One concept being increasingly implemented is peace parks—bi-national or multinational protected areas, such as national parks, wildlife reserves, and other conservation areas that lie along international borders and create tracts of forested wilderness in zones of political or environmental conflict. Conservationists refer to these lands as peace parks because they promote peace between neighboring countries, ease environmental problems, and help protect biological diversity. First officially proposed in Central America in 1974, cross-border parks have gained major consideration by political leaders in the region during the past decade.



Today, Central American conservation workers, frequently assisted by international colleagues, are struggling to keep these few existing peace parks alive and to create new ones throughout the region. International peace parks already exist along the borders between Costa Rica and Panama, Panama and Colombia, Mexico and Guatemala, and in the trinational area that joins Guatemala, Honduras, and El Salvador (Map 1). New peace parks are proposed for establishment between Guatemala and Belize, Honduras and Nicaragua, and Nicaragua and Costa Rica.

The potential benefits of Central America's peace parks go far beyond the biological advantages of having larger territories for the endangered animals and plants that inhabit these areas. Peace parks also bring economic and political benefits. Coordinating wildlife and watershed protection across borders can save scarce resources for all countries involved. Peace parks also reduce stress along historically tense borders by providing governments with an agenda for mutual action on issues of common concern. Moreover, the most promising aspects of establishing these peace parks in Central America is the movement to include rural families in the planning and development of the parks and the buffer zones that surround them.

## A REGIONAL APPROACH

Central America was the focus of intense geopolitical conflicts in the 1980s, sparked by the aftermath of the Sandinista revolution in Nicaragua, the persistent armed struggle in El Salvador, and considerable tensions between several countries in the isthmus. These disputes were leaning dangerously toward military actions—influenced by external forces in both Nicaragua and El Salvador—when Costa Rica submitted its Central American peace plan in early 1987.

More than 200,000 displaced Central Americans had fled to Costa Rica across the Nicaraguan-Costa Rican border to escape civil wars in Nicaragua and El Salvador. Armed conflicts not only threatened peace and security in the region, but also were ecologically devastating to many Central American nations. The peace process aimed to end the war as well as its negative human and environmental impacts. The five Central American presidents realized that if the massive migration of Central Americans from one country to another persisted, the regional crisis could not be fully settled.

The problems of Central America extended beyond national borders and, therefore, could be resolved only with the cooperation of all parties concerned. Thus, the five Central American presidents had to make

their new regional approach prevail over ingrained and pervasive nationalistic sentiments. The countries of the isthmus had to exclude the use of force as a means of persuading others to follow a particular course of action. They had to respect their neighbors' territorial integrity and political independence and enhance peaceful dialogue and negotiation.

## LEARNING FROM THE PEACE PROCESS

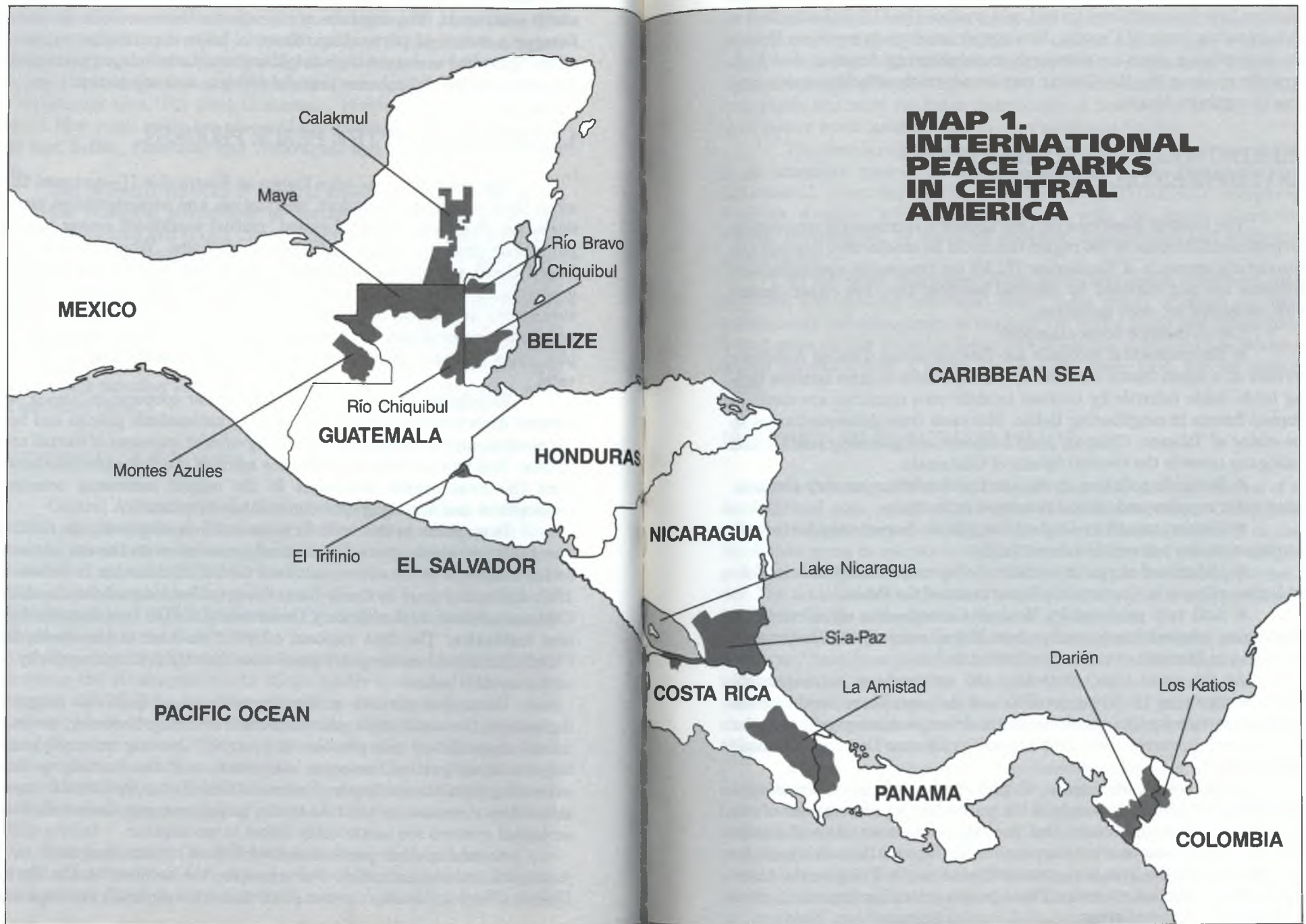
The peace process—also known as Esquipulas II—assumed that when legal standards of conduct, negotiation, and implementation procedures are clear and straightforward, mutual confidence among participants may grow to exclude nationalistic attitudes. When problems are international and mutual confidence prevails over nationalistic behavior, governments willingly cooperate because they perceive no threat to their sovereignty or political independence. To build confidence among the five presidents, negotiations had to incorporate clear and determinate principles, rules, and procedures that most participants shared and accepted as valid.

