



USAID COUNTRY PROFILE

PROPERTY RIGHTS AND RESOURCE GOVERNANCE

EL SALVADOR

OVERVIEW

The small, densely populated country of El Salvador has grown to achieve a GDP per capita of over \$3600 for its 6.1 million people as of 2008. After a decade-long civil war in the 1980s, El Salvador instituted economic reforms in the early 1990s which diversified exports, brought about broad-based growth and increased school enrollment rates and access to health care. By 2002, poverty had been reduced by 27% and extreme poverty had been cut in half. However, after reaching moderate but pro-poor 4% economic growth rates in recent years, the global financial crisis and El Salvador's close economic links to the U.S. slowed growth and reversed prior progress in reducing poverty. Drops in export earnings and remittances from workers abroad coupled with higher food and energy prices caused the poverty headcount to rebound.

The country faces major challenges in restoring growth and reducing poverty. Part of its long-term challenge is to create alternative employment opportunities for its large population of landless agricultural workers and subsistence farmers laboring on small, scattered plots of land. Insecure tenure and lack of access to land constrain investment in and development of the agricultural sector. In the medium term, El Salvador has increased its macroeconomic stability by adopting the U.S. dollar as its currency. If El Salvador can reduce the high rates of crime and violence that presently discourage investment, it is poised to benefit from an environment of low inflation, low interest rates, an increasingly favorable business climate and active participation in multiple free-trade agreements.

KEY ISSUES AND INTERVENTION CONSTRAINTS

Under its economic growth and governance objectives, USAID might consider the following land and natural resource related interventions regarding land natural resources:

- [[**Update and improve information on land tenure and land markets.** Current land tenure data collection has essentially been nonexistent in recent agricultural censuses. The data that does exist is scarce, may not be of appropriate scale or type and is inadequate to assess the current land tenure and property rights (LTPR) landscape fully and accurately. This limits the ability of policy makers to make appropriate decisions. *USAID and other donors could support initiatives that will assist with the collection, standardization, maintenance and dissemination of land tenure data in El Salvador.*
- [[**Support efforts to improve urban living conditions for the poor, including access to land.** During the past decades, El Salvador has experienced rapid urban growth as a result of population growth, migration, civil war and natural disasters. This has severely taxed the capacity of both central and local governments to facilitate access to land, basic services and housing for much of the population. For most poor families, the most realistic choice has been moving into existing central city slums or squatting on government or privately owned land. *USAID and other donors could support initiatives that (1) encourage the growth of formal settlements and (2) facilitate the formalization of slums and squatter settlements. This may include programs that occur at various levels, from assisting families to obtain legal access to land through sale or lease arrangements, to continuing to plan for progressive development and upgrading in slums or illegal settlements, to improving the capacity of the government to plan for and accommodate continued urban growth.*
- [[**Improve land access and rights for vulnerable groups.** A root cause of poverty in El Salvador is the inequitable distribution of land in rural areas. Initiatives to improve land access and land rights and modernize land registration

processes have had positive impacts. However, the most vulnerable, including women, indigenous groups and the rural poor, continue to face obstacles despite these efforts. *USAID and other donors could support programs that: (1) analyze the outcomes of previous projects (particularly the distributions of the 1990s, about which little is written) and their impacts on these vulnerable groups; (2) clarify and quantify the current status of land access, rights and registration; and (3) develop sustainable solutions to strengthen land access and rights.*

- ▮ **Support conflict resolution and land use planning.** Land and natural resource conflicts contribute to environmental degradation and biodiversity loss. Conservation of El Salvador’s biodiversity and tropical forests requires effective planning and regulation of the uses of the country’s terrestrial and marine territory, as well as management of conflicts *the sector to better integrate with other development activities and gain greater political and public visibility and recognition; and (2) build capacity of stakeholders in the forestry sector to develop and implement processes and incentives to balance conservation with economic and household uses.*
- ▮ **Support the validation and efficient management of protected areas.** El Salvador has numerous areas that are pending transfer to MARN. Of areas that have been transferred, many have not been validated or made official as protected by MARN. As a result, these areas are vulnerable to land invasion by settlers, encroachment of agriculture and faulty titling. *USAID and other donors could support MARN in finalizing the legal protected status of these areas,. USAID and other donors could also assist in establishing protected areas on a firm legal, technical, administrative and financial basis; preparing technically between resource users and protected areas. USAID and other donors could support the incorporation of a legal conflict resolution process into the land use planning and regulation process. Such an approach could include financing training in conflict resolution processes and supporting the Ministry of Environment (MARN) in designing and implementing conflict resolution processes.*
- ▮ **Strengthen water legislation and management capacity.** Despite an abundance of water resources, severe pollution and contamination have undermined adequate water supplies, damaging public health and the environment for decades. The legal and administrative frameworks of the water sector are fragmented and decentralized. *USAID and other donors could support initiatives that employ both a top-down approach (for example improving and clarifying the legal framework and harmonizing intergovernmental institutions and coordination) and a bottom-up approach (for example, developing integrated watershed management plans through local municipalities to address the future of clean water for all residents).*
- ▮ **Build management capacity for forest resources.** A variety of institutional weaknesses limit sustainable use of forests for conservation and economic development. These include isolation from other sectors and from other key stakeholders within the sector, a legacy of dependence on public resources and lack of expertise in developing potential financial processes and mechanisms to fund the sector. *USAID and other donors could support initiatives that: (1) foster partnership activities within and outside of sound management plans for priority areas; and assisting in the transfer of natural areas to their appropriate governmental jurisdiction.*

FOR MORE RECENT LITERATURE:

<http://usaidlandtenure.net/el-salvador>

Keywords: El Salvador, tenure, agrarian, land law, land reform, property rights, land conflicts, water rights, mineral rights

SUMMARY

Inequitable land distribution has been a characteristic of agriculture and the rural economy in El Salvador since the 1700s. The plantation system that developed around mono-cropping was essentially feudal. As coffee became the major crop, communal land ownership was abolished and state security forces, paid by private landowners, were engaged to put down a series of peasant revolts. This system continued until the 1980s, by which time upward of 40% of families were landless and less than 2% of families held more than 10 hectares. The country had one of the largest, poorest work forces ruled by a powerful landowning class in Central America. The tense situation devolved into civil war in 1980.

The highly concentrated distribution of land has historically been at the root of conflict and civil war in the country. The Government of El Salvador (GOE)

initiated agrarian reforms in the 1980s and 1990s that achieved limited success in addressing inequality, but landlessness and inequitable land distribution remain a problem. Land rights are not considered fully secure by many people in El Salvador and an estimated 57% of the rural population still does not have legal access to land. This is exacerbated by population density, which is among the highest in the world at 296 people per square kilometer.

One-third of all land parcels in the country are not included in the land registry and the poor often fail to register land transactions to avoid significant transfer taxes. Forty percent of the population live in rural areas, where poverty disproportionately affects those dependent on agriculture. Rural poverty is exacerbated by low incomes and limited employment opportunities, limited access to land and undeveloped market linkages. The remaining 60% of the population live in urban areas. Urbanization is fueled by rural landlessness, poverty and unemployment. An estimated 35% of urban dwellers live in informal or slum settlements.

Women continue to suffer from cultural and societal discrimination. Though there are a high number of female-headed households in El Salvador and women are key economic contributors to the agricultural sector and to household incomes, men dominate the agricultural and business sectors and are given preference in education, inheritance, jobs and promotions.

Deforestation, loss of biodiversity and water pollution are all serious problems in El Salvador. The country has rich water resources, though much of the surface water supply is contaminated and has not been developed for water supply. Ninety percent of El Salvador's waterways and streams are contaminated due to soil erosion, siltation and pollution, and require treatment before drinking.

El Salvador, once almost entirely forested, has lost 85% of its forest cover since the 1960s. Due to extensive deforestation forests now cover only 14.4% of total land area. The high rate of deforestation appears to have decreased dramatically, but reliable data is limited. Mangroves along the coast have been subject to encroachment

Box 1. Macro Indicators

	Year	Score
Population, total	2008	6,133,910
Population ages 0-14: 15-64: 65+ (% of total)	2008	33.0: 59.9: 7.0
Population growth (annual %)	2008	0.4
Rural population (% of total population)	2008	39.3
Population density (people per sq. km)	2008	296.0
Literacy rate, adult total (% of people ages 15 and above)	2007	82.0
Land area: Surface area (sq. km)	2008	20,720: 21,040
Arable land (% of land area)	2005	31.9
Agricultural land (% of land area)	2005	82.2
Permanent cropland (% of land area)	2005	12.1
Irrigated land (% of cropland)	2003	4.9
Forest area (% of land area)	2005	14.4
Nationally protected areas (% of total land area)	2006	1.0
Renewable internal freshwater resources per capita (cubic meters)	2007	2,906.6
Annual freshwater withdrawals, agriculture: domestic: industry (% of total freshwater withdrawal)	2007	59.4: 25.0: 15.6
Crop production index (1999-2001 = 100)	2005	91.9
Livestock production index (1999-2001 = 100)	2005	109.6
GDP (current US\$)	2008	22,114,600,000
GDP growth (annual %)	2008	2.5
Agriculture: industry: manufacturing: services, value added (% of GDP)	2008	13.2: 28.5: 21.8: 58.4
Ores and metals exports: imports (% of merchandise exports: imports)	2007	3.6: 1.2
Aid (% of GNI)	2007	0.4

Source: World Bank, 2009

and degradation from agricultural conversion, relocation of displaced persons due to the civil war, excavation for commercial use and extensive harvesting for timber and fuel wood.

Mining in El Salvador has been linked to alleged human rights abuses and environmental damage, including cyanide contamination of groundwater and soil. Many larger mineral operations are controlled by foreign corporations, though small local entrepreneurs also contribute to the mining sector.

