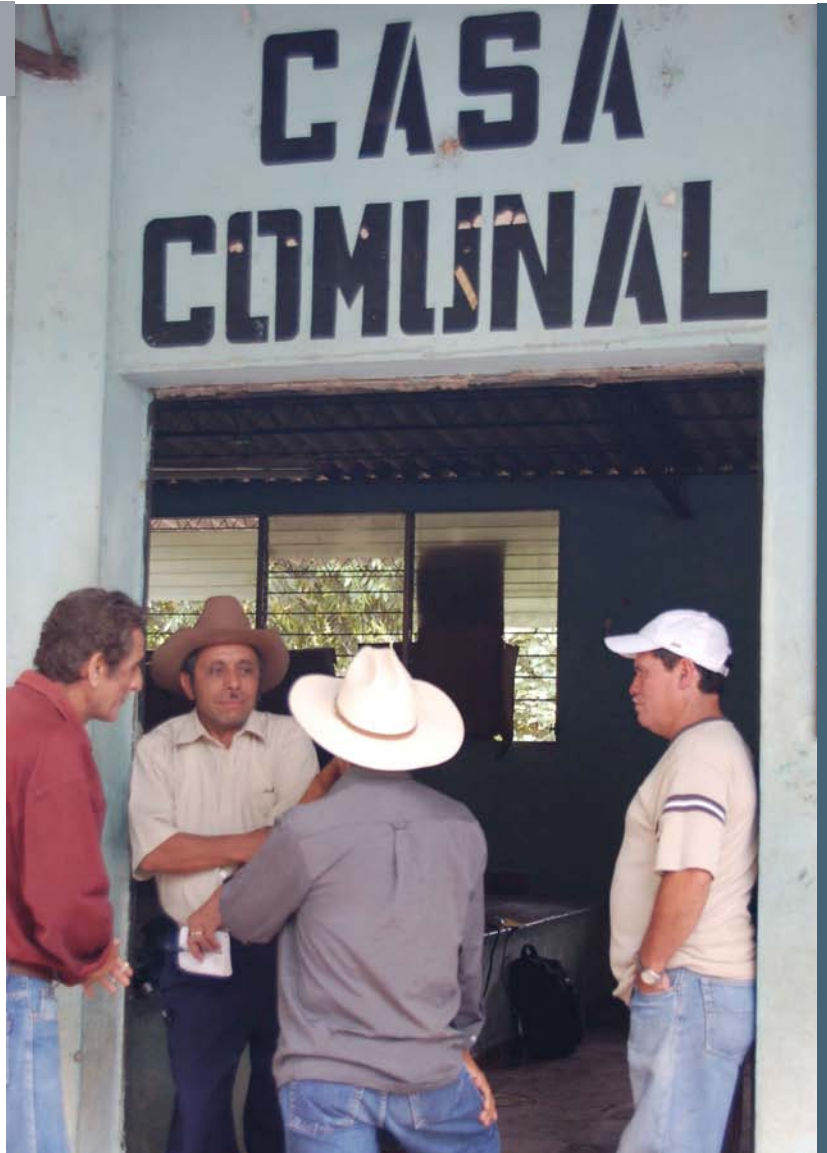




Programa Salvadoreño de Investigación sobre Desarrollo y Medio Ambiente
Salvadoran Research Program on Development and Environment



Forms of Decentralization, Governance and the Politics of Natural Resources in El Salvador



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This publication was made possible through the institutional support of ASDI, FORD Foundation and COSUDE

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Forms of Decentralization, Governance and the Politics of Natural Resources in El Salvador

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This study was carried out in the context of the *Ecology of Justice? Globalization, Governance and Environment in the World after War in El Salvador* research project, coordinated by PRISMA in collaboration with the Latin America Center of the University of California, Los Angeles and sponsored by the John D. & Catherine T. MacArthur Foundation.



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Introduction

El Salvador is an exceptional case for studying how globalization affects security and environment in an economy and geography that has always been deeply internationalized, with a long history of conflict as well as viewed as an ecological disaster zone. A cold war hot spot, the country was convulsed in a bloody civil war that exiled more than a sixth of its population. With the Peace Accords, the nation's political framework was radically changed, and with the war and neoliberal reforms, its economic structure was deeply altered. While international capital flowed into El Salvador's private sector, remittances - the largest source of foreign exchange in the country - became a necessary buffer for the poor and the lifeblood of the economy.

Ecological degradation, natural catastrophes and the emergence of a broader regional and international discourse on environment produced significant flows of international assistance directed at resource conservation and sustainable development, including efforts at watershed management, regional initiatives such as the Meso-American Biological Corridor (MBC) and the support of new resource institutions in the state and civil spheres. More critically, ecological issues, both as environmental justice and as a prerequisite for modern investment and economic growth, have been placed at the center of El Salvador's national security and development policy.

Political viability in the "post Peace Accord" world involves national reconstruction through investing in rural areas to enhance livelihoods and security, and increasingly focuses on environmental strategies. These range from conventional potable water projects, hefty international and NGO investment in sustainable de-

velopment¹ and biodiversity conservation, to the ideas of payment for ecological services.

El Salvador represents an astonishing melding of concerns of environmental justice, ecological and social sustainability in an overarching framework of neoliberal economic policy, decentralization and processes of globalization in a world after war. The country's small size and the concessions to regional political formations make it an almost ideal "laboratory" for understanding the local and much broader implications of governance for environment and security in Central and South America. El Salvador is all the more significant because ecological concerns are not an "add-on" or imported fad and appear to presage a new approach to rural development.

In this emergent political economy of natural resources, the new role for the rural increasingly depends upon articulation of very different political forces and rhetorics, and relies on two trends in governance: decentralization and natural resource planning (both participatory and 'conventional' technocratic approaches), which are complex, and often difficult to reconcile given the current institutional structures, and the natures² of environmental politics.

This paper is based on case study work of three rural areas of El Salvador - the upper Rio Lempa, mid Rio Paz and El Imposible/Barra de

¹ We use sustainability here in a normative sense, and feel that its real meaning can only be understood through understanding the nexus of institutions, assets and forms of capital (natural, social, human, physical and financial) of farmers, rural workers of many kinds, etc. As an abstraction, it is a term that only has substance when linked to concrete social and environmental conditions.

² "Natures" here refers to the different perspectives on nature and the varying political factions associated with different approaches to resource use.

Santiago lowlands - and examines evolving institutional frameworks and household livelihood strategies and their influence on natural resource management. Moreover, we examine how these evolutions play out in environmental management in a globalized socio-economic context amid the tensions of civil reconstruction and political decentralization. We take as our starting points the question of rural poverty, agrarian change and the emerging environmental discourse that now shapes the countryside of El Salvador. But we view them through the following lens:

- First, rural livelihoods are not necessarily only agrarian. Households manage a wide array of “assets” including such social capital as: national and international networks, traditional patronage, etc. to create access to institutions, economic opportunities and natural resources.
- Second, in contrast to much of the literature on globalization, we view its processes - trade liberalization, migration, capital flows and new ideas - as mediated by local institutional arrangements; local assets; interdependencies; historical, household and ethnographic factors. Thus, it is a more open and less hegemonic phenomenon, a

space in which one can imagine globalization from below.

- Third, environmental ideas and discourses have been a key feature of democratic participation after decades of military and authoritarian regimes.

El Salvador has much to teach about how globalization and other international processes and their aftermaths affect security, governance and environment in former war zones, in contexts of deep implementation of decentralization and structural adjustment programs. Its biogeographic provinces have analogues throughout the region, its suite of resource management problems - deforestation, erosion, biodiversity loss, vulnerability to natural disasters, hampered agrarian livelihoods - have similar structural roots and parallels throughout the developing world. Hybrid forms of ideology, institutionality and governance at transnational, national and local levels are emerging. However, the impacts of these organizations and the newly decentralized municipal governments on resource management, rural development and security have not yet been sufficiently documented. It is our hope that this research and resulting analysis contributes to informing policy decisions concerning security, governance and the environment.



Natural resource management in Latin America

Natural resource management throughout Latin America is undergoing major transformations as a result of the change from authoritarian and wartime regimes to more democratic ones, and the profound shift in national and international macroeconomic contexts and policies. These have fundamentally recast the role of farmers and the resources they control.

The rural economy has a declining significance in national economies, as regional and international markets have undermined the value of production for both domestic and export crops. Farming households increasingly rely on wage labor and remittances as an important part of their livelihoods. This shift has changed the form of natural resource use in production, and in many regions forests are now regenerating as pressure to grow annual crops is reduced, through a combination of policies for cheap food at the national level and collapsing prices at the international level that make production in marginal environments uneconomical for farmers, while the rise in cash from remittances and wages helps them as consumers (Hecht, Rosa and Kandel 2002).

Politically the role of farmers in the national economies is also waning in much of Central America. Peasants were an important constituency in political openings throughout Latin America, and in Central America's civil wars, and were central to development when El Salvador's economy centered on agricultural exports. As the structure of the economy has shifted, so has their impact on national policy. National elites have embraced neoliberal doctrines and emphasized an urban-based development focus.

As a consequence of market pressures and state policy, rural capital flows have been sharply curtailed, and in Central America more generally, the farm economy appears to be moving away from "landscapes of agricultural production" into a new kind of rurality more characterized by social buffering for an ever more migratory and proletarianized population and increasing attention to environmental services of various kinds. The economic and political decline of rural areas in national economies has been partially offset by the rise in economic transfers as a result of the increasing importance of remittances.³

The expansion of environmental activities and politics is also revising the nature of rural development throughout Latin America. This reflects the explosion of international environmental activities by multilateral and international conservation agencies since the 1980s through tied lending, national activism and greater attention to environmental institutions in national politics.

