



USAID COUNTRY PROFILE

PROPERTY RIGHTS AND RESOURCE GOVERNANCE

PHILIPPINES

OVERVIEW

The Philippines consists of 7,107 islands covering 300,000 square kilometers (30 million hectares), including 298,170 square kilometers of land and 1,830 square kilometers of water. Land distribution is highly skewed, and much of the land is moderately or severely eroded. Despite various land reforms, the majority of rural people remain landless, and there is a swelling urban population living in informal settlements. While considerable swaths of lands have been redistributed, the most productive and fertile private agricultural lands remain with wealthy private landowners. Lack of access to land and natural resources by the majority of the population is a key cause of poverty, a driver of conflict and an obstacle to national development.

The Philippines is rich in natural resources. The country is one of the world's 17 mega-diversity countries, although a large number of species are threatened or endangered. Forests, however, cover no more than a quarter of the land area, less than half of the forest cover in 1917. The current annual deforestation rate is about 2.1%. Widespread logging is responsible for much of the forest loss and degradation. Additional threats come from mining operations, clearing of forests for agriculture and settlements, collection of fuelwood, and poor management by the government and tenured stakeholders. Over exploitation of forest resources and inappropriate land-use practices have disrupted the hydrological condition of watersheds, resulting in accelerated soil erosion, the silting of rivers and valuable reservoirs, increased incidence and severity of flooding, destruction of coastal mangroves, and decreasing water supply.

The Philippines has some of the most extensive water resources in the world, although water quality has been severely degraded. Pollution from human trash, commercial agricultural chemicals, animal wastes and industrial wastes has led to 50 biologically dead and dying river systems. Over-extraction of groundwater has caused water levels to decline, wells and springs to dry up, and saltwater intrusion in coastal areas. Leaching of industrial, agrochemical and animal wastes, and infiltration of subsurface discharges from septic systems and polluted urban runoffs have caused groundwater contamination.

The Philippines is one of the world's most highly mineralized countries. Mineral lands are mostly in upland areas which are also rich biodiversity areas. Mining often leads to deforestation and destruction of ecological systems, subsidence, sinking and subsequent displacement of communities. The spilling of mine wastes and tailings causes flooding, damages farm lands, and results in the biological death of rivers.

KEY ISSUES AND INTERVENTION CONSTRAINTS

Unequal access to land and natural resources is a central issue that cuts across both the rural and urban sectors and has fueled ongoing insurgency in the Mindanao region and other areas. By law, natural resources are the property of the State, but in practice, many are under *de facto* open access utilization conditions. In the rural sector, the issue of land reform persists as the comprehensive agrarian reform program launched in 1988 is yet to be completed, more than 20 years later. In urban areas, lack of access to land and housing has resulted in the swelling of informal settlements or squatter colonies on State and private lands. Mindanao is marked by armed conflict since the 1960s caused by land and territorial disputes with Muslim communities:

- **Support greater access for marginalized people in conflict zones.** The 1987 Constitution and recently enacted laws provide the legal framework for increased access and distributive justice through agrarian reform, urban land reform, recognition of indigenous peoples' customary ownership to ancestral lands, and creation of an autonomous region in Mindanao. The country's Medium Term Development Plan (which ends in 2010) includes key implementing programs

on which the government has made some significant strides. These include a program for improved delivery of agrarian support services through an area-based clustering of farms approach; a program for State-sponsored microfinance for informal settlers; and ongoing peace talks with Muslim separatists in Mindanao. However, significant constraints remain, including: vested interests (e.g., large landowners and commercial developers) resisting genuine land reforms; government fiscal constraints; population pressure; and weak governance. A new Medium-Term Development Plan by the new administration will be rolled out in early 2011.

- **Improve water infrastructure.** In the water and forestry sectors, overexploitation of resources has led to environmental degradation and resource scarcity, hampering efforts to reduce rural poverty. Pollution of river basins, over-extraction of groundwater, and inappropriate land-use practices result in decreasing water quality. Widespread logging and the conversion of forests to non-forest uses has vastly reduced forest cover from more than 50% in 1917 to about 24% at present; the Philippines has the second-highest rate of deforestation in Southeast Asia. The government has launched integrated approaches to manage water and forest resources, with USAID and other donors providing considerable assistance, but weak governance, a fragmented institutional structure, and budget gaps remain as key constraints.
- **National dialogue on mining.** The minerals sector is at the forefront of national debate. On the one hand, the government is aggressively promoting large-scale mining and, on the other hand, a grass-roots movement led by the church and civil society is calling for a moratorium on large-scale mining. The government views mining as the engine for national development and poverty-alleviation, while the anti-mining movement protests the negative social and environmental impact of mining, especially industrial mining operations. A key issue is how to balance the various legitimate concerns.

FOR MORE RECENT LITERATURE:

<http://usaidlandtenure.net/philippines>

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

SUMMARY

The Philippines is an archipelago of 7,107 islands covering 300,000 square kilometers (30 million hectares) – 298,170 square kilometers of land and 1,830 square kilometers of water. Under the 1987 Constitution, all public domain lands and natural resources belong to the State. Public domain lands are classified into agricultural, forest or timber, mineral lands, and national parks; only public agricultural lands are alienable or may be subject of private ownership. The Constitution recognizes the rights of indigenous peoples to their customary ownership of ancestral lands and domains, and the right to self-determination of the Muslim minority, through the creation of an autonomous region in Mindanao. The Constitution is supported by a host of laws to secure and protect property rights.

The Philippines has implemented a series of programs to decentralize natural resources. The country has

been a pioneer in efforts to devolve control of rural development to farmers. Its participatory irrigation efforts in the 1970s, its early successes with community-based coastal resource management on Apo and Sumilon islands and its legislation on social and later community forestry provide models for much of Asia. The 1998 law on indigenous peoples' rights has given indigenous communities enormous powers to (re)claim territorial control (Gollin and Kho 2002).

Despite this legislation and various land reforms, however, the majority of rural people remain landless, and there is a swelling urban population living in informal settlements. Outdated land administration laws, an inefficient land administration and adjudication infrastructure, and a poor land information system have resulted in problems of fraudulent, overlapping and duplication of land titles and to widespread land-grabbing. They have also contributed to high transaction costs in securing, registering and transferring property rights, and to tenure insecurity. Inconsistent legislation and policy declarations have led to unsustainable land use and conflict over competing land uses. Unequal access to land and natural resources by poor people is a key driver of conflict and an obstacle to national development, fueling social unrest and armed uprisings. Indigenous peoples are marginalized and have been pushed out of their ancestral lands by the government for infrastructure projects, and by private farming interests and natural resource concession holders. Rural-to-urban migration and lack of access to land and housing by the poor has led to the swelling of squatter colonies or informal settlements in public and privately owned lands in urban and peri-urban areas.

The Philippines is rich in natural resources and is recognized as one of the world's 17 mega-biodiversity countries. The country also has extensive water resources, including 31,000 hectares of rivers and 200,000 hectares of lakes. Fishing rights are granted by local governments, and water permits are required for use beyond

BOX 1. MACRO INDICATORS

	Year	Score
Population, total	2008	90,348,437
Population ages 0-14: 15-64: 65+ (% of total)	2008	34.3; 61.6; 4.1
Population growth (annual %)	2008	1.8
Rural population (% of total population)	2008	35.1
Population density (people per sq. km)	2008	303.0
Literacy rate, adult total (% of people ages 15 and above)	2008	93.6
Land area: Surface area (sq. km)	2008	298,170
Arable land (% of land area)	2007	17.1
Agricultural land (% of land area)	2007	38.6
Permanent cropland (% of land area)	2007	16.4
Irrigated land (% of cropland)	2003	14.5
Forest area (% of land area)	2007	23.0
Nationally protected areas (% of total land area)	2008	17.2
Renewable internal freshwater resources per capita (cubic meters)	2008	5,302
Annual freshwater withdrawals, agriculture: domestic: industry (% of total freshwater withdrawal)	2007	74.0; 16.6; 9.4
Crop production index (1999-2001 = 100)	2007	128
Livestock production index (1999-2001 = 100)	2007	125
GDP (current US\$)	2008	166,909,049,536
GDP growth (annual %)	2008	3.8
Agriculture: industry: manufacturing: services, value added (% of GDP)	2008	14.9; 31.6; 22.3; 53.5
Ores and metals exports: imports (% of merchandise exports: imports)	2007	5.1; 2.2
Aid (% of GNI)	2008	0.0

Source: World Bank, 2009

domestic purposes. Water quality has degraded mainly due to pollution. Forests cover estimates range from 7.2 million hectares to 7.66 million hectares (24% to 26% of land area)¹, of which about 1.8 million hectares (based on 26%) are designated for protection and conservation. Resource utilization is subject to State concession or licensing. Considerable land and many natural resources (e.g., waters, fisheries and forests) are under *de facto* open access regimes. The Philippines is highly mineralized, with an estimated over US \$840 billion in untapped mineral wealth. Exploration and mining rights are subject to State license. The government promotes mining as a driver for economic growth.

I. LAND

LAND USE

The Philippines is an archipelago of 7,107 islands covering 300,000 square kilometers (30 million hectares) – 298,170 square kilometers of land and 1,830 square kilometers of water. It has three major island groups: Luzon, Visayas and Mindanao. The Philippines is recognized as one of the world’s 17 mega-diversity countries², with more than 50,000 species of flora and fauna (more than 65% of which are endemic). It is also one of the world’s hotspots, with a large number of endangered and threatened species making it a global conservation priority area (CIA 2010; GOP 2008e; CI 1998).

BOX 2. LAND TENURE INDICATORS	
	Score
<u>Millennium Challenge Corporation Scorebook, 2009</u>	
– Land Rights and Access (Range 0–1; 1=best)	0.837
<u>International Property Rights Index, 2009</u>	
– Physical Property Rights Score (Range: 0–10; 0=worst)	5.7
<u>World Economic Forum’s Global Competitiveness Index, 2008-2009</u>	
– Property Rights (Range: 1–7; 1=poorly defined/not protected by law)	4
<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)	0.61
<u>International Fund for Agricultural Development, Rural Sector Performance Assessment, 2007</u>	
– Access to Land, 2007 (Range: 1-6; 1=unsatisfactory access)	4.6
<u>Food and Agricultural Organization: Holdings by Tenure of Holdings</u>	
– Total Number of all Agricultural Holdings, Year	4,610,041
– Total Area (hectares) of all Agricultural Holdings, Year	9,974,871
– Total Number of Holdings Owned by Holder; Year	1,999,979
– Total Area (hectares) of Holdings Owned by Holder; Year	4,855,059
– Total Number of Holdings Rented from Another; Year	1,051,976
– Total Area (hectares) of Holdings Rented from Another; Year	1,775,752
<u>World Bank Group, Doing Business Survey, 2009</u>	
– Registering Property-Overall World Ranking (Range: 1–181; 1=Best)	140
<u>World Bank Group, World Development Indicators, 2009</u>	
– Registering Property-Number of Procedures	8
– Registering Property-Days Required	33
<u>World Bank Group, World Development Indicators, 1998</u>	
– Percentage of Population with Secure Tenure	
• Cebu	95.0
<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)	4.90
– Protection of Property Rights (Range 0-10; 0=lowest degree of protection)	5.58
– Regulatory Restrictions of Sale of Real Property (Range 0-10;0=highest amount of restrictions)	8.00

298,170 square kilometers of land and 1,830 square kilometers of water. It has three major island groups: Luzon, Visayas and Mindanao. The Philippines is recognized as one of the world’s 17 mega-diversity countries², with more than 50,000 species of flora and fauna (more than 65% of which are endemic). It is also one of the world’s hotspots, with a large number of endangered and threatened species making it a global conservation priority area (CIA 2010; GOP 2008e; CI 1998).

The Philippines had an estimated population of 90,348,437 in 2008, of which 64.9% is urban and 35.1% is rural. The population is expected to reach 94,013,200 in 2010. The country’s labor force is around 38 million people, or 60.1% of the total population age 15 and over, of whom 34% are in agriculture, 15% in industry, and 51% in services (2008) (World Bank 2010a; GOP 2010a; CIA 2010).

Of the total land area, arable land constitutes 17.1%, with 16.4% in permanent crops. In 2003, there was 15,500 square kilometers of irrigated land. Approximately 45% of agricultural lands are moderately or severely eroded; approximately 27.3% of the country is vulnerable to drought, floods and typhoons. Land degradation exacerbates the effects of natural

¹ Based respectively on Philippine Government Statistics as of 2009 and the Food and Agriculture Organization of the United Nations 2010 Global Forestry Statistics.

² Group of countries identified as representing more than two-thirds or 70% of all (known) life forms and majority of the tropical rainforests, coral reefs and other priority systems. The mega-diversity concept was created to prioritize conservation efforts around the world (CI 1998).

disasters, causing massive landslides and flooding (World Bank 2010a; CIA 2010; GOP 2004c; Pulhin 2001).