Esquipulas II set the stage for further cooperation among the Central American countries by diminishing nationalistic policies and border tensions and by paving the way for significant increases of mutual confidence. It is now possible to extend the spirit of the peace process to confront the most urgent challenges in the region: increasing economic development and arresting environmental destruction.

In response to this need for sustainable development, the Central American presidents created a regional commission on the environment and development at the summit in Costa del Sol, El Salvador, in February 1989. Later that year in Costa Rica, the presidents signed the *Comisión Centroamericana de Ambiente y Desarrollo* (CCAD), thus formalizing a new institution. The first regional effort of its kind in the world, the CCAD illustrates how the peace process led directly to a higher priority on environmental issues.

Central America's economic, social, and political progress depends on the sustainable use of natural resources. Moreover, environmental degradation can provoke civil strife. Growing unemployment, large-scale emigration, economic stagnation, and the inability to feed expanding populations often lead to revolutions. Just as the Central American national economies are tied to the global economy, their individual ecological systems are inextricably linked to one another.

Events in other parts of the world have underscored these environmental interdependencies. For example, the accident at the Soviet Union's Chernobyl nuclear power plant destroyed agricultural crops and





threatened water supplies in several European nations. U.S.-Canadian relations have been strained by acid rain produced by U.S. industry that is contaminating parts of Canada. New copper smelters in northern Mexico are jeopardizing clean-air standards in neighboring Arizona. And U.S. agriculture along the Río Grande may be adversely affecting water supplies in northern Mexico.

## SEEKING SOLUTIONS TO REGIONAL ENVIRONMENTAL PROBLEMS

The Central American political agenda is increasingly confronting environmental threats in the region that could be ameliorated through the negotiating approach of Esquipulas II. All too frequently, environmental problems are not confined by national borders; they are either shared with, or caused by, one's neighbors.

Let us mention some examples:

- Environmental refugees are flowing across Central America's borders on a dozen fronts: Guatemalan and Salvadoran farm families fleeing lands made infertile by overuse in their own countries are clearing tropical forests in neighboring Belize. Mexicans from deforested areas in the states of Tabasco, Chiapas, and Campeche are poaching wildlife and mahogany trees in the tropical forests of Guatemala.

- Pesticide pollution in one Central American country contaminates water supplies and coastal resources in another.

- Erosion caused by Guatemalan hillside farmers results in sedimentation on downstream Honduran farms.

- Deforested slopes in southern Belize create flash floods in Kekchi Indian villages in Guatemala's Department of the Petén.

- Acid rain produced by Mexico's Coatzacoalcas oil refineries is threatening tropical forests and ancient Mayan ruins in the Guatemalan Petén and on Mexico's own Yucatan Peninsula.<sup>1</sup>

At the same time, protecting the environment is inextricably linked to improving the living conditions of the poor. Many rural families trying to provide for their basic needs are driven to destroy gradually the very natural resources their lives depend on because they lack economic alternatives.

As a result, managers of protected lands are increasingly attempting to balance the needs of the poor with the conservation of the environment. They understand that the long-term preservation of a natural area depends less on what happens inside the area than on what happens outside—in the lives and communities of people living on the lands that border parks and reserves. These people are either important allies or enemies of protected areas.

The “parks and people” movement in conservation is a new focus on the link between wilderness lands and human needs that attempts to ease poverty by helping rural families to exist in economic and ecological balance with their natural environments. Thus, international conservation increasingly promotes agroforestry and reforestation efforts. Higher crop yields and more equitable distribution of land that is already developed reduce rural families’ need to clear additional forests.

The most farsighted expression of the parks and people movement is the biosphere reserve concept first promoted by the United Nations Educational, Scientific, and Cultural Organization (UNESCO). Biosphere reserves combine wildlands conservation with the needs of nearby human communities by merging economic development and biological preservation.

As the latest expression of the parks and people movement, the proposed and existing binational peace parks (many of which are biosphere reserves) concentrate as much on the buffer zones that fringe protected areas as they do on the inner core areas that safeguard a park’s biological diversity. Map 2 shows the Si-a-Paz peace park and its buffer zones.