The thrust of rural development as it now evolves is as much an environmental as an agrarian/social project. Landscape recuperation, conservation planning, enhanced agroforestry development, and agroecological projects increasingly define the "nature" of rural approaches. Environmental services are thus often seen as more viable and valuable rural options than producing agricultural commodities.

³ El Salvador, where remittances are the largest source of foreign exchange, is particularly notorious with regards to economic transfers associated with remittances.

International investment in national environmental agencies, in conservation planning and non-governmental organizations (NGOs) engaged in environmental projects, has been one of the main means of transferring funds into rural areas. In Central America this trend increasingly dovetails with the rise of new social institutions as a result of the politics of reconstruction and decentralization.

Forms of decentralization and natural resource management

Decentralization of natural resources management is a central feature of most structural adjustment reforms and has been a key focus for the politics and policy of environment. Associated with a critique against centralized forms of environmental governance from both the left and the right, decentralization, along with privatization-market approaches, became the overarching policy model as the state-dominated model of development was recast in the mid-1980s. Decentralization, like structural adjustment policies, has been enacted in virtually all countries in Latin America.

To summarize a vast literature, decentralization is meant to improve the quality of resource use, involve better allocation and efficiency, and promote equity because local actors and local knowledge can be deployed more effectively. The processes of decentralization are also supposed to enhance social capital because local governance supposedly implies more participation.

Many analysts were enthusiastic about the roles that NGOs, grassroots organizations and local governments might have in the development of new natural resources regimes. Accountability and responsibility would be improved as distant government concerns gave way to local realities and negotiation. Local rules and institutions for resource use could be developed,

and more marginalized economic groups would have more influence on policy (See for example Western et al 1994, Ribot 2001a).

Other scholars, however, pointed to the possibility that decentralized forms of government could be captured by local elites who, through their dominance of patronage (and the threat or use of violence), could effectively direct the political economy of resource use in their favor. Or local governments might be more interested in urban and infrastructure improvements and lack funds for ecological natural resource management, or might simply pillage resources. Or they might simply lack the technical capacity and financial wherewithal for natural resource management (NRM).

Given the low level of funding and precarious tax base, local governments might simply find themselves unable to implement reasonable policies, even if there was the political will. Moreover, in most municipalities of Latin America, timber harvests, land and agricultural sales activities associated with resource transformation provide far more local tax revenue than most conservation activities or ecotourism.

The diverging views of decentralization reflect the realities of local power and economic structures; however, they also have roots in the structural forms of decentralization. Ribot (2001b) unpacks the term and points out that there are basically three dynamics that occur under the heading of “decentralization.”

Decentralization, per se, involves the transfer of some of central government’s powers to actors and institutions at lower levels in a political and territorial hierarchy. This devolution permits an arena of decision-making where local level institutions and pressure groups can, in theory, exercise some autonomy especially if more democratic political processes and electoral representation are part of the mix. More democratic

forms of decentralization also imply greater accountability and response to local constituencies. *Deconcentration*, on the other hand, is basically administrative decentralization to government appointed agencies that take on administrative activities at lower hierarchical levels. In contrast, when state powers are ceded to non-state bodies such as private corporations or civil society organizations, what is in fact occurring is *privatization*.

Democratic decentralization, deconcentration and privatization have different logics, and have different outcomes in terms of governance. As Ribot (2001b) points out, the form of “decentralization” can involve the transfer of complex powers - regulatory, administrative, decision-making and state assets - to local branches of the central state, autonomous governing bodies, NGOs, corporations and/or individuals. The meaning of decentralization, thus, depends on what is being transferred and to whom.

As a result of these varying issues in decentralization, the empirical record of the success of decentralized approaches is fairly mixed in Latin America. Various initiatives, such as those in Brazil that expanded extractive reserves throughout the Amazon (cf Hecht and Cockburn 1989, Brown and Rosendo 2000) and the development of co-management strategies by local traditional riparian populations, are important examples of positive outcomes in decentralization involving significant participation on the part of local societies (cf Padoch et al 1998). Nicaragua (Larson 2002), Bolivia (Kaimowitz et al 2000) and Mexico (Klooster 2000) can also point to some positive experiences.

On the whole, in spite of their many problems, municipal governments are seen as no worse than central governments at managing natural resources. However, decentralization in general is seen as far more problematic than it was

originally portrayed, largely because of the multitude of forms embraced by the term (cf Leach and Fairhead 2000, Ribot 2001b, Brown et al 2000, Pretty et al 1999, Ribot 2002). Thus, analysis of the performance of “decentralization” on governance of natural resources must assess the social context, local organizing capacities, national political commitment, national political economy and the increasing forms and goals of international assistance of all the different varieties of decentralization.

El Salvador, where civil and environmental institutions are quite young, and resentments from the war still fester, shows the complex tension between these varying forms of “decentralization” (democratic, deconcentration and privatization) as they play out approaches to resource management, and their implications for resource planning processes, participatory and otherwise. As a social laboratory of a society developing a culture of negotiation, El Salvador can provide insight into the ways young, impoverished democracies and open economies wrestle with the differing decentralization processes in an effort to reconstruct their economy and society.

El Salvador's decentralization policies

After the Peace Accords were signed, regional development policy focused on decentralization and local development in a context of sharp structural adjustment policies, and much more open regional trade. Post war reconstruction was characterized by the transformation of the role of the state away from an authoritarian or military entity and a vast reduction in its powers, as well as an increase in the number of social movements that focused on local concerns.

The central regional approach, as was typical at the time, was that of administrative decentrali-

zation; what Ribot called “deconcentration.” The policy initially expanded the Municipal Code of 1986, and envisioned devolution of local administration to the municipalities. Over the next decade other initiatives were elaborated such as the 1993 “Strategies for Decentralization and Municipal Development” legislation, the “National Strategy for Local Development” and the most recent “Territorial Actions of the National Plan” (CND 1999).

All these are predicated on administrative decentralization (administrative deconcentration), but very limited fiscal transfers - about 6% of the national budget - even though more than 50% of the population resides in rural municipalities. Municipalities are seriously underfinanced given their mandate and their population. This has created a fairly common institutional problem associated with “deconcentration” types of decentralization: relatively powerless and fragmented local governments, and a remote, ineffective or indifferent central government. Local governments without organized constituents or powerful national patrons thus have limited capacity to influence local development.

As a consequence of this rather hollow form of deconcentration and the violent and highly organized political history of the country, pressures have emerged for more democratic forms of decentralization, where greater autonomous powers are generated through more participatory, inclusive local processes, and where the capacity for independent negotiation of powers and finances is possible.

The Corporation of Municipalities of El Salvador (COMURES), an organization representing the 262 mayors of the country, has fought for an increase in the amount designated for municipalities from the national budget, because, in El Salvador local governments are unable to collect property taxes (the usual source of revenue

in such situations) because they simply do not exist. While this constrained context is perhaps not the most ideal situation, it has created a kind of solidarity between the mayors of municipalities and their inhabitants, and allowed the emergence of local citizens groups in many areas to actively formulate policies and projects that reflect grassroots interests.

With limited government transfers, international cooperation aimed at strengthening the capabilities of local governments and enhancing citizens’ participation, as both a part of reconstruction and environmental policies, became increasingly important. Currently COMURES is carrying out nine municipal development programs, with funds from various aid agencies, among them USAID (U.S. Agency for International Development), GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit), DSE (Deutsche Stiftung für Internationale Entwicklung) and AECI (Agencia Española de Cooperación Internacional). These kinds of approaches underlie the new efforts that inform some natural resource planning.

However, while decentralization and community development of natural resources is being adopted in national discourses and its broader issues widely discussed in the literature (Gibson et al 2000, Leach and Fairhead 2000, Ribot 2001b, Agrawal and Gibson 1999), there are a number of significant “logistical” problems in the way the decentralization plans are actually implemented that work against longer term resource management.

A central problem with decentralization to municipalities for natural resources is simply that the term of office is often very short. In El Salvador, mayors hold a three-year term; for environmental programs this is a very limited time frame. Mayors must often show quick results for reelection, which often mitigates against longer, more ecological projects in favor of

quick infrastructural environmental programs, such as potable water, latrines, etc.⁴

Finances are also a problem. In places like El Salvador, where there are no property taxes, national transfers (usually nominal - 6%) and whatever can be eked out of international assistance are the only local sources of municipal funds. This creates the sharp dependency on international resources and on their various discourses (cf Hecht et al 2002) that characterizes many elements of Salvadoran environmentalism, as these international agencies are seen as more sympathetic to rural problems than many of the national elites shaping regional development policy and state investment.

The importance of international environmentalism with its keywords of sustainability, biodiversity and environmental services has resulted in a rhetoric that often frames local programs in terms of ecological virtue rather than social justice, and represents a profound shift in the language (and practices) that now frame the questions of rural development. This reinfusion in local politics of environment issues with the ideas of social equity is an important arena of cultural innovation in the new context of “rurality.”

