



USAID COUNTRY PROFILE

PROPERTY RIGHTS AND RESOURCE GOVERNANCE

BOLIVIA

OVERVIEW

Despite the large numbers of people migrating to urban areas, Bolivia's population and especially its population of poor people remains significantly rural and closely tied to the country's natural resources. Inequality in land distribution and access to productive resources perpetuates the deep divisions between the wealthy and the poor. Progress in providing land access and tenure security for the country's indigenous people has accelerated under the current administration but remains slow. In the first ten years of the land title regulation (*saneamiento*) process, only 6.6% of the land subject to regularization was titled. Despite a high percentage of female-headed households and formal laws mandating gender equality in land rights and community property in marriage, most of the land is distributed to men and titled in men's names. The titling of indigenous communally-managed territories (TCOs) has been halted in some regions due to conflicts over the land rights and access to natural resources involving indigenous communities, local governments, and private tenants.

The Morales government pledged to begin a new era of land reform and to revitalize the land-redistribution process, and has been actively working on the overwhelming number of pressing land and natural resource issues. Provisions in the 2009 Constitution and the accelerated pace of the land titling and registration project reflect serious attention to these goals, but many challenges remain. In particular, there is a need to evaluate the status of various initiatives, to determine whether refinements and revisions are necessary, and to ensure that the new constitutional provisions on decentralization and indigenous rights are incorporated into implementable legislation.

KEY ISSUES AND INTERVENTION CONSTRAINTS

The following are areas of particular need:

- **Strengthen the legal framework for land and natural-resource rights.** Bolivia's formal land laws and land-reform laws do not provide a sufficient foundation to address the inequality of land distribution and tenure insecurity, and provisions in the new Constitution need to be incorporated into new or existing laws to ensure that they are consistent and binding. *One approach would be to seek out less time-consuming and less expensive alternatives to address land access and land security than current titling, registration, and informal land regularization efforts. The legal framework is in need of new codes governing mining, water rights, and forest management. Foundational steps include conducting the research and building the consensus necessary to support the process of drafting and enacting these new laws.*
- **Land access for land-poor and landless people.** To increase land access for those with little or no land, it will be important to pursue alternatives to traditional procedures for reclaiming portions of large holdings and redistributing the land to the landless or land poor. *Such alternatives could include: equity-sharing by former employees and landowners through joint stock companies; contract farming; and programs that provide land and access to other resources to landless laborers and allow them to engage in production processes. Because rural communities are beginning to gain more land and resources, donors could support projects that facilitate equitable strategic alliances between communities (with land and resources) on the one hand and entrepreneurs with access to capital, technology and markets (but with limited and diminishing land and resources) on the other.*

- **Land access and tenure security for women.** Gaps exist between the expressions of gender equality in Bolivia’s formal laws, discrimination in the implementation of land reforms, and entrenched preferences for men in many customary laws governing access to and management of natural resources. *One approach to addressing these gaps would be to design and implement pilot projects targeting women beneficiaries within existing programs of reform. Another approach would be to ensure that formal laws protecting the land rights of women are secured in land administration processes.*
- **Increase access to safe water.** Approximately 40% of Bolivia’s total population lacks access to safe water. The country has high levels of waterborne diseases related to water pollution. The problem is acute in rural areas where 79% of the population lacks access to an improved water supply. *It will be important to identify opportunities for clean water production, as well as support water-infrastructure development projects in rural areas, particularly the development of wastewater treatment plants and effective gray water and solid-waste disposal systems. Donors could help to support rural health education programs focused on the mitigation of waterborne illnesses.*

FOR MORE RECENT LITERATURE:

<http://usaidlandtenure.net/bolivia>

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

SUMMARY

Bolivia is a large country defined by extremes in geography, land distribution, and the socioeconomic status of its people. The Andes Mountains run the length of the country, with the mountainous terrain descending into jungles, barren plateaus, and lowlands. Half of Bolivia's 1 million square kilometers of land is covered in forest; one third is semiarid or arid. Only 7% of Bolivia's land (8 million hectares) can be productively used for agriculture, and 10% of agricultural landholders control 90% of that land.

Bolivia has the highest income-inequality and lowest social mobility in South America. Sixty-three percent of the population is poor; 40% live in extreme poverty. Poverty is mostly rural (83% of the rural population is below the national poverty line), and almost 90% of the rural poor are indigenous. Those who are born into poor families in Bolivia are likely to remain poor.

Land-reform efforts in the 1990s were plagued by poor implementation, lack of resources, corruption, and failure of political will. Land invasions, strikes, blockades, and mass demonstrations became an often violent reminder of the social, economic and political circumstances that in part led to the election of Evo Morales, Bolivia's first indigenous president. In May 2006, the Morales administration launched its land-reform program to address the unequal distribution of land and insecurity of land tenure.

While women are legally able to own land in Bolivia, in reality there is little gender equality in land ownership. Women rarely inherit land, and their land rights tend to be less secure than men's. Indigenous women's rights are especially vulnerable because they often lack identity documents and enter into unregistered relationships, hindering their ability to exercise their legal rights.

Bolivia is highly biodiverse. Land-tenure insecurity and uncertain rights to forests and forest products have discouraged land investment and development of sustainable practices to manage the country's natural resources. Bolivia suffers from deforestation, water and soil pollution, erosion and desertification, and institutional weaknesses that prevent the development and enforcement of principles of environmental stewardship.

Bolivia is also rich in mineral resources; however, these resources have often been plagued by conflict and pollution. The poorest communities in Bolivia are located in mining areas, and Bolivia's mining practices have caused significant environmental damage to the land and natural resources in those regions. Mining operations are responsible for substantial erosion, leakage of toxic dust and cyanide, contamination of the soil, and pollution of fresh water.

BOX 1. MACRO INDICATORS

	Year	Score
Population, total	2008	9,684,093
Population ages 0-14: 15-64: 65+ (% of total)	2008	36.7: 58.6: 4.7
Population growth (annual %)	2008	1.7
Rural population (% of total population)	2008	34.4
Population density (people per sq. km)	2008	8.9
Literacy rate, adult total (% of people ages 15 and above)	2007	90.7
Land area: Surface area (sq. km)	2008	1,084,380: 1,098,580
Arable land (% of land area)	2008	2.8
Agricultural land (% of land area)	2005	34.8
Permanent cropland (% of land area)	2005	0.2
Irrigated land (% of cropland)	2003	4.1
Forest area (% of land area)	2005	54.2
Nationally protected areas (% of total land area)	2006	20.2
Renewable internal freshwater resources per capita (cubic meters)	2007	31,891.8
Annual freshwater withdrawals, agriculture: domestic: industry (% of total freshwater withdrawal)	2007	80.6: 12.5: 6.9
Crop production index (1999-2001 = 100)	2005	120.1
Livestock production index (1999-2001 = 100)	2005	109.2
GDP (current US\$)	2008	16,674,278,562
GDP growth (annual %)	2008	6.1
Agriculture: industry: manufacturing: services, value added (% of GDP)	2008	13.6: 42.2: 15.6: 44.3
Ores and metals exports: imports (% of merchandise exports: imports)	2007	26.2: 0.8
Aid (% of GNI)	2007	3.7

Source: World Bank, 2009

I. LAND

LAND USE

Bolivia has a total surface land area of 1,098,580 square kilometers and a 2008 population of 9.7 million people. Sixty-six percent of Bolivia's population lives in urban areas, a percentage that is expected to increase with continued migration from rural areas to the country's cities. An estimated 65% of Bolivians live below the national poverty line, and almost 40% live in extreme poverty. Despite a large land mass and abundant natural resources, the country has one of Latin America's smallest economies. Bolivia's 2008 GDP was \$17 billion with 44% attributed to services, 42% to industry, and 14% to agriculture (World Bank 2009a; World Bank 2006b; World Bank 2007).

Bolivia has a multi-ethnic population made up of Amerindians, Asians, Europeans and Africans. Bolivia's indigenous people constitute roughly 64% of the total population. Most indigenous people live in the Amazonian lowlands, the Gran Chaco region of southern Bolivia, the mountains, and the highlands of the Altiplano region of western Bolivia – all regions with limited or no productive agricultural land (EC 2007; ARD 2002).

Thirty-eight percent of the country's poor live in urban areas. Within cities, 29% of the urban population is poor. Urbanization has been rapid and unplanned. The growth of cities is largely due to migration from rural areas, driven by the decomposition of traditional agrarian structures, decreasing agricultural returns, and the perceived economic possibilities in the cities. However, urban areas have been unable to support such rapid population growth, and economically depressed neighborhoods have expanded along the urban periphery (USAID 2002; UNICEF n.d.).

