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Extractives for Prosperity



Colombia: Extractives for Prosperity

Capstone Report, School of International and Public Affairs, Columbia University

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Abbreviations

AAU	Urban Environmental Authorities
AMP	Marine Protected Areas
ANH	National Hydrocarbons Agency
ANLA	National Environmental License Agency
ANM	National Mining Agency
BACRIM	Emerging Criminal Bands
Bbl/d	Barrels per day
Bcm	Billion cubic meters
BIT	Bilateral Investment Treaty
CAR	Autonomous Regional Corporation
Carbocol	Carbones de Colombia S.A.
CAGR	Compounded Annual Growth Rate
CBD	Convention on Biological Diversity
CONPES	National Council of Economic and Social Policy
COP	Colombian peso
CREE	Equality Tax
CSR	Corporate Social Responsibility
DANE	Colombia's National Administrative Department of Statistics
DIMAR	Colombian Maritime Authority
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statements
EITI	Extractive Industries Transparency initiative
EPI	Environmental Performance Index
FAO	Food and Agriculture Organization of the United Nations
FARC	Revolutionary Armed Forces of Colombia
FDI	Foreign Direct Investment
FENCO	Ferrocarriles del Norte de Colombia S.A.
FET	Fair and Equitable Treatment
FLIP	Foundation for Freedom of the Press
FONPET	Funds for Territorial Entities
FPIC	Free, Prior and Informed Consent
GHG	Green House Gases
GIS	Geographic Information System
GDP	Gross Domestic Product
ICSID	International Centre for Settlement of Investment Disputes
IEA	International Energy Agency
IFC	International Finance Corporation
IISD	International Institute for Sustainable Development
INDERENA	National Institute of Renewable Resources
INVEMAR	Institute of Marine Investigations
IOC	International Oil Companies
ISL	In situ leach mining
LP	Preliminary License
MADS	Ministry of the Environment and Sustainable Development
MAVDT	Ministry of the Environment Housing and Territorial Development
MINMINAS	Ministry of Mines and Energy
MIT	Massachusetts Institute of Technology

NGO	Non Governmental Organization
OCAD	Administrative and Decision-making Board
OECD	Organization for Economic Co-operation and Development
OSPAR	Convention for the Protection of the marine Environment of the North-East Atlantic
PHGIBSE	National Policy for the Management of Biodiversity and Ecosystemic Services
PND	National Development Plan
PPP	Purchasing Power Parity
SIAN	National Park System
SINAP	National Park System
SINCA	Chilean Air Quality Information System
SGR	General System of Royalties
SLO	Social License to Operate
RIMA	Environmental Impact Report
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations
USAID	United States Agency for Development
US EIA	U.S. Energy Information Administration
VAT	Value Added Tax
WEF	World Economic Forum
WHO	World Health Organization
WTI	The West Texas Intermediate

Executive Summary

Colombia is one of the fastest growing economies in South America. In recent years, with energy prices on the rise, Colombia's export dynamics have shifted away from traditional agricultural trade towards heavier emphasis on crude oil, mining, and natural gas exports. Colombia has undergone some regulatory changes, emerging as an increasingly important destination for foreign direct investment in the extractive industries. The export earnings and royalty and tax revenue derived from these extractive resources have inevitably become an essential component of the country's economic ascendance and infrastructure development moving forward.

From a domestic wealth management perspective, Colombia has already begun the process of addressing its exposure to the positive and negative extractive resource externalities through the royalty reforms of 2011 and the tax reform of 2012. While these reforms present a critical first step in addressing the potential socioeconomic repercussions of this growing segment of the economy, there are still institutional, social, environmental, and economic vulnerabilities that need to be addressed to prevent Colombia from falling into the resource curse, in which other tradable sectors lose competitiveness, the country's exposure to volatile commodities' prices increases and governance deteriorates. This presents great challenges for a developing economy that aims to diversify itself and build on its natural wealth to build other important productive sectors. As Colombia becomes more dependent on resource-related revenues, it must adopt comprehensive institutional reform, continue to formalize its mining sector, and solidify its fiscal regime in order to reduce exogenous pressures on the Colombian Peso (COP), and make the economy resilient against external shocks to the economy. Moreover, the government must work to ensure the wealth derived from the extractive industries is fairly distributed and translates into benefits for the entire Colombian population while preserving its unique environmental wealth.

This report provides a comprehensive review of the critical economic, political, legal, social, and environmental variables that will affect and be affected by the rapid development of Colombia's extractive resources. Each section proposes methodical and practical recommendations for the country's policymakers aimed at enhancing the current institutional framework governing the activities of the extractive industries in the country. The recommendations proposed in this document are based on the analysis of information obtained through literature review, primary and secondary empirical data analysis, and fieldwork in Bogotá and mining regions in Colombia (i.e. *Santander, Chocó, Santa Marta, La Guajira*) which included interviews with lawmakers, government officials, academics, journalists, international donors, civil society, local affected communities, as well as the private sector.

Main Findings and Recommendations

The Economic and Commercial Implications of the Extractive Industry in Colombia

Colombia has boosted its economy in the twenty-first century through the economic and commercial exploitation of its multitude of natural resources, namely petroleum, natural gas,

and coal. The country's rich geography has also endowed it with considerable reserves of emeralds and precious metals, like gold and silver. Colombia has one of the highest levels of economic growth in the region, growing at more than 4 percent per year. About 8 percent of Colombia's gross domestic product comes from the extractive resource industries. These industries have also captured the majority of foreign direct investment flows into Colombia over the last decade and are now responsible for providing two-thirds of Colombia's exports.

However, over-dependence on the extractive industries and the revenues it provides, in the form of royalties and tax, can result in what is commonly referred to as the resource curse. There are two underlying features of the resource curse. Dutch disease refers to the destabilizing impact of increased foreign exchange that follows a sharp rise in exports of natural resources, affecting other export based sectors of the economy. This adversely affects the labor force of a developing country, where undereducated workers struggle with the transition from traditionally low-skilled sectors to more knowledge- and service-based industries. Revenue volatility is another important facet of the resource curse. The disruptive effects of abrupt changes in revenues in a resource-based economy predominantly arise from fluctuations in global commodity prices. The resource curse is often attributed to developing nations lacking the institutional capacity necessary to effectively manage resource revenues.

Colombia has made significant strides in reforming institutions and treatment of the extractive industries. Through its Royalty Reform three years ago, it transformed its existing oil stabilization fund into a number of funds that invest royalties in regional projects today and in savings for future generations. However, there are aspects we recommend Colombia should improve, especially in its tax treatment of the extractive industries. This report lists some steps the country can take, and evaluates a windfall tax scheme, the reduction of stabilization clauses, and improvements to the existing royalty funds.

Bilateral Investment, Legal Aspects

A Bilateral Investment Treaty is designed to promote and protect the interests of the two contracting states in terms of investment. While FDI is generally perceived as having a positive impact on development, BITs have traditionally not included environmental or social concerns. A cause for concern is the language used in BITs, which tends to be very general and accordingly unpredictable, which in turn can lead to disputes between the host state and investor. Colombia has concluded several BITs, but has yet to find itself involved in a dispute before an arbitration tribunal. In order to maintain a situation where Colombia is free to enact stricter environmental, social and labor provisions, the government should in future negotiations ensure to clearly define certain key clauses as well as ensure to include clear and binding environmental provisions in the drafting of future BITs. In addition, due to the Colombian conflict, the government should attempt to include provisions aimed at conditioning investor's right upon the premise that they are not in any way involved in carrying out human rights violations. Because of the high costs and unpredictability of arbitration proceedings, it is also imperative that the Colombian government includes clauses stipulating that these proceedings are carried out in a transparent way with foreseeable costs. We have in our recommendations identified some common causes for concern in BITs in general, as well as highlighted certain areas that are country specific and that should be regulated in future BITs so as aid Colombia on the road to prosperity.

Promoting Good Governance

Colombia's extractive industries' institutional setting is comprised by multiple interconnected actors and institutions. In the past four years, laws, regulations, and public agencies have been transformed as the country aims to develop a more competitive framework for the extractive industry. However, challenges remain to ensure this framework fosters effective interactions between national, regional, and local authorities, companies, communities and civil society at large.

Further coordination is required among central government agencies (horizontal coordination) and between central government and regional and local governments (vertical coordination), between authorities and companies, and between companies and communities. To achieve this, Colombia can create a formal *stakeholders network* and consider the main interests of each party to facilitate an effective bargaining and negotiation process amongst parties. The government can draw upon existing mechanisms such as the Inter-sector Commission for Infrastructure and Strategic Projects, and the OCADs in the Royalty General System to build this network. Promoting research based data sharing amongst agencies can also make the decision-making process more thorough and reliable, decreasing investment risk and enhance the stability of the legal framework.

Media, Transparency and Accountability

Colombian news media have been acclaimed for their quality reporting and are considered to be relatively independent and inquisitive, according to the interviews conducted. However, and as a consequence of a five-decade conflict, violence against journalists, death threats and impunity is still a scourge for the exercise of journalism in Colombia. In addition, the high concentration of ownership by a handful of large groups has an effect on media pluralism. For this reason, advocacy groups place Colombia very low on their freedom of speech and expression indexes.

Media coverage of the extractive industry is crucial to promote accountability, good governance, and responsible natural resource management. An active, knowledgeable media plays a critical role in helping the public and parliaments engage in governance issues, enabling them to hold government and companies accountable. The main challenges that Colombia should address to improve the media coverage of the extractive industries are poor capacity and lack of training, self-censorship and threats against press freedom, poor quality of public information about the extractive industry, and the conflicts of interest between companies and media organizations.

The Social Impacts of the Extractive Industries in Colombia

Under the current political and economic frameworks in which the extractive industries in Colombia are operating, several social issues have emerged surrounding natural resource management and revenue allocation in mineral and oil producing regions. The Colombian government's economic model of foreign investment in natural resource extraction, rooted in the National Development Plan, has created severe tensions with rural, indigenous, and Afro-Colombian communities who have lost substantial authority in self-determining their development plans. Our research identifies two principal themes which are pervasive throughout the social conflicts developing around the country: one pertaining to the issues that emerge from lack of obtaining community consent from impacted communities, the other from

the social equity issues that surface from rapid economic development in historically marginalized and underrepresented communities. These issues have materialized in protests, transportation blockades, and operational shutdowns of extractive projects across the country, significantly affecting the social and economic viability of this “locomotive of development.”

This document presents several political and economic mechanisms that can be used to address these issues of community consent and social inequality. Specifically, this report recommends that the Colombian government institutionalize the inclusion of community consent in extractive projects and social development by reinforcing the right to prior consultation, as well as requiring extractive companies to obtain a Social License to Operate from impacted communities. Meanwhile, in order to alleviate issues of social inequality, it is recommended that the national government incorporate impacted communities in social development projects, prioritize oil and mineral producing regions for Royalty Development Funds, and establish a private-public fund dedicated to local development projects.

Managing Colombia's Rich Environmental Resources

Colombia is a rich nation in terms of biodiversity and natural resources. As the country develops, the extractive industries have gained strength and resulted in important revenue for the regional and federal governments. However, the continued focused in the development of the extractive sector is placing increasing pressure upon Colombia's environment. The past two decades have shown a continued decline in environmental indicators. This raises questions about the suitability of the current regulatory and institutional framework to enhance Colombia's competitiveness as a destination of FDI while preserving its valuable environment.

In terms of environmental management, recommendations listed in this report address the need for further coordination amongst government agencies to increase the overall efficiency of its institutions in terms of licensing, monitoring and enforcement. Further analysis of the impact that mining could have in other productive sectors is essential to ensure the long term costs and benefits of the extractive industries are taken into consideration before the authorization of further production licenses. Additionally, the government must enhance environmental legislation to match international environmental standards and establish health impact assessments. The formalization of artisanal and informal mining present particular challenges but is necessary to increase revenue derived from mineral sales and preserve Colombia's environment. Finally, Colombia should identify ways to ensure adequate compensation for extractive activities and ensure that the state can gather funds to manage the sector under regular conditions but also during contingencies.

In order to effectively capitalize on the economic gains of the extractive industries while minimizing the negative externalities, the Colombian government must develop a comprehensive natural resource management strategy that addresses the principal impacts and consequences of the extractive process, including issues of economic diversification and regulation, good governance, free and independent media, social development and community participation, as well as environmental protections and regulations. The following recommendations seek to provide comprehensive yet practical solutions to the most pressing issues identified through our field research and qualitative assessments.

Introduction

This document is the product of a Columbia University School of International and Public Affairs (SIPA) graduate capstone workshop, and is the most recent in a series of analyses of the performance and potential of extractive industries in developing economies. The team responsible for this report is comprised of graduate students from multiple disciplines including law, political science, engineering, environmental sciences, energy policy, economics, human rights, and journalism, led by Professor Jenik Radon. The contents of this report are independent from any pecuniary or personal interest in Colombia.

This document analyzes key challenges facing Colombia as it seeks to use revenue from its extractive resources to boost economic activity and development. It builds on existing research undertaken by Foro¹ and the Revenue Watch Institute, as well as in-person interviews of stakeholders. Foro, with support from RWI, has developed various research and advocacy actions. Their report *El Sector Extractivo en Colombia* gives an overview of the oil, gas, and mining sector in Colombia and serves as a guide for civil society to engage in monitoring and advocacy in the extractive industries. In addition they developed the *Observatorio de las Industrias Extractiva en Colombia*, a new database that provides regular publications and yearly reports about the extractive industries' performance in Colombia, a hub of information for civil society and the broader public.

Context and Objective

In recent years Colombia has undergone regulatory changes, emerging as an important destination for foreign direct investment in the extractive industries. Export earnings, royalties, and tax revenue derived from extractive resources have inevitably become an essential component of Colombia's economic ascendance and infrastructure development. Colombia has over 100 years of oil history, reaching its golden era at the end of the 1980s. However, with energy prices on the rise, Colombia's export economy dynamics have shifted away from traditional agricultural roots favoring instead at an unprecedented rate crude oil, mining, and natural gas. This shift presents great challenges for a developing economy that aims to diversify and build on its natural wealth to fortify other important value chains. As Colombia becomes more dependent on resource-related revenues, it must adopt comprehensive institutional reform, continue to formalize mining activity in the country, solidify its fiscal regime in order to reduce exogenous pressures on the Colombian Peso (COP), and make the economy resilient against external shocks. Moreover, the government faces pressures to preserve its unique environmental wealth. The capacity of the government to translate wealth into development and ensure equal distribution of opportunities amongst the population remains to be seen.

This capstone project was designed to analyze the extractives' development in Colombia to determine strengths of the current institutional, legal, and political framework, and identify areas where improvement is required to ensure a thriving sustainable economy. Our analysis ranges from Colombia's economic context, governance issues, environmental challenges, and the role of media, and presents comprehensive policy recommendations that seek to harness

resource wealth for the mutual benefit of local communities and the national Colombian economy. The main questions we aimed to respond can be divided as follows:

What are the economic implications of the development of the extractive industries in Colombia?

The Colombian governments aims to use the wealth derived from extractive activities to develop other productive sectors and ensure equal distribution of benefits amongst the Colombian population. What policies can Colombia use to maintain the productivity of other sectors given the increasing importance of the extractive industry sector? How can the government ensure and effective distribution of welfare amongst the population? How can Colombia use the wealth derived from its natural resources into the development of productive value chains, beyond the extractive industries?

What are the legal aspects of BITs?

Foreign direct investment is vital for Colombia's growth and development and BITs are one factor of attracting FDI into the country. BITs provide foreign investors with numerous rights, without assurance that it will generate pro-development investment. This section aims to provide recommendations to shape the BITs in a manner that will maintain a good investment culture and attract investors while protecting important environmental, social and labor goals in Colombia.

What policies, institutions, and dynamics does Colombia need to enhance the governance, accountability and transparency of the sector?

An adequate legal framework and strong institutions are required to transform mineral wealth into development of other productive sectors, while simultaneously ensuring the fair distribution of these resources amongst the Colombian population. Are the current laws and regulations sufficient for the development of the extractive industries in Colombia? What enforcement mechanisms and incentives does Colombia require? What role does the Colombian media play in the public's perception of the extractive industries? How does the media empower vulnerable communities, and how does it encourage broader transparency?

What are the Social and Environmental implications of the development of the extractive industries in Colombia?

The development of extractive industries is having an undeniable impact on its host communities as they transform social dynamics. Furthermore, unmitigated resource extraction undeniably changes the Colombian landscape and results in high levels of contamination. To what extent can the government minimize negative externalities resulting from extractive projects? How can the government ensure fair compensation to mining regions? How is the government the measuring the opportunity cost of developing extractive projects in contrast with other productive activities? How can Colombia maximize the welfare derived from its extractive industries, ensuring value creation for future generations?

Methodology

The information used in this report is founded in a thorough literature review, primary and secondary empirical data analysis, and fieldwork in Colombia in both Bogotá and the select mining regions Santander, Chocó, Santa Marta, and La Guajira. The team sought to understand institutional dynamics as well as the private sector perspective on the current status of the industry, valuing their opinions on Colombia's regulatory framework, institutions, the licensing process, monitoring, and enforcement mechanisms.

Our field work encompasses over 50 interviews with multiple actors involved in the extractive industries, including federal and regional mining, environmental, and economic authorities, multinational corporations, national companies, secondary services agencies in the extractive industries value chain, non-governmental organizations, media, and academia.

It is important to highlight that most information regarding Colombia's extractive industries is only available in Spanish. The team considers that this report and further publications about the extractive industries in Colombia could capture more international attention, enrich the debate, and contribute to the development of better practices throughout the sector.

Report Structure

Development of a sustainable extractive sector calls seamless coordination between all levels of government, as well as greater interaction between government agencies, the public, and the private sector. The growth of the extractive industries in Colombia depends on Colombia's geographical and environmental reality, regulatory barriers and incentives, macroeconomic factors, and governance issues. To facilitate this multidisciplinary analysis, the report is divided in the following chapters:

The Economic and Commercial Implications of the Extractive Industry in Colombia

This section provides an overview of several central features of the Colombian economy. The intent of this discussion is to provide the context of Colombia's extractive resource development as Colombia looks to successfully incorporate wealth derived from this industry into the development of the economy at large. Hydrocarbons and mining have been significant drivers of Colombia's economy in the last ten years, contributing 8% to Colombia's GDP. For Colombia, it is important to translate this wealth across the economy, in research and development and technological innovation, developing human capital, and strengthening the institutions of Colombia. This section points out some indicative facts to illustrate Colombia's symptoms of the resource curse—especially the “Dutch disease”, in which a boom in mineral production leads to a sharp decline in the competitiveness of other tradable sectors, and to also review some of the positive actions already taken by the national government to address particular symptoms of distortionary effects caused by the extractive industries.

Promoting Good Governance

Colombia's institutional setting is comprised of multiple interconnected and interdependent actors and institutions. In the past four years the country has experienced a series of reforms that are changing relationship dynamics between its actors and institutions. This section analyses the effectiveness of the current investment environment in Colombia, as well as the changes needed to be made to ensure the country maintains its international competitiveness while preserving social stability, the productivity of other economic sectors, promoting regional development, and preserving its environment.