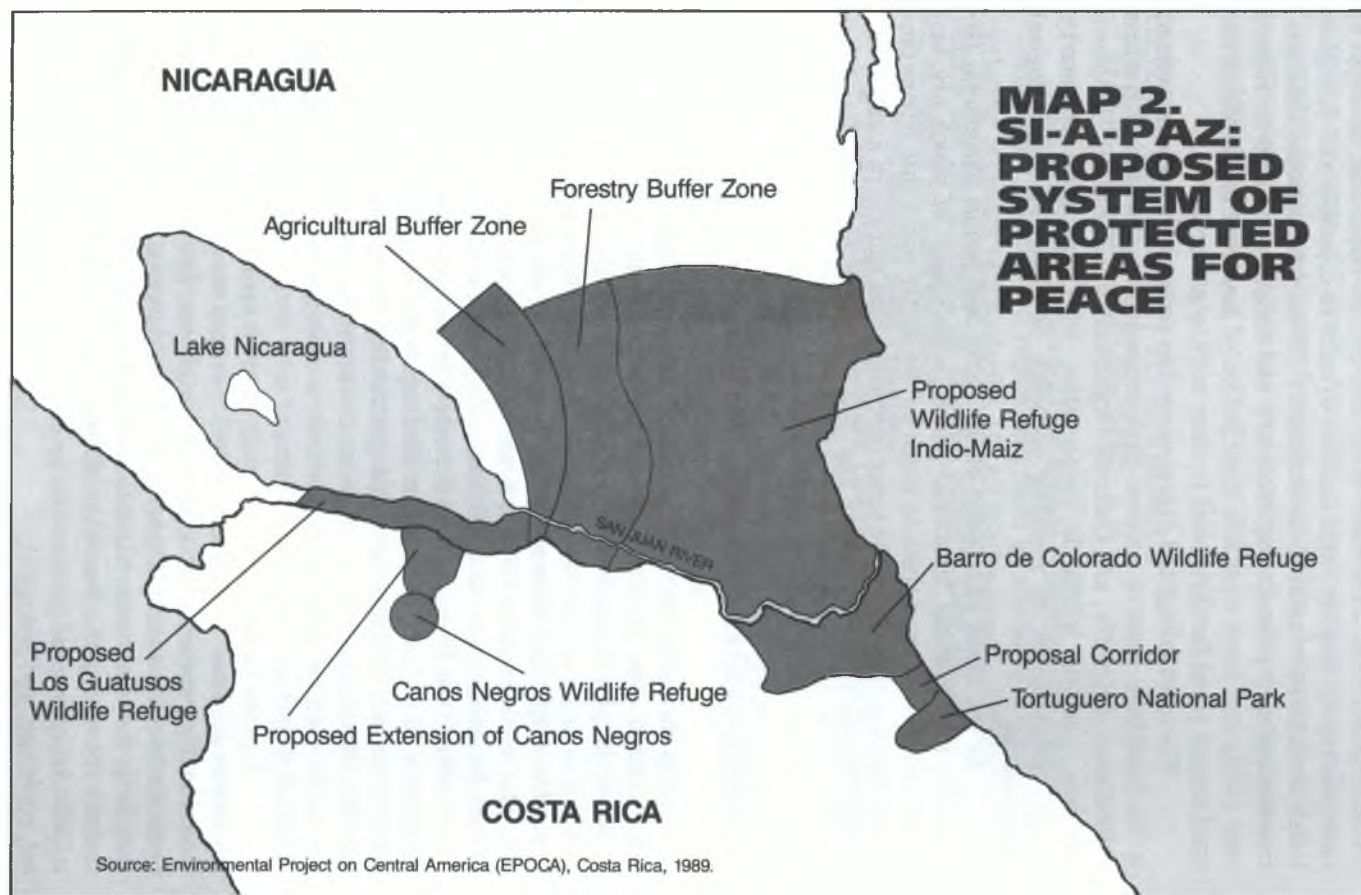
## BENEFITS OF PARKS FOR PEACE

In the early 1980s, Mexico and France proposed the creation of a demilitarized zone on the Nicaraguan-Costa Rican border. Costa Rica rejected the plan because it might have given unlimited authority to the Sandinista army to operate in Costa Rican territory and possibly endangered the safety and lives of Costa Ricans living on the Nicaraguan border. The tension surrounding this proposal did not permit serious consideration for either a demilitarized zone or a peace park.

Since the Esquipulas II accords were signed, however, peace and democracy have been restored in Nicaragua and border tensions diminished in number and intensity. Peace parks in Central America now seem possible. Binational protected areas are emerging as part of a broader change in Central American relations, a change that could be called a “Central American Peace Park Process.”

A peace park process can only flourish under what former Swedish Prime Minister Olof Palme called “common security”—that is, one nation seeking security not against its neighbors, but *with* them. Recent, major democratic accomplishments in Central America constitute a significant leap forward toward peace and common security in the region, thereby increasing the feasibility of creating peace parks. The benefits of such an international process can be divided into three categories: political, economic, and biological.





## Political Benefits

Peace parks require and promote peace, as the term implies. With this in mind, the United States and the Soviet Union proposed the creation of an international peace park along the Bering Strait, a sensitive border area. Covering millions of hectares, the Beringian Heritage International Peace Park would ease barriers to transportation and communications between these countries.

The potential for binational or multinational protected areas to neutralize an area of possible conflict has resulted in a proposal to create parks in at least five zones of past or latent military conflict in Central America: along the Belize-Guatemalan border; in the mountainous area where El Salvador, Guatemala, and Honduras meet; on the border between Nicaragua and Honduras; on the Nicaragua-Costa Rica boundary; and in the Gulf of Fonseca, where El Salvador, Honduras, and Nicaragua squeeze together on their Pacific coasts. The Nicaraguan initiative—along the southern San Juan River—would be called “Sí-a-Paz,” International System of Protected Areas for Peace. Thus, the concept of international peace parks creates a link between environmental protection, international cooperation, and the struggle against poverty in developing countries.

*A BELIZE-GUATEMALA PEACE PARK.* Peace parks provide governments with cooperative areas of agreement that can lead to discussions of points of political conflict. For instance, Belize and Guatemala have long been at odds over a decades’ old claim by Guatemala on its neighbor’s territory. Guatemala’s former military governments often proclaimed publicly that all or part of Belize belonged to Guatemala. Claims on Belizean lands have not been pressed since a democratically elected president took power in Guatemala in 1986, and President Jorge Serrano Elías recently recognized Belize’s sovereignty and independence. Tensions still exist, however.

The possibility of armed struggle is made less likely because Belizean and Guatemalan conservationists are now planning a binational peace park along their common border. In 1988, the Guatemalan Congress declared 44 new conservation areas. Three of these lie on Guatemala’s boundary with Belize. One of the three, Guatemala’s Maya Biosphere Reserve, shares 60 kilometers of frontier with northern Belize, where conservationists have created a second site—the Río Bravo conservation area. To the south is the third expanse, Guatemala’s Río Chiquibul conservation area, which runs for 50 kilometers along Belize’s Chiquibul National Park. It, too, is being proposed as a biosphere reserve.

The Río Chiquibul region seems an especially appropriate place to tie together these two Central American nations. The Chiquibul River runs through Guatemala for almost half of its total length. Yet, it is also the principal water supply for Belize’s San Ignacio Valley—the country’s

breadbasket, additionally serving both the country's capital and its largest city. Thus, protection of the Río Chiquibul on both sides of the international border emerges as a major point for discussion between these two countries. Politicians in both Belize and Guatemala have indicated that cooperating on seemingly neutral subjects such as binational parks opens a dialogue for other more sensitive territorial issues. What's more, the two nations consider the topic of peace parks significant enough to have initiated discussions of it at ministry and vice-presidential levels.

*SI-A-PAZ: THE NICARAGUA-COSTA RICA BORDER.* Similar benefits may come from a proposed binational park lying between Nicaragua and Costa Rica. The Río San Juan defines Nicaragua's border to the south and Costa Rica's to the north. Former Nicaraguan President Daniel Ortega established the 2,900-square-kilometer Sí-a-Paz Biological Reserve in early 1990. On Costa Rica's side, Sí-a-Paz would complement the existing Barra del Colorado Wildlife Refuge and the Tortuguero National Park—a 190-square-kilometer area that protects endangered sea turtles, mangrove forest, and lowland moist tropical forest.

This rainforest was the scene of serious border tensions during the Sandinista-Contra war, but its transformation into a peace park—Sí-a-Paz—is currently being proposed by Nicaraguan and Costa Rican conservationists. To underscore the area's importance in dampening military conflict, the Nicaraguan government has agreed to settle returning ex-contra fighters in communities outside the park and away from the border.