Bolivia is rich in biodiversity but has limited land suitable for agriculture. The country has three main geographic zones: (1) the Andes Mountains and arid and barren Altiplano (high plateau) in the west; (2) the semitropical jungles (Yungas) and valleys descending east from the Andes; and (3) the eastern lowlands. Only 8 million hectares (7%) of Bolivia's total land area (predominantly located in the eastern lowlands) has productive agricultural potential. One-third of Bolivia's total land area is semi-desert or arid, and another 54% is forestland (EC 2007; World Bank 2007; World Bank 2006b).

Deforestation is occurring at a rate of 0.5% annually. Bolivia's National System of Protected Areas (SNAP) encompasses approximately 20% of the land area including a variety of forests, wetlands, and other natural ecosystems. The land is increasingly degraded due to: (1) intensive deforestation caused by encroaching agriculture, logging, exploitation of hydrocarbons, and expanding coca cultivation; (2) soil and water pollution due to mining and hydrocarbon extraction; (3) erosion and desertification, often caused by poor agricultural practices in ecologically vulnerable areas; and (4) institutional weakness in ensuring compliance with the laws and lack of local and national capacity to develop and enforce principles of environmental stewardship (World Bank 2009a; EC 2007; World Bank 2006b; World Bank 2007).

LAND DISTRIBUTION

Despite several efforts at land reform in the last fifty years, Bolivia has one of the most inequitable distributions of land in South America, represented by both inter-regional and intra-regional inequality. The western valleys are home to 60% of Bolivia's landowners, yet the area only accounts for 10% of the country's agricultural land. In contrast, 18% of landowners reside in the eastern plains, though the area accounts for approximately 75% of Bolivia's agricultural land. Intra-regionally, in the east of the country, 60–70% of cultivable land is held by a few thousand large landowners. In contrast, 5–10% of the agricultural land in the same region is held by hundreds of thousands of indigenous smallholders (World Bank 2006b; World Bank 2007; FAO 2006).

The country's elite agriculturalists maintain large expanses of land in the eastern region of the country. Much of this land is underutilized; landowners have preferred to expand the amount of land under cultivation rather than invest in the land. Large landowners also hold land for speculation or use it almost solely as collateral for other investments. In its 2009 Constitution, the Bolivian government established a 5000-hectare ceiling for future landholdings, and required that land-use be socially and economically productive (World Bank 2007; GOB Constitution 2009).

The unequal distribution of land and capital and a concentration of large underutilized properties have created a regional polarization of wealth, low production, and rural poverty. An estimated 30% of Bolivia's farmers are landless or near-landless and either lease land or work as agricultural laborers (World Bank 2006b; EC 2007; Hertzler 2007).

BOX 2. LAND TENURE INDICATORS		Score
<u>Millennium Challenge Corporation Scorebook, 2009</u>		
– Land Rights and Access (Range 0–1; 1=best)		0.719
<u>International Property Rights Index, 2009</u>		
– Physical Property Rights Score (Range: 0–10; 0=worst)		4.4
<u>World Economic Forum's Global Competitiveness Index, 2008-2009</u>		
– Property Rights (Range: 1–7; 1=poorly defined/not protected by law)		2.6
<u>World Economic Forum's Global Competitiveness Index</u>		
– Ease of Access to Loans (Range: 1–7; 1=impossible)		2.2
<u>International Fund for Agricultural Development, Rural Poverty Report, 2001</u>		
– Gini Concentration of Holdings, 1981-1990 (Range: 0–1; 0=equal distribution)		0.77
<u>International Fund for Agricultural Development, Rural Sector Performance Assessment, 2007</u>		
– Access to Land, 2007 (Range: 1-6; 1=unsatisfactory access)		4.0
<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)		150
<u>World Bank Group, World Development Indicators, 2009</u>		
– Registering Property-Number of Procedures		7
– Registering Property-Days Required		92
<u>World Bank Group, World Development Indicators, 1998</u>		
– Percentage of Population with Secure Tenure		87
• Santa Cruz de la Sierra		87
<u>Heritage Foundation and Wall Street Journal, 2009</u>		
– Index of Economic Freedom-Property Rights (Range 0-100; 0=no private property)		20
<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)		4.11
– Protection of Property Rights (Range 0-10; 0=lowest degree of protection)		3.47
– Regulatory Restrictions of Sale of Real Property (Range 0-10;0=highest amount of restrictions)		6.65

Landlessness has encouraged internal and external migration of the poor to urban and more productive rural areas. Urban crime, militant squatting and land invasions have increased, and conflicts are commonplace (World Bank 2006b; EC 2007).

LEGAL FRAMEWORK

Bolivia's recent 2009 Constitution emphasizes decentralization of governance and recognizes the autonomy of indigenous groups but places land and natural resource policy exclusively under the control of the central government (Sanjines Delgadillo 2009; Gray Molina 2008/09).

The 2009 Constitution recognizes the collective and customary rights of the country's indigenous communities. The Constitution provides for the right of indigenous communities to the exclusive utilization and exploitation of renewable natural resources in each group's territory as well as their right to a share of profits from non-renewable natural resources extracted from their territory, subject to legal guidelines. Indigenous communities also have the right to apply their own norms, social structures, and governance systems within their territory (Gray Molina 2008/09; Sanjines Delgadillo 2009).

Bolivia's Civil Code governs property rights, including ownership, lease,

transfer, possession, and administration of land. In 1996, Bolivia adopted its primary land reform law: the Law of Agrarian Reform (*el Acto Nacional para la Reforma Agraria* -- INRA Act). The INRA Act was designed to address chronic issues of limitations on access to land and insecurity of land tenure through regularization of land rights, issuance of titles, resolution of land disputes, and distribution of land. Implementation of the law was uneven and ineffective (Martindale Hubbell 2008; World Bank 2007; World Bank 2006a).

In 2006, the state enacted the Law of Community-Based Redirection of Agrarian Reform (*la Ley de Recondición Comunitaria de la Reforma Agraria*) to modify and streamline land reform under the INRA Act. The law guarantees: (1) the right to land-access and secure tenure; (2) the transparent and responsible administration of land; (3) the expedited execution of land reform and land distribution; (4) the protection of private property (as long as the property fulfills a social-economic function and is not abandoned); and (5) the

redistribution of lands to benefit landless and land-poor indigenous and peasant communities. The law also extends the execution and completion of agrarian reform through 2013 under the National Strategic Plan for Warranting and Titling 2006–2013 (World Bank 2007; World Bank 2006b).

TENURE TYPES

Article 349 of the 2009 Constitution provides that Bolivia's natural resources are the inalienable and indivisible property and direct dominion of the Bolivian people (Sanjines Delgado 2009; Gray Molina 2008/2009).

Bolivia's land is held: (1) individually by private individuals and entities; (2) communally by families and indigenous people as Original Community Lands (*Tierras Comunitarias de Origen* or TCOs); and (3) by the government (ARD 2002; Chemonics 2005).

Tenure types are:

- **Ownership.** Ownership (individual and collective) may be based on formal and customary law. There are four formal private land-parcel categories: residence (*solar campesino*), small family holdings of up to 50 hectares, medium-sized holdings that produce for the market, and agro-livestock enterprises (Martindale Hubbell 2008; Diez 2002).
- **Leaseholds/*anticretico*.** Bolivia's urban areas support an active lease market. Leases may be obtained on traditional terms, under which the lessee pays a nonrefundable rate for occupation of the property, or under an *anticretico* agreement, a system that emerged in response to Bolivia's high rate of domestic inflation and weak private-sector financial institutions and in 2001 accounted for up to 12% of housing arrangements. Under an *anticretico* agreement, the lessee gives the landowner a lump-sum payment at the beginning of the term in exchange for the right to occupy the land for the term (usually at least a year). At the end of the term, the lessee vacates the land and the landowner returns the full sum paid (Durand-Lasserve 2006; Navarro and Turnbull 2008).
- **Rural land leasing:** Leasing is increasingly common in rural areas as the land becomes more individualized. Families and communities may rent out land for the production of cash crops (Lastarria-Cornhiel et al. 2008).
- **Squatting:** It is common for peasant households, landless people, and rural-urban migrants to squat on land in urban and rural areas (World Bank 2006b; World Bank 2007).

