



USAID COUNTRY PROFILE

LAND TENURE AND PROPERTY RIGHTS

MALI

OVERVIEW

Mali is a country rich in history and culture located at the heart of the Sahel region in West Africa. Mali is also a fragile state, facing severe security challenges and social tensions, as well as food insecurity.

Mali's democratic constitution and policies of economic liberalization and political decentralization expanded political participation and spurred economic growth in the 1990s and 2000s. The overthrow of the government in March 2012, was a highly destabilizing event, and the 2015 peace agreement has been difficult to implement. Despite this, economic growth has remained strong at above five percent, though per-capita economic improvements are challenged by an annual population growth rate of three and a half percent. Poverty is pervasive, and about 18 percent of the population experiences some degree of food insecurity.

About 58 percent of the population is rural, and while small-scale irrigation is expanding to rural areas, households rely heavily on rain-fed agriculture and pastures for livelihoods. Disputes between farmers and pastoralists over access to land and other natural resources are common. Sedentary farmers and transhumant pastoralists (those who move seasonally) clash over access to resources and damage to crops, inheritance rights, and rights of access to water and pasture. While decentralization of most of the authority over land and water rights--especially of pastoral and irrigation resources--has in some cases strengthened local democratic decision-making, in other cases where decentralized national policies clash with traditional rights and restrictions, it has evoked confusion and exacerbated conflict. In rural areas customary rules continue to govern allocation of land and other resources for the most part.

KEY ISSUES AND RECOMMENDATIONS

Strengthening the land-tenure rights of pastoralists and smallholder farmers, including women, would help Mali achieve more broad-based economic growth. More specifically, it would reduce poverty by increasing agricultural productivity, adding value to agricultural goods, and developing markets. Responding to deforestation in a proactive manner would help people sustain forest resources over time and maintain forest cover in a challenging environment. More effective land-use planning and better documentation of land rights in Mali's cities would help them become more powerful engines of economic growth and would likely improve the living conditions of their residents. With these objectives in mind, donors should consider providing support in the following areas:

- **Accelerate the Establishment and Operation of Village Land Commissions and New Village Land Registries.** The 2017 Agricultural Land Law establishes village land commissions, which are responsible for management of several agricultural land issues. The Law also establishes registries at the *commune* level to register customary rights to agricultural land as well as transactions in agricultural land. *Donors should*

support the government in making these institutions well-functioning and sustainable across the country. A plan for ongoing capacity building will be critical to success.

- **Strengthen the Land Rights of Women.** Despite having fairly equitable policy and law on their side, women continue to face major obstacles to acquiring land rights. Inheritance customs are one of the main challenges. *Donors could assist by improving women’s ability to access land at the local level, which will require outreach activities to change customary norms and traditional ways of managing land rights, as well as educating local people about the rights of women in formal laws. Improving women’s capacity to seek change for themselves is just as vital.*
- **Improve Urban Land-Use Planning.** There are policy and operational improvements in the sphere of land-use planning and associated regulation that could lead to more orderly development of cities, resulting in more effective delivery of electricity, transportation, water, sewer and other services. This may include improving the urban land-tenure regime to make it easier and less expensive to obtain a fully secure land title. *Donors could support research and pilot projects in this area. Full-scale programs could also be supported, depending on research outcomes and pilot efforts.*

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SUMMARY

Mali is a landlocked West African country with an economy based on agriculture and services, with cotton, gold and livestock as the main exports. Mali ranks as one of the least developed countries in the world. In 1992, Mali adopted a democratic constitution and policies of economic liberalization and political decentralization, but in recent years it has suffered from instability.

Mali recognizes private land ownership secured through land titling and registration, but the vast majority of titled land is in urban and peri-urban areas: very few smallholder farmers or agro-pastoralists own the land they work on. Untitled land is owned by the state. Almost all rural land is under state ownership with customary use-rights exercised by sedentary farmers, agro-pastoralists and transhumant pastoralists.

Most urban residents do not have formal rights to their land and their tenure is highly insecure, which has a depressive effect on the amount of investment in housing and other land improvements. The 2009 census indicated that only 27.7 percent of urban households had a land title (*titre foncier*), though the percentage of owners has increased since then (exact figures are not available). The

remaining urban households have either no formal rights or some form of administratively granted rights that come with their own levels of insecurity. Related social indicators as of 2014 include: 56 percent of Mali's urban population lived in slums; 95 percent of this population used improved drinking water sources; and 37 percent used improved sanitation facilities. The first two indicators represent improvements over the prior decade, while the third was flat. (United Nations 2014; Durand-Lasserve et al. 2015)

Conflicts over access to land and natural resources are a problem throughout Mali. Sedentary farmers and transhumant pastoralists clash over access to resources and damage to crops, farmers dispute inheritance rights, and pastoralists vie for primary rights of access to water and pasture. Ambiguity about who has legal access to land contributes to the conflict problem. (Skidmore et al. 2016)

The Government of Mali (GOM) has decentralized much of its authority over land and water rights since the introduction of multiparty democracy in 1992, especially regarding agricultural, pastoral, and irrigation resources. In some cases, this has strengthened local democratic decision-making, but in many cases, it has furthered confusion and conflict, especially where decentralized policies clashed with traditional rights and restrictions.

Forests cover only four percent of Mali's land area, and deforestation is a major problem. The greatest threat to the forests has been demand for firewood, which is the primary source of cooking and heating fuel for most Malians.

BOX 1. MACRO INDICATORS

	Year	Score
Population, total	2018	19.1 million
Population ages 0-14: 15-64: 65+ (percent of total)	2018	48 : 50 : 3
Population growth (average annual percent)	2009-2018	3.0
Rural population (percent of total population)	2018	57.6
Population density (people per sq. km.)	2018	15.6
Adult literacy rate, Female: Male (percent of people ages 15 and above)	2018	25.7 : 46.2
Land area (sq. km. thousands)	2018	1,220
Arable land (percent of land area)	2016	5.3
Agricultural land (percent of land area)	2016	33.8
Permanent cropland (percent of land area)	2016	0.1
Irrigated land (percent of agricultural land)	--	--
Forest area (percent of land area)	2016	3.8
Terrestrial protected areas (percent of total land area)	2018	8.2
Renewable internal freshwater resources per capita (cubic meters)	2014	3,543
Annual freshwater withdrawals, agriculture: domestic: industry (percent of total freshwater withdrawal)	2006	97.9 : 2.1 : 0.1
Crop production index (2004-2006 = 100)	2016	193.4
Livestock production index (2004-2006 = 100)	2016	134.9
GDP (current US\$)	2018	17.2 billion
GDP growth (annual percent)	2018	4.9
Agriculture: industry: services, value added (percent of GDP)	2018	38.7 : 19.1 : 36.9
Ores and metals exports: imports (percent of merchandise exports: imports)	2017	1.0 : 0.5
Net official development assistance (current US\$ millions)	2017	1,356

Source: *The World Bank, 2018*

The mining sector occupies a notable share of Mali's economy and supplies significant tax revenues. The sector has been criticized for corruption and for creating hazardous conditions for workers, local communities, and the environment. Income from mining is often not equitably distributed. In addition to known reserves of gold, other precious metals, semi-precious stones, rock and gravel, Mali's assets include a vast quantity of undeveloped mineral resources.

