



CHAPTER 2

Land tenure: industry, ape conservation, and communities

Introduction

The issue of tenure, the ownership or access to an area of land, has long been recognized as a critical factor for conservation, since it determines the linkages between responsibility and authority over land and natural resources, and also the incentive structures for sustainable use (Murphree, 1996). The impact of extractive industries (and thus the effect on great ape conservation) is, however, less clear at this interface. Whether or not conservation gains will outweigh other forms of land use is dependent on a number of both subsistence-based benefits (food, fuel, cultural) and those that are increasingly market-based (ecotourism, non-consumptive and consumptive use, sale of primary and secondary products, carbon, etc.), but is also

linked strongly to issues of tenure and access. Ignoring ownership linked to the right to benefit, and thus to the potential for sustainable use, may lead to alternative land uses (e.g. conservation) being viewed as an unimportant economic and/or cultural component of land use. Likewise, the presence of natural resources on state-controlled land that has been demarcated for either communal use or biodiversity protection can often lead to encroachment by actors interested in more profitable uses such as logging, mining, and exploration for oil and gas.

This chapter attempts to clarify two themes related to land tenure issues around extractive industries, specifically:

1. their exploitation within protected areas, and
2. their impact on local communities.

It examines how efforts to attract foreign investment related to the extraction of natural resources in Asia and Africa limits access to land and resources by local communities and indigenous peoples, alongside the claim that as proprietors and stakeholders in any extraction they are more likely to better manage these lands for both conservation and social outcomes.

The first two case studies presented in this chapter illustrate issues of contested tenure in the context of protected areas and national parks. The chapter then looks at the interface between extractive industries, local communities, and rights of access to natural resources. It gives an overview of some of the concepts/principles that have been promoted by civil society actors to help facilitate alliances between communities and industry, including notions of self-determination and Free Prior and Informed Consent (FPIC). A further case study from Indonesia highlights the importance of governance in building these kinds of relationships, and looks at the growing issue of “land

grabbing,” and the role of civil society in promoting transparency in the sector. The chapter closes with an analysis of a number of mitigation strategies that promote stakeholder engagement, and the challenges that can arise in trying to instigate them.

Key findings include:

- The need to recognize the importance of extractive resource use for socio-economic development and of partnerships for sustainable development, while also addressing the environmental, economic, health, and social impacts that accompany it.
- More integrated and incorporative strategies for land-use management are less likely to marginalize one aspect of environmental services to the benefit of some stakeholders over others.
- Capacity building within the political and institutional environment of those countries involved may also be needed. This includes raising awareness on the linkages in question, improved enforcement of the relevant laws, and the clarification of contradictory policies under different ministries.
- Both large- and fine-scale mitigation strategies need to be supplemented with meticulous land-use planning, with both voluntary and regulatory mechanisms at national and international levels underpinned by more robust policy.
- There is a growing need for business entities to incorporate strong corporate social responsibility (CSR) policies, as well as for government legislation to develop in a way that preserves world heritage, both in terms of charismatic fauna and habitat, but also at the intersection with indigenous rights.
- More effective holistic management strategies would be developed by clearly determining the fiscal, social, and envi-

ronmental obligations of companies according to international good practice, making consultation with local communities compulsory, and by initiating a participatory, land-use planning approach for local development.

Extractive industries in protected areas

In 1962, there were some 1000 official protected areas worldwide; today there are 108 000, with more being added every day. The total area of land now under conservation protection worldwide has doubled since 1990, when the World Parks Commission set a goal of protecting 10% of the planet's surface. That goal has been exceeded, with over

12% of all land, a total area of 30 432 360 km² now protected (Dowie, 2009). At the same time, global demand for oil, gas, minerals, and metals has been increasing rapidly, and is expected to continue to do so in the coming decades (Chapter 1). To supply the growing global demand, extractive companies will intensify their prospecting and production efforts by moving into remote and hitherto unexplored areas, many of which are currently protected or are candidates for protection (McNeely, 2005). For example, the World Resources Institute (WRI) reported that almost a quarter of active mines and exploration sites overlapped with or were within a 10 km radius of protected areas categorized under the International Union for Conservation of Nature (IUCN) system (Miranda *et al.*, 2003).

Photo: A settlement established along a logging road. Natural landscapes are targets for unprecedented levels of exploitation and settlement.
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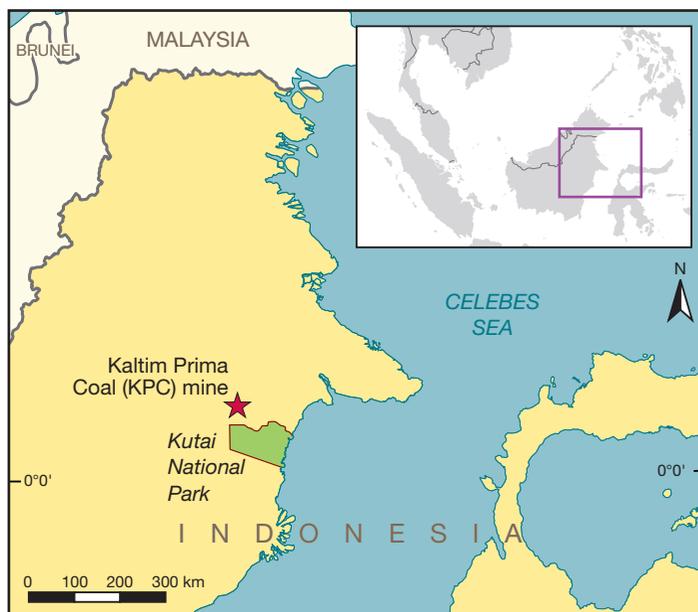
Governments thus have to make tough decisions about how best to balance economic development and environmental protection. States may be understandably reluctant to forgo potential revenue from developing their natural resources and may resist calls to expand their protected areas system into areas that might hold mineral or hydrocarbon reserves, or choose to delineate boundaries to exclude mineralized zones. As these protected areas become increasingly ecologically isolated and encroached upon by agricultural and industrial development, deforestation, human settlement, and the active elimination of wildlife on adjacent lands, the task now is to design strategies that not only ensure the long-term viability of species and ecosystems, but that will also be politically and economically acceptable to local communities and governments, as well as being enforceable on the ground.

Protected areas in ape range states are usually surrounded by a mosaic of forest

types, habitats, and human land-use zones, many of which can contain ape populations and also be radically altered by the extraction of those resources found within them. In Indonesia, for example, and certainly if current logging trends continue, most national parks are likely to be severely damaged within the next decade, because they are amongst the last areas to hold valuable timber in commercially viable amounts. Furthermore, illegal logging occurs in 37 of Indonesia's 41 national parks, but is most severe in Gunung Palung, Danau Sentarum, Gunung Leuser, Tanjung Puting and Kutai (Ministry of Forestry, 2006). Recent research on the overlap between orangutan distribution and a variety of land-use categories in Kalimantan suggests that, while 22% of this distribution lies in protected areas, 29% lies in natural forest concessions (Wich *et al.*, 2012b). The first case study on Kutai National Park shows how important these zones are thus likely to be for the continued survival of the species in the future, and how necessary it is to try and find solutions to competing claims to the land in question.