The Social Impacts of the Extractive Industries in Colombia

The massive influx of wealth that comes with increased extractive activities has brought pressures on the existing tensions between the Colombian government and communities, especially in indigenous and rural areas. As the revenues from extractive projects increase, so does the expectancy for the government to alleviate issues of poverty, bolster weak public institutions, modernize basic infrastructure, as well as offer more opportunities for individual and communal development. In response to growing frustrations from the extractive process, impacted communities have largely engaged in social protests to voice their grievances and demand compensation. This section aims to address the underlying issues fueling these conflicts by recommending strategies to incorporate community consent in the extractive process and address issues of social inequality in the natural management strategy of the national government.

Media, Transparency, and Accountability

An active, knowledgeable press plays a crucial role in helping the public engage in governance issues and enable them to hold government and companies more accountable. This is true for any society, but in resource-rich countries, addressing the role of news media is even more crucial to preserve social stability. This section analyzes the role of media in communicating on the extractives industry sector in Colombia and presents some recommendations to better use this resource as a tool for enhancing transparency and promoting good governance.

Managing Colombia's Rich Environmental Resources

Colombia places particular emphasis on the value of its environmental heritage and resources. However, the country has exhibited a decline of air, soil, and water quality, and unmitigated landscape transformation, some of which coincides with extractive industry expansion. The magnitude of environmental impacts from extractive projects in Colombia calls for a redefinition of Environmental Impact Assessments to ensure adequate compensation and safeguards to the country, especially the host communities. This section aims to identify opportunities for Colombia to improve its environmental management strategy, and create a competitive long-term environmental regulatory framework.

Each chapter presents its own perspective on the current situation in Colombia along with a series of policy and management recommendations aimed at enhancing extractive industry performance in Colombia from a social, environmental, governmental, and economic outlook. Overall, the results of this investigation show that Colombia is experiencing an increase in

production of its extractive industry, which has attracted a significant amount of FDI and royalties for the country. This income has the potential to reduce poverty and promote nationwide economic prosperity. Colombia has already begun the process of addressing negative extractive resource externalities through the royalty reforms of 2011 and the Tax Reform of 2012. Furthermore, recent strengthening of institutions in charge of monitoring the mining sector is a step in the right direction towards implementing better practices that reduce negative extractive industry externalities and promote further investment.

Nonetheless, while Colombia's reforms are beginning to address potential socioeconomic repercussions of extractive industry growth, there are still vulnerabilities in the framework that ultimately harm segments of the Colombian population and its economy. Recommended actions described in this report include: improving governance by increasing coordination amongst governmental agencies; utilizing the media to providing better quality information to the public, companies and government agencies; regularizing informal mining; strengthening of environmental agencies and improving monitoring, reporting and enforcement practices; and facilitating access to the consultation process to all the relevant stakeholders during the licensing process. The team working in this project hopes this document becomes a useful tool for Colombia to develop a competitive and environmentally sustainable extractive sector for the benefit of local communities and the whole Colombian economy.

1 The Economic Implications of the Extractive Industry in Colombia

1.1 The Colombian Economy

This section presents an overview of several key features of Colombia's economy. It provides an overall understanding of the context in which extractive resource development is occurring and the potential impact it can have on the country.

Colombia's endowment of coal, oil, and natural gas resources has played a dominant role in the country's economy as a source of export earnings over the past decade. Colombia has seen significant resource-related revenues and has now begun to adopt a comprehensive, uniform fiscal regime, as well as a transparent policy framework, in order to effectively manage its extractive industry and reap the benefits of its resource wealth.

However, challenges still remain. This enormous influx of revenue and investment poses staggering economic challenges, in particular the government's ability to properly manage its extractive industry's growth. This will determine whether Colombia is able to avoid the perils of the resource curse. The Colombian government already appears to be wary of this and implemented numerous reforms in 2011 and 2012, which are discussed below.

Macroeconomy

Colombia has recently experienced strong economic growth, driven in part by growth in the extractive industries. Colombia's annual GDP growth rate averaged 4.3 percent between 2001 and 2013, peaking at 6.9 percent in 2007 and troughing at 1.7 percent in 2009 during the global financial crisis. The World Bank does not foresee any significant changes in GDP growth in coming years, forecasting 4.3 percent in 2015 and 4.0 percent in 2016 (Error! Reference source not found.).² Colombia weathered the global financial crisis well In comparison to some of its peers, including Chile, Venezuela, Mexico, and Brazil, who all experienced negative GDP growth in 2009. Indeed, the Latin American & Caribbean region experienced on average a contraction of 1.6 percent in 2009.³ GDP growth slowed to 3.5 percent and 1.5 percent in 2008 and 2009, respectively.⁴ Fiscal and monetary stimulus helped support economic growth between early 2009 and early 2011.⁵ Colombia has shown strong GDP growth since, posting 6.6 percent year-over-year growth in 2011, 4.0 percent in 2012, and 4.3 percent in 2013 (Error! Reference source not found.).

Figure 1 Macroeconomic indicators

	2010	2011	2012	2013
Real GDP Growth %	4.0	6.6	4.0	4.3
Imports % GDP	10.8	21.5	8.9	2.1
Exports % GDP	1.3	11.8	6.1	5.3

Inflation	3.2	3.7	2.4	1.9
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Source: DANE

Colombia, like many countries with flexible exchange rates, has seen ramifications of monetary easing in the United States following the 2008 crisis, including appreciation relative to the US Dollar. Massive inflows of FDI into Colombia's hydrocarbon and mining industries have also contributed to nearly 40 percent appreciation of the peso in the last decade.⁶ The central bank has been active in buying international reserves, mainly US dollars in an effort to stem appreciation. The rapid appreciation of the peso relative to the dollar has hurt the competitiveness of other tradable exports, such as manufactured or agricultural goods, as well as the growth of those industries. A lack of response by the central bank could result in Colombia falling victim to the resource curse, suffering effects of Dutch disease.

Colombia: Benign Intentions or Growing Reserves to Depreciate the Peso?

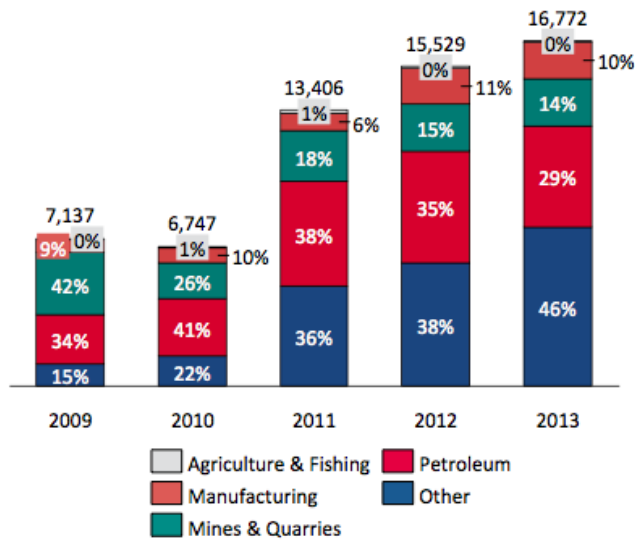
Over the last decade, Colombia's balance of international reserves has increased by more than three times, to a net balance of US\$44 billion as of the end of the March 2014. Indeed, Colombia has grown reserves at a spectacular rate and added close to US\$20 billion in reserves since the start of 2011. At the end of the first quarter of 2014, the Bank of the Republic announced it would extend purchases of international reserves to June, and expects to purchase an additional US \$1.0 billion during the second quarter.⁷

Colombia's balance of \$44 billion in reserves compares to Chile's \$41 billion, Peru's \$66 billion, and Mexico's \$177 billion. While Colombia's level of reserves is growing to match other comparable economies, the timing and scale of its purchases, during a time of exogenous depreciative pressure on its currency, has led many analysts to believe that the bank is intentionally further depreciating its currency.

The exogenous depreciative pressure mentioned above relates to market expectations for "tapering" in the United States that have grown in earnest over the last year. In comparison to Latin American peers, who are instead selling reserves in an effort to boost their own currencies following these market expectations for "tapering," the Bank of the Republic of Colombia is purchasing reserves and further depreciating the peso. The market has viewed these purchases as aggressive measures to depreciate the peso, and therefore balance growth in the economy. While central bank Governor Jose Dario Uribe has defended the considerable growth in reserves as measures to serve "its objective of a higher level of international reserves," the timing and scale of reserve purchases have caught the public's attention.⁸

As mentioned above, record amounts of investment have flooded Colombia in the last decade. Colombia recorded the highest level of foreign direct investment in 2013 with \$16,772 million, up 8 percent year-over-year. Over 40 percent of FDI in 2013 was destined for hydrocarbons and mining (Figure 2). In the ten years to 2013, the petroleum and mining sectors have captured 52 percent of FDI inflows. During this time, the level of FDI in petroleum increased over ten times while FDI in mining grew two times.

Figure 2 Foreign Direct Investment, 2009-2013 (\$US Millions)

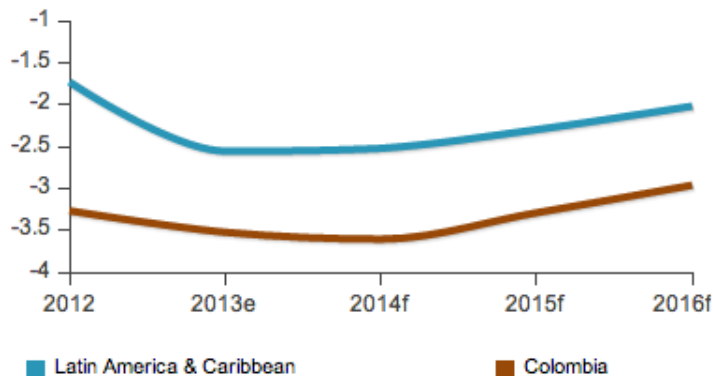


Source: Central Bank of Colombia

During this time, inflation has remained between 2-4 percent after peaking at 7.67 percent in 2008 (Error! Reference source not found.3). The Bank of the Republic, Colombia’s central bank, maintained the policy interest rate at 3.25 percent for a year, among the lowest in Latin America, before hiking it 25 basis points to 3.50 percent on April 2014 in response to a higher level of inflation year-over-year. This could put additional appreciative pressure on the peso, which was discussed above.⁹

Colombia’s current account deficit stood at 3.4 percent at the end of 2013, though it has grown in the last decade.¹⁰ This compares unfavorably to the average Latin American current account deficit (Figure 3). To support responsible government spending, prevent wasteful short-term expenditures as incoming extractive sector revenues grow, and shield spending from swings in global commodity markets, the Colombian government passed a fiscal rule in 2011 to commit to reducing its structural budget deficit to around 1 percent of GDP by 2022.¹¹

Figure 3 Colombia's current account balance as % GDP



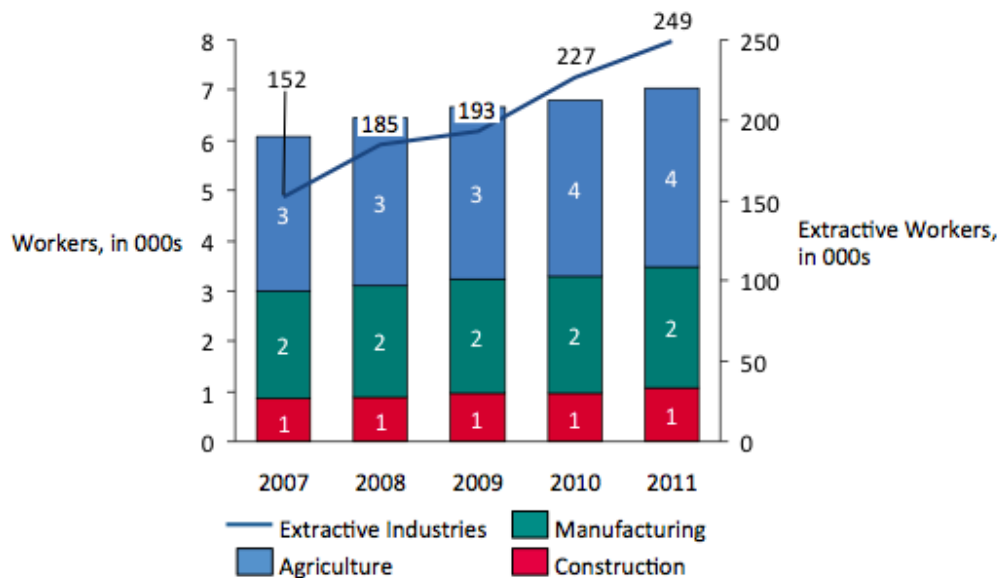
Source: World Bank

In 2011, the government passed royalty reforms and amended the Colombian Constitution to reflect its commitment to strengthening its economic foundation. Specifically, the reforms are designed to spread royalty revenue more evenly throughout the country, with a hope towards improving socioeconomic stability and promoting regional fairness and saving. However, administration of the reforms has been fraught with institutional problems as described in Section 4.

Total royalty revenues, comprised mainly of hydrocarbon royalties, were estimated at US\$4.7 billion (9.1 trillion pesos) at year-end 2013. The government projects 15 percent growth in royalty revenues to upwards of US\$5.5 billion (10.5 trillion pesos) by 2022.¹² The government of Colombia seems aware of problems that could arise were the economy to become over-reliant on its extractive industries. For example, the government addressed the lack of significant crude oil discoveries in recent years sufficient to replace current levels of production by projecting slowing growth in royalty revenues it foresees from hydrocarbon activity, as production reaches a peak of 1.7 million bbl/d.¹³

Employment in relation to the extractive industry has boomed since 2005, experiencing 42 percent growth between 2005 and 2011 (Figure 4). Some economists in Colombia believe this growth has not been transmitted to other labor markets, particularly in the manufacturing sector.

Figure 4 Formal and informal labor in extractive industries exceeds the three main locomotives of growth



Source: Fedesarrollo, DANE

Latin America's solid economic performance, rising education levels, and growing skilled labor force have led to increases in job growth and wages across the region. Despite Colombia's sustained economic growth and improved working conditions, its total unemployment rate is

the highest in Latin America. Transitioning existing informal labor to the formal sector, especially those employed by informal mines, in Colombia remains a considerable challenge for the government.

Workers in the informal sector have lower educational levels and inferior working conditions, including a lack of insurance against illness, unemployment, and old age.¹⁴ A sizable informal sector is problematic for an economy due to the immobility of the workers to shift from the informal to formal employment market, which provides greater employment security and benefits. Additionally, low productivity workers in the informal sector typically remained trapped in it, unable to find a sustainable job in the formal sector.¹⁵ This topic is further discussed in Section 5.

Figure 5 Total unemployment, % of Total labor force, 2002 – 2012

	Colombia	Latin America & Caribbean
2002	15.8	9.4
2003	14.1	9.5
2004	14.3	8.5
2005	12.0	8.2
2006	11.7	7.4
2007	11.2	6.9
2008	11.1	6.5
2009	11.8	7.6
2010	12.0	8.1*
2011	11.1	6.7
2012	10.6	6.5

Note: The 2010 Latin American and Caribbean average was calculated using available country data.¹⁶

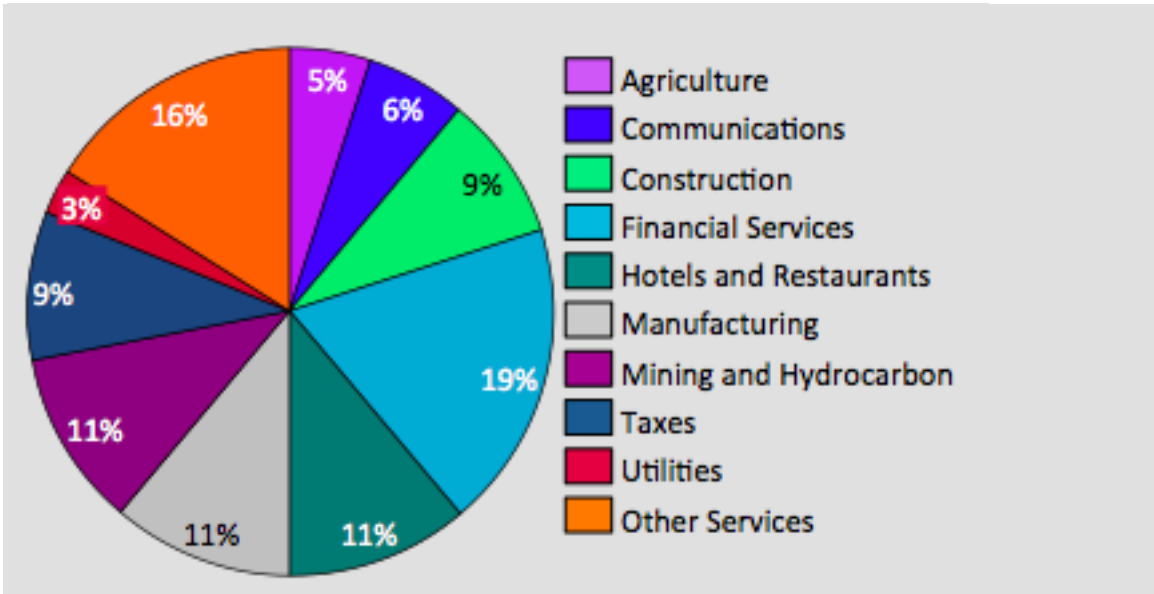
Source: World Bank

To further address the country's unemployment issue, the government passed a tax reform in 2012 that cut the corporate tax rate, reduced payroll taxes, and introduced a social equity tax. The government hopes that the lower taxes will induce companies to hire more people and increase the country's formal labor supply.¹⁷ As Colombia continues to experience economic growth driven in large part by its booming extractive industries, wages and domestic asset prices tend to rise. This could lessen the growth and competitiveness of other industries such as manufacturing, which was undoubtedly part of the rationale driving tax reform.¹⁸

Better Understanding the Effects of the Extractive Industry on the Economy

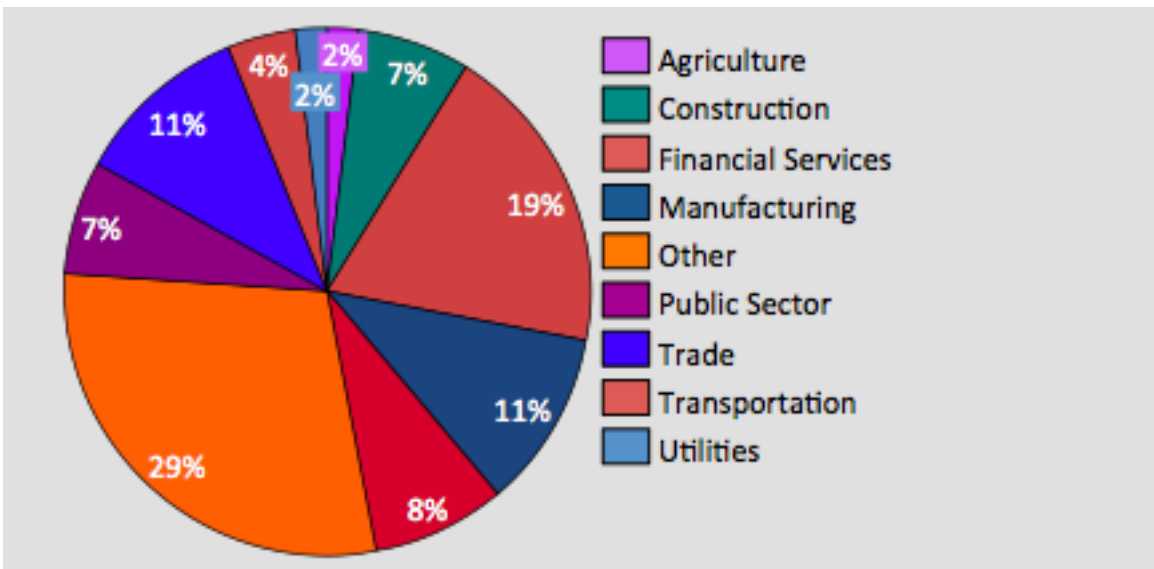
Colombia's growth in extractive industries investment has led to an increased importance in Colombia's economy, representing 10.7 percent of total GDP. In order to better understand the dynamics of the Colombian economy, we compare its composition to another economy that has also experienced significant growth in the extractive industry sector: Canada.