1. LAND

LAND USE

Mali is a landlocked country of 1.24 million square kilometers (approximately 479,000 square miles) total surface area, of which 1.22 million square kilometers (approximately 471,000 square miles) are land and the remaining 20,000 square kilometers (approximately 7,700 square miles) are lakes and rivers. The country's total population was 19.1 million in 2018, with an annual growth rate of three percent. 58 percent of the population lived in rural areas in 2018, and 80 percent of the working population worked in agriculture. In 2018, the Gross Domestic Product (GDP) was US\$17.2 billion, of which agriculture constituted 39 percent, industry 19 percent, and services 37 percent. Over the past 15 years, Mali's annual economic growth rate has been high, with a three-year average of 5.4 percent from 2016-2018. Mali's export income is based on three commodities: gold, cotton, and livestock. Industry in Mali is focused on processing agricultural commodities. In 2016, only ten percent of the active working population was employed in the formal sector. (Population Reference Bureau 2018; GOM 2013; The World Bank 2018; CIA 2018; ILO 2016)

Mali has five distinct ecological regions: (1) the Sahara desert in the north (51 percent of the country's territory); (2) the arid and semi-arid Sahel that stretches across the middle of the country (26 percent of the country's territory); (3) the freshwater wetland of the Inner Niger Delta; (4) Sudanian zone in the south (24 percent of the country's territory); and (5) the humid forests in the southern tip of the country (six percent of the country's territory).¹ Mali has 43 million hectares of agricultural land, representing 34 percent of the country's total land area. 85 percent of this agricultural land – 36.6 million hectares – is permanent meadows and pastures, and the remaining 6.4 million hectares are arable land. Only 150,000 hectares of land are under permanent crops. 90 percent of arable agricultural land is cultivated by small-scale farmers. As of 2017, cereals were grown on 90 percent of Mali's arable land, or 5.8 million hectares. Millet and sorghum are staples in rural areas, and rice is a staple in urban areas. About six percent of the population was under-nourished in the 2015-2017 time period, while most of the time 18 percent of the population suffers from food insecurity. (GOM 2014a; FAO 2014; FAO 2016; FAO 2018)

Protected areas cover 2.2 million hectares, and an additional 4.6 million hectares are forested. Deforestation is a serious problem. (GOM 2014b)

The Niger River Delta, an inland delta, covers about 30,000 square kilometers (more than 11,500 square miles) and floods between five and six months of the year. The people living in the Delta depend upon a mix of fishing, cultivation, and livestock-rearing. The Delta is surrounded by drylands with diverse landscapes and natural resources. Production systems, such as livestock-rearing, involve both the Delta and dryland zones, with a variety of resource users following seasonal and annual patterns. Multiple users of limited resources that vary in quality and quantity over time depend on cooperation and agreed upon principles of behavior and land use. (GOM 2014c)

¹ The amount of land within each zone adds up to more than 100 percent. This is likely due to some overlap.

LAND DISTRIBUTION

Mali's largest ethnic group is the Mande language group (including Bambara, Sarakole, and Malinke), which makes up 53.6 percent of the population; other groups are Fulani (Peulh, 14.7 percent), Senufo (10.5 percent) and Dogon (8.9 percent). Numerous smaller groups make up the rest of the population.

Historically, the various ethnic groups were associated with specific occupations and regions: members of the Mande language group were primarily farmers, residing in the central and southern regions; the Fulani, Maur, and Tuareg were herders, residing primarily in the northern regions and migrating; and the Sarakoles were traders, with their home bases in urban areas. These ethnic-occupational classifications have become less distinct over the years due to urban migration, rural migration that takes advantage of agriculture opportunities; and mixed livelihoods, or the practice making a living through a combination of workstreams, often including

employment in the informal sector, self-employment, and agricultural activities. (CIA 2018; Skidmore et al. 2016)

Mali has approximately 924,000 farms, with an average farm size of 4.87 hectares. 68 percent of farmers work on less than five hectares of land; 86 percent cultivate less than 10 hectares. Most of the smallholders are subsistence farmers, producing corn, millet, and sorghum for consumption and dependent upon rainfall. In southern Mali, the traditional practice of large groups controlling a system of big fields has transitioned to smaller family units, often ranging from 10 to 20 people controlling smaller fields. Across the western African Sahel region, virtually all agricultural land is claimed by groups or individuals. (World Bank 2008; World Bank 2010a; FAO 2014)

Mali's potential for irrigated land is estimated to be around 2.2 million hectares, however, roughly 400,000 hectares (some 18 percent of this overall potential) has been developed for irrigation. In 2015, the GOM created the Agency for Land Development and Irrigation Water Supply (ATI) to promote and accelerate the development of irrigated agriculture. (GOM 2017c)

The main development zone for irrigated agriculture is in the area controlled by the *Office du Niger* area (a parastatal entity), which represents approximately 100,000 hectares of gravity-fed irrigated land. From 2014 to 2018, about 70,000 hectares of irrigated land were developed in Mali. (Office du Niger 2019b; GOM 2017a)

Recent and current projects include:

- i. The National Program for Small Scale Irrigation (PNIP), located in the Tombouctou and Mopti regions, where 37,000 hectares of irrigated land were developed between 2015 and 2018, and approximately 19,000 hectares are planned between 2019 and 2022; (GOM 2019b)
- ii. The Alatona Irrigation Project in the *Office du Niger* area (follow-up after a 5,200-hectare project

Box 2. Land Tenure Indicators - Mali

	Score
<u>Millennium Challenge Corporation, Scorecard FY20</u>	
- Land Rights and Access (Range: 0-1; 1 = best)	0.74
<u>International Property Rights Index, 2019</u>	
- Physical Property Rights Score (Range: 1-10; 0 = worst)	5.774
<u>World Economic Forum's Global Competitiveness Index, 2017-2018</u>	
- Are Property Rights Protected? (Range: 1-7; 1 = not at all, 7 = to a great extent)	3.6
- Ease of Access to Loans (Range: 1-7; 1 = impossible)	3.4
<u>International Fund for Agricultural Development, Rural Poverty Report, 2001</u>	
- Gini Concentration of Holdings, 1981-1990 (Range: 0-1; 0 = equal distribution)	0.48
<u>International Fund for Agricultural Development, Rural Sector Performance Assessment, 2018</u>	
- Access to Land (Range: 1-6; 1 = unsatisfactory access)	3.9
<u>World Bank, Doing Business Survey, 2019</u>	
- Registering Property, World Ranking (Range: 1-190; 1 = Best)	141
- Registering Property – Number of Procedures	5
- Registering Property – Days Required	29
<u>Heritage Foundation, Index of Economic Freedom, 2019</u>	
- Property rights (Range: 0-100; 0 = no private property)	33.7
<u>Fraser Institute, Economic Freedom of the World, 2019 (2017 data)</u>	
- Legal system and property rights (Range: 0-10; 0 = lowest degree of economic freedom)	3.46
- Protection of Property Rights (Range: 0-10; 0 = lowest degree of protection)	4.30
- Regulatory Restrictions on Sale of Real Property (Range: 0-10; 0 = highest amount of restrictions)	5.80

- already completed) covering 9,000 hectares through a joint project between the Ministry of Agriculture and the World Bank; (Agence d'aménagement 2019) and
- iii. The IPRO-IRRIGAR Koulikoro irrigation program developed 3,300 hectares of small-scale irrigation projects in the Koulikoro Region from 2015 to 2018. (GOM 2019a)

Forms of tenure in irrigated areas vary depending on the area and on the size of the land plots. In the *Office du Niger* area, small family farmers usually have annual operating contracts with annual water fees payment ("*Contrat Annuel d'Exploitation Agricole*") or farming permits ("*Permis d'Exploitation Agricole*"), while large companies hold longer term leases (30 to 50 years). The main crops on irrigated land are rice and diversified produce. (FAO 2015; Office du Niger 2019a)

