

# USAID BIODIVERSITY AND DEVELOPMENT HANDBOOK

## IV

## BIODIVERSITY AND DEVELOPMENT INTERSECTIONS



*Families rest in the shade while Northern Rangelands Trust community rangers pass by on patrol in Kenya. Nature-based enterprises and improved management earned about \$1.3 million in 2013, in an area with low annual incomes and few economic options.*

*Photo: Juan Pablo Moreiras, Fauna & Flora International*

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*Fishermen of the Hail Haor wetland in Srimongol, Bangladesh, have much to celebrate. After USAID helped local people participate in decision making and management of Hail Haor, fish diversity went up significantly, waterbirds that hadn't been seen for years returned, and fishermen regularly caught more fish in less time than they used to. This success with community co-management led the Government to change national policy on the rights of communities and initiated a large scale up in effort with USAID support.*

*Photo: Sirajul Hossein*

# IV BIODIVERSITY AND DEVELOPMENT INTERSECTIONS

## 4.0 OVERVIEW

This chapter supports Goal 2 of the Biodiversity Policy, “integrate biodiversity as an essential component of human development,” as well as Agency integration goals and emerging best practices. Virtually all USAID programs are integrated with other sectors, whether intentionally or not, because they operate within socioeconomic systems. Biodiversity conservation programs are no exception. Conservation activities impact other sectors and vice versa. This chapter provides information on these linkages and impacts, for consideration in increasingly common multi-sector programming. Programmers and managers may also find this information useful in considering how working in different sectors contributes to sustainability. In addition, biodiversity and environment experts need to know enough about other sectors to be able to engage appropriately, though they do not have to be experts.

Integration does not mean doing everything; it means being strategic. Resources presented in this chapter can help planners make these strategic choices – identifying entry points and actions in other sectors that can lead to and enhance biodiversity conservation outcomes. For example, in the context of a threats-based approach, planners and practitioners could engage with efforts to strengthen legal and justice systems and apply best practices to specific conservation challenges such as trafficking or illegal, unreported, and unregulated (IUU) fishing.

As explained in Chapter 3, it is also evident that conservation approaches require knowledge about and engagement with the sectors to be covered here. Broad-scale landscape and seascape approaches often dictate integration of agricultural considerations; these could involve a mix of ecoagriculture, agroforestry, and intensification techniques, as well as improved fisheries management in seascape settings. Community-based natural resource management (CBNRM) approaches can improve conservation impacts and results by

incorporating and facilitating the positive evolution of land tenure and property rights concerns. Similarly, many practitioners are increasingly realizing the importance of governance in biodiversity conservation programs: Integration of such basic principles as transparency and accountability can lay the foundation for more equitable, positive, and sustainable results. Finally, the crosscutting issue of global climate change has profound implications for natural resource management (NRM) and the conservation of biological diversity. Integrating climate change adaptation measures into conservation programs will be a necessity. At the same time, healthy and diverse ecosystems will provide resilience to climate change for other sectors.

## 4.9 LAND AND MARINE TENURE AND PROPERTY RIGHTS

### **Definition and Significance**

Land or marine tenure is defined as the institutional (political, economic, social, and legal) structure that determines how individuals and groups secure access to land/ocean and resources. Property rights are defined as the use, control, and transfer of assets, including land and natural resources, such as trees, biodiversity, and carbon. Land tenure rules define the ways in which property rights to land and natural resources are allocated, transferred, used, or managed in a society. Depending on the local context, property rights may be held by individuals, families, communities, firms, other groups, and governments. Rights held by individuals and non-state groups, such as communities or firms, are referred to as “private property,” whereas rights held by government entities - such as reserves, national parks and coastal and ocean areas - are considered “public property.”

Property rights may be permanent, as in the case of permanently protected nature reserves, or temporary. Temporary rights may include leaseholds or concessions for logging, sport hunting, fishing, tourist lodges, or river rafting. In many countries, property rights are associated with certain obligations or conditions. For example, a

firm that holds a forest concession right may be required to log sustainably, while governments may be obligated to protect biodiversity in parks.

In addition to defining who can hold and use resources, for what length of time, and under what conditions, land/marine tenure and property rights (LTPR) systems include mechanisms to resolve disputes; defend rights; administer or manage land and natural resources; and transfer rights, including by passing rights from one generation to another (inheritance). LTPR systems may be recognized by either formal or informal (sometimes customary) authorities, or both. These systems overlap in many countries where USAID works, and informal property rights often go unrecognized by formal laws and institutions, such as protected areas and land registries.

