

USAID COUNTRY PROFILE

PROPERTY RIGHTS AND RESOURCE GOVERNANCE

ZAMBIA

OVERVIEW

Zambia is a heavily rural low-income country with widespread poverty. Eighty percent of the rural population makes a living through subsistence farming on customary land. Zambia's 1.1 million small-scale farm households cultivate on average just one hectare each. Only about 2000 large-scale farmers cultivate 20 hectares or more. Agricultural production levels vary widely due to policy interventions and weather, and the percentage of the population vulnerable to food insecurity has increased. In general, the least productive land in Zambia is held under customary tenure by small farmers while the most productive land is leased for commercial farms, mining operations, and urban and tourism developments.

Thirty-four percent of land in Zambia is agricultural and 57% is forest. Deforestation is occurring at a rate of 1% annually as a result of encroachment from agriculture, tree harvesting for fuelwood and sale, and uncontrolled burning. Overgrazing, the use of heavy machinery, fertilizer and chemicals in commercial agriculture, and mining operations have all contributed to soil degradation and erosion.

Since enactment of the 1995 Land Act allowing for conversion of customary land to state land with private leasehold interests, at least 10% of land held under customary tenure has been privatized through conversion to leaseholds. In some cases these leaseholds have resulted in needed investment in rural areas and created opportunities for local employment, contract farming, secondary businesses, development of infrastructure and social services, and transfer of know-how. However, the conversion of customary land to large leaseholds has in other cases eroded local rights to common-pool resources and enclosed communal land, causing local people to lose access to water sources, grazing land, and forest products.

No regulations were enacted under the 1995 Land Act. Efforts to pass a land policy since then have been unsuccessful. Beginning with the passage of the 1995 Land Act and continuing through the years that followed, civil society members raised concerns that proposed land policies failed to provide adequate protections for the population dependent on rural land and access to natural resources. Policymakers have turned their attention to the land provisions in the new constitution, which is expected to be adopted following the 2011 elections.

The draft constitution provides for: (1) equitable access to land and associated resources; (2) equitable access to and ownership of land by women; (3) land tenure security; (4) sustainable and productive management of land resources; (5) transparent and cost-effective management of land; (6) conservation and protection of ecologically sensitive areas; and (7) cost-effective and efficient settlement of land disputes.

In addition, the draft constitution provides for the continuation of the customary and private (leasehold) tenure systems and calls for revisions to legislation to be enacted to: revise existing land laws; prohibit land speculation; address imbalances in land alienation; provide for periodic land audits; provide means for securing customary land tenure; provide equitable access to state land; enable settlement of landless people; and establish minimum and maximum holdings of arable land.

KEY ISSUES AND INTERVENTION CONSTRAINTS

Donors can help Zambia develop a more dynamic, productive agriculture sector by providing assistance in the following areas:

- **Support Implementation of Land Principles in the Draft Constitution.** The draft constitution currently being debated by the National Constitutional Convention includes a comprehensive land section that supports private investment in

rural land while recognizing the need for tenure security in customary land, equitable land allocation and alienation procedures, and support for small farmers. The draft constitution calls for new and revised legislation to support these principles. *Donors should provide early support for the process of creating legislation and necessary implementing institutions in order to help prevent the gaps and voids in implementation that have undermined the effectiveness of laws governing the country's land and natural resources. Also, since the formal and customary laws governing land and natural resources provide no affirmative support for the protection and improvement of women's rights, donors should bring a gender focus to the legislative framework and help create the legal space to protect and improve the land rights of women.*

- **Support Community Involvement in Rural Investment.** Donors can provide critical support for the drafting of laws and regulations that encourage investment, while ensuring that the rights of the rural population are protected through options for securing customary land rights and provisions for community notice and authorization of land conversion and investment plans. *As an initial step, donors should support case studies of several of the investments in agribusiness, industrial development, and tourism enterprises. The case studies should evaluate the processes followed, and identify the positive and negative impacts of the investments on the communities. They could be used as the basis for developing recommendations for the legal framework and best practices for communities, investors, and local governments.*

As opportunities for investors and rural communities to work together increase, donors can assist in capacity-building within communities and with investing entities. *To this end, donors should help local governance systems to integrate aspects of customary and government systems and provide effective roles for traditional authorities and local officials, especially in the areas of land use, land investment, and rural development.*

- **Develop and Strengthen the Legal Framework for Urban Land.** *In conjunction with urban and peri-urban planning efforts, donors can support a land tenure assessment for urban areas and provide assistance with the development of a legal framework for formalization of urban and peri-urban rights. Donors can also assist with the development of urban and peri-urban land allocation programs that provide land access for marginalized migrants to urban areas and the poor.*
- **Strengthen Land Administration and Land Dispute Resolution.** *Donors can provide support for the streamlining and simplification of Zambia's land administration system, including effective decentralization of land administration and the creation of a next-generation land tribunal that is accessible and effective and integrates customary and formal systems.*
- **Support Community-Based Forest Management and Forest Institutions.** The failure to establish the Forestry Commission called for by the legislative framework has limited advancement of sustainable forest management, including community-based forest management programs in Zambia. Donors have been reluctant to continue programs or develop new interventions absent the necessary institutional framework. The country's experience with community-based wildlife management in programs such as the Luangwa Integrated Rural Development Project (LIRD) and Administrative Design for Game Management Areas (ADMAGE), along with the pilot efforts at joint forest management programs, will provide useful background and foundations for the design of a community-based program focused on forests. *Assuming that political will for revitalization of the sector is forthcoming, donors should provide substantial support to help develop the necessary institutions, provide capacity-building, and begin program development. Donors should pay particular attention to the engagement of women in forest institutions and at all levels of any future community-based forest management program.*

FOR MORE RECENT LITERATURE:

<http://usaidlandtenure.net/zambia>

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SUMMARY

Despite a decade of economic growth, two-thirds of Zambia's population is poor; half lives in extreme poverty. Eighty percent of the country's rural population is dependent on subsistence and small-scale rainfed farming on customary land. Drought and flooding are common and agricultural productivity is low. About one-fifth of irrigable land is irrigated, remote provinces lack critical infrastructure and inputs, and marketing outlets are undeveloped. Zambia has a high rate of migration from rural to urban areas, and the cities are overcrowded. Most of the country's urban population lives in unplanned settlements with substandard housing and limited services.

In the mid-1990's Zambia enacted legislation intended to encourage investment in rural land and improve agricultural productivity

through the privatization of customary land. The 1995 Land Act permitted conversion of customary land into long-term leases of state land. In the decade following the adoption of the Land Act, foreign investors, politicians, and local elites obtained leaseholds. Some large agribusiness, industrial, and tourism investments have provided local communities with benefits including employment, outgrower schemes, small-business opportunities, and infrastructure development. In other cases, the conversion of customary land has rendered whole communities landless, eroded rights to common pool resources, and enclosed communal land. The Land Tribunal, which was intended to protect and enforce land rights, has been underfunded and inaccessible to most of the population, leaving limited options for addressing land grievances.

Zambia's National Constitutional Convention is drafting a new constitution, which continues to support and encourage investment in rural areas while also recognizing weaknesses in the operation of the current legal framework for land, including imbalances in the alienation of land and the need for security of customary land tenure. The draft constitution calls for new and revised legislation governing land rights and supporting principles of land tenure security and equitable access to land.

Zambia has abundant surface and groundwater water resources, but only 40% of the rural population has access to improved drinking water and only about one-quarter of the irrigable land is irrigated, leaving most farmers vulnerable to frequent droughts. Zambia is one of the most forested countries in sub-Saharan Africa, and forest land and forest products provide a critical safety net. Zambia is losing forest land to agriculture and to feed the population's dependence on fuelwood. The lack of an operating institutional framework in this sector has left the country unable to enforce principles of sustainable forest management, including community-based forest management programs.