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Large amounts of land are also used by livestock herders, a group which consists of transhumant pastoralists, nomadic pastoralists, and agro-pastoralists. The differences between these pastoralist ways of life are described in the following excerpt from a United Nations report:

Pastoralism refers to extensive livestock breeding, which in West Africa means different breeds of cattle, sheep, goats, and camels, depending on the ecological zone. Pastoralism generally requires some form of mobility of herders and their animals, often on a seasonal basis between dry and rainy seasons, and day-to-day between pastures and water points. The migration of pastoralists and their livestock between seasonal pastures is called *transhumance*. There is a diversity of pastoralists in West Africa; they are not homogeneous. Patterns of life among pastoralists range from nomadic and transhumant pastoralism to settled or semi-settled agro-pastoralism. Agro-pastoralism combines farming and livestock breeding and requires settlement to cultivate crops, but the mobility of livestock for *transhumance* is maintained. (UNOWAS 2018 at 12)

In 2015 the livestock sector represented over 15 percent of Mali's GDP, and included some 48 million cattle, sheep, goats, and camels. (UNOWAS 2018)

Nomadic and transhumant pastoralism patterns are strongly influenced by Mali's topography and the distribution of rainfall across the country's five ecological zones (described above). Water and pasture availability vary; thus, pastoralists are mobile and flexible in using these resources. Access to water and pasture is not determined only by environmental conditions: political, social, and demographic factors play major roles as well. Transhumant pastoralism within the country's borders is especially important; it takes place on a north-south axis between dry and rainy seasons, and between highlands and lowlands, with the Inner Niger Delta being the key dry-season transhumant zone in the country. (UNOWAS 2018)

LEGAL FRAMEWORK

The following laws, along with associated presidential decrees and ministerial orders, are the primary legal instruments that govern land rights and responsibilities in Mali:

- Constitution (1992)
- Code on Territorial Collectives (2017)²
- State Property and Land Code (Land Code) (2000) (as amended in 2002, 2012 and 2016)
- Pastoral Charter Law (2001)
- Agricultural Orientation Law (2006)
- Agricultural Land Law (LFA) (2017)³

² In the 1990s Mali began an effort to decentralize government functions. The first Code of Territorial Collectives was adopted in 1995. It was replaced in 2012 by a new code, and the 2012 code was in turn replaced by the code adopted in 2017.

³ A national policy on state property and land was approved in 2018, but the policy could not be located. (GOM 2018)

The Constitution states that, “the right of property shall be guaranteed” to citizens and allows state expropriation only for public purposes and with just compensation determined in advance (art. 13). The Constitution also states that laws passed by the National Assembly shall determine the rules governing property rights and expropriation. Finally, the Constitution states that every Malian “shall be free and equal in rights and obligations,” and prohibits discrimination based on sex (art. 2). This gives a strong constitutional foundation for women’s rights to land. (GOM 1992)

The Code on Territorial Collectives gave the sub-national government structures, the territorial collectives (*collectivités territoriales*)⁴, responsibility for land administration, land-use planning and development, and organizing rural activities, including agro-forestry-pastoral production. (USAID 2008, IIED 2009)

The Land Code establishes three broad classifications of land: state land; land of territorial collectives; and land of individuals and legal entities. The Code introduces the various forms of private land rights and provides legal recognition to customary land rights. The Code lays out a method for legally guaranteeing private rights through their registration in the Land Book (*livre foncier*) and establishes mechanisms for transferring land rights from the state and local governments to private parties, and among private parties. The Code also provides extensive guidance on expropriation of land by the state. (GOM 2000)

The Pastoral Charter Law is supplemented by a 2006 presidential decree providing implementation guidance, as well as by a 2010 presidential decree on *transhumance*. The Law recognizes the rights of pastoralists to move their livestock and have access to natural resources to support their livestock and livelihoods. The Law requires territorial collectives, which have primary responsibility for managing pastoral land, to work with pastoralists, traditional authorities, and farmers to maintain pastoral tracks and paths, create calendars for use of natural resources, and prevent encroachment of pastoral land. The Law also allows for *transhumance* into neighboring countries, and back into Mali, within the policy framework on regional integration. Finally, the Law requires that development projects and programs be designed to take pastoralists’ needs into account and preserve pastoral land and resources. (GOM 2001)

The 2006 implementing decree gives livestock farmers and livestock farmer groups the right to develop and use land plots under the domain of state and local governments for nomadic livestock activities. This is an exclusive right and is recognized by an administrative use title. The decree also requires common pastures to be managed by special committees composed of a variety of affected groups (farmers, herders, foresters, etc.). Water points are managed by the local governments, which in turn can delegate the management to livestock farmers and herders’ organizations. The local governments are supposed to collect and deploy funds for water-point sustainability. The decree also directs that conflicts over pastoral resources be resolved by local conflict-resolution mechanisms, with the settlement agreement to be approved by the mayor.

The 2010 decree on *transhumance* sets out the methodology for establishing and closing livestock migration corridors. This requires a significant amount of public participation by livestock farmers, nomadic pastoralists, their organizations, technical departments of the government, and relevant local and regional government bodies. Once established, the migration corridors are managed by the local governments, which can set specific local rules on their use. The decree also requires nomadic pastoralists to use the corridors and stay within the established rights-of-way. Also of note is the 1998 ECOWAS protocol on *transhumance*, which governs movement of livestock across national borders. (ECOWAS 1998)

The Agricultural Orientation Law seeks to promote “stable, modern and competitive agriculture based on family farming” (art. 3). This includes a particular focus on helping women, youth and members of vulnerable groups (e.g., food insecure people) become farmers, and seeks to assure “equitable access to land resources” (art.83). The Law also states these groups should be given land in developed zones (e.g. irrigated land). (GOM 2006)

Mali adopted the Agricultural Land Law in 2017, which applies to “surface area upon which agricultural activities are conducted” (art. 3) and represents a significant step forward for rural customary land rights. This law provides

⁴ Mali’s sub-national government structure consists of three levels: nine administrative regions (including the district of Bamako); 49 circles (*cercles*); and 703 municipalities (*communes*).

for the documentation of both traditional civil land rights (leases of various types, gifts, etc.) and customary rights at the individual or group level. The law also establishes a legal right for rural communities to collectively own some lands and manage them in accordance with their customary practices as they see fit. In many ways, this law is an acknowledgment of the continued prevalence of customary control of rural land, no matter what formal laws establish. (GOM 2017b; IISD 2017)

TENURE TYPES

Under the Land Code, land is classified as either state land or private land. State land includes all public property (e.g., roads, public buildings, large surface water sources), land titled in the name of the state or transferred to the state, and all unregistered land, including vacant land. State land includes land granted to individuals or entities on lease or concession, and land on which customary use rights are exercised. Private land is land titled and registered in the name of an individual or entity in accordance with formal law. (GOM 2000)

The following tenure types are recognized by formal law:

Ownership. An individual or entity can obtain ownership of land by obtaining the land title and registering the title with the state. A group – which includes residential lineage groups, villages, or nomadic fractions (a sub-communal entity recognized in the Mali Decentralization Code but without legally recognized autonomous authority) – can apply for title to customary land. Individuals can apply for title to customary land based on their actual use of the land. (GOM 2000)

Leasehold. The state can lease its land to individuals and entities for periods of 50 years, or as otherwise agreed to by the Council of Ministers and the lessee. The state can also enter into a purchase agreement with a lessee, allowing for the transfer of ownership of the land following registration. (GOM 2000)