Whether localities can mobilize technical capacity for managing longer projects is another issue. Most municipalities lack the resources to hire resource managers themselves, or the caliber of people they employ may not be of the highest level due to salary, remoteness, and other opportunities. Those that they may hire as consultants or who may be hired for them as part of the NGO resource management initiatives, may fall into very prosaic resource management schemes - relatively uninterested in

⁴ While these programs are important and make sub-stantive contributions to local health, and the technologies are simple to transfer, they do not, however, address broader resource management issues.

forms of local knowledge or more complex approaches to natural resource management, and deeply influenced by resource management fads.

As Bebbington (1999) points out, NGOs may really owe fealty to their funding agencies and less to their local communities, and thus orient projects according to fashions and ideas elaborated in the vast technical/policy soup of international development practices. This is hardly a problem unique to El Salvador (cf Pretty et al 1999, Ribot 2002). Examples abound everywhere, but the “development archeology” in Salvadoran landscapes bears witness to many rural development fashions ranging from mechanized terrace construction to teak plantations (the latter dominated for a while the eco-development literature on Central America despite a terrible performance record in El Salvador, Hecht 1999). Such activities may be chosen over more appropriate species and approaches, techniques, and actors. Gender issues in natural resources are especially overlooked (Agrawal 2001). In El Salvador this is an issue of significance because international migration has left 30% of households headed by women (Deere and de Leon 1998).

Finally, another problem is whether the scale of the municipalities is appropriate for environmental planning and management. There is an emerging set of regional institutions that attempt to address this deficiency, but the small administration units are often politically isolated with few intermediate structures that can negotiate with both the national government and international agencies. Indeed, the most important rural political thrust has been the creation and development of *mancomunidades* (the legal association of several municipalities)—intermediate spatial level organizations for coordinating regional development actions and for lobbying at the national and international level.

While not widely mentioned in the decentralization literature, a profound shift is implicit in the nature of the politics of decentralization. Historically, rural areas lobbied for credits and services on the basis of sectoral policies for agriculture, forestry and ranching. Regional coordinating agencies inspired by the concept of growth poles during the import substitution phase of Latin American development policy enjoyed preeminence⁵ and a great deal of power. While often associated with tremendous corruption and cronyism, they have fallen by the wayside. They have, however, left an institutional and organizational void that is now being addressed through grassroots organizing and decentralization in a potentially far more participatory manner.

Today rural development depends far less on simple sectoral politics and much more on spatial territorial planning policy and regional organizations, whether governmental or grassroots. This adds yet another dimension into the complexity of the decentralization process, as more local organizations emerge as a means of overcoming the limits of decentralization.

What is clearly emerging in El Salvador are tensions among the democratic, deconcentration and privatization forms of decentralization, at the level of localities, in terms of funding and in forms of resource planning. Four often overlooked features of rural dynamics in El Salvador - presented below - provide an important backdrop to understanding the unfolding of decentralization processes, and more importantly, the prospects for security and sustainability in El Salvador.

⁵ Brazil used these agencies probably more than most other countries in Latin America: SUDAM, SUDENE, etc. defined and implemented regional development throughout the 1960s and 1970s. Likewise, Bolivia maintained similar coordinating agencies such as CORDECRUZ.

The rural remains important

Much of the literature on “post- Peace Accord” El Salvador emphasizes the importance of political consensus (“*concertación*”) and new alliances for urban workers, and sees the rural sectors as waning and relatively unimportant for shaping the new regional economies (Seligson 1995, 2000; Diskin 1996). As home to more than half the population; a history of agrarian insurgencies; and the central role of the environment in local, national and regional development approaches, disdain for the countryside is ill-advised.

Rural populations are forging international alliances, and have favored rather specific styles of regional development where both economic and environmental ideologies are invoked to legitimize and to inspire social, environmental and development policy, as El Salvador’s National Plan (*Plan de la Nación*) reveals.

Understanding of the “secret” El Salvador, unmoored from the environmental clichés and urban bias that have dogged the perception of the region, may provide substantive policy, welfare and theoretical insights. While the “unviability” of the rural sector throughout montane Latin America has been widely discussed (see Bebbington 1999 for a review), increasingly, rural analysts are focusing on the importance of diverse forms of social and environmental capitals and complex networks (including international ones) that are mobilized in the structuring of livelihoods.

Environmental initiatives and rural development

Environmental services are increasingly a central part of the agrarian discourse for justifying the transfer of resources from urban to rural areas, and for making political and social claims

on state and international funding. This marks a substantive difference from the pre- and immediate post-war periods where the issue had focused almost entirely on questions of distribution.

In addition, the environment has become an important locus for organizing new forms of collective resource management (including co-management of forest resources), participatory environmental zoning, and regional level institutions for mediating conflicts, coordinating communities in the face of natural disasters, and for funding a variety of land use initiatives.

The impacts of globalization, the complex forms of household income formation, the urban bias in macroeconomic policies, the critical role of El Salvador's hydrological regimes in any form of development, and the emerging initiatives that take environmental concerns as their point of departure, have created an array of social movements and organizations as well as new institutions and alliances to address resource management. These environmental and territorial initiatives are recasting the role of the rural.

Land tenure changes in rural El Salvador

Land redistribution since the eighties expanded the natural resource base for the rural poor in El Salvador. The impacts of access to land are manifold, and range from domestic provisioning and environmental management to marketing, all of which substantively affect the quality of life, income and security of rural households, in the face of tremendous macroeconomic downturns, devastating climatic events and powerful earthquakes.

Rural families with access to land tend to keep their children in school when confronting external shocks more than the rural landless poor,

thus access to land has served to increase human capital formation.

Land ownership also facilitates the acquisition of other assets, such as credit and housing. While only about 5% of rural family income is derived from the sale of basic grains, 89% of households farm, suggesting that this activity is a key element in household subsistence (Lardé de Palomo and Arguello de Morera, 2000).

Land ownership increases the propensity of rural poor communities to invest in long-term stewardship of natural resources. This is reflected in two ways: first, through conservation investments on their own plots; and second, via management of local collective or shared resources and the development of the social capital to do so.

Recent studies have indicated that about 45% of farmers view erosion as a problem on their farms, and grain producing households are more than two and half times as likely as coffee producers to adopt soil conservation actions (Hopkins et al 1999). This rate of adoption of relatively simple techniques (minimum tillage, residue management, etc.) correlates with ownership and access to technical assistance.

Social capital and commitment to change

Social capital (the organizational capacities of communities, and their networks that provide access to a range of resources: knowledge, collective action, etc.) assists rural communities to strengthen their livelihoods and manage ecosystems. Social capital formation in rural areas of El Salvador is linked to land redistribution processes, and these have generated organizational structures that improve collective action and decision-making concerning the more sus-

tainable management of land, water and forests.⁶

Moreover, the post-war programs of El Salvador legalized new organizational structures that bring together local actors in reconstruction, and emphasize self-determination, consensus-building and the coordination of actions between the State, NGOs, the private sector and local communities. These processes underlie the origin of the *Agencias de Desarrollo Local* (Local Development Agencies, known as ADEL by its Spanish initials) in different municipalities throughout the country (Moreno 1997).

This new political opening, after more than 50 years of repressive authoritarian regimes, reflects a more pluralistic approach to regional politics, and the types of demands concentrate on highly specific, rather than broadly rhetorical (i.e. "ending oppression"), projects. These projects, relatively small in scope, now involve negotiation of strategic agreements with central government and often with international agencies for their implementation. Without organization, the capacity for localities or social groups to receive resources is virtually nil, so this dynamic has produced a strong wave of organizing efforts in rural zones.

These community groups are increasingly viewed, at least at the rhetorical level in Salvadoran politics, as important elements in the national natural resource strategy.

The development of organizational capacities plays a decisive role in regional environmental restoration and management efforts in rural areas, because the small farms of the region are too localized a scale for effective management, and larger territorial scales are necessary. The history of social organization in El Salvador and its new political-institutional processes that often include transnational and international environmental groups and projects, provide a propitious setting for developing practices, policies and agreements that can facilitate ecosystem management, and successful alternative sustainable livelihood strategies. However, these processes - predominantly propelled from grassroots efforts with the support of foreign cooperation agencies and international NGOs - need to be accompanied by genuine political willingness at the national level to support political participation in policy and development.

⁶ Social capital is also proving critical in allowing access to new markets as in the case in Bajo Lempa where small farmers are producing organic vegetables and nuts for the European market, and in collective coffee farms in Ahuachapán where linkages with fair trade and green markets are being developed.