The development of minerals resources – particularly copper and cobalt – has driven Zambia's economic growth in recent years, leading to infrastructure development and providing employment. The Government of Zambia (GOZ) recognizes the need to diversify the sector to develop other mineral resources, enforce environmental standards, and provide support for small-scale mining enterprises.

BOX 1. MACRO INDICATORS

	Year	Score
Population, total	2008	12,620,219
Population ages 0-14: 15-64: 65+ (% of total)	2008	46.2: 50.7: 3.0
Population growth (annual %)	2008	2.5
Rural population (% of total population)	2008	64.6
Population density (people per sq. km)	2008	17.0
Literacy rate, adult total (% of people ages 15 and above)	2007	70.6
Land area: Surface area (sq. km)	2008	743,390: 752,610
Arable land (% of land area)	2005	7.1
Agricultural land (% of land area)	2005	34.6
Permanent cropland (% of land area)	2005	0.0
Irrigated land (% of cropland)	2003	2.9
Forest area (% of land area)	2005	57.1
Nationally protected areas (% of total land area)	2006	40.4
Renewable internal freshwater resources per capita (cubic meters)	2007	6512.9
Annual freshwater withdrawals, agriculture: domestic: industry (% of total freshwater withdrawal)	2007	75.9: 16.7: 7.5
Crop production index (1999-2001 = 100)	2005	97.7
Livestock production index (1999-2001 = 100)	2005	99.0
GDP (current US\$)	2008	14,313,899,286
GDP growth (annual %)	2008	6.0
Agriculture: industry: manufacturing: services, value added (% of GDP)	2008	21.2: 46.3: 11.6: 32.5
Ores and metals exports: imports (% of merchandise exports: imports)	2007	77.7: 4.8
Aid (% of GNI)	2007	10.4

Source: World Bank, 2009

I. LAND

LAND USE

Zambia had a 2008 population of 12.6 million; 65% live in rural areas. Zambia's 2008 GDP was \$14 billion, with 21% attributed to agriculture, 46% to industry, and 12% to services. Sixty-five percent of the population is poor; 50% are extremely poor. In 2007, 1.1 million of Zambians were living with HIV/AIDS, and life expectancy in 2008 was 45 years (World Bank 2009a; FAO 2009; UNICEF 2010).

Agriculture is the most common source of livelihood and income within Zambia's informal sector. Maize, cassava, rice, and wheat are the major staple food crops grown in the country. Production levels vary widely due to policy interventions and weather, and the percentage of the population vulnerable to food insecurity has increased (ECZ 2001; World Bank 2009a; Aregheore 2006).

Thirty-four percent of Zambia's total land is agricultural, with about 3% of the agricultural land irrigated. Fifty-seven percent of total land is classified as forest, and deforestation is occurring at a rate of 1% annually. Forty percent of the total land is identified as protected areas, which includes forests, parks, and game reserves (World Bank 2009a; ECZ 2001; FAO 2009).

Forest land has degenerated as a result of encroachment from agriculture, tree harvesting for fuelwood and sale, and uncontrolled burning. Overgrazing has resulted in bush encroachment and severe soil degradation. In areas dominated by commercial agriculture, the use of heavy machinery and large amounts of fertilizer and chemicals has degraded the soil. Mining operations in the Copperbelt (north-central region) have caused soil erosion, extinguished the flora and fauna, and polluted the air, water, and soil (ECZ 2001; Chileshe 2001).

Zambia's urban areas are overcrowded. Large numbers of rural people migrate to urban areas in search of employment and to escape rural poverty. Between 60% and 70% of the urban population lives in illegal settlements with inadequate housing and no water and sewage service. Illegal quarrying is common in the cities, leaving pits that flood and serve as breeding grounds for mosquitoes and bacteria (LCC 2008; UN-Habitat 2009).

LAND DISTRIBUTION

Eighty-two percent of Zambia's farming households are small-scale farmers, cultivating 5 hectares or less of rainfed land. In 2008, Zambia had about 1.1 million small-scale farmers, with average holdings of about 1 hectare of cultivated land per household. About 44,000 medium-scale farmers each cultivate between 5 and 20 hectares of land, and the roughly 2000 large-scale farmers each cultivate more than 20 hectares of land. In 2004, 75% of small-scale farmers had average annual incomes of about \$219; twenty-three percent of small-scale farmers received about \$514 in annual income, and 2% had annual incomes of about \$2282 (US\$ equivalents) (FAO 2009; Thurlow et al. 2008).

The least productive agricultural land (the bulk of which is in the northern and western regions) is held under customary tenure by small-scale and subsistence farmers. Eighty-eight percent of the most productive agricultural land (most of which is located in the fertile eastern-central region of the country) is devoted to cash crops, including cotton, tobacco, and flowers. The land tenure systems in this central region are mixed: some small and medium-scale cash crop farmers hold land under customary tenure and manage their own enterprises, or engage in contract farming. The area also contains the greatest concentration of Zambia's large commercial farms (FAO 2009; Thurlow 2008; Chisala et al. 2006; Likulunga 2005; Aregheore 2006).

Since enactment of the 1995 Land Act, which allowed for conversion of customary land to state land with private leasehold interests, at least 10% of land held under customary tenure has been privatized through conversion to leaseholds. Those leasing converted land include foreign investors, local elites, politicians, and land speculators. Investors have leased land for the creation of agribusinesses, industrial developments, and tourism enterprises. In some cases these have provided needed investment in rural areas and created opportunities for local employment, contract farming, secondary businesses, development of infrastructure and social services, and transfer of know-how. The government is developing farm blocks in all provinces that will offer investors large leaseholds and established services (such as roads and water for irrigation) to support increased areas of agribusiness-development throughout the country (Adams 2003; *Lusaka Times* 2009; Nyondo 2009; Brown 2005).

In some cases the conversion of customary land to large leaseholds has eroded local rights to common-pool resources, and enclosed communal land. As land is acquired for commercial farming, industry, and tourism, local people in some areas have lost access to water sources, grazing land, and forest products. In some cases protected

BOX 2. LAND TENURE INDICATORS		Score
<u>Millennium Challenge Corporation Scorebook, 2009</u>		
— Land Rights and Access (Range 0–1; 1=best)		0.647
<u>International Property Rights Index, 2009</u>		
— Physical Property Rights Score (Range: 0–10; 0=worst)		5
<u>World Economic Forum's Global Competitiveness Index, 2008-2009</u>		
— Property Rights (Range: 1–7; 1=poorly defined/not protected by law)		4.7
<u>World Economic Forum's Global Competitiveness Index</u>		
— Ease of Access to Loans (Range: 1–7; 1=impossible)		2.9
<u>International Fund for Agricultural Development, Rural Poverty Report, 2001</u>		
— Gini Concentration of Holdings, 1981-1990 (Range: 0–1; 0=equal distribution)		..
<u>International Fund for Agricultural Development, Rural Sector Performance Assessment, 2007</u>		
— Access to Land, 2007 (Range: 1-6; 1=unsatisfactory access)		3.4
<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)		100
<u>World Bank Group, World Development Indicators, 2009</u>		
— Registering Property-Number of Procedures		6
— Registering Property-Days Required		39
<u>World Bank Group, World Development Indicators, 1998</u>		
— Percentage of Population with Secure Tenure		..
<u>Heritage Foundation and Wall Street Journal, 2009</u>		
— Index of Economic Freedom-Property Rights (Range 0-100; 0=no private property)		30
<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)		5.58
— Protection of Property Rights (Range 0-10; 0=lowest degree of protection)		5.92
— Regulatory Restrictions of Sale of Real Property (Range 0-10;0=highest amount of restrictions)		5.52

areas have been identified for development (Brown 2005; *Black Lechwe* 2006).