Figure 6 Colombia's GDP by industry, 2013



Source: Central Bank of Colombia

Figure 7 Canada's GDP by industry, 2013



Source: Statistics Canada, CANSIM

When comparing the components of the two countries, it is important to note that Canada's extractive sector makes up 8 percent of its GDP, 2.7 percentage points less than Colombia's. However, agriculture contributes more to Colombia's output than in Canada, representing 5 percent of total GDP compared to 2 percent of GDP. Both countries rely on financial services for 19 percent of their respective economies. However, it should be noted that both Colombia and Canada's manufacturing sector of the economy includes significant downstream hydrocarbon manufacturing activities.

The composition of Colombia's developing economy surprisingly compares favorably to a developed, resource-rich country such as Canada as a general point of reference. Moving forward Colombia must make sure to balance production in its extractive resource, manufacturing, and construction sectors in a manner that reduces its exposure to external shocks.

Recommendation [1]: Separate Extractive Resource Activities in GDP. Colombia's National Administrative Department of Statistics (DANE) should reshape the representation of GDP in order to better understand the effects of the extractive sector on the economy. The current representation does not easily segregate different components of mining and hydrocarbon production, distorting the representation of the economy. Including downstream hydrocarbon production in manufacturing, for example, understates the country's reliance on hydrocarbons in relation to GDP.

1.2 Hydrocarbon Exploration and Development

This section provides an overview of several key features of petroleum and natural gas extraction in Colombia, touching on global supply, demand, and price drivers. It also presents an understanding of the place of hydrocarbons extraction in Colombia and the impact it has had on the country and its economy.

Hydrocarbon extraction has increased in response to a series of regulatory reforms, enacted by the Colombian government, designed to make investment in oil and gas more attractive to foreign investment. Specifically, oil production has increased. Colombia began producing 1 million barrels per day (bbl/d) in 2013, making it one of the leading oil producers in the region.¹⁹ However, recent discoveries have not been large enough to continue production at these levels. Oil production is concentrated in the Llanos basin, the Andes foothills, eastern Amazonian jungles, and central region Meta.

Though Colombia's natural gas production has also increased in recent years, most is consumed within the country. Colombia's natural gas reserves are in the Llanos basin and the majority of the current production is located in the Guajira basin.²⁰

1.2.1 Crude Oil Overview

The beginning of the Colombian oil industry has its roots in the 1905 concessions called "Barco" and "De Mares," in addition to the discovery of the "La Cira – Infantas" field in 1918.²¹ Ecopetrol, the national oil company of Colombia, was founded in 1951. Major oil discoveries were found in the fields of Chuchupa (1973), Caño Limón (1983), Cusiana (1988), and Cupiagua (1993). Though the Association Contracts of 1974 greatly increased the government-take, the amount of revenue collected by the state from extraction, the plethora of discoveries attracted multinationals to Colombia, leading to an increase in exploratory activity.²²

Colombia's recent increase in oil investment and exploration and, consequently, oil production is due to a series of deregulatory reforms primarily enacted in the mid 2000's. During the mid 1990's through 2007 Colombia experienced a decline in hydrocarbon reserves and hydrocarbon production, reaching an all-time low in 2007.²³ Then-President Uribe pushed for energy sector reform at the beginning of his first term in 2002. Ecopetrol, a state owned entity, had control of the development of all hydrocarbon resources and oversight functions prior to 2003. Colombia's hydrocarbon's sector was subsequently reorganized in 2003 and placed under the jurisdiction of the National Hydrocarbons Agency (ANH). ANH was made responsible for regulating all upstream activities, rectifying a large conflict of interest with Ecopetrol. The Ministry of Mines and Energy (MME) controls policy, planning coordination, and downstream activities. Reforms also included measures to privatize Ecopetrol and the inclusion of upstream incentives that give foreign-owned companies full ownership stakes in oil ventures, thus increasing competition with Ecopetrol for domestic hydrocarbon production.²⁴

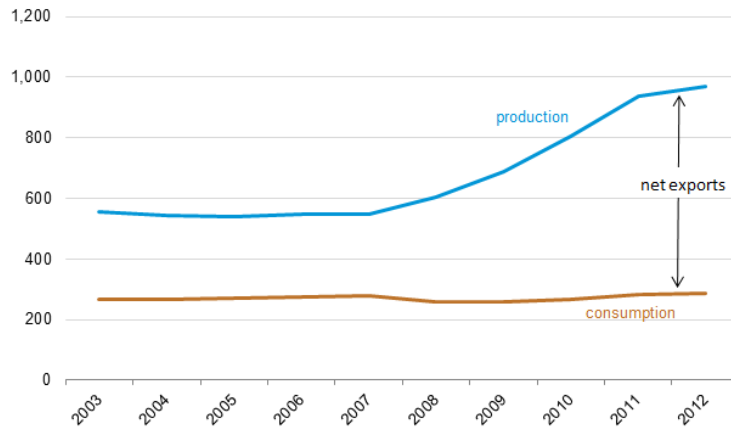
The five largest oil producers in Colombia are Ecopetrol; Meta Petroleum Limited in the Llanos basin (owned by Pacific Rubiales); Occidental de Colombia in Arauca and Santander; Equion Energía in Casanare (a joint venture between Ecopetrol and Talisman Energy); and Mansarovar Energy in Magdalena (a joint venture between India's ONGC and Sinopec), with Ecopetrol producing the highest average barrels per day (Figure 8). The Rubiales heavy oil field, located in Meta, is the largest producing oil field in the country and operated by Meta Petroleum and Ecopetrol. Meta Petroleum also has a large operation in Quifa that produces over 54,000 barrels per day. Ecopetrol also has large operations in Castilla, which produces over 68,000 barrels a day, and Castilla Norte, which produces over 50,000 barrels a day.²⁵

Figure 8 The five largest oil producers in Colombia (thousands of barrels per day)

Company	Average
Ecopetrol	361,140
Meta Petroleum Limited	267,826
Occidental de Colombia	60,294
Equion Energía	41,851
Mansarovar Energy	37,511

Source: The Colombian Ministry of Mines and Energy

Colombia had been approaching one million barrels a day after a sharp increase in production beginning in mid-2007 (Figure 9). Oil production surpassed one million barrels per day of production in 2013, and is expected to grow through 2016. Better protection from criminal bands and improved development are key to the increase in production.²⁶

Figure 9 Colombia's oil production and consumption, 2003 – 2012 (thousands of barrels per day)

Source: U.S. Energy Information Administration

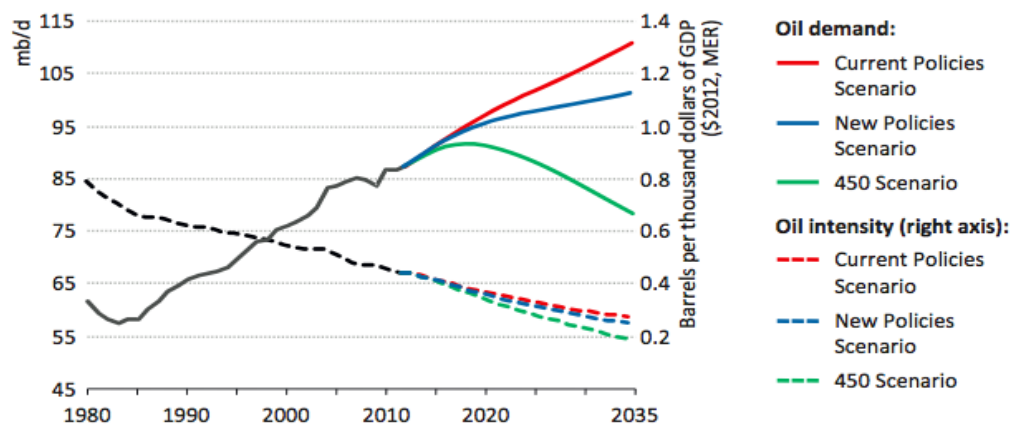
1.2.2 Global Crude Oil Market Development

Crude Oil Demand

Oil's position in the global energy market has weakened in recent years due to more efficient oil use and an increase in oil alternatives. As such, economic growth has become less dependent on oil as countries continue to find alternative ways to produce with less dependence on oil. Three demand policy scenarios exist to curb global oil demand and are depicted in

Figure 10. The *World Energy Outlook* discusses multiple scenarios of shifts in policy related to fossil fuel use. The Current Policies scenario is the present scenario and assumes that reactions by governments are weak and or absent. The New Policies and 450 Scenario offer two alternative looks at varying degrees of government commitment to reduce demand on oil.²⁷ The United States, the top destination for Colombia's oil exports, is currently the world's largest oil consumer. However, oil use in China is increasing by approximately 6 million barrels per day and is projected to overtake the United States as the world leader by 2030.²⁸

Figure 10 World oil demand and oil intensity by scenario



Note: MER = market exchange rate.

Source: International Energy Agency

Crude Oil Supply

Global oil supply is decreasing. An analysis of more than 1,600 fields confirms that the observed rates have surpassed their peak production levels.²⁹ Colombia had approximately 2.4 billion barrels of crude oil reserves in 2012, or about seven years.³⁰ Moreover, the recent increase in oil production has propelled Colombia to the fourth-largest producer of crude oil in Latin America behind Mexico, Venezuela, and Brazil (Figure 11).

Figure 11 Seven largest producers of crude oil in Latin America (thousands of barrels)

Country	2005	2006	2007	2008	2009	2010	2011	2012
Mexico	3,760	3,683	3,471	3,167	2,979	2,845	2,983	2,560
Venezuela	2,937	2,808	2,808	2,558	2,437	2,416	2,375	2,371
Brazil	1,716	1,809	1,809	1,899	2,164	2,164	2,301	2,123
Colombia	435	527	531	587	671	785	915	944
Argentina	725	716	699	682	645	645	534	502
Ecuador	493	498	511	502	485	489	500	524

Peru	120	154	132	110	148	157	152	121
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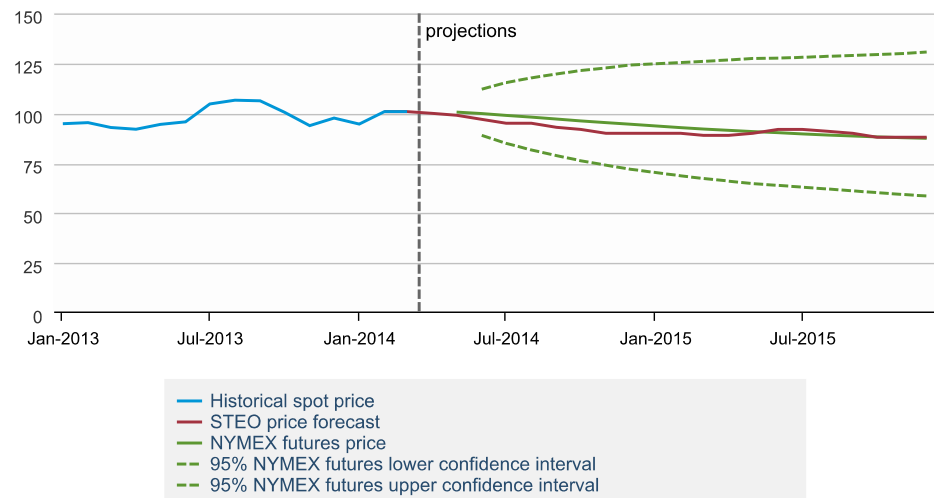
Source: Foro Nacional por Colombia

However, the rate of reserve growth is failing to match the recent increase in production. Proven reserves rose by 50 percent between 2005 and 2012 while output grew 80 percent.³¹ Moreover, Ecopetrol plans to invest approximately 2.5 times more on production than exploration to 2020, indicating that the company does not expect significant discoveries in Colombia.³² The most recent estimates from Colombia’s Ministry of Mines and Energy estimates average production at slightly more than one million barrels a day, slightly higher than its 2012 production levels.³³

Crude Oil Prices

The West Texas Intermediate (WTI) crude spot price averaged US\$30.37 in 2000 and has jumped to \$101/bbl as of March 2014.³⁴ However, analysts predict the price of crude oil to fall over the next two years (Figure 12). The EIA estimates that WTI crude oil prices will lower in 2014, averaging \$96/bbl in 2014.³⁵ This, in combination with a potential fall in Latin American petroleum prices, makes it imperative that Colombia continues its efforts to diversify its economy that has begun leaning towards extractive resources.

Figure 12 West Texas Intermediate crude oil price (dollars per barrel)



Source: Short-Term Energy Outlook, April 2014

Note: Confidence interval derived from options market information for the 5 trading days ending Apr. 3 2014.

Source: U.S. Energy Information Administration

As shown above, Colombia has grown production of crude oil to become a major regional player. However, exploration has not been as successful, as Colombia’s existing proven reserves have not grown significantly in the last few years. Keeping this in mind, Colombia has increased its focus on natural gas extraction, which is described in detail below.

1.2.3 Natural Gas Overview

Natural gas has benefitted from the same deregulation that advanced the oil industry, drawing in considerable international investment in exploration and development. Production in Colombia averaged nearly 1.2 million cubic feet per day, or 365,760 cubic meters, in 2013.³⁶ Chevron, in partnership with Ecopetrol, is the chief natural gas producer in the country.³⁷ In addition to Chevron and Ecopetrol, Equion has a strong presence in Cusiana in the Llanos Orientales fields. In March 2011, the Colombian government published a decree to boost natural gas production through increased shale and coal-bed methane gas extraction, though unconventional extraction is still in development.³⁸

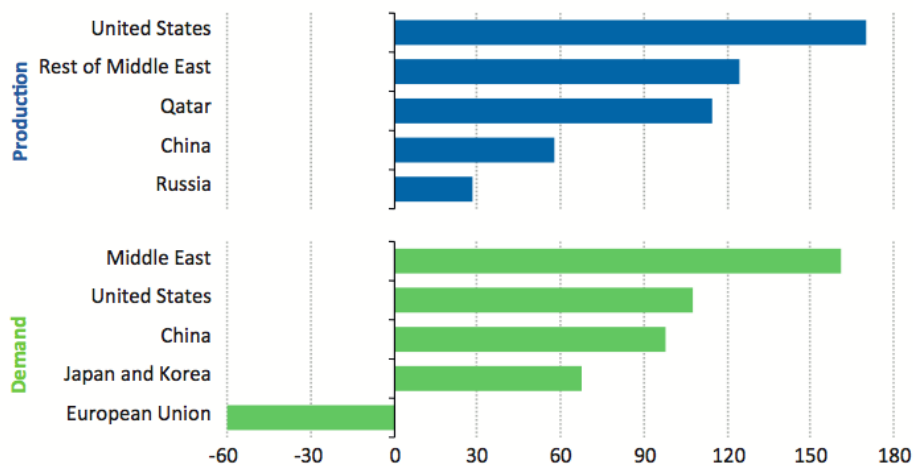
Natural gas production is expected to continue to increase in the near term; the majority of production is consumed domestically. Colombia began exporting 50 million cubic feet (15 million cubic meters) to neighbor Venezuela in the mid-2000s as project development in Venezuela stalled and domestic supply was insufficient to meet power needs.³⁹ By 2014, Colombia was exporting 150 million cubic feet (45.7 million cubic meters). The government recently warned that it may be forced to cut exports as dry weather could cut hydroelectric power generation, which supplies two-thirds of Colombia's electricity, and use the natural gas for local power consumption.⁴⁰

1.2.4 Global Natural Gas Market Development

Natural Gas Demand

The Middle East, United States, China, Japan, and Korea are leaders in global demand of natural gas (Figure 13). North America continues to produce natural gas at low prices. Demand in Asia and the Middle East continues to grow, while demand in Europe has shrunk due to challenging economic conditions.⁴¹

Figure 13 Natural gas demand and production growth, 2005 – 2012 (Billion Cubic Meters)



Source: International Energy Agency

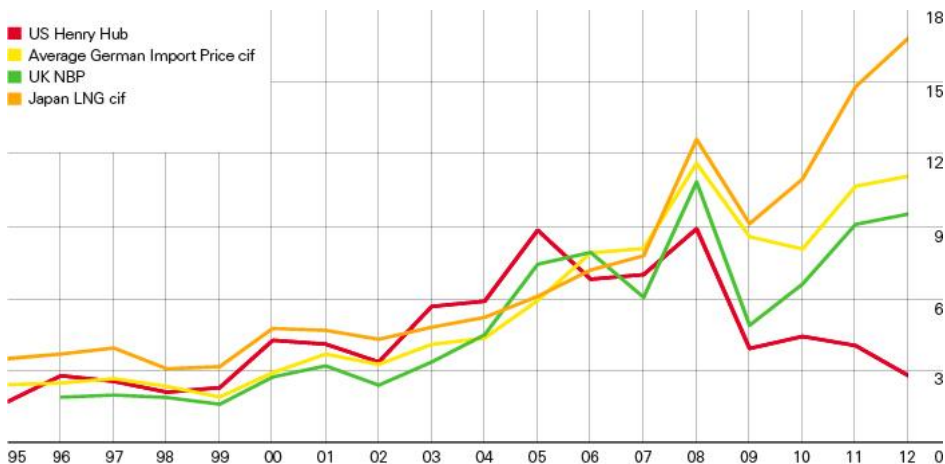
Natural Gas Supply

Globally, there is an ample supply of natural gas that is able to meet global demand for several decades. Proven reserves were measured at 187,000 billion cubic meters (bcm) year-end 2012.⁴² Colombia's natural gas reserves stood at more than 5.7 trillion cubic feet, or approximately 1,600 bcm.⁴³

Colombia exhibited a clear increase in natural gas production following the government's deregulation, more than doubling its production in an eight-year span. Between 2005 and 2012, Colombia increased its natural gas production by 1.8 percent from 6.6 bcm to 12.1 bcm.⁴⁴

As previously mentioned, natural gas prices have been quite low in North America since the 2008 crisis. Due to different demand patterns and particular supply concerns, natural gas prices have risen in Europe and Central Asia (Figure 14). However, these markets do not significantly impact Colombia's natural gas production as the majority of Colombia's production is utilized by the country's power sector.⁴⁵

Figure 14 Natural gas prices (dollars per million BTU)



Source: BP

Hydrocarbons: Growing Production—Now What?