Social history and the shaping of natural resource use: Case studies from El Salvador



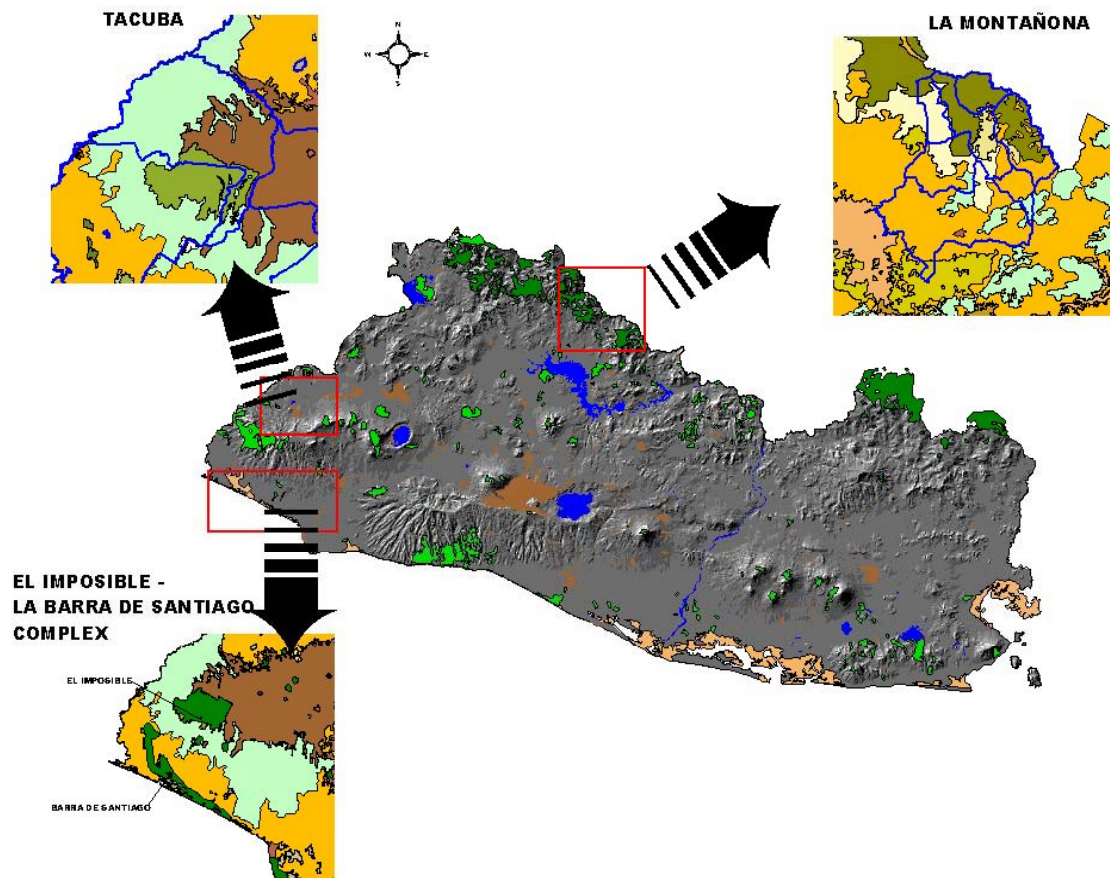
The study sites

The study sites - *La Montañona* in the upper Lempa River, *Tacuba* in the mid Paz River and the *El Imposible/Barra de Santiago* complex in the lowlands of El Salvador - encompass basically a 100 km transect from the ocean to the mountainous borders of El Salvador and Honduras, (see Map 1).

These sites involve three key zones that have been deemed priority areas for both conservation and development and have several attributes in common. Aside from being rural areas,

their populations are very poor and substantial areas are subject to unsustainable land uses that generate high externalities. Historically they have been areas of out-migration and settlement although in differing patterns. They are all in areas of multinational watershed or resource management programs and they fall into critical biodiversity and environmental buffer zones.

Map 1
Study sites



Source: SIG-PRISMA

They differ, however, in many substantive ways that affects current land uses. Their war histories diverge, which had important implications on settlement patterns, the gender division of labor and remittances.

The most salient difference, however, is how their organization of local governance varies. Indeed, the way decentralization policies unfolded was quite different: The upper Rio Lempa area is dominated by civic groups; the Rio Paz valley by government actors; and the lowland zone is dominated by private conservation entities and landholders, but with large common areas and resources that are unregulated and under relentless pressure. Each reflects very different organizational logics - community, state and market - for structuring regional development and resource use, which significantly affect resource management.

All these areas are engaged in a dynamic process of “restructuring the rural” in substantive ways through the configuring of decentralization in environmental politics. In each area, agriculture still has a role, but increasingly, the defining forces constructing the new rurality in these areas reflect the complexity of environmental rhetoric and strategies in the face of a basically collapsed agricultural economy.

How and why did these forms of governance evolve and how effective are they at slowing environmental degradation, enhancing security and improving rural welfare? What forms do they take? This project analyzed land use and security through its historical, resource, institutional, participatory and ideological dimensions, placing them in the context of globalization processes of war, international migration, capital flows (public and private) and the new international environmentalism.

Paz watershed: Tacuba and San Francisco Menéndez (El Imposible/Barra de Santiago)

The Paz River watershed forms the border between Guatemala and El Salvador. The basin embraces a diversity of forest formations ranging from oak-pine woodland in its upper reaches to mangrove forests at the ocean. Because of the steep relief, the active geology and the land use, the area is vulnerable to natural disasters and flooding, and was in fact one of the sites affected by Hurricane Mitch in 1998. It is subject to several binational agreements and management conventions worked out by the Organization of American States (OAS), with more recent iterations unfolding through agreements associated with the Meso- American Biological Corridor.

Most of the Salvadoran side of the watershed falls within the Department of Ahuachapán. About 40% of the Salvadoran part of the Paz watershed falls into the two municipalities of Tacuba and San Francisco Menéndez, with the latter incorporating the El Imposible and Barra de Santiago conservation areas. The department of Ahuachapán, along with Santa Ana, includes important coffee-producing regions. Most of the groves are “biodiversity-friendly” types of shade coffee, and account for some 100,000 ha of coffee/forest ecosystems.

The region has been under cultivation for as long as 6,000 years and was part of the important Olmec cacao producing areas. This area was integrated into larger Central American commodity markets and political factions for literally thousands of years. Ahuachapán is extremely rich in archeology sites and formed part of the southern Mayan border (Sheets 1979, 1982, 1984; Amaroli et al 1999).

Today, the region is largely Nahuat in its ethnicity. As a zone of very traditional coffee elites, the area has been historically conflictive as communal lands were appropriated for private growers in the late 19th century, and as access to land, and increasing proletarianization of the native population led to increasing social unrest. In 1932, the region underwent an uprising based on labor rights as well as resistance to the encroachment on traditional territories. The uprising provoked a repression - the *Matanza* that killed 30,000 people - about a fourth of the region's population at the time (Paige 1997) and seared the memories of the local inhabitants.

Although technically indigenous, the population was subjected to strict "assimilation" policies. These included prohibitions against native dress, language and traditional customs, as well as the further expropriation of traditional lands for private coffee plantations. This desperate history has worked against political organizing for much of the last century. Social relations were characterized by patterns associated with traditional coffee producing areas: owner-peasant (*patrón-colono*) relations, and deep semi-proletarianization. One of the outcomes of this period was a disinclination for social mobilization, a dynamic kept in play by the local elites. This terror of organizing was one of the hallmarks of this area until very recently.

During the 1960s and early 1970s, as part of the Alliance for Progress, several kinds of rural development programs were implemented as a means for reducing social unrest in a critical export production area. Many were the classic agricultural modernization programs and sectoral credit programs based on improved harvest varieties, as well as conventional integrated development and infrastructure activities. In the style of the times, these projects were not in the least participatory, focused largely on sectoral initiatives in agriculture (corn, coffee)

and basically depended on credit policies for their implementation.

In 1979, on the eve of the civil war, in an attempt to stanch unrest, the area was the subject of a moderate agrarian reform which mainly focused on the development of a few cooperatives, most of which are found in the municipality of Tacuba. These cooperatives were set up abruptly, without much attention to process, to reduce rural tensions among the local peasants and farm workers, and to "end run" claims for land redistribution. Later, the war further impeded the emergence of social movements and put further brakes on mobilization. Ahuachapán was largely isolated from the day-to-day bloodshed of the war for economic reasons (coffee still remained a key export) and by its steep and arduous geographies. Further, the opposition forces (FMLN) had virtually no base in Ahuachapán due to a history that had mitigated against local organizing and to the political control of coffee elites.

While out-migration occurred, in-migration from other war-torn areas was at least as significant. As a result, Ahuachapán was not much favored in reconstruction programs or projects nor was there significant out-migration, which in many cases facilitates the establishment of social networks within and outside the country. Nor did it benefit from the popular movements, sectoral or solidarity ties that were prevalent during the war that formed the base for making claims on the state.

Indeed, until Mitch in 1998, the populations remained singularly atomized. As a result, social organizing, though increasing, is relatively incipient, since Mitch recovery funds largely depended on organized associations for the disbursement of funds. The region depends a great deal on state initiated activities of a sectoral (coffee credits) and binational nature.

Protected areas and their dynamics

Many communities in Ahuachapán, including Tacuba, are located within the buffer zone of the National Park “El Imposible.” The continuing expansion of park boundaries throughout the 1990s has contributed to a certain distrust of the park’s larger trajectory in the region and concern over its impact on rural livelihoods. While complete natural resource inventories do not yet exist for the other sites, the El Imposible diversity reflects a region that has been relatively protected.

Conservation studies were initiated in 1976, and in 1978 the government acquired *Hacienda El Imposible* - some 846 ha - and two years later expropriated *Hacienda San Benito*, with an area of some 2,284 ha. The national park was formally created by government decree in 1989, and in 1991 a management contract was signed between the Salvadoran government and the NGO SalvaNatura. In 1994, El Imposible became a legal entity.

In most countries, national parks are part of public lands, whose management is paid for by taxes and user fees as part of the national patrimony. El Imposible operates with an endowment, subscriptions, international funds and grants. MARN - the Ministry of Environment and Natural resources - supplies little more than two park guards. The park management, to refer back to Ribot’s structure, has essentially been “decentralized” - privatized to a managing NGO.