I. LAND

LAND USE

El Salvador has a total land area of 20,720 square kilometers. Eighty-two percent of El Salvador's land area is agricultural, 14% is forested and 4% is urban. Five percent of cropland is irrigated. Only 2% of the total land area is designated as protected. Known as the "Land of Volcanoes," the country is susceptible to earthquakes, volcanic eruptions and hurricanes. El Salvador is one of the most densely populated countries in the world, at 296 people per square kilometer. As of 2008, the population was 6.1 million. The country is almost entirely ethnically homogeneous, although a small segment of the population living in the poorest parts of the rural countryside still claims indigenous status. Approximately 600,000 or 10% of Salvadoran people are indigenous (World Bank 2008a).

The country's GDP is US \$22 billion, which is comprised of 13% agriculture, 29% industry, 22% manufacturing and 58% services. Approximately 31% of the population lives on less than \$1 per day, while 58% lives below \$2 per day (World Bank 2008a; UN-HABITAT 2007).

Forty percent of the population live in rural areas. The agricultural sector employs 35% of the labor force. Poverty disproportionately affects those dependent on agriculture. Rural poverty is exacerbated by low incomes and limited employment opportunities, limited access to land and undeveloped market linkages (IFAD n.d.).

The remaining 60% of the total population live in urban areas. Forty-two percent of the urban population live in San Salvador and surrounding areas. Urbanization is fueled by rural landlessness, poverty and unemployment. An estimated 35% of urban dwellers live in informal or slum settlements (2001 data), located on state-owned periphery land and on vacant private land. The percentage of the population living in such settlements has declined since the beginning of the Civil War, when it was estimated that nearly 75% of San Salvador's population lived in slum settlements (Vargas 2003; World Bank 2008a; Haggarty 1988).

In addition to an abundance of arable land, the country possesses natural resources including water resources, geothermal power, petroleum, and a series of critical ecosystems including mangrove forests, the marine coastal environment, wetlands and the semi-arid zones. Because of El Salvador's hilly topography and fragile soils, soil and water conservation is an important imperative on the farms and agricultural lands of the country (USAID 2004).

The country's current environmental concerns include deforestation, soil erosion, water pollution from agricultural runoff, contamination of soils from disposal of toxic wastes, damage from Hurricane Mitch and a growing list of endangered species of flora and fauna (Vargas 2003; World Bank 2008a).

Deforestation is occurring at an annual rate of 1.7%. A large portion of deforested land has been converted to traditional agriculture. Peasants and farm workers who have limited access to land turn to uncultivated, environmentally fragile land or clear forests to provide food. Three-quarters of the country's mammal species are endangered and other faunal species are also endangered. It is important to point out that contradictions in the available data and information in regard to changes in biodiversity and forest conversion make citing exact statistics problematic (McReynolds et al. 2000; Paige 1996; Trackman et al. 1999; USAID 2004).

LAND DISTRIBUTION

El Salvador's history of inequitable land distribution and landlessness is a source of unrest and conflict. Commercial interests through the nineteenth and twentieth centuries steadily eroded El Salvador's indigenous communal land structure, slowly consolidating land in the hands of the country's elites, particularly for the cultivation of coffee. Expansion cycles to support agro-exports (including coffee, cotton, sugarcane and cattle) on large estates further aggravated land conflicts.

Wide-scale government redistribution efforts occurred during the 1980s and 1990s and were meant to redistribute the land from large estates to peasant farmers (Mennen 2008; Paige 1996; Vargas 2003; World Bank 2005b). However as of 2001, the Gini coefficient for land distribution in rural areas was among the highest in Central America at 0.81. Other countries that have undergone similar redistribution efforts, such as in Asia, have coefficients averaging 0.4. The last agricultural census (conducted in 1992) revealed that almost 50% of rural families had less than 2 hectares of land and 29% were landless. The 1992 census did not include questions regarding land ownership. 2004 statistics indicate that 95% of non-indigenous people in El Salvador own their land and 5% are renters (McReynolds et al. 2000; Paige 1996; Seligson 1995; World Bank 2005b; MRG 2008).

A World Bank sponsored Social Assessment Study carried out in 2004 highlighted the stark inequalities experienced by the indigenous population, particularly as they relate to access to land, infrastructure and services. Only 5% of indigenous people own land. Sixty percent of indigenous people live on communal lands with another 35% renting land. Salvadoran indigenous groups constitute the poorest segments of an already poor rural population. In urban areas, the municipalities with the highest presence of indigenous people are among the poorest in the country. They lack most of the basic services with a consequent impact on family and environmental health, education and mortality. Most indigenous housing in both urban and rural areas is rudimentary (MRG 2008).

LEGAL FRAMEWORK

The Constitution of the Republic of El Salvador (1983, as amended 2003) provides for the right to property and possession. The Constitution guarantees every person free disposition of his or her property, except that it establishes a maximum land ceiling of 245 hectares per individual. There are no restrictions on foreigners buying urban land, but foreigners cannot own rural lands except for industrial purposes (GOE Constitution 1983).

The Salvadoran Civil Code provides the legal framework for land. Articles 560–951 of the Civil Code govern land registration (McReynolds et al. 2000; Shaw 1998; US DOS 2001; Martindale-Hubbell 2008).

Several government decrees have initiated land redistribution projects:

1. Decree No. 4 (1978) regulates the parcelization of agricultural or forestlands for commercial purposes;
2. Decree No. 4 was amended by Decree 153 (1980), which initiated the Agrarian Reforms (Phases I, II and III); and
3. Decrees No. 154 and No. 207 made further alterations as to the specific size and types of farms that were to be redistributed. Within the 1992 Peace Accords, further agrarian reform was mandated (Martindale-Hubbell 2008; McReynolds et al. 2000; Shaw 1998; USDOS 2001).

Cadastral activities began in 1963 and a 1974 Legislative Decree prescribed that the cadastre implementation was of public interest. Legislative Decree No. 462 of 1995 consolidated all land registration and information functions in one single institution, the National Registry Center (CNR) (Vargas 2003).

The Rental Law (1979) enabled the transfer of land ownership to renters. In some cases, this law resulted in individuals dishonestly claiming renter status in order to acquire land, while in other cases renters were evicted to prevent them from acquiring land. Restoration of legislation for legalized renting was passed in 1982 via Decree No. 6 (Seligson 1995; Shaw 1998).

BOX 2. LAND TENURE INDICATORS

	Score
<u>Millennium Challenge Corporation Scorebook, 2009</u>	
– Land Rights and Access (Range 0–1; 1=best)	0.718
<u>International Property Rights Index, 2009</u>	
– Physical Property Rights Score (Range: 0–10; 0=worst)	6.2
<u>World Economic Forum’s Global Competitiveness Index, 2008-2009</u>	
– Property Rights (Range: 1–7; 1=poorly defined/not protected by law)	4.2
<u>World Economic Forum’s Global Competitiveness Index</u>	
– Ease of Access to Loans (Range: 1–7; 1=impossible)	3.4
<u>International Fund for Agricultural Development, Rural Poverty Report, 2001</u>	
– Gini Concentration of Holdings, 1981-1990 (Range: 0–1; 0=equal distribution)	0.81
<u>International Fund for Agricultural Development, Rural Sector Performance Assessment, 2007</u>	
– Access to Land, 2007 (Range: 1-6; 1=unsatisfactory access)	3.7
<u>Food and Agricultural Organization: Holdings by Tenure of Holdings</u>	
– Total Number of all Agricultural Holdings, Year	...
– Total Area (hectares) of all Agricultural Holdings, Year	...
– Total Number of Holdings Owned by Holder; Year	...
– Total Area (hectares) of Holdings Owned by Holder; Year	...
– Total Number of Holdings Rented from Another; Year	...
– Total Area (hectares) of Holdings Rented from Another; Year	...
<u>World Bank Group, Doing Business Survey, 2009</u>	
– Registering Property-Overall World Ranking (Range: 1–181; 1=Best)	72
<u>World Bank Group, World Development Indicators, 2009</u>	
– Registering Property-Number of Procedures	5
– Registering Property-Days Required	31
<u>World Bank Group, World Development Indicators, 1998</u>	
– Percentage of Population with Secure Tenure	
• Salvador	90.5
<u>Heritage Foundation and Wall Street Journal, 2009</u>	
– Index of Economic Freedom-Property Rights (Range 0-100; 0=no private property)	50
<u>Economic Freedom of the World Index, 2008 (2006 data)</u>	
– Legal Structure and Security of Property Rights (Range 0-10;0=lowest degree of economic freedom)	4.83
– Protection of Property Rights (Range 0-10; 0=lowest degree of protection)	5.69
– Regulatory Restrictions of Sale of Real Property (Range 0-10;0=highest amount of restrictions)	8.23

The 1983 Constitution also establishes equal treatment for all people, regardless of nationality, race, gender or religion. However, there is no explicit recognition in the Constitution of the existence of ethnic groups, indigenous peoples or separate cultures as part of the national population. In terms of the legal framework for indigenous land rights, El Salvador has not entered into any high-level commitments on indigenous rights, and the government has made little effort to respond to indigenous requests for legal recognition of their land claims. El Salvador did ratify ILO Convention 107 in 1958, but this document alone has not been shown to be sufficient to support a policy of land recognition for indigenous peoples (Ortega 2004).

TENURE TYPES

In El Salvador, land may be owned individually, jointly, by collective or cooperative farms and by the government (McReynolds et al. 2000; Deere and Leon 1998; GOE Constitution 1983).

There are four basic types of private land tenure holders in El Salvador: (1) landowners; (2) land renters; (3) Decree No. 207 beneficiaries (those former tenants working the private plots they received during Phase III of the Agrarian Reform); and (4) Reform Cooperative beneficiaries (those former farm workers who now collectively own and run large farms

received during Phase I of the Agrarian Reform). Decree No. 207 and Reform Cooperative beneficiaries can include individual, joint and collective ownership and may be limited in terms of rights to sell, rent or parcelize (McReynolds et al. 2000; Shaw 1998).