LAND DISTRIBUTION

Land distribution is skewed. In the rural sector, there are an estimated 2.9 million small farms that average 2 hectares and 13,681 large private landholdings of up to 20,000 hectares. There are 10.2 million marginal farmers and farm workers, 70% of whom are landless. Since the 1930s, the State has instituted various land reforms, the latest of which is the 1988 Comprehensive Agrarian Reform Law. While considerable swaths of land have been redistributed, the most contentious private agricultural lands, which are also the most productive and fertile, remain with wealthy private landowners (FAO 1997; Borras and Franco 2007).

Rural poverty and a high population growth rate have resulted in rapid urbanization. With an estimated urban population of 58.6 million people, more than one-third of all people live in informal settlements or slum areas as squatters. In Metro Manila, the largest urban center, more than 50% of the population (1.4 million households) lives on riverbanks, bridges, railroad easements, cemeteries, garbage dumps and idle lands (World Bank 2010a; GOP 2008f).

LEGAL FRAMEWORK

Under the 1987 Constitution, all lands of the public domain belong to the State (Art. 7, Sec. 2). State ownership is premised on the Regalian Doctrine (*jura regalia*), the legal concept employed by the Spanish Crown in claiming exclusive dominion over the Philippine archipelago upon conquest in 1521. Under this doctrine, title to all lands became vested in the Crown, and private ownership was acquired only through royal grants or decrees. This was continued during United States (US) colonization, the Philippine Commonwealth period under the 1935 Constitution, and upon independence in the 1973 and 1987 Constitutions.

The Constitution classifies the public domain into agricultural, forest or timber, mineral lands or national parks (Art. 7, Sec. 3). Of these, only public agricultural lands may be alienable (i.e., subject of private ownership) and further classified by law according to use (Art. 7, Sec. 3). The State shall determine by law the size of alienable public lands as well as the specific limits of forest lands and national parks (Art. 7, Secs. 3–4). These laws have yet to be enacted, and the land classification under the 1936 Public Land Act remains in force. Under the Act, public domain lands are classified as either alienable or disposable (i.e., those open to acquisition and concession) or timber and mineral lands (Sec. 6). Alienable and disposable lands shall be classified according to use as agricultural, residential, commercial, industrial, educational, charitable, or as reservations for public and quasi-public uses (Sec. 9). Presently, of the total land area, 14.19 million hectares (roughly 47%) are classified as alienable and disposable land – of which 9.67 million hectares remain devoted to agricultural use and 15.8 million hectares (roughly 53%) as forestland (GOP Constitution 1987a; GOP Public Land Act 1936; GOP 2008g, *Cruz v. Secretary*; GOP 2008a; GOP 2007a).

The 1987 Constitution also provides for: comprehensive land reform (Art. 2, Sec. 21; Art. 12, Sec. s 4–6, 8–10); recognition of indigenous communities and their customary rights to ancestral lands (Art. 2, Sec. 22; Art. 12, Sec. 5); creation of autonomous regions in the island of Mindanao and Cordillera provinces in the island of Luzon (Art. 10, Secs. 15–20); and grant to natural-born citizens who have lost their citizenship the right to acquire private lands (Art. 12, Sec. 8). The provisions are reinforced in the Philippines Agenda 21 – the guidelines for sustainable national development; Medium-Term Philippine Development Plan 2004–2010; and Millennium Development Goals (GOP Constitution 1987a; GOP 2004b; GOP 1996).

The major land reform laws are the 1988 Comprehensive Agrarian Reform Law (CARL) and the 1992 Urban Development and Housing Act (UDHA). The CARL broadened the scope of rural land reform by including private and public agricultural lands regardless of crops and tenure arrangements, and providing for support services to agrarian reform beneficiaries, including infrastructure, capability-building and credit/marketing assistance. Lands were to be distributed to landless farmers and farm workers within a period of 10 years, but when this was not achieved, the law was extended for another 10 years, and then again extended until 2014. The UDHA established the legal framework for urban land reform and housing for informal settlers, slum dwellers and other underprivileged. Key provisions include the prohibition on summary evictions and demolition of dwellings without due process and adequate resettlement, and the provision of government loans to low-income households through the Community Mortgage Program (GOP Agrarian Reform Law 1988; GOP Urban Development and Housing Act 1992; GOP 2009b).

The 1997 Indigenous Peoples' Rights Act recognizes the rights of indigenous peoples to their cultural integrity and self-government, and customary property rights to ancestral domains and lands. The Act requires Free Prior and Informed Consent (FPIC) of indigenous peoples prior to any government grant of license or concessions covering lands within ancestral domains. The 1989 Organic Act for the Autonomous Region in Muslim Mindanao provides for self-governance in Mindanao within the framework of national sovereignty.

Other relevant laws include: the Civil Code, which addresses general property/inheritance issues; the Family Code, which governs marital property rights; and various land titling and registration laws, including the Land Registration Act (1903), Cadastral Law Act (1913), Public Land Act (1936) and Property Registration Decree (1978).

TENURE TYPES

In the Philippines, lands are either public domain (State-owned) or privately owned. Under the 1987 Constitution, only public agricultural lands may be leased up to 1000 hectares to private corporations, and leased up to 500 hectares or acquired by purchase, homestead or grant of up to 12 hectares by individual citizens (GOP Constitution 1987a, Art. 12, Sec. 3).

The Public Land Act and other special laws grant land patents (e.g., homestead, sales or free patents) and concessions vesting ownership in individuals and private corporations upon fulfillment of certain requirements. Under the Comprehensive Agrarian Reform Law, farmer-beneficiaries are granted: 1) full or absolute ownership in the form of Emancipation Patents upon full payment of amortizations; or 2) non-absolute ownership in the form of Certificates of Land Transfer or Certificates of Land Ownership for those still completing payments. Stock ownership under the Stock Distribution Option is granted to agrarian reform beneficiaries in large corporate farms. Farm workers in areas within the retention limit of landowners and in private agricultural lands yet to be acquired by the government are granted leasehold rights with a 75:25 sharing in favor of the farmer-lessee.

Alienable and disposable lands (which include agricultural lands and reclassified lands) and privately owned lands (based on State grants or laws passed since colonization) are subject to: 1) purchase which vests ownership; or 2) lease which vest only the right to occupy and use for the period agreed upon. In 2003, 64.8% of lands classified as alienable and disposable were privately owned. Forest lands, including mineral lands and national parks, belong to the State subject to usufruct and resource utilization rights under certain conditions (Llanto 2003; GOP Constitution 1987, Art. XII, Sec. 2).

Customary ownership rights over ancestral lands are recognized in the Constitution and Indigenous Peoples' Rights Act. In addition, the Supreme Court, the highest civil court, has ruled that colonizers only acquired dominion over unoccupied or unclaimed portions of the Philippine archipelago, and ancestral lands are deemed private lands based on customary or native title outside the scope of the Regalian doctrine. Rural migration and population growth have led to the rise of informal settlements on public lands and idle private lands in urban and peri-urban areas. Informal settlers are protected under the Urban Development and Housing Act from summary evictions and demolitions (GOP 2008g, *Cruz v. Secretary*; GOP 2008e).

SECURING LAND RIGHTS

Land rights are acquired from the State by public grant or by operation of law, or from private transactions or contracts involving private lands. Public grants include: 1) land patents (homestead, sales or free patents) or leases conferred under special laws; 2) royal grants/decrees issued during the colonial period; 3) titles acquired under agrarian reform laws; 4) title acquired under the urban land reform law (which grants the urban poor the right to purchase home plots in their existing settlements or resettlement areas); and 5) title in the form of Certificates of Ancestral Domain Claim (CADC) and Certificates of Ancestral Land Claims (CALC) acquired by indigenous peoples under the Indigenous Peoples' Rights Act (GOP Civil Code 1949, Book II; GOP Indigenous Peoples' Right Act 1997).

Land rights are acquired by operation of law through accretion, prescription, hereditary succession or inheritance, or marriage under the property regime of absolute community of property (i.e., joint ownership of property brought into the marriage or acquired after). For private lands, rights may be acquired through voluntary transactions such as sales and donations, transfer by will, or involuntary transfer such as foreclosure or tax sales. These transactions are governed by general property and commercial laws (GOP Civil Code 1949, Books II and

III; GOP Family Code 1987b, Tit. 5 Ch. 3).

The 1987 Constitution restricts access to public lands. Citizens may acquire public lands of not more than 12 hectares by purchase or land patent, or of no more than 500 hectares by lease. Private corporations must be at least 60% Filipino-owned and may lease land of not more than 1000 hectares for a period of 25 years, renewable for the same term. The use of public and private land is subject to zoning or local land-use classification laws. Foreigners may acquire private land only in limited circumstances (GOP Constitution 1987a, Art. 7 Sec. 3; Galacio 2008).

The Land Registration Act requires registration of land rights under the Torrens system. Under this system, the government issues a certificate of title (Torrens title) as proof of ownership; it is the highest measure of tenure security. Courts have upheld ownership based on tax declarations, realty tax receipts and transfer deeds. Land rights are secure insofar as they may be proved or traced back to some State grant or lawful private transaction (Malenab-Hornilla 2008).

An inefficient land administration system contributes to tenure insecurity and high transaction costs in securing, registering and transferring property rights. It takes between six months to several years to obtain original titles and between several weeks to a few months to register subsequent transactions. About one-third of private land parcels in rural areas are untitled (Llanto and Ballesteros 2003).

INTRA-HOUSEHOLD RIGHTS TO LAND AND GENDER DIFFERENCES

The law generally provides for equal land access. Under property law and under family and succession law, men and women have equal property rights. Assets acquired during cohabitation without marriage are co-owned, and can be encumbered or disposed of by one partner only with the consent of the other. Within marriage, the property regime is absolute community of property – unless a different regime is stipulated in the marriage settlements – and both spouses jointly administer family property (GOP Family Code 1987b, Arts. 147, 75, 96).

In case of disagreement, the husband's decision prevails, subject to recourse to the courts by the wife. The wife retains sole management rights to her exclusive property. In case of legal separation, the terms of dissolution of community property are determined by guilt, not by gender (GOP Family Code 1987b, Arts. 96, 111, 63[2]).

Married women may make wills without the consent of their husband, and dispose of their separate property and share of community property. Widows are compulsory heirs of their deceased spouses (GOP Civil Code 1949, Arts. 802–3, 900; Cotula 2007).

The Women in Development and Nation Building Act (1992) expressly grants women, regardless of civil status, the same capacity to act and enter into contracts as men, and equal treatment in agrarian reform and land resettlement programs. The Comprehensive Agrarian Reform Law guarantees women, regardless of civil status, equal rights to own land, equal shares of farm produce, and representation in advisory and decision-making bodies. The Magna Carta of Women (2009) grants equal property and inheritance rights to wives and common law spouses, and equal access to agrarian and customary lands (GOP Agrarian Reform Law 1988, Sec. 40 [5]; GOP Magna Carta of Women 2009c, Secs. 19–20)

However, despite the laws, patriarchal attitudes and deep-rooted stereotypes regarding the role of women persist (The OECD rankings [see Box 3] are based simply on the question on whether women can own land and property, as indeed they can). In practice, men are still the primary property owners, and some laws and government policies that are neutral on its face upon implementation work to discriminate against women. The order of priority of agrarian beneficiaries under the Agrarian Reform Law disadvantages women, as they are mostly seasonal farm workers and thus rank third in priority of distribution. Government-sponsored indigenous peoples' resettlement projects award land titles and certificates of titles to crops to the head of the family, who is often a man. Although women have the legal right to independently enter into contracts, many financial institutions require the husband or male partner to co-sign loans and financial contracts; women's access to credit

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

is limited to smaller amounts as they usually have less property to provide as collateral (GOP Agrarian Reform Law 1988, Sec. 22; Cotula 2007; Tripon 2008; OECD 2009).

Customary laws practiced in rural areas and by various ethnic groups generally grant men greater access to land than women. Tribes in the north and center of the country give women equal right to land ownership, but it is the men who principally administer and manage conjugal properties. Southern Muslim tribes require the husband's consent before a woman may acquire any property, and women inherit only half the share inherited by men in a similar position (Cotula 2007).

LAND ADMINISTRATION AND INSTITUTIONS

Nineteen government agencies are involved in land administration and management. The Department of Agrarian Reform is the lead agency for agrarian reform. Its functions include: land surveys; processing of compensation; registration of lands; and issuance of certificates of ownership. The Department coordinates with the Department of Environment and Natural Resources (DENR) for land survey and distribution, and with the Department of Agriculture for delivery of support services (Llanto and Ballesteros 2003).

The Housing and Urban Development Coordinating Council is the highest policy-making and coordination agency on urban development. It coordinates with the Housing and Land Use Regulatory Board for the review of development plans, zoning, and settling land-use conflicts; and the National Housing Authority for urban resettlement. Other key land agencies are: 1) the Land Management Bureau (under DENR) recommends policies/programs for the administration of alienable and disposable lands; 2) the Land Registration Authority issues patents and certificates of title and registers land-transaction documents (a Registry of Deeds is attached to the Land Registration Authority in every city and province); 3) the National Commission on Indigenous Peoples assists customary peoples in securing title to their lands and approves any proposed disposal, utilization, management or appropriation of ancestral lands; and 4) Local Government Units develop land-use and development plans and zoning ordinances.