Rural concession. The state can grant rural concessions to unregistered state land. If the land on which the concession is granted is subject to competing customary use-rights, customary users may be compensated for the expropriation, assuming that they can establish their customary rights, are aware of their right to compensation, and are able to navigate the process successfully. Concessionaires must develop the land in accordance with the concession document; the concession is conditional upon the agreed development within an established timeframe. (GOM 2000; Djiré 2006; Djiré 2007)

Permit rights. The state and local governments can issue occupation permits for urban land to individuals. The occupation permits allow residential use of the land. The occupant is bound by the terms of the permit. The state also issues various types of permits to individuals and groups for cultivation of irrigated land, particularly where the land is under a publicly funded irrigation scheme. (GOM 2000; Djiré 2006; Djiré 2007)

Customary rights to land. The Land Code recognizes the existence of customary rights to land and confirms the right of groups and individuals to exercise these rights. The group and its members have authority to enter into agreements with third parties, but customary rights to land can only be transferred to groups, or individuals within groups, who have the same customary rights. (GOM 2000)

Use of land by pastoralists. The Pastoral Charter Law provides that community *bourgoutieres* (natural pasture) and fallow land are open-access resources for pastoralists, although use can be prioritized in accordance with custom and local management, and fees for use may be assessed in some circumstances. Livestock may have access to cropland after harvest, subject to terms imposed by local authorities. (GOM 2001)

Customary law varies across the regions and ethnic groups, but general principles of customary law recognize the right of clan and community members to access land for housing and farming. (Camara 2015)

SECURING LAND RIGHTS

The Land Code establishes the right of individuals and entities to acquire ownership to land and receive a land title (*titre foncier*), the most secure and permanent form of right. Ownership may be acquired through purchase, inheritance, gift and, in certain circumstances, conversion of concessions. Transfers of ownership are processed by the registration authorities, and once the new owner's rights are registered in the Land Book they are guaranteed by the state. Various forms of leases can also be registered, as can encumbrances such as mortgages. The Land Code lays out rules for registering property in the Land Book and issuing a land title. These include content of an application for registration, public notice period requirement before registration can proceed, and rules about boundary markers. (GOM 2000)

The 2017 Agricultural Land Law bolsters the formalization of agricultural land rights by recognizing the following forms of transactions: sale, gift, short-term lease, long-term lease, emphyteutic lease (more permanent in form); sharecropping; and lease with a right of purchase or free acquisition. The Law goes on to say that transactions can be registered as provided in the Land Code. The Law also provides a new option: a certification of land transaction (*attestation de transaction foncière*) that is validated by the village chief and registered in the commune-level register of land transactions but not in the Land Book. This is an attempt to bring some formality to agricultural land and implicitly recognizes that the Land Book system is not very operational in rural areas. (GOM 2017b)

In rural Mali, land continues to be a basic means of subsistence, and is still mostly held and transferred according to customary norms. Male heads of groups or male heads of individual families allocate land to users in one of the following ways: lease; pledge; loan; and inheritance when the male head dies. Sales do not take place in this environment. The 2017 Agricultural Land Law provides for the documentation of customary rights by creating a new type of document: the customary land certificate (*attestation de detention coutumière*). This certificate can be registered in the new commune-level register of land possession. (World Bank 2008; Camara 2015; GOM 2017b)

Inheritance usually follows a lineage system. Land is divided among male members, with the oldest son responsible for administration. This traditional inheritance system has been challenged recently under pressure from increased population, migration, and land degradation related climate change. As a result, land is scarcer vis-à-vis the demand, and land conflicts within families have become more frequent. (Camara 2015)

Historically, pastoral tribes depended on the goodwill of sedentary farmers for access to grazing land and watering-holes. Many historically nomadic tribes are now only temporarily transhumant or semi-transhumant (only a few family members move with the animals, while the rest are sedentary). Pastoralist rights of access and use of natural resources are currently governed by the terms of the 2001 Pastoral Charter Law, to the extent the Law is recognized and enforced by local authorities. Pastoralist and nomadic groups such as the Tuaregs and Peulhs, continue to move along traditional routes, with routes changing based upon weather patterns and the availability of grazing land and water. The armed conflict that started in northern Mali in January 2012 affected these migration cycles, with many of these traditional migrants becoming refugees. There have been efforts to establish demarcated, regular corridors for livestock movement, especially to border areas where there are markets. (GOM 2001, IOM 2013)

It is notable that approximately 650,000 hectares of land in the *Office du Niger* have been assigned to foreign entities for investment purposes, most notably from China, Libya, and South Africa. These entities are supposed to dig new irrigation canals and develop irrigation perimeters. (FAO 2015)

Most urban residents do not have formal rights to their land and their tenure is highly insecure; this has a negative effect on the amount of investment in housing and other land improvements. The 2009 census indicated that only 27.7 percent of urban households had a land title, though the percentage of owners has increased since then (exact figures not available). The remaining urban households have either no formal rights or some form of administratively granted rights that come with their own levels of insecurity. Related social indicators as of 2014 include: 56 percent of Mali's urban population lived in slums; 91 percent of the urban population used improved drinking water sources; and 35 percent used improved sanitation facilities. The first two indicators represent a positive trend over the prior decade, while the third remained relatively unchanged. (United Nations 2014;

Durand-Lasserve et al. 2015; USAID 2016; WHO 2018)

To conclude, Mali has a robust body of formal law addressing land issues, though of course gaps and inconsistencies remain that should be addressed. Customary practices, which have more social legitimacy, continue to be used extensively, especially in rural areas. In addition, poor and marginalized groups do not have good access to the formal legal system due to illiteracy,⁵ lack of experience with government institutions, and lack of financial resources to travel to access formal institutions and tribunals. This puts those with knowledge and resources in an advantageous position. All of these factors have implications for land-tenure security.

INTRA-HOUSEHOLD RIGHTS TO LAND AND GENDER DIFFERENCES

The Constitution prohibits gender discrimination and stipulates that all citizens have the right to own land. The Land Code and the Agricultural Orientation Law both contain strong statements in support of women's rights to land and equitable access to land. The 2017 Agricultural Land Law even requires that, in an attempt to break tradition, at least 15 percent of land in developed areas (e.g., irrigated land) under control of the state or territorial collectives is required to be allocated to associations of women and youth. The Ministry for Promotion of Women, Children and the Family exists to improve the economic and social prospects for all women across the country.

