USAID COUNTRY PROFILE

PROPERTY RIGHTS AND RESOURCE GOVERNANCE

NEPAL

OVERVIEW

The ten-year conflict (1996–2006) between the Government of Nepal (GON) and the Unified Communist Party of Nepal (Maoists) slowed economic growth and displaced tens of thousands of Nepalis. The government of the newly created Federal Democratic Republic faces many challenges in preserving the peace and delivering development in a context of great geographical, ethnic, and social diversity. The country has abundant water resources, well-distributed forestland, and a relatively concentrated area of cultivable land, but needs to strengthen its weak institutions to oversee the management of its land and natural resources. Nepal's highly stratified and hierarchical social structure has tended to limit access to resources and economic opportunity. Consequently, Nepal remains a low-income economy, highly dependent upon agriculture, with a third of its 28 million people below the national poverty line. The poorest are those in the lower castes, Muslims, and agricultural laborers.

Poverty is highly correlated to the size and quality of landholdings. There have been past efforts at land reform, but little success in equalizing highly skewed land holdings, reducing the significant level of landlessness, improving security of land tenure, or eliminating exploitative tenancy relationships. These chronic land issues helped to fuel the years of conflict. The government has convened a Land Reform Commission, is in the process of revising the legal and policy framework governing land, and has committed to an agenda of land reform.

Despite Nepal's wealth of water resources, unequal access to water has caused tension in the country, especially where competing water uses (e.g., irrigation, drinking water, hydropower, and industrial use) vie for access. Nepal's abundant surface water resources have been harnessed to provide energy, but are increasingly polluted by the discharge of untreated human and industrial waste.

Nepal's dwindling forests are a critical source of food, medicine, building materials, and animal fodder. The insurgency disrupted management of, and created conflict over, forest resources by removing government oversight and support, and creating an atmosphere of insecurity and distrust. Much of the forestland between the Himalayas and the lowland plateaus has been cleared for crops, livestock, and human settlement. Timber is being harvested at a rapid rate, resulting in an annual deforestation rate of 1.4%, and much of the land in Nepal's hills is degraded. Landslides, erosion, and soil degradation are common.

KEY ISSUES AND INTERVENTION CONSTRAINTS

- **Encourage community-based land reforms.** Nepal has been plagued by the impact of its entrenched social hierarchy and caste system on reforms. Land reforms have failed to redistribute land because Nepal has lacked the political will to impose land ceilings and redistribute surplus land to landless and land-poor households. In the forestry sector, the first-generation Community Forest User Groups (CFUGs) have been dominated by elites and have often excluded the most marginalized community members from benefit-sharing and meaningful participation. More recently, donor-funded projects have made inroads in the formation and reformation of forest and water user groups and the strengthening of Village Development Committees (VDCs) to ensure the participation of women, lower castes, and ethnic minorities. *Land reform programs may be able to learn from the country's experience in the water and forestry sectors and consider ways to use community-based entities to drive land reforms that are participatory, locally relevant, and enforceable.*

- **Raise awareness of and support for women's legal rights.** At the policy level, women's rights to land and other natural resources suffer from inconsistencies, gaps, and discriminatory provisions in the legal framework. Custom and paternalistic norms tend to fill gaps and render new articulations of equal rights superfluous. New laws are being drafted, providing an opportunity to ensure that the legal framework improves and protects the rights of women. *Donors could also work with local NGOs to raise the issues of women's legal rights, support advocacy and public awareness campaigns, and extend legal aid services to women.*

- **Revisit and consider implementing recommendations in USAID's 2006 Tropical Forestry and Biodiversity assessment.** Nepal's forests are experiencing rapid deforestation with extensive environmental and economic consequences. USAID's 2006 assessment identified several areas where donors could provide assistance in helping Nepal conserve biodiversity and reduce deforestation, support and extend structures for good governance of natural resources, and develop livelihood and economic activities with attention to conservation goals and local community needs. *The assessment and its recommendations provide a starting point for donors to engage or reengage in Nepal's forest sector. Particular areas of need are: (1) helping to provide basic information and training on sustainable land-use practices; (2) building capacity to mainstream conservation into sectoral development programming; and (3) helping the government evaluate and refine its community forest management programs to build on successes, take advantage of lessons learned, and address gaps, particularly in the area of sustainable forest management*

- **Support continued development of water user groups and integrated natural resource management.** Water resources in the Kathmandu Valley are often stressed due to long dry spells during which wells dry up and drinking water is limited. In addition, climate change is expected to accelerate glacier melt in the Himalayas, increasing flooding and ultimately decreasing river flow and freshwater resources. The government and donors have partnered on projects to create water user groups, provide technical assistance on sustainable water management techniques, and expand irrigation infrastructure. *Donors could continue to assist the government in building local governance structures to manage water resources and develop a foundation for community-based integrated natural resource governance institutions that manage resources with recognition of the interconnectedness of water, agricultural land, forests, and rural livelihoods.*

FOR MORE RECENT LITERATURE:

http://usaidlandtenure.net/nepal

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

SUMMARY

Nepal emerged from a decade of conflict to shed the remnants of its monarchy and create a federal democratic republic. Nepal's new government takes on the governance of a country rich in geographical, ethnic, and social diversity, with a multitude of opportunities and challenges. Nepal's geography ranges from the Himalayan Mountains to lowland plateaus with abundant water resources, well-distributed forestland, and a relatively concentrated area of cultivable land. The predominantly Hindu country has a mixture of ethnic groups and a highly stratified and hierarchical social structure, which has controlled access to resources and economic opportunity. A third of Nepal's people live below the national poverty line. The poorest are those in the lower castes, Muslims, and agricultural laborers.

With 83% of the population living in rural areas, land is a critical resource in Nepal. Poverty is highly correlated to the size and quality of landholdings. Five percent of the population controls 27% of the land while almost half the population holds only about 17% of the land. Land productivity is low due to lack of irrigation, inconsistent use of inputs, and inadequate infrastructure. A high percentage of agricultural land is idle. At least 10% of the rural population is absolutely landless.

Despite numerous efforts at land reform, Nepal has been largely unsuccessful at equalizing highly skewed land holdings, reducing the significant level of landlessness, improving security of land tenure, and eliminating exploitative tenancy relationships. These chronic land issues helped to fuel the years of conflict between the Government of Nepal and the Communist Party of Nepal (Maoist).), whose rhetoric includes a strong element of social justice and retribution. Land reform is high on the agenda of the new government, which has recognized the relation between land access and tenure security and the achievement of agricultural productivity and economic growth. The government has convened a Land Reform Commission, is in the process of revising the legal and policy framework governing land, and has committed to an agenda of land reform.

BOX 1. MACRO INDICATORS

	Year	Score
Population, total	2008	28,581,687
Population ages 0-14: 15-64: 65+ (% of total)	2008	37.2; 58.8; 4.0
Population growth (annual %)	2008	1.7
Rural population (% of total population)	2008	82.8
Population density (people per sq. km)	2008	199.9
Literacy rate, adult total (% of people ages 15 and above)	2007	56.5
Land area: Surface area (sq. km)	2008	143,000; 147,180
Arable land (% of land area)	2005	16.5
Agricultural land (% of land area)	2005	29.5
Permanent cropland (% of land area)	2005	0.9
Irrigated land (% of cropland)	2005	47.0
Forest area (% of land area)	2005	25.4
Nationally protected areas (% of total land area)	2006	16.0
Renewable internal freshwater resources per capita (cubic meters)	2007	7051.5
Annual freshwater withdrawals, agriculture: domestic: industry (% of total freshwater withdrawal)	2007	96.5; 2.9; 0.6
Crop production index (1999-2001 = 100)	2005	114.6
Livestock production index (1999-2001 = 100)	2005	113.0
GDP (current US$)	2008	12,614,887,136
GDP growth (annual %)	2008	5.3
Agriculture: industry: manufacturing: services, value added (% of GDP)	2008	33.7; 16.7; 7.4; 49.6
Ores and metals exports: imports (% of merchandise exports: imports)	2003	4.3; 3.9
Aid (% of GNI)	2007	5.8

Source: World Bank, 2009

Rapid urbanization is occurring as a result of displacement from conflict-stricken areas and lack of opportunity in rural areas. The need for housing outpaces availability; the majority of urban residents live in substandard housing in informal settlements. The settlements are mostly unserviced, at risk from outbreaks of disease, and vulnerable to earthquakes and flooding.