In Africa, the Democratic Republic of Congo (DRC) contains more than half of the continent's remaining rainforest within its borders, including lowland and mountain rainforest, bamboo forest, savannahs, and marshes. As it begins to emerge from nearly a decade of civil conflict, the DRC's natural landscapes are targets for unprecedented levels of exploitation and settlement. Its protected areas and national parks face threats from immigration by people seeking access to forest resources, arable land, bushmeat, gold, diamonds, coltan (a key component in the manufacture of cell phones), and other minerals. Illegal mining, poaching of ivory and other resources, and extensive cattle herding threaten wildlife and their habitats; problems that are often exacerbated by the presence of armed militias (see Chapter 6). These challenges can also

FIGURE 2.1
Map of Kutai National Park and KPC mine,
Kalimantan, Indonesia



Developed from IUCN and UNEP-WCMC, 2013

CASE STUDY 1

Kutai National Park, Kalimantan

Kutai National Park is a 1986 km² IUCN category II protected area in East Kalimantan Province, Indonesia (IUCN and UNEP-WCMC, 2010) (see Figure 2.1). The park is one of seven terrestrial National Parks in Indonesian Borneo and hosts a range of globally threatened lowland Bornean species including important orangutan (*Pongo pygmaeus*) and Bornean gibbon (*Hylobates muelleri*) populations (MacKinnon *et al.*, 1996; Singleton *et al.*, 2004). The protected area has had a long and complicated history and provides a clear example of how legally protected status does not necessarily confer long-term protection to an area.

While the Kutai area has had some form of protected status since the mid-1930s, the area has still been exposed to decades of legal and illegal resource exploitation. Historical instances of certain areas being excised from the reserve and allocated to logging companies meant that by the early 1980s the eastern third of the remaining reserve had been significantly degraded as a result of ongoing logging, oil exploration, and agricultural expansion. The national park in its current form was declared in 1982 (but was not officially gazetted until 1996). Exploitation of high quality thermal coal in the region began in 1989 under the management of PT Kaltim Prima Coal (KPC), originally an Indonesian-registered joint venture between Rio Tinto and British Petroleum (BP), but now a fully owned Indonesian company. A large open-pit mine, together with support infrastructure, was established on the northern boundaries of the park, and a new township for mine workers and their families was built, with access roads constructed that cut through the park (MacKinnon *et al.*, 1996). KPC has supported the management of the park for many years, sponsoring the production of a park management plan in 1991, and since 1995 has been a central partner in an initiative known as Friends of Kutai, in which nine private-sector developers from the mining and forestry industries cooperate with the park's management authority, providing advice and annual budgetary support (KPC, 2012).

In spite of government and private-sector initiatives, threats to the park remain severe. Intense wild fires linked to an El Niño Southern Oscillation (ENSO) weather event, and exacerbated by logging damage, devastated about 1000 km² of the eastern part of the park in 1982–83. The park authorities' lack of capacity to manage such a large area of land, coupled with increasing pressure due to growing human populations around the park, and demand for timber, continued to degrade the forest (Jepson, Momberg, and van Noord, 2002). In 2009 the Ministry of Forestry proposed the excision of a further 240 km² as an enclave on land occupied by over 24 000 people. In addition, a 2009 research team including experts from the

Indonesian Institute of Sciences (LIPI), Gajah Mada University in Yogyakarta, the Ministry of Energy, Minerals and Human Resources, and the Forestry Ministry found that the Pertamina oil concession in the east of the park had cleared a reported 80 km² of forest for 800 oil wells and support infrastructure (Jakarta Globe, 2009). Pressure from the mining industry also continues. In 2006 and 2008, 350 km² of coal exploration licenses overlapping with Kutai were awarded to the Indonesian company Ridlatama Group, which is now owned by the British Company Churchill Mining (Churchill Mining, 2012). In 2010, however, these licenses were revoked by the East Kutai district government. Churchill Mining is now suing the district government to repeal this decision and allow continued exploration (Wall Street Journal, 2011). In resource-rich ape range states, pressures such as these are often the rule rather than the exception.

Given Kutai's tragic history, it is perhaps surprising that the park still appears to support a large population of orangutan, Bornean gibbon, and other globally threatened species. The orangutan population was estimated at 600 in 2004 (Singleton *et al.*, 2004), but more recent surveys suggest that the population could be as high as 2000 (OCSP, 2010). KPC continues to support the park and orangutan conservation, collaborating with the USAID funded Orangutan Conservation Services Program (OCSP) in 2009 as a pilot site for the development of orangutan conservation management plans and best practice guidelines (OCSP, 2010). Parts of the KPC mining concession still retain remnant patches of lowland forest that are used by orangutan passing through the area. The company agreed to set aside 45 km² of forest for orangutan conservation (equivalent to 5% of the concession) (OCSP, 2010), and developed a program for relocating orangutan that were found in areas due to be mined. They are also establishing a monitoring program, and are continuing to support research and conservation efforts in the national park (KPC, 2010). Several of the industries working in the area have committed to supporting the park, and KPC in particular is taking extra measures to protect orangutans in their license area and the park. The current Indonesian President has made many public statements in support of forest conservation, and its importance is now widely recognized in this rapidly developing emerging economy. Under these circumstances, there might be hope that Kutai's story of planned and unplanned degradation could soon be halted.

CASE STUDY 2

Virunga National Park, DRC

Virunga National Park (Virunga NP) in the eastern Democratic Republic of Congo (DRC) is the oldest national park in Africa, as well as the richest in terms of its biodiversity. Established in 1925 and located at the heart of the Albertine Rift, it covers an area of 7900 km² and embraces a wide diversity of habitats ranging from savannah ecosystems to a chain of mountains and active volcanoes. Besides its spectacular scenery, the park is best known for its population of mountain gorillas (*Gorilla beringei beringei*) which, although still listed by IUCN as critically endangered, represents a true conservation success story, having expanded from about 130 individuals in 1978 to 201 in 2010 (out of a total global population of 880 animals).

Congolese legislation governing national parks, passed in 1969, prohibits “excavations, earthworks, surveys, sampling of materials and all other work liable to alter the appearance of the terrain or vegetation,” except in the context of scientific research. Unusually for such legislation, there is no language in the 1969 law relating to commercial activities in integrally protected areas. Although the park is part of the national network of protected areas whose management is the responsibility of the ICCN (*Institut Congolais pour la Conservation de la Nature* – The Congolese Wildlife Authority), it is currently the subject of a private–public partnership agreement between the government of DRC and the UK-based African Conservation Foundation (ACF), which has secured significant funding from the European Union to support park management. In recognition of its great natural wealth, Virunga NP was declared a World Heritage Site in 1979. As such, under the terms of the World Heritage Convention (which was ratified by the DRC in 1974), the government agrees “to do all it can do . . . to ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory.” Further weight was given to this treaty commitment by the new Constitution, approved by referendum in 2006, which assigns precedence over national legislation to the country’s obligations under international conventions.

However, Virunga NP is located in an exceptionally fragile zone, due in no small part to its proximity to international borders and its wealth of natural resources. Civil conflict that began even before the Rwandan genocide in 1994 has resulted in profound governance difficulties throughout eastern DRC over the past two decades. Virunga NP management has suffered in particular from the activities of rebel groups, from the general breakdown in law and order, and from the settlement of displaced people in the low-lying savannah area of the park to the southwest of Lake Edward. The gorillas themselves are continually threatened by poachers and habitat loss, mainly through the burning of charcoal. Over 150 national park rangers have been killed in the line of duty since 1990, along with over 20 mountain gorillas. As a direct consequence of this loss

of management control, Virunga NP was declared a World Heritage Site in Danger by the World Heritage Committee in 1994 and has remained on that list ever since.

On the Ugandan side of Virunga NP, expectations of greater economic prosperity have increased as a result of exploration in the early 2000s that led to oil discoveries inside Murchison Falls National Park and further south around Lake Albert, just a few miles across the Albertine Rift from the national boundary with DRC. Not surprisingly, since 2006, the government of DRC has issued exploration licenses to several companies, two of which overlap with Virunga NP – Bloc III to the French company Total and Bloc V to the UK-based company Soco International (see Figure 2.2). In the case of Bloc V, 52% of the concession lies within the national park, divided between terrestrial ecosystems and Lake Edward.