*EL TRIFINIO: EL SALVADOR, GUATEMALA, AND HONDURAS.* In another site of past conflict in Central America, the Organization of American States and the governments of El Salvador, Guatemala, and Honduras have joined forces to create the international conservation and development area, El Trifinio, or La Fraternidad. At the junction of these three republics, a 7,584-square-kilometer expanse is being transformed through a trinational development plan that includes the protection of a core forest area and the restoration of surrounding ecosystems. The restored land will, in turn, be encircled by a large multiple-use zone aimed at improving the region's economic and social conditions. This multiple-use zone will incorporate such infrastructure projects as roads, health and education programs, and improved electric service.

The El Trifinio development project encompasses territory in all three nations: 45 percent in Guatemala, 40 percent in Honduras, and 15 percent in El Salvador.<sup>2</sup> Today, forests cover only 20 percent of the region, although reforestation and ecosystem recovery are planned where appropriate. Three areas will be developed for tourism: the spectacular Mayan ruins at Copán in Honduras; Esquipulas, Guatemala, where the peace plan was signed; and the mountain peak of Montecristo—El Salvador's last forestland.

## Biological Benefits

When conservationists discuss international protected areas with politicians, they are likely to focus on the benefits of diminishing military threats in areas of potential conflict. Nevertheless, their primary goal is the protection of biological diversity—that is, the planet's immense variety of irreplaceable living organisms. Here, the benefits of international peace parks are many: they improve the survival rates of plant and animal populations, prevent the spread of animal diseases, and allow genetic material of plants and wildlife to pass between protected populations.

Joining protected areas across borders expands the size of the preserved habitat. A single, large secure area in the same biological region is more effective in preserving biological diversity than are several unconnected, small sites. The reason for this is simple: other factors being equal, the larger the habitat, the larger the population of wild animals. And large populations, in general, are less likely to become extinct than are small ones.

A binational peace park that straddles almost the entire frontier between eastern Panama and the South American country of Colombia, the Darién-Los Katios, points to yet another biological benefit of trans-border park complexes. Since 1960, the Panamanian government has been actively attempting to prevent the spread of *aftosa* (commonly called hoof-and-mouth disease) into Central America, where beef exports to the United States earn millions of dollars each year. U.S. law prohibits beef imports from countries infected with hoof-and-mouth disease.

Chiefly in response to this economic threat, Panama established the Darién National Park in 1980. Covering 5,790 square kilometers, it contains different zones intended for a variety of uses. For eight kilometers edging the border, and eight kilometers along the path of the Pan-American Highway, a zone of absolute conservation protects rainforest resources from any form of exploitation. Sections of land along the park's rivers and major tributaries are designated "cultural conservation zones," where indigenous families are allowed to fish, farm, and build settlements. On the Colombian side lies the other half of the peace park—Los Katios National Park, created in 1973. It encompasses the area between the Panamanian border near the headwaters of the Río Paya in Panama and the left bank of the Río Atrato, which runs through northwestern Colombia on its way to the Golfo de Uraba. Accordingly, Los Katios fronts on some 30 kilometers of the Panamanian frontier.

The Darién National Park serves four purposes: ecosystem conservation, watershed protection, preservation of indigenous lifestyles and archaeological sites, and prevention of the spread of *aftosa* from South America into Central and North America.<sup>3</sup> In 1983, the Darién was



accepted as an internationally recognized biosphere reserve, under the aegis of the United Nations Man and the Biosphere Programme.

## Economic Benefits

Peace parks also provide important economic benefits to neighboring nations. For instance, internationally protected areas frequently conserve crucial watersheds. The Río San Juan, which forms the border between Nicaragua and Costa Rica, drains a watershed that reaches north into Nicaragua and south into Costa Rica. Since 1879, the river has been considered a potential site for a lock canal connecting the Atlantic and Pacific Oceans. At the very least, the San Juan seems a likely candidate for generating hydroelectric power.

A similar justification for an international park—protecting the watershed to produce electricity—exists at La Amistad National Park, on the Costa Rica-Panama frontier. Costa Rica's Institute of Electricity has proposed hydroelectric dams on at least one major river flowing through this park—the Sixaola, which serves as the border between the two countries. It is possible to develop no fewer than 10 hydroelectric projects in the Río Sixaola watershed. Although several sites have been identified for similar potential projects on the Costa Rican side of La Amistad alone, most will not be seriously considered until at least the year 2050.

However, such projects in protected forest areas can have negative, as well as positive, consequences. Reservoirs can inundate vast expanses of land, wiping out human communities, wildlife habitat, and—in some regions—archaeological remains. Large construction projects also bring roads, which can open primary forest to colonization and destruction.

And yet, the need for hydroelectric power can also be a primary justification for conserving forests. Because large protected areas in Central America—especially multinational parks—usually embrace immense forestlands, they sustain the watersheds that supply water to reservoirs.

Finally, there is a further, more immediate economic advantage to binational parks: The involvement of two or more nations increases the financial resources available for creating and protecting the parks.

## PEACE PARKS AND PEOPLE

Faced with growing populations and increasing poverty in Central America, conservationists realize that the most effective way to safeguard natural resources is to use them, in sustainable ways, in the fight against poverty. As a result, conservation efforts in peace parks also focus on buffer zones—the regions that surround the nucleus, or core protected



area, of a park. Frequently, communities in these zones depend on natural resources for their livelihood. Improving the agricultural practices of families who live on the buffer lands should help prevent such destructive activities as deforestation and poaching in the park's nucleus.

One of the most promising facets of this new conservation movement is the emphasis on human communities in park design and management. As mentioned earlier, several of Central America's peace parks are, or are proposed as, biosphere reserves. In the buffer zones of La Amistad Biosphere Reserve, for example, conservation organizations work with the Guaymí and Bribri Indians living in both Panama and Costa Rica. The residents of the Bribri Indian reserve of Ujarrás are being taught agroforestry techniques that will enable them to produce the food and income they need on land they have already cleared.

## THE CHALLENGE AHEAD

Despite the many benefits of international peace parks in Central America, the concept is not without a problem—the implied threat to national sovereignty. Ways are being found to overcome this problem, but some political leaders have expressed hesitancy at promoting binational parks for fear that they are somehow relinquishing control of national territory.

### Mexico, Guatemala, and Belize: Forging Bonds Beyond Borders

Early attempts by Guatemalan conservation leaders to engage Mexican government officials in talks about Guatemala's Maya Biosphere Reserve and Mexico's adjoining Calakmul Biosphere Reserve and Montes Azules Biosphere Reserve were met coldly. Until mid-1991, Mexican government officials were reluctant to even attend meetings addressing the concept of international protected areas, apparently feeling that any discussion of the issue would open the door to proposals for binational control of border areas.