Nepal's land and other natural resources are threatened. Much of the forestland between the Himalayas and the lowland plateaus has been cleared for crops, livestock, and human settlement. Landslides, erosion, and soil degradation are common. Nepal's abundant surface water resources have been harnessed to provide energy to many areas but are increasingly polluted by the discharge of untreated human and industrial waste.

Nepal's community forest program, which is implemented by almost 15,000 Community Forest User Groups (CFUGs) countrywide, has been credited with reversing the pace of degradation in some of the country's forests.

The community forest program has also given rise to Nepal's largest civil society organization, the Federation of Community Forest Users, Nepal (FECOFUN), although both the CFUGs and FECOFUN struggle with problems of elite domination and the marginalization of women, ethnic minorities, and lower castes.

1. LAND

LAND USE

Nepal has a total land area of 147,181 square kilometers and three distinct geographical areas: the southern lowland plains (Terai plateau) along the southern border with India (20% of land area); the central band of foothills (56% of land area); and the high Himalaya Mountains along the northern border with China (24% of land area). Thirty percent of Nepal's total land area is classified as agricultural land; only 1% of total land is permanent cropland (World Bank 2009a; FAO 1999a).

Nepal had a 2008 population of 28.5 million people. The country's 2008 GDP was US $12.6 billion, with services accounting for 50%, agriculture 34%, and industry 16%. Thirty-one percent of the country's population lives below the national poverty line. The rural poverty rate is almost twice as high as the urban poverty rate, and ranges from 28% in the eastern hill/mountain region to 72% in midwestern and far western hill/mountain regions. Within the rural population, poverty rates are highest among landless and near-landless agricultural wage laborers (58%); small agricultural households (50%); the formerly "untouchable" castes (48%); indigenous nationalities (20–61%, depending on intragroup differentials); and Muslim groups (43%) (Chhetry 2002; World Bank 2009a; Karkee 2008; Bennett 2005; Nepal and Bohara 2009).

Eighty-three percent of Nepali live in rural areas and rely on agricultural land, forests, and fisheries for their livelihoods. Nepal has an estimated 2.5 million hectares of cultivable land and 18 million head of livestock (2001). Half the population and most of the country's agricultural production are concentrated in the Terai. Cereal crops dominate production: 40% of cropped area is devoted to rice (irrigated and rain-fed), followed by maize (20% of cropped area), and wheat (17% of cropped area). Maize and wheat are primarily grown on rain-fed land. The balance of Nepal's production includes vegetables, pulses, oil seeds, sugar cane, and fruits (World Bank 2009a; Sharma 2001; Silpakar 2008; ADB 2004).

Agricultural productivity is low, constrained by lack of irrigation, inconsistent access to inputs, and limited infrastructure. Twenty percent of cultivated land is irrigated, and the efficiency of existing irrigation systems is low. Only about 10% of rural areas are electrified, and most electricity is used for lights rather than to operate pumps. Twenty percent of rural residents live more than two hours from a dirt road; 40% live more than two hours from a paved road. Agricultural extension and advanced technology suited to local conditions have not reached most rural famers, particularly in remote areas. Market linkages are underdeveloped, and migration to urban areas is high (Karkee 2008; Sharma 2001; Silpakar 2008).

Large areas of private rural holdings (an estimated 17–60%, with the higher percentages in the hills and mountains) are uncultivated. Some land is unsuitable for farming, and some is left fallow under systematic crop rotation, but most of the land is idle because of lack of irrigation, low yields, or the absence of a family member able to farm the land. In some cases, landowners report not renting out idle land for fear that tenants will claim rights under land legislation that grants tillers rights to claim a share of cultivated land (INSEC 2007; Alden Wiley et al. 2008).

About one-quarter of Nepal is classified as forestland, and nationally protected areas make up 16% of the total land. Timber is harvested at a rapid rate, and much of the land in Nepal's hills is degraded. Nepal's annual deforestation rate is 1.4%. Nepal's mountainous forest areas have frequent earthquakes, landslides, floods, and avalanches (World Bank 2009a; Karkee 2008; ARD 2006).

With a population of 895,000 (2007), Kathmandu is the largest urban area in Nepal, followed by Lalitpur, Biratanagar, Pokhara and Birgunj. Between 2005 and 2010, the urban population growth rate was 4.9% per annum. Urban life in Nepal is characterized by high prices for plots, large numbers of informal settlements, overcrowding, and inadequate infrastructure. Roughly 92% of Nepal's urban residents live in substandard housing (UN Data 2010; Pokharel 2006; UN-Habitat 2001).

LAND DISTRIBUTION

Nepal's population is predominantly Hindu; the country's major ethnic groups are the Indo-Nepali, Tibeto-Nepali, and indigenous Nepali. Nepal has a hierarchical society; in large measure, ethnicity and caste dictate social and economic status and opportunity. Land is unevenly distributed, and the size and quality of the landholdings has always been highly correlated with economic status. Throughout the country's history, Nepal's elite have held the majority of land and profited from land-based resources. Seventy-six percent of the country's poor are small and marginal landholders (Karkee 2008; Savada 1991; GON 2004).

Beginning in the 1950s Nepal has made several efforts at land reforms, including the imposition of land ceilings and tenancy reforms designed to equalize landholdings. Neither approach was very effective. The ceilings were set relatively high, the legislation contained significant loopholes, and implementation of the ceiling provisions was lackluster in most areas. Land officials designated less than 1% of cultivated land as above-ceiling and redistributed only half of the above-ceiling land to landless and land-poor households; the remainder continued to be held by the landowners. The state's effort to deliver land to the tiller by registering tenants and granting them half their tenanted land has been largely unsuccessful. About 541,000 tenants registered, but various sample surveys suggest that the number of tenants is at least three times as high. Some researchers suggest that the main effect of the attempted tenancy reform was to push many tenancy relationships underground. A constitutional challenge delayed awards of land to tenants, but the GON asserts that about 180,000 hectares will be registered in the names of registered tenants (Aryal and Awashti 2004; Chapagain 2001; Joshi and Mason 2007; Alden Wiley et al. 2008; Regmi 1976).

BOX 2. LAND TENURE INDICATORS

	Score
Millennium Challenge Corporation Scorebook, 2009	
— Land Rights and Access (Range 0–1; 1=best)	0.694
International Property Rights Index, 2009	
— Physical Property Rights Score (Range: 0–10; 0=worst)	5.5
World Economic Forum's Global Competitiveness Index, 2008-2009	
— Property Rights (Range: 1–7; 1=poorly defined/not protected by law)	3.6
World Economic Forum's Global Competitiveness Index	
— Ease of Access to Loans (Range: 1–7; 1=impossible)	2.7
International Fund for Agricultural Development, Rural Poverty Report, 2001	
— Gini Concentration of Holdings, 1981-1990 (Range: 0–1; 0=equal distribution)	0.52
International Fund for Agricultural Development, Rural Sector Performance Assessment, 2007	
— Access to Land, 2007 (Range: 1-6; 1=unsatisfactory access)	3.6
Food and Agricultural Organization: Holdings by Tenure of Holdings	
— Total Number of all Agricultural Holdings, Year	2,736,050
— Total Area (hectares) of all Agricultural Holdings, Year	2,598,971
— Total Number of Holdings Owned by Holder; Year	2,258,764
— Total Area (hectares) of Holdings Owned by Holder; Year	2,110,960
— Total Number of Holdings Rented from Another; Year	49,114
— Total Area (hectares) of Holdings Rented from Another; Year	36,149
World Bank Group, Doing Business Survey, 2009	
— Registering Property-Overall World Ranking (Range: 1–181; 1=Best)	121
World Bank Group, World Development Indicators, 2009	
— Registering Property-Number of Procedures	3
— Registering Property-Days Required	5
World Bank Group, World Development Indicators, 1998	
— Percentage of Population with Secure Tenure	..
Heritage Foundation and Wall Street Journal, 2009	
— Index of Economic Freedom-Property Rights (Range 0-100; 0=no private property)	30
Economic Freedom of the World Index, 2008 (2006 data)	
— Legal Structure and Security of Property Rights (Range 0-10;0=lowest degree of economic freedom)	3.96
— Protection of Property Rights (Range 0-10; 0=lowest degree of protection)	4.92

The last national survey in 2001/02 reported continuation of a significant imbalance in land distribution: 5% of the population controls approximately 27% of Nepal's cultivable land, generally in plots of three or more hectares. Fifty-one percent of rural households own between half a hectare and three hectares of land, and occupy 59% of total cultivable land. Forty-four percent of households own half a hectare or less and occupy 14% of cultivable area. The average landholding is 0.8 hectares. Ten percent of those households are absolutely landless (GON 2004; Alden Wiley et al. 2008).