While Total has pledged not to work in the section of Bloc III inside the national park, “in compliance with Congolese legislation and international conventions,” in 2011 Soco International sought and was granted permission by the DRC Ministry of Hydrocarbons to proceed with oil exploration inside Bloc V, including inside Virunga NP. Also in 2011, the Ministry of the Environment gave permission for Soco to go ahead with aeromagnetic and aerogravimetric surveys that would not require ground incursions into the national park. Soco was instructed to work with ICCN to monitor and manage any negative socio-economic impacts resulting from the surveys. Soco and ICCN signed an agreement granting the former access to the park in return for a fee payable to ICCN to cover the costs of access and monitoring of Soco’s activities while inside the park and, in April 2012, Soco received clearance from ICCN for a range of specific activities including boat access to Lake Edward and limited vehicular access to Virunga NP.

The response from the conservation community has been swift. Since 2011, UNESCO, the World Heritage Committee, the British and Belgian governments, IUCN, and a range of national and international conservation organizations have roundly condemned oil exploration inside Virunga NP as being incompatible with its status as a World Heritage Site. Soco, for its part, protests that the part of the park where it will be conducting its surveys is many miles from the Mikeno sector where mountain gorillas live, that its activities will bring socio-economic benefits to local people, that it has not done anything illegal, and that it has acted at all times in compliance with DRC legislation and government directives. What has become clear, in that respect, is that the government is seeking to strike a balance between the sustainable management of natural resources on the one hand and, on the other, the pressure to exploit those resources as the basis for local and national economic growth. Realizing the fears of many conservationists, the partial or even total degazettement of the national park has been openly discussed by the government as a possible way forward. The illegality of such a move under the country’s own national constitution in respect to its treaty

obligations as a signatory to the World Heritage Convention is seemingly being ignored.

While this highlights how fragile tenure arrangements can be when there exist strong financial incentives to circumnavigate them, further difficulties arise at the interface with local land ownership. Congolese legislation does not include any obligation for the government to provide information to local populations and obligations for oil companies regarding local development fall far short of international best practice (ICG, 2012). In the troubled North Kivu region of the park, civil society opposition is fierce. Although about 40 deputies signed a petition in favor of oil exploration in Bloc V and some deputies tried to persuade the public to support oil exploration, some local associations have opposed oil production and criticized Soco for, allegedly, not consulting the population as part of the environmental impact assessment (EIA), not providing local jobs, and threatening Pygmy communities' fishing interests and habitat (ICG, 2012).

The managers of Virunga NP itself – notably the ACF working under contract with ICCN – are in a difficult position. The ICCN operates at the national level under the Ministry of the Environment, and is therefore bound to align itself with the official government position. Meanwhile, its managers on the

ground are committed to a daily life-and-death struggle to protect the national park and its rich biodiversity against the multiple pressures that beset them, and are reluctant to agree to anything other than a total prohibition on oil exploration inside the park. A strong coalition has emerged in support of this position, based largely on the World Heritage status of Virunga NP as a “line in the sand” upon which the global conservation community and parties to the World Heritage Convention cannot and should not compromise. The Virunga case has served to unite conservation nongovernmental organizations (NGOs) against the erosion of World Heritage values that many believe is now under way.

At the same time, there is a strong sense in some quarters that degazettement – even partial – of Virunga NP would constitute the worst of all possible outcomes and that unwillingness on either side to enter into discussions over limiting, managing, and offsetting the negative impacts of oil exploration and extraction may actually hasten such a move. Furthermore, international NGOs feel that they simply cannot engage in such a process due to the illegality of the actions being undertaken. While presenting the government's position as promoting local and national economic growth is a commonly stated rhetorical position, evidence on the ground points to these extractive industry expansions largely benefiting national elites and international investors, with local people rarely seeing more than marginal benefits such as temporary low-paid employment opportunities which are unlikely to compensate them for the loss of land and resource access they may suffer. With positions so polarized, there has been little talk so far of trade-offs and compromise between parties, despite the fact that neither side is likely to see its entire agenda fulfilled.

Encroachment on protected areas in this way highlights how weak some of the current tenure legislation relating to rights and access really is. Legislation differs from country to country, and proposals to locate such industries in or adjacent to protected areas do not always require rigorous application of the kinds of planning and decision-making tools that might help capture the cumulative impacts that can occur across a landscape.

Both the Virunga and Kutai examples demonstrate that, despite the fact that the operations of extractive industries are rarely compatible with the mission and objectives of protected areas, the governments of both DRC and Indonesia may feel forced by economic pressures to make decisions to exploit resources regardless of their negative impacts. Additionally, large financial incentives (in the form of interest-free loans for access to mineral resources, for example) can be a more common route of access for the extractive industries than depersonalized economic pressures alone. So while protected areas may well be a key strategy for conserving biodiversity, they do not necessarily secure this biodiversity when lucrative extraction is possible.

FIGURE 2.2
The Virungas and oil block concessions



Courtesy of © WWF

Photo: Forest clearance for cultivation, facilitated by the construction of roads.
© Takeshi Furuichi



be compounded by continuing interest in industrial-scale resource extraction within these landscapes, unmarked boundaries and, in some cases, lack of public respect for the parks (WCS, 2012). The second of the case studies, on oil exploration in Virunga National Park, highlights the need for the conservation community and the extractive industry to engage each other in a constructive dialog over issues of contested tenure, and where possible, to find solutions that benefit both biodiversity preservation as well as economic development.

Extractive industries and local communities

It has long been recognized that biodiversity will not be conserved without understanding how humans interact with the natural world. Many of the world's protected areas have historically been occupied by indigenous peoples, and creating protected areas has frequently entailed at least some degree of restriction on access to natural resources upon which local communities have long depended. Many indigenous peoples argue that they are effective custodians of the land, and indeed are largely responsible for the rich biodiversity that often characterizes indigenous territories. Others point out that indigenous peoples are as likely to over-exploit as anyone else, given the pressures of increasing populations and the demands of expanding economies (McNeely, 2005). However, these kinds of stereotyping should not be accepted uncritically, as the penetration of market economics and infrastructural developments that may facilitate abusive resource extraction are less likely to be undertaken by indigenous people and more by those with economic traditions more compatible to these kinds of activities.

Based on the principle that a balanced compromise between the needs of people

and those of biodiversity is indeed possible, popular community-based conservation programs place the sustainable management of natural resources as their principal objective (Barrow and Murphree, 2001). As a result, for more than a decade now, policy reforms aimed at decentralizing and devolving natural resource management to local stakeholders have been underway throughout the developing world (Agrawal, 2001; Edmunds *et al.*, 2003). But while significant areas of biodiversity and ape habitats are under the custody of local communities, a variety of challenges to the ownership, management, and access to their natural resources commonly arise. These challenges come from a range of actors, including national governments, multinational corporations, multilateral institutions, such as the World Bank, large landowners, and paramilitary groups. In their pursuit of economic development, profit, or power, legislation may be introduced that enables governments and/or corporations to exploit resources without the consent or approval of local communities, to actively repress local communities, or even bypass the relevant laws altogether (Gupta *et al.*, 2011).

As seen in the Virungas case study, conflict that arises through contested tenureship and the management of natural resources can have negative impacts on all the actors in a given environment. At this level of interaction, some of the following processes and questions may be of relevance to these stakeholders, be they local communities, extraction companies, or conservationists protecting biodiversity:

- how to effectively (and where possible equitably) participate in the management and use of natural resources,
- which mechanisms are, or should be, at their disposal for doing so, and
- how should potential conflict between these interests be mitigated?