Many regulatory agencies in the Philippines have limited capacities to implement and enforce land, environment and natural resource laws and to protect property rights.

LAND MARKETS AND INVESTMENTS

There is an unmet demand for housing, commercial and industrial land. The Medium Term Development Plan 2004–2010 includes a target of one million houses for the poor. Developers contend that this can only be met by converting tracts of farmland on the outskirts of urban areas, but the government has banned agricultural land conversions in 2008 due to food security concerns (GOP 2004b; *PDI* 2008a; *PDI* 2008b).

Buying, selling, renting and mortgaging of land are governed by general property and commercial laws. Certain lands acquired by public grants and under agrarian reform laws, such as land patents, emancipation patents or certificates of land ownership awards, contain restrictions on transfers and mortgage. This has resulted in informal markets of prohibited land transactions. Land valuation systems are multiple, resulting in different pricings for the same property. Various government agencies use different bases for valuation, such as market valuation by zone or area for taxation purposes – which can vary between national and local authorities, and valuation according to use for land conversion or development purposes. The zonal valuation system, especially in rural provinces, is outdated, resulting in undervaluation of properties (Llanto and Ballesteros 2003; Domingo and Fulleros 2005).

There is a lack of reliable data on property markets. Land record systems are unsystematic and unreliable as to land ownership, locations, boundaries, actual land uses and land values. Many records have been destroyed by war, theft, fire and water damage, or have been misplaced in the frequent transfers. Many records are in fragile condition, and some have been illegally altered. There is no complete set of cadastral maps that shows titled and untitled properties on alienable and disposable lands. The titling system lacks quality control – multiple titles and gaps in titles are not easily detected. Inefficiencies combined with high land taxes have led to informal land markets, particularly in poor communities (Llanto and Ballesteros 2003).

COMPULSORY ACQUISITION OF PRIVATE PROPERTY RIGHTS BY GOVERNMENT

Expropriation is an inherent power of the State. The authority is lodged with the Philippine Congress but delegated under various laws to national government agencies, local government units and public utilities

involved in infrastructure development (GOP 2008g, *Moday v. Court of Appeals*).

The grounds and procedures for expropriation are set forth in the 1987 Constitution and enabling legislation. Private property cannot be expropriated without due process and just compensation. The taking must be for public use, interpreted broadly by the courts to be consistent with public welfare or public exigency. Just compensation is defined as the full and fair equivalent of the property, based on the owner's loss at the time of the taking, and is a judicial function. The Comprehensive Agrarian Reform Law and Urban Development and Housing Act involve large-scale exercises of expropriation (GOP Constitution 1987a, Art. 3, Secs. 1, 9; GOP 2008g, *Manosca v. Court of Appeals*, *National Power Corporation v. Bagui*)

LAND DISPUTES AND CONFLICT

Unequal access to land and resources is a key driver of conflict, fueling social unrest and armed uprisings. There have been various land reform programs since the 1930s, but none have been effectively implemented. The latest comprehensive agrarian reform program remains uncompleted more than 20 years after it was launched in 1988, and the most productive and fertile lands are still in the hands of private plantation and commercial farm owners. For those who have benefited from land distribution, slow delivery of support services and infrastructure promised under the program has resulted in suboptimal use of the land. Apart from budgetary constraints and bureaucratic inefficiencies, the government is perceived as lacking the political will to pursue genuine agrarian reform. Rural-to-urban migration and lack of access to land and housing by the poor have led to the swelling of squatter colonies or informal settlements on public and privately-owned lands in urban and peri-urban areas. Mass evictions have often resulted in violent confrontations between the squatters and the government or private landowners (Borras and Franco 2007; GOP 2006a; Villanueva 2007; USAID 2002).

Indigenous peoples are marginalized and have been pushed out of their ancestral lands by the government for infrastructure projects, and by private farming interests and natural resource concession holders. They struggle to uphold their rights under the Indigenous Peoples' Rights Act, which conflicts with the Regalian doctrine applied in various laws (e.g., 1995 Mining Act, 1992 National Integrated Protected Areas System Act and Revised Forestry Code) (Novellino 2000).

Muslim separatists are engaged in armed rebellion in Mindanao, where six of the country's 10 poorest provinces are located. The insurgency began in the late 1960s, waged by the Moro National Liberation Front and presently includes the Moro Islamic Liberation Front. Despite the creation of the Autonomous Region in Muslim Mindanao, conflict and instability persist. The conflict dynamic is further complicated by the activities of the Abu Sayyaf Group, considered a terrorist group by the government with links to Jemaah Islamiya, the Indonesia-based Al-Qaeda affiliate. The region is also plagued by localized clan rivalries over land and resources and political dominance (Gutierrez 2008; Kamlian 2003; USAID 2010a).

Outdated land administration laws, an inefficient land administration infrastructure and a poor land information system have resulted in widespread problems of fraudulent, overlapping and duplication of land titles, and have contributed to land-grabbing. Inconsistent legislation and policy declarations have led to unsustainable land use and conflict over competing land uses. Large swathes of productive agricultural land, especially in the rice bowl provinces in central Luzon, have been converted for housing, commercial and industrial purposes (Llanto and Ballesteros 2003; Kelly 1998).

KEY LAND ISSUES AND GOVERNMENT INTERVENTIONS

As in many developing countries with nature-based economies, land and natural resources are highly politicized in the Philippines. Control over land and resources is often a major strategy for maintaining political control; traditional politics are oriented toward maintaining elite control over the nation's land and other resources. This has created a dualistic economy, where the welfare of the elite and the poor majority are often in opposition. In this context, economic growth can reinforce inequity rather than reduce it (Gollin and Kho 2002). A central problem, then, is the political economy which perpetuates control of economic assets (land, resources) and political power by a small grouping of wealthy families. "The problems of democracy subverted are thus intimately tied to those of disappearing natural resources and continuing widespread poverty and *inequity*" (Gollin and Kho 2002).

Poverty reduction underpins many land-related interventions. The Medium-Term Development Plan 2004–2010

includes asset reforms in agrarian, urban and ancestral lands, and a strategy for Mindanao. Recent interventions on urban land reform include: 1) providing social housing to 710,203 households of informal settlers (with help from the private sector); and 2) creation of the Social Housing Finance Corporation to provide micro-financing for the bottom 30% of the population under the Community Mortgage Program.

In 2008, the government negotiated the Memorandum of Agreement on Ancestral Domain, aimed at ending the rebellion by the Moro Islamic Liberation Front and granting Muslims more freedoms under an expanded autonomous region in Muslim Mindanao territory. The Memorandum was opposed by Christian politicians and subsequently struck down as unconstitutional by the Supreme Court. After a period of violence, the government and the rebels have agreed on a ceasefire (AFP 2010).

In late 2008, the government declared an indefinite moratorium on the conversion of prime agricultural lands. In August 2009, Congress extended the implementation of the Comprehensive Agrarian Reform Law until 2014. The government is promoting area-based clustering of farms to improve the delivery of agrarian support services (GOP 2009b; PDI 2008a; GOP 2006a).

The government's Land Administration and Management Project aims to improve tenure security, create an efficient land market and improve public confidence in the land administration system. Project initiatives include: the creation of a more efficient land-records system, and more equitable and uniform property valuation system; the rationalization and streamlining of land administration agencies; and the improvement of accessibility to land registry records (GOP 2008d).

DONOR INTERVENTIONS

USAID is in the process of developing its land strategy (as part of the Country Development Cooperation Strategy/CDCS process) which should form the basis for future investment decisions. USAID's Country Assistance Strategy Philippines 2009–2013 includes programs in poverty reduction, economic growth acceleration, improved governance and mitigation of security threats. A key cross-cutting theme is conflict reduction in Mindanao, where local threats to security impact regional stability. Projects include: 1) Growth with Equity in Mindanao, which includes infrastructure investments under the Barangay Infrastructure Project and Regional Impact Projects, and agricultural support services under the Livelihood Enhancement and Peace Program and the Targeted Commodity Expansion Project; (2) the Mindanao Initiatives for Peace, aimed at strengthening community-based conflict management processes in conflict-prone Bangsamoro areas; and (3) Microenterprise Access to Banking Services, which includes agricultural lending to small farmers and housing microfinance. At the national level, USAID is investing in improved property rights and land use through the Local Implementation of National Competitiveness for Economic Growth Project, which aims to improve the legal and administrative framework on land titling (USAID 2010a; USAID 2010c). USAID democracy investments to promote good governance also support the Mission's sector work.

The World Bank Country Assistance Strategy for the Philippines 2010–2012 focuses on inclusive growth for the poor. Active projects include: 1) the Land Administration and Management Project, in collaboration with the Australian Agency for International Development (AusAID); 2) the Participatory Irrigation Development Project, aimed at improving irrigation service delivery and increasing agricultural production; and 3) the Second Agrarian Reform Communities Development Project, aimed at improving tenure security for agrarian reform beneficiaries through infrastructure development and agricultural support services (World Bank 2010b; World Bank 2010c; World Bank 2010d).

The Asian Development Bank Country Operations Business Plan for the Philippines 2010–2012 includes investments in: 1) the Irrigation Systems Operation Efficiency Improvement Project for about 50,000 hectares of irrigated land in Mindanao and the Visayas; 2) land tenure improvement and rural infrastructure and agri-enterprise development for the poorest provinces in Mindanao and the Visayas, including provinces with indigenous communities and Muslim minorities under the Agrarian Reform Communities Project II; and 3) land tenure, shelter financing, and basic infrastructure under the Development of Poor Urban Communities Sector Project and Metro Manila Urban Services for the Poor Project (ADB 2008; ADB 2010).

Many Philippine NGOs are engaged in land matters – from political activism to serving as intermediaries between citizens and the State. Many of these NGOs work to strengthen community groups by providing financing, advocacy and capacity-building.

2. FRESHWATER (LAKES, RIVERS, GROUNDWATER)

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

The Philippines has extensive water resources, including 31,000 hectares of rivers; 200,000 hectares of lakes; 19,000 hectares reservoirs; and 246,063 hectares of swamplands. There are 421 river basins, of which 20 are considered major river basins. Major rivers are the Cagayan – the country’s longest river – the Agno, Pampanga, Pasig and Bicol rivers in Luzon, and the Rio Grande de Mindanao. There are 99 significant lakes; 16 lakes cover 400 hectares or more. The largest lakes are the Laguna de Bay on Luzon and Lake Lanao on Mindanao. Philippine rivers and lakes are home to more than 316 fish species, some of which are endemic (Philippine coastal waters are considered the center of marine biodiversity in the world). Groundwater reservoirs have a storage capacity of 251,100 million cubic meters and a dependable supply of 126,000 million cubic meters per year. Average annual rainfall is 2500 millimeters (FAO 2005c; GOP 2006e; Gamolo 2008; GOP 2009a; NWRB 2006e).

Surface water use is largely for agriculture, with irrigation, livestock, and fisheries representing 85% of total water use, while industry and domestic sectors share the rest. Groundwater use is distributed as: 63% for domestic use; 17% for industry; 13% for agriculture; 1% for power generation; and 6% for other sectors. Many people fish for home consumption or small-scale commercial activities. Ten major lakes are used for aquaculture production (Gamolo 2008).

Water supplies are generally sufficient for local needs but there are water deficits in highly populated areas, particularly in regions with limited supplies. Water quality, however, is worsening. Experts have concluded that 50 river systems are biologically dead or dying due to pollution from human trash, commercial agricultural chemicals, animal wastes and industrial wastes. In Metro Manila, nine river sub-basins are used as dump sites. One-third of the country’s river systems remain as potential sources of drinking water. Up to 58% of groundwater is contaminated due to leaching of industrial, agrochemical and animal wastes and infiltration of subsurface discharges from septic systems and polluted urban runoffs. Over extraction of groundwater has led to a decline in levels, drying up of wells and springs, and contamination of wells by saltwater intrusion in coastal areas. Overexploitation of forest resources and inappropriate land-use practices have disrupted the hydrological condition of watersheds, resulting in accelerated soil erosion, siltation of rivers and valuable reservoirs, increased incidence and severity of flooding and decreasing water supply. Without new investment in water supply infrastructure, future projections of water requirements suggest that water availability will be marginal or unsatisfactory in eight of the 19 major river basins before 2025, and most major urban centers will experience water deficits (ADB 2004b; Alikpala 2008; GOP 2006e).

LEGAL FRAMEWORK

Under the 1987 Constitution, all waters and aquatic resources belong to the State; the measure and limit of water use for irrigation, water supply, fisheries or industry is beneficial use, and water use for power generation is allowed for 25 years, renewable for the same term. Other policy guidelines are set forth in the Philippine Agenda 21’s Millennium Development Goals (No. 7: Ensure environmental sustainability) and in the Medium-Term Development Plan 2004–2010. Two targets of the Medium-Term Development Plan are the reforestation of 1 million hectares of land in 140 priority watersheds and providing access to safe drinking water to 200 waterless *barangays* (villages) (GOP Constitution 1987a, Art. 7, Sec. 2; GOP 1996).