As many writers on the nature of modern parks point out (cf Neuman 1999, Western et al 1994, Peluso et al 1996), the introduction of reserves of this kind in areas that have been in production and integrated into local economies often creates conflict with localities for several reasons. First, many people who have traditionally

farmed in the area may have to be relocated. Resettlement programs everywhere in Latin America have poor records and these are no different. Next, traditional activities that form part of the “subsidy from nature” of poor households - collection of firewood, small-scale grazing, fishing and hunting and the like - often become criminalized. Such a pattern seems to be emerging in the case of El Imposible. As shown in Table 1, firewood gathering and fishing are the most consistent complaints, although hunting is important in Imposible II. Since there are no trophy animals, and the most frequently taken animals are rodents such as agoutis and rabbits, this suggests subsistence rather than commercial hunting. The use of fire, noted in the last line of the table, has been associated with “everyday forms of resistance” as a means of undermining national park claims to forest land and to assure access to such areas for farming.

Areas bordering the park are sites of some controversy due to the surveying problems and the limited cadastral control over adjacent properties, and the aggressive expansion of the park boundaries. As a consequence, neighboring areas of Tacuba, San Francisco Menéndez and La Barra de Santiago remain somewhat nervous about the park, fearing expropriation of their properties. Some 100,000 people live in villages in the zone of influence near the park.

Worry over access to traditional inputs into livelihoods feeds into broader concerns over the coffee economy, which is still an important source of jobs and income. Given the economic transformations of the past 20 years (drastic drops in international coffee prices, etc.), there is valid concern that coffee cultivation will diminish, and thus, exacerbate deforestation processes.

Table 1
Park infractions in El Imposible I and II 1993-95 (%)

Activity		1993	1994	1995
Fishing	Imposible I	44%	41%	50%
	Imposible II	73%	60%	46%
Hunting	Imposible I	-	20%	7%
	Imposible II	25%	34%	50%
Firewood gathering	Imposible I	29%	35%	33%
	Imposible II	2%		
Timber poaching	Imposible I	8%	2.5%	2.5%
	Imposible II		6.0%	
Fire setting	Imposible I	1%	1.3%	
	Imposible II	2%		3.3%

Source: SalvaNatura 2001

The possibility of diversifying livelihood strategies of small coffee producers to include payment for the provision of environmental services (soil conservation, water provision, flora and fauna biodiversity) and/or accessing alternative coffee markets (such as biodiversity-friendly coffee, organic coffee, fair trade) could play an important role in maintaining shade coffee coverage. To date, small farmers for the most part have not participated in alternative coffee markets. Nevertheless, small coffee farms tend to have a greater diversity of shade canopy, as well as use smaller amounts of toxics, than larger producers. While this positions them well for niche markets, the costs involved in the process of certification serve as a barrier to the entrance of small producers into this market. Although small producers of this area organized in producer cooperatives are endowed with rich natural capital, the lack of propitious macro policies, coupled with relatively weak human and social capital formation, present significant obstacles to their current livelihood strategies, and put at risk the maintenance of important secondary forest cover provided by shade coffee.

Table 2

Year	# Boats	Days at sea	Catch per trip
1994	79	18.85	1,457
1995	80	19.06	1,246
1996	89	22.58	681

Source: MAG 1998

As with the El Imposible National Park, the mangrove forests and fisheries of La Barra de Santiago fall under special protection provisions that, albeit ignored, result in further restriction of livelihood options. Mangrove forests are essential to the sustainability of El Salvador's formerly rich fisheries since they play a critical role in the reproduction of shrimp, shellfish of all kinds, and in the life cycle of many ocean fish. These forests, largely composed of *Avicenna* and *Rhizophora* species, also perform other important environmental services in terms of coastal stabilization and ecosystem buffering.

The three-mile small-scale fishing zone and the mangrove bayous are both legally protected under national forestry laws, but the laws are generally flaunted. The 38,000 fisher families along the Salvadoran coast that rely on aquatic resources are thus pressured from the ocean side, as commercial fishers spend more and more time at sea with finer gear and more elaborate and sophisticated equipment and encroach on the three-mile limit. They are also pressured from the land side, where the renewed production of sugarcane and the destruction of mangroves for charcoal, luxury beach vacation homes and tourism has made this, formerly the largest contiguous forest type in El Salvador, the forest type with the most rapid rate of degradation, as trees are shunted into the urban fuel wood markets and the finer tall woods into construction.

There are clear indications that the forest-linked shrimp fisheries are in decline. While the data are not definitive, both formal statistics and interviews indicate that the number of industrial fishing boats has increased; the number of days at sea has risen, while the catch per boat has declined substantively (see Table 2).

The political economy of the resource is quite complex because in fact there is a series of legislation that should be protecting the resource. There is very limited data on the dynamics of the fisheries in any case, so data to arbitrate the issue is simply not available. What is clear is that the three-mile limit is disregarded, and the shrimp are essentially over-fished in a classic dynamic that reflects the costs of technology, a declining resource and the capacity to plunder, as well as corruption. At the other end, small-scale fishers are also putting pressure on the remaining resource, even though they have the capacity to manage it.

The dynamics of the park and the mangroves involve what is seen as (and often is) expropriation of traditional use rights and resources in favor of either more powerful economic or political actors, and increasing marginalization of more environmentally dependent communities. Because Barra de Santiago had relatively low rates of out-migration, and a great deal of it reflects the more recent dynamics of local poverty, it is likely that the pressures on environmental enclaves by local populations here will increase because of the relatively low buffering of livelihoods by remittances, and limited local wage opportunities in the sugar and coffee plantations.

El Imposible/Barra de Santiago

The El Imposible/Barra de Santiago zone represents some of the sharp contradictions of decentralization. Most resource management here has been essentially privatized. The eco-

logical resources - lowland tropical and mangrove ecosystems - are the defining natural systems, and are significant. The watershed of El Imposible/Barra de Santiago is small, about 35,000 ha (about 1.8% of the territory of the country) but is home to some 450 tree species. Sixty percent of the country's avifauna has been recorded there as well. The region is also significant for its maintenance of aquifers and its importance as the source of drinking water for Tacuba and other adjacent municipalities. The watershed incorporates the national park, and a significant Ramsar Convention on Wetlands site in the mangrove forests at the coast.

Colonial sources cite the cultivation of cacao in this watershed by native populations who were largely Nahuat. In the late 19th century, coffee was introduced into the region and became its defining product. Its coastal plains were used for cotton and cane cultivation, with the subsequent problems of toxic pollution into the mangroves. The coastal plain, which had not been widely in use during the war years, is now an important site for the extension of commercial annual cropping and grazing into forested zones. This has been especially detrimental to the mangrove ecosystems and small-scale fisheries. This dynamic involves basically larger-scale landowners and fishing boats essentially appropriating a state resource (mangroves and fishing territories) at the expense of local livelihoods.

The isolation of the region and its ethnic history place it in a continuum with that of Tacuba. The central difference has been the use of a large plantation as the foundation for the national park. While the region as a whole exemplifies a commitment to natural resources, it does so in the framework of set-asides, which have consequences for local populations, or as private ranches and vacation houses, and finally in the conflict over the mangroves themselves, and the related fishing rights. Decentralization here

has mainly translated into privatization of natural resources and marginalization, in contrast to the other sites where decentralization began to stimulate a different dynamic.

Tacuba

Agrarian reform processes continued through the end of the 90s; land tenure, at least in Tacuba, was significantly altered. Cooperatives of small producers were formed, giving rise to new forms of organization and production, although these remained marginal and politically impotent until very recently.

After the war, arenas for social expression began to open up. The focus of this social expression was on environmental hazards, pillage and contamination. In the quest for environmental justice, seen as relatively uncontroversial but with huge impacts on welfare, local groups began to establish contacts with national environmental groups that helped channel the community pressure towards national organizations for legal recourse to the problems of water pollution, toxic waste, water access, deforestation and access rights.

These efforts were further enhanced as concern over natural disasters, a result of hurricanes and earthquakes, increased. The Paz watershed was severely affected by Hurricane Mitch, and with the relief efforts that followed, the local populace began to reorganize itself as a means of lobbying for assistance. Assisted by the Lutheran World Federation (LWF) and the Unidad Ecológica Salvadoreña (UNES), communities began to structure their demands through a spatial framework that emphasizes watershed control and territorial (rather than sectoral) approaches to development.

More recently, NGOs have begun to have a presence in the municipality; several have joined together with agricultural producers and

local community development committees to form the “Inter-municipal Committee for Sustainable Development” (known as CIMDES by its Spanish initials). State institutions working in the municipality are also represented in CIMDES (i.e. the cultural community center, the civilian police and the state agricultural extension agency). Nevertheless, there is virtually no relationship among the cooperatives or between the cooperatives and CIMDES, as many cooperatives still remain distant from this organizing process. The cooperatives also lack the necessary ties and networks that facilitate their insertion into alternative “green” markets or to access other services.

This zone reveals that while state deconcentration and decentralization may have been initially the main dominating forces, the political opening and access that accompanied the decentralization has provided an arena that permits greater participation. Once again, the limits of municipal level decentralization have been recast as regional associations emerge.

It is also important to emphasize that external demands for organized associations or organized groups for accessing relief aid has had a fairly positive impact in stimulating organizing. Since these are the best means through which social services can now be obtained, and since they focus on very concrete outcomes (i.e. potable water) rather than the more rhetorical results (ending injustice) of the earlier periods, the fear of organizing seems to be waning.

La Montañona

La Montañona is located in the northeastern region of the department of Chalatenango, along the border with Honduras. The region is characterized by tropical pine-oak woodland and transitional broadleaf tropical montane forests. The forested mountaintop of “La Mon-

tañona⁷ is surrounded by steep slopes in a high rainfall zone. There are a total of 15 watersheds within La Montañona that nourish five important rivers in the region: the Sumpul, Azambio, Tamulasco, Guastena and Motochico.