Eighty-four percent of farms in Nepal are owner-operated. About 10% of land is reported under some form of registered tenancy. The actual incidence of tenancy is likely significantly higher due to the presence of informal unregistered tenants. Sharecropping is the most common form of tenancy. Landless farmers work about 2% of total farm holdings; most leased land is worked by households that farm their own land, and rent in additional land when they have the capacity (GON 2004; Karkee 2008; Chapagain 2001).

More than 70,000 people were displaced during the 10-year conflict (1996–2006) between the Government of Nepal (GON) and the Unified Communist Party of Nepal (Maoists). Thousands of internally displaced persons (IDPs) returned to their homes following the signing of the peace accord in 2008, often finding that their land had been confiscated or claimed by others during their absence, and they lack documentation necessary to qualify for state support for IDPs. Displaced widows are particularly vulnerable because many are unable to recover compensation for property that has been expropriated and lack the capacity and social standing to pursue new livelihood options. Internally displaced children and women are particularly vulnerable to trafficking, sexual exploitation, and child labor (IDMC 2010).

The thousands of IDPs unwilling or unable to return to their homes joined the migration of rural residents in search of employment in urban areas, causing rapid urbanization. Informal settlements have sprung up on government and public land in urban and peri-urban areas. The settlements are unplanned, lack public services, and are usually constructed of substandard housing that is vulnerable to earthquakes and floods (Pokharel 2006; Paudyal 2006).

In the 1990s, approximately 100,000 Bhutanese of Nepali origin either fled or were forcibly expelled from Bhutan. For close to twenty years, the refugees have lived in seven camps located in the Jhapa and Morang districts of southeastern Nepal. Refugees are restricted to the camps and are entirely dependent on the support of the international community. The long-term presence of the refugee camps has caused tensions with host communities because natural resources are overexploited (Laenkholm 2007; UNHCR 2009).

LEGAL FRAMEWORK

Nepal is in the process of revising its legal framework governing land rights, with adoption of a new framework expected in 2011. The legal framework is expected to be governed by principles set forth in the 2007 Interim Constitution, the 2008 Comprehensive Peace Agreement, the 2008 Common Minimum Program of the National Consensus Government, and the Ministry of Land Reform and Management's Three Year Interim Plan (2007/08–2009/10) (GON Interim Constitution 2007a; GON and CPN Peace Agreement 2006; GON Common Program 2008; GON Interim Plan 2007b).

The Interim Constitution of Nepal, which became effective in 2007, grants every citizen the right to acquire, own, sell and otherwise dispose of property. The Interim Constitution calls for the elimination of feudalism and prohibits forced labor and the exploitation of people on the basis of custom, tradition, or usage (GON Interim Constitution 2007a).

The current legal framework governing land in Nepal includes the following formal laws:

1. The Land (Measurement and Inspection) Act (1963, as amended) sets out the classification of land and requirements for land survey and registration;
2. The Agriculture (New Arrangements) Act (1963) restates earlier legislation abolishing intermediaries and landlord systems of tenure;
3. The Land Administration Act (1963) establishes district-level land administration offices and sets procedures for maintaining land registration records; and
4. The Land Act (1964 ,amended eight times): (a) abolishes the system of intermediaries collecting taxes from tenants by transferring control over taxation to District Land Revenue Offices and Village Development Committees (VDCs); (b) transfers land managed by the state into private land (*raikar*); (c) imposes ceilings on agricultural land (ceilings were set at 16.4 hectares in the Terai, 4.07 hectares in the foothills and mountains, and 2.4 hectares in Kathmandu Valley); (d) limits rent to a maximum of 50% of gross annual production of main crop; (e) requires tenant certification, i.e., registration; (f) institutes a compulsory savings program; and (g) establishes a Commission on Land Use Regulation to address consolidation and fragmentation of land and incentivize farm cooperatives.

(GON Interim Plan 2007b; ADB 2006; Alden Wiley et al. 2008)

The new legal framework governing land tenure and administration in Nepal is expected to be guided by principles set forth in the Comprehensive Peace Agreement, which was signed by Nepal's Prime Minister and the

Chairman of the Communist Party of Nepal in 2006. The Peace Agreement calls for the: (1) nationalization of forests, conservation areas, and other lands that Nepal's monarchies had controlled; (2) end of feudal land ownership, establishment of a Land Reform Commission and adoption of a program of "scientific land reform;" (3) adoption of policies to provide land to landless and disadvantaged groups; (4) prevention of the ability to obtain land through corruption within government offices; (5) support for IDPs; (6) prohibition against illegal seizure of private property; and (7) support for principles of nondiscrimination (GON Peace Agreement 2006).

TENURE TYPES

Land in Nepal is classified as: (1) private land; (2) state land; or (3) *guthi* land. An estimated 27% of land in Nepal is privately held in ownership or under leasehold.

Ownership and leasehold. Nepal recognizes two land tenure types: ownership and leasehold. Landowners have rights to exclusivity and use of their land. Landowners can freely transfer their land and pass the land by inheritance. Nepal has no restrictions on how small plots can be, but imposes ceilings on plot size. An estimated 10% of rural households are registered as tenants under the Land Act of 1964. The actual numbers of households renting land is believed to be three times that amount. Most households renting in agricultural land also own their own land (Chapagain 2001; Alden Wiley et al. 2008).

State and government land. State land includes public land (defined to include wells, ponds, pathways, grazing land, cemeteries, market areas, etc.) and government land (defined to include roads, government offices, and land under government control, such as forests, lakes, rivers, canals, and barren land, etc.). An estimated 73% of land in Nepal is state land (GON 2004; Alden Wiley et al. 2008).

***Guthi* land.** *Guthi* land is land held by religious bodies for religious or philanthropic purposes and is not subject to taxation. *Guthi* land includes temples, monasteries, schools, hospitals, and farmland managed by religious institutions and individuals. About 0.03% of land in Nepal falls into this category (Alden Wiley et al. 2008).

Sharecropping. Most agricultural land is rented under short-term sharecropping arrangements, known as *adhiya*. Under *adhiya*, the tenant provides the labor and landowners supply some percentage of inputs. In principle, the tenant and landowner receive equal shares of the production, but the tenant rarely receives a half-share, either because he or she is in debt to the landowner or the landowner has supplied all the inputs. A second tenancy system, *thekka*, requires the tenant to pay a fixed share of production to the landowner. Highly exploitive systems that survived land reforms – such as those in which the tenant takes one-third or a one-tenth share – (and continuation of bonded labor) are known to exist but are not officially acknowledged in surveys (Chapagain 2001; Alden Wiley et al. 2008).

Prior to the land-reform efforts that began in the 1950s, there were two main forms of land ownership in Nepal: *raikar* and *kipat*. *Raikar* land was owned by the state and cultivated by tenant farmers on long-term agreements. *Raikar* land included land granted to individuals or families (*birta),* and land given to tax collectors *(jagir).* These grantees served as intermediaries, taxing tenants and reaping the benefits of their tenants' labor. Rights to *raikar* land could be inherited but not sold or transferred. Through legislative reforms, *raikar* land was converted to private landholdings (Regmi 1976; Shreshta 1990).

