

REPORT ON

IMPACTS FROM MINING ON BIODIVERSITY CONSERVATION IN THE DEMOCRATIC REPUBLIC OF CONGO

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Introduction

Africa's Democratic Republic of Congo (DRC) is a vast country (11th in the world; 2nd in Africa), 2/3 the size of Western Europe. It is extremely rich in both natural resources and biodiversity counting massive quantities of water, timber, and minerals among its natural resource wealth. The post-conflict reconstruction period currently occurring in DRC is ushering in massive investment in industrial mining prospection into a sector still dominated by artisanal and small scale (ASM) mining. Continued conflict and insecurity, particularly in the country's east; corruption, a lack of transparency and clear, implemented regulation means that mining and conservation interests are, more and more frequently, at odds.

This report is a summary of the initial research compiled by the Africa Biodiversity Collaborative Group's (ABCG) Extractive Industries Group¹. It outlines the current situation in DRC, with particular reference to the threats to biodiversity from mining, the legal implications on a national and international level, possible solutions, as well as next steps to facilitate an approach to mining which accounts for its effects on biodiversity.

The Africa Biodiversity Collaborative Group (ABCG) itself, is a group of seven U.S.-based, international conservation non-governmental organizations (NGOs) with field programs in Africa that explores emerging and high-priority African conservation issues, shares lessons learned, and seeks opportunities for collaboration. ABCG members include the African Wildlife Foundation (AWF), Conservation International (CI), The Jane Goodall Institute, The Nature Conservancy, the Wildlife Conservation Society (WCS), the World Resources Institute (WRI) and the World Wildlife Foundation (WWF).

Part of ABCG's mandate is to work with the Biodiversity Analysis and Technical Support (BATS) group of the USAID Bureau for Africa, which has the vision of an African continent where natural resources and biodiversity are securely conserved in balance with sustained human livelihoods; it is consistent with the Dar Vision². BATS is a multi-partner effort which includes the ABCG, Chemonics International, Development Alternatives International (DAI), the Environmental Law Institute, International Resources Group (IRG) and USDA Forest Service International Programs.

In the past 15 years and collaborating through ABCG, conservation NGOs and mining companies have developed numerous forms of engagement. Conservation International has been engaging the mining sector for the past 10 years in order to minimize the impact of industry on ecosystems and biodiversity and maximize opportunities for companies to contribute to ecosystem and biodiversity conservation. They have worked with 11 different companies in 14 different countries. The World Resources Institute has a long history of acquiring information on and mapping legal property rights (concessions, licenses, agreements) and critical natural resources (forests, minerals) in Central Africa³ (and Asia). The Wildlife Conservation Society has worked with private companies on a variety of compensation and offsets schemes and is currently serving on the Secretariat of the Business and Biodiversity Offset Program to support the institutionalization of Best Practices to achieve no net loss of biodiversity from mining and other extractive enterprises. The World Wildlife Fund is engaging with both major and junior mining

¹ All the complete reports on DRC by ABCG's Extractives Industries Group can be found at www.abcg.org 2 Dar Vision aims to see, by 2025, environmental degradation and biodiversity loss in Africa to have been significantly slowed, with people and nature adapting to climate change, and species and ecosystem services providing a foundation for human welfare in a society committed to sustainable economic development and equitable sharing of natural resource benefits.

companies in Cameroon, the DRC and Gabon, building the capacity of regulating authorities in order to promote integrated land-use planning and minimize impacts of mining operations and associated infrastructure on priority landscapes. WWF is also developing a regional program on the impact of artisanal mining in Protected Areas and Critical Ecosystems. However, there are still very few case studies which demonstrate that such activities have secured unique biodiversity into perpetuity.

ABCG has a number of working groups, and the Extractive Industries Group which has a regional focus in Central Africa, is composed of a subset of the member organizations– CI, WCS, WRI and WWF. In 2011, this group worked toward the development and implementation of a model for engaging companies and government on biodiversity conservation and environmental stewardship in Central Africa, beginning with a comprehensive approach in the DRC. The project will identify critical biodiversity areas as well as sites where mining companies either have concessions or have begun operations (including ASM hotspots) to determine potential overlap and conflict and establish priorities for conservation engagement.

From October 11-12, 2011, the Extractives Industries Group held a strategic planning workshop in Washington DC to develop an integrated approach for collaboratively addressing extractive industry and biodiversity issues in the Democratic Republic of Congo. The objectives of this meeting were to:

- Share perspectives and experiences among organizations, and between US and Congo-based staff;
- Review, analyze, and finalize the products developed in FY2011;
- Develop a strategy for engaging with the DRC government and mining companies;
- Discuss institutional coordination for addressing mining and extractive industry challenges and their growing impacts on biodiversity conservation in Africa, and to develop an activity plan for the way forward;
- Host a brown bag presentation of the results of this first phase.

Prior to this strategic meeting, the Extractives Industries Group conducted research and completed work on: Artisanal and Small Scale Mining (ASM) in DRC Protected Areas and Critical Ecosystems (PACE); the identification of areas of overlapping biodiversity importance and mineral wealth; a review of national legislation; an assessment of the impact of Section 1504 (transparency division) of the US Dodd-Frank Wall Street Reform and Consumer Protection Act on mining companies in the DRC and case studies around Kahuzi-Biega National Park, Itombwe Nature Reserve and the Ituri landscape.

Overview: Biodiversity and Mining in the Democratic Republic of Congo

The Congo River Basin drains approximately 3.7 million km². A vast block of tropical forest (~ 1.5 million km²) covers the area, which is the second largest tropical forest block after the Amazon. The Democratic Republic of Congo (DRC) hosts 61% of central Africa's dense forests which are home to a myriad of rare and endemic species.