There is a growing acceptance that if forest-dwelling communities are supported by national and international legislation and governance to make their own decisions about how best to manage their resources, then it might be possible to ensure a sustainable existence for them as well as for the environment in which they live. Indeed, indigenous peoples have long emphasized the role of their customary institutions (such as common property regimes), practices (e.g. conflict resolution), and representative organizations in some of the above processes. However, both large-scale extractive industries and also top-down conservation can alienate local people from their environments in a way that might hinder the sustainable use of resources.

With increasing international attention now being placed on how both governments and industries manage these kinds of competing claims, building an alliance with indigenous groups could not only help achieve conservation goals much more sustainably, but might also provide corporations with a means of mitigating some of the tension that can exist between themselves and local communities, something that certain parts of the extractive industries have recognized and are now acting on.

Several concepts/principles have been promoted by civil society actors to help facilitate such alliances. These include the concepts of FPIC, self-determination, and the development of an Extractive Industries Review (EIR). The following sections present some detail on these concepts.

Free prior and informed consent (FPIC)

FPIC is the principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy, or otherwise use. FPIC is now a key principle in

international law and jurisprudence related to indigenous peoples.

FPIC implies informed, non-coercive negotiations between investors, companies and/or governments and indigenous peoples prior to the development and establishment of mining concessions, logging concessions, timber plantations, oil palm estates, or other enterprises on their customary lands. This principle means that those who wish to use the customary lands belonging to indigenous communities must enter into negotiations with them. It is the communities who have the right to decide whether they will agree to the project or not once they have a full and accurate understanding of the implications of the project for them and their customary land. As most commonly interpreted, the right to FPIC is meant to recognize customary systems as legitimate ways of making decisions, and that such decisions should be considered binding by large powerful interests such as multinationals and central government proposing activities that will affect peoples' access to their land and resources. It is thus crucial for addressing power imbalances between local people and the industrial sector.

One challenge for indigenous peoples in their efforts to exercise their right to FPIC is to ensure that their systems of decision-making are genuinely representative and made in ways that are inclusive of, and accountable to, members of their communities. Colchester and Ferrari (2007), through their experience with third-party audits for the Forest Stewardship Council (FSC) in Indonesia, suggest that verifiers are sometimes unduly lenient about what constitutes adequate compliance, thereby weakening any leverage that communities may gain from companies' obligations to respect their rights and priorities in accordance with FSC voluntary standards.

Another key issue here is that national governments often deny the status of indig-

enous peoples within their borders and so companies may argue that they cannot – or do not need to – undertake FPIC. In Liberia, for example, the government has claimed that it alone speaks on behalf of the people and can make agreements with companies on their behalf, thus avoiding the need for FPIC. However, as a case study later in this chapter illustrates, the agreement signed between the government of Liberia and the palm oil producer Sime Darby is explicit about Sime Darby abiding by a given list of principles and thus the government has – through this process – accepted the community's right to FPIC (Lomax, Kenrick, and Brownell, forthcoming).

Self-determination

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) affirms many rights already contained in international human rights treaties, and applies these to the collective rights of indigenous peoples, for whom many aspects of life are shared, such as ownership of lands and resources. UNDRIP states:

Article 3

“Indigenous peoples have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.”

Article 4

“Indigenous peoples, in exercising their right to self-determination, have the right to autonomy or self-government in matters relating to their internal and local affairs, as well as ways and means for financing their autonomous functions.”

Here and elsewhere, international law recognizes custom as a source of rights, that these rights exist independently of whether the state has recognized them or not, because

“The importance of the quality of governance with respect to biodiversity conservation within the context of extractive industry operations should not be underestimated.”

their rights derive from indigenous peoples' own laws and practices. In line with international human rights law and jurisprudence, forest peoples can thus claim the right to own their lands and forests in accordance with their customary norms and with their right, as peoples, to self-determination (Colchester, 2008).

The Extractive Industries Review (EIR)

While several international expert mechanisms, including the World Bank's World Commission on Dams and the UN Permanent Forum on Indigenous Issues, have provided guidance on how to implement FPIC, the key question is how to make FPIC work in practice. The lack of enforcement of these rules and regulations means that there are still cases where companies completely ignore the presence of indigenous peoples, or pretend that they do not exist. Despite collaboration between the Forest People's Program (FPP) and the World Bank (WB) on their EIR, the International Council on Metals and Mining (ICMM) is only now beginning to accept the standards proposed (ICMM, 2013). This historical refusal to accept a "best practice" standard – and the fact that the WB routinely failed to adhere to its own lower standards that it had incorporated into its safeguarding policies – meant that the extractive industries operated in ways that had a destructive impact on both indigenous peoples and their environment (Caruso *et al.*, 2003; World Bank, 2011b). However, there are also some examples of successful engagement, as the below case study shows.

The importance of governance

The importance of the quality of governance with respect to biodiversity conservation

(including that of great apes) within the context of extractive industry operations should not be underestimated. In 2002, the mining industry first began to engage collectively with sustainable development issues through the Mining, Minerals and Sustainable Development (MMSD) initiative (MMSD, 2002), an industry-funded independent review on how the industry had performed in relation to sustainable development objectives. Over the last 10 years, the attitudes of both conservation and developmental organizations have begun to change, with a growing recognition that collaborative partnerships with the extractive industries can ensure that unique and fragile habitats are properly managed and protected for the benefit of both human and non-human communities.

Yayasan Tambuhak Sinta (YTS), an Indonesian-based foundation, was formed in 1998 by the junior exploration company Kalimantan Gold Corporation Limited (KLG), in order to have a vehicle that would address social development concerns in the communities close to where the company was conducting exploration activities, and to create conditions that would be supportive for future development of a large-scale mine in a wilderness area. One of the prime concerns was to establish good relationships within these communities and within the region, especially with local government: thinking that was far ahead of normal practice in the sector, and anticipated what is described above as FPIC.

An important influence on the company's thinking and the focus of YTS was the EIR. As a result of recommendations coming out of the EIR, YTS started to build a program approach that would address the need to strengthen local governance. The foundation spent several years testing and refining its approach and methodology. Since then, it has spread its program approach to 21 villages in the region around KLG's mineral

concession, as well as to other locations in Kalimantan and eastern Indonesia, where mineral exploration is taking place. Specific steps in this process that are of relevance included:

- **Participatory planning.** A group of locals selected by the community were trained to facilitate an intensive process of analysis and planning that generated a preliminary community development plan, with all members of the community identifying opportunities and constraints, and deciding on the needs and priorities to be included. This established a platform for all other activities, creating an agenda for action, and addressing needs in three broad areas – local infrastructure, economic livelihoods, and social and cultural aspects.

Photo: YTS learned that a good three-way partnership between itself, local government, and communities close to its operations could help facilitate a smooth and successful development process. Community group meeting facilitated by YTS.
© Bardolf Paul

- **Institution building.** Of equal importance to participatory planning was the mobilization of more active community participation in the formation and running of these institutions. An informal village management group was established to implement actions arising out of the community development plan.
- **Bridging the gap with local government.** There was a gap both in knowledge of community needs, as well as in the provision of services, so information flows were improved and meetings set up between the government and villagers to facilitate this.
- **Strengthening government capacity.** Technical support was provided to the district government as a means of improving its capacity to engage more effectively with communities.



Governance encompasses all the elements that enable and determine how society functions – the formal institutions, policies, laws, and regulations, as well as informal mechanisms that influence how things run. Contested tenure (either official or customary) and rights of access can impact negatively on many of these elements. At the present time in Central Kalimantan, the regulatory framework is very weak, and there is very poor enforcement of existing laws and regulations. Not only is the overall capacity of government to govern low, but the ability to provide programs and services that match local needs is limited. This is partly due to the fact that many administrative jurisdictions are relatively new, barely 10 years old, so many government staff lack experience. Thus any company that intends to develop a mineral prospect into an operating mine needs a clear and well-functioning policy, and legal and regulatory environment in which to operate. It also needs the relationship between government and communities to be functioning well, otherwise there is a tendency for both government and communities to expect the company to provide services that are the responsibility of government. YTS learned that a good three-way partnership between itself, local government, and communities close to its operations could help facilitate a smooth and successful development process for any resource prospecting that then took place. All of these factors and conditions might also apply to other kinds of local development initiative, including investment in long-term management of local natural resources or biodiversity and species conservation.