LEGAL FRAMEWORK

Zambia's 1991 Constitution (as amended 1998) recognizes property rights and protects individuals against the deprivation of property unless authorized by law. The state can violate individual property rights if it is acting in the course of implementing a comprehensive land policy. The Constitution voids laws that discriminate on the basis of gender but explicitly excludes personal law (e.g. laws relating to marriage, children, divorce, inheritance) and customary law – both of which can contain discriminatory principles (GOZ 1991; Hansungule et al. 1998).

The 1995 Land Act vests all Zambian land in the President and recognizes two tenure types: customary tenure and leasehold rights to state land. Customary tenure can be converted into private leasehold tenure over state land at the election of the holder of the customary tenure. Once converted, customary rights are extinguished and the land cannot be converted back to customary tenure. The 1995 Land Act recognizes and allows for the

continuation of customary tenure. However, under the Land Act, formal law trumps the customary law in the event of conflict (Adams 2003; GOZ 1995a).

The Land Act restricts the state's ability to repossess undeveloped land and liberalizes the terms for foreigners to acquire land rights. Holders of customary land rights can convert the land into a leasehold interest in state land in favor of third parties, including foreigners (Machina 2002; Brown 2005).

No regulations were enacted under the 1995 Land Act, and efforts to pass a land policy in the decade following the Land Act's enactment were unsuccessful. Members of civil society raised concerns about the draft land policies, noting that the policies focused on the privatization of customary land and encouragement of large-scale investment in land without providing protections for the population dependent on rural land and access to natural resources. Policymakers have turned their attention to the land provisions in the new constitution, which is expected to be adopted following the 2011 elections (ZLA 2008; NCC 2009; NCC 2008).

In October 2009, the National Constitutional Conference (NCC) adopted the report of the Land and Environment Committee and reached agreement on the new constitutional provisions addressing land. The draft constitution provides for: (1) equitable access to land and associated resources; (2) equitable access to and ownership of land by women; (3) land tenure security; (4) sustainable and productive management of land resources; (4) transparent

and cost-effective management of land; (5) conservation and protection of ecologically sensitive areas; and (6) cost-effective and efficient settlement of land disputes. The draft constitution provides for the continuation of the customary and private (leasehold) tenure systems and calls for legislation to be enacted to revise existing land laws; prohibit land speculation; address imbalances in land alienation; provide for periodic land audits; provide means for securing customary land tenure; provide equitable access to state land; enable settlement of landless people; and establish minimum and maximum holdings of arable land (NCC 2008; NCC 2009).

TENURE TYPES

Under the 1995 Land Act and draft constitution, all land in Zambia vests in the President. Land tenure types are:

Customary tenure. The majority of land in Zambia (estimated at 84% in 2005) is held under customary tenure. Under customary law, the land is held by individuals, families, clans, or communities from generation to generation, without temporal limitation. Customary tenure applies to individual plots, forest land, common land within a village, and communal grazing land. Most small-holder subsistence farmers cultivate customary land held in common ownership with the community, although the rights of farmers are individualized. The land does not have formal documentation (e.g., certificates, titles) and the landholders do not pay land tax (Brown 2005; Hansungule et al. 1998; Adams 2003; ECZ 2001).

Leaseholds of state land. All land not held under customary tenure is deemed to be state land. Most urban areas, mining areas, protected areas, land along rail lines, and land that was free of tsetse fly infestation during colonial times tends to be state land, much of which has been privatized through leaseholds. The state grants four types of leases: (1) a 10-year Land Record Card; (2) a 14-year lease for unsurveyed land; (3) a 25- to 30-year Land Occupancy License for residential settlements; and (4) a 99-year leasehold for surveyed land. The conversion of customary land to leaseholds requires approval of the chief and any individual whose interests will be affected by the conversion (GOZ 1995a; ZLA 2008; Brown 2005).

Squatting. Most of the population in urban areas lives in informal settlements. In areas where settlements are built on primarily public land and the structures meet building standards, residents can regularize their rights with 30-year renewable Land Occupancy licenses. In other informal settlements the residents do not have rights to their residential land under formal law. Customary law often recognizes occupancy rights of residents, which may protect their interests against other potential occupants but offers no protection from eviction by government officials (LCC 2008; Hansungule 1998 et al.).

SECURING LAND RIGHTS

Land is obtained through the following methods in Zambia:

Inheritance. Zambia's customary land has historically been kept in the lineage or clan; in patrilineal communities (prevalent throughout most of Zambia), land is passed to male lineage or clan members. Typically a male member will receive a portion of a lineage- or clan-holding simply by virtue of his membership in the lineage or clan. In the matrilineal communities found in the northern part of the country, land is passed through the female line. As customary land has become more individualized, the nuclear family has grown in importance, and in many areas land is passed down through the nuclear family as opposed to a lineage or clan (Unruh et al. 2005; Hansungule et al. 1998; GOZ GIDD 2005; Chileshe 2005).

Land allocation. Customary land is allocated by the chief or headman. Young men coming of age request land from the local traditional leader; women usually access land through their natal families and husbands. In areas where land is scarce, the local leadership will divide existing plots. The local chief may allocate land to a single woman for farming, especially if she has children. Migrants to an area will approach the local leadership for land allocations. The local leadership has incentive to allocate land to newcomers because adding to the population increases the leadership's political base. The new landholder will clear the allotted land to confirm his rights. Other means of obtaining land under customary law include by gift and by identifying and clearing vacant unallotted land (Unruh et al. 2005; Hansungule et al. 1998; GOZ GIDD 2005; Chileshe 2005).

Purchase. Under customary law, land can be sold within the community; historically, sales to people and entities outside the community were prohibited. The restriction on sales outside the community is eroding, especially in areas with fertile and otherwise valuable land (Hansungule et al. 1998; Chileshe 2005).

Lease. Individuals and entities can acquire transferable leasehold rights to land by converting their customary landholdings or approaching local authorities to identify state land available for lease, or customary land that a landholder is interested in converting to leasehold land. The 1995 Land Act requires the authorization of the chief and consent of any other person affected by the land lease for a land conversion. Local authorities apply for leases through the Commissioner of Lands, who is authorized to grant leaseholds on behalf of the President. Surveys are required for 99-year leases. The state can grant a 14-year lease based on submission of a sketch of the land, and the 14-year lease can be converted into a 99-year lease when a survey is completed (Van Loenen 1999; Hansungule et al. 1998).

Most of Zambia's population has historically considered the land held under customary tenure to be relatively secure. Land was plentiful and available through the chiefs and headmen, and any challenges to land allocations were handled locally by the chiefs. More recently, outsiders and newcomers who have received land allocations from chiefs seek to formalize their rights through land conversion to leaseholds. Emergent and medium-scale farmers obtain land through the chief but often experience tenure insecurity because they are not members of the clan or community. These newcomers apply to convert the land so they are not dependent on personal relationships with the chief or community members for tenure security (Brown 2005; Hansungule et al. 1998; Adams 2003).

Most rural leaseholds have been obtained by large commercial and medium-scale farmers, politicians, and local elites. Few if any small-scale or subsistence farmers have secured leaseholds for their land because awareness of the Land Act is low, most could not afford the cost of the conversion, and there is limited incentive to convert their land. Conversion of customary land to a 14-year lease requires a sketch, the consent of the chief, payment of a lease charge, and multiple trips to district headquarters and the Ministry of Lands office in Lusaka or Ndola. The cost to obtain a 14-year lease is at least \$100 (US\$ equivalent) and often much more, and the lease expires after 14 years unless a 99-year lease is obtained. A 99-year lease requires a rigorous and expensive boundary survey prepared by a licensed surveyor; in 2005, average charges for survey and registration and travel costs were at least \$500 (US\$ equivalent) and often multiples of that amount, and typically required between 2 and 3 years to complete. The lessee must also pay an annual ground rent to the District Revenue Collector. Most small and subsistence farmers earn the equivalent of about \$219 per year, feel relatively secure in their customary land rights, and have no incentive to spend their time or limited income to convert their land (FAO 2009; Chileshe 2005; Van Loenen 1999; Hansungule et al. 1998; Brown 2005; Roth and Smith 1995).