DRC is the most bio-diverse nation in Africa, a continent known for its tremendous biodiversity.⁴ 68% of the country's landmass is forest⁵ and five of its 18 national parks and reserves – the Garamba National Park, Kahuzi-Biéga National Park, Salonga National Park, Virunga National Park and the Okapi

⁴ Fauna and Flora International, 2011.

⁵ FAO, 2011. However, note the contrasting figure of 52% given by ANAPI, n.d. in Table X.

Faunal Reserve – are UNESCO World Heritage Sites.⁶ DRC is also the only country on earth to host three species of Great Ape⁷; gorillas, chimpanzees, and bonobos. ⁸The total number of species known to science includes:

- 415 mammal species, including the endemic okapi and the bonobo
- 1,094 species of birds, including the endemic Congo peacock
- 30 different species of antelopes,
- 268 known species of reptiles (of which 33 are endemic),
- 80 species of amphibians (of which 53 are endemic),
- 1,069 species of fish (of which 325 are endemic),
- more than 1,300 species of butterflies,
- and over 11,000 different plants (3,200 are endemic⁹ of which 11 are vascular¹⁰)

DRC has many diverse habitats: extensive tropical swamp and humid afromontane forests, savannahs, volcanoes, and lowlands provide diverse habitat for a known total of 50% of Africa's forests.¹¹ The types of forest range from closed evergreen formations, semi-deciduous seasonal forests, to miombo woodlands. Congo's highland landscapes also support a wide variety of distinct forest types, some of which are localized and highly vulnerable.¹²

The sub-soils of the Congo Basin, and in particular those of DRC also contain very important mineral resources including gold, diamonds, cassiterite, coltan, tin, tantalum, copper and cobalt. As such, mining has historically, and continues to play a critical role in the country's economy. Early in the colonial period, Belgium discovered incredible mineral wealth and invested in its extraction. After independence, the mining sector continued to dominate the Congolese economy and served as its engine for growth. However, severe mismanagement followed by a decade of civil war and conflict during the 1990s and early 2000s, meant that flagship industrial mining declined substantially. Informal, largely undeclared and uncontrolled production of mineral commodities has since become the dominant form of mining. As of 2003, relative peace has returned to much of the country. This improved political environment coupled with a worldwide increase in demand for minerals have encouraged companies to invest substantial resources in the legitimate development of mineral deposits, including some that were previously unviable. But in order for these projects to be viable now, they need to be accompanied by major infrastructure construction; from roads and railway lines to power stations.

The extraction of DRC's mineral resources could provide significant revenues for the DRC government and population with the World Bank estimating revenues equivalent to 15-20 percent of GDP and one quarter of Government revenues by 2020. The scale of investment necessary to achieve those results is significant, requiring both public and private capital. Many potential financiers ascribe to the Equator Principles that require lending practices to be contingent on the conservation of high-

9 ICCN, 2011

⁶ Barume, 2003

⁷ Draulens and Van Krunkelsven, 2002

⁸ Both subspecies of eastern gorillas; the mountain gorilla (Gorilla beringei beringei) and the endemic eastern lowland gorilla (Gorilla beringei graueri) live in DRC, along with the Bonobo (Pan paniscus), which is endemic to the country and the Eastern chimpanzee (Pan troglodytes schweinfurthii).

¹⁰ Mabberley, 2008

¹¹ Fauna and Flora International, 2011.

¹² Hart, personal communication with Weinberg, 2011

biodiversity areas and ecosystems. But balancing exploitation of DRC's considerable natural resource wealth in order to support the much needed economic development and conserving its biodiversity remains a significant challenge. This project seeks to create the conditions to ensure that biodiversity conservation is included as a priority in the development of the country's mining sector.

Artisanal and Small-Scale Mining (ASM) in the Democratic Republic of Congo's Protected Areas and Critical Ecosystems (PACE)

Artisanal and Small Scale Mining (ASM) constitutes the large majority of mining operations in the DRC. ASM supports up to 10 million people, 14% of DRC's population, who either mine directly or are dependent on artisanal mining for their livelihood and ¹³the number of people seeking to work in this sector is expected to rise dramatically over the next ten years¹⁴.

A combination of protracted conflict, population displacement, the presence of armed groups in Protected Areas, poor infrastructure, an under-capacity national parks authority and abject poverty have resulted in an extensive amount of degradation¹⁵ to DRC's valuable biodiversity and ecological resiliency.¹⁶ The flagship species directly threatened by human activities include, among others, the forest elephant, eastern lowland gorilla and the hippopotamus.

ASM extraction typically alters the landscape surface by removing forest cover and overburden to expose mineralised ore, but which also facilitates soil erosion. Miners dig dangerously deep into the earth and divert rivers, using local water sources to clean extracted minerals. Some of these methods are particularly hazardous to miners themselves. Asphyxiation and collapse of pit walls frequently cause injuries and deaths in artisanal mines.

Water pollution ranges from the silting up of streams due to the washing process which often kills invertebrates and reduces photosynthesis in aquatic plants, resulting in reduced fish stocks in lakes and rivers. Direct dumping of waste, including tailings and effluents in waterways and particularly the use of mercury to release gold in mineral washing, is also evident. Mercury, a toxin, is commonly used in artisanal gold mining. The liquid metal does not degrade and bio-accumulates in organisms allowing it to be transferred indirectly from streams to humans via fish.