This legal progress is notable, but in fact women still face major obstacles to accessing land, especially in rural areas where customary norms regarding control and transfer of land still dominate and are patriarchal in nature. These norms generally emphasize that land is the domain of men, and since women cannot perpetuate the patriarchal line, land must be transferred to men. Women generally do not have land rights under Malian customary law, even

though they provide over half of the agricultural labor force and produce most of the food to feed their families. One estimate is that only 20 percent of women engaged in agriculture have access to land. In some customary environments, men do give new spouses a piece of land for market gardening. (Camara 2015; FAO 2018)

Improving women's rights to land is possible. The laws exist, but they need to be implemented. For example, in 2012 a foreign aid program operating in the *Office du Niger* allocated land titles for almost 5,000 hectares of irrigated land developed under the program. 37 percent of the land was awarded to women, either in the form of an individual award, a joint title with their husbands, or as part of a market-gardening group. In addition, the OECD statistics cited in Box 3 show progress as compared to previous years. (Rolfes and Seitz 2013)

BOX 3. LAND AND GENDER INDICATORS

OECD: Social Institutions & Gender Index (SIGI), 2014a, 2014b

- | | |
|--|-----|
| — Women's Secure Access to Land (Range: 0-1; 0=no discrimination) | 0.5 |
| — Women's Secure Access to Non-Land Assets (Range: 0-1; 0=no discrimination) | 0.5 |
| — Women's Access to Financial Services (Range: 0-1; 0=no discrimination) | 0.0 |

FAO: Holders of Land Classified by Sex, 2004-2005

- | | |
|---|-----|
| — Percentage of Female Holders of Agricultural Land | 3.1 |
|---|-----|

LAND ADMINISTRATION AND INSTITUTIONS

The Ministry of State Property and Land Affairs prepares and implements national policy related to land and state property. This includes overseeing the implementation of the Land Code, identifying and managing state property including buildings, and acquiring/expropriating property for use by the state. In the Ministry's organizational chart there are two important entities: the National Directorate for State Property (DND); and the National Directorate for Cadastre (DNC).⁶ These two directorates have several land-related responsibilities, but of particular note are DNC's mapping-related responsibilities, and the directorates' overlapping responsibility to

⁵ As of 2015, Mali had a literacy rate of 33 percent (45 percent of men and 22 percent of women). (CIA World Factbook 2018)

⁶ From 2000-2017 there was one directorate: the National Directorate for State Property and Cadastre. In 2017, it was split into DND and DNC.

maintain the Land Book, where property is registered. In the World Bank’s 2019 *Doing Business Report*, Mali ranked 141st on ease of registering property, with the registration process requiring five procedures, 29 days, and 11 percent of the property’s value. (GOM 2017e; GOM 2017f; GOM 2019d; GOM 2019e; World Bank 2019a)

The Ministry of Housing, Urban Planning and Social Housing carries out housing-related policy and planning activities, works to improve the quality of housing, regulates construction standards and offers financing programs for housing. (GOM 2019d)

Other national ministries with land in their portfolios include: the Ministry of Agriculture (management of agricultural land, support to farmers); the Ministry of Planning and Population (planning, management of agricultural and range land); the Ministry of Environment, Sanitation and Sustainable Development (natural resource management, combating land degradation); the Ministry of Livestock and Fish (rangeland management); the Ministry for Promotion of Women, Children and the Family (women’s land rights); and the Ministry of Territorial Administration and Decentralization, which oversees commune-level activities. (GOM 2019d)

At the local level the commune, a local-government structure under the Code of Territorial Collectives, is a very important institution in the land space. Communes exist in both urban and rural areas, and since the 1990s have had management responsibility for communal resources including land, forests, and other natural resources. Moreover, the 2001 Pastoral Charter Law requires commune councils to manage natural resources with the participation of pastoralists and other users of natural resources, and to collaborate with pastoralist organizations in seasonal land use planning. (GOM 2001; GOM 2017d)

Also at the local level, the 2017 Agricultural Land Law establishes a new institution – the village land commission – to facilitate consultations on agricultural land issues, help with formalizing land rights, and work on resolution of land disputes. The Law also gives the communes management control over the agricultural land possession registry and the agricultural land transaction registry. While the Law makes several references to following the directives of the Land Code, it is not clear how the new agricultural land transaction registry will relate to the land registries maintained by the DND and the DNC. (IISD 2017; GOM 2017b)

The capacity of the commune to carry out the responsibilities described above is an issue. The communes, especially rural communes, have limited financial and human resources. One observer has noted that the decentralization effort has led to the creation of overlapping institutional authority plus customary practice which still endure, which creates more ambiguity about land rights in rural areas. (USAID 2008; GOM 2014a; LANDac 2016; Skidmore et al. 2016)

As a final note, the GOM’s Agricultural Land Policy document itself states that “land administration is relatively weak and poorly organized.” (GOM 2014a)

LAND MARKETS AND INVESTMENTS

“Land markets exist when and wherever it is possible to exchange rights in land for agreed amounts of money or services rendered.” (Mahoney et al. 2007 at 1) The land-market environment in Mali is gradually increasing market activity in urban areas but remains limited in rural areas. But, as in all developing countries, land is transferred among users in informal ways.

Formalization of land rights through registration of land titles is a good indicator of a developing market environment. In Mali’s urban areas, as of 2009 some 27 percent of households who owned plots of land had a corresponding land title, and in Bamako the figure was 38 percent. Since then, more and more land titling has occurred. There is evidence of this in the *Cercle de Kati*, the administrative subdivision surrounding Bamako. In most areas of the *Cercle de Kati*, land titles are being registered in increasing numbers, including on agricultural land, which is then converted to housing and used for commercial purposes. This is happening as far as 125 kilometers from Bamako. Land prices are also going up: titled land in urban areas typically sells for three to four times the price of informally acquired land. (Durand-Lasserve et al. 2015; Camara 2017)

By contrast, land titling in rural areas remains limited. In 2009, only eight percent of households in Mali who owned plots of land had a corresponding land title. Since the urban figure was 27 percent as stated above, the rural figure is likely close to nil. No evidence was found indicating a significant amount of land being registered in rural areas since then. In these areas customary methods of land allocation continue to be prevalent, and in irrigation zones short-term leases to farmers are the norm. Neither of these allocation methods are market-based. (Durand-Lasserve et al. 2015)

Two final points are worth noting. First, the large majority of land transactions in the country are still being carried out with a level of informality, though this is not indicative of the size of the market or its vigor. Second, less than 15 percent of land registered to individuals or households is registered to women. Thus, despite the fact that women's rights are recognized in the law, major challenges persist in exercising them. (Durand-Lasserve et al. 2015; Djiré and Kéita 2016)

COMPULSORY ACQUISITION OF PRIVATE PROPERTY RIGHTS BY GOVERNMENT

Under the Land Code, the government can expropriate registered property and customary land if necessary to serve “the public interest” and upon payment of just compensation. Public interest, in this case, includes the development of public works, preservation of forests, and the creation of infrastructure for needs such as irrigation and drainage. (GOM 2000)

The procedure for expropriating registered land requires the landowners to identify all lessees, users, and other holders of land rights. The Ministry for Lands issues a public notice to all those identified by the landowner as having rights to the land. The government is required to pay the landowners for the land expropriated. The landowner is then responsible for making compensatory payments to any holders of derivative rights. Unless agreed to by the parties involved, compensation is determined by the court. All parties can provide expert testimony on how much the land is worth and the damages sustained. (GOM 2000)

If expropriation involves unregistered customary land, the state will conduct a public investigation to determine the existence of the customary rights and the holders of the rights. The compensation can be agreed to by the parties or determined by the court in the absence of agreement. Multiple holders of customary rights can agree among themselves as to how the compensation will be divided. If an agreement is not reached among the parties involved, the court will impose a decision. (GOM 2000)

The government does not always use its expropriation powers justly, and pressure is not infrequently applied by the authorities to get people to sell. As evidence of this, in 2014 a sit-in by victims of expropriation took place at the Bamako labor exchange. (Durand-Lasserve et al. 2015)

LAND DISPUTES AND CONFLICTS

Disputes over land are a widespread problem in Mali. They occur within families, within communities, and between users of different natural resources. Population growth, coupled with migration from drier parts of Mali to more humid areas, has increased pressure on the land-tenure system, which in turn has led to more conflict and in some cases outright violence. (Skidmore et al. 2016)

The most visible forms of conflict are between pastoralists and farmers. Competition over access to pasture and water sources fuels these types of conflicts. Over time, more land that was previously reserved for grazing, has come under cultivation. Moreover, expansion of cultivated land has increasingly constrained transhumant livestock corridors and access to water points. Farmers also own livestock, so they compete with pastoralists for the same resources. This competition has contributed to the spread of violent conflict in central Mali. (Skidmore et al. 2016; UNOWAS 2018)