Colombia has successfully stimulated FDI in hydrocarbons through a combination of privatization and state deregulation in the 2000s. This increase in production has also led to a jump in tax revenues and royalties. Higher FDI, taxes, and royalties have the power to enable a country to reduce poverty, promote equality among rich and poor regions, and encourage economic activity.

However, if not handled in a systematic and transparent approach, these same potential benefits could produce negative externalities, including overdependence on hydrocarbon jobs for employment and GDP growth. Strengthening administrative institutions is also important in distributing hydrocarbon wealth equitably around Colombia. Nevertheless, FDI also has the power to distort the distribution of wealth within certain regions of the country by dividing

revenues disproportionately if the needs of each region are not carefully considered. Bogota, for example, may not need as much infrastructure investment as Quibdo, the capital city of one of the poorest regions in Colombia.

Moving forward: Colombia began addressing its exposure to negative extractive resource externalities through both the royalty reforms of 2011 and tax reforms of 2012. However, the government must closely monitor economic dependency of hydrocarbons in relation to its agricultural, manufacturing, and construction sectors to ensure that when hydrocarbon production slows down the country's population is not over dependent on the industry for employment, economic growth, and infrastructure development.

As shown above, natural gas is still a developing market, especially in Colombia. A majority of the country's production is used locally, for power generation, and the remainder is exported to neighboring Venezuela as its supply falls short for its needs. Global macroeconomic trends play an important role in natural gas pricing, especially as the world recovers from the financial crisis of 2008. Colombia itself projects increasing domestic demand of natural gas, driven in part by its role in powering the petrochemical and refinery industries.⁴⁶

1.3 Mining Exploration and Development

This section provides an overview of several key features of coal extraction in Colombia, touching on global supply, demand, and price drivers. It provides an understanding of the place of coal mining in Colombia and the impact it has had on the country.

Colombia has a nearly forty-year history of coal mining, though its citizens do not regard Colombia as a traditional mining country.⁴⁷ Despite this view, the Santos administration declared mining a locomotive of growth for Colombia in 2011, indicating its commitment to the future of the sector.⁴⁸ Mining joined housing, infrastructure, agriculture, and innovation as Colombia's five targeted engines of economic growth.⁴⁹

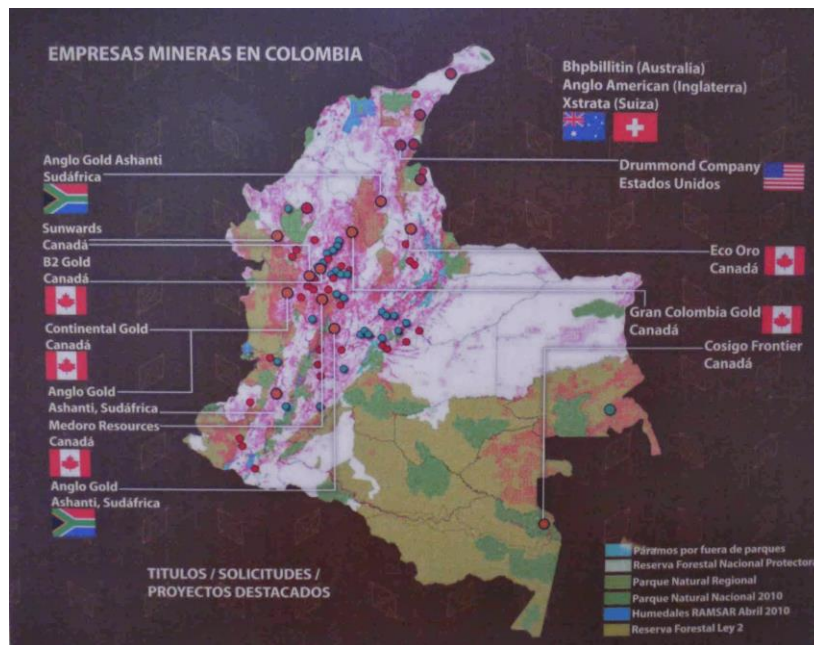
A significant challenge facing Colombia's mining sector is informal mining, especially in gold mining rather than coal mining. According to the Census of Mining Operators conducted by the Ministry of Mines and Energy in 2010, 63 percent of all mines counted lacked a mining title.⁵⁰ The gold mining industry in Colombia is highly fragmented and is often used to fund Emerging Criminal Bands (labeled "BACRIM").⁵¹ The Santos administration has taken a strong position against illegal gold mines since taking office in 2010 through greater policing and, in some instances, ordering military interventions.⁵² Lastly, improved security throughout Colombia has contributed to greater numbers of foreign firms looking to explore and develop Colombian natural resources, promoting FDI in mining industries.

1.3.1 Colombian Coal Overview

Colombia is the fourth largest coal exporter globally. Official production is concentrated among three major producers. Cerrejón is an independent operator owned by BHP Billiton, Anglo American, and Glencore Xstrata; it operates a thermal coal open-pit mine in La Guajira, which

produces 32 million tons yearly, and Puerto Bolívar, its port for transport, in La Guajira. It estimates its probable resources at nearly 2 billion metric tons of coal.⁵³ Drummond Company, through a partnership with ITOCHU Corporation, operates two open-pit thermal coal mines in Cesar as well as its port in Magdalena, from where it ships out 25 million tons of coal; it estimates its probable resources at 2 billion metric tons.⁵⁴ Prodeco, owned by Glencore Xstrata and the smallest of the three, operates La Jagua, an open pit coal mine, as well as Puerto Nuevo, its port, in Magdalena. It estimates its probable resources at 560 million metric tons.⁵⁵

Figure 15 Map of the mining companies around Colombia



Source: Claustro de San Agustín exhibit

Update Railway Infrastructure

To connect the mines to ports from where coal is exported, Ferrocarriles del Norte de Colombia S.A. (called “Fenoco”) administers government concessions of 226 kilometers of railway in northern Colombia.⁵⁶ It is an entity jointly owned by Drummond, Prodeco, and Colombian Natural Resources, a Goldman Sachs affiliate.⁵⁷ Fenoco owns a thirty-year rail concession, expiring in 2029, linking Santa Marta with Chiriguana. ⁵⁸ Cerrejón operates its own 150-kilometer standard gauge railway connecting its mine to Puerto Bolívar.⁵⁹ Drummond transports coal on 193 kilometers of railway to Puerto Drummond, though 37 percent of its railway runs on an outdated single line.⁶⁰

Recommendation [2]: Invest in the development and update of railways. The lagging infrastructure of Colombia presents a problem for commerce, especially in mining. A significant amount of railway tracks in northern Colombia is comprised of single line tracks, rather than the

standard double track, especially as mining activity is expected to increase. The government could request proposals from design and construction firms to update and expand these tracks.

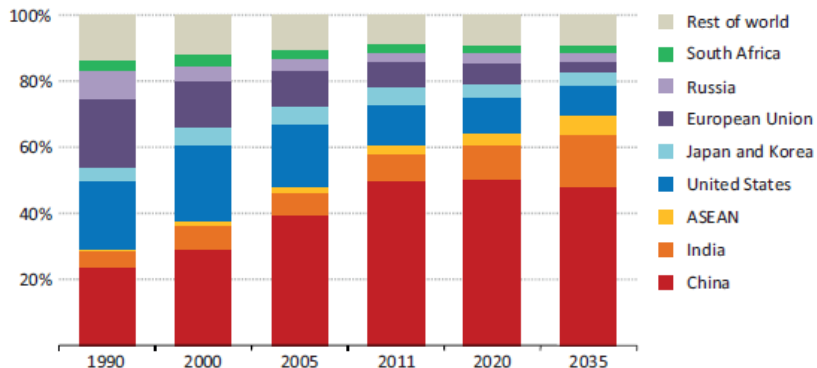
1.3.2 Global Coal Market Development

Coal Demand

Coal is used predominantly for generating electricity and supporting manufacturing activities: in 2010, 65 percent of global coal demand was consumed in the power sector and 27 percent in industry. Coal use for electricity is expected to grow 40 percent by 2035.⁶¹ Coal demand in the United States, one of Colombia's largest export markets, is estimated to decline modestly through 2035. Through the same time period, a fall in European demand for coal-based electricity, too, is expected negatively impact demand for coal (Figure 16).

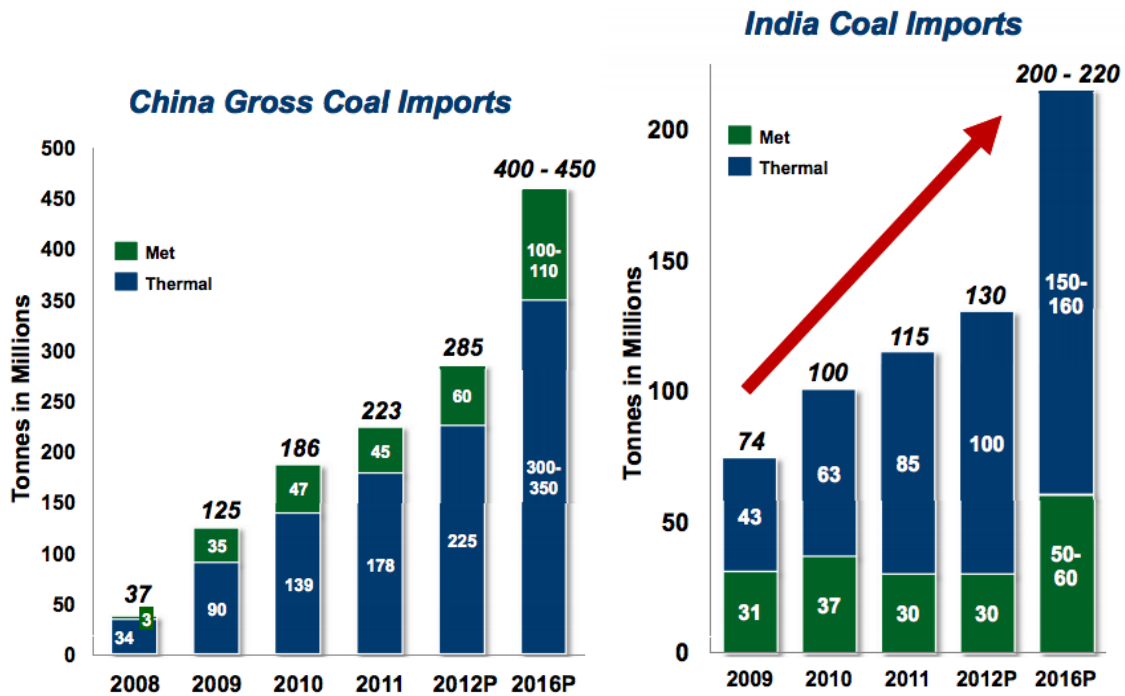
China and India, the largest and third-largest current users of coal globally, should see their share of global demand rise from 58 percent in 2011 to 64 percent in 2035, despite China's efforts to promote energy efficiency and diversify its power sector (see Figure 17 for further detail).⁶²

Figure 16 Coal demand forecast by key region



Source: OECD World Energy Outlook 2013

Figure 17 China and India metallurgical and thermal coal import forecasts



Source: Peabody Energy

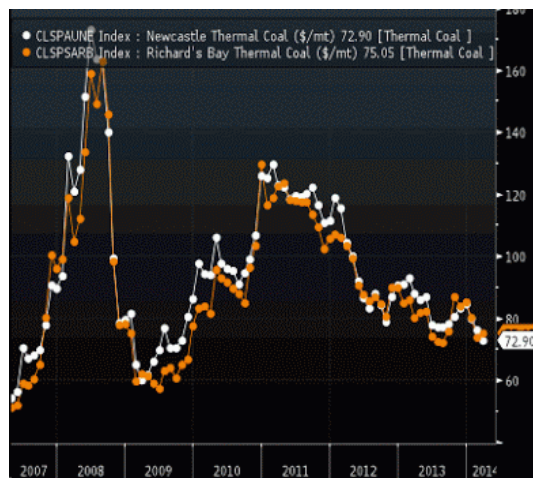
Coal Supply

Global proven coal reserves, of which three-quarters are comprised of metallurgical (coking) and thermal (steam) coal, stood at 1,040 billion tons at year-end 2011. Coal itself accounts for 55 percent of the world's total proven fossil fuel reserves.⁶³

Colombia had 5.6 billion tons of probable coal reserves in 2012, the largest in South America.⁶⁴ Coal production in Colombia is focused nearly completely (94 percent) in thermal coal and is forecast to grow at 2.4 percent average compounded annual growth rate (CAGR) from 2011 to 2035.⁶⁵ Its major competitors in thermal coal are Indonesia and Australia, which make up 60 percent of the steam coal trade.⁶⁶ Colombia exports nearly all of its coal production. In 2013, it produced 86 million tons (78 million metric tons) of coal and exported about 77 million tons (70 million metric tons), or 90 percent.⁶⁷

Coal Prices

The power sector, as the largest user of coal, is a major driver of coal pricing. Coal prices grew from 2007 to 2011. Prices of metallurgical and thermal coal have eased since 2012, and have sharply fallen since the end of 2013 (Figure 18). Furthermore, high costs and ample supply, driven by increased United States exports to Europe and falling United States imports from Colombia, have brought on a global wave of consolidation as firms attempt to control costs.⁶⁸

Figure 18 Newcastle and Richard's Bay thermal coal pricing (\$/metric ton), 2007-2014

Source: Bloomberg

Coal pricing analysts “are worried that energy policies around the world that target CO₂ reduction could eventually prove detrimental to the global coal market.”⁶⁹ This could become a future concern for Colombia, as it exports a majority of its production.

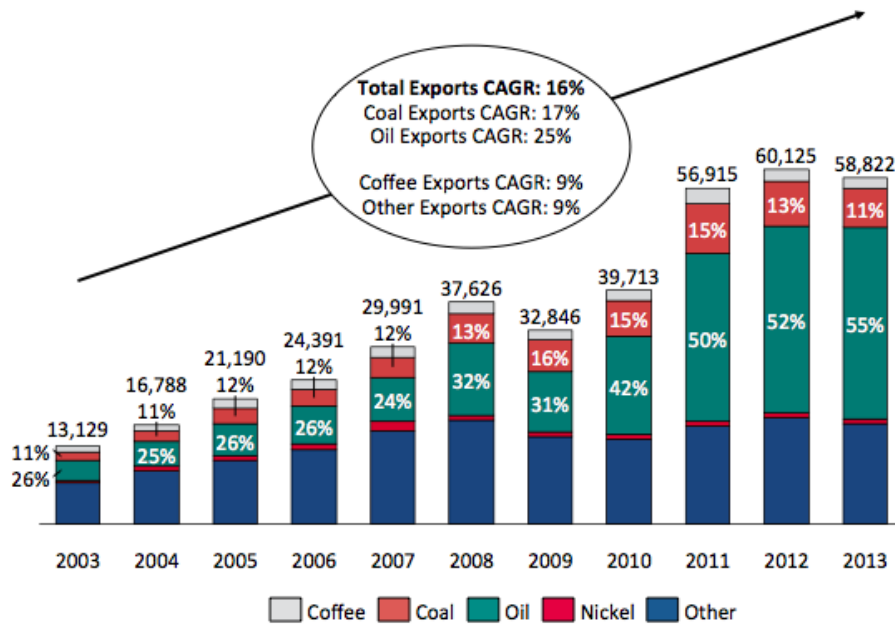
As shown above, coal demand from emerging markets, especially China and India, is expected to increase over the next two decades. Colombia competes with two major producing countries, namely Indonesia and Australia. However, Colombia faces significant challenges in growing its overall mining industry, especially in formalizing its labor force and improving railway infrastructure used extensively by mining operators.

1.3.3 Hydrocarbons and Coal in Colombia’s Economy

This section provides an understanding of the importance of petroleum, coal, and natural gas to Colombia’s economy, as well as some potential challenges, like informal mining, facing the Colombian government. While this section provides a brief overview of these challenges, Section 5 discusses socioeconomic issues at length.

Natural resources play an important role in Colombia’s trade relationships. Together, petroleum products and coal comprised 55 percent of Colombia’s exports in 2013. In the ten years to 2013, coal and oil both grew at faster CAGRs than Colombia’s exports in general, and significantly faster than coffee and other exports, a term that includes all non-extractive manufacturing exports among others (Figure 19).

Figure 19 Exports of oil and coal have increased dramatically, 2003-2013



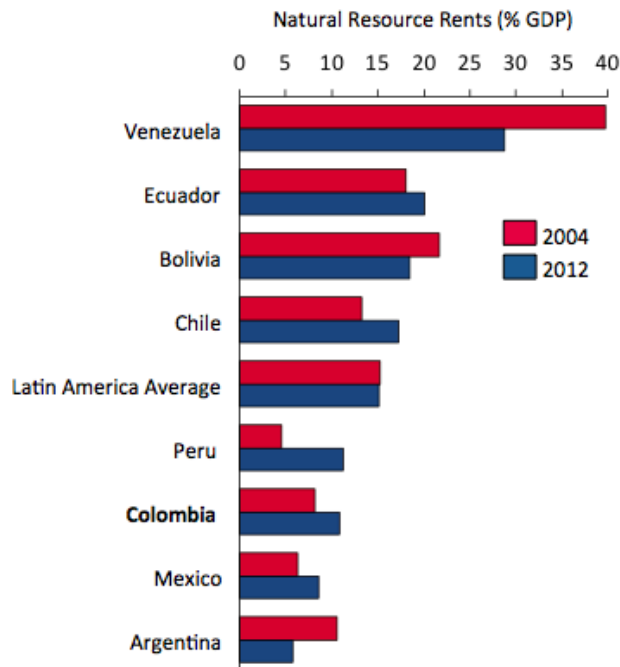
Source: DANE

As previously discussed, in the last ten years, as FDI has grown to US\$16.7 billion, oil and mining have captured over half of those investment dollars. This has been a major factor in the significant appreciation of the peso. The peso, in mid-2008, was nearly 60 percent stronger than it had been five years prior. The stronger currency may then raise prices on non-extractive industry export goods produced by Colombia. Colombia’s tradable manufactured or agricultural goods for export may then see significant cost increases that lessen the country’s competitiveness on a global scale. This could make Colombia more susceptible to Dutch disease.⁷⁰

Rents and Revenues

Colombia receives fewer natural resource rents, as a percentage of GDP, than its Latin American competitors, showing a lesser dependence on natural resource rents but suggesting that Colombia is not collecting nearly as much as it could be—especially as compared to the reference point in the region, Chile (Figure 20).