SECURING LAND RIGHTS

Individuals and entities can acquire land through purchase, government land allocation, transfers such as inheritance, allocation by customary authority, and encroachment. Government land allocation and land rights formalization has been ongoing since 1997, but the process has been slow and conflict-ridden (World Bank 2006b; World Bank 2007).

The 2009 Constitution defines the conditions for land access, acquisition and maintenance, which include requirements that land: (1) must be productive; (2) must fulfill a socioeconomic function; and (3) may not be exploited by means of debt-bondage, semi-servitude or slavery. The government regulates the land market and limits how much land an individual or entity can acquire and how land is divided. According to the Constitution, future landholdings may not exceed 5000 hectares and cannot be divided into parcels smaller than a "small property," which is defined as individually owned non-entrepreneurial land used for subsistence and survival (Sanjines Delgado 2009; GOB Constitution 2009).

Foreigners cannot acquire lands from the government, although by negative implication they may acquire land from private parties. Foreigners also cannot own, directly or indirectly, land within 50 kilometers of a national border without first receiving a special dispensation from the government (Martindale Hubbell 2008).

Land rights are not widely registered in Bolivia. Registries are poorly maintained, especially in rural areas. Land titling and registration has been the key feature of Bolivia's land reform agenda since 1997, and the pace has increased with the Morales administration: of the 27.3 million hectares of land titled between 1996 and 2008, 67% of the land or 18.3 million hectares was titled between 2006 and 2008 (World Bank 2006b; Chemonics 2005; EC 2007).

Bolivia’s land registration process requires seven procedures, takes 92 days, and costs nearly 5% of the property’s value. Registration procedures require review and clarification of the land ownership and physical properties of the land and issuance of resolutions to confirm, authenticate, amend or annul existing property titles. Adding to the delays, the President must personally sign off on each title (World Bank 2008b; World Bank 2006b).

A gender review of the land titling and registration project found that, although the INRA expressly recognized women and men’s equal rights to land and stated that nondiscriminatory criteria would be applied in the distribution and administration of land reforms, the vast majority of land titles were issued to men. Only 17% of titles were issued to women individually. After procedures were refined, in 2007 19% of land distributed was titled in the names of women individually and 34% of the land was titled jointly in the names of wives and husbands (World Bank 2005; Lastarria-Cornhiel 2007; Martindale Hubbell 2008).

Under customary law in some communities, the community provides young men with a land parcel (*chaco*). The parcel is between 2 and 7 hectares, a size deemed large enough to feed a family while allowing a percentage to remain fallow. Formal and customary law also provide for the transfer of land and acquisition of land rights through inheritance (World Bank 2007; EC 2007; Lastarria-Cornhiel et al. 2008).

Bolivians generally consider land rights to be insecure. In rural areas, drivers of tenure insecurity are: (1) a history of inequitable and exclusionary relations with regard to access to and rights to land; (2) multiple unresolved interests and pending claims over the same land; (3) violent conflict over land and territorial rights; (4) land invasions; and (5) the threat of government expropriation. Urban areas have insufficient serviced land for the number of inhabitants and new arrivals, leading to the creation of large informal settlements with no formal land rights (World Bank 2006b; Sanjines Delgadillo 2009).

INTRA-HOUSEHOLD RIGHTS TO LAND AND GENDER DIFFERENCES

Women have the legal right to own land in Bolivia – either as individuals or jointly and communally in a marriage, partnership, or as a community member. The 2009 Constitution and INRA Act provide for women’s right to land access and non-discrimination in land-use and administration without regard to marital status (Sanjines Delgadillo 2009; World Bank 2005).

Bolivia’s Family Code provides for community property during marriage and prohibits private agreements to the contrary. Spouses have equal rights to the undivided whole of the community property during marriage. Property acquired through grant, adjudication by the state, or land allocations is community property. Spouses may own certain types of landed property individually if the property was acquired before marriage or inherited. Joint titling of land by non-married persons is not permitted. Community property ceases by death of one’s spouse, annulment of marriage, divorce, separation and judicial separation of property. Spouses are third in line to inherit their partners’ individually held land and share of community property; their partners’ children and parents come first (World Bank 2005; Martindale Hubbell 2008).

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)		0.2
— Women’s Access to Property other than Land (Range: 0-1; 0=no discrimination)		0.0
— Women’s Access to Bank Loans (Range: 0-1; 0=no discrimination)		0.5
<u>FAO: Holders of Land Classified by Sex, 1993</u>		
— Percentage of Female Holders of Agricultural Land		...

Joint titling of land by non-married persons is not permitted. Community property ceases by death of one’s spouse, annulment of marriage, divorce, separation and judicial separation of property. Spouses are third in line to inherit their partners’ individually held land and share of community property; their partners’ children and parents come first (World Bank 2005; Martindale Hubbell 2008).

In reality, there is little gender equality in land ownership, even though women are heads of household in 31% of Bolivian families. Land is customarily considered to belong to the eldest male family member, and women heads-of-household must assert their rights against men in their extended families. Customary norms dictate against women’s right to own land in Bolivia, even when titling or registration is mandatory in formal law. At the time of inheritance, the land usually passes from father to sons, although widows are permitted to remain on the property. Daughters may inherit a small share of the land (World Bank 2005; Lastarria-Cornhiel et al. 2008; Lastarria-Cornhiel 2007; Martindale Hubbell 2008).

Women’s land rights tend to be less secure than men’s rights. Indigenous women’s rights are especially vulnerable because they often lack identity documents and enter into unregistered relationships, hindering their ability to exercise their legal rights (World Bank 2007; Lastarria-Cornhiel 2007).

LAND ADMINISTRATION AND INSTITUTIONS

Bolivia's Vice-Ministry of Land, located within the Ministry of Rural Development, Agriculture and the Environment, is responsible for land policy, norms, and strategy. The National Institute for Agrarian Reform (INRA) is a public decentralized institution within the Ministry for Sustainable Development and Planning and is affiliated with the Ministry of Rural Development, Agriculture and the Environment. The INRA has responsibility for rural land administration, land reform, and land allocation. The National Agrarian Commission is the legislative body that approves land reform (World Bank 2007; World Bank 2006b; INRA 2007).

Bolivia has a decentralized cadastre, survey and registry system, made up of: (1) the INRA, which is responsible for rural cadastre registry; (2) a formal Cadastre Unit responsible for maintaining, developing, and executing the urban cadastre registry; (3) the municipal governments, which maintain local registries; and (4) the Property Rights Registrar. The Registrar registers urban and rural land ownership, has regional locations, and is under the management of the General Direction of Public Registration. The Vice Ministry of Housing and Urbanism within the Ministry of Public Works, Services and Housing is responsible for the regularization and registration of urban land, particularly clandestine properties (Chemonics 2005).

Customary institutions that often assume a role in land matters include indigenous councils of elders and leaders, religious leaders, unions, and leaders of land movements. Local Rural Development Councils (*Consejo de Desarrollo Agrario Local* – CODAL) are local-level decision-making bodies comprised of representatives from the Department of Natural Resources, municipal officials, and organized civil society from the rural labor confederations (World Bank 2005; World Bank 2007).

LAND MARKETS AND INVESTMENTS

Bolivia's agricultural land market is active but exclusive. Large rural landowners and wealthy urban landowners tend to buy and sell land among themselves and hold unused land for speculative purposes and as collateral for investment. Land values depend on the land's productive potential, and in the eastern rural region can range from US \$10 to \$2000 per hectare (Hertzler 2007; World Bank 2006b; World Bank 2007).

In urban areas the land market is active both for buyers and sellers and for those leasing properties. The *anticretico* system allows landowners to use their property for investment (Durand-Lasserre 2006).

Transfers of title to land must be documented, accompanied by consideration and recorded. Both grantor and grantee must sign the deed and must be present before the notary at the same time. An active informal market exists. Most smallholdings transfer by inheritance within families and are not exchanged on the formal or informal market (Martindale Hubbell 2008; World Bank 2008c).

The growth of Bolivia's land market is constrained by: (1) wealth segmentation and ethnic exclusion; (2) the poor's lack of assets; (3) the failure of land taxation to create incentives for improving land usage and open land markets; (4) lack of connection and limited flow of information regarding land markets in Bolivia's highlands; (5) rural municipalities lacking the capability to appraise property; (6) the dominance of an informal land market; and (7) the weakness of the land register (Chemonics 2005; World Bank 2006b; Hertzler 2007).