In order to transfer and register leased land in urban and peri-urban areas, the parties must engage a lawyer to obtain a non-encumbrance certificate and draft the purchase and sale agreement. The seller of the property must apply for the state's consent to the sale, obtain a tax form from the Zambian Revenue Authority, and pay the property transfer tax. Once payment is verified, the purchaser can lodge the assignment for registration at the Land and Deeds Registry. The process in Lusaka requires an average of 39 days and payment of a series of fees between 1% and 10% of the value of the property plus 3% of the value of the property or the price paid for the transaction (whichever is higher), plus miscellaneous cash payments for various fees, and payment for the lawyer (World Bank 2008b; Van Loenen 1999; Hansungule et al. 1998).

In urban areas, applicants for land can apply to the Planning Authority, the Council of Lands, or directly to entities that construct houses. Prices are high, and there is no assurance of services. At least 60% of new housing is in informal settlements without formal tenure systems, planning, construction standards, or services. Landholdings in informal urban settlements are insecure. The land is subject to acquisition for planned urban development. In order to obtain a leasehold interest in an informal settlement on state land, the settlement must be "declared" by the Ministry of Local Government and Housing. The Ministry will only "declare" a settlement under certain circumstances, requiring evidence that 60% or more of the land is publicly owned and 50% or more of the dwelling structures are built of standard materials. Few settlements qualify, but if one does the city council can issue renewable 30-year occupancy rights to residents (Van Loenen 1999; Hansungule et al. 1998; LCC 2008; UN-Habitat 2009).

Special circumstances. Article 3 of the 1995 Land Act provides that in (undefined) special circumstances the President can make land grants for periods exceeding 99 years (Machina 2002).

INTRA-HOUSEHOLD RIGHTS TO LAND AND GENDER DIFFERENCES

In Zambia, married women in patrilineal communities access land through their husbands. In matrilineal societies, women access land through their natal families, and men receive land through their wives. In both systems, the male head of household usually exercises primary control over the land (Unruh et al. 2005; Machina 2002; GOZ GIDD 2005; Chileshe 2005).

Under the Intestate Succession Law, 1989, the spouse inherits 20% of the deceased's estate and, together with the children, shares the house. However, the law does not apply to land held under customary law. As a matter of customary law, women in patrilineal societies with virilocal marriages (where a wife moves to the husband's village) do not have title to land. Their access to land is dependent on their relationship with their husbands, and if the relationship terminates by divorce or death, they are often denied continued use of the land. If they do retain access to some land, they are rarely able to control decision-making regarding land use and production. In matri-lineal societies with uxorilocal marriage communities (where a husband moves to the wife's village), land passes through the female line to male family members, and male family members will generally control the use of the land and its production. Widows who remain in husbands' villages are often allowed to continue using the land, especially if the woman has children. However, a widow's land share is often reduced, even in matrilineal societies (Machina 2002; Hansungule et al. 1998; GOZ GIDD 2005; Chapoto et al. 2007).

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)		0.7
— Women's Access to Property other than Land (Range: 0-1; 0=no discrimination)		0.7
— Women's Access to Bank Loans (Range: 0-1; 0=no discrimination)		0.7
<u>FAO: Holders of Land Classified by Sex, 1993</u>		
— Percentage of Female Holders of Agricultural Land		15.0

As a matter of formal law, land can be titled individually in a woman's name or jointly in the name of both spouses. In urban areas, educated single women and some married women often buy plots in their own names. In most rural and peri-urban areas, the land is considered to be owned by the male head of household; few women have their names on any land documents or consider themselves to be landowners. In settlement and resettlement areas, both women and men have rights to land, but applications and offers of land are almost always in the name of men (Machina 2002; GOZ GIDD 2005; Keller 2000).

A National Gender Policy adopted in March 2000 provides that 30% of all land available for distribution by the state should be given to women. The policy has not been implemented. The draft constitution (being considered in 2010 for potential adoption in 2011) states that the land policy of Zambia should ensure equitable access to and ownership of land by women (Machina 2002; NCC 2008).

LAND ADMINISTRATION AND INSTITUTIONS

The Ministry of Lands is the principle ministry responsible for land administration and management and includes the Lands Department, Lands and Deeds Department, Lands Tribunal, Survey Department, and Survey Control Board. Zambia's 72 district councils have authority to administer land within their districts and have responsibility for land-use planning, in coordination with the Town and Country Planning Department. The district councils process applications for leases of state land and evaluate requests for the conversion of customary land to state land. At the central level, the Commissioner of Lands within the Ministry of Lands exercises authority on behalf of the President. There are no provincial offices responsible for land administration, and communication between local and central levels has often been less than optimal. Personnel changes and allegations of corruption within the ministry have hampered progress (Brown 2005; Adams and Palmer 2007).

The mission of the Ministry of Agriculture and Cooperatives is to facilitate and support the development of a sustainable and viable agricultural sector in order to ensure food security and income-generation at household and national levels and maximize the sector's contribution to GDP. Objectives of the ministry include: (1) to promote agricultural productivity and efficient management, the development of sustainable domestic and foreign markets for agricultural products, and the establishment of agro-based industries; (2) to develop legislation and policies to support the sector and its development; (3) to develop and disseminate appropriate agricultural information to

clients and stakeholders; and (4) to promote and provide education and training in agriculture and related disciplines (GOZ MACO 2009).

Customary land is administered by local traditional leaders. Zambia has 73 tribes, 240 chiefs, 8 senior chiefs, and 4 paramount chiefs. The chiefs and village-level headmen have authority under formal and customary law to oversee customary land and protect their community's culture and welfare. The traditional leaders grant occupancy and use-rights, oversee transfers of land, regulate common-pool resources (opening and closing grazing areas, cutting of thatch), and adjudicate land disputes. They are often the only point of contact between state officials, donors, and rural communities (Chileshe 2005; Brown 2005).

LAND MARKETS AND INVESTMENTS

In urban areas of Zambia, formal plots are scarce and prices are high. Rural land is plentiful in areas that are far from main roads, rivers, and rail lines, and are lacking in mineral resources, or in natural resources that could support tourism development. In more productive areas and areas served by infrastructure, land has become scarce and land speculation is common, especially in peri-urban areas and in the vicinity of significant natural resources. While the costs of converting customary land to state land are beyond the resources of the vast majority of Zambia's farmers, the costs are a fraction of the potential profits, and the market encourages investors and agents with resources. These investors and middlemen often only pay registration and survey costs for communal land that they convert. Even if they pay a "facilitation fee" to chiefs, the costs are small in relation to the profits made (Brown 2005; LCC 2008).

Absentee ownership of land has increased in Zambia. In contrast to prior legislation, the 1995 Land Act has no penalty for failing to develop land. The lack of a time-frame allows investors to obtain rights to as much land as possible, let the land lie idle or do minimal development, and await the best time to sell or develop it (Brown 2005).

In customary areas, land allocations and transfers are administered by the traditional leaders in accordance with community practices and needs. Transactions are rarely in writing, and most land transactions are between members of the same community. In recent years, however, more outsiders and newcomers to communities have engaged in informal and formal land transactions in order to obtain access to land for farming and other enterprises (Chileshe 2005; Machina 2002; Brown 2005).