Nepal's land-reform legislation converted communal land (*kipat*) that had historically been held by indigenous groups into state land (*raikar*) in the 1950s. Land-reform legislation subsequently converted *raikar* into private land, and a 1967 amendment to the Land Act reasserted the abolishment of all communal land. Ethnic communities lost rights to land through this privatization and the nationalization of forestland in 1957 (Alden Wiley et al. 2008; Regmi 1976).

SECURING LAND RIGHTS

Land rights can be acquired by inheritance, purchase, government land allocation, or tenancy. Most rural landholdings are owned; about 72% of urban residents claim ownership of their plots, although their rights may be informal and not recognized by formal law. Most people obtain land through inheritance and the land-sale or rental markets. Roughly 20% of urban landowners obtained their plots through inheritance, and 23% rent their plots (GON 2004; Pokharel 2006; Parajuli 2007).

Urban land can be purchased or leased. Urban land – especially plots in established residential areas with services – is limited and high-priced. The vast majority of urban housing is in informal settlements on public or government land. The settlements are unplanned, crowded, and usually lack services. While these settlements can be formalized, the process must be initiated by the government and is time-consuming and expensive, involving the formation of national and district commissions, cadastral surveying, land registration, and development of infrastructure (Pokharel 2006; Paudyal 2006).

The government has provided land through regularization of land settlements in the 1970s and 1980s and limited land allocations to the landless and land poor. In 2003, about 12,000 former bonded-laborer households each received 0.16 hectares of land and assistance with house construction and tools (Alden Wiley et al. 2006).

Decades of changing land laws and reforms, civil conflict, high levels of migration, and inadequate documentation of land rights contribute to a lack of tenure security. Some rural landowners allow land to lie idle rather than renting it out for fear of tenants gaining rights to the land under land reform laws. Those tenants who do cultivate land are often subjected to eviction every one or two years by landowners who fear tenant claims of ownership rights to land. The government has processes for regularization of informal settlements in urban and peri-urban areas but there is no evidence of implementation of any plans for regularization (Alden Wiley et al. 2008; World Bank 1999).

Nepal has a manual land registration system with records created, maintained, and transferred in paper form. The records are vulnerable to loss, destruction, and distortion and misinformation. Maps are incomplete and outdated. An estimated 48% of all landholdings are registered in Nepal, but the records often go back decades and are not considered reliable. Efforts to develop electronic information systems are underway (ADB 2007; Alden Wiley et al. 2008).

Registration of land in Kathmandu requires about five days and payment of 4.8% of the property value. The process requires obtaining a letter from the Village Development Committee (VDC) confirming whether the land had road access; obtaining a tax clearance certificate from the local government; hiring a lawyer or scribe (*lekhandas*) to draft the deed; and registering the deed with the Land Registration Office, which checks the authenticity of the seller. The process also requires obtaining confirmation that the land is not under tenancy and is not mortgaged. In order to obtain an ownership certificate, the new owner must provide a Citizenship Certificate and photos – requirements that discourage the poor from registering land. Most landowners have not registered their landholdings. An estimated 1.6 to 2 million urban and rural households have been living on public land (including river banks and roadside areas) for generations but do not have registered land rights (ADB 2007; World Bank 2009b; Alden Wiley et al. 2008).

Foreigners cannot own or rent land in Nepal. Foreigners may acquire land in the name of the business entity registered in Nepal; however, they may not acquire land as personal property. It is widely believed that foreigners own and rent land on the informal market (Chapagain 2001; USDOS 2010).

INTRA-HOUSEHOLD RIGHTS TO LAND AND GENDER DIFFERENCES

Under the formal law, women in Nepal can access land through inheritance, land purchase, leaseholds, and government land allocations. The 2007 Interim Constitution provides that all Nepali citizens are equal under the law and forbids gender-based discrimination. The Interim Constitution states that daughters and sons have equal rights to inherit ancestral property, and the constitutional mandate of equality takes precedence over inconsistent traditions, custom, and practices (GON Interim Constitution 2007a).

BOX 3. LAND AND GENDER INDICATORS

	Score
OECD: Measuring Gender In(Equality)—Ownership Rights, 2006	
— Women's Access to Land (to acquire and own land) (Range: 0-1; 0=no discrimination)	1
— Women's Access to Property other than Land (Range: 0-1; 0=no discrimination)	0.6
— Women's Access to Bank Loans (Range: 0-1; 0=no discrimination)	0.7
FAO: Holders of Land Classified by Sex, 1993	
— Percentage of Female Holders of Agricultural Land	6.4

Roughly 8% of all registered landholdings are in the name of women, and women hold about 5% of the land in Nepal. Women's land ownership is highest in urban areas in the eastern part of the country. In 30% of the households in Kathmandu and Kaski, women own some land (GON 2004; Alden Wiley et al. 2008).

A GON 2006/07 directive waived land registration fees for land registered in the name of women, the disabled, and members of disadvantaged groups. Land registration in women's names more than doubled following the adoption of the directive. In 2008, 33% percent of land holdings registered in 11 districts were in women's names (Alden Wiley et al. 2008).

Under Nepal's Civil Code (1975), known as *Muluki Ain*, women have the right to own and partially control their own personal property, to marry freely, and to remarry following divorce or widowhood. The Civil Code also contains biases against women's property rights by emphasizing the rights of the kin group (the husband's lineage, including ancestors) to land and limiting inheritance rights. Women's rights to inherit property are determined by marital status and age. Unmarried daughters under age 35 do not inherit their parents' property. Unmarried daughters over the age of 35 inherit equally with sons. If the daughter subsequently marries, she must transfer her inheritance share to the other heirs. Widows can inherit property from deceased spouses but must share any inheritance with their sons (FWLD 2002; *Landtenure.Info* 2008; Gilbert 1992).

The *Muluki Ain* codified and formalized an orthodox, upper-caste strand of Hinduism. Women's ability to exercise rights to land vary within different customary traditions. For example, Sherpa customary family laws are more favorable to women's property rights than the formal law (Gilbert 1992).

Focus groups report that the reasons women do not own land include: men run society, women risk divorce if they ask for land, there is not enough land, and women do not feel the need to own land. Women also cite their low levels of ownership as the result of cumbersome government procedures, lack of support in the law for the rights of women, and concern in families that women owning land will deprive the family in the event of remarriage (Alden Wiley et al. 2008).

LAND ADMINISTRATION AND INSTITUTIONS

The Ministry of Agriculture and Cooperatives is responsible for the agricultural sector and includes the Department of Agriculture, Department of Livestock Services, Department of Cooperatives, and the Department of Food Technology and Quality Control. The ministry has the goals to: (1) reduce poverty through increased agricultural production and productivity; (2) make Nepali agricultural products competitive in the regional and world markets; and (3) conserve natural resources, the environment, and ecological diversity and utilize natural resources for sustainable agricultural development. The Ministry's responsibilities include: formulation of agricultural and cooperative development policy; implementation of development activities with relation to cereal crops and livestock; operation of agricultural farms and research projects; and training of farmers (GON MOAC n.d.).

LAND MARKETS AND INVESTMENTS

Nepal's land-sale market is active in both rural and urban areas, but the bulk of sales transactions are in urban land. Land values have been rising, particularly since the end of the conflict and in the Kathmandu Valley. In Deng District in the Terai, 13% of holdings were transferred in 2007–2008, and the number of landowners increased by 9% (Acharya 2009; Alden Wiley et al. 2008; Mathema 1999).

In urban areas, the rising population has outpaced development of residential areas. Land developers are often selling land without verification of boundaries and based on inaccurate documents, including maps. The unregulated practices are leading to sprawling, unplanned urban development, land disputes, and insecure tenure (Acharya 2009).

The land-lease market is active, with a national estimate of 30% of the rural population renting agricultural land. Almost all rural land is rented under sharecropping agreements rather than for monetary payments (GON 2004; Alden Wiley et al. 2008).

COMPULSORY ACQUISITION OF PRIVATE PROPERTY RIGHTS BY GOVERNMENT

The Interim Constitution of Nepal permits the state to acquire land if such acquisition is in the public interest. "Public interest" is undefined. The government must compensate the landholder for any land-taking, including any acquisition in the course of land-reform initiatives. The Interim Constitution provides that the process for land acquisitions and the determination of the amount of compensation shall be set by law (GON Interim Constitution 2007a).