Despite reluctance to deal with the issue at the policy level, control along shared national park boundaries came to a head in the field in February 1991, when Guatemalan soldiers and park officials seized a half dozen Mexican trucks and 70 Mexican loggers poaching mahogany and cedar trees from Guatemala's Maya Biosphere Reserve. Documents seized during two raids on Mexican logging camps inside Guatemala's reserve showed that Guatemalan forestry officials had issued bogus logging extraction contracts to eager Mexican companies.

Finally, in August 1991, Mexico's Secretary for Urban Development and Ecology (SEDUE) accepted an invitation from the Central American Commission for Environment and Development to attend the first trinational workshop on frontier parks in the Maya region. Representatives of SEDUE and Mexico's Ministry of Foreign Relations were joined in Belize City by their counterparts from Guatemala and Belize to confer on both the political and technical aspects of cooperation in existing and potential protected areas along borders shared by the three nations. The discussions produced an exciting sense of confidence and congeniality among the representatives of the three countries. Further meetings were planned for early 1992. Still, all three nations have been careful to remind each other that they are seeking cooperation—not joint control—along their border areas, and that all of their activities will be carried out with complete respect for national sovereignty.

### Successful Binational Management: La Amistad Reserve

A Central American protected area over which binational control is being considered is La Amistad Reserve of Costa Rica and Panama. Discussions during a series of meetings sponsored by Conservation International (an international, nonprofit conservation organization based in Washington, D.C.) and the Organization of American States have been leading toward the use of joint guard patrols inside both countries' territories. Although participating nations do worry that their neighbors might use protected areas to take military action against them, steps are being taken to alleviate this concern.

Furthermore, the two countries have plans for cooperation on various levels in regard to the park. Citizens' ecology groups formed on both sides of La Amistad to support the binational park have also agreed to cooperate on a variety of projects—ranging from visiting each others' communities to exchange ideas and information, to working together on economic development projects. The Panamanian and Costa Rican groups plan to produce a shared document on their joint activities. These events indicate that Panama and Costa Rica are making significant advances in cooperatively managing La Amistad Biosphere Reserve.

No one has proposed that international peace parks in Central America should blur the borders between the region's republics. Peace parks are not designed to threaten national sovereignty. Rather, by seeking to protect resources along their common boundaries, Central American nations are seeking *regional* solutions to their environmental problems. The existence of international peace parks indicates that these countries can coordinate their national activities for mutual environmental, economic, and political benefits.

## TOWARD A PROCESS FOR CREATING PEACE PARKS

Central America continues to depend on natural resource-based activities, such as agriculture, forestry, and fishing, so the region's most important long-term goal is to ensure the continuing existence of these natural resources. Unless Central Americans protect the resources on which their economies are based, they have little hope for making social and political progress. Peace parks can play a crucial role in reducing conflicts, achieving environmental protection, and alleviating human poverty.

In addition, peace parks can facilitate Central America's slow climb toward social and economic justice. These internationally protected areas can open the door between nations for talks on issues more controversial than the environment. In doing so, they can provide a mechanism for international attacks on the basic social and environmental problems shared by all the region's countries.

The new Central American Commission for Environment and Development is the most logical institution to advance such efforts. One of its specific goals is "to promote coordinated actions by governmental, non-governmental, and international organizations, for the optimum and wise utilization of the natural resources of the area, the control of pollution, and the establishment of ecological balance."

Because the CCAD brings together government officials from each Central American country to discuss regional solutions to regional problems, it is the obvious vehicle for monitoring the region's efforts in the peace parks process. Already, the CCAD appears to be assuming this role. During late August 1991, it sponsored the first in a series of meetings among the environment ministries of Mexico, Guatemala, and Belize in the frontier parks of the Maya tropical forest region. This gathering was also a model for discussions on other sensitive Central American issues.

To serve as the vital mediator in the peace parks process, the CCAD will require financial and technical assistance. Aid from some non-profit international groups has already been forthcoming for Costa Rica and for the Maya region. But additional support could come from the recently created Global Environment Facility administered by the World Bank, the United Nations Development Programme, and the United Nations Environment Programme. If the CCAD is to oversee a successful process for creating and maintaining peace parks in Central America, the institution will need investments of millions of dollars over the next decade.

Bilateral aid for this park process would be a positive step, as well. The new emphasis that the U.S. Agency for International Development is placing on protected areas and sound natural resource management fits well into the Central American peace park process. Ongoing

support from the agency's Regional Office for Central America and Panama to the CCAD provides a solid start.

A system of international peace parks in Central America offers great hope for the future of Central Americans and other peoples of the Western Hemisphere. As both a political concept and physical reality, peace parks simultaneously sow regional harmony, promote sustainable development, and protect biological diversity. The industrialized nations—as well as multilateral institutions—would do well to support this initiative.

## Notes

---

<sup>1</sup> John Noble Wilford, "New Threat to Maya Ruins: Acid Rain," *The New York Times*, August 8, 1989.

<sup>2</sup> "Three-Country Development Project Inaugurated," *Central America Report*, Vol. 14, No. 46 (November), 1987, p. 368 (Guatemala: Inforpress Centroamericana). More than 572,000 people live in the area, 60 percent of them in extreme poverty. Two-thirds of the residents depend on agriculture for their livelihood; more than 250,000 are unemployed or underemployed.

<sup>3</sup> Roger Morales and Craig MacFarland (eds.), *The Joint Management of the Frontier Zone of the Darién*, First Colombian-Panamanian Technical Meeting, November 1979, Turrialba, Costa Rica, Tropical Agricultural Research and Training Centre, Technical Report No. 5.

# Citizen Participation and the Reform of Development Assistance in Central America

*Stephen B. Cox*

---

Between 1979 and 1991, Central America received more than \$10 billion in bilateral assistance from the United States alone, yet the region is now poorer than it was in 1980. An estimated 9 million Central Americans (35 percent of the population) live in conditions of extreme poverty, and the incomes of 65 percent of all Central Americans are insufficient to meet basic needs. One child in every 10 dies before reaching age five, and two-thirds of those who survive suffer from malnutrition.<sup>1</sup> Equally alarming is that the natural resources upon which all hopes for future growth and recovery must be based are in serious jeopardy. Watersheds, forests, fisheries, and agricultural lands are becoming polluted or disappearing at a rate that, in many cases, threatens irreversible degradation of natural resources.

The persistence of endemic poverty and the rapid pace of environmental destruction are particularly ominous given the magnitude of the efforts that have been launched to counter them. This chapter discusses some of the causes of these failed efforts and suggests new ways for confronting the related priorities of reducing poverty and increasing environmental protection.