COMPULSORY ACQUISITION OF PRIVATE PROPERTY RIGHTS BY GOVERNMENT

The Lands Acquisition Act (1970) grants the President the power to compulsorily acquire property of any description when "he is of the opinion that it is desirable or expedient in the interests of the Republic to do so." Notice is required before the government can enter into any building or enclosed space or require occupants of land to give up possession. Upon acquisition of land, the state may offer the landholder a grant of other land or just compensation. Compensation may be denied for undeveloped land and land held by absentee owners (GOZ 1970).

LAND DISPUTES AND CONFLICTS

Limited information on the nature of land disputes in Zambia is available, but isolated studies suggest that land disputes in rural areas most commonly relate to boundaries and encroachments. In peri-urban and urban areas, government efforts to evict residents from informal settlements and destroy slum housing have caused conflict and social unrest. Land conversions and the establishment of farm blocks for commercial farming are an increasing cause of concern among local farmers and have the potential to create conflict (Brown 2005; GIDD 2005; RAID 2000; Nyondo 2009).

The most common method for resolving land disputes is through the local traditional leaders (headmen or chiefs). The customary leadership structure is hierarchical, and disputes that cannot be resolved at lower levels can proceed to consideration by senior and paramount chiefs. In resettlement areas, parties can also approach the resettlement-scheme management for dispute resolution. Other options include seeking the help of agricultural officers or a government committee (GOZ GIDD 2005; Mudenda 2006).

The 1995 Land Act established mobile Land Tribunals, which were intended to be a low-cost, accessible alternative to the formal court system. In practice very few rural Zambians know of the tribunals' existence. The

tribunals have insufficient funding to conduct public awareness campaigns, tend toward formal proceedings conducted in English (which reduces their accessibility), are limited to addressing statutory land cases, and operate with a two-year backlog of cases. Other formal conflict resolution tribunals are the Town and Country Planning tribunal and Magistrate and High Courts. There is little evidence of the use of these forums by the economically disadvantaged (Machina 2002; ZLA 2005; Brown 2005).

KEY LAND ISSUES AND GOVERNMENT INTERVENTIONS

The country's improved economic performance in the last decade has been driven largely by the mining sector and construction industry; overall growth in the agricultural sector has been lackluster. The government is implementing the Comprehensive Africa Agricultural Development Program (CAADP), which provides an integrated framework of development priorities for creating agricultural growth, rural development, and food security. The main goal of CAADP is to help African countries reach a higher path of economic growth through agriculturally-led development. Consistent with CAADP, the Ministry of Agriculture and Cooperatives (MACO)'s National Agriculture Policy (NAP) is aimed at providing a conducive environment for the growth of the agricultural sector up to 2015. Under NAP and the CAADP process, the government defined five major priorities for the period 2006–2015: (1) Smallholder Agriculture Development; (2) Agricultural Productivity Enhancement; (3) Agribusiness and Market Development; (4) Food and Nutrition Security; and (5) Capacity Development and Institutional Strengthening. The GOZ plans to develop partnerships with agribusiness and farming communities, civil society organizations, and development partners to design and deliver programs in these areas (Thurlow et al. 2008; FAO 2009).

The National Constitutional Convention (NCC) appointed a Land and Environment Committee to work on the land sections of the new constitution. The committee, which has 43 members (11 of whom are women) includes representatives from various ministries and the House of Chiefs, policymakers, and representatives of industry associations, churches, and NGOs. The committee submitted its report to the NCC in October 2009, and after debate and some revisions, the NCC adopted the recommendations. The draft constitution is expected to be adopted in 2011 (NCC 2008; Muchangwe 2009).

The Ministry of Agriculture and Cooperatives (MACO) and the Agricultural Consultative Forum (ACF) have been collaborating with Michigan State University on the Food Security Research Project (FSRP) for more than a decade. The activities aim to improve the capacity for agricultural policy analysis in Zambia through in-service capacity building, applied research and analysis, and policy outreach. The FSRP is co-funded by USAID and the Swedish International Development Agency (SIDA). FSRP's goal is to contribute to effective policy dialogue, capacity building, and an improved agricultural policy environment in Zambia through in-service capacity building, applied analysis, and policy outreach. FSRP takes a "joint products" approach, whereby training, applied research, and outreach are undertaken collaboratively with in-country stakeholders and government counterparts. In late 2009 and 2010, the project presented policymakers, officials and stakeholders with analysis regarding the integration of Zambia's goals of productive land use and broad-based agricultural development, analysis of customary land and the rights of indigenous local communities, and information to inform the goals of poverty reduction, food security (MSU 2009a; MSU 2009b; MSU 2010a; MSU 2010b).

With support from the World Bank, the GOZ's Farm Block Development project is opening up large undeveloped areas with potential for commercial agriculture in every province. The Farm Block Development project is identifying promising land by negotiating with chiefs, converting the customary land to state land, and investing in complementary infrastructure such as feeder roads, electricity, water for irrigation, and communication facilities. The land is demarcated into large plots and offered to investors as long-term leaseholds. The farming blocks are expected to benefit neighboring smallholders with the development of infrastructure, opportunities for secondary businesses, and establishment of new markets (FAO 2009).

DONOR INTERVENTIONS AND INVESTMENTS

USAID's Economic Growth Program (2004–2010) has focused on improving the competitiveness of Zambia's farmers and firms, with an emphasis on small-scale agribusinesses. The program includes: (1) the Market Access, Trade and Enabling Policies Project (MATEP), designed to increase Zambia's export of agricultural and natural resource products to regional and international markets; (2) the Production, Finance, and Improved Technology

Project (PROFIT), which works to reduce smallholder production costs; (3) the Food Security Research Project (FSRP), which is focused on providing information about smallholder production, marketing behavior, productivity, and income necessary to inform and monitor the impacts of changes in the agricultural policy environment; and (4) funding of several Zambian institutions to support farmer business groups and create forums for stakeholder consultation and information-sharing within the agricultural sector. USAID also funded the establishment of the Zambia Agribusiness Technical Assistance Center (ZATAC), which endeavors to increase incomes of small-scale producers through partnerships with agribusinesses, farmer associations and cooperatives, and enhance the development of agribusinesses and other rural agro-enterprises. While all of the projects relate to agricultural land, none of the projects have included components focusing on development of the legal framework governing agricultural land or land administration mechanisms and institutions (USAID 2003; USDOS 2009a; MSU 2009a).

As part of its Threshold Program Assistance (2006–2008) for Zambia, which was focused on institutional and business practice reforms to reduce the potential for corruption and improve the provision of services, the Millennium Challenge Corporation (MCC) conducted an assessment of the Ministry of Lands Survey Department and developed recommendations for the improvement of cadastre data management and maintenance at the Survey Department, including conversion of the existing analog cadastre data into a digital Cadastre Index Map. Zambia qualified for Compact Program Assistance in December 2008 and is in the process of developing its compact (Chemonics 2007; MCC 2010).

The Zambia Land Alliance (ZLA) is a network of NGOs working for just and equitable land policies and laws that take into account the interests of the poor. The ZLA promotes secure access, ownership and control of land through lobbying and advocacy, research, and community participation (ZLA 2010).

2. FRESHWATER (LAKES, RIVERS, GROUNDWATER)

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION.

Zambia lies within the Zambezi and Congo River Basins and has three main rivers, four large lakes, and roughly 1700 dams. Wetlands and *dambos* (shallow grassy wetlands in plateau areas) cover approximately 5% of Zambia's total land area. The country has over 80 cubic kilometers of annual internal renewable water resources. Agriculture accounts for 76% of water use; domestic use accounts for another 17%, and industry the final 7%. Mean annual rainfall is 1020 millimeters, with the totals and intra-seasonal distribution varying greatly from year to year. Droughts and flooding are common (Encyclopedia of Earth 2007; FAO 2005).