La Montañona is critical as the source of four of the five rivers that supply the nation's largest and central hydropower and irrigation dam, Cerrón Grande. In addition, erosion from these mountain sites are the source of a large portion of the sediments that affect the long-term performance of the dam, and thus, potentially affect the urban-based development approach that is now the hallmark of El Salvador's economic strategy.

Historically the mountainous region was engaged in a variety of extraction activities for most of its history: dyes, tannins, pine turpentine and minor forest products. Local agriculture was rooted in basic grains generally grown in shifting cultivation systems and small and medium livestock operations.

The structural changes in El Salvador's agriculture in the 1960s and 70s - as the economy shifted from intensive coffee production to industrial production of sugar and cotton in the central Lempa valley and coastal plain, and the expansion of livestock up the cordillera - produced massive migrations of small holders into montane zones as access to better land was curtailed through changes in the social relations of agriculture and technical change in the sector (Durham 1979, Paige 1997). While lowland peasants shifted from sharecroppers to wage laborers, the agricultural frontier moved relentlessly higher into the mountains, with cattle ranches producing high rates of deforestation as small-scale farmers ascended to clear ever higher and steeper slopes.

⁷ La Montañona is the name for the region encompassing the seven municipalities, as well as the name for the community that lives within the forested mountaintop.

While coffee areas were rife with civil unrest related to labor relations, the expansion of ranching simply appropriated peasant lands and undermined other livelihoods as areas were converted to pasture. The combination of pasture and subsistence grain production led to high rates of deforestation and erosion. This continuing dynamic of marginalization led to the 1969 "Soccer War" with Honduras. As land-starved Salvadorans migrated over the border into Honduras, social tensions exploded into a short, but violent, conflict. While many analysts viewed the war as yet another episode in the Malthusian crisis of El Salvador, (Terbourgh 1999), others have firmly placed this event in the realm of political economy which was to eventually erupt in civil war (Durham 1979, Paige 1997).

With the civil war, the mountain agricultural zones (and the coastal plain) became battlefields, and agriculture in these areas declined or completely ceased as periodic military skirmishes, bombing, the threats and realities of civilian massacres, and widespread instability and marauding menaced life and livelihood. While some areas were able to continue in production, the expansion of small-scale cultivation was increasingly difficult. Many local inhabitants migrated over to refugee camps in Honduras, or fled to cities, Belize or the United States. Those who remained were embattled from all sides, and agriculture limped along. Increasingly the forest became the mantle of the poor as carpet-bombing, military incursions and economic chaos washed over the region. Large landowners fled to San Salvador, their cattle sold or rustled. These mountainous areas became an important redoubt during the civil war, and were the home of the opposition forces (the FMLN). Many historic sites within the forested mountaintop, such as an underground clandestine hospital of the FMLN, and key combat zones like "El Volcancillo," bear witness to the area's war history.

Organizing capacity

The organizing capacity in La Montañona is also related, in part, to the large number of ex-combatants from the FMLN living in the zone. The discipline of war, the relationship between local villages and guerrillas and the need for solidarity in the civil war created strong social networks in the zone, that were reinforced by the organizing necessary for the post-war reconstruction efforts. These socialist revolutionaries had embraced ideologies of collective action and were highly disciplined through their military experience to think and act in terms of group, rather than private, benefits. Their long struggle for these plots of land and its mortal and psychic toll further makes land, in part, a symbol of a protracted historic struggle, as much as a livelihood input.

A particular feature of the organizational capacity of this area is the layering of various types of organization, and how this has come to coordinate with other decentralized management groups and organizations. Just within the community of La Montañona, there is, for instance, the community council, the Committee of Beneficiary Representatives of La Montañona (CORBELAM),⁸ the UAPM of La Montañona,⁹ and the *Mancomunidad de La Montañona* (the first legally recognized association of municipalities in the country, outside of the San Salvador metropolitan area).

This form of nesting has strengthened the ability of these poor and remote populations to affect policy and to influence processes at a national level. La Montañona represents a case of “democratic decentralization” where strong

links between municipal government and social movements have occurred, and where some of the limitations of decentralization were overcome through the development of entities that are effective interlocutors and coordinators at the regional level.

Impacts on tenure

In the Microregion of La Montañona, land tenure was acquired through the Land Transfer Program (known as PTT by its Spanish initials) established by the Peace Accords. As the mountain areas had been the scene of so much warfare, and the large holdings - mostly cattle ranches - were no longer functioning, these were expropriated and distributed to the ex-combatants as part of the PTT.

The PTT lands transferred in La Montañona include valuable properties with regard to water generation and forest resources; nevertheless they have limited agricultural potential. The community of La Montañona - within the forested mountaintop of the microregion of the same name - was formed in 1993, after the transfer of the *Hacienda La Montañona* to 155 beneficiaries - tenants and ex-combatants of the area.¹⁰ The property is 355 ha, of which 315 ha are covered by forest within the La Montañona massif. Alongside this property is another 341 ha transferred to 93 beneficiaries (farmers and ex-combatants of the zone, members of the Vainillas Community/Cooperative). This property, previously the *Haciendas of Rafael and Ana Mejía* is located around the La Montañona massif within the Municipality of El Carrizal, and

⁸ CORBELAM is formed by recipients of the Land Transfer Program who received land in the forested mountaintop of La Montañona.

⁹ The UAPMs (*Unidades Ambientales de Producción y Manejo Sostenible de Recursos*) are the local organizational units of the department-wide CACH (the Environmental Committee of Chalatenango).

¹⁰ The land is distributed in nine zones according to their territorial origins: seven zones named after the beneficiaries' communities of origin, which are located within the microregion (Los Prados, Las Vueltas, Ojos de Agua, El Zapotal, Las Vainillas, El Carrizal, San José), another named after the highest part of the mountaintop known as “La Montañona” and a last zone known as the “*dispersos*” which belongs to those beneficiaries coming from differing parts of El Salvador.

includes some 186 ha of the La Montañona forest top.

PTT beneficiaries took advantage of the “*pro indiviso*”¹¹ phase to define and legalize common areas. The land transfer program resulted in significant changes, not only in land tenure, but also in the social organization and management of the forest resources. Ex-combatants of the war – PTT beneficiaries – who formed CORBELAM manage a large part of this area. They have created a variety of innovative mechanisms to ensure the sustainable use of the forest.¹²

The development of management plans for the forest, promotion of ecotourism, and lobbying for an eventual payment of environmental services scheme.

Even though the zone has suffered degradation, marked by traditional agricultural practices (monoculture on steep hillsides without soil conservation practices, forest fires), the development of social capital as a consequence of war and reconstruction, has opened new avenues for diversifying the communities’ livelihoods that simultaneously ensure the stewardship of their natural resources.

Regional forest management master plans, development of strategies for payment for environmental services and explorations of agroecological and eco-touristic economic development as well as the initiation of participatory planning exercises at the watershed level, represent the range of environmental activities under consideration as part of the new rurality.

Indeed, as a result of their organizational capacity, they have gained national recognition as a zone for the production of environmental services (*Acciones Territoriales de Plan de Nación*, 2000), and have won national and Central American awards for their forest management master plan. Still, the economic perspectives are precarious, largely due to the national and international macroeconomic environment.

¹¹ *Pro indiviso* was a provisional legal collective figure used for the transfer of land to a group of beneficiaries, which was later subdivided into individual plots of no more than 2.9 ha. In both the Agrarian Reform of the 80s and the PTT program, land could be held in single plots, but provision was also made for collective holdings and communal management.

¹² CORBELAM manages 352 ha of forest. In 1998, the management plan of “La Montañona” won second place in the category of community projects in the annual Environmental Contest sponsored by the Ministry of the Environment and Natural Resources (Rosa et al 2002).

Prospects for stability and resilience



Recasting the rural landscape in environmental terms has been part of the strategy of all the communities, although their positions vary dramatically from site to site and engage quite different modalities. The emphasis on environment reflects grim realities of the rural economy shared by all the communities studied: very low prices for key peasant commodities of grains and coffee, and also the relatively poor agricultural quality of many holdings, especially the montane agrarian reform lands. The decline of credits and subsidies for production has left few major sources of funds available for rural investment other than environmental monies. Accordingly, communities increasingly are redefining their roles as natural resource stewards, whether as suppliers of water and other environmental services, maintaining biodiversity-friendly coffee, or managing mangrove forests.

The capacity to engage in this discourse at all is largely predicated on the existence of a rural economy that is highly semi-proletarianized, that receives remittances, and that has been exporting large portions of its population. All these have reduced the subsistence pressure on the landscape, and permitted substantial secondary vegetation resurgence. The widespread problem of natural hazards has reinforced the concern over land use, bolstering regional and watershed approaches to land management. The rise of an environmental discourse has placed much more emphasis on territorial approaches to land use, and paves the way for more participatory planning approaches, as democratic forms of decentralization become more institutionalized in the form of *mancomunidades*.

While sharing many attributes, the configurations of governance and resource use clearly vary in each site; the sources of instability are

different in each, as are the forms of resilience. Understanding the differences provides insights into improved policy and interventions for decentralization efforts that seek to enhance security, governance and environment in geographies buffeted by globalization and other international processes.