Land disputes typically go first to the local chief for adjudication, often in consultation with other village residents. However, if one or both parties to the dispute do not want to rely on this customary solution or if they disagree with the decision rendered by the chief, “they can take the dispute either to the elected mayor of the commune or to the court system. These higher-level adjudication systems involve higher transaction costs than resolving the conflict at the village level (traveling to the mayor’s office or the court, preparation of legal documents, possible hiring of lawyers). In these higher-level adjudication systems, any prior decision by the village chief lacks legal standing.” (Skidmore et al. 2016)

Formal law also contains conflict-resolution provisions. The Pastoral Charter Law provides for local dispute resolution of issues regarding pastoralists. Local authorities are responsible for helping to prevent and resolve disputes regarding pastoralists’ use of land and natural resources. The Law authorizes the local government to punish those who occupy or block pastoral land, move animals outside the pastoral track, or contravene established local rules regarding pasture access. (GOM 2001)

The Agricultural Land Law provides that conflicts concerning agricultural land must be submitted to the relevant village land commission for mediation. If the mediation is successful, the commission prepares a document (*procès-verbal*) describing the result of the mediation and submits it to a judge for approval. If the mediation is not successful, the village land commission prepares a document explaining the unsuccessful result, and the case is transferred to the proper legal tribunal. (GOM 2017b)

Finally, one study concluded that communes with greater capacity to allocate and manage land tend to have fewer conflicts. This is highly encouraging in terms of the prospects for mitigating conflict, or avoiding it altogether, in an environment where demographic pressure and internal migration is increasing. (Skidmore et al. 2016)

KEY LAND ISSUES AND GOVERNMENT INTERVENTIONS

Informal land tenure continues to be a problem. The government has responded by adopting the 2017 Agricultural Land Law, which makes it easier to register agricultural land in accordance with the Land Code and enables, for the first time, a person to receive documentary evidence of a customary right. (GOM 2017b)

Another significant problem is the obstacles women face to acquiring land rights. Several laws, including the Land Code, the Agricultural Orientation Law, and the Agricultural Land Law, make clear that women have land rights and the benefits that derive from those rights. But real change is lagging, especially in the countryside. Changing customary norms, which is the main obstacle, requires time and education.

Finally, urban planning remains a challenge. There is a need to deliver services more effectively, build adequate infrastructure and accommodate the increasing influx of migrants from the countryside. While the Ministry of Housing, Land Affairs and Urbanism has responded in various ways, better governance and more effective urban planning continue to be real obstacles.

DONOR INTERVENTIONS

No donors were identified supporting interventions with a direct focus on land issues. The interventions described here have indirect land-related implications.

The United States Government has produced a Mali Country Plan to implement its Global Food Security Strategy (GFSS). The GFSS Mali Country Plan is informed by an analysis that emerged from the first phase of Feed the Future, which began in 2010. Current socio-economic factors impacting poverty, nutrition, and resilience as well as stakeholder consultations have also contributed to the creation of this Country Plan. Key changes to the revised Feed the Future approach in Mali include a greater emphasis on private-sector investment and market facilitation, as well as the selection of principal value chains (millet, sorghum, rice, maize, livestock, and horticulture) to increase resiliency and income. The GFSS Mali Country Plan serves as an overarching framework for integrated food security, nutrition and resilience programs intended to complement the Government of Mali's National

Agricultural Investment Plan. (USG 2016; USG 2018)

USAID focuses on increasing productivity in agriculture through the development of better performing market systems and the sustainable intensification of smallholder farming. These efforts are complemented by private sector engagement and research to advance policy implementation and reform. (USAID 2019a)

Since 2011, the German International Cooperation Agency (GIZ) has supported the following projects: (i) Support to the National Programme for Sustainable Small Scale Irrigation through the financing of the irrigation infrastructure (from 2014-2019, USAID also supported this project); and (ii) promotion of agricultural finance for agri-based enterprises in rural areas (in Mali, Benin, Cameroon, Mali, Nigeria and Zambia) through the expansion of selected financial institutions into the agricultural sector and strengthening the entrepreneurial and financial skills of farmers and agri-based enterprises (2016-2022). (GIZ 2019a)

The World Bank is supporting the Regional Sahel Pastoralism Support Project (PRAPS). This project, which started in 2015 and runs through 2021, seeks to improve access to essential productive assets, services and markets for pastoralists and agro-pastoralists in border areas and along transhumant routes. The project's natural resource management component aims to, among other things, enhance sustainable management of rangeland and infrastructure needed to access water. The project's activities are meant to contribute to conflict avoidance or mitigation. (World Bank 2019g)

France, the World Bank, and the International Monetary Fund (IMF) are contributing to major infrastructure investments. Several other countries provide bilateral support. Through various projects, the World Bank is strengthening government agricultural institutions and infrastructure, building farmer capacity, improving productivity and strengthening resilience of rural households, reforming the cotton sector, and promoting natural resources management in the context of climate change. The World Bank has also allocated funding for agricultural research. The Rural Community Development Project was implemented between 2005 and 2014, and focused on agriculture, fishing, forestry, water, flood protection, and sanitation. (World Bank 2019b)

The European Union is providing support through several individual projects that focus on irrigation, agricultural research, reform of the agricultural sector, and promotion of specific sub-sectors such as cotton, livestock, and rice. (EU 2019)

2. FRESHWATER (LAKES, RIVERS, GROUNDWATER)

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Mali's major freshwater resources are the Senegal and Niger Rivers, and especially the Inner Niger Delta, which is the largest inland wetland in West Africa. These rivers have three large dams: the Manantali Dam on the Senegal River is used primarily for hydropower and some irrigation; the Selingue Dam, on a tributary of the Niger River, is used for hydropower and management of the river's flow rates; and the Markala Diversion Dam on the Niger River, is used exclusively to provide water for irrigation. In addition, Mali has an estimated 30 cubic kilometers per year of groundwater that can be used sustainably. This groundwater is either shallow water that is recharged annually as surface water drains into the ground, or deeper fossil water. (USAID 2013; FAO 2015)

The parts of the country that are away from these rivers and delta resources depend primarily upon rainfall and groundwater. Rainfall ranges from over 1000 millimeters per year in the southwest, to less than 300 millimeters per year in the north. Mali is highly vulnerable to drought, especially the areas that are far from the two rivers and the Inner Niger Delta. In those areas, rain-fed farming and pastoralism are still dominant. (USAID 2013)

Mali has about 370,000 hectares of irrigated land, in various forms. About 167,000 hectares of irrigated land is in fully controlled perimeters, most notably the *Office du Niger*, a large-scale irrigation scheme originally established by the French in the 1930s. The rest of the irrigated land is either in *casiers de submersion* (partially controlled perimeters) or *bas fonds* (shallow valleys with high water tables), both of which are largely dependent upon water from annual flooding. Irrigation accounts for as much as 90 percent of all water used in Mali, with the

remaining water used for household or commercial/industrial purposes (the amounts available are considered adequate). Finally, Mali has a fairly robust fishing industry, especially in the Inner Niger Delta, but its continuing viability depends upon annual floods. (USAID 2013; FAO 2015; Camara 2015)