SECURING LAND RIGHTS

The Constitution (1983, as amended 2003) limits the maximum allowable landholding to 245 hectares. This limitation was part of the land reforms, which attempted to more equally distribute estate land to peasants and farm workers (Martindale-Hubbell 2008; GOE Constitution 1983; Vargas 2003).

The Civil Code (Article 587) states that a citizen can acquire real property by occupation, accession (acquisition by labor), adverse possession or transfer, including purchase and succession. In order to transfer ownership of real property, Article 673 states that it must be recorded in the Registry of Real Property (Martindale-Hubbell 2008).

Ownership may be acquired through adverse possession and may be of “ordinary” or “extraordinary” prescription. Under ordinary prescription, real property is acquired after a period of ten years. The exception is if the land owner is residing abroad. In this case the period is twice as long. Under extraordinary prescription, property may

be acquired after 30 years of open, uninterrupted possession without need of showing any title (Martindale-Hubbell 2008).

With the support of the World Bank, a land registry and cadastral system under the *Centro Nacional de Registros* (National Registration Center – CNR) was established in 1996. The new system capitalized on the improved methods of registration, reduced corruption and increased productivity. The registration institutions are now generally perceived to be efficient and fair. Land titles and land title transfers are recorded, sorted and examined electronically. However, while the country’s registration system is one of the most technically advanced in the region, it remains underused by the poor, many of whom are financially unable to register their properties because the cost of doing so is prohibitive (see Land Markets and Investments, below, for further details) (Daly and Cecilia 2006).

Land tenancy can be found in the form of renting, sharecropping and free use of land. Historically, these arrangements are less advantageous than ownership since these lands are often of inferior quality, carry less secure property rights and leave users unable to obtain credit or collateral to make improvements (Seligson 1995). Land rights are not considered fully secure by many people in El Salvador. Agrarian reform programs in the 1980s had limited success and an estimated 57% of the rural population still does not have legal access to land. The restricted nature of some land rights received in the agrarian reform, such as limits on the right to sell, rent or parcelize, has contributed to insecurity. In addition, the prolonged Salvadoran Civil War and continued tensions between landowning elite and the rural poor have increased perceptions of insecurity. There are indications that this lack of secure property rights could be an indirect threat to forests and biodiversity in El Salvador; the lack of rights undermines incentives for conservation and has led to unsustainable resource use (Shaw 1998; Vargas 2003; Gammage et al. 2002).

Tenure security levels for indigenous groups are undocumented. However, 95% of the population either rent or live on communal lands (Seligson 1995; MRG 2008).

INTRA-HOUSEHOLD RIGHTS TO LAND AND GENDER DIFFERENCES

Under the Constitution of the Republic of El Salvador, all persons are equal under the law. Restrictions of civil rights based on sex are prohibited. All persons have the right to property and possession (GOE Constitution 1983).

The Family Code articles 36–89 and 118–126 state that, before contracting their marriage, parties must decide on one of three systems regarding the ownership and administration of their property: (1) separate property; (2) participation in profits; or (3) community property. This agreement must be recorded, along with subsequent modifications. If there is no premarital agreement, parties are subject to the laws regarding community property.

Titling can be either joint or individual, but both parties’ consent is required for the mortgaging or sale of any property used as a family dwelling. In addition, when a person dies, his or her spouse or permanent companion is guaranteed a portion of the property regardless of whether or not it was willed to him or her (Deere 1998; Martindale-Hubbell 2008; Daly and Cecilia 2006).

During the period of agrarian reform (1980–1991) rural women made slight gains in property ownership. Of the beneficiaries of the land reform legislation, 12% of those in cooperatives and 11% of those receiving individual plots were women. However, of the plantation owners whose land was expropriated during the agrarian reforms, 36% were women. In addition, these reforms benefited only permanently employed agricultural waged workers employed on the estates. This failed to protect female workers, who were frequently hired seasonally and were an important component of the workforce. Permanent female workers were further disadvantaged by the requirement that they needed to be heads-of-households to benefit from the land distribution (Blumberg 2001; Deere and Leon 1998).

BOX 3. LAND AND GENDER INDICATORS		Score
<u>OECD: Measuring Gender In(Equality)—Ownership Rights, 2006</u>		
— Women’s Access to Land (to acquire and own land) (Range: 0-1; 0=no discrimination)		0.1
— Women’s Access to Property other than Land (Range: 0-1; 0=no discrimination)		0.1
— Women’s Access to Bank Loans (Range: 0-1; 0=no discrimination)		0.1
<u>FAO: Holders of Land Classified by Sex, 1993</u>		
— Percentage of Female Holders of Agricultural Land		...

During the war in El Salvador, rural women took a very active role in the rebel insurgency, comprising almost 30% of FMLN (rebel) forces. Under the peace accords, ex-combatants received land to engage in agricultural activities under the Land Transfer program. Although women were initially excluded from the program, by 1996 a full one-third of women within the pool of ex-combatants were the recipients of private property, indicating that women ex-combatants enjoyed full equality with men in regard to land access (Luciak 2001).

Overall, women continue to suffer from cultural and societal discrimination. Legally, women have equal rights in obtaining access to land and credit markets, but tradition considers them unsuited to dealing with economic and financial matters. Inheritance is the primary means by which women become land owners.

In urban areas, it is difficult for women to secure property because banks are generally unwilling to allow women to take out mortgages. Males continue to dominate the agricultural and business sectors and are given preference in education, inheritance, jobs and promotions (Blumberg 2001; UN-HABITAT 2007; USDOS 2001; CEDAW 2002).

The government, along with the Salvadoran Institute for the Advancement of Women (ISDEMU), has instituted several programs to tackle this de facto discrimination and improve women's access to loans, particularly in rural areas. These include providing access to loans and credit for activities in the agricultural, livestock, crafts and microenterprise areas (CEDAW 2002).

LAND ADMINISTRATION AND INSTITUTIONS

Land administration in El Salvador began in 1932, when the GOE began facilitating peasants' access to land through reform programs. Land administration can be characterized as moving through various stages of evolution and modernization (Safie 2004).

In 1986, the GOE restructured the real estate registry and created the Real Property and Mortgage Registry (RPRH) to take advantage of modern technology to maintain and protect registry information. The RPRH is responsible for recording, guaranteeing and publicizing private property ownership and other rights or interests pertaining to land. In 1991, the National Assembly created a parallel registry for certain designated property (all property that directly or indirectly benefits poor families) called the Social Property Registry (RSI). The RSI was established to make it easier for low income families to register their land (Trackman et al. 1999; Vargas 2003; World Bank 2008d).

In 1994, the government shifted the oversight of RPRH and RSI to the National Registry Center (CNR), which manages both the land registry and the cadastral system and oversees reform and policy initiatives. The CNR is also responsible for the surveying, registering, mapping and computer management of properties and maintains the following registries: (1) Land Property and Mortgages Registry; (2) Registry of Real Estate; and (3) Commercial Registry. The CNR is overseen by the Ministry of Justice and works with local government authorities. The Freedom and Progress Institute assists the Ministry of Justice with the development, installation and administration of RSI (Trackman et al. 1999; Vargas 2003; World Bank 2008d).

The CNR has to coordinate activities with sectoral government agencies such as: (1) Department of Public Works; (2) Sub-Department of Housing and Urban Development (coordination is required for public works permits and housing development permits); (3) Department of the Environment and Natural Resources (protection of the environment and protected areas); and (4) CONCULTURA (protection of national culture, archaeological and paleontological heritage) (Safie 2004).

The General Bureau of Statistics and Census (DIGESTYC) plays a key role in the production of demographic and statistical data production, provides information for the CNR's decision-making process, and also undertakes studies measuring the social impact of projects (Safie 2004).

LAND MARKETS AND INVESTMENTS

Between the early 2000s and mid-2008, El Salvador experienced a strong land sales market. This was fueled primarily by remittances from Salvadorans living abroad. However, the property market boom was cut short by the severe global recession starting in late 2008. Overall, land prices are less than in fellow Central American countries Costa Rica and Panama (Global Property Guide 2009).

Land sales require registration, which costs roughly US \$10, plus about 2% of the value of the land, plus a \$0.12 charge per square meter of the land. In its entirety, this process takes one to 1.5 months. The charge per square meter has resulted in frequent underreporting of land areas, which further destabilizes the land market. Also, a significant percentage of poor smallholders have not registered their land due to the high cost and significant time required. The revenue from the fees charged to the public supports the CNR, which is not dependent on budget allocations from the national treasury (World Bank 2008b; Vargas 2003; USAID 2006; Global Property Guide 2009; Daly and Cecilia 2006).

Landowners may obtain mortgages on their land. Mortgages must be written and recorded in the mortgage registry. Registrations of simple mortgages are processed speedily, unlike land sales (Martindale-Hubbell 2008; USAID 2006).

In addition to the limits placed on the market through agrarian reform programs, debt is also a major constraint on the development of a more effective land market. The Salvadoran Civil War left many farmers and cooperatives unable to repay their debt. This resulted in the repossession of land by banks and a refusal by banks to lend against small farmers' land (Shaw 1998).

The true extent of the rental market is unknown because the rental transactions are not registered (Vargas 2003).

COMPULSORY ACQUISITION OF PRIVATE PROPERTY RIGHTS BY GOVERNMENT

The Constitution (Article 106) allows for the expropriation of land by the government for reasons of public or social interest. This is only permitted when authorized by law and those whose property is expropriated must receive just compensation. Public or social interest is not defined in the Constitution. There are no recent cases of expropriation (GOE Constitution 1983; Martindale-Hubbell 2008; DU 2007).