The 2004 Clean Water Act aims to protect the country’s water bodies from land-based pollution sources and to establish a framework for water-quality management. The 1976 Philippine Water Code defines the extent of the rights and obligations of water users. The 1998 Philippine Fisheries Code provides for the sustainable development of fishery and aquatic resources, and the structure for the granting of fishing privileges. The 1997 Agriculture and Fisheries Modernization Act provides for measures to modernize the agriculture and fisheries sectors.

TENURE ISSUES

Fishing rights are granted by local government units within their municipal waters (up to 15 kilometers from the coastlines under the Fisheries Code) or special agencies created by law to administer select bodies of water (e.g., Laguna Lake Development Authority, Palawan Council for Sustainable Development). Fishing rights are granted

to municipal fisherfolk and their organizations listed in the registry of municipal fisherfolk, subject to certain conditions and limitations. Fishpond licenses are required under the Fisheries Code, with preference given to small or medium enterprises, for up to 50 hectares for individuals and 250 hectares for associations/enterprises, subject to certain conditions.

Under the Water Code, a water permit is required for use beyond domestic purposes – irrigation, community use, commercial uses (e.g., power generation and fisheries), industrial use and recreational use. No permit is needed for household uses and collecting of water using hand-carried receptacles; washing, watering or dipping of domestic or farm animals; or boating or water transportation. The Indigenous Peoples' Rights Act recognizes indigenous peoples' customary rights over all natural resources within ancestral domains, and designates them as administrators of watersheds within their domains (GOP Indigenous Peoples' Rights Act 1997).

Women are relied upon to provide water for household needs while men make many of the decisions about water resource management and development. Women are involved in pre- and post-harvest fishing activities, such as fish processing and marketing, mending nets and tending fishing equipment. In 2009, female employment in the fishery sector was 0.9% of the country's aggregate female labor force, compared to male employment of 6.3% of the aggregate male labor force (FAO 2005a; ADB 2004a; GOP 2010b).

Increased water demand from population growth, urbanization and industrialization cannot be met by the current water infrastructure. Roughly 30 million people do not have access to water-supply and distribution systems. Inefficient water use has led to considerable wastage of water in distribution lines, irrigation canals and in homes (EC 2005; Barba 2004).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Department of Environment and Natural Resources (DENR) and the National Water Resources Board are the lead agencies charged with protection of water resources. The Board acts as the principal coordinating and regulatory body. DENR's Environment Protection Bureau – Water Quality Management Section – implements the Clean Water Act, while its Forest Management Bureau handles watershed management.

Other agencies include: 1) the Department of Agriculture's Bureau of Soils and Water Management and Bureau of Fisheries and Aquatic Resources; 2) the Department of Health's Environmental Health Services, which enforces drinking water quality standards; 3) the Department of Science and Technology's Philippine Council for Aquatic and Marine Research and Development; 4) the Department of Public Works and Highways for drainage and flood control; 5) the National Irrigation Administration; and 6) the Local Water Utilities Administration, which governs local water districts and reviews rates charged by local water utilities.

The current institutional and regulatory framework is the product of incremental developments over the years, each in response to particular challenges of the time. The result is an institutionally-fragmented approach, with overlapping and fractional plans and programs (GOP 2006e; Barba 2004).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

The government has adopted the Philippine Integrated Water Resources Management Plan, which is based on the river basin/watershed approach. The Plan aims to: integrate land and water resources (surface, groundwater and coastal); coordinate all water-related efforts based on a participatory approach that includes users; promote equitable access to water supply; restore the health of critical ecosystems; and promote environmental sustainability. The River Basin Control Office was created to implement the Plan (GOP 2006e).

DONOR INTERVENTIONS AND INVESTMENTS

USAID investments include: 1) the Philippine Sanitation Alliance Project, aimed at reducing public health risks through improved sanitation and wastewater treatment facilities; 2) the Philippine Water Revolving Fund Support Program, in collaboration with the private sector and Japan International Cooperation Agency (JICA), aimed at stimulating private financing for water infrastructure to meet the country's Millennium Development Goals in water and sanitation; and 3) the Environmental Governance (EcoGov) Project Phase 2, which provides technical assistance to local government units, many in Mindanao, to implement programs for reducing destructive fishing practices and improving wastewater management (USAID 2010b). USAID will soon conduct separate water and environment sector assessments as part of developing its overall strategy (as part of the Country Development

Cooperation Strategy/CDCS process) which should form the basis for future investment decisions.

Active World Bank investments include: 1) the Water Resources Development Program for rehabilitation of critical watersheds; 2) Philippine Local Government Grants for Sanitation Pilots, aimed at improving water quality, sanitation and flood protection; 3) the Improved Access to Water Services in Metro Manila Project for increased access to piped water supply services for poor households; 4) the National Program Support for Environmental and Natural Resources Management Project for an integrated ecosystem management approach in priority watershed areas; 5) Global Environment Facility-Manila Third Sewerage Project to promote capacity-building and effective wastewater treatment techniques; and 6) the Laguna de Bay Community Watershed Rehabilitation Project (World Bank 2010c; World Bank 2010d).

The Asian Development Bank (ADB) invests in: 1) development of new water sources under the Water District Development Sector Project; and 2) river-basin management under the Pasig River Environmental Management and Rehabilitation Project and Agusan River Basin Integrated Water Resources Management Project in Mindanao (which encompasses the biodiversity-rich 40,000 hectares Agusan Marsh Wetland Sanctuary designated under 1971 Ramsar Convention on Wetlands of International Importance) (ADB 2010).

3. TREES AND FORESTS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Philippine forest cover is estimated by the Food and Agriculture Organization at 7.2 million hectares or 24% of total land area,³ of which around 12% is dipterocarp or lowland rainforest, 3.5% mossy/montane or cloud forest, 0.4% coastal and mangrove, 0.77% pine forest and 1.6% submarginal forest, with patches of beach forests and the emergence of a new forest type – the peat swamp forest or peat dome found in Agusan del Sur. The largest remaining forest patches are found in northern and southern Luzon (especially the Sierra Madre mountain range, Palawan, Mindanao and eastern Visayas. Old-growth or primary forest comprise around 861,000 hectares. Based on use, production forest⁴ comprises 77%; protection forest⁵ comprises 8%; and conservation forest⁶ comprises 15% of total forest area. 10.28% of forest land (0.737 million hectares) are within lands classified as alienable and disposable (GOP 2009a; FAO 2010).

In 1917, forest cover was 17 million hectares, or more than 50% of land area. The current deforestation rate is around 2.1% per year, representing a 20% drop from the 1990s rate, but still the second-highest rate in Southeast Asia (after Myanmar). The main direct cause of forest degradation in the Philippines is overexploitation from logging, fuelled by weak governance, the capture of resources by elite groups, failure to collect rents from licensees, short-sighted and unpredictable policies, rapid population growth, and increased conversion of forest land to agricultural, residential and commercial uses (Guiang and Castillo 2006; Chokkalingam et al. 2006). Additional threats come from mining operations, clearing of forests for agriculture and settlements, collection of fuelwood, and poor management by the government and tenured stakeholders. Deforestation effects include: the extinction or near extinction of endemic species (e.g., Philippine tamaraw or wild buffalo, Philippine eagle); loss of valuable topsoil; landslides and silted streams; and destruction of coastal mangroves (FAO 2005b; FAO 2010; GOP 2009a).

LEGAL FRAMEWORK

Under the 1987 Constitution, all forest lands and resources belong to the State (Art. 7, Sec. 2). Major forestry laws include: 1) the 1975 Revised Forestry Code, which governs the use and management of forest lands and products; 2) the 1981 Environmental Impact Statement System law, which requires environmental impact assessments and Environmental Compliance Certificates for projects in critical areas; 3) the 1992 National Integrated Protected Areas System Act, providing for the establishment of a comprehensive system of protected

³ This estimate is based on the Food and Agriculture Organization-established definition of forest as an area of not more than 0.5 has and tree crown cover (or equivalent stocking level) of more than 10% which includes natural and plantation and production forests, which the Philippine government adopts (PAWB 2009). The FAO estimate based on its definition is 7.7 million hectares or 26% of total land area (FAO 2010).

⁴ Forest area designated primarily for production of wood, fiber, bio-energy or non-wood forest products (FAO 2010).

⁵ Forest area designated primarily for protection of soil and water (FAO 2010).

⁶ Forest area designated for conservation of biological diversity (FAO 2010).

areas; 4) the 1997 Indigenous People's Rights Act, which recognizes the customary right of indigenous peoples to forest resources within their ancestral domains and their right to participate in forest programs, 5) the 2001 Wildlife Resources Conservation and Protection Act, which protects wildlife resources and habitat, and regulates the collection and trade of wildlife; and 6) the 2002 Chainsaw Act, which regulates ownership, sale and use of chainsaws to prevent their use for illegal logging and clearing of forest land. Forest policy is guided by the concept of Sustainable Forest Management, recognized in the Philippine Agenda 21, Millennium Development Goals and Medium-Term Development Plan 2004–2010 (GOP 1996).

A large number of laws and implementing regulations developed since 1980 directly support community-based forest management (CBFM). These were developed in direct response to the rapid deforestation experienced in the previous martial law years. Executive Order No. 263 of 1995 issued from the President's Office is of particular importance to communities and forests. The Order pronounces CBFM as a strategy for forest management and provides mechanisms for its implementation – “WHEREAS, entrusting the responsibility for forest rehabilitation, protection, and conservation to the community of stakeholders and affording them equitable access to the forest and coastal resources are viable forestland management strategies as borne by the experience of the DENR and various supporting agencies” and in Section 1, “Community-based forest management (herein referred to as CBFM) shall be the national strategy to achieve sustainable forestry and social justice.”

Various department administrative orders have been issued by the Department of Environment and Natural Resources (DENR) to implement CBFM: DENR Administrative Order (DAO) 22-93 and DAO 96-29 of 1996 regarding Community-Based Forest Management Agreement (CBFMA); DAO 96-29 regarding Certificate of Stewardship Contract (CSC); DAO 04-97 regarding Industrial Forest Management Agreement (IFMA); DAO 24-96 regarding Socialized Industrial Forest Management Agreement (SIFMA); DAO 02-93 regarding Certificate of Ancestral Domain Claim (CADC); and DAO 02-93 regarding Certificate of Ancestral Land Claim (CALC) (Guiang and Castillo 2006).

TENURE ISSUES

In the past, forest rights granted by the government to the private sector were principally for forest-resource utilization and commercial exploitation (concessions, licenses or permits). Prior to the 1987 Constitution, logging rights were often granted to the elite. All tenure instruments are for 25 years, renewable for the same period (GOP 2003; Pulhin and Dizon 2003). State tenure, notably protected areas and watershed reservations, are generally for public good purposes, such as biodiversity conservation, education and research. In the past 25 years, CBFM (and various joint venture, coproduction and production-sharing instruments) has been viewed as the most effective strategy for achieving sustainable forest management and for addressing the problems plaguing the Philippine forestry industry. As a result, CBFM programs have received substantial donor support. The evolution of CBFM has developed in parallel with the emergence of the government decentralization program that began in the 1980s (Clausen et al. 2003).

Communal Forests are forestlands not exceeding 5000 hectares set aside by the government for local use and subject to an approved sustainable operations plan. Community Watersheds are forestlands set aside for communities to use as a source of water supply in accordance with a sustainable development plan (GOP 2003). According to USAID, community forest rights are often awarded by the government to address equity issues (e.g., marginalization of indigenous peoples and preservation of socio-cultural/ethnic values and indigenous knowledge), but also convey the rights to use the forest for other purposes, including production, conservation, development, food production and environmental services for a fee. Production is often not the primary purpose of Community Forests and, per Executive Order No. 263 of 1995, must be based on a DENR-approved management plan or ancestral domain plan.

Community-Based Forest Management Agreements (CBFMAs) permit communities and peoples' organizations in forested areas to occupy and use forest lands for agroforestry, for harvesting of timber and non-timber products, and for forest protection and reforestation. Communities have complained that they are often granted poor-quality lands and denuded areas, and are expected to rehabilitate forest lands without adequate technical and financial support (Pulhin and Dizon 2003). CBFMAs cannot be used as collateral with financial institutions as the lands covered by the agreement remain under the jurisdiction of the State (Clausen et al. 2003).

Certificates of Ancestral Domain Claim (CADCs) are issued by DENR and can be converted to Certificates of

Ancestral Domain Title (CADTs) under the 1997 Indigenous People's Rights Act. There is some overlap among these and CBFMAs – of the 4.9 million hectares of land allocated to communities, at least 2.5 million hectares are under CADCs, some of which have CADTs. The remaining land is covered by CBFMAs or related tenure instruments (Guiang and Castillo 2006).

CBFM has been shown to be effective in several areas, especially in Luzon and northern Mindanao. In these places, CBFM has productively built upon indigenous knowledge and traditional land use systems practiced by groups that include the Ifugao, Bontoc, Sagada, Ikalahan and Higanonon. In other areas where communities are more heterogeneous, CBFM has been more dependent upon outside projects and agencies to move the process forward. Even in areas where there have been no projects established to promote CBFM, the initiative has benefited and prospered from the presence of programs designed to decentralize government (Clausen et al. 2003).