Figure 20 Natural resource rents across Latin America



Source: World Bank

Hydrocarbon royalties produce the majority of the royalty revenue collection in Colombia, bringing in about 80 percent of the total royalty revenues each year.⁷¹ Mining royalty revenues produce significantly less, as shown in

Figure 21. The Colombian government expects 2014 royalty revenues to show a small decline year-over-year.⁷²

Figure 21 Royalty revenues, 2005-2014E in billions of COP

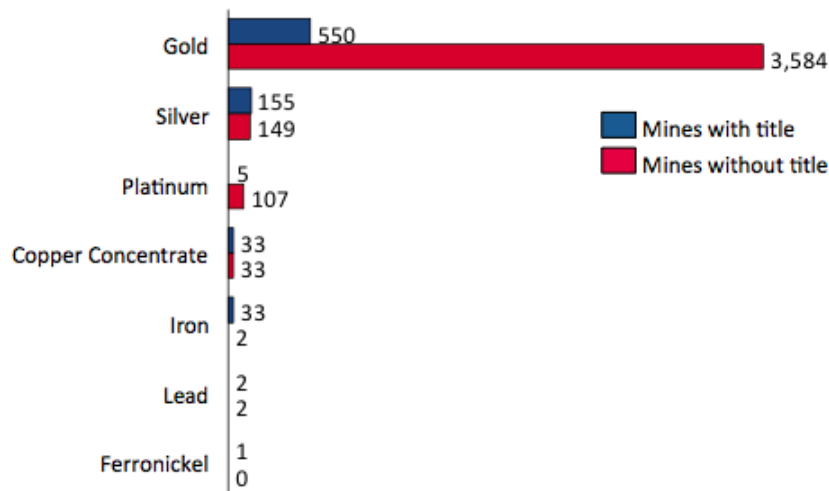
	Hydrocarbons	Mining	Other	% Hydrocarbons	Total
2005	4,100	465	153	87%	4,718
2006	3,900	577	187	84%	4,664
2007	3,700	875	312	76%	4,887
2008	5,800	1,260	208	80%	7,268
2009	4,100	1,085	186	76%	5,371
2010	5,900	1,118	216	82%	7,234
2011	8,200	1,269	369	83%	9,838
2012	7,806	1,564	96	82%	9,466
2013E	7,500	1,541	99	82%	9,140
2014E	7,080	1,455	102	82%	8,636

Note: 2013 and 2014 projections come from the Marco Fiscal de Mediano Plazo of 2013.

Source: Fundación Foro, Agencia Nacional de Minería, Marco Fiscal de Mediano Plazo (2013)

A challenge facing the extractive industries and one that Colombia's government must confront is that of informal labor in the mining sector. The Census of Mining Operators conducted in 2010 showed that coal comprised 19 percent of Colombia's mining exploits but 40 percent of the country's coal mining operators counted in the census lacked a title. Metals mining, focused mainly on gold, made up 32 percent of the country's mining exploits in the 2010 Census, but a startling 86 percent of metals mining operators counted lacked a title (Figure 22).⁷³ In 2013, the Colombian government recognized that the number of untitled producers likely rose further from 2010 levels.⁷⁴

Figure 22 Gold is the predominant metal mined but most operators lack mining titles



Source: Ministry of Mines and Energy

Informal miners do not typically remit royalties to the government. Indeed, about 40 percent of the coal miners did not pay royalties, according to the Colombian Census.⁷⁵ About 71 percent of all gold miners do not pay any royalties.⁷⁶ The royalty revenues the government sees from operators are effectively lower than they should be, due to the extent of informal mining. Nearly three-quarters of Colombia's total mining sector employees are illiterate or only primary school-educated; these illegal mines do not adhere to the environmental, safety, and health regulations set by the national government.⁷⁷ The large scale of informal mining in Colombia has socioeconomic and environmental concerns that are addressed in detail in later sections.

As shown above, Colombia's extractive industries have grown tremendously thanks to significant investment, especially in fossil fuel extraction. However, the government collects less in rent from the extractive industries than other resource-rich countries in the region, like Chile and Peru. Comparative studies on the level of social investment given these differences in collection could be useful in understanding where the country needs the most improvement. Finally, the challenge of informal labor, especially in mining, is one that merits significant discussion and research, especially on the models used by other countries in encouraging formalization of labor.

Notes to Section 1

¹ La Fundación Foro Nacional por Colombia (National Forum for Colombia Foundation) is a non-government, non-profit civil organization, established under Colombian law. Foro develops research and analysis and engages in debate, publication, social intervention, and advocacy on social and political issues that affect the progress of democracy in Colombia, and focuses on strengthening organizations, networks, and social movements.

² Global Economic Prospects, The World Bank, <http://www.worldbank.org/en/publication/global-economic-prospects/data?variable=NYGDPMKTPKDZ®ion=LAC>.

³ The World Bank, GDP growth (annual %), http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?order=wbapi_data_value_2009+wbapi_data_value+wbapi_data_value-first&sort=asc.

⁴ UNFPA, The Global Financial Crisis in Colombia and the ICPD Agenda, (Global Pulse and UNFPA, 2011), 3.

⁵ Countercyclical macroeconomic policies included the central bank lowering its policy rate by 650 basis points to a historic low of 3 percent between early 2009 and early 2011 and an expansionary fiscal policy stance. This stance resulted in the combined public sector deficit widening to approximately 3 percent of GDP in 2009 and 2010 compared with near balance in 2008, according to IMF Country Report No. 11/224; <http://www.imf.org/external/pubs/ft/scr/2011/cr11224.pdf>.

⁶ Indeed, the Colombian peso was nearly 70 percent stronger in June 2008 compared to the start of 2004; Bloomberg.

⁷ Banco de la Republica Press Release (27 March 2014).

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⁹ Andrea Jaramillo and Ye Xie, "Colombia Shows How Not to Wage Peso War with Rates: Currencies," *Bloomberg* (5 May 2014)

¹⁰ Global Economic Prospects, The World Bank, <http://www.worldbank.org/en/publication/global-economic-prospects/data?region=LAC>.

¹¹ Germán Botero de los Ríos and Sergio Clavijo, Estructura Fiscal de Colombia y Ajustes Requeridos (2010-2020), Fedesarrollo, page 91 (2011)

¹² Exchange rate calculated using 2014 historical data from OANDA; Marco Fiscal de Mediano Plazo, 2013.

¹³ Interview with Amylkar Acosta, Minister of National Agency of Mining (21 March 2014)

¹⁴ Ximena Peña, The formal and informal sectors in Colombia, International Labor Office (2013)

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- ¹⁵ Ximena Peña, *The formal and informal sectors in Colombia*, International Labor Office (2013)
- ¹⁶ Countries included: Argentina, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, St. Lucia, Mexico, Nicaragua, Panama, Peru, Paraguay, El Salvador, Uruguay, Venezuela.
- ¹⁷ Legislative Act 1607 of 2012.
- ¹⁸ Interview with Carolina Soto, Vice Minister of Finance and Public Credit Ministry (Mar. 20, 2014)
- ¹⁹ U.S. Energy Information Administration, Colombia, 1.
- ²⁰ U.S. Energy Information Administration, Colombia, 5.
- ²¹ Juan Carlos Echeverry, Jaime Navas, Verónica Navas, and María Paula Gómez, *Oil in Colombia: history, regulation and macroeconomic impact*, page 3, Universidad de los Andes, 2008
- ²² Echeverry, *Oil in Colombia: history, regulation and macroeconomic impact*, 3.
- ²³ Echeverry, *Oil in Colombia: history, regulation and macroeconomic impact*, 5.
- ²⁴ Lisa Viscidi, *Colombia's Energy Renaissance*, Americas Society and Council of the Americas, page 8 (2010)
- ²⁵ The Colombian Ministry of Mines and Energy, Production Statistics, http://www.minminas.gov.co/minminas/hidrocarburos.jsp?cargaHome=3&id_categoria=158&id_subcategoria=214.
- ²⁶ National Agency of Hydrocarbons.
- ²⁷ International Energy Agency, *World Energy Outlook*, page 502 (2013)
- ²⁸ International Energy Agency, *World Energy Outlook 2013*, page 501.
- ²⁹ International Energy Agency, *World Energy Outlook 2013*, page 457.
- ³⁰ U.S. Energy Information Administration, Colombia, 2.
- ³¹ The Economist, Unreserved expansion, <http://www.eiu.com/industry/article/871402271/unreserved-expansion/2014-01-09>.
- ³² The Economist, Unreserved expansion. <http://www.eiu.com/industry/article/871402271/unreserved-expansion/2014-01-09>.
- ³³ The Colombian Ministry of Mines and Energy, Production Statistics, http://www.minminas.gov.co/minminas/hidrocarburos.jsp?cargaHome=3&id_categoria=158&id_subcategoria=214; *Portafolio*, "Producción petrolera subiría 2% en 2014," (Dec 14. 2013)
- ³⁴ BP Statistical Review of World Energy, (2013)
- ³⁵ Global Crude Oil Prices, U.S. Energy Information Administration, <http://www.eia.gov/forecasts/steo/report/prices.cfm>.
- ³⁶ National Agency of Hydrocarbons (<http://www.anh.gov.co/Operaciones-Regalias-y-Participaciones/Sistema-Integrado-de-Operaciones/Paginas/Estadisticas-de-Produccion.aspx>).
- ³⁷ U.S. Energy Information Administration, Colombia, 5.
- ³⁸ U.S. Energy Information Administration, Colombia, 5.

³⁹ Molinski, Dan, "Update: Colombia to Continue Exporting Gas to Venezuela until Mid-2014," *Wall Street Journal*, (Dec 30. 2011)

⁴⁰ "Drought fears prompt Colombia to reduce gas exports to Venezuela," *Reuters* (Apr. 29 2014)

⁴¹ International Energy Agency, *World Energy Outlook*, page 101 (2013)

⁴² International Energy Agency, *World Energy Outlook*, page 107 (2013)

⁴³ U.S. Energy Information Administration, Colombia, 5.

⁴⁴ Mario F. Martínez P., Juliana Peña N. and Fabio E Velásquez, *El sector extractivo en Colombia 2011 – 2012*, Fundación Foro Nacional de Colombia, page 71, (2013)

⁴⁵ U.S. Energy Information Administration, Colombia, 6.

⁴⁶ Ministry of Mines and Energy, UPME, "Proyección de Demanda de Energía en Colombia," (October 2010)

http://www.upme.gov.co/Docs/Energia/PROYECC_DEMANDA_ENERGIA_OCTUBRE_2010.pdf

⁴⁷ In 1975, the Colombian government extended the right to bid for mining 32,000 hectares in what is now the Cerrejón North Zone. In 1976, state-owned Carbones de Colombia S.A. (called "Carbocol") and Intercor, an affiliate of ExxonMobil, agreed to jointly develop the North Zone in a thirty-three year partnership. This partnership was renewed in 1999 for twenty-five years, to 2034. Carbocol sold its contract for developing the North Zone in 2000 to a consortium consisting of BHP Billiton plc, Anglo American plc, and Glencore International AG (which subsequently sold it to Xstrata plc). In 2002, the consortium purchased the remaining rights from Intercor.⁴⁷

⁴⁸ Caracol, "Locomotora minera, entre el reto económico y ambiental," (6 Aug 2011) (<http://www.caracol.com.co/noticias/actualidad/locomotora-minera-entre-el-reto-economico-y-ambiental/20110806/nota/1527481.aspx>).

⁴⁹ Aly Jiwani, Delaney Simon, Julien Barbey, Pushkar Sharma, and Tory Webster, "A Return to El Dorado: The Opportunities and Risks Presented by Colombian Gold Mining," *Journal of International Affairs Online*, 26 Apr 2013.

⁵⁰ Ministerio de Minas y Energía, "Censo Minero" (<http://www.minminas.gov.co/minminas/downloads/UserFiles/File/Minas/CensoMinero/CensoMineroDptal3.pdf>).

⁵¹ Financial Transactions and Reports Analysis Center of Canada, "Money Laundering and Terrorist Activity Financing Watch, July-September 2011" (Canada) 2012 Jan (<http://www.fintrac-canafe.gc.ca/publications/watch-regard/2012-01-eng.pdf>).

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⁵³ Cerrejon Company Website. <http://www.cerrejon.com/site/english/integrated-operation/mine.aspx>

⁵⁴ Drummond Company Website.

⁵⁵ Prodeco company website (<http://www.prodeco.com.co/index.php/en/>).

⁵⁶ Fenoco website (<http://www.fenoco.com.co/>)

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- ⁵⁷ Platts “Colombia coal rail company Fenoco reaches wage agreement with workers” (<http://www.platts.com/latest-news/coal/london/colombia-coal-rail-company-fenoco-reaches-wage-26291338>)
- ⁵⁸ Prodeco (<http://www.prodeco.com.co/index.php/en/company/our-business/sociedad-portuaria-puerto-nuevo-s-a/>)
- ⁵⁹ Cerrejón <http://www.cerrejon.com/site/english/press-room/multimedia-gallery/railway.aspx>
- ⁶⁰ Drummond <http://www.drummondltd.com/our-operations/railroad/?lang=en>
- ⁶¹ OECD, *World Energy Outlook 2012* (OECD) p. 159. <http://www.oecd-ilibrary.org/docserver/download/6112251e.pdf?expires=1396118071&id=id&accname=ocid177456&checksum=2C40CB3F4F764109E3DE8784968CC73E>
- ⁶² OECD, *World Energy Outlook 2013* (OECD) p. 139-145. <http://www.oecd-ilibrary.org/docserver/download/6113131e.pdf?expires=1396117115&id=id&accname=ocid177456&checksum=A2381C9A4DA929431F044F58026C6CB9>
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- ⁶⁴ United States Energy Information Administration, *Colombia Full Country Report* (Jan. 7 2014), <http://www.eia.gov/countries/cab.cfm?fips=CO>.
- ⁶⁵ OECD, *World Energy Outlook 2013* (OECD) p. 149-150; Sistema de Información Minero Colombiano (http://www.upme.gov.co/generadorconsultas/Consulta_Series.aspx?idModulo=4&tipoSerie=121&grupo=477&FechaInicial=31/12/1990&FechaFinal=30/09/2012)
- ⁶⁶ OECD, *World Energy Outlook 2013* (OECD) p. 151.
- ⁶⁷ Murphy, Peter, Colombia’s 2013 coal output slips 4% in rough 2013,” *Reuters* (Feb. 7 2014) <http://www.reuters.com/article/2014/02/08/coal-colombia-production-idUSL2N0LC23420140208>
- ⁶⁸ OECD, *World Energy Outlook 2013* (OECD) p. 161, 152.
- ⁶⁹ Mozambique Report, Capstone, Columbia SIPA (2013), https://sipa.columbia.edu/sites/default/files/AY13_Mozambique_FinalReport.pdf
- ⁷⁰ DANE, Boletín de prensa, page 5 (2014)
- ⁷¹ Mario F. Martínez P., Juliana Peña N. and Fabio E Velásquez, El sector extractivo en Colombia 2011 – 2012, Fundación Foro Nacional de Colombia, page 94 (2013)
- ⁷² Marco Fiscal de Mediano Plazo, 2013.
- ⁷³ Ministerio de Minas y Energía, “Censo Minero” (<http://www.minminas.gov.co/minminas/downloads/UserFiles/File/Minas/CensoMinero/CensoMineroDptal3.pdf>).
- ⁷⁴ Andrew Willis and Michael Smith, “Colombia Illegal Gold Mines Prosper in Global Rout” *Bloomberg* 24 Jul 2013, <http://www.bloomberg.com/news/2013-07-24/colombia-illegal-gold-mines-prosper-in-global-rout.html>.
- ⁷⁵ Ministerio de Minas y Energía, “Censo Minero” (<http://www.minminas.gov.co/minminas/downloads/UserFiles/File/Minas/CensoMinero/CensoMineroDptal3.pdf>).

⁷⁶ Ministerio de Minas y Energía, “Censo Minero”

(<http://www.minminas.gov.co/minminas/downloads/UserFiles/File/Minas/CensoMinero/CensoMineroDptal3.pdf>).

⁷⁷ Ministerio de Minas y Energía, “Censo Minero”

(<http://www.minminas.gov.co/minminas/downloads/UserFiles/File/Minas/CensoMinero/CensoMineroDptal3.pdf>).

2 Fiscal Policy Framework of Colombia: Royalties, Taxes and Windfall Profits

2.1 The Colombian Economy and the Resource Curse

This section addresses the resource curse and its manifestation in the Colombian economy. In the last decade, oil and coal production has grown, possibly at the expense of other export sectors in the economy, like agriculture and manufacturing. The Colombian government has taken important steps in addressing particular symptoms that we discuss in detail below and provide suggestions for improvements. Specifically, we discuss tax reform, which the government passed to encourage growth in non-extractive industry economic sectors; royalty reform, which the government passed to encourage more equitable distribution of royalties; and a fiscal rule, to encourage responsible fiscal spending in the face of increased extractive revenues.

In the last decade, Colombia has experienced steady gross domestic product (GDP) growth and, as such, is now the fourth-largest economy in terms of GDP in Latin America (on a purchasing power parity, “PPP,” basis) behind Brazil, Mexico, and Argentina.⁷⁸ Part of this growth has resulted from regulatory reforms passed during the presidency of Álvaro Uribe that opened the extractive industry to foreign firms and resulted in attracting massive inflows of foreign direct investment (FDI) in hydrocarbons and coal.⁷⁹ The hydrocarbon and mining sectors contribute approximately 8 percent of the country’s gross domestic product (GDP) and have grown increasingly important in Colombia’s trade dynamics.

Exports of petroleum and coal have grown at a 23 percent average compounded annual growth rate (CAGR). Royalty revenues paid to the government are projected to reach US\$5.5 billion (10.5 trillion pesos) by 2022 from US\$4.7 billion (9.1 trillion pesos) in 2013⁸⁰. Total tax revenues have increased 6 percent from approximately US\$51.9 billion (99.2 trillion pesos) to US\$55.1 billion (105.3 trillion pesos) between 2012 and 2013. The newly established “equality” tax, “CREE,” took in approximately US\$1.5 billion in its first year of collection in 2013, accounting for about 3 percent of total tax collection.⁸¹

From the figures above, it is clear that the extractive industry has become an essential component of Colombia’s economy. Colombia has significant proven reserves of coal to develop in the coming years, but has not made significant discoveries of petroleum to replace projected increases in production. The current government has responded by labeling mining as one of the country’s “locomotives” of the economy and believes that overall the revenue generated from the extractive industries has the ability to promote economic stability and prosperity as well as reduce economic inequality across the country. However, at the same time, an overreliance on extractive resources could prove costly to the economy if the extractive resource revenue

comes at the expense of other labor-intensive industries. From this angle, Colombia's recent economic growth could make it vulnerable to the resource curse.

The resource curse occurs when a country develops an economic over-dependence on the extractive industry, and the revenue and jobs it produces for the country. One symptom of the resource curse is what is known as "Dutch disease." Dutch disease involves the appreciation of the real exchange rate due to large increases of natural resource exports and subsequent revenues. The stronger currency reduces the international competitiveness of a country's non-extractive resources and leads to a decrease in exports of these sectors. Though the effects of loss revenue may be overshadowed by the large increase in revenue generated from extractive resources in the short term, long-term costs could be costly for a country like Colombia who is not projected to produce petroleum in the long run.