The Land Acquisition Act, 1977, governs the compulsory acquisition of land and is consistent with the Interim Constitution to the extent that it provides that land may be acquired for any public purpose, subject to compensation. Under the Land Acquisition Act, compensation to landholders must be paid in cash at current market value, although there is provision for in-kind compensation under some circumstances. The compensation rate is determined by a committee formed under the chairmanship of Chief District Officer that includes local government representatives and representatives of those impacted by the expropriation. The Land Acquisition Act predates the Interim Constitution and it may be superseded by subsequent legislation (ADB 2006; GON Land Acquisition Act 1977).

The 1964 Land Act, as amended, requires the state to recognize the rights of registered tenants on land. The state must compensate the landowner and registered tenant for any land expropriation, dividing the compensation equally between them (ADB 2006).

LAND DISPUTES AND CONFLICTS

Nepal has a high volume of land disputes. Land disputes are the largest category of cases brought in Nepal's court system. The high number of land cases is attributed to the lack of reliable land records, high amounts of migration during the conflict period, and pressure on land and access to natural resources. In addition, a substantial number of land disputes relate to disagreements within families over land partition and the order of succession. In the period 1999–2003, 40,000 cases brought in formal courts (31% of those filed) were land disputes. The courts also have high numbers of separately classified landlord-tenant disputes and family law cases, which could involve property disputes. Nepal's Three-Year Interim Plan noted that there was a backlog of 103,000 land cases awaiting resolution (ADB 2007; USDOS 2010; Alden Wiley et al. 2008; Upreti n.d.).

Land cases usually take at least one year to resolve in the formal court system and often several years. Adjudication of rights within the formal court system, which includes district courts, appellate courts, and a Supreme Court, requires a substantial investment of time, knowledge of the system, and financial resources. The poor and marginalized tend to pursue claims in other more accessible forums, including District Revenue Department offices and, in isolated cases, "People's Courts" that Maoist rebels established to handle claims. The Local Self Governance Act, 1999, gave the VDCs the power to handle 13 different types of disputes, including some land-related matters such as boundary issues and encroachment. The extent to which VDC courts are operating is unknown (Alden Wiley et al. 2008).

KEY LAND ISSUES AND GOVERNMENT INTERVENTIONS

The Common Minimum Program set forth by the National Consensus Government in 2008 states the government's commitment to: (1) ensuring "scientific land reforms," which it defines as a comprehensive program that improves land productivity (including support for commercialization of agriculture) and ensures access to scientific land information, administration, and services; (2) compensating those who lost their property due to the conflict; and (3) allocating land or otherwise providing for the needs of agricultural laborers, freed bonded laborers, and landless squatters (GON Common Program 2008).

The Three-Year Interim Plan (2007/08 – 2009/10) of the Ministry of Land Reforms and Management Policies includes a litany of activities, focusing on: (1) land allocations for the poorest; (2) reorganization of land administration, development of a land information system and digitization of the cadastre and land records; (3) half-price land registration for women and marginalized groups members; (4) development of a legal framework that includes leasing and cooperative farming; (5) review of the role and scope of the *Guthi* (Trust) Corporation and arrangements made for administering *guthi* land through revenue offices; (6) capacity-building for land officials; and (7) removal of the backlog of pending land disputes cases by reviewing legislation, regulations, procedures and establishing a tribunal to clear cases, including applications for land registration, tenancy, and ceilings (Alden Wiley et al. 2008).

Nepal's Agricultural Perspective Plan (APP) (1995–2015) outlines a strategy for agriculture in Nepal that includes plans to ensure food security, management of natural resources, and support for the commercialization of agriculture. The priorities of the APP are to support high-value cash crops and livestock production, agribusiness, and forestry to accelerate growth in agricultural output for improved food security and for poverty alleviation and sustained economic development. The Food and Agriculture Organization (FAO) is working with the GON to operationalize the APP with numerous projects ranging from providing policy assessments to the provision of

inputs for vulnerable communities to technical assistance to a community livestock development project (Karkee 2008; FAO 2010).

DONOR INTERVENTIONS

USAID has supported programs in agriculture, natural resource governance, and the rule of law in Nepal. The main focus of USAID's agricultural programs has been to contribute to increased sustainable production and sales of forest and high-value agricultural products. Current programs are focused on improving the business environment for private-sector-led growth and increasing competitiveness and exports in selected agricultural and non-agricultural commodities and services. USAID funding has helped establish agricultural value chains in 18 districts, increased the cumulative sales of high-value crops by US $28 million, and increased annual household incomes in project areas by over 50% per year (Karkee 2008; ARD 2006; USAID 2010; USDOS 2009).

The Asian Development Bank (ADB) is supporting the GON's modernization of its land administration system by helping upgrade the land information system with modern technology and increasing access to public records. With the support of Finland, FAO's Open Source Cadastre and Registration Project (OSCAR) is piloting low-cost open-source software to develop and maintain a cadastre and land records in Nepal. ADB and FAO are providing support for the GON's development of a comprehensive land policy and new legal framework governing land rights and land reforms (ADB 2007; Narendra 2010; FAO 2010).

The World Bank is funding a 6-year (2009–2015) US $23 million Project for Agriculture Commercialization and Trade (PACT). PACT will work with farmer groups, cooperatives, and agribusinesses in 25 districts to improve competitiveness of small farmers through sub-projects designed to improve market access for selected commodities and reduce obstacles to agricultural and food trade (World Bank 2009c).

The GON, International Organization for Migration, and donor countries have facilitated the large-scale resettlement of Bhutanese refugees living in camps in eastern Nepal. As of late 2009, over 20,000 Bhutanese had been resettled in third-party countries. Tens of thousands of Bhutanese refugees remain in Nepal (UNHCR 2009).

2. FRESHWATER (LAKES, RIVERS, GROUNDWATER)

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Nepal has a wealth of water resources, with a mean annual rainfall of 1500 milimeters and hundreds of rivers, lakes, and streams. The country has five river basins. Three major river systems – the Koshi, Gandaki, and Karmnadi – originate from mountain glaciers and snow-fed lakes, traverse Nepal, and drain into the Ganges River in India. The steep gradient of the rivers flowing out of the Himalayas creates significant potential for hydropower, and small- and medium-scale hydropower systems have been built to serve remote communities and urban areas (FAO 1999a; ARD 2006).

More than 96% of Nepal's water is used for agriculture, roughly 3% for domestic purposes, and less than 1% for industrial use. Nepal's groundwater resources have not been fully assessed but appear to exist at good levels. The country has 200 cubic milimeters of annual internal renewable water resources and the highest level of water resources per capita in Asia (7051 cubic meters). Ninety-four percent of the urban population and 87% of the rural population have access to improved water resources, although delivery is often interrupted and water pollution is a growing problem. Access to drinking water can be limited in the hills and mountains, especially during the dry season (World Bank 2009a; FAO 1999a; ARD 2006; UNESCO 2006).

Nepal's major rivers feed large irrigation systems in the Terai and smaller systems in the hills. The total irrigated area is estimated at 1.1 million hectares, which is about half the area that is potentially irrigable. Most irrigation systems rely on surface water. Irrigation systems include: (a) traditional farmer irrigation systems developed, owned, and managed by communities; (b) systems developed with full or partial support of the government; (c) large-outlay surface irrigation schemes; (d) government-developed tube well irrigation schemes; and (e) individually owned and operated tube wells and pumps (mostly utilizing shallow aquifers, streams, ponds, and dug wells) (World Bank 2007; ARD 2006; FAO 1999a).

Unequal access to water has caused tension in the country, especially where competing water-uses (e.g., irrigation, drinking water, hydropower, and industrial use) vie for access to water resources. In some areas of the

Terai, some wealthier irrigation users have tended to benefit more and pay proportionally less in maintenance fees and time than poorer users, causing disputes (ARD 2006).