Zambia possesses between 423,000–523,000 hectares of irrigable land, of which between 100,000–150,000 hectares is actually irrigated. Most of the irrigated land lies along railway lines, above karstic areas for groundwater, adjacent to water bodies, and in *dambos* and wetlands. The main irrigation technologies are gravity systems (stream diversions and furrows), buckets, drip systems, sprinklers, rain guns, and center pivots. Mechanized irrigation systems are operated by large-scale agri-business estates, individual commercial farms, contract farmer and outgrower groups, and associations of farmers. Zambia has 40,000 hectares of large-scale irrigation schemes used by commercial enterprises, with a single farm (Nakambala Sugar Estate) accounting for 11,350 hectares. The introduction of treadle pumps and water harvesting techniques have increased the use of irrigation by small-scale and subsistence farmers (FAO 2005; FAO 2009; Encyclopedia of Earth 2007).

Ninety percent of Zambia's urban population has access to improved drinking water. In rural areas, only 41% of the population has access to improved drinking water. In urban areas like Lusaka where the water table is close to the surface, shallow wells are prone to contamination, and the incidence of water-borne diseases has increased with the growing population. In mining areas, the unrestricted discharge of effluents has polluted some local water resources (WHO/UNICEF 2006; LCC 2008; *YubaNet* 2008; ECZ 2001).

LEGAL FRAMEWORK

Zambia's Water Act (1996) vests ownership of Zambia's water resources (excluding those that form international boundaries) in the President. There are no general regulations addressing the management of the country's water resources, although some limited regulations exist to set fees and administer the provision of services. The Water Act prohibits pollution of public water, and Water Pollution Control (Effluent and Waste Water) regulations

(1993) require licenses for the discharge of effluents into water bodies and sources (GOZ 1996; Encyclopedia of Earth 2007).

Zambia's Water Policy (1994) commits the government to sustainable water development to facilitate an equitable provision of adequate quality and quantity of water for all users at an acceptable cost. The Water Policy recognizes the need to establish a well-defined institutional structure, including components for water resources management, rural water supply and sanitation, and urban water supply and sanitation (GOZ 1994; Phiri 1999).

TENURE ISSUES

Under the Water Act, landowners have rights to the private and public water on their land free of charge, whether for primary, secondary (irrigation and aquaculture), or tertiary (industry and mechanical) use. Any person who wishes to store or divert water from public streams and waterways for primary, secondary, or tertiary use must obtain permission from the Water Board. Water for industrial, commercial, and urban uses is subject to special permitting requirements (GOZ 1996).

The Water Act required all persons claiming rights to public water for secondary or tertiary uses to file a claim with the Water Register within 12 months of the enactment of the law (*i.e.*, by 1997) for registration of the right. The Water Act voids any claims to water that were not made within the 12-month period. The requirement was not well known and there was inadequate institutional capacity to enforce compliance (GOZ 1996; Phiri 1999).

In most of rural Zambia, residents access water from surface sources such as rivers and lakes, through bore wells, and from hand-dug surface wells. Under customary law, water resources are managed at a community level with local traditional leaders responsible for creating and administering rules regarding allotment and use. In some cases, local residents have lost rights of access to rivers and lakes through the conversion of customary land to leasehold land (Phiri 1999; Brown 2005; Chileshe 2005).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The government institutions responsible for water resources are the Ministry of Energy and Water Development (MEWD), which includes the Department of Water Affairs (DWA) and the Water Development Board of Zambia; the Ministry of Local Government and Housing; and the Zambian National Water Supply and Sanitation Council. The DWA is responsible for developing and managing water resources. Most urban water supplies are run by local authorities, and most rural supplies are managed by the DWA. On customary land, traditional leaders are responsible for administering access to and use of water, in cooperation with local authorities (Pakhus 2006; Encyclopedia of Earth 2007; GOZ MEWD 1010).

The Environmental Council of Zambia is a statutory body created under the Environmental Protection and Pollution Control Act of 1990 with a mandate to protect natural resources, including water, from environmental degradation (ECZ 2005; GOZ MEWD 2010).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

The Ministry of Energy and Water Development (MEWD) is working to improve the quality and quantity of drinking water in urban areas through the World Bank-funded \$23 million Zambia Water Sector Performance Improvement Project (2006–2012). The project provides for improvement of infrastructure for water delivery and management, and institutional capacity-building to prepare the Ministry of Local Government and Housing to manage a "SWAP" (sector-wide program financing) program. The GOZ launched the National Rural Water Supply and Sanitation Programme (NRWSSP) in 2007 with the objective of providing sustainable and equitable access to safe water. The GOZ has committed to increased investment in water supply and sanitation facilities, building community awareness and participation in maintaining these facilities, and enhancement of capacity of various players in the sector. The program is demand-driven, with rural beneficiaries making financial and material contributions towards water supply and sanitation facilities, including water points (World Bank 2006; World Bank 2008c; *Times of Zambia* 2009).

The government has developed a new Irrigation Policy and Strategy (IPS) and embarked on a comprehensive National Irrigation Plan (NIP) to revamp the country's irrigation sector. The objectives of the strategy and plan include development of socially desirable and economically viable irrigation schemes; construction of communal

bulk water supply systems; facilitation of irrigation infrastructure-development for improved agricultural productivity; establishment of an Irrigation Development Fund to help farmers access funds for irrigation equipment; facilitation of establishment of water rights that are supportive of sustainable agricultural development; and promotion of sustainable utilization of wetlands (FAO 2009).

DONOR INTERVENTIONS AND INVESTMENTS

The German Agency for Development Cooperation (GTZ) is assisting the MEWD with funding for the Water Sector Reform Program (2004–2012) to reform the water sector and provide poor people, especially those living in urban fringe areas, with safe drinking water. The project has provided technical advice to the commercial service enterprises and established a supervisory and regulatory authority at the national level. In line with the requirements of the new Water Supply and Sanitation Act and with GTZ’s support, the regulatory authority established the Devolution Trust Fund (DTF). The fund will assist in supplying water and sanitation in poor peri-urban areas, with a goal to give another 1.7 million people access to water by 2015. DTF will provide funding for “water kiosks” operated by private individuals who have contracts with water utilities and the municipalities (GTZ 2008; GTZ 2009; Phiri 1999).

The USAID-sponsored ZATAC project promotes the application of labor-saving and productivity-enhancing treadle-pump irrigation. The German Institute for Geosciences and Natural Resources (BGR Germany) is supporting the MEWD’s Groundwater Resources for Southern Province (GReSP) program, whose main objective is to fulfill the need for a groundwater-resources assessment. The program aims to strengthen the capacities of Zambia’s water sector with special emphasis to the field of groundwater by compiling a database and hydrogeological maps (GOZ MEWD 2010; USAID 2003).

Irish Aid created an informal donor working group to coordinate efforts in the water sector and support the GOZ’s National Rural Water Supply and Sanitation Programme. USAID has partnered with the World Health Organization (WHO) and Catholic Relief Services (CRS) to provide assessments and projects targeting the provision of water to vulnerable groups, especially those suffering from HIV/AIDS. The Zambia Water Project, a student-led faith-based U.S. NGO, is working with Thirst Relief International and Seeds of Hope International to provide access to safe water through establishment of new wells throughout Zambia (Kangamba et al. 2006; Thirst Relief 2009; Irish Aid 2009).

3. TREES AND FORESTS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Most of Zambia is high plateau, characterized by savanna woodland in high rainfall areas and tropical grasslands in low rainfall areas. Forest land covers 57% of Zambia’s total land area, most of which is miombo woodland, (referring to a genus of tree comprising a number of different leguminous species including *Brachystegia*, *Julbernardia* and *Isoberlinia*) and includes a mixed habitat with trees, small shrubs, and herbs. Zambia’s forests provide diverse non-wood forest products, including fibers (grasses, leaves, vines), vegetal products (fruits, nuts, roots, tubers, honey, spices), fauna (flesh, hides, bones), and medicinal plants. The products supply local residents with food, fodder, housing materials, trade products, and medicines (Chileshe 2001; ECZ 2001; Mulombwa 1998; USAID 2003).