The overlapping and sometimes conflicting nature of formal and informal LTPR systems can undermine confidence that property rights will be protected, or “tenure security.” A lack of tenure security reduces incentives for rights holders to invest in long-term sustainability because there is no guarantee that investments made today, such as planting trees or building corrals to protect livestock from predation at night, will benefit the right holder in the future. This is a common challenge in many biodiverse areas globally, so it is critical for USAID biodiversity programming to consider both formal and informal LTPR systems.

Who owns the land and its resources? Who is allowed to fish or hunt which species, in which areas, at what times of year? Who makes decisions, enforces them, and arbitrates disputes about ownership and access to natural resources? Does the government recognize the rights of local individuals or communities, or is there a disconnect (and potential conflict) between de jure formal rights and de facto informal rights on the ground? Questions such as these are fundamental to identifying stakeholders at the intersection of LTPR and biodiversity conservation, or those who may be affected by actions in support of conservation. The declaration of protected areas, extractive reserves, or indigenous lands; identification of destructive uses; creation of conservation easements; managed access to fisheries; and many other core conservation actions all depend on,

and may potentially affect, the LTPR of various groups and individuals.

Furthermore, world trends are increasingly reinforcing the relationship between secure property rights and conservation as population increases, primary production rises, globalized trade or finance brings new stakeholders to centers of biodiversity, and indigenous peoples come into closer contact with national authorities. It is reasonable to expect increasing conflict over competing rights to land, water, natural resources (especially valuable minerals and other raw materials for agribusiness and industry), and carbon (and allocation of REDD+ benefits), particularly as climate change impacts the distribution of these resources.

Existing conflicts often center on the overlapping rights to a single resource, such as access to marine resources for artisanal and commercial fisheries, recreation, tourism, aquaculture, or mariculture – especially where one or more land use rights negatively impact the ability of other users to access the resource and enforce their rights. For example, the combination of fishing licenses allocated to commercial firms and changing fish distribution may potentially lead less-wealthy artisanal fishers to resort to unsustainable techniques to maintain their livelihoods. This is just one example of the ways that climate change, population growth, and other global trends are likely to bring competing land and resource users into conflict, making attention to LTPR issues increasingly relevant.

There are five important reasons why actions to clarify, establish, or change property and access rights must constitute a core component of biodiversity activities:

1. The current lack of secure tenure in many countries leaves many resources claimed by no one or everyone (“open access”), which may lead to a “tragedy of the commons,” where users are incentivized to exploit open-access resources before others do, thereby degrading areas once beneficial to people and biodiversity.
2. Some conservation actions are not feasible without attention to LTPR issues, as occurs when parks or land use regulations are declared formally without attention to conflicting (formal or informal) rights, which may undermine conservation incentives.

3. To be successful, conservation activities that change formal or informal resource rights may require mitigation measures to address potentially negative impacts, especially on vulnerable populations, such as through compensation or alternative livelihood support for those who access or use resources inside protected areas.
4. Clear rules and institutions governing the use, transfer, and ownership of resources provide the foundation for sustainable management, particularly when they place control of resources in the hands of stakeholders likely to conserve them, such as through extractive or indigenous reserves that formally recognize the rights of local people to benefit from sustainable use and conservation.
5. Clarifying and strengthening LTPR can also contribute to local development through sustainable use and conservation, as occurs when rights are formally or informally recognized through co-management, public-private partnerships, and eco-certified production.

Now that the conceptual relationship between biodiversity activities and secure land tenure and property rights is clear, the remainder of this section will use real-world examples to illustrate these concepts, highlight lessons learned, and provide additional resources on LTPR issues.

### **Key Questions**

#### **What are some dimensions in land/marine tenure and property rights that are of importance to conservation?**

LTPR systems vary considerably around the world, and there are many inherently complex dimensions in any LTPR system. Some of these dimensions include the following:

**Different tenure systems for land, marine areas, and the natural resources that occur on or under them** – In many countries, property rights to subsoil or natural resources are separate from land ownership rights. In several African countries, for example, land may be owned by private individuals or communities, but wild animals are “owned” by a state wildlife agency; or grazing rights in semi-arid zones may be vested in one ethnic group, while rights to agricultural

uses may belong to a different ethnic group. The constitutions of several Latin American countries give the state rights over subsoil resources, water, and some natural resources, even while others own the land.

#### **Existence of both statutory (formal) and informal (sometimes customary) LTPR systems**

– Informal LTPR systems, which are sometimes but not always customary or traditional, are the social rules and institutions that local people develop to manage their land and natural resources. In many countries, these informal systems exist entirely outside the statutory (formal) LTPR system, but governments are increasingly recognizing existing informal systems. For example, the state may define an indigenous people’s territory formally, leaving local custom to govern LTPR within that territory. However, ambiguity can result in conflict or an inability to control the exploitation of resources where informal rights are not formally recognized, or where formal or informal rights overlap or are not enforced in practice.