LAND DISPUTES AND CONFLICTS

Disputes over land were a major contributor to the Salvadoran Civil War. The failed attempts at land reform during the previous decades resulted in the armed insurrection at the end of the 1970s, which led to the bloody 12-year civil war. Leftist organizations of students, workers, church activists and peasants rebelled against the consistently conservative and repressive policies of the military governments. The war lasted from 1980 until 1992, during which an estimated 75,000 people were killed and one million displaced. Severe environmental degradation resulted from the conflict. While these disputes were only marginally addressed by land reform, analysts suggest the persistent violent crime in the country no longer appears to be fueled by such disputes. However, according to the USAID mission to El Salvador in 2011, land and natural resource conflicts continue to negatively impact affect conservation efforts (Talentino 1999; Seligson 1995; World Bank 2008d).

Disputes over land ownership or boundaries are handled within the land registry system or, if not resolved administratively, in the civil courts. The registry system is highly respected by the public and is usually able to resolve disputes through a conciliation process. Other legal mechanisms for resolving land disputes are fairly limited in El Salvador. In 2002, the Salvadoran government enacted a Law on Mediation, Conciliation, and Arbitration. The implementation of this law has been weak, as employees of the formal dispute resolution mechanisms created by this act lack proper training, the general public distrusts it and the services are only available on a limited basis (Trackman et al. 1999; Booz, Allen, Hamilton 2005; USAID 2007).

A potential for transboundary natural resource conflicts has emerged as El Salvador has experienced ongoing challenges with population growth, urbanization, natural resources mismanagement, overexploitation, pollution, and climate change. For example, conflict potential over river basin flows to and from El Salvador has given rise to both sovereignty and ecosystem concerns (López, and Jiménez 2007).

Conflict prevention in the form of trans-boundary management plans, agreements and institutions – such as the Central American Commission for Environment and Development (El Salvador, Honduras and Nicaragua) in the Gulf of Fonseca and the Trifinio Plan (Guatemala, El Salvador and Honduras) for management of the upper watershed of the Lempa River – are examples of partnerships El Salvador has created between neighboring countries to help reduce the potential for conflict (López and Jiménez 2007).

KEY LAND ISSUES AND GOVERNMENT INTERVENTIONS

As stated in previous sections, a highly unequal distribution of land ownership was one of the factors that led to the civil war in El Salvador in the late 1970s. During this tumultuous time the government implemented several land redistribution efforts. Agrarian reforms of the 1980s were intended to redistribute land from large estates to peasant farmers in three phases. Only Phase I, which redistributed land from estates of over 500 hectares to workers who became members of a cooperative, and Phase III, which converted former renters into small landowners, were implemented. Phases I and III redistributed between 295,694 and 300,000 hectares of land. Statistics regarding the success of these programs vary substantially: some sources state that approximately 85,000 families benefited; others say 550,000 families benefited. This discrepancy may be due to the fact that many of those who benefited from the distribution did not receive titles to their new land (Haggarty 1988; Mennen 2008; Paige 1996).

The success of interventions was short lived: in 1983, the government halted the titling program and any nontitled land became government owned. This property was eventually transferred back to the original large estate owners (Vargas 2003; World Bank 2005b).

At the end of the civil war in 1992, El Salvador embraced the principles and practices of a market-assisted approach to land reform as mandated by El Salvador's National Reconstruction Plan. Three pillars supported this approach: (1) a property rights system that included efficient regularization of land titles, an updated cadastre, a modernized registry and mechanisms for the resolution of land disputes; (2) efficient information systems for land and other factors of production; and (3) a land market structure that encouraged competition. The reforms, which took place between 1992 and 1993, included the redistribution of about 165,000 hectares of land (40,000 plots) to repatriated families, the landless poor and ex-combatants from both sides of the civil war. Land acquired by the government through exchanges between willing buyers and willing sellers was transferred to recipients, who would repay the purchase price to the government over a 30-year period. Another component was a pilot project to redistribute the land granted under group titles to individual families (USAID 2006; Lungo 1997; Vargas 2003; Zeisel 2003).

Efforts to upgrade the country's registration system and increase the number of titled parcels through the process of modernizing the land property registration system have been mixed. Although the modernization program has improved the quality of registration services and reduced corruption somewhat, there is no evidence that it has made significant inroads in alleviating the problems of socioeconomic exclusion. There are indications that the registration system continues to face problems of corruption and remains relatively inaccessible to the poor. In regard to development of the land market, there has been little analysis of how market reforms have directly impacted both rural and urban markets. Such studies are needed to design optimal future reforms (Trackman et al. 1999; USAID 2006; Daly and Cecilia 2006; Vargas 2003).

The government of El Salvador, following the trend in many Latin American countries, has generally shifted its approach to slums from negative policies such as evictions, involuntary resettlement and neglect to more positive policies, including upgrading, regularization and public policies to strengthen urban planning and integrate housing, land use and infrastructure development. In 2001, the government undertook a program to rebuild housing destroyed in the 2001 earthquakes, improve marginal urban neighborhoods, strengthen land titling and develop a mortgage market. However, there is a serious deficit in acceptable low-cost housing (Winchester 2005; IDB 2001; Rose et al. 2004).

DONOR INTERVENTIONS

The United Nations played a key role in the Salvadoran Peace Accords, including supervising the Program for Transfer of Land, the land distribution program for ex-combatants and displaced persons (Lungo 1997).

Throughout the 1990s, USAID participated in land distribution and registration programs in El Salvador, through the *Programa de Transferencia de Tierras* (Land Transfer Program – PTT) (1992–1996) and *Programa de Seguridad Jurídica Rural* (Rural Legal Security Program – PROSECUIR) (1997–2001). Both programs focused on land distribution through voluntary land sales or distribution of government lands (Daly and Cecilia 2006).

In 1996 the World Bank implemented and funded the National Property Registry program and the US \$50 million Land Administration Project (LAP), both of which concluded in 2005. Both programs were intended to regularize land registration for the estimated 1.6 million parcels of rural and urban land. This project combined the old system, introduced in 1886 and regulated by the *Registro de la Propiedad Raíz de Hipotecas* (Real Property and Mortgage Registry – RPRH), and the new system, introduced in 1991 and regulated by the *Registro Social de*

Inmuebles (Social Register of Buildings – RSI). By February of 2008, 66% of the country’s parcels had been registered. The Land Administration Project II (LAP II), which sought to regularize land in the rest of the countryside, was cancelled because the National Assembly of El Salvador did not ratify the World Bank loan. The failure to ratify was due to deep political divisions in the assembly, coupled with the requirement that the loan be approved by a two-thirds majority (Martindale-Hubbell 2008; Paige 1996; Vargas 2003; Daly and Cecilia 2006; World Bank 2008c; World Bank 2008d).

Other World Bank projects included the US \$24 million Public Sector Reform Project, which ended in 2008; the Governance and Public Sector Development Project; and the US \$18 million Judicial Modernization Project. These three projects aim to strengthen the institutional management capacity of the judicial branch, modernize the court system, provide knowledge sharing to foster access to justice and transparency and develop the professional competence and quality of employees (World Bank 2005a; World Bank 2005c; World Bank 2007; World Bank 2008d; World Bank 2008e).

International aid organizations (including USAID) have also focused on restructuring and strengthening the judicial system. They have supported revamped legislation to institutionalize mediation and have strengthened courts in poor regions. International aid organizations also have provided extensive ethics training to court officials (Booz, Allen, Hamilton 2005; USAID 2007).

The Millennium Challenge Corporation (MCC) funds projects to increase the lending activity of banks and provide training to small-business owners and farmers in the north of El Salvador (aimed at providing loans and education to the poorest inhabitants) (MCC 2010).

The Central American Bank for Economic Integration has provided funding for the registration of land parcels with the CNR, the Salvadoran office that manages property registration, helping to fill a funding gap caused by the cancellation of LAP II (World Bank 2008d).

2. FRESHWATER (LAKES, RIVERS, GROUNDWATER)

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

El Salvador is rich in water resources. The country encompasses four large river basins: the Lempa (the largest watershed in El Salvador and in all of Central America), the Goascoran, the Grande de San Miguel and the Paz. Two other critical watersheds are the Rio Grande de Sonsonate and El Imposible/Barra de Santiago. The Salvador and Cuscatlan Formations are important aquifers. It is estimated that El Salvador has 17.3 cubic kilometers of water resources per year. Approximately 67%, or 11.6 cubic kilometers, of this water is surface water. The remaining 5.7 cubic kilometers are found in groundwater, which is heavily relied upon because surface water is generally severely polluted. Due to extensive deforestation, rainwater quickly runs off, reducing water retention in upper watersheds and failing to refill aquifers (ARD-Water IQC Consortium 2002; USAID 2004; USACE 1998).

It is estimated that 90% of the surface water bodies are contaminated. Nearly all municipal wastewater (98%) and 90% of industrial wastewater is discharged to rivers and creeks without any treatment. The highest priority for pollution abatement is estimated to be in the basins of the Río Acelhuate and Río Sucio, an area that supplies a third of the water supply of the metropolitan area of San Salvador. The Acelhuate is so contaminated with heavy metals and industrial and domestic waste that it is considered a biohazard. Rivers and streams in the principal agricultural areas are highly polluted by pesticides. Groundwater and aquifers are increasingly threatened by pollution as well (USACE 1998; UNICEF 2010).

The Global Climate Risk Index, constructed for the period between 1997 and 2006, ranks El Salvador the 30th most at-risk country in the world for climate changes likely to occur between 2070 and 2099. The Index predicts adverse impacts in groundwater, hydropower output and flood control management efforts (Harmeling 2007).