Water resources are often stressed in the Kathmandu Valley. During long dry spells, wells in the Valley dry up and drinking water is limited. Discharge of untreated sewage and industrial waste pollute the valley's rivers, causing outbreaks of waterborne diseases. Climate change is expected to impact the entire country; global warming is predicted to accelerate glacier melt in the Himalayas, increasing flooding and ultimately decreasing river flow and freshwater resources as the glaciers recede (ARD 2006; Yamada and Sharma 1993; Dhungel 2009).

LEGAL FRAMEWORK

The 2007 Interim Constitution provides that state has the responsibility to use existing natural resources, including water resources, in the interest of the nation. The Interim Constitution further provides that as the state mobilizes natural resources in the interest of the nation as a whole, the state shall also pursue a policy of giving priority to local people (GON Interim Constitution 2007a).

The Water Resources Act (1992) and Water Resources Regulations (1992) govern the use and management of the country's water. The Water Resources Act provides that the state owns Nepal's water resources and prioritizes domestic use, irrigation, and other agricultural uses of water over other water uses (GON Water Act 1992a; GON Water Regulations 1992b).

The Soil and Watershed Conservation Act empowers the government to declare any area as a protected watershed to limit degradation of land by floods, waterlogging, salinity in irrigated areas and acceleration of siltation in storage reservoirs, and to allow for proper management of the watersheds (FAO 1999a).

TENURE ISSUES

Under the Water Resources Act, individuals can use water without charge for domestic purposes, for irrigation of their land on an individual or collective basis, and as necessary for operation of cottage industries. The law provides for the formation of water user groups for collective management of water resources. Other water uses require licenses (GON Water Act 1992a).

Licenses for water use are available by application to the appropriate authority and payment of a fee. Licenses to use water may be revoked for failure to abide by the Water Resources Act or for defaulting on payment (GON Water Act 1992a).

The Water Resources Act prohibits water users from causing damage and prohibits polluting or degrading water resources (GON Water Act 1992a).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Ministry of Water Resources (MOWR) has primary responsibility for the management of Nepal's water resources. The Ministry includes the Department of Hydrology and Meteorology, which is responsible for water resources assessment and monitoring. A separate Ministry of Irrigation (MOIR) is responsible for all aspects of the country's planning, design and implementation of major and minor irrigation systems and the sustained operation and maintenance of some of the completed systems. The Water and Energy Commission Secretariat (WECS) is a consultative body of the Government (GON 2010; FAO 1999a).

Nepal has well-established institutions for the management of the thousands of Farmer Managed Irrigations Systems (FMIS) in the country. Most of the FMIS are in the hills, while Government Managed Irrigation Systems (GMIS) in the Terai commonly cover tens of thousands of hectares, with thousands of users and established water user groups (ARD 2006).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

The GON's 2002 Water Resources Strategy and 2005 National Water Plan recognize: the country's need for an integrated and comprehensive water policy and river basin planning; the need for improvement of water delivery in rural areas; the creation of plans for water pricing and cost recovery; and the establishment of water quality standards. The Strategy and Plan articulate the following objectives: (1) adoption of measures to manage and mitigate water-induced disasters; (2) sustainable management of watersheds; (3) provision of adequate supply of

potable water and sanitation; (4) appropriate and efficient irrigation systems; (5) cost-effective hydropower; (6) economic use for water for industry; (7) support for regional cooperation regarding water resource management; (8) enhancement of water information systems; and (10) development of a legal framework and supporting institutions (GON 2002; World Bank 2007).

In its 2002–2007 five-year plan, the GON set a target for increasing electricity production from small hydropower to provide off-grid electricity to 12% of the population. By subsidizing decentralized micro-hydro schemes, the GON planned to provide electricity to underserved communities. As of 2008, 2200 micro-hydropower plants had been installed (UNESCO 2006; Ghimire 2008).

DONOR INTERVENTIONS AND INVESTMENTS

USAID/Nepal programs have helped 64,000 households to adopt micro-irrigation systems (treadle pumps, drip systems, sprinkler systems, and low-cost water storage) and provided technical assistance to more than 3600 farmer groups (55% women members) in 2008–2009. In 2006, USAID funded a hygiene improvement project, "Bringing Consumers to the Table: Perceptions and Practice of Household Water Treatment Methods in Nepal." USAID has also provided funding support for the construction of two micro-hydropower plants providing electricity to nearly 5400 households and 20 community enterprises, developed the Nepal Electricity Authority's capacity to improve cross-border power trade with India, and supported an Alternative Energy Promotion Center to establish a regional center of excellence in micro-hydropower (USAID 2009a; HIP 2006; IRG 2007).

The World Bank-funded Irrigation and Water Resource Management Project, which began in 2008 with US $48 million, has been extended through 2013 with an additional US $14 million in funding. The project objectives are to help the GON improve agricultural productivity, improve management of selected irrigation schemes, and improve institutional capacity for integrated water resources management. As of 2009, the project had helped the GON form water user associations in 73 project areas and had started construction of 18 irrigation schemes, with farmers contributing labor. The project is helping the GON strengthen the Water and Energy Commission Secretariat with water resources information and investor assets, and has developed water user association training programs. The project is complemented by the US $96 million World Bank-funded Poverty Alleviation Fund Project II (PAF II), which has a component focusing on supporting GON irrigation and water supply projects (in addition to livestock and social service projects) for socially marginalized groups. Despite implementation setbacks, the project has reached 10,000 community groups (World Bank 2009d).

The US $41 million Second World Bank-funded Rural Water Supply and Sanitation Project (2008–2013) is designed to support the GON's efforts to improve rural water supply and sanitation sector performance and support formation of local water supply and sanitation user groups that can plan, implement, and operate drinking water and sanitation infrastructure. As of 2009 the project had helped form water and sanitation user groups in 1166 scheme areas, constructed 55,304 household latrines, and provided improved water supply facilities to about 433,000 people through 589 schemes. Another 1782 schemes are in development stages (World Bank 2009d).

3. TREES AND FORESTS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Nepal's forests cover 3.9 million hectares (26% of total land area) and include 35 forest types and an estimated 5100 species of flowering plants (700 with medicinal properties). From the southern border area to the inner Terai, Nepal has forests of moist evergreens, subtropical pine, sal (*shorea robusta*) forests, and some dry, deciduous forests. The middle and high mountainous regions of the country have broadleaf and coniferous forests, and the High Himal region is characterized by alpine forests of birch and juniper trees and bushy rhododendrons (World Bank 2009a; WRI 2003; Forestry Nepal n.d.).

Nepal's forests provide households with critical sources of food, medicine, building materials, and animal fodder. The size of agricultural landholdings makes a significant difference in household dependency on forestland. Landless and near landless households are the most forest dependent. Between 80–93% of the land relied on by the poorest households with less than 1 hectare of land is forestland. In contrast, only 28% of the total land relied on by farmers with 10 hectares or more is forest (Sharma 2000).

Nepal has 17 protected areas, including eight national parks, four conservation areas, four wildlife reserves, and one hunting reserve. Nepal's forests are home to about 175 species of mammals, 836 bird species, 147 reptile and

amphibian species, 180 species of fish, and at least 6000 species of moths. Of these, 26 mammal, nine bird, and three reptile species are endangered, vulnerable, or threatened, including the red panda, snow leopard, and hispid hare. The Sagarmatha National Park in the Himalayas covers an area of 1148 square kilometers and includes Mount Everest (Sagarmatha). About 3500 Sherpas reside in the park, relying on agriculture, use of forest products, and tourism for their livelihoods (FAO 1999b).

Deforestation is a major problem in Nepal, with substantial environmental and economic consequences. Overall, Nepal lost 1.2 million hectares of forestland between 1990 and 2005, though annual deforestation rates vary by region (e.g., 1.3% in the Terai, 2.3% in the Hills). Throughout the country, forests supply the fuelwood relied on by 87% of the population for domestic energy. Many forests have been cleared for agriculture, and large tracts have been degraded through illegal harvesting of large trees by villagers, smugglers from India, and Maoist insurgents. The advent of community forestry in Nepal and the attention paid to the development of community forest programs briefly reversed the rapid rate of deforestation in the 1990s. However, from their inception, the community forest programs contained several structural weaknesses. In general, the programs did not emphasize sustainable land-use practices and forest conservation, limited community involvement in forest management to narrow areas and forest uses, and set short time frames for operational planning. As a result, most of the programs did not assist communities in developing long-term plans for sustainable management of the forests to support their economic and livelihood needs. When social unrest increased, communities resumed unsustainable practices, such as unrestricted grazing, gathering fuelwood, and clearing forestland for agriculture (WWF n.d.; ARD 2006; Dangi 2009).