Land grabbing

In the past decade considerable concern has emerged amongst policy analysts, conser-

vationists, and local populations about the effect of large-scale acquisitions of land in Africa, Asia, and elsewhere. These acquisitions, now known as acts of “land grabbing,” were initially triggered by sharp rises in food prices in 2007, and have also been influenced by increases in the price of oil and growing European demand for biofuels. For local populations, the benefits of such large-scale land acquisitions are hard to separate from the costs that so often accompany them, and foreign investment has resulted in the eviction of many thousands of smallholder farmers from their land, sometimes by force, and typically with minimal compensation. Underlying this is the notion that land should be worked in ways that benefit international markets in order to have value; indeed, the World Bank calls the 4 million square kilometers of savannah grasslands in Africa, between the rainforest and the deserts, “the world’s last large reserve of underused land” (Pearce, 2012). While this suggests, incorrectly, that millions of peasant farmers, fishers, and hunter-gatherers are not working their land, the inverse is true, and that while they may not be contributing directly to international markets, they are certainly contributing to local and national economies.

It is important to note, however, that the term “land grabbing” has been deliberately chosen in order to draw attention to these processes of dispossession by outside actors. Such interventions have a long and checkered history, with colonialism’s laws and policies paving the way for foreign intervention and local dispossession in sectors such as mining, agriculture, and environmental conservation. Some of the key concerns for both local communities and wildlife that arise from such broad-scale changes to the environment might also be of relevance to the extractive industry. These center on the ways in which land deals are negotiated and the resultant structures of

CASE STUDY 3

Liberia: forests, communities' livelihoods, and certification schemes

Awareness of these kinds of social and ecological impacts of land change in places such as Malaysia and Indonesia is slowly leading to new standards and certification schemes for acceptable development of the industries in question. The Roundtable on Sustainable Palm Oil (RSPO), for example, is a third-party voluntary certification process, which adopted a set of principles and criteria that is substantially consistent with a rights-based approach, and which seeks to divert palm oil expansion away from primary forests and areas of critical high conservation value (HCV) while prohibiting the takeover of customary lands without communities' FPIC. Increasingly, adherence to the RSPO standard is becoming a requirement for access to the European market and major palm oil producing conglomerates seeking to maintain market share are now members of the RSPO.

With industrial-scale resource extraction rapidly expanding in many ape range states, certification procedures such as this mean that conflict can be caught and addressed earlier in the cycle. In 2011, in Grand Cape Mount, Liberia, local communities denounced the takeover and destruction of their lands for palm oil development by the Malaysian conglomerate Sime Darby. In response to a formal complaint, Sime Darby froze its operations in the contested area and, via the RSPO secretariat, agreed to bilateral negotiations with the communities to resolve their differences.

Negative impacts such as these have encouraged affected communities to mobilize opposition to extractive resource use, many times impeding access to the areas and to these resources (Orellana, 2002). Important lessons that have come out of this process include the willingness of the company managers in Malaysia to become centrally involved, the willingness of the community's lawyer to speak out strongly, and the provision of facilitation services by an international civil society group which sought to support people to regain their rights while finding a way for the company to act.

Navigating these complex trade-offs without drastically scaling back the speed and extent of business operations requires engagement with all stakeholders in an environment. If the major buyers of a particular resource are susceptible to civil society pressure, their major international suppliers are more likely to seek to ensure that they are seen to be abiding by the relevant social and environmental safeguards so that they do not lose their market share. Although the RSPO is a voluntary certification process, established through civil society pressure from outside and inside the industry, it is based on the key principles of mitigating the impacts on biodiversity and ensuring that palm oil developments recognize communities' rights both to their lands and to give or withhold their FPIC to what happens on this land. This provides a key basis for ensuring that stakeholders can enter into dialog with companies. Regardless of the resource in question, such schemes can also help inform the current debate over the appropriate tools in advancing these kinds of standards and roles.

However, whether the dialog is meaningful or not often depends on the level of engagement. This can include community awareness and mobilization, national and international civil society support, and a willingness by corporations to recognize their obligation to both protect the environment and respect human rights. Such issues are all the more pertinent with regards to the encroachment onto both community land and protected areas by the extractive industries. No one would deny the need for increased foreign investment to often-poor ape range states, but mechanisms need to be put into place to ensure that this does not result in the eviction of smallholder farmers, nor come at the expense of threatened ape populations.

any new land tenure dispensation. A number of important questions then result:

- What is the capacity of the local populations with a claim to the affected lands to secure their preferred outcomes?
- Can they block the deals if they do not want them?
- What are the consequences of these land acquisitions for local populations and the country's biodiversity in general?

While proponents say the deals are beneficial to the states and local communities, critics argue that they are likely to have negative impacts on food security, essential ecosystem services, and access to land by the poor (Pearce, 2012). While the need for foreign investment remains a necessity, policies that transfer land to investors motivated primarily by profit, to feed populations in other countries or to supply biofuel markets across the globe are likely to end up exacerbating poverty. In Cambodia, nearly three-quarters of the country's arable land has been transferred in so-called "economic land concessions" to private companies, usually without consultation or compensation (Neef and Touch, 2012).

Although both the direct and indirect impacts of these massive deals on great apes have yet to be quantified, increasing competition for land may well have an effect on other extractive industries, too. The lowland forests of Central and West Africa, prime great ape habitat, are even now being parceled up for industrial-scale conversion to agricultural land. Understanding how to navigate land investment deals, both in terms of their effects on wildlife conservation and local tenure rights, is thus likely to be an important part of future land-use management strategies for both governments and the extractive resource industry itself. The Liberia case study opposite illustrates how this might be done.

Mitigation strategies

Extractive resource development in both Africa and Asia has traditionally operated on the assumption that there are always winners and losers, with the broad needs of biodiversity conservation generally being on the losing end of the equation. High levels of poverty, severe infrastructural deficits, and the continuing weak voice of stakeholders in negotiating development contracts have exacerbated this condition (ECA, 2011). Within the context of weak tenure arrangements and the extractives sector, conservation practitioners now have to work with a wide range of tools and measures intended both to minimize impacts on great apes and their habitat, and to improve biodiversity conservation in general.

The human interface: strengthening tenure and local community rights

As highlighted in both the Indonesian case studies and in Global Witness' work on transparency and civil society engagement detailed below, one of the more recent developments in regards to tenure is the consideration of a rights-based approach to ensure local community involvement in land management and development. This is illustrated by an increase in discussion, action, and movement to preserve cultural heritage, health, life, and civil and political rights at a variety of local and multilateral levels. But while these ideals are grounded in several UN treaties, rarely do state policies broadly embrace them, nor is local and regional implementation effective when they do.

In order to advance these goals, infrastructure needs to be put into place to facilitate them. In many local communities living in landscapes threatened by mega-projects, the lack of community voice in the

decision-making process can be a major weakness and thus source of conflict. Though international agreements protect communities' rights to decide what development projects are implemented on their lands, indigenous and tribal peoples often face difficulties simply accessing information about projects that will affect them. Even with calls for participatory development from institutions such as the UN and the WB, governments and private companies often fail to meet with communities to discuss local priorities, determine the impact of potential projects or agree upon viable alternatives.