Social capital

While measures of social capital remain controversial, since “soft” elements of community life such as trust, cooperation, adhesion to collective norms and meanings may be difficult to elicit, we have chosen to examine the range of civic organizations as a proxy for elements of community. We understand that this is an imperfect measure since any of these associative forms may be “hollow,” but take them as a measure of collaboration.

Some of the organizations operating in the regions are there as an ephemeral response to the dreadful natural disasters in the region. The Salvadoran Red Cross and Lutheran World Federation are these kinds of organizations. However, their increasing emphasis on community associations as a means of distributing relief aid has had a positive spillover in providing better rewards for associations than for, in the word of Putnam (1993) individual “defectors.”

Since the central Paz watershed zone was seriously affected by the natural disasters, these processes may well have helped overcome some of the resistance to organizing that char-

acterizes the region, and help explain its transitional characteristics.

Table 3 reveals the relative density of social organizations and NGOs in La Montaña compared with all other sites. MAG (the Ministry of Agriculture), CENTA (the national extension agency) and COEN (the national emergency committee) are universally present. The most obvious differences reside in the high level of relief services in the central Paz area - the locus of a great deal of problems from flooding and earthquakes, as well as CARE's potable water programs and the Peace Corps. In the lower Paz, SalvaNatura (the environmental NGO that manages the Park and receives many environmental international funds) and UNES speak to the dominance of environmental NGOs (the former more oriented to conservation and the

latter with a social-environmental focus), with few community organizations (although there is the emergence of CIMDES in Tacuba).

Tacuba itself reveals the very high presence of emergency relief organizations such as the Red Cross and Doctors Without Borders, which are international organizations, and others like CARE funded by the United States Agency for International Development (USAID), or sub-contracted relief services (Catholic Relief Services, Lutheran World Federation). The combination of high environmental vulnerability in Tacuba, compared with low levels of social organization gives it an unusual social profile in terms of organizations acting in the region, and one in which there is relatively little organizational autonomy.

Table 3
Social Organizations (Government, NGO and Other) operating in La Montaña, Tacuba, and El Imposible/La Barra de Santiago

La Montaña			Tacuba			El Imposible/ La Barra de Santiago		
NNGO/CBO	Gov't	Other	NNGO/CBO	Gov't	Other	NNGO/CBO	Gov't	Other
ADESCOs	MAG	Peace Corps	SalvaNatura	MAG	LWF	SalvaNatura	MAG	Gov't
CORBELAM	CENTA	World Vision	UNES	CENTA	CARE	UNES	CENTA	Luxemburg
CACH-UAPMs	COEN	Plan Int'l	CIMDES	MOP	World Vision	AGAPE	COEN	CRS
ASECHA	<i>Mancomunidad</i>	CIID	CLUSA	COEN	Doctors With- out Borders			CARE
Funprocoop		DANIDA			Peace Corps			World Vision
CORDES		WWF						
FundaLempa		Ford Found.						
REDES								
ADEL								
Paz y Bien								
Diocese								
Red †								
PRISMA								

NNGO/CBO: National non-governmental organization/Community based organization.

Other: Includes international non-governmental organizations and international aid agencies and foundations.

War, migration and remittances

The historical background we provide sets the context for understanding the current configurations of governance and natural resources use. In this section we outline the impact of war and migration in each of these three areas. The impact of the war, as we mentioned, is important because it affected organizing capacity, the unfolding of agrarian reform, the importance of remittances, and longer-term land use.

Table 4 outlines the relative impact of the war in all our study sites. The mountain area was by far the most affected, which triggered a cessation or at least vast decrease in agriculture for much of the time, and slowed the expansion of the cattle frontier, which had been a significant deforestation driver in the 1970s. Out-migration to urban areas, to Honduras and to the United States occurred as well, resulting in a depopulation of farming populations as the region was transformed into a guerrilla battleground.

The presence of the FMLN and the kind of discipline and cooperation necessary to survive in

these arduous circumstances produced a high level of self-help among the remaining populations. Post-war reconstruction efforts emphasized the importance of local organizations and civil activism as preconditions for aid, and thus, reinforced the need and rewards to the social capital that developed from the war experience. As a consequence, the montane zones throughout El Salvador have been significant recipients of social assistance.

The impact of migration out of the war zone has produced a situation where about half the income of the population in many rural areas is now derived from international remittances. This has put less pressure on grain production, since grains can be purchased, although many still carry out agriculture. The other sites in Ahuachapán were far less affected by the war; although Tacuba did receive in-migration on the whole, the areas have not been important recipients of reconstruction monies, and overall external migration remained relatively low.

This meant that the kinds of buffers provided by remittances are not as widespread as in La Montañona. However, transport was interrupted and the cattle frontier collapsed which permitted some recovery of the mangrove areas. The lack of reconstruction funds meant that there was little impetus for social organizing (other than for marketing coops) until Mitch recovery activities.

The impact of the remittances varies, but the most striking finding is that in all sites the remittances have been associated with a retraction in farming. This is in part a function of the

Table 4
Impact of war on the study sites

Impact	La Montañona Tacuba/SFM		EI/BS
Battle zone	Yes	No	No
Refugee camps	Yes	No	No
Urban migration	Yes	Yes	Yes
International migration	Yes	Relatively Little	Relatively Little
In-migration (incl. refugees)	No	Yes	Some
Organizing	Yes	No	Inhibited
Agriculture Impact:			
Stopped	Yes	Slowed	Slowed
Agrarian Reform	High (PTT)	Moderate (1979, PTT)	Limited (Squatting, PTT)

cheap food policies supported at the national level, the collapse in coffee prices and the impact of the absence of tariffs on corn and grains as part of structural adjustment policies. In addition, remittances were widely reported to be used for the purchase of food, which reduced subsistence pressures. While households may continue to cultivate and are involved in other wage markets, food purchases were seen as important in all sites (Table 5).

Another focus in the use of remittances was the purchase of land. While this might appear to contradict the declining emphasis on agriculture, many lots are purchased less for production than retirement, a phenomenon noted in migration communities throughout the world. This is also apparent in the subdivision of many community lands in order to provide lots for migrants, and to pay off indebtedness as part of the PTT, or to finance migration to the US. In the meantime, those who stay also improve their own housing.

Buying animals -mostly small stock- was an important use of remittances. All sites indicated that because of male out-migration, agricultural responsibilities of women increased. Since women are the livestock managers in Salvadoran society, "agricultural" investment may have taken the form of animal purchases. This investment was generally more important than funding improvements in agriculture for many reasons. In many of the sites, the agricultural areas were not of good enough quality that technology investments would increase agricultural productivity significantly. The only area where such investment was important was in the Tacuba - San Francisco Menéndez sites,

Table 5
Impact of migration, remittances and their uses

	La Montañona	Tacuba/SFM	EI/BS
% out-migration	30%	20%	10%
% income	50%	nd	nd
Remittances	25% hh	14% hh	10% hh
Land purchase	moderate	moderate	moderate
Animal purchases	high	high	high
Farming less	high	high	high
Home improvements	moderate	moderate	moderate
Children study	yes	yes	yes
Technical improvements in agriculture	low	moderate	no
Small business	minor	minor	minor
Food purchase	high	high	high

where overall, the caliber of agricultural resources (or their security) was relatively high.¹³

The interviewees indicated that most of the purchases are farmyard animals (*"animales de corral"*): chickens, pigs and goats, as well as some cattle, the traditional "savings bank" among poor populations throughout the Third World. These can be liquidated when necessary and also produce goods for consumption and sale, and thus, is an especially useful investment (Hecht 1993). This kind of activity also reflects intensification, as well as a response to increasingly widespread rural banditry.

The purchase of small stock to enhance poultry yards that feed on crop and food residues is an integral and efficient farm investment. Purchase of cattle, except for milk, was not as important because grazing areas can be a problem, al-

¹³ These sites were still not particularly good 60% of the grain sites were on hillsides greater than 40%

though fodder is supplied from several ecosystems ranging from road rights-of-way to secondary forests.

Furthermore, the labor demands of animals is relatively low compared with agriculture, and also because household labor is increasingly scarce as a consequence of changes in family size, more children studying, terrible wages in the agricultural sector and male migration. Finally, prices for animal products in local and regional markets are much better than for grains whose prices have plummeted with cheap imports.

Respondents also suggested that remittances had helped in the formation of small businesses, and the purchase of transport (horses, trucks), which is very important in rural areas. They are used for welfare purposes (food, health and housing) and human capital formation (children studying), but have also funded the small-scale investment in the sector most under control of women (animal management), as well as small businesses.

Thus, in a macroeconomic context that has been brutal to small farmers, remittances have had an important impact on the quality of livelihoods.

Tenurial patterns

Our research sites display all the forms of agrarian reform holdings (collective and individual holdings, cooperatives and private holdings within them), private landed property, rented property, and state holdings such as the mangrove areas and the national parks. The importance of agrarian reform holdings varies from a low of 11% in the El Imposible/La Barra de Santiago area to a high of 76% in La Mon-

tañona (Table 6). While some agrarian holdings have moved into cooperative or collective forms, much of the agrarian reform is simply expressed as a redistribution of private property.

The relationship between forms of tenure and land use is a complex one. There are very few state lands in El Salvador, largely due to the processes of agrarian reform where as many state lands as possible were distributed in order to delay expropriation. San Francisco Menéndez, the municipality that takes in La Barra de Santiago and El Imposible, has perhaps the highest proportion of its territory under state control, a relatively modest portion of collective production and the rest is managed as private lands (Table 7).