## OBSTACLES TO EFFECTIVE DEVELOPMENT ASSISTANCE

The central proposition of this chapter is that attempts to address these priorities often fail because the approach to development assistance



commonly used by national and international agencies is flawed. The model suffers from three fundamental weaknesses:

1) It is based on a definition of "sustainable development" that is far too narrow to be effective.

2) Conventional development assistance is premised on a mistaken confidence in the extent to which institutions can predict and control the evolution of development programs.

3) It is distorted by international and domestic political priorities that may be inconsistent with the best interests of the poor.

All three of these weaknesses are exacerbated by the failure of institutions to offer adequate opportunities for broader citizen participation in their nation's development decisions. Greater involvement is essential, first, for implementing an appropriately broad definition of sustainability and, second, for generating the information needed to stay on top of complicated and rapidly changing development programs. Similarly, increased citizen participation is crucial not only for creating control mechanisms that allow complex development programs to adapt to new conditions, but also for critiquing and altering political objectives that may actually work against a program's objectives of alleviating poverty.

Fortunately, there is a growing body of experience on methods for correcting some of the weaknesses that hamper conventional development assistance. This chapter offers an analysis of some of those shortcomings and describes approaches for promoting greater citizen involvement and more effective management of the development process.

## Pitfalls of a Narrow Definition of Sustainability

In recent years, environmentalists seeking to protect fragile ecosystems have come to recognize that those very ecosystems often coexist with poor people who are more concerned about surviving the coming year than they are with preserving rare environments. At the same time, some of the developing world's more enlightened economic planners are realizing that development strategies often jeopardize the natural resources on which the strategies depend. To their credit, environmentalists and economists alike are beginning to incorporate economic and environmental variables, respectively, into their thinking.

Although the recent efforts to integrate economic and environmental considerations represent an important step forward, sustainable development, as commonly conceived, is still too narrowly defined. A vague term, it seems to mean something like this: economic development that is environmentally sustainable because it does not destroy the natural resources needed to produce benefits in the fifth and fiftieth years, and environmental protection that is economically sustainable because it does

not necessarily require people to forgo too much current income for environmental objectives they may deem a luxury.

Yet, environmental and economic sustainability encompass only a few of the factors that diverse human populations and institutions worry about and compete over in regard to any given policy initiative. A successful working definition of sustainable development must incorporate *social*, *political*, and *institutional* sustainability if it is to be useful in generating feasible options for the future.

A few examples illustrate the point:

- Poor farmers, or *campesinos*, who are struggling to get by are usually more concerned about keeping a portion of their land in subsistence crops or in securing title to their land (or both) than they are about developing a potentially lucrative new tree crop with its attendant environmental benefits.

- Leaders of small farmer associations are often more anxious to negotiate better prices for basic grain crops—an issue on which those who elected them will judge their performance—than they are to rationalize land use.

- And government planners may be under enormous pressure to produce more export income from mineral sales or to develop hydroelectric plants to reduce payments for increasingly expensive oil imports. Such goals cause the environmental impacts of the mines and dams to slip off the policy agenda.

To achieve *social sustainability*, a development program must engage everyone affected, particularly the beneficiaries, to such a degree that they will choose to remain involved over time. Lacking such broad social support, programs must rely on unsustainably expensive subsidized incentives or, worse, on coercive or punitive means to force compliance with unpopular measures.

Initiatives promote *political sustainability* only if they can be implemented without undermining the existing political agreements and understandings that make it possible for public officials and other political actors to work together effectively. Little is accomplished in designing a streamlined regional decisionmaking structure for resource planning if local and municipal governments refuse to cooperate because they perceive the new structure as an unwarranted encroachment on their traditional authority. Similarly, few elected officials will spend much political capital supporting conservation schemes that ask their constituents to tighten their belts unless they are convinced that the constituents believe the conservation to be worth the cost.

*Institutional sustainability* means the capacity and willingness of national and local institutions to sustain political and economic support for a development program after the conclusion of the intensive initial phase of

international assistance. In addition, institutional sustainability requires serious efforts to train local or national staff in the professional skills needed to adapt a project to ever-changing needs and circumstances.

## Problems of Information and Control

Central America's attempts to alleviate poverty, stimulate growth, and—more recently—to curb environmental degradation read like a demonstration of Murphy's Law: "If something can go wrong, it will." Development programs often fail because they are vulnerable to factors that fall beyond the scope of the plans and analyses on which they are based. For example, reforestation efforts may falter because rising international beef prices create more compelling economic incentives for clearing forest lands to raise cattle, or because the rural poor cannot maintain their incomes while waiting for sustainably exploitable forest crops to mature. Similarly, reserves established to protect unique ecosystems may be threatened by export development schemes that turn small farms into plantations for new export crops, thereby forcing displaced subsistence farmers to clear virgin forest to plant corn and beans. It sometimes seems that every attempt to find a solution either encounters or actually generates unanticipated problems that pose obstacles to a project's success.

Such problems should not surprise us. Efforts undertaken in the simplest environments invariably run into unforeseen complications. In international development programs, the potential for stumbling across the unexpected is magnified many times by inadequate planning data on dozens of key technical and economic variables, as well as by the enormous social and cultural gaps that separate international technical experts and host government bureaucrats from extension agents, community leaders, and the poor.

Even with access to reasonably reliable information on rainfall, soil characteristics, crop yields, market prices, and the infrastructural requirements of a proposed program, expert planners have no guarantee that their goals will be acceptable—much less compelling—to the intended beneficiaries. More often, program designers cavalierly assume that beneficiaries will cooperate. It is equally common to find public officials planning and spending huge sums of scarce international aid on projects that are then negated by similarly well-intentioned efforts of other bureaucrats working on another floor in the same ministry.

In conventional development assistance, program designers implicitly follow a linear, mechanistic model that assumes established and knowable relationships between a program's inputs and outputs. Programs are characterized by huge initial investments of highly paid professional staff and consultants, who plan large-scale solutions to pressing

problems and detail anticipated actions and outcomes with great specificity. Consequently, projects tend to be large and complex, perhaps to justify the enormous expenditures for the planning phase. Implementation is then governed by fixed, a priori specifications of who will do what and when; little room is left for flexible responses to the exigencies of a program's evolution.<sup>2</sup>

In using this model to provide development assistance, planners run the risk of assuming that we know too much about how the world works. As Neil Jamieson of the East-West Center has noted, despite the fundamental ideological and methodological conflicts that have typified discussions of development during the past several decades, "Marxists, socialists, and capitalists have shared [a set of] evolutionary, . . . universalistic, positivistic, and utilitarian assumptions. They have shared a common faith in the capacity of techno-scientific bureaucracies to shape the world in desirable ways, based upon these assumptions."<sup>3</sup>