Protected Area Community-Based Resource Management Agreements permit migrant communities living in protected areas to use forest products, but not to log or cut timber. Other concessions granted are Production Sharing Agreements, granted to private-sector investors, and Industrial Forest Management Agreements and Socialized Industrial Forest Management Agreements, which grant rights to harvest timber and non-timber products with the obligation of reforestation. Forest Land Grazing Management Agreements permit use for grazing purposes (GOP 2003).

More men than women are employed in logging and other forest-based industries. More women are involved in wood-based products manufacturing (saw milling, veneer and plywood manufacturing) than in logging. There is pressure to convert forest areas to non-forest uses (e.g., mangrove forests are cleared for prawn farming and natural forests are converted to biofuel plantations). Illegal logging persists; there is weak enforcement of forestry laws, and human resource skills to implement forestry programs are lacking (FAO 2005b; GOP 2009a; Catindig 2002). Many protected areas, watershed reservations and community forests are not well managed, leading to open-access conditions and to forest loss or degradation (Guiang and Castillo 2006).

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Department of Environment and Natural Resources (DENR) is responsible for the management, development and conservation of forest and grazing lands. Relevant DENR bureaus include the Forest Management Bureau, Protected Areas and Wildlife Bureau, and Ecosystems Research and Development Bureau. The Natural Resources Development Corporation (attached to DENR) is responsible for promoting and pioneering production, use and marketing ventures.

DENR is frequently mentioned as a major obstacle to successful CBFM. DENR has made compliance with the rules and regulations for CBFM certification difficult. The stated obstacles (voiced by communities, NGOs, LGUs and some DENR personnel) include felling and transport requirements (communities are not allowed to use modern equipment), excessive taxes on forest products, complex permit systems, and onerous management plan requirements. DENR check points have become synonymous with bribes and “take down” points. Further, DENR suspended new CBFM instruments in 1998 (Clausen et al. 2003).

Forest protected areas (PAs) comprise about 5% of the country's forest resource base, and fall under the jurisdiction of the Protected Areas and Wildlife Bureau of DENR. Each PA has a Management Board that is chaired by DENR and has members from LGUs, NGOs, and other stakeholders. The Boards are responsible for setting up multiple-use access zones for the collection of select forest products (e.g., vines, medicinal plants, and other traditional uses). They also collect revenue from entrance fees, research fees, telecommunications (user fees where radio towers/stations are located in a PA), water user fees and ecotourism (where it is developed). A share of the revenue is distributed to the local People's Organization (PO) for community development. This system has been credited with improving PA protection (Clausen et al. 2003).

Other forest-relevant agencies include: the National Commission on Indigenous Peoples, the National Power Corporation and the Philippine National Oil Corporation. Local Government Units assist in forest law enforcement within their jurisdictions.

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

Despite progress, national-level support for CBFM may be ebbing. CBFM is gaining critics because it has not produced results as quickly or as widely as originally envisioned. There appear to have been unrealistic expectations for CBFM – in the early 1990 during the Ramos administration, many people viewed it as the quick answer to the Philippine’s forestry problems. However, many CBFM assessments conclude that the program was pushed forward too quickly, and that communities have not been adequately prepared to take charge of the responsibilities associated with CBFM (Clausen et al. 2003).

The key reform has been the policy shift from resource exploitation to sustainable forest management and CBFM under Executive Order 263 in 1995, updated under the 2003 Revised Master Plan for Forestry Development and Environment and Natural Resources Framework Plan for 2003–2012. Medium-Term Development Plan 2004–2010 targets include the reforestation of 1 million hectares in 140 watersheds and the replanting of 10,500 hectares of mangrove forests. In 2007, the government established a list of threatened plants and prohibited collection and trade of listed species without government permit (FAO 2010; USAID 2008a; GOP 2009a).

A bill to replace the outdated 1975 Revised Forestry Code, entitled the Sustainable Forest Management Act, remains pending in Congress due to the unresolved issue of total logging ban versus selective logging (Catindig 2002).

DONOR INTERVENTIONS AND INVESTMENTS

USAID investments are focused on improving environmental governance through greater transparency and accountability and increasing local stakeholder participation. Specific initiatives include: the Partnership for Biodiversity Conservation initiative for strengthening the institutional capacity of environmental law enforcement bodies; and the Environmental Governance (EcoGov) Project II for consolidating and harmonizing forestry laws and other laws and issuances on forest management, as well as promoting sustainable management of forests by local governments working with other local stakeholders.

The EcoGov Project (Phases 1 and 2 from 2001 to 2011) initiates various forms of co-management, partnership and collaborative approaches with Local Government Units (LGUs), State-tenure holders, communal tenure holders (especially under CBFMAs and CADTs), several line agencies and interested private companies. The project facilitates and provides technical assistance to the joint LGU, DENR and community processes of planning, review and approval, implementation, monitoring and evaluation, and in the preparation of watershed- and biodiversity-focused forest land use plans. This work is undertaken in the context of the LGU’s comprehensive land-use planning and implementation responsibilities, and within the defined authorities of LGUs, tenure holders, local DENR offices, provincial offices, and recipients of individual property rights in co-managed areas, State-tenure lands, and in CBFMA and CADT areas (Clausen et al. 2003; USAID 2008b; USAID 2009; USAID 2010a). USAID will soon conduct an environment sector assessment as part of developing its overall strategy (as part of the Country Development Cooperation Strategy/CDCS process) which should form the basis for future investment decisions.

The World Bank, ADB and JICA are the principal lenders in the forestry sector. Grants and technical assistance come from USAID, Global Environment Facility (GEF), Montreal Protocol, AusAID, the Japan International Cooperation Agency (JICA), the German Technical Cooperation (GTZ), the Netherlands Government, and the New Zealand Agency for International Development (NZAID). The European Union (EU) supports forest rehabilitation through the Mount Malindang Protected Area in Mindanao Project (GOP 2009a).

Conservation International, World Wildlife Fund-Philippines, the Haribon Foundation for the Conservation of Natural Resources, the Foundation for Philippine Environment, and the Philippine Tropical Forest Conservation Foundation are involved in forest and biodiversity conservation (GOP 2009a).

4. MINERALS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

The Philippines is one of the world’s most highly mineralized countries. In 1994, estimated levels of metallic

mineral resources stood at 7 billion metric tons, and of nonmetallic resources at 50 billion metric tons. Copper accounts for 72% of total reserves in the country; limestone and marble are the most significant nonmetallic mineral resources. In 2005, petroleum reserves stood at 456 million barrels of fuel oil equivalent⁷ (USDOS 2010; GOP 2008b; GOP 2007b).

In 2009, there were 23 large-scale and over 1000 small-scale metallic mines, and 2359 nonmetallic mines in operation. According to USAID, in June 2010, there were 26 large-scale mines in various stages of operations in the Philippines. The country has large reserves of gold and copper, and also significant deposits of iron, chromite, nickel, manganese, cobalt, lead, zinc, molybdenum, mercury and aluminum. The Philippines has 9 million hectares of potential sites for mineral resource development, but less than 500,000 hectares are under exploration or development. Untapped mineral wealth is estimated at more than US \$840 billion. Much of the hydrocarbon potential remains unexplored (GOP 2008b; USDOS 2010; GOP 2007b).

Mineral lands are mostly in upland areas which are also rich biodiversity areas. More than half of active mining concessions and two-thirds of exploratory concessions are in areas of high seismic risk. There are security risks for some companies, especially those mining in the Mindanao area (several activist groups have also damaged mining sites and company equipment). Mining often leads to deforestation and destruction of ecological systems, subsidence and sinking of communities, and displacement of communities. The spilling of mine wastes/tailings causes flooding, damages farm lands, and results in the biological death of rivers. For example, the 1996 Marcopper Mining Disaster in Marinduque Island in which an old mine-pit used as a disposal pond for mine waste ruptured and discharged about 1.6 million cubic meters of tailings along 27 kilometers of the Boac river system and the coastal areas near its mouth. The disaster killed the river system and destroyed low-lying farmlands in the area (Doyle et al. 2007; Stark et al. 2007).

LEGAL FRAMEWORK

Under the 1987 Constitution, all mineral resources belong to the State (Art. 7, Sec. 2). The Philippine Mining Act (1995) governs the exploration, utilization and conservation of mineral resources. It sets the requirements and procedures for private-sector mineral development, including the entry of foreign investors into large-scale commercial mining. The law is being contested in Congress. This has generated considerable controversy partly because it is seen by many domestic and international actors as one of the best mining laws in the world.

The People's Small-Scale Mining Act (1991) regulates small-scale mining (i.e., mining activities that rely on manual labor without the use of explosives or heavy equipment), and reserves certain mineral lands as small-scale mining areas. Small-scale mining companies believe the law disenfranchises small-scale miners. One problem (among others) is that the law prohibits small-scale miners from utilizing dynamite and other explosives, which undermines production and forces small-scale companies to illegally use explosives (a significant hazardous). The small-scale miners and companies feel that it is unreasonable for the law to force them to use low-tech mining methods.

The Oil Exploration and Development Act (1972) regulates the exploration and development of petroleum resources. Other relevant laws are: 1) the National Integrated Protected Areas System Act (1992); 2) the Indigenous People's Rights Act (1997); 3) the Environmental Impact Statement System Law; and 4) the Local Government Code, which devolves the regulation of small-scale mining.

TENURE ISSUES

The State can choose to directly undertake mining activities or enter into mining agreements with private companies. Exploration and mining rights are granted to citizens or to corporations which are 60% or more Filipino-owned for a period of two years for exploration (convertible to mining rights) and 25 years for mining (renewable for the same term). Foreigners can own up to 100% of a venture via Financial and Technical Assistance Agreements (FTAAs) and 40% via the Mineral Production Sharing Agreements (MPSA). FTAAs are granted to Filipino or foreign-owned corporations investing a minimum of US \$50 million. The government grants mining rights for up to 81,000 hectares. Quarry permits are granted for the extraction of marble, granite, clay and other nonmetallic minerals (GOP 2008b).

⁷ This consists of 25 million barrels of oil, 2,135 billion cubic feet of gas and 54 million barrels of condensate (DOE 2010).

Small-scale mining rights are for two years, renewable for the same term, for areas not exceeding 20 hectares. Small-scale miners must form a cooperative and register with the local Mining Regulatory Board, and must have the consent of the mining claimant or holder of mining rights over the area. Customary rights are recognized in the Indigenous Peoples' Rights Act. The Mining Act requires prior consent of the indigenous community for mining operations in ancestral lands. Petroleum rights are granted through service contracts open to citizens and foreigners, for a period of seven years for exploration (extendible for three years) and 25 years (with up to three extensions) for extraction. Incentives are given to foreign contractors that allow at least 15% participation by Filipino companies (GOP 2006c).

The Philippines has one of the highest rates of female participation in mining in Asia. Participation is mostly in small-scale or artisanal mining, where, in 2002, women constituted 25% of the workforce, principally as transporters and processors. Women work mainly in shallow gold deposits with small groups or family units (Hinton et al. 2003).

Local communities and civil society groups contend that while the Philippine Mining Act (1995) gives investors virtually exclusive and monopolistic rights over the minerals and other natural resources within the mining area, the Small-Scale Mining Act tightly regulates and controls small-scale miners and indigenous communities. There is a growing grassroots anti-mining movement – led by the Catholic Church and civil society – that advocates the repeal of the Philippine Mining Act and an immediate moratorium on large-scale mining. Some community leaders have their own incentives for opposing large-scale mining such as exerting influence and control over a mine site that brings them a sizable income. Key issues presented are mining's destructive impact on the environment, the displacement of local and indigenous communities and destruction of livelihood sources, human rights abuses, and lack of genuine Free and Prior Informed Consent (FPIC) of indigenous peoples to concessions on ancestral lands as required by law (Cruz 1999; PMPI 2009; Doyle et al. 2007; Whitmore 2006).

According to USAID, local governments lament the fact that the tax moneys that mining companies pay end up with central government in Manila and do not make it back to the provinces. Local government officers often issue permits contrary to the procedures articulated in law because they are thus able to generate some revenue for their municipality. Large scale mining companies argue that they must comply with various rules and regulations while smaller-scale mining companies avoid paying taxes and do not comply with rules and regulations (and, thus, pollute the environment).

According to USAID, a considerable amount of gold is leaking from the country due to certain obstacles. One obstacle is the location of gold-selling stations, which the government places far from the mining communities. The government argues that it is not safe to have gold store houses in rural areas because they can be easily robbed. However, this poses a significant problem for miners who often do not have time to travel long distances and, as a result, sell their gold to middle men for low prices on the informal market.