#### **Communal property rights as an effective means to manage critical resources**

– Informal LTPR systems, including some recognized by government statute, frequently include communally held property, or “common pool resources,” such as forest or grazing areas that are owned and managed by the community as a whole. Where these common pool resources are governed by rules to control use and access, they can avoid the “tragedy of the commons” and represent an effective management strategy for resources that cannot easily be subdivided. For example, several governments in East and West Africa recognize rights in arid rangelands where mobility of people and animals is critical to sustainability.

#### **Protected areas, land use planning, and other conservation actions that can have profound impacts on local LTPR**

– Protected area management plans, which include zoning or limits on use or access, are de facto LTPR documents with potentially extraordinary impact on vulnerable populations who access or use resources within the boundaries of a protected area. In addition to undermining local livelihoods, these rules can inadvertently compromise conservation objectives by increasing the potential for conflict with other users and/or insufficiently addressing ongoing land uses that may pose threats to wildlife.

Such often-contentious aspects of parks management should be treated with appropriate care and seriousness. Although less well-known, the same goes for other conservation actions, such as land use planning and conservation easements, that can also impact use, access, ownership, and/or transfer rights.

### **What types of USAID conservation work rely on LTPR?**

Work on LTPR is integral to any USAID program that helps governments adjust rights to resources in a manner that achieves conservation or requires mitigation measures to protect vulnerable stakeholders. Such projects include those that establish or manage protected areas; promote landscape- and watershed-level planning; strengthen forest governance at the local or national levels; support the devolution of resource management to subnational governments or communities, for example through community-based natural resource management (including rights-based and assets-based approaches, discussed separately in this handbook); support the recognition of indigenous peoples' territories; and help to make REDD+ a force to change the way that individuals and communities access and use resources as well as allocate rights to benefit from forests and carbon sequestration. Many other USAID initiatives affect LTPR and the relationship between rights and resource management, such as those in support of food security and adaptation to climate change. Consequently, LTPR concerns are linked to a wide range of USAID programs.

### **What are some examples of the intersection between biodiversity conservation and LTPR systems?**

USAID experience with LTPR systems within a biodiversity conservation program is very diverse, as illustrated by the following examples:

**East Africa:** In East Africa, USAID supports the African Wildlife Foundation with Maasai<sup>1</sup> communities in the Maasai Steppe Heartland, focusing on synergies between traditional pastoral systems and biodiversity conservation. These pastoralists live in areas surrounding

such famous wildlife parks as Amboseli and Masai Mara in Kenya and Lake Manyara and Serengeti National Parks in Tanzania. Many of these parks were established on lands previously owned by the Maasai, thereby blocking these pastoralists from accessing key water and pasture resources for their animals, which are the cornerstone of their economy. Conflicts over access to grazing resources within and around the parks have become increasingly frequent as farms and other land uses, such as infrastructure and commercial game reserves, encroach on the remaining rangelands outside of protected areas in the region. At the same time, the legal frameworks in both Kenya and Tanzania have historically vested ownership of wildlife in the state.

To address these issues and increase incentives for conservation, USAID has supported various efforts in the region that aim to provide tangible livelihood benefits to the Maasai in exchange for promoting conservation-friendly land uses. These include community conservancies, where local communities partner with private companies to establish for-profit game reserves that provide local employment and other benefits. Another incentive-based approach involves conservation easements, where individuals or communities are paid a fee, usually on an annual basis, for restricting certain land uses, such as grazing and cultivation, on their land. Although these models have the potential to achieve both conservation and development objectives, their sustainability depends on the benefits of conservation outweighing the costs to local rights and livelihoods.

**Ecuador and Colombia:** Key issues that USAID identified in Ecuador and Colombia included supporting indigenous groups in designing management plans for forest reserves that take into consideration their traditional access and use rights; certifying forests and forest products for increased market value; resolving land and resource tenure issues; integrating traditional subsistence activities with sustainable natural resource management practices; learning through exchange visits; and sharing best management practices, including those related to land and resource tenure, to achieve both biodiversity conservation and improved incomes.