ASM also has had a serious direct impact on wildlife populations, as animals are hunted for bushmeat to feed miners and camp followers. The greater access provided by mining activities into forests and Protected Areas facilitates an increase in poaching and the commercialisation of bushmeat as well as the wildlife trade; there is disturbance of animals due to the large number of people resident in and moving through the forest; gorillas and chimpanzees are exposed to disease owing to sewage from mining sites, and people kill animals in 'self-defence' (greater population density in the park means higher rate of human encounters with animals). All in all, ASM can be a serious threat to biodiversity.¹⁷

 ¹³ World Bank, 2008, p. 7. Presumably this figure is working from a base of 1.5 to 2 million ASM each of which have 5 dependents, the average figure used in Sub-Saharan Africa for calculating ASM livelihood dependency.
¹⁴ World Bank, 2008, p. 7

¹⁵ ASM is taking place in more than 40% of DRC's protected areas (PAs)

¹⁷ In Bili-Uere, gold has recently been discovered and chimps are being killed for bushmeat at an alarming rate (Cleve Hicks, Wasmoeth Foundation)

The reasons and motivations for artisanal exploitation of DRC's natural resources, including those in Protected Areas, are complex and too often over-simplified. In order to propose viable solutions, external observers—as well as people working on the ground—must take into account the context from which people involved in the ASM sector are acting.

Conservation issues are not priorities for the local population who for years have been, and still are in most cases, racked by extreme poverty and violence. ASM generates local wealth and taxes for central and local governments as well as traditional authorities, though the proportion of the value of the mineral staying locally and even in-country may be low. The augmented population also leads to growth in commerce and trade in local economies, especially in the demand for food products, housing, transport, and consumables.

However, ASM sites may also bring considerable social risks including increased prostitution and levels of disease, a lack of social services and child labour. It attracts people, especially youth, away from their traditional activities and encourages a high rate of school drop outs, which results in low levels of education. In very remote areas, mining communities might not have access to cash and a barter economy may be adopted. This lends itself to abuse of workers' rights and to militarization, which encourages the illegal exploitation of natural resources and finances warlords. In eastern DRC, insecurity continues as militias vie for control of resources and the artisanal mining sector. These combined factors make it difficult for yet another generation of Congolese to escape a cycle of poverty and brutality.

Large Scale Mining

Although ASM has dominated the mining scene for several years, the situation is beginning to change with Large Scale Mining (LSM) activities starting to compete in many regions of the country. While ASM searches immediate economic profits, LSM projects take a long-term approach involving exploration for viable mineral deposits, which, once deemed feasible, are exploited for a determined amount of time.

At the exploration stage, LSM organisations characteristically start by constructing new roads, camps, and sites. This causes deforestation and improved accessibility which in turn, facilitates immigration and environmental degradation from ASM actors. In most instances, industrial mining enterprises tolerate artisanal workers during the exploration stage, but this coexistence tends to change once exploitation begins. Many artisanal mining communities may be displaced, and consequently may seek new areas of operation in Protected Areas or zones of important habitat.

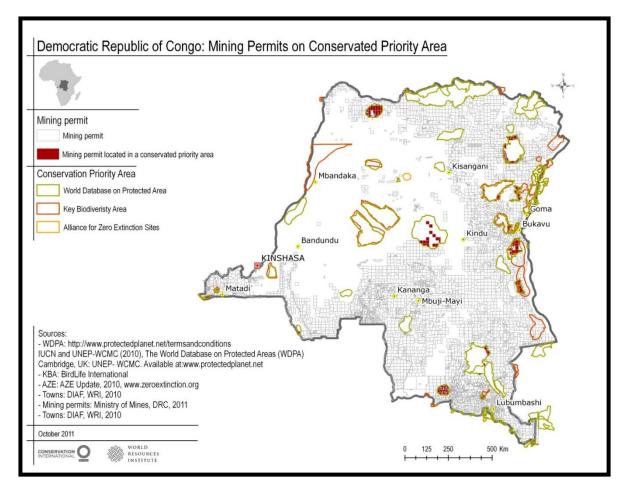
The LSM exploration phase requires adoption of basic environmental mitigation practices to be defined and implemented, and this is a critical period during which standards of appropriate social and environmental conduct are decided. At the very least, companies should adhere to the mitigation hierarchy with respect to impacts, first avoiding, and then minimizing their impacts. Those impacts remaining after avoidance and minimization would need to be compensated or offset in some way. It is therefore a key time to encourage the inclusion of conservation values: concepts of, land-use planning, offsets and consulting with wildlife specialists, some of which could have a social dimension as part of the design and implementation of the project. For example, industrial enterprises could incorporate or create space for artisanal miners within the concession areas, as simply displacing them would exacerbate the problems that already exist with keeping ASM out of Protected Areas and Critical Ecosystems. There should also be commitments (financial and through management arrangements) to the long-term protection of these key conservation areas. Given recent trends, it is likely that LSM will predominate in DRC in the future even while ASM continues to grow. This is both a threat and an opportunity for conservation, as companies may possess resources to foster Best Practices which include biodiversity conservation. Finding comprehensive solutions through engagement with the mining sector and government is therefore an important objective of the work under ABCG.

Identifying Areas of Overlapping Biodiversity Importance and Mineral Wealth

The Extractives Industries Group produced a series of maps showing the areas of mining, conservation priority areas, and where these interests intersect in DRC. For the mining concession maps, DRC's Ministry of Mines provided spatial data for the limits of the different permits that they cede: exploration, extraction and ASM permits. However, these data were not a good proxy for reality in the case of the ASM permits because most people who engage in those activities either obtain local permits or do not obtain formal permits at all.

Spatial data for conservation priority areas includes International Conservation Union (IUCN) categorized Protected Areas, Key Biodiversity Areas and Alliance for Zero Extinction Sites.