During the Maoist conflict, the insurgents vacillated between protecting forest resources and threatening them. Maoist military operations were partially funded in some areas by “taxes” on natural resources, including timber, non-timber forest resources, medicinal and aromatic plants, crops from irrigated land, and national park visitor fees. The insurgency disrupted management of, and created conflict over, forest resources by removing government oversight and support, creating an atmosphere of insecurity and distrust, and replacing the government’s legal framework with Maoist management directives. The Maoist insurgency lessened security inside national protected areas, providing opportunities for wildlife poachers and illegal loggers (ARD 2006).

LEGAL FRAMEWORK

The Forest Act 2049 (1993) governs the forest sector in Nepal. The Forest Act broadly defines forests to include all forest areas, including wasteland and uncultivated lands surrounding and adjoining forests, and all rivers and streams within forests. The state has the authority to designate for protection any part of national forest with special environmental, cultural or scientific significance. The Act directs the Department of Forests to prepare an operational plan for every protected forest in Nepal and those forests that directly contribute to the conservation of biodiversity in areas located outside national parks and reserves (FAO 1999b).

The Forest Act gives the state the authority to transfer some degree of management of forests to sanctioned users, including Community Forest User Groups (CFUGs), to protect the forest from overuse and to rehabilitate degraded sections of the forest. Nepal’s Forest Regulations 2051 (1995) set additional standards for the operation of government-managed forests, Protected Forests, and Community Forests. Almost immediately after the enactment of the Forest Act, the GON initiated a series of efforts (some successful) to enlarge its authority over management of community forests, including imposition of a tax on community forest products (initially 40%, reduced to 15% after protests), restriction on selling forest products on the open market, and fixing rates for timber and firewood (Ojha and Timsina 2007).

TENURE ISSUES

The Forest Act of 1993 classifies forest as either private forest or national forest. Private forests are forests that are planted, nurtured, or conserved on private land owned by an individual pursuant to prevailing law. All other forests are national forests. No person or entity can acquire any rights in national forest, except those obtained through state lease or permit, which cannot be transferred. The Forest Act identifies five types of national forest:

1. Government Managed Forest is national forestland managed by the state. Ownership of all forest products of Government Managed Forest is vested in the government, although the government may grant a license for the use of such products.

2. Protected Forest is national forest that the state has designated as having special environmental, scientific, or cultural importance and thus protected.

3. Community Forest is national forest that the state transfers to a Community Forest User Group (CFUG) for development, conservation, and utilization in the collective interest. The state retains ownership of a Community Forest and can extinguish a user group's authority over the forest section upon notice;

4. Leasehold Forest is national forest that the state grants to individuals or entities as a Leasehold Forest to (a) produce raw materials required for industry; (b) sell, distribute or utilize forest products by promoting production for afforestation; (c) operate tourism in a manner compatible with conservation and development of the forest; (d) operate agroforestry; and (e) operate insect farms. Leaseholds are granted for 40-year terms. As between Community Forests and Leasehold Forests, priority is granted to community forestry: any part of the National Forest suitable for a Community Forest shall not be granted as Leasehold Forest.

5. Religious Forest is national forest transferred to a religious body, group, or community for development, conservation, and utilization. Ownership of the Religious Forest does not transfer; the state can reclaim a Religious Forest.

(GON Forest Act 1993; FAO 1999b).

The legal framework supports community-based forestry management, but the state retains substantial control over forest access, use, and benefit from forest products. The Department of Forestry (DOF) designates certain forests Community Forests, approves the constitution and registration of CFUGs, and usually has significant input into and authority over their work plans. The Forest Department approves forest access and has the right to cancel access and use-rights at any time. The law contains no right of appeal from DOF decisions (GON Forest Act 1993; FAO 1999b).

The regulations limit the user group to collecting, selling, and distributing products only in accordance with the work plan, and set forth prohibited activities, such as clearing land for agriculture, destroying the forest, transferring or mortgaging the land, and building huts and houses. The regulations also establish requirements for the use of the user-group funds, and set procedures for the government's resumption of Community Forest (GON Forest Regulation 1995; Forestry Nepal n.d.).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Ministry of Forests and Soil Conservation (MFSC) is the policy-making body for forests and wildlife management. The Ministry has five departments, including the Department of Forestry, which is responsible for managing Nepal's forests, including demarcation, control, and conservation of forest areas outside the protected area network. The Community and Private Forestry Division of the DOF carries out forest development, management, and utilization work on community and private forests; the Planning and Training Division formulates plans and programs for the conservation and promotion of Nepal's forests and their rational utilization; and the Extension Section provides information, including research findings and technologies, for the conservation of forest resources. The Department of Forest Research and Survey conducts inventories and research activities in the areas of afforestation, silvicultural use of forest resources, agroforestry technology, and tree improvement. The Department of Plant Resources conducts research related to the conservation, promotion, and utilization of plant resources. The Timber Corporation of Nepal (TCN) is a semi-autonomous body under MFSC that has the authority to sell government timber on the open market. The Forest Products Development Board (FPDB) is a semi-autonomous entity that manages plantations and sells roundwood, fuelwood, and poles harvested from those plantations (GON MFSC n.d.; Forestry Nepal n.d.).

The MFSC also includes the Department of National Parks and Wildlife Conservation (DNPWC), which coordinates and implements activities related to wildlife management in national parks, wildlife reserves, and conservation areas. The Department of Soil Conservation and Watershed Management is responsible for conservation plantations, water-source protection, and land use studies that support soil and biodiversity conservation (GON MFSC n.d.).

As of 2009, Nepal had 14,439 Community Forest User Groups (CFUGs) and a membership of roughly 1.6 million households. The CFUGs manage over 1.2 million hectares of forestland throughout the country. The Federation of Community Forest Users, Nepal (FECOFUN) was established in 1995 with representatives from 40 CFUGs

across 28 districts. FECOFUN's purpose is to develop and sustain a network of CFUGs to promote cooperation and collaboration among member forest groups, enhance learning from shared experience, and promote and advocate for community forestry. FECOFUN's membership currently includes about 1400 CFUGs. FECOFUN has branches in all of 75 districts and is Nepal's largest civil society organization. FECOFUN has established a position of power with the GON on matters relating to forest management and has had some success in supporting the rights of community forest users in the development of national policy and legislation. FECOFUN is challenged by its dependence on donor funding and representative representation of forest users, as well as the increased politicization of its Central Executive Committee. Poor and marginalized groups are underrepresented within FECOFUN, and despite its federated structure the organization is centrally- managed, potentially impacting its ability to serve the interests of its membership (LFP 2009; Ojha and Timsina 2007).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

The GON's 1989 Master Plan for the Forest Sector is a 25-year framework governing the sector through 2014. The Master Plan's long-term sector objectives are to: (1) meet the people's basic needs for forest products on a sustained basis; (2) conserve ecosystems and genetic resources; (3) protect land against degradation and other effects of ecological imbalance; and (4) contribute to local and national economic growth. The plan lays out six programs for the forestry sector, putting the most emphasis on the community and private forestry development program. The aims of the country's program are to: (1) meet the basic needs of the population for fuelwood, timber, fodder, and other forest products on a sustained basis and to contribute to food production through the interaction between forestry and farming practices; (2) protect the land from degradation and ecological imbalance; (3) conserve the ecosystem and genetic resources; and (4) contribute to the growth of land and national economics by managing forests and forest-based industries and creating opportunities for income-generation and employment. Nepal's community forestry program has become a primary institution through which Nepal's community forests are managed. The program's achievements in its first generation include some improvement in the health of Nepal's forests. However, in general, the programs have not helped prevent the rapid rate of deforestation in much of Nepal's forestland. In many cases, the control exercised by elites and government officials and the narrowness of selected programs have prevented marginalized community members from participating meaningfully in decision-making and benefit-sharing(GON Master Plan 1989; Jayaswal and Oli 2003; Springate-Baginski et al. 1999).