Twenty-five percent of water resources go to domestic use, 59.4% to agriculture and 15.6% to industry. The main source for water is the Lempa River, amounting to 3.5% of the actual renewable water resources. Over 44,000 hectares are currently under irrigation. For irrigation purposes, 56% of the water comes from surface water and 44% from groundwater. There are potable groundwater sources in most districts, though groundwater is becoming less plentiful in the mountainous north-central region. The use of groundwater for irrigation purposes is further straining groundwater resources. Statistics from 2007 indicate a rapid increase in the number of agricultural

producers utilizing irrigation in recent years. Springs and wells provide access to groundwater for domestic, agricultural, municipal and industrial water uses (USACE 1998; Ballesteros et al. 2007; Earthtrends 2003a; FAO 2000).

Approximately 91% of urban dwellers have access to an improved water source, while 64% of rural dwellers have access. El Salvador lags behind every other Central American country in the provision and coverage of water service, with the exception of urban sanitation availability. Many rural communities construct their own water systems; little is known about these systems, except that they rarely function for more than five years due to equipment failure and poor maintenance. Eighty percent of indigenous people obtain water at the ground source and the other 20% from a river or public fountain. Obtaining this water is generally the responsibility of women and children (UNESCO 2006; UN-HABITAT 2007; USACE 1998; MRG 2008).

LEGAL FRAMEWORK

The Civil Code regulates the control of water and recognizes common waters, public use of national waters and private waters. The Constitution only references water in regard to expropriation of property for development of water infrastructure (FAO 2000; GOE Constitution 1983).

The laws regulating water include: the 1961 Law of the National Administration for Water Supply and Sanitation, which created the National Administration of Aqueducts and Drainage (ANDA); the 1981 Integrated Water Resource Management Law; and the 1986 Municipal Code, which grants the municipal authorities the right to set standards and regulate issues related to the environment, including water resources.

Other laws include the 1987 Water Quality Bylaw, the 1998 Environmental Law, which promotes the integrated management of watersheds, the 1999 Law of Irrigation and Drainage and Act 2095 of 2007, which introduces a certification process for feasible drinking water projects. A notable provision in many water laws is privatization of water management (FAO 2000; USAID-El Salvador 2004).

Policies include the National Solid Wastes Policy (2001), the National Environmental Policy (2000), the Policy for the Fight against Desertification (2002) and the National Policy for the Sustainability of Hydrological Resources (USAID 2004).

The government has made several attempts to reform the water sector since the mid-1980s and dozens of versions of a National Water Law have been drafted by the Ministry of Environment. A general water law and a potable water law were proposed to the Legislative Assembly in 2006 and 2007. These laws included provisions for the following: improved water quality; watershed-based management; recognition of the economic, social and cultural values of water; resource protection; and ecosystem and resources sustainability. The legislation calls for water administration to shift from the national to the municipal level and requires local governments to sign over water management through concessions or contracts with private firms, for up to 50 years. However, the legislature has not yet adopted the law because of conflict between political parties, primarily over the issue of privatization (ARD-Water IQC Consortium 2002; Iza and Córdoba 2007; FAO 2000; Voices from El Salvador 2010a).

TENURE ISSUES

Water is not currently privatized and the government is responsible for water management. There is no control over extraction from private wells (Deere and Leon 1998; FAO 2000; USACE 1998).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

Twenty-seven administrative bodies are involved in water regulation and usage in El Salvador. The principle agencies are: the Ministry of Agriculture and Livestock (MAG), which is responsible for establishing norms related to water resources following the signing of the Peace Agreements in 1992; the Ministry of Environment and Natural Resources (MARN); and the National Administration of Aqueducts and Drainage (ANDA) (World Bank 2006).

The dominant service provider is ANDA, which provides services to 40% of the total population of El Salvador in 149 out of the country's 262 municipalities. As an umbrella institution ANDA defines policies, regulates and provides services. ANDA's Board Chairman has the rank of a minister and reports directly to the President of the Republic (World Bank 2006).

The Executive Committee of *Hidroeléctrica Río Lempa* (CEL) is the head of the country's energy development and manages the hydropower stations. The Ministry of Agriculture (MAG) and Department of Natural Resources (DGRN) apply the Law of Irrigation and Drainage and are responsible for the control of discharges. The Ministry of Environment and Natural Resources (MARN) regulates compliance of environmental policy and sustainable water resource practices. The Ministry of Health and Welfare (MSPAS) is also involved in regulating water quality for human consumption (FAO 2000).

Other service providers include municipalities, decentralized service providers, housing developers and rural cooperatives. More than 80 small municipalities provide services directly. More than 13 decentralized service providers have signed agreements under which ANDA has given them the right to manage their services autonomously. Housing developers have often built their own autonomous urban water systems because ANDA was unable to connect them. They now operate these systems themselves or have delegated service provision to user associations. In rural areas, services are provided by more than 800 community-based water-user associations, including Juntas de Agua, and cooperative development associations, Asociaciones de Desarrollo Comunitario, which serve nearly 30% of the population (World Bank 2006).

The division of labor and responsibility for the sector as a whole is unclear and coordination is limited. Each institution operates independently and applies its own policies (FAO 2000; USAID 2004).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

Since the mid 1990s, the government has conducted various efforts to reform the water sector and to create a new legal framework. That reform package would have included the setting of tariffs based on the goal of cost recovery, the creation of a regulator and the introduction of private sector participation. The most comprehensive effort was abandoned after the 2001 earthquakes when political and reform priorities shifted. The expansion in access to piped water and sewerage has stagnated, with zero or negative growth from 2001 to 2004. Between 2005 and 2008, the government invested US \$38 million to improve water and sanitation in areas of extreme poverty. The GOE established the Solidarity Network Program to alleviate poverty in El Salvador by improving access to basic infrastructure. As a whole, however, the sector is still underperforming: many existing services are irregular and have serious water quality and sustainability problems. Previous governments did not focus on water and sanitation and investments rested primarily with outside sources. As of 2010, the administration of President Funes, though committed to improving these deficiencies, has not yet developed a comprehensive strategy to move forward (World Bank 2006; UNDP 2010).

DONOR INTERVENTIONS AND INVESTMENTS

Many investments in water and sanitation have been made with international cooperation funds and loans. Between 2003 and 2008, international donors contributed US \$110 million to the sector. USAID supported the Access, Management, and Rural Use of Water Program. Completed in 2005, this US \$15 million program focused on improving the quality of water sources, improving performance of water delivery systems, supporting citizen actions to address water issues and increasing municipal participation in water resource management. Included within this project was a more focused project to increase access by rural households to clean water. The purpose of this mission was to provide clean water to rural populations through the promotion of a sustainable, replicable and integrated approach to water resource management. The project appears to have been largely successful (ARD-Water IQC Consortium 2002; USAID 2004; USAID 2007).

The Millennium Challenge Corporation (MCC) has a project to increase potable water to those living in northern El Salvador (MCC 2010).

The IADB is currently sponsoring the US \$24 million Water and Rural Sanitation Project in El Salvador. The objective of the project is to improve the living conditions of the population through the provision of adequate potable water and sanitation services. The project has three components: (1) rural projects relating to potable water and sanitation (with a focus on integral management of water resources); (2) improvement of springs and conservation of soil in priority basins; and (3) improvement of the management and operational efficiency of ANDA (UNDP 2010).

The UNDP has developed a water agenda to address strategic water management issues (UNDP 2010).

3. TREES AND FORESTS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

El Salvador falls within the biodiversity hotspot of Mesoamerica, in which approximately 7% of the world's biodiversity resides. El Salvador has a total forest area of 298,000 hectares, constituting 14.4% of total land area. The forests are comprised of conifer, broadleaf, mangrove, plantation and coffee shade. Primary forest is estimated to be 2% of total land area. Forests are located in resource "islands" throughout El Salvador, including in forest plantations, commercial orchards, coffee forests and secondary growth in abandoned pastures (FAO 2009; Hecht et al. 2006; USAID 2004).

The System of Protected Areas (SANP) contains 42,557 hectares of forested land. In 128 areas, SANP incorporates national parks, natural monuments, habitat/species management areas, protected marine and terrestrial landscapes, protected areas with managed resources and restoration and protection areas. However, according to the USAID mission to El Salvador in 2011, 89 of these areas have not been validated or made official by MARN. In addition, some areas have multiple management plans drawn up by different consultants and organizations. As a result, these areas have not been fully integrated as protected areas. Within SANP, detailed geographic information prevents the establishment of clear park boundaries, which has led to land invasion by settlers, encroachment of agriculture and faulty titling within protected areas (USAID 2004; World Bank 2005b).

El Salvador, once almost entirely forested, has lost 85% of its forest cover since the 1960s. Between 1990 and 2000, deforestation in El Salvador was 4.6%; however, the high rate of deforestation has decreased dramatically. From 2000–2005, approximately 1.7% of forest area was lost. However, reliable data on deforestation is limited (Mongabay 2010; Earthtrends 2003b; FAO 2009; USAID 2004).

The diminished forest cover is associated with rapid rainwater runoff, reduction in the water retention in upper watersheds, continuing depletion of aquifers, increased soil runoff, and siltation in waterways and reservoirs. In addition to general deforestation, the unsustainable use of mangroves along the coast is a major problem. This area has experienced encroachment and degradation from agricultural conversion, relocation of displaced persons due to the civil war, excavation for commercial use and extensive harvesting for timber and fuelwood (Gammage et al. 2002; ARD-Water IQC Consortium 2002; Hecht et al. 2006).

LEGAL FRAMEWORK

Under the Constitution, the state is required to ensure sustainable development by protecting natural resources and environmental integrity (GOE Constitution 1983).

The laws and regulations for forest usage are unclear and ill defined. The Forestry Law (1973) regulates forest conservation and reforestation and describes the terms under which forests may be cut down for logging, fuel wood or conversion to another use. However, as with water, institutional responsibility for regulation remains unclear. Other laws pertaining to forests include the Environment Law (1998), which establishes the standards for environmental administration and created SANP; the Wildlife Conservation Law (1994), which limits the use and exploitation of wildlife and its natural habitat; and the Proposal for Natural Areas Law (Gammage 2007; GOE Forest Law 1973; USAID 2004; Navarrette Lopez 1996; GOE Conservation Law 1994).