Most of Zambia’s forest reserves were established in the 1950s to serve the needs of the mining industry. The state designated about 30% of the Copperbelt region as forest reserves and protected forest area, with the prime objective of supplying timber to mines and commercial customers. During periods of slowdowns in the mining industry, former miners settled in the forests, illegally harvesting trees, producing charcoal, and converting the forest to farmland (Van de Veen 2005; Hansungule et al. 1998).

Traditionally, Zambian women tend to be the highest users of forest land. Women are responsible for collecting fuelwood, grazing animals, and foraging for food and forest products. Women rarely have independent rights to access forests and use forest products; their rights to forest land and forest products are dependent on their position in a household and the permission of the local leaders (Chileshe 2001; ECZ 2001; Mulombwa 1998; Eckman 2007).

Zambia's forest land is threatened by encroaching agricultural uses and demands for fuelwood. The forests suffer from deforestation and forest degradation, soil erosion and fertility loss, watershed degradation, and loss of biodiversity. With insufficient resources to protect the forest land, the state has looked to the development of community forest management programs as a solution to forest management. The country's joint forest management program has suffered from the lack of sufficient institutional, regulatory, and programmatic frameworks (France-Lanord et al. 2009; Chileshe 2001; Mulombwa 1998; Hansungule et al. 1998).

LEGAL FRAMEWORK

The Forests Act of 1999 provides the legislative framework for the establishment, management, and conservation of national and local forests and trees. The Act's objective is to ensure rational and sustainable protection, management, production, and utilization of forest resources. The Act provides that all Zambia's trees – whether on customary land, national forest, state land, local forest land, or open areas – are vested in the President unless lawfully transferred under the Act. The Forests Act provides for a participatory approach to forest management that involves local communities, traditional institutions, NGOs, and other stakeholders in the management of forest reserves. The Forest Act calls for the creation of a Forestry Commission to replace the Forest Department and serve as the implementer of the Forest Act. (GOZ 1999; Chileshe 2001; France-Lanord et al. 2009).

The government adopted the Zambia Forestry Action Plan (ZFAP) as part of the National Environmental Action Plan (NEAP) developed in 1994. The plan is designed to address the problems of deforestation and to enhance the contribution of the forestry sector to national social economic development. A chronic shortage of information about Zambia's forests – including inventories and ecological profiles – has limited development of action plans. One outcome of the plan was the adoption of a new National Forest Policy (1998), which addressed national policy objectives of socio-economic development, poverty alleviation and food security. The new policy recognizes the role of traditional leaders and communities in production, sustainable management, and utilization of forest resources, and emphasizes the need to use traditional structures and the private sector in preparing management plans for Joint Forest Management Areas (USAID 2003; Eckman 2007; France-Lanord et al. 2009).

The GOZ has not yet established the Forestry Commission called for in the 1999 Forest Act. The Forestry Department, which obtains its authority from 1973 forest legislation, has no authority to implement the provisions of the 1999 Forest Act, the Zambia Forest Action Plan (1994), or the country's National Forest Policy (1998). Sector management is weak, and donors have been reluctant to continue projects or engage in new activities until the legally-mandated institutional framework is created (France-Lanord et al. 2009).

TENURE ISSUES

The Forests Act provides that individuals and entities may acquire rights to collect forest products under various contractual terms and licenses. Licenses are required to enter National Forests. The Forests Act prohibits access to and use of products from National and Local Forests without licenses or other contractual arrangements. Those who violate the Forests Act are subject to criminal and civil penalties, although actual enforcement of the Act has been limited (GOZ 1999; France-Lanord et al. 2009).

Various areas of the country have customary laws regarding access to forest land and use of non-timber forest products, including preservation of certain species and selected harvesting. Conflicts between local communities and Forest Department officials are common in some areas, possibly due to a lack of community knowledge of restrictions on use of forests, the lack of consistent enforcement of the rules, and the greater social legitimacy of customary law (Mulombwa 1998; GOZ GIDD 2005; ECZ 2001).

Except for the forest reserves that are controlled by the government, the remaining forest areas are subject to traditional rights of access. Chiefs and headmen allocate land, including forest land, to community members. If the landholder believes his rights are secure, he may clear a portion of the land for cultivation of crops and leave the remainder as forest to use for non-timber forest products, collection of fuelwood, and grazing. Migrant populations receiving land allocations tend to clear more of their allotment than necessary for cultivation in order to protect against the leadership reallocating the land to another person (Unruh et al. 2005; Chileshe 2001).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Ministry of Environment and Natural Resources is responsible for forests and forest management and has primary authority for forest production and conservation. The 1999 Forest Act provides for the establishment of a Forestry Commission, which will advise the government on forests, will control, manage, and administer the country's forests, and will be responsible for the co-ordination, implementation and enforcement of rules and regulations pertaining to forests and development. The Forestry Department does not have sufficient legislative authority or human and financial resources to operate effectively (GOZ 1999; France-Lanord et al. 2009; Eckman 2007).

The Ministry of Agriculture and Cooperatives (MACO) has responsibility for agroforestry. The Ministry of Energy has responsibility for woodfuels and household-based energy resources (including those harvested from forests) (Eckman 2007).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

Zambia Forestry Action Programme (ZFAP) (2000–2020) is the government's major forestry initiative and includes programs for indigenous Forest Management and Biodiversity Conservation, Trees and Forest Development, Forest Industry Development, Woodfuel Energy Development, Forestry Education and Training, and Forestry Research and Extension (Eckman 2007).

One of the pilot efforts at participatory forest management under ZFAP was a Provincial Forestry Action Programme (PFAP) (2002–2005) funded by the government of Finland and the Food and Agriculture Organization (FAO) (EUR €2 million). PFAP focused on promoting community participation for sustainable forest management and on building capacities of the Forestry Department and communities for forestry planning and management and environmental protection at provincial, district, and local community levels. PFAP established community structures, joint forest management plans, and guidelines. The program had some success in the development of commercial enterprises for forest products such as honey, but the program suffered from lack of institutional support and clarity because the Forestry Department had no authority to implement joint forest management, including revenue-sharing programs. In addition, a gender review of the program found women's participation low; most women lacked access to information concerning joint forest management, were discouraged from participating because their spouses did not see immediate benefits, and the field staff had limited skills in gender sensitization, analysis and mainstreaming (Eckman 2007; GOZ MTENR 2005; Sichilongo 2008).

More general reviews of community-based natural resources management programs in Zambia conclude that most of the legislative, institutional, and programmatic emphasis has been on wildlife programs, including the Luangwa Integrated Rural Development Project (LIRDP) and Administrative Design for Game Management Areas (ADMAD). Forest programs have lacked necessary institutional support and program development frameworks needed to be successful (Eckman 2007; Sichilongo 2008; France-Lanord 2009).

DONOR INTERVENTIONS AND INVESTMENTS

From 2004–2008, the World Wide Fund for Nature International (WWF) and the Government of the Netherlands funded a project entitled Poverty Reduction through Improved Natural Resource Management in the Copperbelt. The goal of the project was to reduce poverty in rural communities by: safeguarding and restoring the quality and quantity of woodlands and freshwater ecosystem goods and services; establishing and strengthening civil society organizations to participate in the management of the woodland and freshwater ecosystems; and assisting with developing policy frameworks. An evaluation conducted of the project in one region (Bangweulu Basin) concluded that the project was hampered by the lack of institutional ability to support community-based forest management because the Forestry Commission had not been established (Van de Veen 2005; Celauder 2006).