Turning to drinking water and sanitation, 67 percent of the population has access to improved drinking water, and 22 percent has access to improved sanitation facilities. Not surprisingly, access to improved drinking water is higher in urban areas (91 percent of the population) than in rural areas (54 percent), and the same is true for access to improved sanitation facilities (35 percent in urban areas, 15 percent in rural areas). (USAID 2016; WHO 2018)

Finally, Mali does not seem to be paying adequate attention to the productive value of water, i.e., how well are the available water resources being used. This is an important topic for the future to ensure that enough water is available to meet the population's water needs for farming, fishing, livestock, sanitation, drinking water, and other uses. (USAID 2016)

LEGAL FRAMEWORK

The 2002 Water Code and the Land Code specify that the state owns all water resources with only limited exceptions for smaller bodies of surface water. The state also owns all groundwater. The Water Code regulates the use, conservation, protection, and management of water resources. It also requires permits for extraction of water, with exceptions for water used for domestic purposes and in amounts below specific volumes. The Water Code prohibits discharge of substances that may negatively affect water resources. Under this code, local governments are responsible for ensuring water supply to their immediate populations. (GOM 2000; GOM 2002; USAID 2013)

The Pastoral Charter Law, which governs the use of natural resources by pastoralists, provides free access to rivers, ponds, and lakes in the public domain for watering animals. Pastoralists are responsible for respecting the rights of others and using water in a manner that does not abuse or waste this precious resource. Access to private and traditional wells is subject to permission and terms imposed by the owners. (GOM 2001)

TENURE ISSUES

Across most of Mali, pastoralists have tenuous water rights, a problem made worse by increasing pressure on resources. Despite what the laws may say, water access is about local power dynamics and customs, and pastoralists must negotiate their water needs within this environment. (UNOWAS 2018)

In irrigation schemes, water rights for small farmers are linked to land-use contracts, typically short-term leases. The leases require payment of water fees, and failure to pay can mean cancellation of the contract and eviction from the land. (Camara 2015; Djiré and Kéita 2016)

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The National Directorate for Hydraulics (*Direction Nationale de l'Hydraulique*), a unit within the Ministry of Energy and Water, is responsible for managing all water resources and the domestic supply. The Directorate's work includes planning and implementation of water resources policy, planning and overseeing construction of hydraulic works, and engagement with communes who manage local water supplies. The Directorate's involvement with water for agriculture is limited. (USAID 2013; GOM 2019c)

Agricultural water supply and distribution is managed primarily by the Ministry of Agriculture. In addition, the *Office du Niger*, a semi-autonomous government agency, is "charged with the development, operation, and management of the irrigated areas of the Inner Niger Delta served by the Markala Dam. It is nominally under the control of the Ministry of Agriculture but has a great deal of independence for operations and investment purposes." (USAID 2013)

Finally, the Ministry of Environment, Sanitation and Sustainable Development is responsible for ensuring that “there is sufficient water for ecological purposes.” (USAID 2013)

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

Since 2005 the Government of Mali has been implementing its Sectoral Water and Sanitation Program. The program has three broad objectives: access to clean drinking water; access to sanitation; and integrated water resources management. The Program’s implementation plan for 2020-2022 includes constructing or rehabilitating 12,600 modern water points in rural and semi-urban areas, improving water access for animals in pastoral areas, and building the capacity of several institutions with water-related responsibilities. (GOM 2019f)

DONOR INTERVENTIONS AND INVESTMENTS

The World Bank’s Rural Community Development Project was implemented from 2005 to 2014. The Project focused on agriculture, fishing, forestry, water, sanitation and flood protection. The total budget for the project was USD 71 million, with approximately five percent allocated to funding for water, sanitation, and flood protection. The overall project results were deemed by the Bank to be moderately unsatisfactory. In 2018, the World Bank began supporting a project for the rehabilitation of the Niger River aiming at improving the navigation and port service as well as environmental restoration and livelihood improvement at targeted sites in the Inner Niger Delta. The World Bank is also financing a water sanitation project in Bamako, including the construction of water production, storage, and pumping facilities and primary distribution networks and the provision of access to water services through social water connections and stand posts in unserved areas. (World Bank 2010b; World Bank 2017; World Bank 2019c, World Bank 2019d)

GIZ supports capacity-building and institutional development of the local government entities in the decentralization process of supplying drinking water to the people of Mali. The German government is also supporting the national program for sustainable small-scale irrigation. (GIZ 2019b; GIZ 2019d)

The EU is supporting several projects in water sanitation, including the construction of drinking water infrastructure and building the capacity of local government entities responsible for water and sanitation. (EU 2019)

3. TREES AND FORESTS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Forests cover 4.6 million hectares, or less than four percent of Mali’s land area. Most of Mali’s forests are found in the semi-humid and Sudanian regions of the south. The country’s forests provide rural communities with fuelwood, timber for construction, food, fodder, and medicinal herbs. (FAO 2016; FAO 2001; FAO 2005; USAID 2008; USAID 2015)

In 2001, forests covered about 12.5 million hectares of the country. The drop over the past two decades has been significant. Encroachment of agriculture, unsustainable resource-extraction, and to a lesser degree, climate change are the main causes of land degradation and deforestation in Mali. (FAO 2001; USAID 2008; Maiga 2008; Ashley 2004)

On the bright side, while deforestation continues to be a problem, there is strong evidence of natural regeneration of herbaceous vegetation across the Sahel, including in Mali. Evidence of this “re-greening” comes from data gathered via satellite remote sensing and confirmed by on-the-ground field observations. (Dardel et al. 2014)

Mali has nine million hectares of protected land: one biosphere reserve; three national parks; 14 wildlife reserves;

and eight hunting areas. In addition, Mali has four wetland areas designated as “wetlands of international importance” (RAMSAR sites) covering 4.2 million hectares, with the Niger River delta being the largest RAMSAR site by far. Taken together, these areas total 13.2 million hectares, or about one percent of Mali’s total surface area. However, Mali’s protected areas are often protected in name alone. Constrained management resources make protected areas difficult to safeguard, and government workers lack the equipment and financial support to properly protect the forests. (GOM 2014b; RAMSAR 2014)

LEGAL FRAMEWORK

The 2010 Forestry Law (the Law) replaced two laws from 1995. The Law allows for two forms of rights to exploit forest resources: a use right (*droit d’usage*), which allows individuals and communities to use resources for their personal needs; and a license (*carte d’exploitant forestier*) for commercial forestry. Forest land can be under the control of the state, the municipalities or individuals, and each of these has a legal obligation to take measures necessary to conserve forests and only use them in a sustainable manner. Forests within the domain of the state or municipalities are to be utilized only with a management plan, and the Law lays out various forest classifications and how they can be used. Forests under the control of individuals may be used according to the property rights based upon the Land Code, but with conservation and environment protection obligations. Finally, the Law lays out in detail various prohibited actions and resultant penalties. (GOM 2010)

The Pastoral Charter Law ensures that pastoralists have access to unclassified forests for grazing without charge. Pastoralists are subject to general rules regarding environmental protection and natural stock management. (GOM 2001)

The Law on Agricultural Orientation contains general provisions on foresters and production of forest products. (GOM 2006)

Historically, customary institutions regulated access to forest land and resources such as wood and fruit. The customary institutions, which usually operated at the village level, established rules of access, organized policing of the forest, and punished infringements by confiscating forest products and tools, levying fines, or ostracizing offending persons. Government decentralization and regulation has weakened customary institutions in many areas. However, in some of these areas the government is exploring strengthening customary institutions to play a bigger role in local forest management. (Benjaminsen 2002)

TENURE ISSUES

The Forestry Law identifies three types of forests: (1) state forests; (2) forests run by territorial collectives; and (3) forests run by private individuals. Most forest land is owned by the state; local rural councils are largely responsible for managing this land. The Law allows people to gather forest products and graze animals on forests controlled by the state and the territorial collectives in a sustainable manner. Commercial forestry can also take place on these forests, but permits are required and must be purchased from the state. Forests run by private individuals can be used in accordance with the rules and restrictions found in the Law and the Land Code. (GOM 2010)

In southern Mali, customary norms provide that non-cultivated woods are open to use by communities and transhumant pastoralists. Visitors to the area seek the approval of village authorities to collect fuelwood. Special fruit trees will often be considered the exclusive common property of the villagers. (Benjaminsen 2002)

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The National Directorate for Water and Forests, a department within the Ministry of Environment, Sanitation and Sustainable Development, has a mandate to engage in forest replanting and restoration, forest planning and

production of forest products, and other activities. The Directorate has regional and sub-regional offices responsible for implementing activities in support of the defined objectives. Local government entities and forest users participate in implementing national forest policy in their day-to-day activities. (GOM 2009a; GOM 2009b; GOM 2009c; GOM 2019d).