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Mines and Geosciences Bureau of the Department of Environment and Natural Resources (DENR) is responsible for implementing mining laws, including the granting of licenses, permits and concessions. Local Government Units (LGUs) regulate small-scale mining through the Provincial or City Mining Regulatory Boards, subject to direct supervision of DENR. Under the Mining Act, disputes are brought to a Panel of Arbitrators constituted in each region. Panel decisions may be appealed to the Mines Adjudication Board. The Supreme Court has the power to review decisions of the Board.

The Department of Energy is in charge of implementing petroleum regulations.

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

Under the National Policy Agenda on Revitalizing Mining in the Philippines (Executive Order No. 270, 2004), the government promotes mining as a driver for national development and poverty alleviation, consistent with sustainability and environmental protection. The Minerals Action Plan (2004) pronounces the strategic directions for implementing the policy agenda.

The government is pursuing foreign investment in mining. In 2005, the DENR conducted an international mining road show aimed at raising US \$6.5 billion in foreign investments and generating 200,000 jobs. This generated

investment inflows of US \$694 million in 2007 and US \$630 million in 2008.

In 2009, an Alternative Mining Bill was filed in the Philippine House of Representatives. The bill provides for more environmental and social safeguards, and the creation of downstream industries in lieu of mere extraction for direct export (GOP 2008b; *MJO* 2009; GOP 2007c; *CBCP News* 2009).

DONOR INTERVENTIONS AND INVESTMENTS

GTZ'S Conflict Sensitive Resource and Asset Management Program or COSERAM aims to develop efficient management of mineral resources and peaceful conflict-resolution in the mineral-rich Caraga Region in Mindanao. Japan and Korea provided technical assistance to the Philippines for geohazard evaluation and the geology and mineral potential of the Malimono-Cabadbaran Area of the Surigao Mineral District (Albert 2009; GOP 2008b).

USAID is in the process of developing its strategy (as part of the Country Development Cooperation Strategy/CDCS process) which will likely be the basis for future investment decisions.

5. DATA SOURCES (SHORT LIST)⁸

- Alikpala, Ramon. 2008. The Challenge of Integrated Water Resources Management. Paper presented at the Regional Conference for Southeast Asia Rainwater Harvesting IWRM, 25 November, Manila, Philippines. <http://www.slideshare.net/vicmanlapaz/ramon-alikpala-philippines-presentation> (accessed 22 October 2010).
- Borras Jr., Saturnino M. and Jennifer C. Franco. 2007. The National Campaign for Land Reform in the Philippines. Paper presented at the workshop on Citizens Engagement in National Policymaking, sponsored by the Institute of Development Studies at Sussex and the Ford Foundation, November, Sussex. <http://www.ids.ac.uk/ids/Part/proj/pnp.html> (accessed 25 October 2010).
- Chokkalingam, Unna, Antonio P. Carandang, Juan M. Pulhin, Rodel D. Lasco, Rose Jane J. Peras and Takeshi Toma, eds. 2006. *One Century of Forest Rehabilitation in the Philippines: Approaches, Outcomes and Lessons*. Center for International Forestry Research. http://www.cifor.cgiar.org/publications/pdf_files/Books/Bchokkalingam0605.pdf (accessed 5 December 2010).
- Clausen, Robert, Thomas Hammett and James Seyler. 2003. *USAID's Enduring Legacy in Natural Forests: Livelihoods, Landscapes, and Governance: Country Profiles*. Volume 3: Focus Country Profiles. Chemonics International Inc. http://www.usaid.gov/our_work/environment/forestry/pubs/volume3_report.pdf (accessed 5 December 2010).
- Cotula, Lorenzo. 2007. Gender and Law-Women's Rights in Agriculture. FAO Legislative Study 76 Revised Version (2007). <ftp://ftp.fao.org/docrep/fao/005/y4311e/y4311e00.pdf> (accessed 25 October 2010).
- Doyle, Cathal, Clive Wicks and Frank Nally. 2007. Mining in the Philippines: Concerns and Conflict, Report of the Fact finding Mission to the Philippines led by Clare Short MP, former UK Secretary of State for Overseas Development, July–August 2006 http://www.epolitix.com/fileadmin/epolitix/mpsites/MininginthePhilippines_Report.pdf (accessed 25 October 2010).
- FAO. 1997. Land Reform, Land Settlement and Cooperatives: Agrarian Reform in the Philippines. In *Archives De Documents De La FAO*. <http://www.fao.org/docrep/W6199T/w6199t11.htm> (accessed 25 October 2010).
- . 2010. Forestry Department. Global Forest Resources Assessment: Country Reports: Philippines. <http://www.fao.org/forestry/20262-1-84.pdf> (accessed 25 October 2010).
- Gamolo, Nora O. 2008. Philippines' Water Resources Explained. *The Sunday Times*, 3 August. http://www.manilatimes.net/national/2008/aug/03/yehey/top_stories/20080803top4.html (accessed 25 October 2010).

⁸ Complete list of references available at URL: <http://tpr.rmpportal.net/country-profiles/philippines/references/>.

- Gollin, Karin L. and James L. Kho. 2002. *After the Romance: Communities and Environmental Governance in the Philippines* (draft). The Ford Foundation. <http://samdhana.org/uploaded/After%20the%20Romance.pdf> (accessed 5 December 2010).
- GOP. 1987a. Constitution. <http://www.chanrobles.com/philsupremelaw1.htm> (accessed 25 October 2010).
- . 2006. National Water Resources Board. Working Together to Secure Sustainable Water for All: The Integrated Water Resources Management (IWRM) Plan Framework Summary Document. <http://www.nwrb.gov.ph/Uploads/iwrmpplanframework.pdf> (accessed 25 October 2010).
- . 2008b. Department of Environment and Natural Resources (DENR), Mines and Geosciences Board. “The Philippine Minerals Industry.” <http://www.mgb.gov.ph/presentations/presentationsframe.htm> (accessed December 2008).
- . 2008f. Philippine Urban Forum. “State of the Philippine Urban System.” <http://home.earthlink.net/~lordprozen/PUF/bahang/state.html> (accessed 25 October 2010).
- . 2009. DENR, Protected Areas and Wildlife Bureau. “Assessing Progress towards the 2010 Biodiversity Target: The 4th National Report to the Convention on Biological Diversity.” <http://www.pawb.gov.ph/files/4nr.pdf> (accessed June 2010).
- Guiang, Ernesto S. and Gem Castillo. 2006. “Trends in Forest Ownership, Forest Resources Tenure and Institutional Arrangements in the Philippines.” Food and Agriculture Organization. <http://www.fao.org/forestry/10543-03d5a1b99b199bb5b040e70eba8414526.pdf> (accessed 5 December 2010).
- Hinton, Jennifer, Marcello Veiga and Christian Beinhoff. 2003. Women and Artisanal Mining: Gender Roles and the Road Ahead. In *The Socio-Economic Impacts of Artisanal and Small-Scale Mining in Developing Countries*, Ch. 11. The Netherlands: Swets Publishers. <http://siteresources.worldbank.org/INTOGMC/Resources/336099-1163605893612/hintonrolereview.pdf> (accessed 25 October 2010).
- Kamlan, Jamail A. 2003. Ethnic and Religious Conflict in Southern Philippines: A Discourse on Self-Determination, Political Autonomy and Conflict Resolution. Paper presented at the Islam and Human Rights Fellow Lecture, 4 November, School of Law, Emory University, Atlanta, Georgia. www.law.emory.edu/ihr/worlddocs/jamail1.doc (accessed 23 October 2010).
- Llanto, Gilberto M. and Marife M. Ballesteros. 2003. Land Issues in Poverty Reduction Strategies and the Development Agenda: Philippines. Philippine Institute for Development Studies Discussion Paper Series No. 2003–03. March 2003. <http://www.pids.gov.ph> (accessed December 2008).
- Malenab-Hornilla, Linda. 2008. An Update on the Law on Land Titles and Deeds. Lecture presented to the 8th Eastern Visayas Regional Convention and Mandatory Continuing Legal Education Seminar, Philippines, 6–9 February 2008. <http://74.125.95.132/search?q=cache:sfXY8xxWs14J:ibpcavite.files.wordpress.com/2008/05/usec-hornilla-on-land-registration-law.ppt+Linda+Malenab-Hornilla+-+An+Update+on+the+Law+on+Land+Titles+and+Deeds&hl=en&ct=clnk&cd=1&gl=us> (accessed 23 October 2010).
- World Bank. 2010a. World Development Indicators. <http://databank.worldbank.org/ddp/home.do?Step=1&id=4> (accessed 23 October 2010).
- . 2010b. Philippines: Active Projects . <http://web.worldbank.org/external/projects/main?pagePK=218616&piPK=217470&theSitePK=40941&menuPK=51526214&category=simsearch&pagenumber=1&pagesize=10&sortBy=BOARDSORTDATE&sortorder=DESC&query=philippines&status=A> (accessed 25 October 2010).
- USAID. 2009. Country Assistance Strategy Philippines: 2009–2013. <http://philippines.usaid.gov/documents/about/CAS%20Philippines%20January%202009.pdf> (accessed January 2009).

6. DATA SOURCES (COMPLETE LIST)

ADB. See Asian Development Bank.

AFP. See *Agence France Presse*.

AusAID. See Australian Agency for International Development.

Agence France Presse. 2010. Philippines rules out Muslim peace accord under Arroyo. 9 March. <http://www.abs-cbnnews.com/nation/03/09/10/philippines-rules-out-muslim-peace-accord-under-arroyo> (accessed 23 October 2010).

Albert, Delia Domingo. 2009. Germany comes to Caraga. *ABS-CBNNews.com*, 7 May. <http://www.abs-cbnnews.com/views-and-analysis/05/06/09/germany-comes-caraga-delia-domingo-albert> (accessed June 2010).

Alikpala, Ramon. 2008. The Challenge of Integrated Water Resources Management. Paper presented at the Regional Conference for Southeast Asia Rainwater Harvesting IWRM, 25 November, Manila, Philippines. <http://www.slideshare.net/vicmanlapaz/ramon-alikpala-philippines-presentation> (accessed 25 October 2010).

Asian Development Bank. 2004a. Southeast Asia Department. 'Country Gender Assessment: Philippines.' <http://www.adb.org/Documents/Reports/Country-Gender-Assessments/Phi-Ctry-Gender-Assesmt.pdf> (accessed 25 October 2010).

———. 2004b. Country Environmental Analysis for the Republic of the Philippines. <http://www.adb.org/Documents/Reports/CEA/phi-jan-2005.pdf> (accessed 25 October 2010)

———. 2008. Country Operations Business Plans: Philippines 2009–2010. <http://www.adb.org/Documents/CPSs/PHI/2008/COBP-PHI-2009-2010.pdf> (accessed 25 October 2010).

———. 2010. Project Information Document: Philippines. <http://www.adb.org/projects/project.asp?id=37749> (accessed 25 October 2010).

Australian Agency for International Development. 2009. Australian Assistance to the Philippines. <http://www.usaid.gov.au/country/country.cfm?CountryID=31> (accessed 25 October 2010).

Balicasan, Arsenio. 2007. Agrarian Reform and Poverty Reduction in the Philippines. Paper presented at the Policy Dialogue on Agrarian Reform Issues in Rural Development and Poverty Alleviation, 30 May, Traders Hotel, Manila, Philippines. http://www.dar.gov.ph/pdf_files/cirdap/balisacan_paper/balisacan_paper.pdf (accessed 25 October 2010).

Barba, Pacita F. 2004. The Challenges in Water Resources Management in the Philippines, Paper presented at the Second International Conference on Hydrology and Water Resources in Asia Pacific Region, 5–8 July, Singapore. <http://www.wrrc.dpri.kyoto-u.ac.jp/~aphw/APHW2004/proceedings/JSE/56-JSE-A519/56-JSE-A519.pdf> (accessed 25 October 2010).

Borras Jr., Saturnino M. and Jennifer C. Franco. 2007. The National Campaign for Land Reform in the Philippines. Paper presented at the workshop on Citizens Engagement in National Policymaking, sponsored by the Institute of Development Studies at Sussex and the Ford Foundation, Sussex, November. <http://www.ids.ac.uk/ids/Part/proj/pnp.html> (accessed 23 October 2010).

Briones, Nicomedes. 2005. Environmental Sustainability Issues in Philippine Agriculture, *Asian Journal of Agriculture and Development*, 2 (1 & 2) June/December. http://www.searca.org/ajad/archives/v-02/01-02/ajad_v2_n1_n2_briones.pdf (accessed 25 October 2010).

CBCP News. See *Catholic Bishops' Conference of the Philippines News*.

CI. *See* Conservation International.

CIA. *See* Central Intelligence Agency.

CPA. *See* Cordillera People's Alliance.

Capones, Erlinda M. 2005. Indigenous Peoples in the Philippines: Development Issues and Challenges. Paper presented at the IAOS Satellite Meeting on Measuring Small and Indigenous Populations, 14–15 April, Wellington, New Zealand. <http://www.stats.govt.nz/NR/rdonlyres/BC13AF73-982F-4A6A-AFE5-0EF2F42D2C5/0/PRESENT182.ppt> (accessed December 2008).