In fact, development processes are not particularly predictable. The prescriptions for one set of problems inevitably generate new difficulties that need to be evaluated and addressed in a different context, which itself has been shaped by the attempt to solve the original dilemma. Bound to an inflexible model of development, project planners are, in effect, attempting to aim heavy artillery at moving targets in the dark. Drawing on cybernetic theory, Jamieson observes that ". . . achieving or maintaining some desired state of a system is now recognized to be dependent upon feedback. What is minimally required is a communications network that produces action in response to an input of information and then includes the results of its own action in the new information by which it modifies its subsequent behavior."<sup>4</sup>

Such feedback is absent in conventional, over-engineered development efforts. True, mid-course evaluations are a commonly accepted tool in project management, but those evaluations are seldom designed to be more than reflections on whether or not a project is being executed as planned, and as measured by the highly structured and often quantitative indicators of progress set forth in the original design. Mid-course evaluations are seldom intended to ask the tougher and far more important questions: Do the objectives still make sense? Do fundamental assumptions about how the system works appear to hold true? Do the intended beneficiaries seem to be interested in or committed to the outcome?

Nevertheless, these deficient mid-course evaluations are often the only formal mechanism available to project managers who need information about their progress. Few programs include explicit plans for systematically soliciting and using feedback from project beneficiaries and other involved people, although routine feedback is essential to effective development assistance.



## Preeminence of Political Priorities

During the last four years of the 1980s, approximately 70 percent of total U.S. aid to the Western Hemisphere went to four countries (Costa Rica, El Salvador, Guatemala, and Honduras) whose combined population accounts for only about 5 percent of Latin America's total population. Such a curious distribution raises obvious questions. U.S. bilateral assistance—like the official development assistance programs of many other countries—is allocated to objectives that are primarily political in nature. For example, aid is offered to political or military allies, to countries hosting U.S. military bases, and to nations seen as key in Washington's efforts to interdict the flow of illegal drugs to the United States. These purposes may or may not be worthwhile, but they are not developmental.

Incentives to evaluate a project's effectiveness in development terms do not materialize because such effectiveness is often not the fundamental goal of the donor institution. Although usually staffed by dedicated and competent development professionals, government agencies are typically charged with executing political, military, or other nondevelopmental objectives. Staff members are not encouraged to ask potentially embarrassing questions about the efficacy of programs as measured in developmental, environmental, or poverty-reduction terms. Instead, the preeminence of political concerns creates an environment in which an official must find a recipient-country agency best suited to use politically meaningful sums of money in a politically determined time frame.

The emphasis on political interests also contributes to the large and unwieldy scale and scope of many official development assistance programs. When the objective is to "move money" quickly to show support for a friendly government, bilateral aid bureaucracies—notoriously understaffed and overworked—have a clear incentive to allocate funds on a scale that exacerbates the problems of insufficient information and control discussed earlier.

At the same time, bureaucrats in recipient countries avoid basic questions about the justification and feasibility of a development project so as not to bite the hand that feeds. Too often, a recipient government is more likely to use resources to extend patronage or gain political control. In countries with limited democratic participation in selecting those who govern, public employees are seldom pressured to ensure that international assistance is used effectively to respond to the interests of the intended beneficiaries. Putting politics first also tends to limit the choice of institutional partners. When the objective of a development program is to support a friendly government, the selected counterpart agency is normally a governmental entity or a politically acceptable nongovernmental organization (NGO).



## Consequences of Limited Participation

Broader citizen participation is essential to making sound development decisions. Fortunately, by the late 1980s, all Central American countries had elected civilian heads of state. As the region struggles to build democratic institutions, it confronts the reality that policymaking authority has long been vested in small, unrepresentative elites. A large and increasingly active community of popular organizations and development- focused nongovernmental organizations has been a much-neglected governing partner. The durability of democracy in Central America depends on offering these and other citizen representatives a greater voice in setting priorities, in making decisions, and in holding elected leaders and public institutions accountable.

Restricting citizen involvement also reduces the effectiveness of development assistance programs. In most instances, only highly selective feedback is allowed to influence decisions on adapting a project to changing circumstances. Thus, information on whether key participants and beneficiaries are acting as expected is limited and often useless.

Moreover, if fewer people are allowed to participate in designing and managing a project, fewer people will be committed to the project's success. Consequently, when unanticipated obstacles require inter-institutional cooperation, the relationships on which cooperation must be built are often too weak to effect a solution.

Finally, in healthy democracies, as well as in established authoritarian states, the influence of any given public official may be short-lived. Sudden changes of staff in key positions expose the continuity of complex projects to the vagaries of political processes. Even when such appointments are made largely on the basis of merit, the chances of finding the best person quickly are remote, given endemic shortages of skilled professionals. No competent corporate executive would strike an important business deal with partners who are likely to vanish from the scene during the course of the enterprise, taking with them control over institutions and resources that are essential to the partnership. Yet it is common for development program designers to vest tremendous authority in a handful of people whose power may have been unacceptably limited or tenuous from the outset. Without the broad community commitment to a project that greater participation can offer, an initiative is extremely vulnerable to inevitable changes of personnel.

Reducing poverty and protecting Central America's natural resource base will require substantial, continued investments of international development assistance. The International Commission for Central American Recovery and Development (also known as the Sanford Commission) estimated in 1989 that international aid flows of \$2 billion a year

will be required to underwrite the region's basic recovery and development priorities in the immediate future.<sup>5</sup> And the Central American Commission for Environment and Development (CCAD)—created by the presidents of the Central American republics to coordinate regional sustainable development efforts—estimates that the region will need \$1 billion of new capital in the first half of the 1990s for environmental projects alone. Given the magnitude of these requirements and the region's own financial distress, some mechanism for managing large-scale transfers of resources from abroad is crucial. But greatly increased aid following conventional approaches is likely to yield disappointing results. A new model for the way in which development assistance is delivered is now essential.

In sum, given the multiple challenges of more broadly defined sustainability, the time has come to adopt a humbler epistemology of development. The complex challenge of promoting effective development requires more complete knowledge of a wider array of variables than any organization can hope to command, particularly at the outset of a proposed enterprise. Moreover, it is impossible to know with confidence in advance how all the participants in a proposed program or policy change will react during the life of the project and beyond; yet, sustainability requires a greater focus on the “thereafter” phase of projects than in the past. To achieve more effective programming, we must pay greater attention to the issues of feedback, incentives, and participation. The following pages present some suggestions for an alternative, process-focused approach to development assistance along with concrete proposals for effecting such an approach.