Table 6
Distribution of tenurial structures in research sites

	La Montañona	Tacuba	SFM *	All Ahuachapán
Private	24%	75%	69%	80%
Agrarian Reform	76%	20%	11%	16%
State	5%	20%	4%	

* Includes El Imposible/La Barra de Santiago

Table 7
Land use in San Francisco Menéndez

Land use	Area	Tenure
Forest	4,260	State
Mangrove	863	State
Sugar	1,622	Private
Coffee	322	Private and reform
Plantain	382	Private and reform
Pasture/Grain	16,657	Private and reform

Box 1
Land use patterns in PTT holdings

About 70% of the lands distributed under the PTT were not suitable for agriculture, since they fall into soil classes V to VIII, mainly apt for forestry and perennial cultivation. Most of the lands that were transferred are in the mountainous parts of the country. In a survey of 83% of the PTT holdings, land use expressed the pattern described in the following table, where forests, secondary forest, pasture regrowth and unusable land account for some 60% of the land transferred under PTT, or 65,489 ha.

Land use in PTT holdings	
Private cultivation	19 %
Collective cultivation	3 %
Pastures	15 %
Forests	9 %
Uncultivated & pasture regrowth	47 %
Infrastructure	3 %
Unusable	4 %

Source: OCTA-MAG (1997)

Studies of the PTT in Chalatenango show that well over half of the area is in forest in various stages of regrowth, and probably underestimates the portion of secondary vegetation on the steeper slopes:

Land use in PTT Chalatenango	
Thicket and regrowth in pastures	53 %
Basic grains and pasture slopes > 10 %	43 %
Basic grains and pasture < 10 %	4 %

Source: Mejía y Merlos (1999)

Collective cultivation PTT Chalatenango		
Activity	Area	%
Grains	319	13.0
Export crops (coffee)	1,578	64.3
Agro industrial (sugarcane)	463	18.9
Vegetables	26	1.0
Fruits	64	2.6
Other	1.8	.2
Total	2,454	100

Source: Mejía and Merlos (1999)

Collectively managed lands in PTT holdings in Chalatenango show a relatively small proportion of grains, and an overwhelming large proportion of land devoted to tree crops. Thus, while we have little data on land use more generally, it is clear from local surveys that the vast majority of PTT lands - most of which are in the hands of small scale cultivators - are now in some type of forested vegetation.

The problem with these tables is that the degree of discrimination is still too coarse to assess the dynamics of natural resource use. Field studies and remote sensing data suggest that there is much more regeneration than might be apparent. How this relates to tenurial structures remains complex. Recent research on the reform sector, has found that on holdings of less than 2

ha less than half the area is cultivated on average.

Similar findings are found for holdings distributed under the PTT (see Box 1). This reflects several processes, including lack of credit, the poorer quality of land, out-migration, lack of technical assistance, low access to credit, lack of

agricultural vocation by the recipients and very low agricultural prices among other factors.

Decentralization characteristics

All the study sites are positioning themselves in the national and regional economy within environmental frameworks, but with quite different approaches:

- La Montañona structures itself largely in terms of environmental services and watershed management based on collective properties. Financing is largely derived from NGO expenditures and some municipality transfers.
- Tacuba emphasizes mixed coffee cultivation and grains and the issues of natural hazards. Its environmental approach resides mostly within the framework of private holdings of “eco” friendly shade coffee cultivation, and disaster-related economic transfers.
- El Imposible/La Barra de Santiago focus on state set-asides as the dominant conserva-

tion framework, but also with the inclusion of coffee forests for environmental services as part of the Meso-American Biological Corridor.

Each of these systems embodies different forms of decentralization largely as an outcome of social history and the relative impact of the civil war, especially as these affected organizing capacity and structuring the agrarian reforms.

La Montañona maintains a more collective structure, and common land ownership for forest management, a type of “democratic” decentralization. Tacuba works within a more transitional framework of a historical reluctance for organizing (other than marketing coops), but a context where there is an evolving process of social organizing with political deconcentration that has provided the possibility of more participation. The El Imposible/Barra de Santiago model is largely based in the “privatization” model of decentralization, whether to NGOs such as SalvaNatura or simple elite or clandestine appropriation of mangroves and fishery resources.

Table 8
Decentralization characteristics

Decentralization characteristics	La Montañona	Tacuba	El Imposible / Barra de Santiago
Transfer of power to locality	Yes	Emerging	No
Predictable financing	Yes, but low	Yes	Yes
Major national environmental programs	Few	Binational Paz <i>Plan de la Nación</i>	SNAP <i>Plan de la Nación</i>
Int'l environmental programs	NGOs (small)	Binational Initiatives	Important NGO
National sectoral	--	Coffee	Coffee
Accountable representation	Yes	Emerging	No
Efficiency	Relatively low	Relatively low	El Imposible - high Mangroves - low
Equity	High	Moderate	Low

Stability and resilience

Since equity, justice and efficiency are important goals of decentralization as applied to resource management, it is useful to ask how well the forms of decentralization score on these issues. The outcomes have significance for the “stability/resilience” of resource strategies and governance. Table 9 outlines the dynamics of stability and resilience in the sites.

The configurations of governance and resource use exist in more or less precarious states in the study sites. The sources of instability are different in each case, as is the form of resilience. In La Montaña, the sources of instability derive from very limited economic options, relatively limited interest on the part of the state, and partly due to its isolation. The lack of environmental investment by the state and international agencies could undermine the commitment to ecological concerns. On the other hand, the degree of social organization and democratic decentralization, as well as having become the “gold standard” for environmental organizing in El Salvador does give this system resilience.

The impact of agrarian reform and remittances also provides an important ecological and social buffer to the larger economic instability inherent in the low levels of transfers to this region for its environmental services. The degree of organization does bode well for its continuing capacity to mobilize for international programs as well as na-

tional payments for environmental services, given that the region has the potential to make its own sets of local agreements, distribute benefits equitably and to be “self-regulating.”

The natural resource endowment in El Imposible/Barra de Santiago is an important source of ecological and social stability, since it translates into strong political power for environmental operations. The sources of instability reside in problems concerning conflicts over park uses, and the lack of true political decentralization and accountability. In many ways this region is viewed as embodying an ecology of injustice, with external regulation enforcing resource maintenance (in the case of El Imposible), or completely shirking responsibility (in the case of the mangroves), but with both generating expropriation of livelihoods.

In terms of stability and resilience, the La Montaña site rates highest; in social terms its

Table 9
Stability and resilience factors

Stability/ resilience factors	La Montaña	Tacuba	El Imposible/ Barra de Santiago
Social			
Financing	-	-	+
Organization	+	+	-
Remittances	+	-	-
High agrarian reform	+	-	-
Eco-Ag credits	-	+	+
Community accountability	+	-	-
Indigenous knowledge	Low	Hi	Hi
Political power	+ (local)	-	+ (national)
Stability/Resilience, Ecological Dynamics			
Forest regeneration	+	Some	+
Forest conservation	+	-	+
Forest management	+	-	+
Clandestine looting*	-	+	+
Ecological prod. systems	-	+/-	+

* Of natural resources

main vulnerabilities are associated with environmental finances, limited local economic options, and its unprivileged position within the national political economy. Its environmental resilience is also high as a consequence of the broadly regenerating ecosystems. The social configurations in El Imposible/Barra de Santiago are the least favorable in terms of social capital and local agreements, but the political prominence of El Imposible does give it strong resource enforcement powers. Its ecological resilience is high, although the region is rife with many everyday forms of resistance against the park. Here the main sources of instability remain social.

Tacuba is more of a transitional case. Its sources of instability reside in its dependence on volatile coffee markets, its limited capacity for organizing, the relatively low impact of remittances, and the expanding national park boundaries that are increasingly conflictive. It is the most environmentally vulnerable of all the sites as well, due to its steep slopes and the continuing cultivation of many of them. Its sources of resilience reside in the environmental virtues of coffee cultivation, the ecological diversity of small plot cultivation, its hidden history of indigenous knowledge, and in the proximity to the El Imposible National Park that may permit it to benefit from the Meso-American Biological Corridor in terms of supporting coffee credits.

The emerging politics of indigenous identity and the creation of regional forms of governance could very well enhance its ability to confront the instabilities of coffee and demobilized populations, and to mobilize international economic funds. The questions of equity, representation and financing remain problematic, even

though efforts to transform governance from a deconcentration to a more democratic form seem to be evolving. Local groups learned from the Mitch experience that associations can be more efficient and attractive to funding agencies, and this experience has had a positive spillover in developing organizing for other activities.

Tacuba is the most vulnerable in terms of both ecological and social characteristics, in spite of some regeneration, coffee cultivation, high diversity on production plots and potentially high levels of indigenous knowledge. Environmental problems are quite severe. Lacking local organization, or powerful national allies, its “solution” to natural hazards and other perturbations has been to rely on external relief, as the table on organizations indicated. In the end, its environmental strategy has been to position itself within the frameworks of natural hazards, absent social organization or powerful national patronage. As we have noted, there is a process of transformation in place, but one stimulated largely by external agents.

The types of decentralization observed in the three sites fall well within Ribot’s categorizations, although what our report suggests is that decentralization may take time to “democratize,” and within this framework, external funding that requires organizations and association as criteria for funding may have an important spillover effect. However, a substantial amount of decentralization has also been simple privatization, as in the case of the national park, and does not lend itself to democratization, thus, placing at risk prospects for governance, security and sustainable resource management. ☞

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