Catholic Bishops' Conference of the Philippines News. 2009. Alternative Mining Bill to be Filed Today. 13 May. <http://www.cbcnews.com/?q=node/8716> (accessed 23 October 2010).

Catindig, Dolores, R. 2002. A Review of Forestry Policies in the Philippines. Paper Presented at the Forest Policy Workshop, 22–24 January, Kuala Lumpur, Malaysia. <http://www.fao.org/docrep/003/ab576e/AB576E19.htm#TopOfPage> (accessed 25 October 2010).

Central Intelligence Agency. 2010. *The World Factbook: Philippines*. <https://www.cia.gov/library/publications/the-world-factbook/geos/rp.html> (accessed 25 October 2010).

Chokkalingam, Unna, Antonio P. Carandang, Juan M. Pulhin, Rodel D. Lasco, Rose Jane J. Peras and Takeshi Toma, eds. 2006. *One Century of Forest Rehabilitation in the Philippines: Approaches, Outcomes and Lessons*. Center for International Forestry Research. http://www.cifor.cgiar.org/publications/pdf_files/Books/Bchokkalingam0605.pdf (accessed 5 December 2010).

Clausen, Robert, Thomas Hammett and James Seyler. 2003. *USAID's Enduring Legacy in Natural Forests: Livelihoods, Landscapes, and Governance: Country Profiles*. Volume 3: Focus Country Profiles. Chemonics International Inc. http://www.usaid.gov/our_work/environment/forestry/pubs/volume3_report.pdf (accessed 5 December 2010).

Conservation International. 1998. Megadiversity: The 17 Biodiversity Superstars. <http://www.conservation.org/documentaries/Pages/megadiversity.aspx> (accessed 25 October 2010).

Cordillera People's Alliance. 2007. Case Study on the Impacts of Mining and Dams on the Environment and Indigenous Peoples in Benguet, Cordillera, Philippines. Paper presented at the International Expert Group Meeting on Indigenous Peoples and Protection of the Environment, 27–29 August, Khabarovsk, Russian Federation. http://www.un.org/esa/socdev/unpfii/documents/workshop_IPPE_cpp.doc (accessed 25 October 2010).

Cotula, Lorenzo. 2007. Gender and Law-Women's Rights in Agriculture. FAO Legislative Study 76 Revised Version (2007). <ftp://ftp.fao.org/docrep/fao/005/y4311e/y4311e00.pdf> (accessed 25 October 2010).

Cruz, Ismael. 1999. The Regulatory Climate for Mining in the Philippines. *Philippines International Review* 2 (1) Autumn. <http://www.philsol.nl/pir/v2/RegClimate-99b.htm> (accessed 25 October 2010).

Domingo, Estrella and Millicent Gay B. Buenaseda. 2000. Land and Soil Resource Accounting: The Philippine Experience, Paper presented at the International Workshop on Environmental and Economic Accounting, 18–22 September, Manila, Philippines <http://www.unescap.org/stat/envstat/stwes-044.pdf> (accessed 25 October 2010).

Domingo, Estrella and Reynaldo Fulleros. 2005. Real Estate Price Index: A Model for the Philippines. Bank for International Settlements (BIS) Papers No. 21, Part 11, April. www.bis.org/publ/bppdf/bispap21k.pdf (accessed 25 October 2010).

Doyle, Cathal, Clive Wicks and Frank Nally. 2007. Mining in the Philippines: Concerns and Conflict Report of the Fact finding Mission to the Philippines led by Clare Short MP, former UK Secretary of State for Overseas Development,

July–August 2006. http://www.epolitix.com/fileadmin/epolitix/mpsites/MininginthePhilippines_Report.pdf (accessed 25 October 2010).

EC. *See* European Commission.

European Commission. 2005. The Philippines Country Environmental Profile. http://www.delph.ec.europa.eu/docs/Country_EnvironmentalProfile.pdf (accessed 25 October 2010).

FAO. *See* Food and Agriculture Organization.

Food and Agriculture Organization. 1997. Land Reform, Land Settlement and Cooperatives: Agrarian Reform in the Philippines. *Archives De Documents De La FAO*. <http://www.fao.org/docrep/W6199T/w6199t11.htm> (accessed 25 October 2010).

———. 2005a. Fact Sheet Philippines: Women in Agriculture, Environment and Rural Production. <ftp://ftp.fao.org/docrep/fao/008/ae946e/ae946e00.pdf> (accessed 25 October 2010).

———. 2005b. Forestry Department. Global Forest Resources Assessment: Country Reports: Philippines. <ftp://ftp.fao.org/docrep/fao/010/ai932E/ai932E00.pdf> (accessed 25 October 2010).

———. 2005c. Fisheries and Aquaculture Department. National Aquaculture Sector Overview: Philippines. http://193.43.36.238:8282/fi/website/FIRetrieveAction.do?dom=countrysector&xml=naso_philippines.xml&lang=en (accessed 25 October 2010).

———. 2010. Forestry Department. Global Forest Resources Assessment: Country Reports: Philippines. <http://www.fao.org/forestry/20262-1-84.pdf> (accessed 25 October 2010).

Fuentes, Rodrigo. 2006. Philippine Experiences in the Implementation of Initiatives that Address Climate Change and Land Degradation. Paper presented at the International Workshop on Climate Change and Land Degradation, 11–15 December, Arusha, Tanzania. <http://www.wamis.org/agm/meetings/wocald06/S5-Fuentes.pdf> (accessed 23 October 2010).

GOP. *See* Government of the Philippines.

Gamolo, Nora O. 2008. Philippines' Water Resources Explained. *The Sunday Times*, 3 August. http://www.manilatimes.net/national/2008/aug/03/yehey/top_stories/20080803top4.html (accessed 25 October 2010).

Gollin, Karin L. and James L. Kho. 2002. *After the Romance: Communities and Environmental Governance in the Philippines* (draft). The Ford Foundation. <http://samdhana.org/uploaded/After%20the%20Romance.pdf> (accessed 5 December 2010).

Government of the Philippines. 1936. Public Land Act. <http://www.bcphilippineslawyers.com/commonwealth-act-no-141/> (accessed 25 October 2010)

———. 1949. Civil Code of the Philippines. http://www.lawphil.net/statutes/repacts/ra1949/ra_386_1949.html (accessed 25 October 2010).

———. 1987a. Constitution. <http://www.chanrobles.com/philsupremelaw1.htm> (accessed 25 October 2010).

———. 1987b. Family Code of the Philippines. http://www.lawphil.net/executive/execord/eo1987/eo_209_1987.html (accessed 25 October 2010).

———. 1988. Comprehensive Agrarian Reform Law of 1988. http://www.lawphil.net/statutes/repacts/ra1988/ra_6657_1988.html (accessed 25 October 2010).

- . 1992. Urban Development and Housing Act of 1992. <http://www.chanrobles.com/republicactno7279.htm> (accessed 25 October 2010).
- . 1996. Philippine Agenda 21 (Memorandum Order No. 399). <http://pcsd.neda.gov.ph/pa21.htm> (accessed 25 October 2010).
- . 1997. Indigenous Peoples Rights Act of 1997. <http://www.chanrobles.com/republicactno8371.htm> (accessed 25 October 2010).
- . 2003. Department of Environment and Natural Resources (DENR). ‘Allocating Forest Lands: Commonly-issued Allocation Instruments, The Philippine Environmental Governance Program.’ <http://forestry.denr.gov.ph> (accessed 25 October 2010).
- . 2004a. DENR, Protected Areas and Wildlife Bureau (PAWB). ‘2004 Statistics on Philippine Protected Areas and Wildlife Resources.’ http://www.pawb.gov.ph/index.php?option=com_content&view=category&layout=blog&id=79&Itemid=231 (accessed 23 October 2010).
- . 2004b. Medium-Term Philippine Development Plan 2004–2010. <http://www.neda.gov.ph/ads/mtpdp/MTPDP2004-2010/MTPDP%202004-2010%20NEDA%20v11-12.pdf> (accessed 25 October 2010).
- . 2004c. National Action Plan to Combat Desertification and Land Degradation. <http://scinet.dost.gov.ph/union/ShowSearchResult.php?s=2&f=&p=&x=&page=&sid=1&id=The+Philippine+National+Action+Plan+to+Combat+Desertification+Land+Degradation+Drought%2C+and+Poverty+FY+2004-2010&Mtype=BOOKS> (accessed 25 October 2010).
- . 2006a. Department of Agrarian Reform (DAR). ‘Philippine Agrarian Reform: Partnership for Social Justice, Rural Growth, and Sustainable Development.’ Country Paper presented by Secretary Nasser Pagdanganan at the International Conference for Agrarian Reform and Rural Development (ICARRD), 7–10 March, Porto Alegre, Brazil. http://www.icarrd.org/en/icard_doc_down/national_philipinas.doc (accessed 23 October 2010).
- . 2006b. DAR. ‘Agrarian Reform History Series of 2006.’ http://www.dar.gov.ph/pdf_files/publications/ar_history.pdf (accessed 25 October 2010).
- . 2006c. Department of Energy (DOE). ‘Philippine Energy Contracting Round 2006: Fiscal Legal Terms.’ <http://www.doe.gov.ph/PECR2006/Petroleum%20PECR%202007/fiscal-legal.htm> (accessed June 2010).
- . 2006d. DENR, PAWB. ‘The Third Philippine National Report to the Convention on Biological Diversity.’ http://pawb.denr.gov.ph/uploaded_files/3nr/3NR_REPORTS.pdf (accessed December 2008).
- . 2006e. National Water Resources Board. ‘Working Together to Secure Sustainable Water for All: The Integrated Water Resources Management (IWRM) Plan Framework Summary Document.’ <http://www.nwrp.gov.ph/Uploads/iwrmpplanframework.pdf> (accessed 25 October 2010).
- . 2007a. Department of Agriculture. ‘Facts and Figures on the Philippine Agricultural Economy, 2007.’ <http://countrystat.bas.gov.ph/documents/factsfigures2007.pdf> (accessed 25 October).
- . 2007b. DOE. ‘Energy Resources.’ <http://www.doe.gov.ph/ER/Oil.htm> (accessed 25 October 2010).
- . 2007c. Minerals Development Council. ‘Investor’s Prospectus on Philippine Mining.’ <http://www.aseansec.org/20725.pdf> (accessed 25 October 2010).
- . 2008a. DENR, Forest Management Bureau. ‘Philippine Forestry Statistics. Land Classification 1978–2008.’ <http://forestry.denr.gov.ph/stat2008.htm> (accessed May 2010 and September 2010).
- . 2008b. DENR, Mines and Geosciences Board. ‘The Philippine Minerals Industry.’ <http://www.mgb.gov.ph/>

- [presentations/presentationsframe.htm](#) (accessed December 2008).
- . 2008c. Philippine Environmental Governance Project. ‘Farmers Get property Rights in Bayawan City’s Forestlands.’ http://ecogovproject.denr.gov.ph/docs/Story_Farmers_get_IPR_in_Bayawan_City_forestlands.htm (accessed 25 October 2010).
- . 2008d. Land Administration and Management Project. <http://www.phil-lamp.org/> (accessed 25 October 2010).
- . 2008e. National Statistics Office. ‘Philippines in Figures.’ <http://www.census.gov.ph/> (accessed 25 October 2010).
- . 2008f. Philippine Urban Forum. ‘State of the Philippine Urban System.’ <http://home.earthlink.net/~lordprozen/PUF/bahang/state.html> (accessed 25 October 2010).
- . 2008g. Supreme Court of the Philippines. Jurisprudence. <http://sc.judiciary.gov.ph/jurisprudence/decisions/index.php> (accessed 25 October 2010).
Cruz and Europa v. Secretary of Environment and Natural Resources, et al., G.R. No. 135385, December 6, 2000.
Hospicio de San Jose De Barili, Cebu City v. DAR, G.R. No. 140847, September 23, 2005.
Manosca v. Court of Appeals, G.R. No. 106440, January 29, 1996.
Moday v. Court of Appeals, G.R. No. 107916, February 20, 1997.
Municipality of La Carlota v. Spouses Baltazar, G.R. No. L-30138, May 30, 1972.
Municipality of Paranaque v. V.M. Realty Corporation, G.R. No. 127820, July 20, 1998.
National Power Corporation v. Bagui, et al., G.R. No. 164964, October 17, 2008.
- . 2009a. DENR, PAWB. ‘Assessing Progress towards the 2010 Biodiversity Target: The 4th National Report to the Convention on Biological Diversity.’ <http://www.pawb.gov.ph/files/4nr.pdf> (accessed June 2010).
- . 2009b. Republic Act No. 9700. An Act Strengthening the Comprehensive Agrarian Reform Program (CARP), Extending the Acquisition and Distribution of All Agricultural Lands, Instituting Necessary Reforms, Amending for the Purpose Certain Provisions of Republic Act No. 6657, Otherwise known as the Comprehensive Agrarian reform Law of 1988, as amended, and Appropriating Funds Therefore. http://www.lawphil.net/statutes/repacts/ra2009/ra_9700_2009.html (accessed 25 October 2010).
- . 2009c. Republic Act No. 9710. The Magna Carta of Women (2009). http://www.congress.gov.ph/download/ra_14/RA09710.pdf (accessed 25 October 2010).
- . 2010a. National Statistical Coordination Board. ‘Summary of Projected Population by Sex, by Five-Year Interval: 2000–2040.’ http://www.nscb.gov.ph/secstat/d_popn.asp (accessed 25 October 2010).
- . 2010b. National Statistics Office. ‘Index of Labor Force Statistics: Number and Percentage Distribution of Employed Persons by Sex, by Region and Major Industry Group April 2009.’ <http://www.census.gov.ph/data/sectordata/2009/lf090206u.htm> (accessed 25 October 2010).
- Guiang, Ernesto S. and Gem Castillo. 2006. ‘Trends in Forest Ownership, Forest Resources Tenure and Institutional Arrangements in the Philippines.’ Food and Agriculture Organization. <http://www.fao.org/forestry/10543-03d5a1b99b199bb5b040e70eba8414526.pdf> (accessed 5 December 2010).
- Gutierrez, Eric. 2008. Focus on Mindanao: Southern Philippines Conflict. *Manila IndyMedia*, 31 October. <http://manila.indymedia.org> (accessed 25 October 2010).
- Hinton, Jennifer, Marcello Veiga and Christian Beinhoff. 2003. Women and Artisanal Mining: Gender Roles and the Road Ahead. In *The Socio-Economic Impacts of Artisanal and Small-Scale Mining in Developing Countries*, Ch. 11. The Netherlands: Swets Publishers. <http://siteresources.worldbank.org/INTOGMC/Resources/336099-1163605893612/hintonrolereview.pdf> (accessed 25 October 2010).
- Kamlan, Jamail A. 2003. Ethnic and Religious Conflict in Southern Philippines: A Discourse on Self-Determination,