COMPULSORY ACQUISITION OF PRIVATE PROPERTY RIGHTS BY GOVERNMENT

Bolivia's 2009 Constitution provides that the government may expropriate and redistribute landed private property for reasons of public benefit or if private property does not fulfill its social or socioeconomic function, defined as sustainable productive use of the land for the individual owner and the general interests of the greater community. The Constitution also permits the state to confiscate land held in *latifundios* (large estates), which includes land not held in productive use, land not used for its appropriate socioeconomic function, land-use based on servitude, semi-slavery or slavery, or land held in excess of 5000 hectares (or other lower ceilings as may be established by law). The Constitution applies the land ceilings to future holdings, not retroactively. The government must pay just compensation for takings (Martindale Hubbell 2007; Sanjines Delgadillo 2009; GOB Constitution 2009).

Since the 2009 Constitution was adopted, the government has conducted several high-profile land seizures from ranchers of European descent in the country's eastern region. In one case, the government seized a 15,000-hectare ranch from a US immigrant and his Bolivian sons, based on the charge that the rancher had held Guarani workers

in forced servitude. The National Agrarian Tribunal recently rejected the rancher's challenges to the seizure. No avenue for appeal remains. The government reports that it will divide the land and distribute it among 2000 Guarani families. In 2004, large unexploited natural gas deposits were discovered on the ranch, leading some to allege that the government's primary motive is to control the land and mineral resources in the area. The government confiscated lands (totaling approximately 100,000 hectares) from several other large ranches on the grounds that the land was obtained fraudulently, and/or that it was not used productively to further a social or economic purpose." It does not appear that the government has compensated landholders for the takings. The threat of land seizures has become politically volatile in Santa Cruz Province, which in 2008 voted to stop redistributing land and at the same time voted to allow provincial officials to renegotiate energy deals directly with private companies (Valdez 2010; Romero 2008; Merco Press 2010).

LAND DISPUTES AND CONFLICTS

Although conflicts over land possession, land reform, and regional autonomy have decreased since the advent of the Morales administration's efforts, the continuing inequalities in land distribution and the sluggish land reform progress have led to conflicts. Allocation of Original Community Lands (*Tierras Comunitarias de Origen* - TCOs), concessions, titling, INRA processes, and local land administration operations have supplied fodder for disputes, and the imposition of TCOs as the only tenure model for indigenous communities has created conflicts (World Bank 2006b; EC 2007; World Bank 2006a; Lastarria-Cornhiel et al. 2008).

Other causes of land disputes are: (1) conflicts between the central government and the large landowners and agribusinesses with respect to land reform, some of which have been violent; (2) access to natural resources (especially minerals, coca plants, and oil and gas), and their management and nationalization; and (3) access to forests by indigenous groups versus forest concessionaires (Hertzler 2007; EC 2007; World Bank 2007; Diez 2002; Romero 2008; Valdez 2010).

The national and sub-national agrarian tribunals (*Tribunal Agrario Nacional*) are the highest judicial authority on agrarian issues have jurisdiction over matters relating to rural land. The courts are challenged by lack of economic resources and a perceived lack of independence. The INRA also has a dispute-resolution role with relation to land-reform efforts. The INRA uses methods such as dialogue, negotiation and mediation. The INRA's track record for resolution of land disputes is compromised by allegations of poor administration, excessive bureaucracy and corruption (World Bank 2006b; World Bank 2006a).

KEY LAND ISSUES AND GOVERNMENT INTERVENTIONS

The Morales administration has promised the distribution of 20 million hectares of land to Bolivia's rural poor by 2011. One-third of the land contemplated for distribution is state land, and two-thirds is land held by individuals and companies without legal title or with illegally obtained title that will be expropriated for redistribution (AIN 2006).

Bolivia's 2006 National Plan for Development is heavily influenced by the INRA Act. The INRA Act prioritizes the transformation of the agrarian structure and favors indigenous populations through the redistribution and titling of land and territory in order to overcome poverty and inequitable land distribution. Within this framework, the government plans to expand indigenous land through the TCO program, allocate public forest land for community management, and pilot a market-based approach for increasing access to private land. In total, the GOB plans to regularize 106.7 million hectares of land (World Bank 2007; World Bank 2006a).

The land reform efforts made by the INRA between 1996 and 2008 have titled: (1) 12.6 million hectares as TCOs; (2) 1.29 million hectares as small properties; (3) 276,000 hectares as farm worker plots; (4) 660,000 hectares as medium-sized properties; (5) 1.46 million hectares as enterprise land; and (6) 3.87 million hectares as community property. Another 7.8 million hectares have been identified as State or public land for redistribution (ARD 2002; Chemonics 2005; INRA 2007).

DONOR INTERVENTIONS

USAID has invested in coca-eradication programs and in rule of law and good governance as they pertain to counter-narcotics, government reforms that promote transparent and accountable institutions, and civil society strengthening. USAID's Integrated Alternative Development Program (2005–2010) included a USAID/Bolivia

Land Titling Project which, as of September 2007, had initiated land-title regularization on over 30,000 properties (on over 400,000 hectares) in the Chapare region (USAID 2008).

In 1997 the World Bank assisted in the implementation of the INRA Law through the Land Administration Project and mobilized additional donors. The INRA is financed by the Government of Bolivia, the World Bank, the Ministry of Foreign Affairs of Denmark (DANIDA), the Embassy of Sweden, the Netherlands, and the Inter-American Development Bank. The majority of financing that the INRA receives from international actors is allocated for formalizing and registering land rights (EC 2007).

Most recently, the World Bank initiated the Bolivia Land for Agricultural Development Project (*Proyecto Tierras y Desarrollo Agrario*), a complementary effort that provides access to land and productive resources to beneficiary groups through subsidized land-purchase and long-term leases. Target beneficiaries are landless or poor families. The project includes components for productive investment and generation of income-streams from increased value of agricultural production, including a land-credit facility (World Bank 2010).

A coalition of eleven NGOs have formed the National Network of Human Settlements (RENASEH), which focuses on advocacy and development by targeting housing rights in rural and urban settings, with special attention to women-headed households. RENASEH was instrumental in securing the right to housing in the 2009 Constitution and developing self-help and community financing mechanisms for housing (Achtenberg 2009).

2. FRESHWATER (LAKES, RIVERS, GROUNDWATER)

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Bolivia has abundant freshwater resources. The country is home to Lake Titicaca and Lake Poopo and has three large basins: the Amazonian Basin, covering 66% of the country's territory; the closed basin of the Altiplano, covering 13% of the territory; and the Río de la Plata Basin, which covers 21% of the country's territory. Bolivia has 304 cubic kilometers of internal renewable water resources (surface water and groundwater) and 34,867 cubic kilometers of internal renewable water resources per capita. Bolivia's water resources are not evenly distributed: the Cochabamba Valley and the Altiplano receive little rain and have very long dry seasons (World Bank 2004; Earthtrends 2003; FAO 2000; Water for People 2006).

The country's population uses 0.4% of the available water resources. Roughly 81% of extracted water in Bolivia is used for agricultural purposes, 12% for domestic purposes, and 7% for commercial and industry. Four percent of the cropped land in Bolivia is irrigated; water for irrigation is delivered through canal and ditch systems. Bolivia has five reservoirs and large hydroelectric dams (World Bank 2004; EC 2007; FAO 2000; Water for People 2006).

Bolivia's water carries high levels of waterborne disease as a result of poor management of mining and hydrocarbon extraction, agro-toxins, pesticides, and solid waste. Around 40% of Bolivia's population lacks access to safe water. In urban areas, 21% of the population lacks access to an improved water supply, while 79% of the rural population lacks access to an improved water supply. Infrastructural and systematic deficiencies underscore the challenges in the water and sanitation sector; Bolivia has insufficient systems for distributing water and for disposing of grey water and solid wastes, as well as a low number of wastewater treatment plants, which causes environmental damage through contamination of both surface and groundwater (FAO 2000; USAID 2002; Water for People 2006).

As Bolivia's urban and peri-urban populations have continued to grow, competition for water use and distribution has increased, specifically between the demands for domestic use versus agricultural irrigation. Significant imbalances in potable water distribution exist between wealthier enclaves and those that are poor and populated by indigenous people (World Bank 2006b; EC 2007).

Bolivia privatized water utilities between 1997 and 2005. In 2006, the new administration declared water a public trust, stated that its goal was universal access to water, and halted further privatization (Water for People 2006; Hailu et al. 2009).