DONOR INTERVENTIONS AND INVESTMENTS

Through its Strengthened Actions for Governance in Utilization of National Resources (SAGUN) and the Strengthening Role of Civil Society and Women in Democracy and Governance (SAMARPAN) Programs, USAID/Nepal has been actively engaged in Nepal's community forest management program since the early 1990s. USAID-funded projects have provided training and support to 1700 CFUGs managing 163,000 hectares of forestland. Projects have improved the internal governance of CFUGs through adoption of transparent, accountable, and participatory practices. Projects have encouraged more equal participation of disadvantaged groups and women within the CFUG management structure and developed mechanisms for more equitable sharing of resources and benefits among user-group members. USAID has supported Nepal's Institute of Forestry with curriculum-development and training and applied research and has improved the management of over 60,000 hectares of forest area by helping communities improve sustainable forest management practices (USAID 2009a; USAID 2009b).

DFID funds the Livelihood Support Programme (LSP) (2001–2011), which is active in 15 districts, where 4500 CFUGs are managing 396,000 hectares of forestland. LSP initiatives focus on sustainable forest management, enterprises development, employment, and governance. LSP helps CFUGs with identification cards, provides soft loans and funding for the development of income-generation schemes, and assists with formation and reformation of CFUG governance bodies. In Terhathum District, LSP reports improvement of livelihoods: in a 3-year period, 16% of households rated as poor moved out of poverty, and 42% of those who had been ranked as very poor moved out into the poor category. In Upper Arkhala District LSP helped the CFUGs reform their executive committee, which had been dominated by wealthy community members, to include women and a significant number of representatives from marginalized groups (LSP 2009).

IFAD and FAO are funding an 8-year (2005–2013), US $13 million program on leasehold forestry and livestock development. The program is being implemented in 22 districts in the middle hills region, focusing on households

living in areas adjacent to degraded forest who cannot secure enough food for their families year round. The overall goal is to reduce poverty by allocating leasehold forestry plots to poor families to enable them to increase incomes by improving household forage and tree-crop production, household production of livestock, and providing access to microfinance institutions. The prior IFAD-FAO Hills Leasehold Forestry and Forage Development Project (1991–2003) helped create 1773 leasehold groups, which obtained 40-year leases to 7457 hectares of degraded forestland. The leasehold groups regenerated the land, and annual incomes for the lessees rose from US $270 to $405 (IFAD 2009; IFAD n.d.).

With financial support from a Seattle women's association and CARE, Nepal's Legal Aid and Research Center (LARC) is implementing a 3-year (2010–2013) US $168,000 project, Strengthening Action for Empowerment of Women through Economic Opportunities. The project is designed to improve livelihoods of poor Dalit women in Nawalparasi district of the western region of Nepal. Project activities will focus on use of forest resources and agriculture to generate income and will be implemented in 15 village development committee areas (CARE-Nepal 2010).

4. MINERALS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Nepal has very modest mineral resources, including small deposits of cobalt, copper, iron ore, lead, limestone, magnesite, mica, and zinc. The country has small-scale mines of coal, peat, clay, salt, talc, quartz crystals, and gem stones in operation. Mining and quarrying contributed less than 1% of the GDP for Nepal in 2007 (GON DMG n.d.; USGS 2007).

Many known prospective mineral resources in Nepal have not yet been fully explored: the Terai has potential for gravel, sand, and petroleum reserves, and the Himalayas have potential for mining of construction materials, petroleum and natural gas, and gemstones. Semiprecious stones (such as garnet and tourmaline) and precious stones (such as ruby and sapphire) have been found in several parts of the country and are of good quality, although the cost of extraction is high due to the remoteness of locations and lack of infrastructure (GON DMG n.d.)

An estimated 32,000 children are working in Nepal's small-scale mining operations. They are most commonly from poor households and lower castes. The children working in the mines report frequent injuries and rarely attend school. An estimated 11% of the child mine workers begin work before they are eight years old (ILO 2005).

LEGAL FRAMEWORK

The Mines and Mineral Act 2042 (1985), as amended, and the Mines and Mineral Regulation 2056 (1999) govern the operation, regulation, and administration of the minerals sector in Nepal. The Mines and Minerals Act and Mines and Minerals Regulation establish the authority of the Ministry of Industry and Department of Mines and Geology, govern the rights and obligations of licensees, impose environmental protection requirements on mining operations, and regulate the sale and export the products of mining activities (GON Mines Act 1985; GON Mines Regulation 1999).

Article 22 of Nepal's 2007 Interim Constitution specifically provides that no minor shall be employed in mines or other hazardous work. Nepal has also ratified international conventions that make child labor in mining a crime. In 1997, Nepal ratified the International Labour Office's (ILO) Minimum Age Convention 138 (1973), which sets a minimum age of 18 for work that has the potential to jeopardize the health, safety or morals of young people. In addition, in 2002, Nepal has ratified the ILO's Worst Forms of Child Labour Convention 182 (1999), which calls for immediate measures to prohibit the worst forms of child labor. Despite the constitutional mandate and international commitments, however, an estimated 127,143 children in Nepal continue to work in the worst forms of child labor, including mining (GON Interim Constitution 2007a; ILO 2010; ILO 2009).

TENURE ISSUES

The Mines and Mineral Act provides for prospecting licenses and mining licenses. Applicants can obtain prospecting licenses to explore mineral resources where quality and volume have not yet been determined; mining licenses are available for extraction of identified mineral reserves (GON Mines Act 1985; GON DMG n.d.).

The Department of Mines and Geology (DMG) grants prospecting licenses for 2–4 years, with possible extensions of 1–2 years. Licensees can explore areas up to 250 square kilometers. Mining licenses are granted for areas up to 25 square kilometers for periods of 5–30 years, with potential for renewals of 1–10 years. The government has the right to participate in mineral development activities as a partner (GON Mines Act 1985; GON DMG n.d.).

The Mines and Minerals Regulation provides licensees with rights to use land required for the mining activities and the right to sell and export products of mining activities. The GON charges royalties based on the type and quality of mineral production (GON Mines Regulation 1999; GON DMG n.d.).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Department of Mines and Geology (DMG) is within Nepal's Ministry of Industry, Commerce, and Supplies and is responsible for conducting geo-scientific research, carrying out exploration, evaluating mineral and energy resources, and promoting mineral-based industries. The DMG's responsibilities include: (1) improving geological knowledge by conducting geological investigations and research throughout the country; (2) managing government investment in mineral exploration, development, and promotion of mineral-based industries through formulation of sound mineral policies and legislation; (3) implementing and administering the Mines and Minerals Regulations, regulating and monitoring mineral exploration, and ensuring that mineral development activities are carried out in compliance with the legal framework; (4) conducting seismic studies, operating seismological centers, and generating seismic data for research helpful to evaluating the earthquake hazard; and (5) advising the government on matters related to mineral development, and geological hazards (GON DMG n.d.).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

The Department of Mines and Geology (DMG) has been updating the inventories of known and estimated mineral resources throughout the country and is engaged in collecting, analyzing, and reporting on seismological data and managing Seismological Centers and stations that record earthquake activity. The DMG is also engaged in a Petroleum Exploration Promotion Project (PEPP) in coordination with petroleum companies working in Nepal (GON DMG n.d.).

DONOR INTERVENTIONS AND INVESTMENTS

The United States Department of Labor funded World Education, Inc.'s "Brighter Futures" program, which ran from 2002 through 2009, with the aim of removing children from working in exploitative industries and supporting their education. The project worked in 27 districts in the Terai, Hills, and Kathmandu and by the midterm evaluation in 2007 had succeeded in helping about 110,000 children, 1800 of whom had been working in Nepal's mines. In 2005, the International Labour Office (ILO) in Geneva, in partnership with the International Program on the Elimination of Child Labour, succeeded in removing 50 children from working in the Khejenim quartz mine in Taplejung District in northern Nepal. The project provided the children and their families with transitional financial support and access to education. Broader donor efforts building on these successes have not been reported (Macro 2007; ILO 2005).

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