Another symptom of the resource curse is revenue volatility. Revenue volatility refers to the damaging economic effects that stem from fluctuations in global commodity prices. As commodity prices change governments can be pressured into imprudent fiscal policies that are focused on short-term investment and consumption instead of long-term investment opportunities in domestic assets and human capital. Another effect of the resource curse is an increased hiring in favor of the extractive industries over other sectors, including agriculture, construction, and manufacturing, raising wages and lowering the productivity of those sectors. This makes non-extractive sectors less competitive internationally, creating a problem for the country as extractive-based production and revenue falls over time.

Whether Colombia has already fallen victim to the resource curse is a topic that has been widely written about by notable and varied economists in Colombia, such as Guillermo Rudas Lleras, Guillermo Perry Rubio, and Astrid Martinez Ortiz, among many others.⁸² Generally, there is a consensus among economists that Colombia is beginning to show symptoms of the resource curse and, similarly, it appears that the government is also aware of these symptoms. In this regard, the government has recently started to introduce reforms to mitigate the effects of the resource curse, namely royalty reforms in 2011, tax reforms in 2012, and the fiscal rule in 2011.⁸³

Each of these reforms addresses critical components associated with the resource curse. The 2011 royalty reforms direct a portion of extractive resource royalties to economic development projects, for example, to local communities that need infrastructure. The aim behind the royalty reforms is to promote social equality among the different regions in Colombia. Under the previous regime, regions where resources were extracted received the majority of royalty revenues. When revenue is not distributed among the regions of the country in an equal manner, economic inequality can form favoring those populations living in resource-rich regions. Over time, this scenario could lead to social inequality, another aspect of the resource curse. At the same time, the government must be mindful of community dissatisfaction and social disturbance that may arise from producing regions feeling they have not received a fair share.

Next came tax reforms in 2012 to encourage the country's "locomotives" of growth: agriculture, construction, infrastructure, innovation, and mining. The tax reform was driven by an aim to improve the balance of Colombia's economic growth by encouraging labor-intensive industries,

like manufacturing and services, to grow output and their contribution to the overall economy. Lastly, the introduction of the fiscal rule in 2011 encourages responsible government spending by setting declining budget deficit goals through 2022 in an attempt to protect its economy from potentially volatile extractive resource revenues.

While Colombia has taken important steps to protect it from succumbing to the resource curse, in this section we make some recommendations for further action to be taken by the government to ensure Colombia continues to build upon the positive foundation it has laid over the past several years. Particularly, the government must strive to improve the presentation of the country's GDP to highlight the impact of its extractive resources, transparently communicate hydrocarbon and mining tax revenue and royalty distribution, invest in transportation infrastructure, reduce unemployment while continuing to formalize the mining sector, and solidify its fiscal regime by instituting oversight of the fiscal rule. These steps will help Colombia better utilize its extractive resource revenues across the economy and reduce the country's susceptibility to exogenous shocks and pressures on the economy and the COP.

Additionally, it is important that the Colombian government receives its fair share of the revenue from its extractive industry and then utilizes this wealth effectively. In this way, we recommend that the government implement windfall tax provisions into law, so that they are not bargained away or ignored in negotiations with extractive companies. Further, we recommend that the country should invest this wealth in recurring revenues, for example, we suggest that the Stabilization Fund that was created in the 2011 revenue reforms invest a portion of the revenue it receives from the extractive industry into a portfolio that invests in global market securities, which would more effectively and quickly grow returns on existing revenues.

2.2 Symptoms of the Resource Curse

In this section, we describe particular elements of Colombia's economy that could be construed, together, as symptomatic of the resource curse—specifically, Dutch disease.

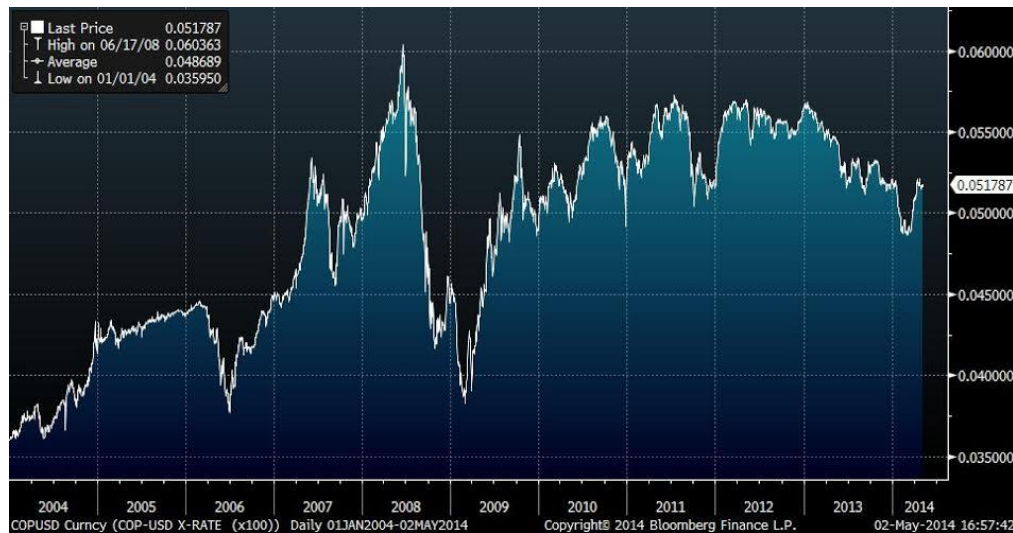
Within the decade to 2013, foreign direct investment into Colombia has increased by 25 percent CAGR—representing more than a quintupling of investment dollars into Colombia to \$16.7 billion in 2013.⁸⁴ More than half of this investment has been concentrated in the hydrocarbons and mining sectors.⁸⁵ Of the other locomotives of growth, agriculture saw, on average, less than 1 percent of these investment flows over the same period; manufacturing saw, on average, 16 percent of these flows.⁸⁶ In short, to say that hydrocarbons and mining have dominated Colombia's economy in recent years would be an understatement.

The concern of many economists is that Colombia is displaying symptoms of the resource curse: namely, they worry that the sustained flows of investment capital into the country's extractive industries have led to the rapid and sustained appreciation of the Colombian peso making it a candidate for Dutch disease (Figure 23).

Dutch Disease

“The term *Dutch Disease* originated in the Netherlands during the 1960s, when the high revenue generated by its natural gas discovery led to a sharp decline in the competitiveness of its other, non-booming tradable sector. Despite the revenue windfall the new discovery brought, the Netherlands experienced a drastic decline in economic growth. The huge foreign exchange from the export of the gas led to a shift in prices and appreciation of the exchange rate, so that previously competitive exporters lost market share and production of those exports fell.”⁸⁷

Figure 23 Colombian Peso spot rate, 2004-2014



Source: Bloomberg

They worry the inflows of FDI mentioned above have distorted the economy towards the extraction of natural resources and away from agriculture, manufacturing, and other more labor-intensive industries. Some of these worries may be justified. Indeed, crude oil production reached 1 million bbl/d in 2013 from less than 600,000 bbl/d as recently as 2007. Coal production has ramped up from less than 60 million metric tons in 2004 to 95 million metric tons in 2013. Coffee production, however, has declined to 9.5 million bags in 2013 from 11.2 million bags in 2003, a fall of 18 percent over ten years.⁸⁸ These figures point to the vast growth of the extractive industries in the last decade, possibly at the expense of other traditional Colombian goods like coffee.

The role of the extractive industries has diversified Colombia's trade relationships. Indeed, Colombia is now the world's fourth-largest exporter of coal and a major regional player in oil exports. In 2013, oil exports (US\$32.5 billion) and coal exports (US\$6.7 billion) accounted for two-thirds of Colombia's now US\$60 billion export market, which equates to approximately 67 percent of exports. Non-traditional exports, which include manufactured products and most agricultural produce, made up only 29 percent of Colombia's exports, or US\$17.1 billion in 2013. In the decade to 2013, coal exports and oil exports both posted double-digit CAGRs of 12 percent and 22 percent, respectively; coffee (US\$1.9 billion) and non-traditional exports, encompassing all other goods, showed a comparatively paltry 6 percent CAGR. These statistics

have been used by economists to point to a possible over-reliance on the extractive industries over traditional exports, like coffee.⁸⁹

Lower production of coffee is not solely attributable to lower inflows of investment. It should be noted that variables such as weather and agricultural practice have also affected growth. But a large part of the disparity between growth in productivity and trade in the extractives sectors compared to Colombia's other locomotives of growth, namely manufacturing and agriculture, may be explained by two factors. First, significantly greater investment in the extractive sectors has likely contributed to their improved productivity over the last decade; the lack of comparable investment in Colombia's manufacturing and agricultural industries may explain a lack of productivity growth over the same time. Furthermore, the appreciation of the peso made these sectors' exports more expensive in the global market, and may be partly to blame for the lack of development of these two sectors.⁹⁰

Despite the recent depreciation of the peso in 2014, Colombia's currency is more than 40 percent stronger than it was a decade ago due to a combination of investment in the extractive industries, the United States' response to the 2008 financial crisis, and renewed investor enthusiasm for emerging markets following recovery from the crisis.⁹¹ The government has dismissed extraordinary measures, like suggestions to impose capital controls to stem the flow of capital, relying mostly on purchases of reserves.⁹² The extent to which currency appreciation has hurt the development of otherwise competitive non-extractive industries in Colombia is a topic of debate among economists in Colombia.

From the above, it is evident that Colombia is showing some symptoms of the Dutch disease, particularly. However, as discussed below, the government is attempt to address the disease.

2.3 Recent Government Reform Addressing the Symptoms of the Resource Curse

The objective for Colombia in taxing natural resources extraction should be to maximize government revenue while fostering inward investment. "Government take" is the total amount of revenue a government receives from natural resource extraction. A country's fiscal regime or framework determines the government's share of the revenue and helps establish a timeframe for the future stream of revenue.⁹³

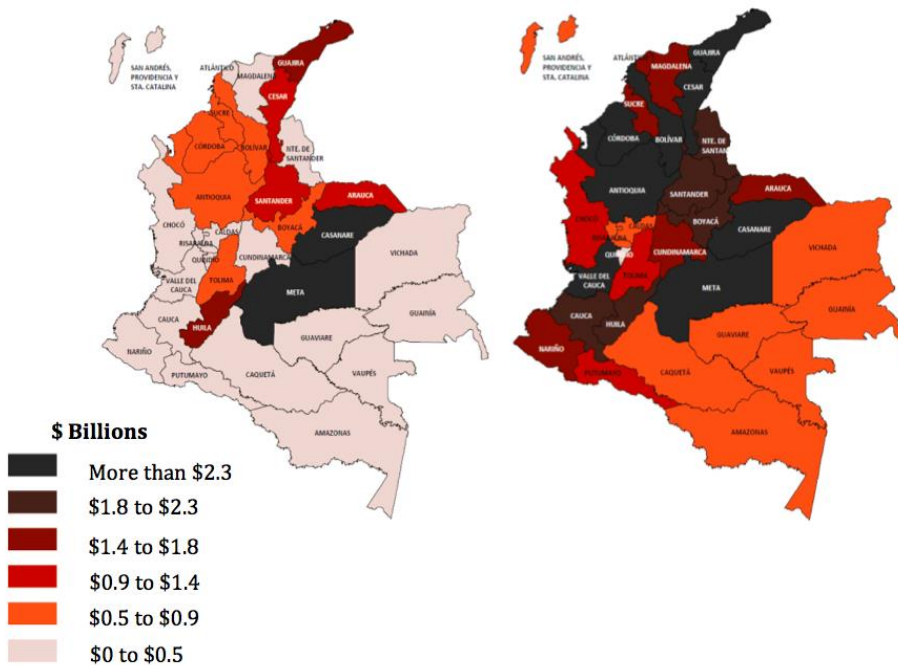
In the extractives sector, royalty payments and income tax are among the most important fiscal tools utilized by the government. Royalties and taxes—often referred to as the "heart of the deal"—represent the cash stream for most governments involved in natural resource extraction. Windfall profits are another fiscal tool that can allow Colombia a better share in natural resource extraction, particularly in cases of commodity price increases. Unlike royalties and taxes, windfall profits allow the government take to increase alongside increasing returns on the companies' profits or when the price exceeds a certain threshold over a predetermined forecast. This tool builds flexibility into the tax system enabling it to absorb changes to economic circumstances.⁹⁴

2.3.1 Royalty Reform of 2011

Colombia has embarked on a path towards responsible economic growth and saving for future generations through its Royalty Reform of 2011, which created a stabilization fund, pension fund, and science and technology (research and development) fund.⁹⁵ The funds capture royalties paid by hydrocarbon and mining explorers and developers, but as of now, do not include any percentage of tax revenues. The reforms are also intended to spread royalty revenue more evenly throughout the country, thereby improving socioeconomic stability, promoting regional fairness, and encouraging saving.

There has been significant discussion in Colombia in the years since the reform, addressing the increased power of the national government as it relates to federalism as well as the “fairness” of distributing fewer royalty revenues to the resource-rich states. The Governance section describes in detail Colombia’s prior system of royalties allocation as enforced under the Constitution of 1991 and the changes made under the Reform of 2011.

Figure 24 Royalties distributed by department: 2002-2010 vs. 2012-2020 (Expected)



Source: The American Embassy to Colombia

Improve Royalty Revenue Transparency

The national government expected incoming royalty revenues for 2013 of US\$4.7 billion (9.1 trillion pesos), comprised mainly (82 percent) of hydrocarbon royalties.⁹⁶ Part of any explanation of why mining comprises less than one-fifth of royalty revenues while accounting for almost 20 percent of exports (including gold and other precious metals) could be attributable to the high levels of informal mining that hamper royalty collection. 40 percent of coal miners and 71 percent of gold miners counted in the 2010 Census do not pay royalties.⁹⁷

The national government projected a 5.5 percent decline in 2014 royalty revenues, likely due to less development following lower-than-expected exploration finds. Nevertheless, the government expects royalty revenues to exceed US\$5.5 billion (10.5 trillion pesos) by 2022 as oil production nears 1.7 million bbl/d and formal mining improves.⁹⁸

Figure 25 Projected revenues from the General System of Royalties, 2013-2014

CONCEPTO	\$ Miles de Millones		% PIB		Cto. (%)
	2013*	2014*	2013*	2014*	2014/2013
Ingresos totales	9,140	8,636	1.3	1.1	-5.5
Hidrocarburos	7,500	7,080	1.0	0.9	-5.6
Minería	1,541	1,455	0.2	0.2	-5.6
Rendimientos	99	102	0.0	0.0	3.0
Gastos totales	7,218	6,446	1.0	0.8	-10.7
Funcionamiento y otros ^v	411	389	0.1	0.1	-5.5
Inversión	5,706	5,233	0.8	0.7	-8.3
Asignaciones Directas	2,292	1,557	0.3	0.2	-32.1
Fondo de Desarrollo Regional	1,016	1,140	0.1	0.1	12.2
Fondo de Compensación Reg.	1,525	1,711	0.2	0.2	12.2
Fondo de Ciencia Tecnología	873	825	0.1	0.1	-5.5
Transferencia a FONPET	1,101	825	0.2	0.1	-25.1
Déficit/Superávit	1,922	2,190	0.3	0.3	13.9
Del cual FAE	1,677	1,477	0.2	0.2	-11.9

*Cifras proyectadas.

Fuente: Plan de Recursos del SGR.

Cálculos: DGPM – Ministerio de Hacienda y Crédito Público.

Source: Marco Fiscal de Mediano Plazo 2013

Recommendation [3]: Improve transparency of incoming royalty revenues and outgoing disbursements. Information for royalty revenue is difficult to verify. The *Mapa de las Regalias*, an initiative of the SGR, has unverified information as of Spring 2014, while SIMCO has not updated figures on mining royalties since the third quarter of 2012. In order to properly understand economic effects, the government must transparently and regularly update these figures, especially revenues flowing to the state.

2.3.2 Tax Reform of 2012

As discussed in the section titled “Hydrocarbons and Mining in Colombia’s Economy,” informal labor, especially in mining, is a considerable challenge facing the Colombian government. While there are environmental and socioeconomic concerns, the Colombian government has been unable to provide incentives large enough to encourage workers into the formal economy. Informal returns from mining are simply too great for the government to overcome.⁹⁹ Furthermore, this formalization of the labor market, whether by encouraging informal mining operators to formalize or by improving formal labor options available to informal workers, is an important factor in growing the country’s manufacturing sector. As described in the Macroeconomic overview, diversification of the economy is important to Colombia as it seeks to reduce its recent dependence on the extractive industries.¹⁰⁰

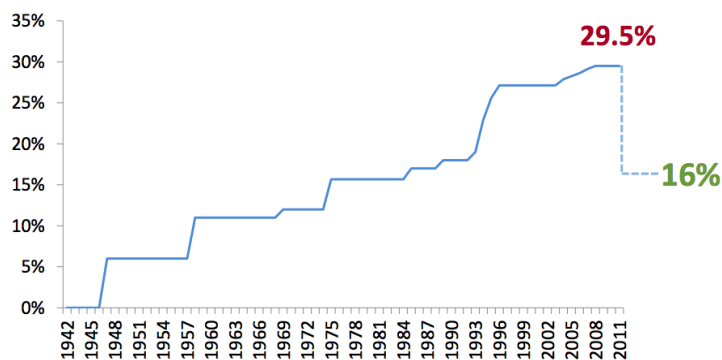
On the other side are the formal employers the government relies on to grow the formal labor market. In December 2012, Colombia passed tax reform whose main objectives were to make the tax code fairer and reduce some inflexibility in the labor market. The reforms became effective from January 1, 2013. Simultaneously, other changes include the simplification of value-added tax (VAT) and a tax cut to offshore portfolio flows from 33 to 14 percent (25 percent for countries classified as tax havens), among others.

Colombia currently has one of the highest informal labor markets in Latin America: estimates of its size range from 60 percent to 75 percent of total employment.¹⁰¹ This amounts to approximately 1.2 million workers using 2013 figures from Colombia’s Ministry of Finance and Public Credit.¹⁰² As shown in the Macroeconomic Overview, approximately quarter million workers were employed by the extractive industries in 2011, growing 35 percent from 2008.¹⁰³ Because the burden of payroll taxes is more often borne by formal manufacturing or service industry employers, this tax was seen as incentivizing a major locomotive of growth—manufacturing.¹⁰⁴

To improve labor flexibility, the reform cut payroll taxes by 13.5 percent: non-wage costs and duties of employment fell to 16 percent from 29.5 percent, seeking to reduce the economy’s informal nature and structural unemployment. This measure is expected to open firms to hiring more workers, thereby stimulating the formal labor market.¹⁰⁵ See Figure 26 for a view of Colombia’s historical payroll tax rate and the change brought about from this reform. The government expects between 400,000 and 1,000,000 new formal jobs in the Colombian economy to be created as a result of the Tax Reform of 2012.¹⁰⁶

The reduction in payroll taxes was offset (in terms of tax revenue) by a change in taxes on corporate profits. Corporate income tax was reduced from 33 to 25 percent, and new 9 percent “equality” tax was created, called “CREE,” to fund social investment programs. The tax rate for CREE is 9 percent from 2013 through to 2015, and 8 percent thereafter.¹⁰⁷ In this tax, the basis for collection does not include the exemptions that apply to traditional income tax. Companies therefore pay 25 percent income tax under traditional deductions. In addition, they pay 9 percent tax on their profits, but are not able to apply the same deductions to this tax as they have traditionally done on income tax.