**El Salvador:** A USAID project in El Salvador that focused on improving management and conservation of critical watersheds addressed multiple LTPR issues. The

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<sup>1</sup> "Maasai" and "Masai" are both acceptable spellings, but the former is used more often when referring to people, and the latter when referring to the Masai Mara Reserve.

project followed a major cadastral mapping effort of the country's parks and partially focused on protected area boundary delineation. No procedures were in place for recording protected areas and mangrove forests in the national land registry, however, and the procedures for defining marine protected areas had not yet been developed. As a result, resource users, who were often not consulted when the parks were initially established and thus were typically unaware of the unrecorded boundaries, continued to collect resources illegally. Moreover, limited budgets for monitoring and enforcement meant that illegal resource collection often went undetected or unprosecuted, which undermined the integrity of the conservation areas. The key point is that clarifying and communicating resource rights is essential to the management of protected and adjacent areas, but this has to be complemented with monitoring and enforcement. After lengthy consultations with local communities, the project resulted in legally secured and registered protected areas and a government declaration of the country's first marine protected area.

**Peru:** USAID has supported improved management and control of forest concessions in eastern Peru, particularly where CITES-listed species are still found. The constitution establishes forests as state property, and forestry concessions based on satellite images were granted. Although this process was designed to ensure the sustainable production of timber products by limiting logging in high-value conservation areas, it appears that the concessions granted did not adequately address all of the drivers of deforestation. Observers suggest that half or more of the wood harvested in Peru is illegal, with much of it harvested from within parks and indigenous territories, making attempts to track sources unreliable. A common problem faced by many landholders, including official protected areas, is that property borders are not clearly demarcated on the ground or in official registries, which allows for intentional or unintentional encroachment. Often, the lack of clearly defined boundaries is compounded by inadequate monitoring and enforcement mechanisms, which undermine the rights of landholders to effectively protect their land and resources from illegal encroachment. As a result of these LTPR issues, violent conflicts over resources had occurred and concession papers were not clearly verifiable.

**Democratic Republic of Congo:** In the Democratic Republic of Congo, the state leases large logging concessions to private companies. Unfortunately, the government does not currently recognize the rights of communities living in the forests, including Ba'aka pygmies, although a land tenure reform process is underway. In the late 1990s, the logging companies also encouraged wildlife hunting for bushmeat, even though their concession rights did not include bushmeat harvesting. The commercial bushmeat trade was ultimately unsustainable and additionally undermined a critical resource for the Ba'aka pygmies. To address these overlapping rights around one protected area, a USAID-supported NGO worked with a timber company to control the transport of hunters and bushmeat into the protected area and logging concession and to provide domestic meat to workers as an alternative. Recognizing the traditional rights of the pygmies to harvest bushmeat and its importance to their diet and livelihood, this strategic approach provided an alternative source of meat that reduced bushmeat demand without negatively impacting local food security and livelihoods. The activity was so successful that it was used to set a new standard for forestry regulations that is now national law.

**The Philippines:** In the Philippines, through a project on governance and local democracy, USAID helped devolve land tenure and forest-resource extraction rights from the central government to local communities, thereby improving the livelihood of local families and the protection and management of 2.9 million hectares of forest – 50 percent of the Philippines' remaining forests. In one municipality, USAID support helped community members develop a forest land use plan. As community members became stakeholders, were engaged in the democratic decision process, and had increased control over local resources, they began to report illegal logging incidences and to fully use incentives for the protection and sustainable use of forest resources.

### **What are some best practices in LTPR in conservation?**

USAID's experience with incorporating LTPR into conservation projects, and examples throughout LTPR literature, highlight many complex and potentially contentious issues, but also many best practices in addressing those issues. Some of these best practices include

**addressing the impact on indigenous peoples and local communities** – Where the state claims land or resources for national benefit – a protected area or mining concession, for example – the loss of local access to previously available resources can result in conflict: illegal taking or encroachment from the state's view, dispossession or involuntary resettlement from the local perspective. Good project design requires attention to local LTPR systems, as well as national and international policies. Conservation planners should focus on developing feasible alternatives that do not displace local indigenous peoples, vigorously assessing the benefits and costs of altering the use patterns of indigenous people and other legitimate rights holders, and adhering to principles of FPIC for actions involving indigenous people (see discussion of [U.S. Government interpretation](#) of FPIC in [Chapter 3](#)).

**including a wide diversity of stakeholders** – The literature cites or describes diverse stakeholders in LTPR/conservation activities who can, by support or resistance, help projects succeed or fail. The ultimate sustainability of any conservation activity depends crucially on the inclusion of all those with formal or informal rights to land and resources who may be affected by the activity. Incorporating these rights-holders into the project design process early on can help to identify potential resource conflicts and solutions to avoid or mitigate the loss of land or resource rights. Stakeholder consultations should therefore include a full diversity of local and indigenous community members, as well as government institutions (local, subnational, and national); private sector representatives (e.g. producers); and nonprofit representatives. On the professional side, national and international experts in land tenure and property rights, in addition to biological and social scientists, can offer varied and valuable perspectives.