LEGAL FRAMEWORK

Bolivia's 2009 Constitution places responsibility on the government to manage, regulate, protect and plan for adequate and sustainable use of hydrological resources, and to guarantee all inhabitants access to water. Hydrological resources cannot be privatized, although mixed public-private partnerships may be created for the administration of basic services for potable water and sewage. Under the Constitution, the state must recognize and respect traditional community customs regarding water management (Flores 2008; GOB Constitution 2009).

Bolivia's water resources are regulated by the 1906 Water Law and assorted provisions in more recent legislation, including the Environmental Act, the Mining Code, the Electricity Act, Water and Sanitation Services Law, the Irrigation Law, and the Hydrocarbons Act. Singly and together, Bolivia's legislation governing water is incomplete, contradictory, and rights are often unclear. The laws provide that landowners have rights to water on their land, subject to the requirements of others; none of the laws provide direction on rights to groundwater resources. Bolivia has made numerous attempts to create a single law to govern water resources, but has been unsuccessful to date (World Bank 2006b).

The Water and Sanitation Services Law No. 2066, and Irrigation Law No. 7828 incorporate recognition, respect, and protection for the traditional and customary rights, uses, practices and management of water resources by indigenous and peasant farm worker communities. In addition, the Paraguay-Parana Waterway Treaty signed in 1992 regulates Bolivia's only water path to the Atlantic Ocean (Orellana 2007).

TENURE ISSUES

The government owns water resources on state land, nationally protected areas, and other public land. In other areas, rights to water resources for personal consumption or productive uses are vested in mixed enterprises of regional, municipal, local, customary, and private entities (World Bank 2006b; Flores 2008).

Land distributed and titled by the INRA as TCOs provide the community the right to administer natural resources, including water, in accordance with customary law and cultural practice (Gray Molina 2008/09).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

In 2006, the government created the Ministry of Water, which includes the Vice-Ministry for Water Basins and Hydrological Resources, the Vice-Ministry for Irrigation, and the Vice-Ministry for Basic Services. The Agency for the Supervision of Basic Sanitation is responsible for regulating the water and sanitation sector. In 2009, the government created the Environmental and Water Resources Ministry, which assumed the authority and responsibilities of the Ministry of Water. This Ministry includes the Vice-Ministry for Biodiversity, Environment, Climate Change and Forest Development and Management (EC 2007; World Bank 2006b; Water for People 2007; UN-REDD Programme 2009).

Municipal governments hold administrative jurisdiction over water and sanitation services through Potable Water and Sewage Systems Service Provider Entities (*Entidades Prestadoras de Servicios de Agua Potable y Alcantarillado Sanitario* – ESPAs). In rural areas, community management of potable water and sanitation services is usually the responsibility of Potable Water and Sanitation Committees or cooperatives. In indigenous zones, community use and management is usually based on customary practices and governed by elders and traditional leaders (World Bank 2006b).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

Bolivia was one of the first Latin American countries to institutionalize policies and controls for environmental protection and sustainability, including the Kyoto Protocol (1999) and the Environment Act. Bolivian-EU cooperation is focused in large part on sustainable environmental management, including sustainable river basin management (EC 2007; World Bank 2006b).

In March 2005, the government created a National Water Basin Programme as the basis for developing a national policy on water basins that focuses on the decentralized and participatory management of environmental issues and prioritizes the social dimension of basin development plans. The current status of this policy is not clear (EC 2007; World Bank 2006b).

Privatization of the water sector (which occurred in major cities between 1997 and 2005) was highly controversial in Bolivia. In 1999, the GOB contracted out the provision of water services to *Aguas del Tunari* (Waters of the Tunari), a multinational consortium of investors. The switch to privatized services caused water and sewerage rates to triple, which led to violent protests in Cochabamba. Following several months of protests, the GOB transferred control of water services to *La Coordinadora* (The Coordinator), a grassroots coalition. In 2005 the government terminated its contracts with private companies and renationalized the water sector (PBS 2010; Hailu et al. 2009).

DONOR INTERVENTIONS AND INVESTMENTS

The European Union (EU), the German Agency for Technical Cooperation (GTZ), the Canadian International Development Agency (CIDA), the Governments of the Netherlands and Spain, and the Inter-American Development Bank (IDB) are engaged in water projects in Bolivia. The World Bank has been assisting the Bolivian government with funding for infrastructure-development in urban areas to plan and upgrade water services (World Bank 2006b; Flores 2008).

The Commission for the Integral Management of Water in Bolivia (*La Comisión para la Gestión Integral del Agua en Bolivia* – CGIAB) is a network of NGOs, research organizations and civil society groups devoted to water resources (Flores 2008).

As part of its Integrated Alternative Development Program, USAID helped to construct drinking-water systems and bathrooms benefiting over 2000 households in the Yungas region in FY2009 (USAID 2010).

3. TREES AND FORESTS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Bolivia is highly biodiverse. Natural forests cover almost half of Bolivia's land area, totaling approximately 54 million hectares. Bolivia's tropical forest is the sixth-largest in the world, and contains immense biological diversity. Bolivia also has the world's largest forest concessions certified for sustainable use and is considered the global leader in managing natural tropical forests. Currently more than 28% (9 million hectares) of Bolivia's designated forest lands are under approved management plans, and an estimated 2.2 million hectares of these were certified as "well-managed" (World Bank 2006a; World Bank 2006b; EC 2007; USAID 2010).

Although Bolivia's legal framework provides for the protection and management of forests, large forestlands located in the east and north of Bolivia are vulnerable. Deforestation occurs at an annual rate of 300,000 hectares per year, though this rate is increasing, as agro-industry, animal husbandry, small-scale farming and coca production encroach on forests. Mechanized farming, agro-industrial, and forest-colonization activities are responsible for significant deforestation (World Bank 2006b; EC 2007; Killeen et al. 2008; Colchester 2006).

Wood exports are important to Bolivia's economy, representing (in 2006) 7% of total exports, directly supporting 50,000 jobs and indirectly supporting 250,000 jobs (USAID 2010).

LEGAL FRAMEWORK

The 2009 Constitution calls on the state to guarantee the conservation and sustainable use of the forests and establish measures to protect and restore biodiversity. The Constitution also gives indigenous communities located within forest areas the exclusive right to exploit, in accordance with the law, forest resources within those areas. The Constitution further provides that, where indigenous territories overlap with protected areas, traditional practices of the former take priority over the rules established for the latter (GOB Constitution 2009).

The Forest Act of 1996 regulates the sustainable use and protection of forests and forested lands. The law aims to produce benefits for future generations while balancing the socioeconomic and environmental needs of the nation. The law devolves responsibility for managing forests to municipalities and promotes the sustainable management of forests through design and implementation of forest management plans and deforestation permits. As of January 2011, the Forest Act was being revised. (ARD 2002).

The Environmental Act of 1992 promotes integrated management of forestry and agricultural lands as a means to protect and conserve their productivity (ARD 2002).

Under customary law, forests in Bolivia belong to the community. The community closest to the forestland is entitled to use the forest products, including firewood, fruit, and medicinal plants (Lastarria-Cornhiel et al. 2008).

TENURE ISSUES

Under the 2009 Constitution and the Forest Act of 1996, the government owns Bolivia's state forests and nationally protected areas. Owners of private forests have the right to exploit the forest resources on their land, subject to the requirement of a forest management plan. Timber harvesting is regulated and requires management plans for areas over 200 hectares. The law grants local groups priority over timber industry groups to forestland (ARD 2002; EC 2007; Killeen et al. 2008).

Forestland can be vested in, or concessions can be allotted to: (1) private individuals, entities and companies; (2) communal groups such as families, indigenous groups through TCOs or organized migrant colonists; and (3) the government (ARD 2002).

Local residents can access forests and forest products through a community forest management model implemented by local forest cooperatives. Forest cooperatives and lowland indigenous communities can receive access to forest reserves. TCO concessions correspond to the traditional areas owned by indigenous people. The government grants Local Social Association (*Agrupación Social del Lugar, or ASL*) concessions in municipal forest areas to groups of 20 or more rural people who have proved that they previously had been using the forest resources. Concessions are also available for industry and universities (World Bank 2006b; World Bank 2007; ARD 2002).