Approximately 11% of DRC's total area (2,344,858 km²) is protected. The resultant map outlines 46 Protected Areas which are governed by 10 international conventions and 36 national laws. Additionally, 21 Key Biodiversity Areas have been mapped with two Alliance for Zero Extinction sites. The following map shows where these mining concessions overlap with conservation priority areas.



Mining activities could be represented at a finer scale by collecting field data about artisanal mining and industrial mining infrastructure and operations in order to provide a more comprehensive picture.

Review of Mining and Environmental Legislation, Policies and Best Practices

The initial mapping exercise completed by ABCG shows that mining concessions intersect conservation priority areas in many instances. It is therefore important to examine national and international laws to determine the legality of this issue, particularly where concessions are overlapping with Protected Areas. A review of the Mining Code, Environmental Code and international treaties to which DRC is a signatory was undertaken in order to identify strengths, weaknesses, gaps and conflicts in the regulation of the DRC mining sector.

National Legislation

There are several national laws pertaining to mining, conservation and forestry which, in theory, should also protect biodiversity, particularly in Protected Areas.

Forest Code of 29 August 2002

The Forest Code which includes the creation of Classified Forests¹⁸ makes them State property. They therefore benefit from an overall protection status and are managed by the Minister of the Environment (MECNT).

Nature Conservation Law of 22 August 1969

This covers National Parks (réserves naturelles intégrales) and assigns their management to the ICCN (Institut Congolais pour la Conservation de la Nature). It prohibits activities that are incompatible with nature protection, but this has a broad interpretation.

Principles of Environmental Protection Law (9 July 2011)

This latest act prohibits activities in Protected Areas that "harm" the environment. It further stipulates that no rights can be given which would harm the environment within Protected Areas. Of further relevance to the mining sector, Article 12 outlines the "polluter pays" principle and in Article 21, an Environmental and Social Impact Assessment (ESIA) is mandatory for projects. Further obligations include environmental "audits" (Article 23), public involvement (Article 24), a fund for environmental interventions (Article 25) and required restoration (Article 44).

With the introduction of this law, the Ministry of the Environment gained additional powers to require environmental impact studies for all infrastructure development projects. Previously, mining companies only needed to meet agreements made with the Mining Ministry, but now, they must also comply with environmental ministry regulations or they will be fined.

Mining Code – revised 11 July 2002

This code covers all types and sizes of mining activity, as well as all stages, from research to exploitation. The State is responsible for the regulation and promotion of the mining sector.

Within the code there are multiple environmental obligations including the Prospector's Code of Environmental Conduct which requires a commitment to minimize negative environmental impact; a plan to rehabilitate the area after activities have finished (le Plan d'Attenuation et de Rehabilitation - PAR) which must be approved before research activities begin; and an Environmental Impact Assessment (EIE) and an Environmental Management Plan for Project (PGEP), both of which must be completed before exploitation.

Other environmental protection mechanisms in place within the Mining Code include a requirement for daily documentation of mining activities, regular reporting, and environmental protection financial obligations (financial collateral to execute environmental obligations and a guarantee for the rehabilitation of the mining site at the cost of 0.5% of the total investment). Moreover, DRC's President can prohibit mining activity in certain zones for environmental protection. These zones are in addition to the Protected Zones (national parks, hunting reserves, reserves, botanical & zoological gardens), Reserve Zones (natural reserves, biosphere reserves, forests), Restricted Zones (land inside a national

¹⁸ Classified Forests (les forêts classés) are defined as those forests found in National Parks and Reserves, Botanical Gardens and Zoos, Plant Reserves and Hunting Concessions, Biosphere Reserves, Recreational forests, arboretum, urban forests and Protected Areas.

park, forest nursery) and Prohibited Zones (zones where mining is prohibited because of conflict, incompatibility with land use, environmental protection, etc).

There is also an **Artisanal Exploitation Code of Conduct** which formalises basic operational rules such as cooperating with local authorities, forbidding the construction of permanent structures and the use of explosives, and requiring that accidents be reported. However, environmental obligations within this code are negligible.

Institutional Framework

The Ministry of Mines is responsible for the implementation of mining policy. This ministry allocates and revokes mining rights (including artisanal zones), authorizes exports, submits deposits for tender, authorizes transformations and establishes restricted areas, among other activities.

Key departments and other institutions for the industry include the Cadastre Minier (CAMI) which grants mining titles; the Mining Environmental Protection Division which is the watchdog for environmental protection compliance; the Permanent Evaluation Committee, responsible for review of PAR, EIE et PGEP, SAESSCAM; the public service for technical assistance and supervision of ASM and the technical unit for planning of mining (CTCPM) which is responsible for the design and development of policy within the mining sector.

Key contradictions between the mining code and environmental laws

There are several inconsistencies within DRC's legislative transcripts that complicate the implementation of these laws with regards to environmental issues.

In the Mining Code, Article 5 allows overlap of concessions with 'reserve zones' and Article 6 specifies that there is the possibility of having concessions within "zones of restriction" (defined as national parks) with *prior authorization* of a "competent authority". However in Chapter III, Art 17, Line 1 the code states that "Mining prospection is permitted anywhere in the national territory which is outside of protected zones and nature reserves or protected zones regulated by particular laws".

The Nature Conservation Law of 1969 specifies that there can be no incompatible activity with nature conservation in national parks (Article 3) and according to the Law on the Principles of Environmental Protection (2011), it is prohibited to pursue activities harmful to the environment in Protected Areas (Art. 33).