## AN ALTERNATIVE: RIGOR IN PROCESS

In the traditional models of development assistance, a tremendous premium is placed on planning ahead—determining all the tasks and specifications at the outset of a project. Such “design rigor” may be useful when one can predict with some reliability how a program will unfold, but it cannot be applied to countries where unpredictability is the rule rather than the exception.

What is needed instead is “rigor in process.” Social science researchers pay attention to research methodologies without assuming at the outset of their studies that they know what they are going to discover. Reasonable hypotheses lend structure and direction to their inquiries, but honest investigators remain open to the possibility that their hypotheses may need to be discarded; they design workplans that take into account the need for such changes. This “process rigor” is essential to the integrity and effectiveness of the research itself.

Even greater process rigor is required for effective development assistance. We should not assume at the start that we know how citizens, bureaucrats, business interests, and technical innovations are going to come together in our programs. To compensate for our limited understanding, we need to include in our plans feedback mechanisms—ways to ensure a steady flow of updated information on how the project is unfolding and how our initial assumptions about the ways of the world may need to be altered to accommodate the changing realities of developing societies.<sup>6</sup>

Specifically, process rigor calls for greater attention to:

1) Periodically gathering feedback on the actual priorities of beneficiaries and of other key participants during all stages of the proposed project.

2) Collecting and using information on what systems and tasks the local and national institutions will accept and can manage, and on changes in the institutions' willingness and ability to do so over time.

3) Improving the analytical and managerial skills of local and national institutions (private and public) to ensure continuity after international involvement ceases.

4) Establishing effective linkages and mechanisms for public debate over priorities and methods, as well as for negotiation among a variety of participants at both local and national levels.

5) Creating accountability links that give program staff concrete incentives to work flexibly and creatively to achieve tangible results as opposed to merely complying with the original workplans.

6) Arbitrating and managing conflicting interests within the host government itself, and coordinating policies that originate or must be implemented in different bureaucratic milieus.

In a sense, process rigor is to design rigor what a good software package is to a piece of computer hardware. Without the advantages that an effective software program can offer for flexibility and adaptability to changing needs and applications, an expensive and well-designed computer is useless. The suggested tools and techniques that follow—although not a comprehensive list—can help to ensure adequate process rigor. None used alone is a panacea for the problems that limit project efficiency, but attention to the process, strengthened by these techniques, can do a great deal to enhance program effectiveness.

## Rapid Rural Appraisal

In the late 1970s, rural development workers in South and Southeast Asia began to develop methods for generating practical and timely information to improve their projects. Rapid rural appraisal (RRA), as

this technique has come to be called, has spread quickly in Asia but has only recently been applied to programs in Latin America.

In essence, RRA is an exercise undertaken in the field by a multidisciplinary team that quickly collects and evaluates new information and new hypotheses about rural life and development programs. The insights are then used to generate and update plans and hypotheses about what development interventions are expected to accomplish and how.<sup>7</sup> In contrast to more formal survey research methods, RRA is a systematic but loosely structured approach to data collection that places a premium on obtaining a sufficient amount of useful information rapidly, without spending a lot of time and expense studying irrelevant details.

A key to the utility of RRA is what Gordon Conway of The Ford Foundation and Edward Barbier of the International Institute for Environment and Development call the "diversity of analysis," which is gathering information in many different ways from many different sources. Each aspect of a situation under study—be it planting methods, rainfall patterns, or seasonal allocations of labor—is examined by "triangulating," or by questioning a number of sources (for example, poor farmers, local extensionists, homemakers, and others). "Truth" is approached through the rapid buildup of diverse information rather than via statistical replication. Secondary data, direct observation in the field, semi-structured interviews, and the preparation of diagrams all contribute to a progressively more accurate analysis of the situation under investigation.<sup>8</sup>

Well-done appraisals offer a flexible but systematic way to collect useful data throughout the life of a project at a cost, in both time and money, that is modest enough to permit repeated use of the method. The objectives of a study are not inflexible but can be adjusted as the team learns more about what it needs to know. No simple standardized methodology is prescribed. Instead, new techniques are improvised in the field to secure information that appears important. Team members work together to produce interdisciplinary insights and hypotheses.

Most important, perhaps, the appraisal is based in the beneficiary community. Most of the learning takes place in the field, in short, intensive discussions with farmers and other beneficiaries whose perspectives are systematically incorporated into the emerging diagnosis of the situation.

The potential importance of rapid rural appraisal and related techniques for improving process rigor is considerable. Such methods may be used in program design to develop a more realistic and textured appreciation of the problems to be addressed. They also are useful for monitoring and generating evaluative feedback on a project's progress and for ascertaining the continued viability of a project's hypotheses about beneficiary priorities and behavior. Furthermore, RRAs can help policymakers



to think more critically about policy formulation and planning. Used correctly, they permit "reality checks" on whether or not development assistance efforts are having their intended impact. Just as important, RRAs can generate practical, detailed information on how to correct misperceptions and to target efforts more successfully.

## Multiparty Policy Dialogues

Multiparty policy dialogues enable participants from diverse and representative institutions and social settings to meet on neutral ground to discuss common problems and alternative responses. Such exchanges can be particularly useful for program planning, as they offer a means to develop a broad, plural consensus about goals and methods among people whose cooperation will be crucial to a program's success. Like rapid rural appraisals, dialogues of this sort are iterative, interdisciplinary, interactive, and informal. In contrast with RRAs, however, they need not necessarily occur in the field or in rural communities, and organizers may rely to a greater extent on more conventional modes of policy analysis in preparing the agendas for subsequent discussions.<sup>9</sup>

By bringing together policymakers, business leaders, rural activists, community promoters, environmentalists, and popular organizations, multiparty policy dialogues offer an opportunity for constructive discussions of specific policy issues. Participants can listen to and learn from each other's views of common problems and look for ways to arrange deals from which all may benefit. Dialogues of this sort may be especially helpful in addressing issues of national policy that set the stages in which development initiatives must play themselves out. Such a method may also aid in identifying some of the underlying institutional and political constraints that can later threaten the implementation of a project. Finally, multiparty policy dialogues can point out some of the influences of other sectoral and macroeconomic policies that may fall beyond the original scope of a development program or of problems being discussed.

Although far too few attempts have been made to promote broadly participatory dialogues on specific development issues, three recent experiences, all in Costa Rica, may help to illustrate how such an approach can work. Development Alternatives (a private policy research center in the United States) and the Center for Development Training (CECADE, a nongovernmental organization that offers training and technical assistance to rural communities and groups of small farmers) are cooperating on a series of dialogues that bring together grassroots groups, nongovernmental development organizations, and policymakers to discuss the impacts of national structural adjustment strategies on rural communities. The Organization for Tropical Studies (OTS) has begun a program