USAID/Zambia's Community-Based Natural Resource Management (CBNRM) and Sustainable Agriculture (CONASA/CARE) Program in Southern Zambia (2003–2004) focused on agriculture and natural resources management as a strategy to improve rural livelihoods and conserve natural resources through community participation. The Cooperative League of the USA (CLUSA) Natural Resource Management Program

implemented CBNRM in Petauke and Chipata provinces. The program combined community forest management and promotion of democratically self-managed, financially-viable rural businesses (e.g., honey, caterpillars). The program raised forest user awareness of deforestation and sustainable management issues, built capacity of local forestry department staff in forest management skills, and developed models for community-based forest management. In FY 2004, USAID funded work with 3000 forest honey producers who adopted improved honey harvesting methods. As a result of the program, large expanses of miombo woodland were protected instead of being burned (USAID 2003; USAID 2000).

4. MINERALS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Zambia's Copperbelt, located in the north-central part of the country on the border with the Democratic Republic of Congo, is one of the world's greatest metallogenic areas, with significant deposits of high-grade copper and cobalt. Zambia is Africa's top producer of copper, has about 6% of the world's copper reserves, and ranks seventh in the world in copper production. Copper accounts for over 60% of Zambia's export earnings. The country also produces cobalt (second in world production), lead, zinc, gold, silver, iron, and clay, sand, and stone. Zambia produces about 20% of the world's emeralds, and uranium deposits have been found (*Mining Weekly* 2009; *Mbendi* 2010; *Trade Africa* 2010; USDOS 2009b).

Privatization of Zambia's mining industry began in the mid-1990's in an effort to shore up a failing industry and attract investment. The fresh capital helped revive and develop the sector. Despite the global recession and a decline in commodity prices, Zambia's mining sector was the largest contributor to the country's growth in 2009. Leading investors in the mining sector include Vedanta Resources (U.K.), Glencore International (Switzerland), First Quantum Minerals (Canada), Equinox Minerals (Canada and Australia), Alberg Mining and Exploration (South Africa), and China Non-Ferrous Metals Limited (China) (USDOS 2009b; *Zambia Advisor* 2009).

Small-scale miners conduct quarrying and gemstone-mining operations in Zambia. In cities like Lusaka where the land surface is disrupted by construction projects, informal quarrying operations are common. Miners extract limestone, dolomite, granite and sand for cement and block construction. The industry attracts women because they are often illiterate, less qualified for formal employment, and mining pays well in comparison to other employment. An industry group, the Association of Zambian Women in Mining, helps women enter the sector, providing them with training in gemstone knowledge, mining technology, grading, and marketing skills. The association also operates a revolving loan fund to provide financial support to women miners (LCC 2008; Yongkang 2005; Hansungule et al. 1998; Sakala 1999).

LEGAL FRAMEWORK

The Zambian Constitution protects the right to property but permits acquisition of minerals, natural gas, or any right accruing from a license issued for prospecting or mining minerals on customary or leasehold land. Failure of a landholder to allow for mineral exploration and extraction justifies the acquisition of the land (GOZ 1991).

The Mines and Minerals Act (1995) regulates the development of mines and extraction of minerals. The Ministry of Mines and Minerals Development issues various licenses for mineral exploration and extractions. Most mine operations also require a leasehold for land from the Commission of Lands (known as a surface mining right in the industry) and, if the mining will occur on customary land, the consent of the chief. License holders must meet obligations to avoid harm to the land and pay for any damage done. New applications require environmental plans. Large-scale mining operations can receive a 25-year renewable license. Failure to act in accordance with the terms of a license will result in penalties or loss of the license (Hansungule et al. 1998; GOZ MMD n.d.).

The Prescribed Minerals and Commissions Act regulates mining of certain minerals such as gemstones. The Mining Townships Act provides mining companies with the authority to develop and administer housing estates for workers (Hansungule et al. 1998).

The Environmental Protection and Pollution Control Act and Environmental Protection and Pollution Control (Environmental Impact Assessment) Regulations of 1997 require mining operations to prepare environmental impact statements and project briefs for the Director of Mine Safety. All developers of large-scale mining projects are required to contribute to the Environmental Management Fund for rehabilitation purposes (*Mbendi* 2010).

TENURE ISSUES

Rights for mineral exploration and extraction are granted by license. Reconnaissance permits are available for non-renewable periods of 3 months. Prospecting licenses are granted for 2-year renewable terms. Three-year retention licenses allow an individual or entity to retain rights to an area where a feasibility study has been done but the conditions at the time of the study are not favorable for development. Large-scale mining licenses grant exclusive rights to an area for mineral extraction for periods up to 25 years and are conditioned on preparing an environmental protection plan and plan for the employment and training of Zambian citizens (GOZ 1995b; GOZ MMD n.d.).

Licenses are also available for small-scale miners. The Ministry of Mines and Minerals Development grants non-renewable 2-year prospecting permits for areas up to 10 square kilometers. Small-scale mining licenses are issued for renewable 10-year terms. Local people can obtain artisanal mining rights for non-renewable 2-year periods for areas of 5 hectares or less. Gemstone licenses are granted for terms of up to 10 years for areas of 400 hectares or less (GOZ MMD n.d.).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Ministry of Mines and Mineral Development has authority over the mining industry and enforces the terms of the Mines and Minerals Act. During the early years of privatization, the GOZ instituted a policy of non-participation in the mining industry under which the government limited itself to a regulatory role. In recent years, the government has increased its involvement, including engaging as a shareholder in mining enterprises (Zambian Watchdog 2009; Mobbs 2008).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

In its Fifth National Development Plan, the GOZ identified the need to diversify the mining sector to develop minerals in addition to copper and cobalt. In addition, the GOZ committed to promoting small-scale mining, which has the potential to create employment in remote rural areas where jobs are scarce. The government recognizes the need to support development of key institutions such as the Ministry of Mines and Minerals Development, to update the legal framework, and support infrastructure-development in areas with significant mineral deposits (GOZ 2006).

The government has been actively courting private investment in the mining sector since the completion of privatization in 2000. In the last decade, China has become the third largest investor in Zambia after South Africa and Great Britain. Copper production by Chinese-owned mines in Zambia is estimated at between 25,000 and 30,000 metric tons per annum, and China has invested in the construction of a copper smelting plant and cement plant in Lusaka. In April 2010, the Zambian government signed a \$600 million agreement with China Non-Ferrous Metals Limited (CNMC) for the extraction of copper from the Mufulira Tailing dams (GOZ MMD n.d.; Reuters 2010; Aregheore 2006; *Times of Zambia* 2010).

DONOR INTERVENTIONS AND INVESTMENTS

The Central Province town of Kabwe has been named the fourth most-polluted place in the world. Lead levels are currently believed to be threatening the lives of 60,000 people. A report found the lead content in the blood of Kabwe residents to be often 5 to 10 times above permissible levels in the U.S., with many children also recording dangerously high contamination levels. A consortium of donors is providing \$50 million to support the World Bank's Copperbelt Environmental Project (CEP) (2003–2010). A large portion of the money will be spent to clean up mining sites (CEP 2009).

The World Bank's Country Assistance Strategy (2008–2011) includes the objective of helping Zambia better manage its financial resources, particularly given the substantial revenues expected to flow from copper so that such resources can support the inclusive growth agenda. The focus going forward will include managing the macroeconomic consequences of the expected additional inflows from copper (e.g. Dutch Disease); improving accountability and transparency in the management of revenues; building on the Government's interest in implementing the Extractive Industries Transparency Initiative; investigating how sectoral expenditure policies can contribute to growth and poverty reduction; and improving the efficiency and effectiveness of large parastatals (World Bank 2009b; World Bank 2008a).

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