Lack of enforcement has led to the loss of indigenous rights to forestland. As of 1997 Bolivia had leased out 5.8 million hectares of forest land to 85 private companies. Indigenous groups held title to almost one-fifth of the land transferred by concession. The government has also certified indigenous territory under its Forest Stewardship Council, but assigned the areas to be managed by private companies. Conflicts between indigenous groups and forest concessionaires are increasing in number and severity (World Bank 2006a; Diez 2002).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Vice-Ministry of Biodiversity, Environment, Climate Change and Forest Development and Management, together with the Authority for Forests and Land (ABT), share jurisdiction and responsibility over forestlands. The ABT analyzes, approves and monitors the implementation of forest management plans. The National System for Protected Areas (*el Sistema Nacional de Áreas Protegidas – SNAP*) was established under the Environmental Act of 1992 (Colchester 2006; ARD 2002; World Bank 2006b; de Jong et al. 2006).

Deforestation for agricultural use is prominent in areas of native forests and surrounding wetlands or other natural habitats. Migrants and small farmers put pressure on forest resources through colonization of forested and protected areas, and governmental institutions do not have the capacity to enforce restrictions on access to and use of forestland (World Bank 2007; EC 2007).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

Bolivia leads the world in voluntary forest certification, with 2.2 million hectares accredited as sustainably managed forests. In February 2001, Supreme Decree 26075 established 42 million hectares as Forest Lands for Permanent Production, and in recent years FAO and private investors have financed small afforestation projects (EC 2007; World Bank 2006b).

DONOR INTERVENTIONS AND INVESTMENTS

Since 1994, USAID has helped Bolivia to: improve forestry management; conserve targeted parks and protected areas; reduce urban and industrial pollution through improved environmental management; and preserve biodiversity. USAID has also funded research, provided technical assistance on forest legislation, and helped to increase forest management by indigenous groups. USAID's primary vehicle for assistance to the forestry sector is the Bolivia Sustainable Forest Management Project (BOLFOP); USAID has also worked in the sector through partnerships with local institutions. Under BOLFOP II (2004–2009), USAID has worked with the Nature Conservancy on two priorities: (1) increasing benefits to Bolivian communities through sustainable forestry

management practices; and (2) improving business practices related to forest-based exports. Through the Integrated Development and Conservation in the Bolivian Amazon Project (2009–2014), USAID promotes the sustainable use of natural resources while generating employment, growing the economy and decreasing poverty. The project works to strengthen the ability of local municipalities and civil society organizations to promote economic growth (USAID 2009; ARD 2002; Chemonics, Inc. n.d.).

The World Bank has helped the Bolivian government sustain its national protected areas and ensure the sustainable management of those areas. Ninety-five percent of the financing for support of the National Protected Areas is provided by foreign aid, including Swedish and Dutch development programs and the IDB. NGOs dedicated to natural resource management include FUND-ECO and the Center for Interdisciplinary Community Studies (*Centro Interdisciplinario de Estudios Comunitarios*, or CIEC), both of which are based in La Paz (ARD 2002; World Bank 2008a; FAO 2006).

4. MINERALS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Bolivia is a globally significant producer of tin, gold, silver, antimony, cadmium, and zinc. The country also has the second-largest gas reserves in South America, and its production of crude oil and natural gas, steel, and iron is expanding. In 2006, mineral industry output accounted for 11% of Bolivia's GDP, with a little over half of the amount attributed to the mineral fuels sector. Mining exports have historically been a major source of foreign exchange, yet as of 2002 only an estimated 15% of the country's mining potential has been exploited (Anderson 2008; Velasco and Anderson 2002).

Medium-scale mining produces roughly 60% of Bolivia's mineral production. Small-scale miners are responsible for 32% of production, and large-scale mining operations for the balance. The estimated 50,000 small-scale cooperative and artisanal miners have become a significant political voice in the last decade. After the industry was largely abandoned by the state in the 1980s, small-scale miners grew in strength and numbers, forming cooperatives that grew to support medium-size operations and Bolivia's largest miners' union. Miner activism has played a role in conflicts throughout the mining regions and put pressure on the state over its recent efforts to take control of the mining industry and increase taxes on the industry at large (AIN 2007; Velasco and Anderson 2002).

The poorest communities in Bolivia are located in mining areas, and Bolivia's mining practices have caused significant environmental damage to the land and natural resources in those regions. Mining operations are responsible for substantial erosion, leakage of toxic dust and cyanide, contamination of the soil and pollution of fresh water (AIN 2007).

LEGAL FRAMEWORK

The 2009 Constitution provides that the state owns and is responsible for all mineral resources found in the soil and subsoil, and establishes the state's rights to contract with mining companies and to supervise and control the production chain of all mineral resources (GOB Constitution 2009).

Bolivia's Code of Mining (*Código de Minería*) of 1997 also sets forth state ownership of minerals, including metals, precious and semiprecious stones, and those minerals found on communal lands. The government can grant concessions that confer on individuals and entities the right to explore for and extract minerals. Minerals extracted are subject to tax by the government rather than royalty payments. The 1992 Environmental Law also contributes a framework for regulating mining, oil and gas production. The Morales administration is reportedly revising the Mining Code to change the tax structure to increase the percentage paid to the government and require private companies interested in operating in Bolivia to enter into 50/50 partnerships with the Mining Corporation of Bolivia (COMIBOL) (Velasco and Anderson 2002; AIN 2007; ARD 2002; Martindale Hubbell 2008).

In May 2006, Bolivia nationalized its natural gas and petroleum sector, and the state-owned mineral fuels company, Yacimientos Petroliferos Fiscales Bolivianos (YPFB), acquired a majority interest in the private foreign mineral-fuels companies operating in Bolivia. In May 2007, President Evo Morales signed Presidential Decree No. 29117, which reasserted state jurisdiction over all minerals, metals, and stones. COMIBOL administers the

country's mineral wealth, except those minerals under concessions granted before the decree. As of the date of the decree, all mining companies are required to enter into a joint venture with COMIBOL (AIN 2007; Martindale Hubbell 2008).

TENURE ISSUES

The Mining Code permits individuals and entities to apply for concessions to explore for and extract minerals, subject to the oversight and participation of the government. Small-scale miners are often organized as legally established cooperatives with mining concessions. Mining concessions may be extended for indefinite periods and can be transferred with the government's permission. The Mining Code assesses penalties against individuals and entities that violate the terms of mining concessions. The penalties include loss of the concession (Martindale Hubbell 2008; GOB Constitution 2009).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

Bolivia's Vice-Ministry of Mining and Metallurgy, which is a branch of the Ministry of Economic Development, is responsible for formulating mining policy, managing concessions and ensuring compliance with laws and regulations. Oversight of environmental matters is housed with the Vice Ministry of Environment, Natural Resources, and Forestry Department (Velasco and Anderson 2002; Velasco 1998).

Although the state owns all minerals in Bolivia, conflicts have arisen between different levels of government regarding the authority to negotiate with – and benefit from – private energy companies. For example, the national government and the government of Santa Cruz Province have been positioning for control over contract negotiations concerning large unexploited natural gas deposits recently discovered in the province. The provincial government has voted to allow its own officials to negotiate directly with private companies concerning the gas deposits, while the national government rejects the provincial government's authority in the matter and has seized the ranch land overlying the gas deposits, based on the claim that the rancher held Guarani workers in servitude (Romero 2008; Valdez 2010).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

The Morales government plans to revitalize Bolivia's mining sector by revising the 1997 Mining Code and taking the following actions: (1) requiring investors to share technology with the state and assist in upgrading technological capacity throughout the industry; (2) providing training for miners using artisanal methods that are considered inefficient and environmentally unsound; and (3) inviting stakeholder participation in renewing the mining sector (AIN 2007).

DONOR INTERVENTIONS AND INVESTMENTS

The World Bank has assisted Bolivia in modernizing its mining sector, establishing a regulatory framework for the oil and gas sectors, and establishing joint ventures with private partners. The Bank is managing an in-depth study of the impact of medium-scale mines on local communities in three Latin American countries, one of which is Bolivia. *Centro de Ecología y Pueblos Andinas* (CEPA) is a local NGO active in supporting mining communities and their environmental interests (World Bank 2009b; AIN 2007).

5. DATA SOURCES (SHORT LIST)

ARD. 2002. USAID/Bolivia's Country Strategy 2004-2009: Bolivia's Country Analysis of Tropical Forests and Biological Diversity. Prepared for USAID. http://www.usaid.gov/locations/latin_america_caribbean/environment/docs/bo2002.pdf (accessed 29 September 2010).

Chemonics, Inc. 2005. Estudio sobre el catastro en Bolivia: Factibilidad política y social. Study prepared for USAID. http://pdf.usaid.gov/pdf_docs/PNADF484.pdf (accessed 29 September 2010).