While there are solid bases within DRC's national legislature to protect the country's environment, there is a lack of coherent and synchronized legal texts governing property, forests, environment and conservation. As long as paradoxes remain, DRC's planning and regulatory situation will continue to confuse and be open to (mis-) interpretation.

Signed International Environmental Conventions

In addition to national laws, DRC has signed numerous international environmental conventions. Those relevant to the mining sector include the:

- Convention on Biological Diversity
- Convention on Wetlands of International Importance Especially for Waterfowl (Ramsar),
- Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES)

- World Heritage Convention protecting World Heritage Sites (5 in DRC), and
- African Convention on nature and natural resource conservation.

Again, these conventions should help to enforce DRC's national laws, however corruption and a lack of capacity to implement rules and law mean that in many circumstances, their ratification is of minimal consequence.

Impact Assessment of Section 1504 of the US Dodd-Frank Wall Street Reform and Consumer Protection Act on Mining Companies in the DRC

Bearing in mind the increasing activity and investment from large-scale mining operators, the Extractives Industries Group compiled a list of, and conducted due diligence on, the mining companies currently holding valid exploration licenses covering areas in conservation priority areas.

A principal objective of this research was to determine if the mining companies (or parent companies) were listed on the US Securities and Exchange Commission (SEC) and thus subject to new disclosure requirements under Section 1504 of the US Dodd-Frank Wall Street Reform and Consumer Protection Act. Compliance with the Act could facilitate a level of transparency, helping to highlight the connection between financial transactions with DRC's governmental organisations and the assignment of mining concessions.

Section 1504 of the Dodd-Frank Act requires that:

"...each resource extraction issuer to include in an annual report of the resource extraction issuer information relating to any payment made by the resource extraction issuer, a subsidiary of the resource extraction issuer, or an entity under the control of the resource extraction issuer to a foreign government of the Federal Government for the purpose of the commercial development of oil, natural gas, or minerals..."

Under the Act, companies must include in their annual reports the type and amount of payments (taxes, royalties, fees but also in-kind payments) made for each project and to each government. Information on payments made by resource extraction issuers will be available for free to the public on the SEC website. Implementing regulations for Section 1504 of the Act are currently being developed by the SEC. Draft Regulations were released in 2010 for public feedback. A large number of citizens, NGOs, extractive resource companies and their associations contributed comments which are available on the SEC website. The Regulations were initially expected to be finalized in early 2011, but it now appears that they will not be finalized until 2012.

The effect of the US Dodd-Frank Act on Mining Companies in DRC

ABCG's Extractives Industries Group study focused on companies that hold large, long-term mining concessions over biologically rich areas. As of 2011, the Mining Cadastre listed 7,733 mining permits. Since this project did not target artisanal mining or geological research, mining titles labelled "Geological Exploration Area" or "Artisanal Exploitation Area" were excluded from the list, reducing the number to 5,997 permits held by a total of 872 companies. Because of inconsistencies noted on the validity of the permits, all permits were included, including those noted as "forfeited", "in cancellation process" or "expired".

Among the top 80 companies holding the largest mining permit areas (representing 71% of the total area under mining permits), 43 were found to hold at least one title overlapping with a Protected Area. A total of 236 companies were found to have at least one permit overlapping with a Protected Area (PA), a Key Biodiversity Areas (KBA) or an Alliance for Zero Extinction sites (AZE) areas. Mining permits overlapping with these areas of biodiversity interest cover a total area of 7,741,582 ha, which represents roughly 29% of the DRC protected estate.¹⁹

Categories of companies

The research showed that 90 of the 236 permit holders (38%) whose titles overlap with biodiversity areas were not identified in any prospectus, news article or research report available on the Internet. In addition, 53 permit holders are individuals rather than registered companies.

Only 13% of the 236 permit holders with overlapping titles were identified as entities totally or partially owned by a company found on a stock exchange platform (registered in the US or elsewhere). The number of companies (or parent companies) that are publicly traded is small relative to privately-owned companies with overlapping titles (94, three times the number of publicly-owned companies). Several of these privately-owned companies were identified as shell-companies in a 2006 UN report²⁰, such as Kasai Mining and Exploration Ltd that holds an exploration permit within Virunga National Park.

Identified companies likely affected by Section 1504

Twelve companies that have overlapping titles with a PA, KBA or AZE, are partially or totally owned by an entity required to submit an annual report to the SEC (see Table 2). Among these companies, eight present clear-cut cases of wholly-owned subsidiaries with a parent company required to submit an annual report to the SEC. An additional four are also identified in the top-80 permit holders (irrespective of overlaps with areas of biodiversity interest): Banro, Rio Tinto, BHP Billiton and Ashanti GoldFields.

Wholly owned subsidiaries	Ownership
ASHANTI GOLDFIELDS KILO	86% owned by AngloGold Ashanti Ltd and remainder by Okimo (DRC state owned)
BANRO CONGO MINING Sarl	Wholly-owned subsidiary of BANRO
BHP BILLITON WORLD EXPLORATION	Wholly-owned subsidiary of BHP Billiton
GISOR	Wholly-owned subsidiary of Gilla Inc.
RIO TINTO CONGO RDC SPRL	Wholly-owned subsidiary of Rio Tinto
SHAMIKA CONGO KALEHE	Wholly owned subsidiary of Shamika Resources
TENKE FUNGURUME MINING	Subsidiary of Freeport McMoran Copper & Gold (FCX)

Table 2: List of companies partially and totally owned by companies required to submit annual reports to the SEC

¹⁹ This number includes permits that partially overlap with protected area, KBA or AZE. The exact surface of overlap could not be calculated with the data available.