Mechanisms for strengthening governance

Supporting the rights of local communities to manage their natural resources and protect their communities and livelihoods from the negative impacts of certain development projects requires a multifaceted approach. In Kalimantan, YTS began working with communities on a mechanism that would strengthen their ability to run their own affairs, and thus improve the overall quality of governance in the area of the Kalimantan Gold Corporation Limited (KLG) mineral concession. This was not an easy task, as these communities did not have a cultural history of making collective decisions. Moreover, there was a culture of passivity and dependency regarding their relationship and interaction with local government and other outside agencies. The objective therefore was to put in place a process that would encourage and reward collective decision-making and promote more proactive engagement with outside entities, such as government, companies, or civil society organizations. At the same time, YTS was mindful to involve local government at the district and sub-district levels as much as possible, to keep them well-informed about the work in the villages, and to obtain their

formal approval as well as to get letters of endorsement.

As improving the quality of governance is a lengthy and complex process, it not only requires dedication and persistence from all parties, but also a commitment of resources for funding and to provide the necessary expertise. It is particularly difficult to find funding for strengthening government capacity and, without this, it is extremely difficult to bring about any significant systemic change. Ultimately, the long-term protection and conservation of biodiversity and natural habitat for great ape species requires an environment in which the quality of governance will support efforts to achieve this objective. This requires a concerted effort to improve the capacity of communities and government to engage effectively, and as equal partners, with one another. An extractive company such as Kalimantan Gold, that has an independent, well-functioning development partner like YTS, can have a catalytic impact by providing financial and other resources to parties interested in improving the quality of governance. And with more capable partners, it is much easier to discuss and tackle complex issues such as protection and conservation of biodiversity and species habitats.

The Making the Forest Sector Transparent program

As a means of engaging citizens and activists in tropical forest-rich countries in the fight against deforestation, Global Witness has, since 2008, been implementing the *Making the Forest Sector Transparent* program (Global Witness, 2008–12). The aim of this program is to improve governance of these countries' forests by helping local activists and citizens living in forest areas to demand more information from their governments on how these forests are managed. *Making the Forest Sector Transparent*

works with civil society groups in forest-rich countries to engage with policy-makers and advocate for capable, responsive, and accountable forest-sector governance. It supports local environmental and human rights campaigners in seven countries to monitor transparency and to advocate on issues of importance to local communities, including issues of tenure. To achieve this, Global Witness has formed partnerships with local NGOs in Peru, Ecuador, Ghana, Cameroon, DRC, Guatemala, and Liberia. The main element of the program consists of the following:

Forest Transparency Report Card

The program has developed an innovative Forest Transparency Report Card and an Annual Transparency Report to assess the level of information in the public domain (Global Witness, 2008–12). The methodology compares disclosure and dissemination of information such as forest management plans, concession allocation, and revenues and infractions in forest-rich, low-governance countries. Its development involved a literature review of a number of similar report card approaches in other sectors (Global Witness, 2009).

The 2011 report card (Table 2.1) consists of 20 indicators on key aspects of forest-sector governance. A simple traffic-light system of “yes,” “partial,” or “no” shows whether the criterion is met or not. The full, Internet-based database and assessment (Global Witness, 2008–12) shows clearly how people need information about rights to access forests and benefit from their use; and about government policies, to have a say in the management of forest resources. In Peru, for example, the report card was the basis for dialog with a number of government agencies, and for more information to be made available to citizens.

The report card has been a useful tool to help civil society groups to analyze gaps

TABLE 2.1**Forest-sector transparency assessments in seven countries, 2011****Key:**

- Yes: the information exists and is available
- Partial: the information is incomplete or only partially available
- No: the information does not exist or is not available
- Not applicable to the country-specific context

	Cameroon	Ghana	Liberia	Peru	Ecuador	Guatemala	DRC
Freedom of information legislation	●	●	●	●	●	●	●
National forest policy	●	●	●	●	●	●	●
Codified forest law and supporting norms	●	●	●	●	●	●	●
Signed international agreements related to forest products	●	●	●	●	●	●	●
Provisions for transparency in forest laws and norms	●	●	●	●	●	●	●
Legal recognition of customary rights in forest laws and norms	●	●	●	●	●	●	●
Legally recognized procedure for consultation on new forest norms	●	●	●	●	●	●	●
Legal recognition of the right to free prior and informed consent	●	●	●	●	●	●	●
National land tenure policy	●	●	●	●	●	●	●
Forest ownership and resource-use maps	●	●	●	●	●	●	●
Regulated System of Permits for Commercial Logging Operations	●	●	●	●	●	●	●
Legal requirement for consultation before commercial logging allocation	●	●	●	●	●	●	●
Verification process (due diligence) on eligibility of commercial operators	●	●	●	●	●	●	●
Forest management plans	●	●	●	●	●	●	●
Regulation of environmental services	●	●	●	●	●	●	●
Strategic environmental assessment	●	●	●	●	●	●	●
Independent forest monitoring	●	●	●	●	●	●	●
Fiscal systems to distribute forestry royalties or incentives	●	●	●	●	●	●	●
Information on forest law infractions	●	●	●	●	●	●	●
Annual forest authority report	●	●	●	●	●	●	●

Global Witness, 2012b, p.2, courtesy of Global Witness

“Successfully conserving forests and species requires a remedy that should include all stakeholders, and that balances often-competing claims for resources.”

in what information their government is providing to citizens. In some cases it has also promoted real policy change, by strengthening civil society capacity to effectively use information on forest use and management in their country to demand changes to forest management. People need to have the motivation and skills to convince governments to listen to and respond to their needs. In Ghana, the program has enabled nearly 7000 people to engage directly with local officials, through a large number of community-level grants (Cowling, Wiafe, and Brogan, 2011). Civil Society activists consider such interactions, happening as they do at the level at which forest-dependent people operate, key to a long-term change in power relations. These kinds of capacity-building activities are vital if civil society is to effectively advocate to their governments for measures that will more effectively protect apes.

Stakeholder collaboration: engaging both communities and the extractives sector

Over the last decade, conservation organizations have been making great strides towards recognizing that protected areas should respect the rights of indigenous peoples, as enshrined in international law, including the right to give or withhold their FPIC to the establishment of new protected areas in their customary territories. And yet, despite setting aside a “protected” land mass the size of Africa, global biodiversity continues to decline (Dowie, 2009).

Successfully conserving forests and species requires a remedy that should include all stakeholders, and that balances often-competing claims for resources. Rather than imposing protected areas and seeking to buy local people into the process, the right to own and manage the resources upon which communities depend needs to be rec-

ognized and supported. Support could be given to small-scale landowners; in contrast to industrial logging, for example, many community-level timber and non-timber forest management options, often in combination with other small-scale economic alternatives, have proven to lead to the protection of reasonably intact tropical forest ecosystems while promoting sustainable livelihoods (Bray *et al.*, 2008). The common thread of these models of successful common-pool resource management in the tropical forestry sector is governance – if only at the local or community level – but only when it is fostered by national legislation, especially the ratification of community land tenure (Zimmerman and Kormos, 2012).

In order to manage the conflict that can arise over competing claims for resources, it is also necessary to identify the interests of the extractive sector in protected areas and help design measures that might be undertaken in order to make them partners of protected area managers rather than opponents. Beyond the financial contributions that extractive industries may provide, the sector can also contribute to environmental planning and management, carry out important research that is relevant to the environments where they work, and contribute to building stronger public support for protected areas (McNeely, 2005).