Political Autonomy and Conflict Resolution. Paper presented at the Islam and Human Rights Fellow Lecture, 4 November, School of Law, Emory University, Atlanta, Georgia. www.law.emory.edu/ihr/worddocs/jamail1.doc (accessed 25 October 2010).

Kelly, Phillip. 1998. The Politics of Urban-Rural Relations: Land Use Conversion in the Philippines. *Sage Journals Online*. Environment and Urbanization, 10 (1). April. <http://eau.sagepub.com/cgi/reprint/10/1/35.pdf> (accessed 25 October 2010).

La Vina, Antonio G.M. 2008a. The Future of Environmental Law and Governance. Lecture presented at the 5th Metrobank Foundation Professorial Chair Lecture, 3 October, Metrobank, Philippines.

———. 2008b. Re-thinking Philippine Environmental Institutions: Do We Need to Reallocate Mandates, Powers, and Functions? Institutional Analysis Report for the World Bank Country Environmental Analysis: Philippines, December 22. <http://www.worldbank.org.ph/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/PHILIPPINESEXTN/0..contentMDK:21832777~pagePK:141137~piPK:141127~theSitePK:332982.00.html> (accessed 25 October 2010).

Llanto, Gilberto M. and Marife M. Ballesteros. 2003. Land Issues in Poverty Reduction Strategies and the Development Agenda: Philippines. Philippine Institute for Development Studies Discussion Paper Series No. 2003–03. March 2003. <http://www.pids.gov.ph> (accessed December 2008).

MJO. See *Mining Journal Online*.

Malenab-Hornilla, Linda. 2008. An Update on the Law on Land Titles and Deeds. Lecture presented to the 8th Eastern Visayas Regional Convention and Mandatory Continuing Legal Education Seminar, 6–9 February, Philippines. <http://74.125.95.132/search?q=cache:sfXY8xxWs14J:ibpcavite.files.wordpress.com/2008/05/usec-hornilla-on-land-registration-law.ppt+Linda+Malenab-Hornilla+-+An+Update+on+the+Law+on+Land+Titles+and+Deeds&hl=en&ct=clnk&cd=1&gl=us> (accessed 25 October 2010).

Mercado, Fr. Eliseo R. 2000. The Five Basic Issues Confronting Mindanao vis-à-vis the Roles Played by the Civil Society, Papers from the Public Forum on the Philippines: The Quest for Lasting Peace in the Philippines, 29 September, Institute of Social Studies, The Hague, the Netherlands. <http://www.philsol.nl/fora/NL00a-Mercado.htm> (accessed 25 October 2010).

Mining Journal Online. 2009. Philippines Targets More Mining Investment. 8 January. <http://www.mining-journal.com/production-and-markets/philippines-targets-more-mining-investment> (accessed 25 October 2010).

Ngolaban, Gwen. 1999. Urban Poor Issues and Concerns, Paper presented at the Public Forum on the Philippines, 23 April, Utrecht, the Netherlands. <http://www.philsol.nl/fora/NL99a-Ngolaban.htm> (accessed 25 October 2010).

Novellino, Dario. 2000. Recognition of Ancestral Domain Claims on Palawan Island, the Philippines; Is there a Future? <ftp://ftp.fao.org/sd/sda/sdaa/LR00/05-Land.pdf> (accessed 25 October 2010).

OECD. See Organisation for Economic Co-operation and Development.

Oliva, Roberto. 2007. Philippine Forest and Wildlife Law Enforcement: Situational and Core Issues (prepared for USAID). http://pdf.usaid.gov/pdf_docs/PNADL681.pdf (accessed 25 October 2010).

Organisation for Economic Co-operation and Development. 2009. Social Institutions and Gender Index: Philippines. <http://genderindex.org/sites/default/files/pdfs/PHL.pdf> (accessed 25 October 2010).

PDI. See *Philippine Daily Inquirer*.

PMPI. See Philippine Misereor Partnership, Inc.

- Philippine Daily Inquirer*. 2008a. Government Orders Immediate Stop to Land Conversion. 16 April. <http://newsinfo.inquirer.net/inquirerheadlines/nation/view/20080416-130657/Govt-orders-immediate-stop-to-land-conversion> (accessed 25 October 2010).
- . 2008b. Land Developers Warn of Negative Effects of Land Conversion. 30 May. <http://newsinfo.inquirer.net/breakingnews/regions/view/20080530-139812/Land-developers-warn-of-negative-effects-of-land-conversion> (accessed 25 October 2010).
- Philippine Misereor Partnership, Inc. 2009. Position Paper in Support of the Alternative Mining Bill or House Bill 6342. http://docs.google.com/viewer?a=v&q=cache:fgd5C7gv7n8J:www.lrcksk.org/resources/documents/doc_download/7-pmp-position-paper-on-hb-6342+philippines+-+anti-mining+advocacy&hl=en&gl=us&pid=bl&srcid=ADGEESh6odF6mzlED9qejHPOSVrOaOJF1OFvZht52GE1jjLFPnCigLp_5Lphvw4PXbj2hQ3-Z193A1QKwo0YH5P2D4EqIk2GrPcL0nZRVW7iGG2tsL6GhKwcz976i9fLzTF4zGhw_1R&sig=AHIEtbOrg4CTzgZ_rmhm7LQLbY4TkfSXQ (accessed September 2010).
- Pulhin, Juan M. 2001. Environmental Change and Vulnerability in the Philippines. Paper presented at the 2001 Open Meeting on Human Dimensions of Global Environmental Change, 6–8 October, Rio de Janeiro, Brazil. http://sedac.ciesin.org/openmeeting/downloads/1005816626_presentation_pulhinpapertext.doc (accessed 25 October 2010).
- Pulhin, Juan M. and Josefina T. Dizon. 2003. Politics of Tenure Reform in the Philippine Forest Land, Paper presented at Politics of the Commons: Articulating Development and Strengthening Local Practices, 11–14 July, Chiang Mai, Thailand. http://dlc.dlib.indiana.edu/archive/00001108/00/Juan_Pulhin&_Josefina_Dizon-Philippines.pdf (accessed December 2008).
- Quizon, Antonio, Meynardo Mendoza, Gregorio Quitangon and Maricel A. Tolentino. 2007. Bridging Issues on Access to Land through Land Partnerships in the Philippines. Revised Paper for the 2nd Regional Policy Dialogue on Agrarian Reform and Rural Development: The Case of the Philippines, Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP). http://www.dar.gov.ph/pdf_files/cirdap/quizon_paper/quizon_paper.pdf (accessed 25 October 2010).
- Riedinger, Jeffrey. 1995. *Agrarian Reform in the Philippines: Democratic Transitions and Redistributive Reform*. California: Stanford University Press. http://books.google.com/books?id=FlasRfravpEC&pg=PA87&lpg=PA87&dq=philippine+tenancy+act+of+1933&source=bl&ots=Cv42ZneDFU&sig=bkz8o9o9KXS0yg7cXbnyUGxed_c&hl=en&ei=0AX8S7fSBIKB8gaOIIYBQ&sa=X&oi=book_result&ct=result&resnum=4&ved=0CCEQ6AEwAw#v=onepage&q=philippine%20tenancy%20act%20of%201933&f=false (accessed 25 October 2010).
- Stark, Jeffrey, Jennifer Li, Katsuaki Terasawa and Michael Metcalf. 2007. A Double-Edged Sword? Implications of Mining for Environmental Security in the Philippines. Policy Report produced by the Foundation for Environmental Security and Sustainability. <http://www.fess-global.org/RP.cfm> (accessed 25 October 2010).
- Tigno, Cezar. 2007. Country Water Action: Philippines—Securing Water Rights for All. <http://www.adb.org/Water/actions/phi/Securing-Water-Rights.asp> (accessed 25 October 2010).
- Tripon, Olivia H. 2008. Women’s Rights in the Philippines Today. Philippine Human Rights Reporting Project. http://www.rightsreporting.net/index.php?option=com_content&task=view&id=45&Itemid=43 (accessed 25 October 2010).
- USAID. *See* United States Agency for International Development.
- USDOS. *See* United States Department of State.
- United States Agency for International Development. 2002. Urban Profile: Philippines. Making Cities Work. <http://www.makingcitieswork.org/files/pdf/southeast-asia/Philippines.pdf> (accessed 25 October 2010).
- . 2008a. FAA 118/119 Report: Conservation of Tropical Forests and Biological Biodiversity in the Philippines

- December 2008. [http://philippines.usaid.gov/resources/key_documents/2008_Philippines_Forest-Biodiv_Assmnt_\(F118-F119\)_Report_FINAL.pdf](http://philippines.usaid.gov/resources/key_documents/2008_Philippines_Forest-Biodiv_Assmnt_(F118-F119)_Report_FINAL.pdf) (accessed 23 October 2010).
- . 2008b. Philippines-United States Development Partnerships. http://philippines.usaid.gov/docs/Map_Activities_Aug08.pdf (accessed 23 October 2010).
- . 2009. Country Assistance Strategy Philippines: 2009–2013. http://pdf.usaid.gov/pdf_docs/PDACN452.pdf (accessed 23 October 2010).
- . 2010a. USAID in Mindanao. http://philippines.usaid.gov/programs_usaid_mindanao.html (accessed 25 October 2010).
- . 2010b. Philippines: Programs: Water and Sanitation. http://philippines.usaid.gov/ee_water_sanitation.html (accessed 25 October 2010).
- . 2010c. Local Implementation of National Competitiveness for Economic Growth (LINC-EG). http://philippines.usaid.gov/eg_linc-eg.html (accessed 25 October 2010).
- United States Department of State. 2010. Bureau of East Asian and Pacific Affairs. ‘Background Note: Philippines.’ <http://www.state.gov/r/pa/ei/bgn/2794.htm> (accessed 25 October 2010).
- Villanueva, Cesar. 2007. Housing-Squatting and Villages: The Competing Answers to Housing Problems in the Philippines, Paper presented at the University Foundation for International Cooperation and Development, 29 April, Cours Metis FUNDP. <http://www.fucid.be/agenda/2007/cours-metis-1> (accessed 25 October 2010).
- Whitmore, Andy. 2006. Mining and Indigenous Peoples in the Philippines. *ECCR Bulletin*, 62. <http://www.eccr.org.uk/dcs/MiningAndIndigenousPeoplePhilippines.pdf> (accessed September 2010).
- World Bank. 2010a. World Development Indicators. <http://databank.worldbank.org/ddp/home.do?Step=1&id=4> (accessed 23 October 2010).
- . 2010b. Philippines Country Assistance Strategy 2010–2012. <http://siteresources.worldbank.org/INTPHILIPPINES/Resources/PhilippinesCASFY20102012Booklet.pdf> (accessed 25 October 2010).
- . 2010c. Country Lending Summaries: Philippines. <http://web.worldbank.org/external/projects/main?pagePK=64441305&piPK=64444344&theSitePK=40941&countrycode=PH&menuPK=64820014&type=LV&displayfiscalyear=2009&fiscalyear=V62009> (accessed 25 October 2010).
- . 2010d. Philippines: Active Projects. <http://web.worldbank.org/external/projects/main?pagePK=218616&piPK=217470&theSitePK=40941&menuPK=51526214&category=simsearch&pagenumber=1&pagesize=10&sortby=BOARDSORTDATE&sortorder=DESC&query=philippines&status=A> (accessed 25 October 2010).