²⁰ United Nations Security Council, "Lettre datée du 18 juillet 2006, adressée au Président du Conseil de sécurité par le Président du Comité du Conseil de sécurité créé par la résolution 1533 (2004) concernant la République démocratique du Congo", 2006. Report available at http://www.poa-iss.org/CASAUpload/ELibrary/525%20Fr.pdf

Twangiza Mining	Subsidiary of BANRO
Uncertain cases	Ownership and background
SAKIMA	Joint-venture between BANRO (93%) and the DRC government (7%) dissolved in 1998 by Laurent D. Kabila. New agreement signed in 2002 re-giving control to BANRO, but apparently under the name Tzangiza Mining
PHELPS DODGE CONGO	Most likely absorbed by Freeport McMoran Copper & Gold (FCX) since merger with Phelps Dodge in 2007.
MIDAMINES Sprl	Entered an earn-in option agreement with Rockwell Ventures Inc., listed on the SEC.
LONCOR RESOURCES CONGO Sprl	34% by Loncor management (Canadian registered on the SEC but exempt of submissions) and 16.8% by Newmont, a US mining corporation (listed on the SEC and required to submit an annual report)

Finally, four companies are identified as uncertain cases: Midamines and Loncor Resources may or may not be concerned by Section 1504 depending on the definition of "control" that will be adopted by the SEC in the final rules; Sakima and Phelps Dodge were both identified as permit holders and former subsidiaries of SEC-listed companies, but as of 2011, there were questions regarding the existence of these subsidiaries.

Companies listed in other countries of interest

Canada counts 14 mining companies with subsidiaries operating in DRC, three of which are also listed in the SEC (highlighted in grey in Table 2). This makes their activities and negotiations considerably less transparent than those listed on the SEC.

In 2010, the UK government announced that it would consider adopting disclosure requirements similar to Frank-Dodd's Section 1504. The merger between the London Stock Exchange (LSE) and Toronto Stock Exchange (TSX) would be worth investigating as disclosure requirements adopted by LSE could then possibly apply to TSX. NGOs are also advocating that the Canadian government adopt disclosure requirements similar to Frank-Dodd's Section 1504.

Five companies operating in areas overlapping with either a PA, KBA or AZE, were listed on the LSE: Ashanti Goldfields and Rio Tinto (already listed on the SEC), Compagnie Miniere de Sakania (a subsidiary of First Quantum Minerals), Diamond Mines Australia (a subsidiary of Gravity Diamonds Ltd, which is a fully owned subsidiary of Mwana Africa) and Kansuki (a subsidiary of Kansuki Investments).

Finally, five companies were found to be listed on the Australian stock market: four of which were also listed on either the SEC or the LSE. One company, New World Alloys Ltd, has a subsidiary operating in the DRC (Nova Mining).

While the Frank-Dodd Act may not immediately be making waves in DRC's mining sector, the twin factors of an increasing LSM and similar laws being considered by other leading stock exchanges could lead to there being more transparency, specifically in relation to the allocation of mining permits in the not too distant future.

Case Studies

As part of the 2011 work plan, the Extractives Industries Group carried out case studies to improve understanding of the current situation and possible future scenarios resulting from increased artisanal mining and the investment from industrial mining enterprises. The team targeted three key regions from eastern DRC as case study examples: the region around Kahuzi-Biega (KHB) National Park, Itombwe Nature Reserve and the Ituri Landscape. As the Itombwe and KHB case studies are still in the process of being validated by local stakeholders, only the Ituri case study will be summarised below.

Ituri Conservation Landscape

The Ituri Conservation Landscape is located in Oriental Province in north-eastern DRC, covering an area of over 40,000 km². It has a population of roughly 300,000 people including the Mbuti and Efe pygmies, who still live traditional hunter-gatherer lifestyles. Horticulturalist Bantu tribes also reside in Ituri and immigration from neighbouring densely populated regions is rising quickly.

Ituri is characterized by dense, moist tropical lowland forest which is mostly intact and includes some of the headwaters of the Congo River Basin, notably the Ituri River. The Ituri forest supports over 90 mammal species, including globally important populations of large forest mammals, notably okapi, forest elephants and chimpanzees. In the central Ituri forest, over 300 species of birds and 1,190 species of plants have been recorded. Fish species are being inventoried, though they are still poorly known. For amphibians, reptiles, and invertebrates (except butterflies), there is very little information. The Ituri forest ecosystem supports extraordinarily high species richness and endemism. The ecosystem's complexity is delicate and vulnerable to even subtle changes and the Ituri is facing pressure from rapid population growth and disorganized exploitation of natural resources.

As the ecosystem is still poorly understood, it is important to establish baseline biodiversity information in areas that will be directly or indirectly affected by mining activities. In general, the level of biodiversity loss and ecosystem destruction is proportional to the intensity and scale of mining activities and the success of mitigation measures.

The fragile security situation remains an ongoing concern. The Ituri has not experienced rebel activity recently, however, ill-disciplined government soldiers (FARDC) and armed bandits still cause problems for local communities. They are capable of occupying mines, extorting taxes, robbery, and elephant poaching, among other illegal activities. Fortunately, most of Ituri's artisanal mines are free of military presence except for Bakaiko groupement, south of the Okapi Faunal Reserve (RFO), which remains uncontrolled and inaccessible.