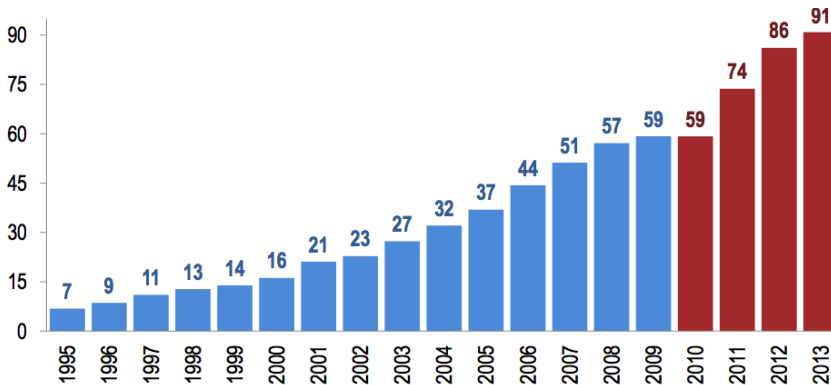
Figure 26 Payroll tax rates over time, 1942-2012



Source: Colombia Ministry of Finance

The reform was approved with a neutral impact on tax collection, posting the years 2013 and 2014 together in the accounts (Ministry of Finance). In 2013, the Government expects to collect an additional COP 1.2 trillion (US\$ 624 million) as a result of the reform, largely due to greater withholdings on individual income tax. For 2014, the lower collection of corporate income tax should be partly offset by the greater collection of individual income tax, resulting in a COP 1.3 trillion (US\$ 676 million) reduction in tax collection, which, when added to the greater collection in 2013, results in tax neutrality. With a larger formal sector, tax revenues collection is also expected to increase. Between 2010 and 2013, Colombia experienced 53 percent growth in tax collection.

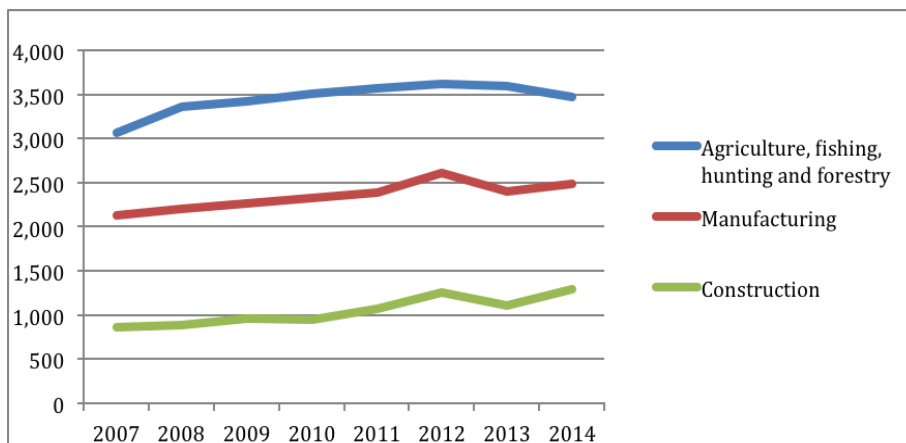
Figure 27 Tax collection in Colombia, 1995-2013



Source: Colombia National Tax and Customs Direction

Total employment has grown from 16.4 million in 2007 to 20.9 million in 2014, a 27 percent increase. Since the tax reform was passed, construction employment grew 17 percent. Between 2012 and 2013, agriculture employment declined 3 percent.¹⁰⁸ As previously noted, significant downstream activities in hydrocarbons are categorized as manufacturing in Colombia’s economy. Manufacturing grew only 4 percent, suggesting that perhaps there could be a delayed impact on the labor market.

Figure 28 Selected sector employment in Colombia, 2007 – 2014 (In Thousands)



Source: DANE

Recommendation [4]: Improve transparency and presentation of tax revenues. Tracking the regions and programs the tax dollars are being used for is difficult to follow. The Colombian National Tax and Customs Direction (DIAN), for example, provides statistics that coordinate tax collection from each region in Colombia. It does not, however, provide sufficient data to track where the money is being collected from or dispersed to.

In order to judge the efficacy of the Tax Reform of 2012, the Ministry of Finance and DIAN should coordinate to provide better tracing of tax revenue collection by sector and more frequent updates on employment by sector (petroleum, mining, manufacturing, etc.) attributed to the tax reform. Publishing a quarterly bulletin with accompanied data that highlights jobs created from the tax reform would empower politicians and citizens to properly evaluate the effects of the reform.

2.3.3 Fiscal Rule of 2011

An interview with Carolina Soto, the Vice Minister of the Ministry of Finance, illustrated that Colombia intends to approach its higher-than-average current account deficit by targeting responsible fiscal policies, including current account deficit targeting.¹⁰⁹ It is important that in a time of increasing production of extractive resources, and therefore higher incoming tax and royalty revenues, the government not spend all its income away in the short-term. Rather, the government should focus on saving and reducing unnecessary spending on consumption, effectively lengthening the stream of income from the extractive industries. Doing otherwise could lead Colombia towards the resource curse.

In 2011, the Congress passed deficit reduction measures as part of Legislative Act No. 1473 of 2011. It maintains that the structural budget deficit should decline to 1 percent of GDP or less by 2022. It follows the schedule as set forth below (Figure 29).¹¹⁰ The primary balances allow for public debt reduction from 45 percent of GDP in 2011 to 30 percent of GDP by 2020.¹¹¹

As of year-end 2013, Colombia's current account deficit stood at 3.4 percent of GDP, or US\$12.7 billion.¹¹² Despite lower tax revenue in 2013, Colombia saw a reduction in its budget deficit from 2.45 percent in 2012 to 2.41 percent in 2013, showing that the government is managing spending down and is committed to the 2011 rule it passed.¹¹³

Colombia is an investment grade rated sovereign by all three major rating agencies. Because of the investment the country has seen in the last decade, sovereign ratings have become an important barometer of Colombia's fiscal improvement. The rating agencies' concerns regarding the country's budget deficit were offset by the country's relatively lower debt load, of 37.1 percent of GDP, as compared to its Latin American peers, as well as the country's commitment, as outlined by the Fiscal Rule, to responsible government spending.¹¹⁴ This has helped to improve investor confidence in the Colombian government, an important factor given the huge inflows of investor capital that enter Colombia annually, especially in the hydrocarbon and mining sectors.

Figure 29 Colombia's fiscal ruling of 2011

Schedule of Budget Deficit Reduction Legislative Act No. 1473 of 2011	
	Target
Through 2014	2.3% or less
2015 through 2018	1.9% or less
2022 and onwards	1.0% or less

Managing the Economy

Colombia has looked to Chile as a reference point in Latin America for its fiscal governance and the revenues received from the extractive industries.¹¹⁵ Chile's central government has conducted its fiscal policy in accordance with a structural-surplus rule, meaning that the government's overall structural surplus should equal 1 percent. This was codified in the 2006 Fiscal Responsibility Law.¹¹⁶ Chile's fiscal rule attempts to shield expenditure in the economy from cyclical fluctuations of GDP and, importantly, mineral export prices, especially of copper. It has been arguably successful in reducing pro-cyclical spending and output volatility as well as limiting appreciation of the real exchange rate.¹¹⁷

Recommendation [5]: Invest structural surplus into the existing Savings and Stabilization fund. With the Fiscal Rule of 2011 described below, Colombia embarked on a path of responsible fiscal spending. It should strengthen its commitment and enhance saving for future generations by investing structural surplus over a certain threshold into its stabilization fund, similar to Chile's example, thereby maximizing the future value of the current revenues and benefits it sees from the extractive industries.

A budget deficit is not inherently bad. Formalizing responsible fiscal spending, which is the goal of this act, is an appropriate next step as Colombia seeks to solidify its middle-income status and improve to strong investment grade credit ratings. Given the importance of oil and coal, and the volatility in the prices of these two commodities, Colombia has taken an important step to shield its economy from exogenous price shocks by creating strategic reforms designed to fortify its economy which is further discussed below.¹¹⁸ Yet, a point of concern remains in that the reform is back-end loaded; the bulk of deficit reduction is left for the latter half of the decade. Unpredictable exogenous shocks or shifts in political will could see Colombia deviate from the intentions set forth in this Act.

Recommendation [6]: Oversight of Fiscal Rule. To shield from shifting political winds, Colombia could entrust oversight of the government's compliance with the Fiscal Rule to an independent body that is not swayed by shifting political winds.

It is evident from this section that Colombia must remain vigilant in promoting policies that protect the country from falling victim to the resource curse. Importantly, it is imperative

Colombia invests the wealth generated from its extractive industries effectively for the generations to come.

2.4 Generating Revenue for Future Generations

It is important that the Colombian government receives its fair share of the revenue from its extractive industry and then utilizes this wealth effectively. This section firstly addresses windfall taxes, which are an effective way for resource rich countries like Colombia to ensure that a fair share of the profit from higher extractive commodity prices benefits the local population. This section also analyzes Colombia's current funds that have been implemented to save and invest for future generations, including the: (1) Savings and Stabilization Fund (2) Pensions fund and (3) the Science and Technology fund. A number of recommendations are made to enhance the returns on revenue savings and provide the country with greater security in its saving.

Implement a Wind Fall Tax

Windfall taxes on extractive industries are becoming increasingly popular in many natural resource rich economies, as states readjust their regulatory frameworks to ensure that a fair share of the profit from higher extractive commodity prices benefit the local population. Around 25 countries have recently increased or have plan to increase their tax and royalty regimes for their extractives sector, including Australia, Ghana, Guinea, Peru, and Zambia. Such regulatory change can inspire similar adjustments in Colombia's windfall profit mechanism in order to divert more revenue to the State.¹¹⁹

Relevant legislation for the extractive industry in Colombia is silent on establishing a windfall profit tax that activates when natural resource commodity prices increase beyond a stipulated amount.¹²⁰ The design of the windfall tax in particular should recognize that companies choose to invest on the basis of an assumed or anticipated IRR, which is not disclosed to a government with the consequence that working assumptions must be made by the government.

Revenue Watch: Peru Negotiates Windfall Profit Tax (2011)

In 2006, Former President Alan Garcia negotiated an agreement with mining companies that established a voluntary payment of 3.75 percent of net profits over five years, instead of a windfall profit tax. Under the agreement, the government captured only a fraction of company revenues from 2007-2011: a total of \$900 million, instead of the \$6 billion they would have received under a windfall tax. The government also allowed these revenues to be managed directly by the companies.

However in 2011, Peru's congress passed three bills codifying a windfall profit tax framework into law, establishing three mechanisms to capture additional income for companies operating under varying contract and royalty agreements. The tax is expected to bring in an additional \$500 million for the government, which is significantly more than what companies have paid under the voluntary contribution agreement.

Recommendation [7]: Windfall tax provisions should be introduced into relevant legislation so that they are not bargained away or ignored in negotiations with companies. This would help ensure the government retains the portion of revenue it earns.

The Savings and Stabilization Fund

The Savings and Stabilization fund receives 30 percent of the General System of Royalties and is administered by the Banco de la República, the central bank of Colombia. This fund disburses monies to the other five funds in the event of a deficit as defined by the Legislative Act 1530 of 2012; the maximum it may disburse, however, is capped at 10 percent of the prior year's balance. According to government forecasts, the fund is expected to reach US\$ 12.5 billion in today's conversion (24 trillion pesos) by 2022.¹²¹ Growth of Colombia's fund over the next decade is comparatively slower than growth of Chile's Economic and Social Stabilization fund, currently valued at US\$15.8 billion, roughly seven years after it was created.¹²²

For countries with a high dependence on natural resource revenues, commodity price volatility is dangerous. Governments tend to expand spending during price boom. When commodity prices fall, government spending is often cut, sometimes sharply, leading to a contraction of aggregate demand. This introduces global volatility into the domestic economy, often expanding the negative effect of decreased government spending.¹²³

The Stabilization fund addresses a key risk that economies with a high dependence on natural resource revenues face: during periods of a global downturn, fiscal deficit, or macroeconomic shock, the stabilization fund can act as a replacement for international loans and provide funds that may be difficult and expensive to access through international capital markets. It reduces the effect of price volatility on the economy and ensures the country expands its savings.¹²⁴ The role of the Stabilization fund is to "buffer negative shocks on government expenditure caused by sharp declines in resource prices and the subsequent resource-related revenues." Countries with stabilization funds have been shown to have smoother government spending patterns.¹²⁵

Recommendation [8]: Create a sub-fund. The current structure of the Savings and Stabilization fund should be modified. A sub-fund within the existing Savings and Stabilization fund could be managed by an external investment management firm with risk parameters agreed upon by the government.

Recommendation [9]: Consider enhancing returns on savings. The government should consider the creation of a sub-fund that utilizes a set percentage of inflows into the Savings and Stabilization Fund that is invested into an investment portfolio with a longer average maturity. This would enable it to grow relatively small sums of royalty revenues (plus, perhaps fiscal surpluses over a certain threshold) more effectively. This would help enhance the returns on savings and provide the country with greater security in its saving.

The Pension Fund

The Pension fund receives 10 percent of the General System of Royalties. The National Pension Fund manages the annual distribution of funds for Territorial Entities (part of "FONPET").¹²⁶

Investment of FONPET funds is diversified across fixed income, real estate, and equity securities.¹²⁷ FONPET's projected balance at year-end 2013 was \$18.3 billion (35 trillion pesos), or about 4.9 percent of GDP.¹²⁸

The National Pension Fund for Territorial Entities functions as an additional savings fund and addresses the need for an intergenerational transfer of assets stemming from the extraction of natural resources, durable assets that are not renewable. The funds not used for present-day investment in regional development, regional compensation, or research and development should be saved and built upon for future generations.¹²⁹ This fund is part of roughly US\$60 billion of pension savings, of which US\$24 billion comprises public pension funds.¹³⁰

The Science and Technology Fund

The Science and Technology fund receives 10 percent of the General System of Royalties. This fund aims to invest in projects at the department, district, and municipal level that satisfy the requirements set out by a board of members, described earlier in the Governance section as OCADs.¹³¹ As per Legislative Act 1530 of 2012, the projects supported by the fund should enhance regional competitiveness in their capacity to increase production, expand knowledge base, or benefit society.

The Act specifically targets sustainable practices and projects that focus on biotechnology, information technology, and communications. The mechanism for department-level participation is similar to those found in the Regional Compensation and Regional Development funds.¹³² Since 2012, however, only 202 projects have been approved while departments and municipalities wait for decisions to be made by the OCADs. The problem of royalty reinvestment is one extensively covered in the Governance section.

The aim is to finance regional projects agreed between respective local authorities and the national government; additional funding can be secured through the national government. Projects funded through the Science and Technology fund are under the charge of the Administrative Department for Science, Technology, and Innovation.¹³³

While this fund represents a present-day expenditure, the investments made could effectively benefit present and future generations, if well managed. According to some estimates, investment in research and development in rich countries averages around 2 percent of private sector revenues; Latin American countries invest around 0.5 percent of private sector revenues.¹³⁴ This fund addresses the need for Colombia to expand innovation and investment in higher education. This would enable Colombia to better compete against countries like Chile and Brazil for a bigger share of employers seeking skilled labor.

Chile and General Electric: 2006

Chile welcomed General Electric (GE) in 2006 when the company opened a software development center in Santiago. The company was encouraged by Chile's political stability and strong business environment. In a testimonial, the company's planning executives pointed to the government's policies promoting innovation, investment in technology, and strong telecommunications infrastructure; importantly, a global assortment of planning executives

focused on Chile's human capital, relevant skills found in the country's labor force, and strong secondary and higher education system. Since then, companies such as McAfee (now part of Intel), Nestlé, and Oracle have opened research centers or regional operations in Chile.¹³⁵

Recommendation [10]: Promote higher education in science and technology. In addition to investing royalties from the Science and Technology fund into projects that may include education-related plans, the national government should develop and concentrate efforts on enhancing Colombia's labor skill level and human capital to better compete for higher-skill labor and investment.

Closing Observations

Though Colombia has already taken several necessary steps to contain the effects of the resource curse it can still do more. Improvements including increased transparency of both the royalty distribution and tax reforms will promote government accountability. Moreover, investing structural surplus into the Savings and Stabilization fund, the implementation of windfall tax provisions, and strategic investment through the creation of a sub-fund could produce additional extractive industry revenue and establish solid socioeconomic foundations into the future. Lastly, strict adherence to the Fiscal Rule will help protect Colombia against changing political tides by entrusting an independent body to ensure proper enactment of the Fiscal Rule. Self-examination and culpability are critical as Colombia continues moving forward with its extractive resource production.

Notes to Section 2

⁷⁸ World Economic Outlook Database, International Monetary Fund, accessed April 30, 2014, <http://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx>.

⁷⁹ U.S. Energy Information Administration, Colombia, (U.S. Energy Information Administration, 2014), 3.

⁸⁰ Central Bank of Colombia, DANE, accessed April 30, 2014, <http://www.banrep.gov.co/es/balanza-comercial>; Germán Botero de los Ríos and Sergio Clavijo, Estructura Fiscal de Colombia y Ajustes Requeridos (2010-2020), (Fedesarrollo, 2011), 91; Marco Fiscal de Mediano Plazo, 2013.

⁸¹ Dirección de Impuestos y Aduanas Nacionales de Colombia (DIAN), Management and Figures, accessed May 7, 2014, http://www.dian.gov.co/dian/14cifrasgestion.nsf/pages/Recaudo_tributos_dian?OpenDocument.

⁸² Martínez, Astrid, “Estudio sobre los impactos socioeconómicos del sector minero en Colombia: encadenamientos sectoriales,” *Fedesarrollo* (May 2013); Guillermo Perry and Mauricio Oliveira, “El impacto del petróleo y la minería en el desarrollo regional y local en Colombia” *CAF*, (July 2009)

⁸³ For Royalty Reform: Legislative Act No. 5 of 2011; for Tax Reform: Legislative Act No. 1530 of 2012; for Fiscal Rule: Legislative Act No. 1473 of 2011.

⁸⁴ Central Bank of Colombia

⁸⁵ Indeed, foreign capital inflows into mining increased 17 percent; inflows into oil and gas increased by more than a third from 2004-2013. Republic Bank of Colombia, http://www.banrep.gov.co/series-estadisticas/see_s_externo.htm#pagos

⁸⁶ Republic Bank of Colombia (http://www.banrep.gov.co/series-estadisticas/see_s_externo.htm#pagos)

⁸⁷ “Mozambique: Mobilizing Extractive Resources for Development,” SIPA, Columbia University, (2013) http://mozambiqueextractivedevelopment.weebly.com/uploads/1/1/0/9/11096909/mozambique_-_extractives_for_prosperity_reduced_3.pdf; Elijah Udoh and Festus O. Egwaikhide, “Does International Oil Price Volatility Complement Domestic Food Price Instability in Nigeria? An Empirical Study,” *International Journal of Economics and Finance*, Vol. 4, No. 1, pages 235-246 (Jan. 2012)

⁸⁸ International Coffee Organization; Reuters, “Producción de café en Colombia sube 41% en 2013,” *Portafolio*, 3 Jan 2014; “Colombia recupera el cuarto lugar en producción de café,” *Portafolio* (Aug 12, 2013)

⁸⁹ DANE; Non-traditional exports exclude: coffee, coal, oil, and nickel.