EC. 2007. Bolivia Country Strategy Paper 2007–2013. Report No. E/2007/1405. http://www.eeas.europa.eu/bolivia/csp/07_13_en.pdf (accessed 29 September 2010).

- GOB. 2009. Constitución de la República de Bolivia. (Constitution.). Political Database of the Americas, Center for Latin American Studies, Edmund A. Walsh School of Foreign Service. <http://pdba.georgetown.edu/Constitutions/Bolivia/bolivia09.html> (accessed 27 September 2010).
- Gray Molina, George. 2008/09. A deeper look at Bolivia's indigenous constitution. CRISE Research News: Center for Research on Inequality, Human Security, and Ethnicity. Winter 2008/09 No. 5: 1–2. http://www.crise.ox.ac.uk/pubs/CRISE%20Research%20News%20Winter%2008_09.pdf (accessed 29 September 2010).
- Hertzler, Douglas. 2007. Bolivia's Agrarian Revolution: Trying to Keep the Promises of Past Governments. Andean Information Network. <http://www.wola.org/bolivia/AIN%20Land%20Reform%2008.07.pdf> (accessed 29 September 2010).
- Lastarria-Cornhiel, Susana. 2007. Who Benefits From Land Titling? Lessons From Bolivia and Laos. International Institute for Environment and Development. IIED, London. <http://www.iied.org/pubs/display.php?o=14553IIED&n=1&l=1&k=lastarria> (accessed 29 September 2010).
- Lastarria-Cornhiel, Susana, Zulema Barahona, and Leticia Orti. 2008. The Women of Isoso: Livelihoods, Governance, and Natural Recourses in the Gran Chaco, Bolivia. Madison: University of Wisconsin, Land Tenure Center.
- Sanjines Delgadillo, Esteban. 2009. Land and Territory in the New Constitution of Bolivia. Fundación Tierra. http://www.landcoalition.org/newsletter/wp-content/uploads/nl_01artcpe2009_sanjines_fundacion-tierra_ingles.pdf (accessed 29 September 2010).
- USAID. 2010. Bolivia Country Profile. <http://bolivia.usaid.gov/profile.php> (accessed 28 September 2010).
- Water for People. 2006. Bolivia Country Strategy. Submitted for consideration by the International Programs Committee, 14 December 2006. <http://ww2.waterforpeople.org/pdfs/international/bolivia/BoliviaCountryStrategy2007-2011.pdf> (accessed 28 September 2010).
- World Bank. 2006b. Bolivia: Public Policy Options for the Well Being of All. Vincente Fretes-Cibils ed. Washington DC: The World Bank.
- World Bank. 2007. Project Appraisal Document to the Republic of Bolivia for a Land Agricultural Development Project. Report No. 41071-BO. Washington DC: World Bank.

6. DATA SOURCES (COMPLETE LIST)

AIN. *See* Andean Information Network.

ARD. *See* Associates in Rural Development, Inc.

Achtenberg, Emily P. 2009. Social Housing in Bolivia: Challenges and Contradictions. Andean Information Network. <http://upside-down-world.org/main/bolivia-archives-31/1709-social-housing-in-bolivia-challenges-and-contradictions-> (accessed 29 September 2010).

Andean Information Network. 2006. Bolivia's Agrarian Reform Initiative. <http://ain-bolivia.org/2006/06/agrarian-reform-initiative/> (accessed 29 September 2010).

———. 2007. An Emerging Mining Policy in Bolivia Mines and Communities publication. <http://www.minesandcommunities.org/article.php?a=2341> (accessed 29 September 2010).

Anderson, Steven T. 2008. The Minerals Industry of Bolivia. *United States Geological Survey 2006 Minerals Yearbook*, 3.1–3.1. USGS, Washington DC. <http://minerals.usgs.gov/minerals/pubs/country/2006/myb3-2006-bl.pdf> (accessed 29 September 2010).

- Associates in Rural Development, Inc. 2002. USAID/Bolivia's Country Strategy 2004–2009: Bolivia's Country Analysis of Tropical Forests and Biological Diversity. Prepared for USAID. www.usaid.gov/locations/latin_america_caribbean/environment/docs/bo2002.pdf (accessed 29 September 2010).
- Chemonics, Inc. n.d. Current Projects in Latin America and the Caribbean. http://www.chemonics.com/projects/submit_search_contracts.aspx?showBack=1&selRegion=%7B6F03A3B3-F2AB-4851-A6D0-C728FBE87D14%7D (accessed 11 January 2010).
- Chemonics, Inc. 2005. Estudio sobre el catastro en Bolivia: Factibilidad política y social. Study prepared for USAID. http://pdf.usaid.gov/pdf_docs/PNADF484.pdf (accessed 29 September 2010).
- Colchester, Marcus. 2006. Justice in the Forest: Rural Livelihoods and Forest Law Enforcement. Report of the Center for International Forestry Research. CIFOR, Sindang Barang, Indonesia. http://www.forestpeoples.org/documents/law_hr/cifor_justice_forest_mar06.pdf (accessed 29 September 2010).
- de Jong, Wil, Sergio Ruiz and Michel Becker. 2006. Conflicts and Communal Forest Management in Northern Bolivia. *Forest Policy and Economics*, 8: 447–457.
- Diez, Rafael. 2002. The Current Status of Agrarian Land Ownership in Bolivia. USAID Task Order Report No. PCE-I-0-99-00003-00, Task Order 06. Washington DC: USAID.
- Durand-Lasserve, Alain. 2006. Informal Settlements and the Millennium Development Goals: Global Policy Debates on Property Ownership and Security of Tenure. *Global Urban Development*, 2:1. <http://www.globalurban.org/GUDMag06Vol2Iss1/Durand-Lasserve.htm> (accessed 29 September 2010).
- EC. *See* European Commission.
- EarthTrends. 2003. Water Resources and Freshwater Ecosystems – Bolivia. EarthTrends Country Profiles series. http://earthtrends.wri.org/country_profiles/index.php?theme=2 (accessed 29 September 2010)..
- European Commission. 2007. Bolivia Country Strategy Paper 2007–2013. Report No. E/2007/1405. http://www.eeas.europa.eu/bolivia/csp/07_13_en.pdf (accessed 29 September 2010).
- FAO. *See* Food and Agriculture Organization.
- Food and Agriculture Organization. 2000. Aquastat: Bolivia. <http://www.fao.org/nr/water/aquastat/countries/bolivia/indexesp.stm> (accessed 29 September 2010).
- . 2006. Country Pasture Forage Resource Profile Bolivia. <http://www.fao.org/ag/AGP/AGPC/doc/Counprof/Bolivia/Bolivia.htm> (accessed 29 September 2010).
- Flores, Carlos Crespo. 2008. Nunca Más La Privatización Del Agua: La Empresa Mixta En La Nueva Constitución Boliviana. Comisión para la Gestión Integral del Agua en Bolivia (CGIAB), Boletín 92. <http://www.soberania.org/Archivos/libertario55.pdf> (accessed 29 September 2010).
- GOB. *See* Government of Bolivia.
- Government of Bolivia. 2009. Constitución de la República de Bolivia. Political Database of the Americas, Center for Latin American Studies. Washington DC: Edmund A. Walsh School of Foreign Service, Georgetown University. <http://pdba.georgetown.edu/Constitutions/Bolivia/bolivia09.html> (accessed 27 September 2010).
- Gray Molina, George. 2008/09. A deeper look at Bolivia's indigenous constitution. CRISE Research News: Center for Research on Inequality, Human Security, and Ethnicity Winter 2008/09 No. 5: 1–2. http://www.crise.ox.ac.uk/pubs/CRISE%20Research%20News%20Winter%2008_09.pdf (accessed 29 September 2010).