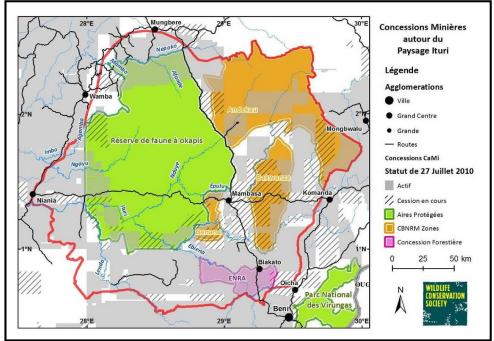
ASM in the Ituri Landscape

Artisanal mining has been widespread throughout the Ituri landscape since the liberalization of the mining sector during the 1980s. The importance of ASM has varied with the security situation, viability of other livelihood options, and the value of minerals.

While ASM is theoretically bound to certain laws in the Mining Code of 2002, the application of these laws is weak. Legally, the gazettement of the RFO in 1992 introduced the first strict controls on artisanal mining in the area. All mining activities are banned in the reserve, but a lack of control over a large area, insecurity and the rising value of gold have enabled itinerant mining activities to continue. ICCN has control of much of the RFO, however the southwest sector is under consistent threat from armed poachers and mining.

Large Scale Concessions in and around the Ituri Landscape

The following map shows the status of industrial mining concessions according to the Cadastre Minier (CaMi).



Companies currently exploring in the Ituri have mentioned individual gold mineral deposits which may yield 2M oz or 5M oz, meaning that massive amounts of ore will be removed. Iron exploitation will also extract large quantities of ore, which will cause significant deforestation and the alteration of landforms. Major investments in infrastructure will also be made, which will damage previously undisturbed areas.

Ituri landscape is overlapped by several concessions ceded to shareholder-owned industrial mining companies including:

- Rio Tinto (MULTI-NATIONAL-iron; traded on New York, London, & Australia Stock Exchanges)
- Loncor (CANADA-gold; traded on Toronto Stock Exchange)
- Kilo-Gold (CANADA-gold; traded on Toronto Stock Exchange)
- Auris AG (SWITZERLAND-gold; traded on Frankfurt Stock Exchange)
- Anglo-Gold Ashanti (SOUTH AFRICA-gold; New York, Johannesburg & Australia Stock exchanges)

According to additional data from the CaMi, over 70 mining concessions (CaMi carrés) are located within or overlap with the RFO, totaling over 3,700 km² or 27% of the RFO's whole area. Eight companies possess concessions of close to 200 km² or more each. These are illegal according to the Mining Code and should be revoked. This is a clear example of the necessity for transparency, which at the country level requires further research into how concessions are ceded and to understand the links between artisanal mining and companies.

In general, industrial mining companies tolerate artisanal mineworkers during the exploration phase, but one company currently exploring to the west of the RFO has stated that all artisanal miners will be displaced once they begin exploitation. There will be some form of compensation, but mass, forced displacement combined with the loss of livelihoods for the sake of company profits, will likely be met with resistance. Those who will be displaced will be resettled elsewhere, potentially disrupting the delicate dynamics of other communities. International Peace Information Services and Pax Christi will

revisit mines in Ituri to document the security and human rights situation. Considerable care will be required in order to maintain peace and stability in these vicinities.

In other areas and according to field reports, the introduction of industrial exploration activities west of the Okapi Faunal Reserve (RFO) has created huge expectations for local communities, while attracting an influx of immigrants hoping for employment. In reality, industrial companies cannot employ many people so immigrants will be likely to turn to alternatives such as artisanal mining, bushmeat hunting or *petite commerce* that is required to satisfy mining agglomerations.

There is urgent need to integrate mining sector stakeholders in land use planning because they will have major impacts which will undoubtedly impinge on the integrity of Ituri's biodiversity. Industrial mining actors will develop infrastructure and affect the economic and social expectations of local communities. Therefore the adoption of responsible mining is important as part of a rational development plan for the Ituri landscape, allowing ecological, economic, and social considerations to be balanced.

Recommendations

Mining, both ASM and LSM is on the increase in DRC. Extraction of the country's vast and rich mineral resources can be used to strengthen the post-conflict, still-fragile economy and help improve the lives of DRC's 71 million inhabitants. However, mining activities, especially when left unsupervised, can cause significant environmental damage ranging from water pollution to forest degradation and the loss of rare, endemic wildlife. While the sector can generate enormous revenue, it is paramount to build a policy environment that allows for practical responses to the threat that mining poses to biodiversity, balanced with responsible investment that also creates jobs and contributes to poverty alleviation.

As of this writing, DRC's mining sector is in a phase of remediation. The lifting of the artisanal mining ban in the east, the arrival of industrial enterprises and the increasing attention on and funding for conservation provides a window of opportunity to engage local communities in finding ways to balance their present livelihood needs with their role as stewards of these critical ecosystems for the sake of future generations.

It is imperative that the country's legal framework provide protection for its immense biological wealth. Despite the discrepancies in DRC's environmental laws, the general interpretation of these regulations and conventions is that there should be no mining concessions or activities in Protected Areas. The research carried out to date by the Extractives Industries Group shows that this is not the case.

A lack of capacity to implement laws, poor coordination among government ministries and different levels of government, combined with corruption and conflict mean that mining, both large-scale and small, is occurring in Protected Areas.

The growing interest and investment by LSM operators in DRC provides all stakeholders, including ASM miners, with an opportunity to work together to help protect the country's biodiversity, which in the long term will encourage responsible mining and can support the sustainable, viable development of the sector. Many companies concerned with managing their risk are interested in exploring voluntary approaches to compensating for their impacts and could contribute to the protection of biodiversity in important regions of the country. Developing relationships with such companies to promote the use of offsets and assist with their design represents an opportunity for ABCG Extractive Industry members in the DRC.