On the ground, companies may be able to leverage additional conservation funding through their partnerships, and also provide effective “in-kind” support to ease the financial burden of protected area management (e.g. covering the salaries of park staff, donating equipment, and providing office space). However, one critical element is a commitment by the extractive companies to be explicit about their impact on biodiversity and protected areas, and to design and implement management measures to minimize any negative impacts and – in the best case – to provide net benefits

to the protected area system of a country. While the larger multinationals may have stricter codes regarding both environmental and social responsibility, smaller companies may take higher risks in pursuit of profits. In the mining industry, for example, their business might be to explore and discover new resources and negotiate an interest in operating a mine with a larger company. In the oil industry, these “independents” specialize in finding and developing fields that are of little interest to the larger companies that are searching for a larger “prize.” The competitive nature of this kind of exploration may see some of those same environmental and social responsibility codes being overlooked in the pursuit of profits.

Spatial planning

However, providing much needed, long-term financial support to protected areas is not compensation or a substitute for avoiding harming protected ecosystems, habitats, and species. This fundamental issue – promoting economic development while formally recognizing systems of customary land tenure and traditional usage rights and still conserving resources and thus biodiversity – remains a significant hurdle to protecting ape populations. Given the complex nature of tenure systems in areas containing both wildlife and other natural resources, the need for comprehensive land-use management plans, designed in such a way that will benefit all stakeholders, is clear.

Spatial planning uses existing and original data to provide a broad-scale perspective on the conditions, threats, and opportunities for improved resource management across a specific geographic area. The use of spatial-planning tools typically includes measures to coordinate the spatial impacts of sectoral policies in order to achieve a more even distribution of economic development across a region or between regions than would

otherwise be created by market forces, and to regulate the conversion of land and property uses (Economic Commission for Europe, 2008). Some of the decisions and actions that spatial planning typically seeks to support, in the context of tenure issues, include:

- More socially and economically balanced development within regions, and improved competitiveness;
- Enhanced communication networks;
- Greater access to information and knowledge by affected stakeholders;
- Reduced environmental damage from all infrastructure and extractive development;
- Enhanced protection for natural resources and natural heritage; and
- Enhancement of cultural heritage as a factor for development.

Since most of these issues are cross-sectoral in nature, effective spatial planning should help to avoid the duplication of efforts by all actors engaged in development across a region or landscape, including governments, industry, civil society, communities, and individuals (Economic Commission for Europe, 2008). In the context of ape conservation, comprehensive, landscape-wide planning could enable stakeholders to view competing claims for resources in the context of change to viable habitat. In the Virungas, for example, the oil exploration process has been marked by a disregard for the established legal frameworks, by a lack of transparency or consultation of important stakeholders, and by an absence of any strategic or participatory land-use planning process regarding how best to use the DRC’s natural resources in the long term. The DRC government’s decision-making on this issue has also taken place in the absence of a national land-use or zoning plan. Such a plan might help the government to decide between potentially overlapping or conflicting land uses such

“Effective spatial planning should help to avoid the duplication of efforts by all actors engaged in development across a region or landscape.”

as mining, oil extraction, forestry, conservation, and other activities. Furthermore, zoning and gazettement can establish secure user rights in a way that makes it possible to introduce some degree of regulation and clarity into a system which often suffers from a lack of transparency.

Technologies and management techniques for mitigating many of the impacts of mining and oil and gas development are well known and documented in the industry literature (McNeely, 2005). However, no “technical fix” can manage all risks to biodiversity from exploration and production, and so if the biodiversity values of an area are to persist, projects have to be planned in a way that will minimize these risks (Chapters 5, 6, and 7). A comprehensive landscape assessment could contain:

- a description of the area’s natural and social environment;
- cartographic data;
- a forest management inventory;
- a definition of zones and user rights, the marking of boundaries; and
- a calculation of the area’s resource production potential.

Traditional rights could also be surveyed by the concession holder, and socioeconomic and ecological surveys and consultation used to define and secure customary user rights within a given area. In the Karoo region of South Africa, for example, the outcome of such an assessment led to the production of a multi-use landscape plan that allocated areas for conservation, traditional grazing

Photo: No “technical fix” can manage all risks to biodiversity . . . projects have to be planned in a way that will minimize these risks. Abandoned mine workings inside the East Nimba Nature Reserve, Liberia.
© Chloe Hodgkinson, FFI



rights, and more intensive development activities, including mining (Maze, 2003).

Underpinning any effective spatial planning should also be the creation of a reliable land cadastre for the countries in question, which takes into account both traditional/customary and formal land usage and ownership rights. Such a map or survey would commonly include details of the ownership, tenure, precise location, dimensions, cultivation status, and value of individual parcels of land. This would then become a fundamental source of data in any disputes between land owners/users. The only stakeholder that stands to benefit from continued opacity in respect of land tenure is the unscrupulous exploiter, whether a government or an investor. While an enormous undertaking in itself, good old-fashioned land surveys and cadastre preparation would do much to support spatial planning initiatives.

Clearly, the management of forests occurs in complex settings, often on the margins of development, where wildlife conservation and livelihood issues intersect in unusual ways. Growing evidence suggests, for example, that timber concessions will be highly important for long-term orangutan survival (Wich *et al.*, 2012b), and it is well documented that gorillas and chimpanzees can also survive in timber concessions when illegal hunting is low. When ape surveys indicate the importance of certain areas for these populations, it might be possible to set them aside as conservation areas within the concession and left unlogged or unmined. Designating these special conservation zones for wildlife protection and establishing buffer zones around protected areas or reserves may enhance wildlife protection, as well as potentially reducing human-wildlife conflict outside. Special measures could also be implemented to further reduce the impact of resource exploitation on apes in these particularly sensitive areas. Survey results can be shared with government officials to

assess the possibility of obtaining formal protected status for such important regions and/or obtaining economic incentives (i.e. alleviation of taxes) for abstaining from extraction within them. If such management decisions are made in areas where there are human communities, then strategic spatial planning undertaken in a participatory fashion could help inform these decisions.

Key challenges of/to mitigation strategies

Knowledge deficits

Land tenure is a critical issue not only for the protection of biodiversity, but also for any incentive-based policy instruments that aim to safeguard public goods found in tropical forests. Conflict and disagreement over who should control and manage a country's forests and forestlands underlie many existing tensions, and the structure of incentives can lead stakeholders to operate in ways that are detrimental to sound forest management and thus biodiversity conservation.

In the case of Indonesia, for example, this disagreement lies in part in simplistic interpretations of the definition and location of both forests and the jurisdiction of the Department of Forestry. Different interpretations lead to radically different levels of control over forest resources by different actors and institutions (Contreras-Hermosilla and Fay, 2005). Remote-sensing data have revealed that significant areas of what Indonesia's Department of Forestry legally defines as the "Forest Zone" are in fact community-planted agroforests (fruit, resin-producing, and timber trees), agricultural lands, or grasslands. These areas are currently regulated as if they still are natural forests or lands to be reforested for timber production; an approach that often results

in conflict (Contreras-Hermosilla and Fay, 2005). In a context like this, disagreements over the control of land and natural resources due to uncertainty of ownership (state or community) are only likely to be remedied by a serious effort to rationalize state zoning policies in a clear action strategy that provides all stakeholders with a clear understanding of the respective limits to their access.

Trade-offs with industry

While the issues surrounding stakeholder engagement, capacity building, policy change, land-use planning, and corporate responsibility should be considered as achievable and realistic objectives, it is important not to underestimate some of the complex problems for conservationists or indigenous people. One of the key risks facing those engaging with industry is that they become “green-washers” for the companies and governments involved – promoting the positive potential, while tending to sweep over the complex trade-offs and contradictions that may occur in practice. As a partnership develops, the initial good intentions of the parties concerned can fall victim to the desire/need for profit, contradictory objectives, and the lack of capacity/willingness to invest long term so as to understand and find solutions to these complex and inter-related socioenvironmental issues. As divergences increase over time, some of these partners may find themselves powerless to impose change on either the companies or governments in question owing to the huge power imbalances involved. Examples of this include the much-lauded Noel Kempff REDD (Reducing Emissions from Deforestation and forest Degradation) project in Bolivia, where corporate partners (predominantly from the energy sector) have made huge offsets, while critics claimed deforestation was simply shifted elsewhere

“Currently, only a tiny minority of firms seek to achieve sustainable and long-term solutions to the environmental and social impact of their activities.”

and that there were few sustainable benefits to local communities (Densham *et al.*, 2009). Such partnerships must be promoted responsibly.