TENURE ISSUES

According to 2005 statistics, nearly 70% of El Salvador's forests are privately owned by individuals, businesses or local indigenous or tribal communities. Thirty-one percent are under public ownership and managed by the state (Mongabay 2010).

Under the Forestry Law (1973), individuals or companies petition the Forestry Service for land-rights use. The Forestry Service reviews the claim, approves or denies it and then stipulates the number of trees to be cut down. For each tree cut, there is a small fee, which is unrelated to replacement costs or environmental effects. Due to financial and staffing constraints, compliance is self-reporting and so any infractions must be reported by the user (Gammage et al. 2002).

Article 18 of the Forestry Law (1973) authorizes the use of forest resources in rural areas for domestic purposes. Poor households tend to rely more on fuelwood than do wealthier ones. Similarly, female-headed households are

particularly dependent on fuelwood, either to fulfill household demand or to provide extra income (Forest Law 1973; Gammage et al. 2002).

In 1992, a logging ban was introduced that prohibited further cutting and clearance of mangroves, but only in salt water mangrove areas. The Environmental Law and Municipal Code also provides the framework for community participation in decisions relating to mangrove usage. However, due to inconsistent enforcement and conflicts between the legislation, degradation and ad hoc use still occur (Gammage et al. 2002).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Ministry of Agriculture and Animal Husbandry and the Ministry of Environment and Natural Resources (MARN) are the primary government institutions responsible for the administration of the forest sector (Forest Carbon Partnership Facility 2008).

The Ministry of Agriculture and Animal Husbandry holds primary responsibility for ensuring compliance with the forestry law by all other public entities that have responsibilities regarding forestry and environmentally related issues. The exception to this is the Ministry of Environment and Natural Resources, which also has responsibilities related to the application of the National Wildlife Conservation Law (Forest Carbon Partnership Facility 2008).

The Ministry of Environment and Natural Resources is responsible for forest issues, such as monitoring, inventories, law enforcement and conservation. MARN also oversees protected areas and sets norms for use and conservation (CCAD 2003).

Other institutions related to the forest sector are the National Center for Agriculture and Forest Technology (CENTA), which promotes and provides technical assistance for the establishment of plantations with forest species, mainly to small farms and the Forestry Service. The Forestry Service is responsible for enforcing current legislation regarding public use of forests (including mangroves) and ownership rights (Forest Carbon Partnership Facility 2008).

Civil society has catalyzed the conservation movement in El Salvador. Article 10 of the Environmental Law sanctions participation and involvement of civil society in environmental activities. Many conservation programs are now based on the model of El Imposible, a stretch of land owned by a private foundation that creates endowments for the area, provides basic management services and oversees certification programs in adjacent areas. Several NGOs are also currently active in natural resource and environmental protection and rehabilitation projects (Hetch 2006; USAID 2004).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

The end of the Salvadoran Civil War had a large impact on forestry due to the decentralization of government ministries, the rise of NGOs and an emphasis during the reconstruction period on sustainability and the environment. After the Peace Agreements were signed in 1992, the Ministry of Agriculture and Animal Husbandry was primarily responsible for establishing norms related to forest resources. In addition, the Land Transfer Programs of 1992, described previously, included a major reforestation element (Hetch 2006; USAID 2004).

Government conservation projects have focused on organizing and strengthening communities, educational outreach and technical support to farmer, and incentive schemes designed to increase adoption of conservation practices (GOE 1998).

Despite weaknesses in forest law, the forest sector of El Salvador has undergone positive changes during the last few years. In 2006, the country elaborated the National Forest Strategy (EFSA) and in 2007, El Salvador became a NFP Facility partner. The NFP Facility was created in 2002 to encourage intergovernmental dialogue and develop national forest programs in addressing forest sector issues. Priority actions include strengthening the Forestry Commission, which is the advisory board of the Minister of Agriculture in forestry issues, and developing mechanisms for national forest financing (Boscolo et al. 2009).

In addition, the GOE has initiated efforts to position the country as an emerging ecological destination for ecotourism. The Eco Experiencias Project, developed in 2008, has helped Salvadoran communities, workers

cooperatives and others to highlight unique cultural, natural and geographical qualities of untouched Salvadoran regions (Euromonitor International 2010).

DONOR INTERVENTIONS AND INVESTMENTS

USAID is contributing over US \$40 million to the Fund for the Initiative for the Americas El Salvador (FIAES) to finance projects in protected areas. The fund provides support for citizen projects focused on the protection and recovery of natural resources. In addition, USAID has financed the environmental NGO Institutional Strengthening Program. USAID also supports the development of ecotourism through Eco-Experiencias (USAID 2004; USAID 2010).

The World Bank has funded the US \$40.2 million Protected Areas Consolidation and Administration Project, which began in 2005 and is scheduled to end in 2011. The project seeks to slow deforestation and loss of biodiversity in the country by clearly demarcating the physical boundaries of the national protected areas system, and provide support to the Ministry of Environment and Natural Resources (World Bank 2005d).

4. MINERALS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

El Salvador's mineral resources include aluminum, gypsum, lead, limestone and petroleum. It also produces steel and iron, cement and fertilizer materials. Mineral production accounts for approximately 1% of the GDP of El Salvador. However, like many countries in Central America, El Salvador is reemerging as a top destination for gold mining companies due to market demands for gold (USGS 2008).

About 44% of El Salvador's electricity consumption is provided by domestic geothermal energy, making it the leading producer in Central America (USGS 2008).

Many larger mineral operations are controlled by foreign corporations, such as the Refineria Petrolera Acajutla S.A., the historic El Dorado gold mine and the Andea el Zapote area. Small local entrepreneurs also contribute to the mining sector, particularly near the San Sebastian gold mine (USGS 2008).

Mining in El Salvador has been linked to alleged human rights abuses and environmental damage, including cyanide contamination of groundwater and soil. In 2007, residents of the community of San Sebastian in La Unión province sued the Commerce Group mining company for polluting local rivers with iron, copper, aluminum and acid drainage tailings. In 2009, three anti-mining activists were murdered in the department of Cabañas. Other activists have linked the murders to the victims' anti-mining activities (MAC 2008; Ayala 2010).

LEGAL FRAMEWORK

Legislative Decree No. 544 (1995) and Decree No. 68 (1996) authorize the state as the owner of all mineral deposits within its territory and continental shelf. El Salvador's current Mining Law, which was enacted in 1996 and last amended in 2001, governs the provisions for granting exploration licenses and exploitation concessions. The Petroleum Law, Decree No. 626 (1981), establishes that hydrocarbons are property of the State. The Environmental Law (1998) mandates that the state must monitor any exploitation licenses issued to private companies (Martindale-Hubbell 2008; Dario 2006).

TENURE ISSUES

The state may grant rights of exploration, exploitation, processing and commercialization to individuals and private entities (both foreign and local), excluding some government officials and their families. To be granted an exploitation concession, which is a necessary step in order to begin extraction activities, an environmental permit based on an Environmental Impact Study (EIS) must first be approved by the Ministry of Environment and Natural Resources. The applicant must also satisfy a number of other conditions. Once granted, the concession requires that development activities commence within 12 months of the date of the final concession agreement and that the mine and associated facilities be built and operated in accordance with the conditions of the environmental permit (Pacific Rim Mining Co. 2010).

Prior permission from the government is required to alienate, encumber or inherit these rights. Exploration licenses are granted for four years and for a maximum area of 50 square kilometers. These licenses may be

extended for two 2-year periods. Exploitation licenses are granted for a maximum period of 30 years which may also be extended. These licenses include the right to process and commercialize minerals. Upon the termination of the license, all concessions and installations are transferred back to the state without compensation. International mining companies have generally continued uninterrupted exploration, however, because the Department of Hydrocarbons and Mines has continued to grant and extend licenses (Martindale-Hubbell 2008; Dario 2006; World War 4 Report 2009).

Salvadoran civil society organizations, including the Catholic Church, oppose methods international mining companies have used to mine silver and gold, claiming that this mining results in the contamination of drinking water. In 2006, the Ministry of the Environment stated that no licenses would be issued because the ministry did not have the resources to conduct necessary monitoring of mining activities and the GOE halted several large-scale mining projects. At least one company filed suit against the GOE for refusing to issue a permit at the behest of local communities, claiming that this is in violation of the US-Central American Free Trade Agreement (CAFTA). In August 2010, an international trade tribunal ruled in favor of the mining company and a nearly US \$100 million lawsuit will be proceeding (Dario 2006; Pacific Rim Mining Co. 2008; Pacific Rim Mining Co. 2010).

The Executive Commission (CEL) of Rio Lempa has exclusivity for the exploration and exploitation of petroleum resources. CEL may execute two types of contracts with other parties: (1) operation contracts, under which the contracting party bears the risk for mining operations and compensates CEL with a percentage of the total production obtained; and (2) contracts for rendering of services, under which the contracting party performs specific petroleum activities on behalf of CEL and for which CEL bears the risk (Martindale-Hubbell 2008).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The El Salvador Department of Hydrocarbons and Mines is responsible for providing licenses for exploration and exploitation. The Ministry of the Environment and Natural Resources reviews the environmental impacts of mining operations and either approves or disapproves licenses based on this assessment (Dario 2006; Mack 2005).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

The GOE has raised concerns about mining activity in El Salvador, its impacts on communities and its role in the development process. On March 3, 2009, the National Roundtable on Metals Mining, a coalition comprised of NGOs, research centers and community groups, presented a memorandum to the legislature. This correspondence asked legislators to vote in favor of a bill that prohibits metals mining in El Salvador. Despite efforts by the roundtable and the GOE to prohibit gold mining, the upholding of the lawsuit against the government by mining interests is a landmark case because of the costs that would be imposed on the country and the precedent it could set for other private companies looking to settle cases in international venues (Voices from El Salvador 2010b).