One of the key issues to address is the lack of transparency specifically with regards to the allocation of concessions and permits. Clearly national legislation must resolve the issues that are leading to the distribution of mining permits in Protected Areas. In the meantime, there are existing international regulations which could shed light on the relationship between financial transactions and the allocation of these legally questionable mining concessions. While ABCG's Extractive Industries Group found that few mining companies operating in DRC are listed on the US stock exchange and so the impact of Section 1504 of the Frank-Dodd Act would be limited, if similar regulation were to be adopted in Canada, the UK and Australia, the effect would be greater. There is therefore a need for global, rather than country-specific norms to be adopted.

This observation also calls for the following lines of action:

- Influence SEC rule-making to ensure broad application;
- Encourage DRC to award licenses to SEC-listed companies;
- Encourage other countries to pass similar legislation (UK, Canada, Australia);
- Train DRC NGOs on US law and build capacity on accessing and using SEC reports

Other specific recommendations were identified as part of ABCG discussions:

- To provide clarity within DRC's legal framework and to help ensure real environmental protection, the creation of a national land-use master plan along with precise strategic development plans for mining zones, clear definitions of the legal limits of Protected Areas, Codes of Conduct and an environmental management plan all need to be outlined. Monitoring and control mechanisms must also be implemented to cover environmental plans and obligations.
- In addition to field-based research, interventions need to be designed that are adaptable to individual cases (and areas). Communication and the sharing of information between groups will be critical with such a massive task.
- DRC's environmental and mining administrations, the local and international civil society, multinational organizations and the private sector should establish a common strategy to protect the country's sensitive ecosystems. For example, the key issues to examine for managing LSM and ASM mining in Protected Areas and Critical Ecosystems in DRC can be listed as:
 - The security and the impact that mining has on funding conflict;
 - the strengths and weaknesses of previous interventions;
 - the listing and progress of current interventions;
 - the ongoing dynamic between LSM and ASM mining activities;
 - the problems of access to information and
 - the effects all of these issues have on indigenous peoples and conservation.

- Given levels of poverty in the region, alternative, economically viable activities aside from artisanal mining need to be identified and promoted for the communities at the intersection of conservation and mining. A program of capacity building and investment is needed among mining sector agents and members of the civil society to encourage more sustainable activities.
- With regard to the industrial mining sector, outreach efforts to demonstrate the potential of both investing in mining and creating opportunities for sustainable management of ecosystem services for the benefit of people and wildlife will be important. Promoting concepts such as no net loss of biodiversity and compliance with the International Finance Corporation Performance Standards and other Best Practices can provide a way to engage industrial mining enterprises in environmental and social performance, improving the sustainable development of DRC.
- Establishing a level of harmony between conservation objectives and the investment in natural resource use in the country as a whole is no easy feat. Politically, DRC offers significant challenges to achieving comprehensive solutions. Grand aims will likely be met with much difficulty and resistance. Starting small and keeping approaches focused and simple, may offer the best solution.

Conclusion

As long as DRC remains poverty-stricken with informal economic structures prevailing, ASM will continue to flourish. Finding ways to work with and educate ASM stakeholders is critical to the survival of not just the surrounding biodiversity, but the stakeholders and local population themselves. A strategy needs to be built around the people concerned, enabling and encouraging extensive stakeholder consultation and participation: the stakeholders including indigenous people, displaced people, ex-combatants and women. ASM has a long history in DRC and will not go away quickly, so it needs to be incorporated into official strategies and become part of the country's land use planning processes.

Currently, there is considerable international interest in Conflict Minerals traceability initiatives, and this presents another opening to introduce conservation issues into the conscience of industrial mining. As well as working with development NGOs on economic alternatives to ASM, conservation groups should coordinate with Large Scale Mining (LSM) operations on ASM-LSM-PA interfaces.

The maps generated in this report only provide an initial picture of the potential issues. To better understand the reality on the ground and inform a strategy for engagement with the mining sector on environmental management, further analysis of the companies who have permits would be beneficial. It is important to understand whether they are national or foreign, junior or major companies, whether these companies are members of the International Council on Mining and Metals (ICMM) or have financing from IFC or Equator Banks, requiring them to mitigate and in some instances, offset their impacts on critical natural habitat. More environmental data on water catchments to better understand potential ecological footprints from mining activities is also needed. There is a further call to include additional national conservation priorities identified outside of standardized IUCN processes which would complement this initial assessment. A World Bank report states that 90% of mineral

production comes from artisanal mining. If that is the case, then supplementary, accurate data on the extent of artisanal mining would provide a fuller picture of potential intersections with conservation priorities.

Questions still remain as to how to respond to the issue of mining and PA overlap and moreover, how to engage the companies involved. As NGOs, ABCG cannot enforce the law. While promoting Best Practices is a start, examining the supply chain, market and legal mechanisms that drive suppliers, as well as talking to national policy makers would help provide a more holistic view.

To this end, in 2012, the Extractive Industries Group plans to do further work to try to tackle many of the issues brought up in their research. Projects range from more precise, detailed mapping of mining concessions, Protected Areas and Critical Ecosystems and further due diligence on mining companies, to creating policy briefs and opinion-editorial pieces for advocacy and outreach objectives and organizing round table discussions on ASM and LSM concerns in DRC with key stakeholders.

Ultimately, the conservation of DRC's rich biodiversity in Protected Areas is not just about protecting species of fauna and flora for its own sake or for the heritage of future generations: it also has a direct impact on the livelihoods and well-being of the people living in and working around these areas. The research carried out to date by the Extractive Industries Group shows that a mechanism that allows for the increased consideration of the conservation of DRC's rich biodiversity in mining, at both the large and small scale needs to be created, urgently.