It is also important to recognize that there is a huge range of approaches to resource extraction exhibited by different companies in different sectors, and that it is currently only a tiny minority of such firms that seek to achieve sustainable and long-term solutions to the environmental and social impact of their activities. Furthermore, this may translate into fairly simplistic initiatives, such as providing support for basic livelihood activities, especially those that can deliver provisions such as vegetables, fish, and other produce to the exploration camp (McNeely, 2005). A discourse that uncritically presents any extractive industry or major infrastructure project as “development” may obscure the fact that in reality such development may be disproportionately enjoyed by national elites, while those local inhabitants (both animal and human) most affected by the company’s activities get little if any return, and mostly lose far more than they ever gain.

In some cases, exploration companies may not be interested in strengthening local institutions, or in trying to improve the service and support link between communities and government. This could be a reflection of short-term perspectives and does not bode well for other concerns, such as biodiversity protection and conservation. Nevertheless, as the YTS case study showed, properly managed exploration can make a relatively small impact on the environment and on local biodiversity while at the same time strengthening community relationships. And if the company has a broader vision and a social conscience, then it can provide a useful entry point and platform for initiating programs that are aimed at wider issues, which can include protecting great apes if they occur in the area of operation.

Customary tenure and the “commons”

Historically, the agencies and ministries governing land use have prioritized financial revenue over the rights and interests of the peoples living in areas containing valuable resources. In many instances, these individuals lack even basic recognition from government, such as citizenship – and are therefore not considered when regulations are implemented, even those that are meant to protect indigenous cultures. Customary land tenure is as much a social system as a legal code and from the former obtains its enormous resilience, continuity, and flexibility. Of critical importance to modern customary landholders is how far national law supports the land rights it delivers and the norms operated to sustain these (Alden Wiley, 2011). It is not just a question of who owns the land, but how this ownership might be secured.

This issue is particularly invasive in Africa. With community-governed commons being converted into private property traded on the market, local people can lose their main or only source of income generation. In areas of the DRC, for example, the government does not recognize or protect the rights of indigenous peoples to own, enjoy, control, or use their communal lands. As a result no effective measures guaranteeing and securing their rights are in place, and these people have become squatters on their own land and are often disenfranchised from customary and communal use of natural resources (IWGIA, 2007). While land reforms are taking place around the globe, communal rights are often overlooked, with the result that laws end up either ineffective or with unintended consequences that further negatively impact local communities. Furthermore, such legal frameworks and limited inter-agency coordination within governmental ministries can also lead to weak oversight and a lack of enforcement of the necessary

protections and safeguards. Changes in customary land tenure also exacerbate already inequitable trends, including accelerating class formation and the concentration of landholding. Such trends, which jeopardize the rights of the majority poor, are increasingly having a direct effect on precious local common resources such as forests, as well as on their ape populations.

International mechanisms

The international mechanisms relating to tenure and rights come into effect through international and national political, legal, and financial institutions. In the face of weak governance and regulations to hold companies to account within both host and home governments, international financial institutions play a critical role by requiring companies and governments who wish to borrow funds to comply with set conditions. The World Bank Group (WBG) – and particularly the International Finance Corporation (IFC), the private-sector lending arm of the Group – is seen globally as the standard-setter for corporate behavior. However, there is scope for confusion in how to interpret FPIC, and the language in the IFC’s draft Performance Standards leaves much of the interpretation of what FPIC comprises, and whether it has been obtained, to the discretion of companies (Weitzner, 2011). There is also little in the way of penalties for non-compliance, suggesting that voluntary initiatives cannot take the place of strong protection, regulation, and enforcement by host and home governments.

In the past, the WB has successfully helped countries promote investment to stimulate development. However, in keeping with their remit, the focus of this development is on economic development and on strengthening the private sector. With increasing awareness of the importance of promoting biodiversity conservation,

“In the face of weak governance and regulations to hold companies to account within both host and home governments, international financial institutions play a critical role.”

“The interplay between extractive industries, local communities, and conservation is complex and demands a multi-level response.”

alongside the need to maintain underlying ecosystem goods and services, the WB could play a role in helping governments integrate the public into development decision-making processes, and in the promotion of more equal partnerships between the private and public sectors. This could help mitigate the power imbalances of what Randeria (2003) calls the “cunning state,” one which primarily promotes the interests of political elites and capitalizes on the government’s perceived weaknesses to render itself unaccountable to both its citizens and international institutions. Many administrations deliberately tinker with terms such as indigenous or marginalized, and consent or consultation, to concurrently please donors and circumvent international legal responsibilities attached to the concept of indigenous rights or FPIC. As some of the examples in this chapter have illustrated, the inclusion of civil society in monitoring, forestry information systems, management plans, and public–private alliances (e.g. to combat illegal resource extraction) can provide a critical means of increasing community development and stakeholder participation. If land registration schemes and the formalization of tenure rights for indigenous communities can create an incentive to defend resources, then they might also benefit sympatric great ape populations at the same time. This might also provide clarity for the private sector regarding who to negotiate with, thereby reducing much of the conflict that can arise over competing claims to resources.

Conclusion

It is recognized in the Convention on Biological Diversity (CBD) that biodiversity will not be conserved without a far greater understanding of how humans interact with the natural world (CBD, 2012). But the interplay between extractive industries, local commu-

nities, and conservation is complex and demands a multi-level response. With areas of HCV shrinking, the need for a network that includes both adequately protected areas and carefully managed production forests seems self evident.

Worldwide, communities manage and conserve a minimum of 3 600 000 km² (360 million hectares – or as much as the areas in the formal protected area systems), and it is claimed more effectively and without substantive government support (Contreras-Hermosilla and Fay, 2005). However, socio-political and spatial asymmetries or inequalities in these management systems can play a key role in forming the patterns of access to benefits obtained from the environment. At the center of conflict over resources lie notions of tenure, and as the case of oil exploration in the Virungas shows, without the support of all stakeholders to promote sustainable use, moves to protect community rights and conserve biodiversity are likely to be underachieving.

However, such alliances stand a far greater chance of securing both the forest and forest peoples’ sustainable livelihoods than an approach in which the extractive, developmental, and conservation sectors regard each other as enemies. Collaboration requires the careful navigation of numerous conflicts of interest. At the corporate level, clearer legal obligations for consultation, cooperation, and social responsibility might help corporations attain this. By drawing on good practices in this field, it might be possible to determine a minimum contribution to both biodiversity conservation and local development (jobs, education, health, infrastructure, etc.), which could then be taken into consideration when evaluating their tenders. As was illustrated in the case of Kalimantan Gold, the sooner all stakeholders can start a dialog, supplemented with detailed studies, the easier it becomes to facilitate collaboration.

At a local level, policies and programs aimed at legally recognizing customary community land and resource rights, although not free from risks, can offer many advantages in terms of economic efficiency, poverty reduction and environmental impacts. Properly executed, these would also redress past dispossession by the state of an asset that is essential for the livelihoods and economic opportunity of rural people. But while governments and civil society are now looking for solutions to threats to ecosystem services and biodiversity, clear tenure arrangements must form the backbone of future strategies. Anything less will fall far short of a scenario in which industry, human communities, and great apes can co-exist together in a working landscape.

Acknowledgments

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