The Ministry of the Environment and Natural Resources is currently conducting a “Strategic Environmental Evaluation of Mining.” The report is intended to inform the Government how to conduct exploration and mining in a safe, secure and environmentally friendly manner. The evaluation is scheduled to be completed in the first quarter of 2011 (Voices from El Salvador 2010b).

DONOR INTERVENTIONS AND INVESTMENTS

No donor investments found at this time.

5. DATA SOURCES (SHORT LIST)

CEDAW. 2002. Sixth Periodic Reports of States Parties El Salvador. NY: Division for the Advancement of Women. <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N02/717/07/PDF/N0271707.pdf?OpenElement> (accessed 26 October 2010).

Martindale-Hubbell. 2008. El Salvador law digest. Prepared by Curtis, Mallet-Prevost, Colt & Mosle LLP. *Martindale-Hubbell International Law Digest*.

McReynolds, S., T. Johnston, and C. Geisler. 2000. The relationship of land tenure to agricultural practices and the environment in El Salvador. *Culture & Agriculture*, 22(1): 9–28.

Seligson, Mitchell. 1995. Thirty years of transformation in the agrarian structure of El Salvador, 1961–1991. *Latin American Research Review*, 30(3):43–74.

UNDP. 2010. Country sector assessments. UNDP Governance, Advocacy and Leadership for Water, Sanitation and Hygiene Programme. New York: UNDP. http://www.undp.org/water/docs/Country_Sector_Assessments_Volume_2.pdf (accessed 1 December 2010).

USAID. 2004. El Salvador: biodiversity, tropical forestry, and water resources assessment. Washington, DC: USAID.

———. 2006. Modernization of the Land Property Registry in El Salvador: A Final Report. Washington, DC: USAID

Vargas, Alberto. 2003. El Salvador country brief: property rights and land markets. Madison, Wisconsin: University of Wisconsin Land Tenure Center.

6. DATA SOURCES (COMPLETE LIST)

ARD-Water IQC Consortium. 2002. El Salvador: Final Report of the Evaluation. Access, Management and Rational Use of Water (AGUA). Submitted to USAID/El Salvador. Burlington, Vermont: ARD.

Ayala, Edgardo. 2010. Activists link mining co. to murders. Inter Press Service (IPS), January 27. <http://www.ipsnews.net/news.asp?idnews=50127> (accessed 5 August 2010).

Ballesteros, Maureen, Virginia Reyes, and Yamileth Astorga. 2007. Groundwater in Central America: its importance, development and use, with particular reference to its role in irrigated agriculture. In *The Agricultural Groundwater Revolution: Opportunities and Threats to Development*, eds. M. Giordano and K.G. Villholth, 100–128. Wallingford, Oxfordshire, UK: CAB International. http://www.iwmi.cgiar.org/publications/CABI_Publications/CA_CABI_Series/Ground_Water/protected/Giordano_1845931726-Chapter6.pdf (accessed 27 October 2010).

Blumberg, R.L. 2001. Risky business: what happens to gender equality and women's rights in post-conflict societies? insights from NGO's in El Salvador. In Risks and Rights in the 21st Century, special issue, *International Journal of Politics, Culture, and Society*, 15(1):161–173.

Booz Allen Hamilton. 2005. Trade and Commercial Law Assessment – El Salvador: Final Report. MacLean, Virginia: Booz Allen Hamilton.

Boscolo, Marco, Jhony Zapata, Kees van Dijk, and Herman Savenije. 2009. Cultivating leadership, participation and inter-sectoral dialogue through the development of forest financing strategies: emerging lessons. Paper presented at XIII World Forestry Congress, Buenos Aires, Argentina, October 18–23.

CCAD. *See* Comisión Centroamericano de Ambiente y Desarrollo.

CEDAW. *See* Convention on the Elimination of All Forms of Discrimination against Women.

Comisión Centroamericano de Ambiente y Desarrollo. 2003. Current Status of the Central American Protected Area System, Regional Synthesis. Antiguo Cuscatlán, El Salvador: CCAD. <http://www.ccad.ws/documentos/SICAPcurrentstatus.pdf> (accessed 26 October 2010).

Convention on the Elimination of All Forms of Discrimination against Women. 2002. Sixth Periodic Reports of States Parties El Salvador. NY: Division for the Advancement of Women. <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N02/717/07/PDF/N0271707.pdf?OpenElement> (accessed 26 October 2010).

DU. *See* University of Denver.

Daly, Jorge and Marta Cecilia. 2006. Modernization of the Land Property Registry in El Salvador: Final Report. Washington, DC: USAID. http://pdf.usaid.gov/pdf_docs/PNADF996.pdf (accessed 26 October 2010).

Dario, Sebastian. 2006. Chalatenango communities say 'no' to mining before Salvadorian legislative assembly. *Mining*

Watch Canada, September 6. <http://www.miningwatch.ca/en/chalatenango-communities-say-no-mining-salvadoran-legislative-assembly> (accessed 5 August 2010).

Deere, Carmen. and Magdalena Leon. 1998. Gender, land, and water: from reform to counter-reform in Latin America. *Agriculture and Human Values*, 15(4):375–386.

Earthtrends. 2003a. Economic indicators – El Salvador. Washington, DC: World Resources Institute.

———. 2003b. Forests, grasslands, and drylands – El Salvador. Washington, DC: World Resources Institute.

Euromonitor International. 2010. Travel and tourism in El Salvador. http://www.euromonitor.com/Travel_And_Tourism_in_El_Salvador (accessed 1 November 2010).

FAO. *See* Food and Agriculture Organization.

Food and Agriculture Organization. 2000. Aquastat country profile: El Salvador. Rome: FAO

———. 2009. State of the world's forests. Rome: FAO. <http://www.fao.org/docrep/011/i0350e/i0350e00.HTM> (accessed 17 December 2009).

Forest Carbon Partnership Facility. 2008. Readiness plan idea note: El Salvador. http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/El_Salvador_TAP_REview_Synthesis_02_12_09.pdf (accessed 1 November 2010).

GOE. *See* Government of El Salvador.

Gammage, Sarah. 2007. El Salvador: despite end to civil war, emigration continues. Washington, DC: Migration Policy Institute. <http://www.migrationinformation.org/Profiles/display.cfm?ID=636> (accessed 6 July 2010).

Gammage, Sarah, Manuel Benítez, and Melany Machado. 2002. An entitlement approach to the challenges of mangrove management in El Salvador. *Ambio*, 31(4):285–294.

Global Property Guide. 2009. El Salvador's real estate market paralyzed by US crisis. April 22. <http://www.globalpropertyguide.com/Latin-America/El-Salvador/Price-History> (accessed 17 December, 2009).

Government of El Salvador. 1973. Ley Forestal. <http://www.cedaf.org.do/eventos/forestal/Legislacion/LeyesLatina/ElSalvador.pdf> (accessed 2 December 2009).

———. 1983. Constitución de la Republica de El Salvador. Available on Faolex. <http://faolex.fao.org/faolex/> (accessed 25 January 2011).

———. 1994. Ley de Conservacion de Vida Silvestre. Available on Faolex. <http://faolex.fao.org/faolex/> (accessed 25 January 2011).

———. 1998. Strategy for community sustainability to protect the upper basin of the River Lempa, El Salvador, 1997–2001. Ministry of Agriculture and Animal Husbandry.

Haggarty, Richard. 1988. El Salvador: a country study. Library of Congress. Washington, DC: Government Printing Office. <http://countrystudies.us/el-salvador/> (accessed 17 December 2009).

Harmeling, S. 2007. Global climate risk index 2008. Berlin: Germanwatch. <http://www.germanwatch.org/klima/cri2008.pdf> (accessed 1 November 2010).

Hecht, Susanna B., Susan Kandel, Ileana Gomes, Nelson Cuellar and Herman Rosa . 2006. Globalization, forest resurgence, and environmental politics in El Salvador. *World Development*, 34(2):308–323.

IDB. *See* Inter-American Development Bank.

IFAD. *See* International Fund for Agricultural Development.

Inter-American Development Bank. 2001. IDB approves US \$70 million for El Salvador housing program. December 13. New York: IDB. <http://www.iadb.org/NEWS/detail.cfm?lang=en&id=1100> (accessed 17 December 2009).

Internacional Fund for Agricultural Development. n.d. La pobreza rural en El Salvador. Rome: IFAD. <http://www.ruralpovertyportal.org/web/guest/country/home/tags/el%20salvador> (accessed 6 July 2010).

Iza, Alejandro and Rocío Córdoba. 2007. Environmental flows and water reform in Central America: challenges and opportunities for their implementation. Presentation at International River Symposium, Brisbane, Australia, September 6. http://www.riversymposium.com/2007_Presentations/D1D_Cordoba.pdf (accessed 27 October 2010).

López, Alexander and Alicia Jiménez. 2007. Environmental Conflict and Cooperation: The Mesoamerican Biological Corridor as a Mechanism for Transborder Environmental Cooperation. Report of the Regional Consultation, Mexico City, Mexico, 4–5 July 2006. http://www.unep.org/dewa/eccreports/ECPI_Latin_America_Assessment_Final_Report_Feb21.pdf (accessed 25 October 2010).

Luciak, Ilija. 2001. *After the Revolution: Gender and Democracy in El Salvador, Nicaragua, and Guatemala*. Baltimore, Maryland: Johns Hopkins University Press.

Lungo Ucles, Mario. 1997. Urban land policy in El Salvador. *Land Lines*, 9(5). Cambridge, MA: Lincoln Institute of Land Policy.

MAC. *See* Mines and Communities.

MCC. *See* Millennium Challenge Corporation.

MPI. *See* Migration Policy Institute.

MRG. *See* Minority Rights Group International.