- Griffiths, Thomas. 2004. Indigenous peoples, land tenure and land policy in Bolivia. In *Land Reform: Land Settlement and Cooperatives*, ed. P. Groppo, 46–63. FAO, Rome. <ftp://ftp.fao.org/docrep/fao/007/y5407t/y5407t00.pdf> (accessed 29 September 2010).
- Hailu, Degol, Rafael Osorio, Raquel Tsukada. 2009. Water privatization and renationalisation in Bolivia: are the poor better off? International Policy Centre for Inclusive Growth, One Pager No. 100. <http://www.ipc-undp.org/pub/IPCOnePager100.pdf> (accessed 28 September 2010).
- Hertzler, Douglas. 2007. Bolivia's Agrarian Revolution: Trying to Keep the Promises of Past Governments. Andean Information Network. http://www.wola.org/bolivia/AIN_Land_Reform_08.07.pdf (accessed 29 September 2010).
- INRA. *See* Instituto Nacional de la Reforma Agraria. (National Institute for Agrarian Reform.).
- Instituto Nacional de la Reforma Agraria and the Ministerio de Desarrollo Rural, Agropecuario y Medio Ambiente. 2007. Informe de Gestion 2007. Bolivia. <http://www.inra.gob.bo/comunicacion/publicacionesDetalle.jsp?idPublicaInra=PUB-7> (accessed 29 September 2010).
- Killeen, T. J. et al. 2008. Total historical land-use change in eastern Bolivia: Who, where, when, and how much? *Ecology and Society* 13(1): 36. <http://www.ecologyandsociety.org/vol13/iss1/art36/> (accessed 29 February 2010).
- Lastarria-Cornhiel, Susana, Zulema Barahona, and Leticia Orti. 2008. The Women of Isoso: Livelihoods, Governance, and Natural Recourses in the Gran Chaco, Bolivia. Madison: University of Wisconsin, Land Tenure Center.
- Lastarria-Cornhiel, Susana. 2007. Who Benefits From Land Titling? Lessons From Bolivia and Laos. International Institute for Environment and Development. IIED, London. <http://www.iied.org/pubs/display.php?o=14553IIED&n=1&l=1&k=lastarria> (accessed 29 September 2010).
- Martindale Hubbell. 2008. Bolivia Law Digest. Prepared by Curtis, Mallet-Prevost, Colt & Mosle LLP. *Martindale-Hubbell International Law Digest*. New York: Martindale-Hubbell.
- Mercopress. 2010. Bolivia confiscates 115 hectares of land to distribute among peasants. <http://en.mercopress.com/2010/08/28/bolivia-confiscates-115.000-hectares-of-land-to-distribute-among-peasants> (accessed 28 September 2010).
- Navarro, Ignacio and Geoffrey Turnbull. 2008. Antichresis Leases: Theory and Empirical Evidence from the Bolivian Experience. *Urban and Regional Analysis Group Working paper No. 08–05*. Andrew Young School of Policy Studies, Georgia State University, Atlanta. [http://www.ires.nus.edu.sg/researchpapers/Visitors/\(Dr%20Geoffrey%20Turnbull\).pdf](http://www.ires.nus.edu.sg/researchpapers/Visitors/(Dr%20Geoffrey%20Turnbull).pdf) (accessed 29 September 2010).
- Orellana, René H. 2007. Derecho al agua y derechos de agua en el proyecto de Constitución de Bolivia. *Agua Ambiente*, No. 2 (La Paz).
- PBS. *See* Public Broadcasting Service.
- Public Broadcasting Service. 2010. Timeline: Cochabamba Water Revolt. <http://www.pbs.org/frontlineworld/stories/bolivia/timeline.html> (accessed 29 June 2010).
- Romero, Simon. 2008. America rancher resists land reform plans in Bolivia. *New York Times*, 9 May. http://www.nytimes.com/2008/05/09/world/americas/09bolivia.html?_r=1 (accessed 28 September 2010).
- Sanjines Delgadillo, Esteban. 2009. Land and Territory in the New Constitution of Bolivia. Fundación Tierra. http://www.landcoalition.org/newsletter/wp-content/uploads/nl_01artcpe2009_sanjines_fundacion-tierra_ingles.pdf (accessed 29 September 2010).
- UNICEF. *See* United Nations Children's Fund.

UN-REDD. *See* United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries.

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

United Nations Children's Fund. (n.d.). Bolivia: Territorial occupation and urbanization. http://www.unicef.org/bolivia/resources_2333.htm (accessed 29 June 2010).

United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries. 2009. Bolivia. <http://www.un-redd.org/UNREDDProgramme/CountryActions/Bolivia/tabid/976/language/en-US/Default.aspx>. (accessed 11 January 2011).

United States Agency for International Development. 2002. *Making Cities Work: Bolivia*. <http://www.makingcitieswork.org/files/pdf/south-america/Bolivia.pdf> (accessed 29 September 2010).

———. 2008. Office of Inspector General: audit of USAID/Bolivia's Integrated Alternative Development Program. Audit Report No. 1-511-08-007-P. <http://www.usaid.gov/oig/public/fy08rpts/1-511-08-007-p.pdf> (accessed 28 September 2010).

———. 2009. Bolivia Environmental Summary. http://www.usaid.gov/locations/latin_america_caribbean/environment/country/bolivia.html (accessed 28 September 2010).

———. 2010. Bolivia Country Profile. <http://bolivia.usaid.gov/profile.php> (accessed 28 September 2010).

Valdez, Carlos. 2010. Bolivia court upholds seizure of US man's ranch. *ABC News (Associated Press)*, 3 August. <http://abcnews.go.com/International/wirestory?id=11310351&page=1> (accessed 28 September 2010).

Velasco, Pablo. 1998. The Minerals Industry of Bolivia. *United States Geological Survey 1998 Minerals Yearbook*, 4.1–4.7. USGS, Washington DC. <http://minerals.usgs.gov/minerals/pubs/country/1998/9503098.pdf> (accessed 29 September 2010).

Velasco, Pablo and Steven T. Anderson. 2002. The Minerals Industry of Bolivia. *United States Geological Survey 2002 Minerals Yearbook*, 3.1–3.12. USGS, Washington DC. <http://minerals.usgs.gov/minerals/pubs/country/2002/blmyb02.pdf> (accessed 29 September 2010).

Water for People. 2006. Bolivia Country Strategy. Submitted for consideration by the International Programs Committee, 14 December. <http://ww2.waterforpeople.org/pdfs/international/bolivia/BoliviaCountryStrategy2007-2011.pdf> (accessed 28 September 2010).

World Bank. 2004. Environment at a Glance: Bolivia. <http://siteresources.worldbank.org/INTEEI/Data/20784481/Bolivia.pdf> (accessed 29 September 2010).

———. 2005. Gender Issues and Best Practices in Land Administration Projects: A Synthesis Report. Prepared for the Gender and Rural Development and the Land Policy and Administration Thematic Groups. http://siteresources.worldbank.org/INTARD/Resources/Gender_land_fulltxt.pdf (accessed 29 September 2010).

———. 2006a. Bolivia Country Social Assessment (CSA): Towards a New Social Contract: Operations for the Constituent Assembly. http://siteresources.worldbank.org/BOLIVIA/Resources/Bolivia_CSA_Report.pdf (accessed 29 September 2010).

———. 2006b. Bolivia: Public Policy Options for the Well Being of All. Vicente Fretes-Cibils ed. Washington DC: The

World Bank.

- . 2007. Bolivia - Land Agricultural Development Project. Report No. 41071-BO. Project Appraisal Document. Washington DC: World Bank. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/10/11/000020439_20071011141021/Rendered/PDF/41071.pdf (accessed 8 November 2010).
- . 2008b. Bolivia Country Brief. <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/LACEXT/BOLIVIAEXTN/0,,menuPK:322289~pagePK:141132~piPK:141107~theSitePK:322279,00.html> (accessed 29 September 2010).
- . 2008c. Doing Business 2009: Country Bolivia. Washington DC: The World Bank.
- . 2009a. 2009 World Development Indicators. <http://data.worldbank.org/> (accessed 28 September 2010).
- . 2009b. Mining and Community: Opportunities and Risks. [http://web.worldbank.org/WBSITE/EXTERNAL/ TOPICS/EXTOGMC/0,,print:Y~isCURL:Y~contentMDK:20220960~menuPK:509405~pagePK:148956~piPK: 216618~theSitePK:336930,00.html](http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTOGMC/0,,print:Y~isCURL:Y~contentMDK:20220960~menuPK:509405~pagePK:148956~piPK:216618~theSitePK:336930,00.html) (accessed 29 September 2010).
- . 2010. Bolivia Land for Agricultural Development Project. [http://web.worldbank.org/external/projects/main? Projectid=P087925&theSitePK=40941&piPK=64290415&pagePK=64283627&menuPK=64282134&Type= Overview](http://web.worldbank.org/external/projects/main?Projectid=P087925&theSitePK=40941&piPK=64290415&pagePK=64283627&menuPK=64282134&Type=Overview) (accessed 28 September 2010).