**ensuring vigorous monitoring** – Use of remote sensing and overlays using LTPR data, where they exist, with other data layers is increasing and can be accomplished at modest cost. The landscape approach practically requires use of mapping to visualize options and results. However, there may be a need to first demarcate existing rights, in particular informal rights, as many property rights are not formally recorded or mapped. Good project design should identify and mitigate potential negative outcomes, such as overuse of resources, resource conflict, and overharvesting of wild resources. However, the high incidence of informal and/or unrecorded rights in many biodiverse areas complicates the accurate identification of all resource claims. Good project design requires clear and adequately supported monitoring systems at the local, landscape, and national levels, tied to adaptive management practices that make sense and respond to local issues. Monitoring systems need to be practical, sustainable, effective, transparent, supported by stakeholders, and easily understood. In practice, LTPR/conservation links can only be observed through a combination of monitoring techniques, including on-the-ground monitoring; landscape monitoring using relatively low-cost applications of geographic information systems (GIS) and remote sensing, combined with ground truthing; and ongoing consultations, for example using surveys or appraisal methods.

**adapting to broad developments and USAID priorities** – Crucially, LTPR will affect and be affected by climate change. Potential LTPR impacts could result from shifts in agroecological zones (a situation that is already bringing farmers and herders into increasing conflict across Africa); increased risk of conflict over property and resource access in low-lying, flood-prone areas, which can complicate efforts to rebuild after natural disasters, as seen in many countries after recent hurricanes and typhoons; the displacement or migration of communities due to changing climate patterns, which may result in further marginalization of those without formally recognized property rights; additional stress on the institutions related to ownership and allocation of land and natural resources; and conflict over the allocation of mitigation and adaptation funding. Climate change is also resulting in new funding sources, such as

REDD and REDD+ (discussed further in [Section 4.4](#)), that are intended to change land and resource use rights and will create new rights to benefit from forests and carbon. These impacts may require new ways of thinking about LTPR issues, as well as new forms of governance and property rights systems to allocate the benefits of carbon financing efficiently and equitably and mitigate risks.

**drawing awareness to the broader international enabling environment** – The international community has recently codified best practices for the governance of land, fishery, and forest tenure. The [Voluntary Guidelines for the Responsible Governance of Tenure of Land, Fisheries, and Forests in the Context of National Food Security](#) were adopted in 2012 by the Committee on World Food Security (CFS) under

the Food and Agriculture Organization of the UN (FAO). The Voluntary Guidelines provide a non-binding framework for countries to use in the establishment of laws and policies, strategies, and programs that clarify and secure tenure rights. It is also important to recognize that LTPR issues are related to a broader international framework that promotes the conservation and sustainable use of biodiversity. In addition, conservation planners may need to focus national attention on existing international frameworks, such as the Convention on Biological Diversity (CBD), CITES, and the Protocol on Access and Benefits Sharing. All but a few nations have committed themselves to these international conventions, and they provide a useful framework for national LTPR laws and policies.

## BOX 72. RESPONSIBLE GOVERNANCE OF TENURE IN SMALL-SCALE FISHERIES

The [Voluntary Guidelines on Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication \(SSF-Guidelines\)](#) seek to ensure that the appropriate conditions are created to enable small-scale fishers to have access to key resources, promote food security and nutrition, participate in decision-making, enjoy their human rights, and assume responsibilities for sustainable use of fishery resources. This is a precautionary and human rights-oriented agenda that recognizes the importance of bolstering the capabilities of small-scale fishing communities for oncoming unpredictable transformations, large and small. Building resilience and ending poverty among small-scale fishing communities will enable them to secure sustainable and robust futures. One of the central components of this agenda is to ensure that small-scale fishers have secure marine tenure rights and responsibilities so that communities can gain clear and secure access to fishing areas in order to manage them for building viable livelihoods and future prosperity. Not only has there been a breakdown in traditional tenure institutions due to population growth, technology, and economic transformations, but growing competitive pressures between large-scale and small-scale fisheries have undermined the tenure rights of small-scale fishers who are typically poorer and more vulnerable.

For more information, see *USAID 2015. Small-scale Fisheries and Marine Tenure: A Sourcebook on Good Practices and Emerging Themes* and *USAID 2015. Looking to the Sea to Support Development Objectives: A Primer for USAID Staff and Partners*.

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