Mack, Claire. 2005. Communities educate and resist against proposed mining project in Chalatenango and Cabanas Departments. SHARE News. Berkeley, CA: SHARE Foundation.

Martindale-Hubbell. 2008. El Salvador law digest. Prepared by Curtis, Mallet-Prevost, Colt & Mosle LLP. *Martindale-Hubbell International Law Digest*.

McReynolds, S., T. Johnston, and C. Geisler. 2000. The relationship of land tenure to agricultural practices and the environment in El Salvador. *Culture & Agriculture*, 22(1): 9–28.

Mennen, Tiernan. 2008. Land reform revisited: can Latin America get it right and should it even try? *International Affairs Review*, 18(1).

Millennium Challenge Corporation. 2010. Fact sheet: El Salvador. <http://www.mcc.gov/documents/press/factsheet-012710-elsalvador.pdf> (accessed 3 December 2010).

Mines and Communities. 2008. Salvadorans express their opinion on mining. January 2. <http://www.minesandcommunities.org/article.php?a=8442> (accessed 22 December 2009).

Minority Rights Group International. 2008. World directory of minorities and indigenous peoples - El Salvador: indigenous peoples. Refworld, UNHCR. London, UK: Minority Rights Group International. <http://www.unhcr.org/refworld/docid/49749d2a3c.html> (accessed 22 October 2010)

Mongabay. 2010. El Salvador forest information and data. http://rainforests.mongabay.com/deforestation/2000/El_Salvador.htm (accessed 10 November 2010).

Navarrette Lopez, Guillermo. 1996. El Salvador's experience in the design of environmental programs. Paper submitted to

the Fourth International Conference on Environmental Compliance and Enforcement, Chiang Mai, Thailand, 22–26 April. <http://www.inece.org/4thvol2/navarret.pdf> (accessed 22 December 2009).

Ortega, Roque Roldán. 2004. Models for recognizing indigenous land rights in Latin America. Biodiversity series, paper no. 99. The World Bank Environment Department. http://siteresources.worldbank.org/BOLIVIA/Resources/Roque_Roldan.pdf (accessed 22 October 2010).

Pacific Rim Mining Corporation. 2008. El Dorado, El Salvador. Vancouver, BC, Canada: Pacific Rim Mining Corporation. http://www.pacrim-mining.com/s/ES_Eldorado.asp (accessed 22 December 2009).

———. 2010. ICSID tribunal rejects government of El Salvador's preliminary objection. Vancouver, BC, Canada: Pacific Rim Mining Corporation. <http://www.pacrimmining.com/s/News.asp?ReportID=412268> (accessed 3 December 2010).

Paige, J. 1996. Land reform and agrarian revolution in El Salvador: comment on Seligson and Diskin. *Latin American Research Review*, 31(2):127–39.

Rose, William I., Julian J. Bommer, Dina L. Lopez, Michael J. Carr, and Jon J. Major, eds. 2004. *Natural Hazards in El Salvador*. Boulder, Colorado: The Geological Society of America.

Safie, Felix. 2004. Building land information policies in El Salvador. UN, FIG, PC IDEA Inter-regional Special Forum on The Building of Land Information Policies in the Americas, Aguascalientes, Mexico, 26–27 October.

Seligson, Mitchell. 1995. Thirty years of transformation in the agrarian structure of El Salvador, 1961–1991. *Latin American Research Review*, 30(3):43–74.

Shaw, Cora. 1998. Rural land markets. Annex 6 to El Salvador: rural development study. Washington, DC: The World Bank.

Talentino, Andrea Katherine. 1999. El Salvador. In *The Costs of Conflict: Prevention and Cure in the Global Arena*, ed. Michael E Brown, 199–218. Lanham, MA: Rowman & Littlefield Publishers, Inc. <http://www.wilsoncenter.org/subsites/ccpdc/pubs/costs/chap10.pdf> (accessed 6 August 2010).

Trackman, Brian, William Fisher, and Luis Salas. 1999. The Reform of Property Registration Systems in El Salvador: A Status Report. Washington, DC: USAID.

UNDP. *See* United Nations Development Programme.

UNESCO. *See* United Nations Educational, Scientific and Cultural Organization.

UN-HABITAT. *See* United Nations Human Settlements Programme.

UNICEF. *See* United Nations Children's Fund.

USACE. *See* US Army Corps of Engineers.

USAID. *See* United States Agency for International Development.

USDOS. *See* United States Department of State.

USGS. *See* United States Geological Survey.

United Nations Children's Fund. 2010. Estimates for the use of improved drinking-water sources and improved sanitation facilities. WHO/UNICEF Joint Monitoring Programme for Water and Sanitation. http://www.childinfo.org/files/WAT_ElSalvador.pdf (accessed 3 December 2010).

United Nations Development Programme. 2010. Country sector assessments, vol. 2. UNDP GoAL WaSH Programme (Governance, Advocacy and Leadership for Water, Sanitation and Hygiene). New York: UNDP. http://www.undp.org/water/docs/Country_Sector_Assessments_Volume_2.pdf (accessed 1 December 2010).

- United Nations Educational, Scientific and Cultural Organization. 2006. The United Nations World Water Development Report 2. Paris: UNESCO
- United Nations Human Settlements Programme. 2007. Enhancing Urban Safety and Security – Global Report on Human Settlements 2007. Nairobi: UN-HABITAT.
- United States Department of State. 2001. El Salvador: Country Reports on Human Rights Practices. Bureau of Democracy, Human Rights, and Labor. <http://www.state.gov/g/drl/rls/hrrpt/2000/wha/768.htm> (accessed 7 May 2009).
- University of Denver. 2007. The global real estate project: El Salvador. Franklin L. Burns School of Real Estate and Construction Management. Denver: University of Denver. http://burns.daniels.du.edu/main_new.asp (accessed 26 October 2010).
- United States Army Corps of Engineers. 1998. Water resources assessment of El Salvador. Washington, DC: US Army Corps of Engineers. <http://www.sam.usace.army.mil/en/wra/ElSalvador/El%20Salvador%20WRA%20English.pdf> (accessed 18 December, 2009).
- United States Geological Survey. 2008. Central America. *2008 Minerals Yearbook*. Washington, DC: US Department of the Interior. <http://minerals.usgs.gov/minerals/pubs/country/2008/myb3-2008-bh-cs-es-ho-nu-pm.pdf> (accessed 10 November 2010).
- United States Agency for International Development. 2004. El Salvador: biodiversity, tropical forestry, and water resources assessment. Washington, DC: USAID.
- . 2006. Modernization of the Land Property Registry in El Salvador: A Final Report. Washington, DC: USAID
- . 2007. Fiscal Year 2007 Performance Report for El Salvador. Washington, DC: USAID.
- . 2010. Written statement of Janet C. Ballantyne, Bureau for Latin America and the Caribbean: indigenous peoples of Colombia, Panama and Peru. Washington, DC: USAID.
- Vargas, Alberto. 2003. El Salvador country brief: property rights and land markets. Madison, Wisconsin: University of Wisconsin Land Tenure Center.
- Voices from El Salvador. 2010a. Rain rain everywhere.... and not a clean drop to drink?. Weblog posted April 6. <http://voiceselsalvador.wordpress.com/2010/04/06/rain-rain-everywhere-not-a-clean-drop-to-drink/> (accessed 27 October 2010)
- . 2010b. More mining companies solicit exploration and exploitation permits in El Salvador. Weblog posted October 27. <http://voiceselsalvador.wordpress.com/2010/10/27/more-mining-companies-solicit-exploration-and-exploitation-permits-in-el-salvador/> (accessed 1 November 2010)
- Winchester, Lucy. 2005. Sustainable human settlements development in Latin America and the Caribbean. UN/Sustainable Development and Human Settlements Division. Santiago, Chile: United Nations.
- World Bank. 2005a. Implementation Completion Report (SCL-39820 PPFB-P2640 TF-26533) on a Loan in the Amount of US \$50 Million to the Republic of El Salvador for a Land Administration Project. Washington, DC: World Bank.
- . 2005b. Project Appraisal Document on a Proposed Loan in the Amount of US \$40.2 Million to the Republic of El Salvador for a Land Administration II Project. Washington, DC: World Bank.
- . 2005c. Project Appraisal Document on a Proposed Loan In the Amount of US \$18.2 Million to the Republic of El Salvador for a Judicial Modernization Project. Washington, DC: World Bank.
- . 2005d. Project Appraisal Document on a Proposed Grant from the Global Environment Facility Trust Fund for a Protected Areas Consolidation and Administration Project. Washington, DC: World Bank.

- . 2006. El Salvador Recent Economic Developments in Infrastructure – Strategy Report. Washington, DC: World Bank.
 - . 2007. Status of projects in execution – FY07: SOPE El Salvador. Washington, DC: World Bank.
 - . 2008a. 2008 world development indicators. Washington, DC: World Bank.
 - . 2008b. Doing business 2009: country profile for El Salvador. Washington, DC: World Bank.
 - . 2008c. Note on Cancelled Operation Report (IBRD-73480) on a Loan in the Amount of US \$100.0 Million to the Republic of El Salvador for the Second Broad-Based Growth Development Policy Loan. Washington, DC: World Bank.
 - . 2008d. Progress Report on the Country Assistance Strategy for the Republic of El Salvador. Report No. 41133-SV. International Bank for Reconstruction and Development. Washington, DC: World Bank.
 - . 2008e. Public Sector Modernization Technical Assistance Report: Implementation Completion and Results Report (IBRD-40820). Washington, DC: World Bank.
- World War 4 Report. 2009. Pacific Rim Mining to sue El Salvador in CAFTA court. May 6. <http://www.ww4report.com/node/7288> (accessed May 22, 2009).
- Zeisel, C. E. 2003. Land and agrarian reform in El Salvador after the peace accords: social movement or not? Paper presented at the annual meeting of the American Sociological Association, Atlanta, GA, 16–18 August.