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

In 2014, Mali revised its National Strategy and Action Plans for Biological Diversity to bring it into conformity with the Convention on Biological Diversity's 2011-2020 strategic plan. The Strategy seeks to "assure the conservation and sustainable use of diverse biological resources for present and future generations." The Strategy identifies several threats to biodiversity, including climate change, natural habitat fragmentation (overgrazing and excessive wood cutting are primary causes of this), and insufficient institutional capacity. In response, the Strategy proposes a detailed action plan to address the following strategic approaches: (1) integrate biodiversity conservation into regular government and societal initiatives; (2) minimize direct threats to biodiversity; (3) improve the state of biodiversity by protecting ecosystems, etc.; (4) strengthen the benefits that can be derived from biological diversity and ecosystem services; and (5) plan, research and invest in capacity building. (GOM 2014b)

DONOR INTERVENTIONS AND INVESTMENTS

The US Feed the Future initiative is supporting a project on agroforestry technology in Mali that seeks to promote the use of improved technologies and management practices by farmers, with the long-term goal of improving resilience, reducing poverty and malnutrition through diversified livelihoods and diets. The project also promotes public private partnerships for tree products that have a high market potential (e.g., Shea butter, beeswax, Jatropha, and other promising tree products). (USAID 2019b)

A second effort completed by the World Bank was the *Natural Resources Management in a Changing Climate Project in Mali*, which ran from 2014 to 2019. One of the goals of this project was to reverse the loss of forest coverage. (World Bank 2019e)

The EU supports several projects in the forest sector with the aim of increasing forest coverage in order to capture more carbon sequestration, do a comprehensive inventory of forest resources and promote sustainable management of forest resources. (EU 2019)

Finally, Mali participates in the Great Green Wall Initiative, an effort to establish green and productive landscapes in a belt across northern Africa to combat "land degradation, desertification and drought." The initiative is led by the African Union, and in Mali donors such as the World Bank and FAO have provided significant support. (Landscape News 2018; World Bank 2019e)

4. MINERALS

RESOURCE QUANTITY, QUALITY, USE AND DISTRIBUTION

Mali's mineral sector represents about six and a half percent of GDP, 65 percent of total exports, and 20 percent of total fiscal revenues. Gold is the main mineral extracted in Mali. The country is the third largest gold producer in Africa. Mali also mines semi-precious stones, rock salt, sand, and gravel. The country has vast undeveloped mineral resources, including bauxite, gypsum, manganese, and uranium. (IMF 2018)

The majority of Mali's mineral deposits are found in the east and west of the country. Gold is primarily extracted from the Kalana, the Morila, the Sadiola Hill, and the Yatela Mines. Nevertheless, few new gold deposits are being found and ore reserves are in decline. (USG 2018)

Industrial mining produces the bulk of minerals and is carried out by multinational companies, but artisanal mining is also significant. It is estimated that there are about 25,000 artisanal gold miners in Mali, and probably far more people who mine only occasionally. (World Bank 2015; IIED 2019)

A useful indicator of mining-resource distribution is the extent to which the welfare of the population in the areas around the mines is improved by what is certainly a revenue windfall. In the case of gold, mining communities in Mali do receive more money and spend more money than non-mining communities, but differences in overall welfare are marginal. The reason for this disappointing observation is primarily due to limited capacity of local governments to transform higher revenues into better public goods and services. Notably, corruption does not seem to be the reason. (World Bank 2015)

Unfortunately, there is not enough information about the environmental impacts of mining in Mali and their effects on public health. But, as in all mining environments in developing countries, there are concerns about adherence to environmental standards and potential impact on people's health. (IIED 2018)

LEGAL FRAMEWORK

The Mining Code of 2012 covers key aspects of mining operations, exploration, and extraction; relations of mining rights holders with landowners and the state; and health, safety, labor, and related issues. The 2012 implementing decree for the mining code establishes its many implementation procedures. However, the operations of some mining companies are still guided by the 1999 Mining Code. Mali also follows the mining law promulgated by the West African Economic and Monetary Union. In 2013 Mali became a member of the Kimberley Process Certification Scheme for identifying “conflict” diamonds: rough diamonds used to fight wars against governments. (GOM 2012a; GOM 2012b; IMF 2018; Kimberley Process 2019)

Neither the Land Law, nor the Mining Code, make provision for communities to claim rights to subsoil resources or to scrutinize mining activities on local land. Moreover, under the law, mining rights are generally superior to agricultural and pastoral rights. (GOM 2000; GOM 2012a; Djiré and Kéita 2016)

TENURE ISSUES

The state owns all minerals in Mali. Corporations, including foreign corporations, can obtain both exploration and exploitation permits. Exploration permits, issued by the Ministry of Mines and Petroleum, grant exclusive title to an area in which to conduct exploration. These permits are valid for three years and are renewable twice. Applicant corporations must demonstrate sufficient levels mining capacity. Exploitation permits, granted by the Head of Government, are required prior to mining within an exploration area and are only granted to companies that hold exploration permits or that have been authorized to search for a given mineral. Exploitation permits grant exclusive rights to exploit the mineral deposits within a specified area for 30 years. The requirements for permits for small-scale, quarry and artisanal mining are also set out in the law. (GOM 2012a; EITI 2016)

GOVERNMENT ADMINISTRATION AND INSTITUTIONS

The Ministry of Mines and Petroleum is responsible for implementing mining law and policy in Mali. The National Directorate of Geology and Mines (*Direction Nationale de la Géologie et des Mines*), a unit of the Ministry, applies and regulates mining legislation. (GOM 2019d)

GOVERNMENT REFORMS, INTERVENTIONS AND INVESTMENTS

In August 2019, a new Mining Code was approved by the Council of Ministers. The new changes, with respect to the 2012 Code, are intended to increase the flow of revenue to the government and the Malian population, while

reducing profits for the mining companies. As we publish this report, the Malian parliament has yet to approve this new policy. (IIED 2019; World Bank 2019h)

DONOR INTERVENTIONS AND INVESTMENTS

The World Bank is financing the Governance of Mining Sector Project. This project, which is scheduled to be implemented into mid-2024, includes activities to: improve the GOM's institutional capacity to sustainably manage the mining sector; strengthen revenue transparency; and maximize the local development impact of mining, thus ensuring that the benefits are shared widely. (World Bank 2019f)

GIZ is financing a project to implement the provisions outlined in the African Mining Vision, enhance transparency and improve control over the mining sector. (GIZ 2019c)

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