⁹⁰ Further research should be done on the impacts of investment dollars into productivity in Colombia’s extractive and major non-extractive industries, as well as their effects on the formal labor market and Colombia’s large informal labor market.

Some research has been done by economists studying Colombia on the effects of the peso's appreciation (see authors mentioned in Footnote 3), though on a macro level.

⁹¹ Bloomberg

⁹² Reuters, "Columbia not mulling capital controls to stem peso rally, (Sep 5, 2012)

<http://www.reuters.com/article/2012/09/05/colombia-peso-idUSL2E8K565N20120905>

⁹³ "Mozambique: Mobilizing Extractive Resources for Development," SIPA, Columbia University, (2013)

http://mozambiqueextractivedevelopment.weebly.com/uploads/1/1/0/9/11096909/mozambique_extractives_for_prosperity_reduced_3.pdf

"Mozambique: Mobilizing Extractive Resources for Development," SIPA, Columbia University, (2013)

http://mozambiqueextractivedevelopment.weebly.com/uploads/1/1/0/9/11096909/mozambique_extractives_for_prosperity_reduced_3.pdf

⁹⁵ Legislative Act No. 5 of 2011; "Mozambique: Mobilizing Extractive Resources for Development," SIPA, Columbia University, (2013)

http://mozambiqueextractivedevelopment.weebly.com/uploads/1/1/0/9/11096909/mozambique_extractives_for_prosperity_reduced_3.pdf

⁹⁶ Full year 2013 figures have not been verified by the government as of April 2014; Marco Fiscal de Mediano Plazo (2013)

⁹⁷ Ministerio de Minas y Energia, "Censo Minero"

<http://www.minminas.gov.co/minminas/downloads/UserFiles/File/Minas/CensoMinero/CensoMineroDptal3.pdf>

⁹⁸ Converted using May 2014 exchange rate; Marco Fiscal de Mediano Plazo, 2013.

⁹⁹ Further research on models utilized by Chile, for example, in formalizing mining copper, and applications towards the Colombian economy would be useful. It was not covered in this report.

¹⁰⁰ This section discusses tax revenues in Colombia. However, this information is not broken out by sector by government agencies, leaving economists estimating the tax revenues the government sees in relation to the extractive sector.

¹⁰¹ Ministro de Hacienda y Crédito Público, Pagando Impuestos en Colombia, page 7 (2013)

¹⁰² The Ministry of Finance and Public Credit estimates 59.6 percent of the total employment to be informal. DANE recorded total national employment at 20,231,000 in 2013.

¹⁰³ Fedesarrollo.

¹⁰⁴ Interview with Carolina Soto, Vice Minister of Ministry of Finance and Public Credit (Mar. 20, 2014)

¹⁰⁵ Garcia, Eduardo, "Colombia unveils tax reform to create jobs, close loopholes," *Reuters*, (Oct. 2 2012)

¹⁰⁶ Ministro de Hacienda y Crédito Público, Pagando Impuestos en Colombia, page 10

¹⁰⁷ DANE; Interview with Carolina Soto, Vice Minister of the Ministry of Finance and Public Credit (Mar. 20, 2014)

¹⁰⁸ PWC, Significant Colombia tax reform reduces tax rates on income and capital gains, and introduces new equality tax, branch profits tax, GAAR, and more! (Jan. 22, 2013).

¹⁰⁹ Interview with Carolina Soto (Mar. 19 2014)

¹¹⁰ Legislative Act No. 1473 of 2011.

¹¹¹ Juan Carlos Berganza.

¹¹² Nelson Bocanegra and Peter Murphy.

¹¹³ Carlos Vargas and Helen Murphy, “Colombia meets 2013 deficit target with less tax revenue”, *Reuters* (December 30, 2013).

¹¹⁴ *Reuters*, “Fitch upgrades Colombia credit rating to BBB, outlook stable,” (Dec. 10 2013)

¹¹⁵ Banco de la República, Ministerio de Hacienda y Crédito Público, y Departamento Nacional de Planeación, “Regla Fiscal para Colombia, Comité Técnico Interinstitucional” (July 7 2010).

¹¹⁶ Michael Kumhof and Douglas Laxton, “Chile’s Structural Fiscal Surplus Rule: A Model-Based Evaluation”, International Monetary Fund (January 28 2010); Chile Ley No. 20.128 sobre Responsabilidad Fiscal, 2006. This Law also created the Pension Reserve Fund, a savings fund that receives 0.2 to 0.5 percent of Chile’s GDP annually, and the Economic and Social Stabilization Fund into which fiscal surplus over 1 percent of GDP is invested.

¹¹⁷ Juan Carlos Berganza, “Fiscal Rules in Latin America: A Survey”, Documentos Ocasionales No. 1208, Banco de España (2012).

¹¹⁸ Juan Carlos Berganza, “Fiscal Rules in Latin America: A Survey”, Documentos Ocasionales No. 1208, Banco de España (2012).

¹¹⁹ “Mozambique: Mobilizing Extractive Resources for Development,” SIPA, Columbia University, (2013)

http://mozambiqueextractivedevelopment.weebly.com/uploads/1/1/0/9/11096909/mozambique_extractives_for_prosperity_reduced_3.pdf

¹²⁰ Law 635 of 2001, Law 141 of 1994, Law 756 of 2002 and Decree 4923 of 2011.

¹²¹ Legislative Act No. 1530 of 2012; Marco Fiscal de Mediano Plazo 2013, 176.

(<https://www.sgr.gov.co/LinkClick.aspx?fileticket=EZij8T5b0Jc%3d&tabid=95&mid=517>)

¹²² Ministry of Finance of Chile.

¹²³ “Mozambique: Mobilizing Extractive Resources for Development,” SIPA, Columbia University, (2013)

http://mozambiqueextractivedevelopment.weebly.com/uploads/1/1/0/9/11096909/mozambique_extractives_for_prosperity_reduced_3.pdf; Evan Tanner and Jorge Restrepo,

“A Cushion for the Poor,” *Finance and Development* (Vol. 48, No. 4, December 2011),

<https://www.imf.org/external/pubs/ft/fandd/2011/12/tanner.htm>.

¹²⁴ “Mozambique: Mobilizing Extractive Resources for Development,” SIPA, Columbia University, (2013)

http://mozambiqueextractivedevelopment.weebly.com/uploads/1/1/0/9/11096909/mozambique_extractives_for_prosperity_reduced_3.pdf

¹²⁵ Naotaka Sugawara and Atish R. Ghosh, “From Volatility to Stability in Expenditure: Stabilization Funds in Resource-Rich Countries,” IMF Working Paper (March 2014).

¹²⁶ Legislative Act No. 1530 of 2012.

¹²⁷ Legislative Act No. 549 of 1999.

(http://www.minhacienda.gov.co/portal/page/portal/HomeMinhacienda/SeguridadSocial/FONPET/NormativaFONPET/Leyes/LEY%20549%20DE%201999_0.pdf)

¹²⁸ Marco Fiscal de Mediano Plazo 2013, 69; 79; 103.

¹²⁹ Evan Tanner and Jorge Restrepo; Adam D. Dixon and Ashby H.B. Monk, *Role of Sovereign Wealth Funds in Africa*, 7.

¹³⁰ Schipani, Andres, "Chile, Peru and Colombia lead growth in Andes region," *Financial Times* (17 Nov 2013); Marco Fiscal de Mediano Plazo 2013, 103.

¹³¹ Legislative Act No. 5 of 2011.

¹³² Legislative Act 1530 of 2012.

¹³³ Nearly 10 billion pesos worth of projects, such as developing skills in the Amazonas department, developing sustainable technologies in Quindio, and evaluating urban planning in Bogotá, have been approved for 2012-2014; Legislative Act No. 5 of 2011; General System of Royalties press release (20 February 2014)

¹³⁴ The Economist: Special Report on Latin America, "It's only natural," (Sept. 9, 2010).

¹³⁵ Mohit Srivastava, "Chile offers an excellent business environment",

<http://www.ciechile.gob.cl/en/mohit-srivastava/>

3 Bilateral Investment, Legal Aspects

3.1 Context - Bilateral Investment Treaties

3.1.1 What is a Bilateral Investment Treaty

As of June 1, 2013 the UNCTAD reported that Colombia had reportedly concluded seven Bilateral Investment Treaties (BITs) with China, India, Japan, Peru, Spain, Switzerland and the United Kingdom respectively.¹³⁶

A Bilateral Investment Treaty (BIT) is an agreement between a host state and investor state, designed to promote and protect the interests of the two states in terms of investment. BITs were designed with the primary objective of promoting investment in developing countries by way of protecting foreign direct investment (FDI) from developed countries from the perceived or assumed instability in such states. One of the general criticisms of BITs is that the treaty can be said to constitute an unequal partnership in that it creates more rights for the investor than it creates obligations. While FDI is generally perceived as having a positive impact on development, BITs have traditionally not included environmental or social concerns as many BITs were concluded before such concerns became widespread. Another cause for concern is the language used in BITs, which tends to be very general and accordingly unpredictable, which in turn can lead to disputes between the host state and investor.

The concept of BITs was established in the early 1990's when developed countries were wary of investing in developing countries because of the instability in countries. Traditionally BIT provides the states with improved market access, protection from discrimination, expropriation or other harmful government treatment and provides the states with a mechanism to pursue binding international arbitration. Environmental, social and labor concerns on the other hand have traditionally been excluded from these treaties. The recent interest in including such clauses is a result of recent arbitration where states have, on the basis of their right to regulate in with regards to social and labor areas or environmental protection, challenged breach of contract claims by the investor.¹³⁷ Lately however, there seems to be a realization in the international trade community that trade and environmental protection, social development and transparency are interconnected issues and that trade cannot come at the expense of these essential elements of sustainable development.¹³⁸ Therefore more and more states have attempted to find a way to maintain a good investment culture and attract investors while at the same time protecting important environmental, social and labor goals. Moreover, the BITs provide foreign investors with numerous rights, without any assurance that it will generate pro-development investment. Investments should in the end benefit the citizens of the host state, and not have a detrimental effect on them. Foreign direct investment is vital for Colombia's growth and development but BITs are only one factor of attracting FDI into a country.¹³⁹

Considering Colombia's vast source of natural resources, the country should have a strong leverage in the negotiation proceedings to incorporate clauses beneficial to the development of

the country. When asking one government official about concerns regarding BITs potentially scaring off investors, she responded: “the resources are here in Colombia. Where else can the investors go?”¹⁴⁰ She further told that as Colombia’s BITs were negotiated later than many of the treaties in the neighboring countries, they learned from many of their mistakes and negotiated better BITs. In other words, she claimed that the Colombian government were well aware of the pitfalls that investors could use to sue the government and had worked hard to maintain the regulatory power of the government.¹⁴¹

However when interviewing one investment arbitration lawyer he stated that one of the main reasons why Colombia has not been involved in any arbitrations has less to do with the fact that Colombia’s BITs are so well formulated, and more to do with the fact that the mining companies in Colombia are not big actors. They simply cannot afford huge arbitration costs.¹⁴² Consequently, if Colombia’s mining industry in the future gains more interest from larger international mining corporations, arbitral disputes may increase. Against this backdrop, it is imperative that Colombia’s BITs are up to environmental and social standards in order to protect Colombia and its people and that they include clear language and clear definitions so as to avoid any ambiguities in interpretation in a potential arbitral dispute.

3.2 Colombia and Bilateral Investment Treaties

3.2.1 Define the Expropriation Clause

There is a concern that states because of the BITs are hindered to enact legislation that is beneficial to the public interest as this might subject countries to the risk of costly litigation by corporations.¹⁴³ One clause that gives rise for concern is the so-called expropriation clause that is ubiquitous in BITs, which typically compels the government to compensate the investor in the event of direct or indirect expropriation to the investment. This clause is often very general and lacks specificity, resulting in that host states are reluctant/limited to regulate in certain areas of public interest, as there is no predictability.¹⁴⁴

The expropriation clause is a standard clause included in BITs and regulates under which conditions a State may legally expropriate the property of a foreign investor.¹⁴⁵ Expropriation is in international investment law defined as “formal withdrawal of property rights for the benefit of the State or for private persons designated by the State”.¹⁴⁶ Expropriation can be either direct or indirect. The traditional direct expropriation (or nationalization) is the formal expropriation traditionally regulated by national legislation and need not be further explored in this context as this form of expropriation rarely poses any disputes. In contrast, indirect expropriation occurs when a State acts in a way that is “detrimental to foreign private investment”, while the investor formally maintains its property rights over the investment.¹⁴⁷ In other words, the measure taken by the State in reality has the equivalent effect to direct expropriation without transferring title, for example measure where the host government for environmental protection purposes chooses to turn an area into an ecological reserve, precluding the investor’s intended use of area, which was one of the issues in the *Metalclad v. Mexico* case.^{148, 149} In that case, the arbitral tribunal determined that the government measure constituted an expropriation, regardless of

the government's purpose of enacting the measure, regardless if the legislation was enacted in the name of public interest and the important question was whether the investor's investment had been harmed. In other words, the state action or regulations are in these cases not directed at the investment per se but instead aimed at safeguarding a public interest. These indirect expropriations have given rise to a number of disputes.¹⁵⁰ Commonly the State as a sovereign has the right to expropriate private foreign investments in its territory, under three conditions:

- 1) the expropriation is intended to satisfy public interest purposes,
- 2) the measure is not discriminatory
- 3) the investor is compensated for losses.¹⁵¹

On one hand there is a lack of consensus regarding under which conditions an investment may be deemed harmed owing to State regulation. On the other hand, there is lack of consensus on when conditions 1 and 2 can be considered to have been met and compensation must be paid by the state. In other words, what constitutes public interest and what is discriminatory? If a measure qualifies as indirect expropriation and the state has to compensate.

In effect the uncertainty surrounding the definition of indirect expropriation has prevented states from enacting stricter legislation in terms of public interest such as environment and labor, of fear of having to pay the investors for his losses and for fear of being brought before costly arbitral proceedings.¹⁵² It has been argued that states might "*decide not to take action in the public interest if it fears that such measures may qualify as indirect expropriation and, as such, require the State to pay substantial compensation*".¹⁵³

As states might not have the resources or will to compensate foreign investors for the expropriation, they might be unwilling to regulate when needed. Also the definition of indirect expropriation is too broad and there is a need to define public interest. According to Nikièma this concept includes "public order, public health, national security, human rights, public morals and environmental protection".¹⁵⁴ In addition, states may have to compensate investors for fulfilling its international obligations in terms of labor or environment.¹⁵⁵

Recommendation [1]: Clearly define the Expropriation clause in future BITs through the use of specific language.

3.2.2 The Fair and Equitable Treatment Clause

The other problematic clause is the Fair and Equal Treatment (FET) clause, which allows the foreign investor treatment no less favorable than that of the domestic investor.¹⁵⁶ In other words, this is a relative standard. The standard is also vague, which has led to disputes over its interpretation,¹⁵⁷ and has been used by investors as a "catch-all" clause where expropriation claims have failed.¹⁵⁸ In *Tecmed v. Mexico* the Mexican government had denied to re-license an operating waste treatment plant, which led to its shutdown. The arbitration tribunal stated that in order to avoid violating the FET clause a government must act non-ambiguously and transparently in enacting regulation and that the host state must act in a way that is consistent with the investor's expectations at the time the investment was made.¹⁵⁹ The burden of responsibility in showing that it has acted this way and the FET clause protects the "investor's legitimate expectations" (tribunal had a broad interpretation of this).¹⁶⁰ Consequently, the more

broadly this standard is interpreted, the less room for the government to enact stricter legislation in the name of public interest, without having to compensate the investors or end up in costly arbitral proceedings. To prevent this, the Colombian government should use specific language and clearly define the scope and content of the FET clause through specific language. Especially considering the government's problem with lack of transparency, which the investor could use against the government to strengthen the investor's case.

Recommendation [2]: Clearly define the scope and content of the Fair and Equitable Treatment Clause through the use of specific language.

3.3 Bilateral Investment Treaties and the Environment

3.3.1 Include Environmental Provisions in the BITs

In 2012 the US presented its model BIT aimed at strengthening labor and environmental protections (see more below), UNCTAD presented its Investment Policy Framework for Sustainable Development¹⁶¹ and in 2005 the International Institute for Sustainable Development (IISD) presented its Model International Agreement on Investment for Sustainable Development¹⁶².

Colombia's current BITs include general provisions stating that measures taken for public purposes, such as the environment, do not constitute indirect expropriation, but the terms are not further defined. The China - Colombia BIT includes an exception for "rare circumstances".¹⁶³ The exception is the signed BIT between Colombia - Japan, which apart from including several clauses highlighting the importance of upholding environmental legislation, also includes clauses related to importance of transparency, including in the arbitration proceeding.¹⁶⁴

Considering Colombia's unique situation in terms of unique natural resources and the vast environmental impact that the extractive industry is having on Colombia, the government should aspire to include environmental clauses in its future BITs. The purpose of including environmental clauses is to avoid a situation where the government feels limited to enact stricter environmental regulations from fear that the regulation will be considered indirect expropriation and require the government to compensate companies.

3.3.2 The Importance of Upholding Public Policy Interests in the Preamble of the BITs

Environmental clauses are becoming more frequent in BITs, both as referenced to in the preamble of the BIT and through specific clauses. In the FTA that was recently entered into between the EU and Colombia,¹⁶⁵ the parties' commitment to sustainable development and to the protection of the environment is included in the preamble.¹⁶⁶ Also included in the agreement are clauses stating that certain environmental measures taken by the State necessary to protect "human, animal or plant life or health" shall be exempted from constituting

discrimination.¹⁶⁷ The FTA also recognizes each parties' sovereign right to enact environmental and labor provisions consistent with international agreements and that each party should provide for high levels of environmental protection and sustainable development.¹⁶⁸ The treaty does also establish a few ways to ensure that each party adheres to the standards in the treaty, including conducting dialogues with civil society and consulting with experts. However, since the goals of the treaty are very general, it is questionable what result this de facto will have. There are current examples of where states have included environmental concerns in the preamble to the BIT. In the preamble to the Sweden – Mauritius BIT the parties agree that the objectives of the treaty can “be achieved **without relaxing** essential security interests, health and safety and environmental measures of general application.”¹⁶⁹

In April 2012 the U.S. Department of State and the Office of the United States Trade Representative presented its updated so called model BIT.¹⁷⁰ The main objectives of this model BIT were to strengthen labor and environmental protections as well as promote good governance and transparency around the world.¹⁷¹ In drafting this BIT the US government sought input from among others labor groups and environmental organizations. In the preamble to the US model BIT is included a passage that emphasizes that the objectives of the BIT should be achieved in a manner consistent with the protection “environment, and the promotion of internationally recognized labor rights.”¹⁷² The preamble to a treaty is not enforceable and is in reality toothless. It does not creates rights or obligations for any of the parties. However, the preamble does set the tone of the agreement and is the lens through which the agreement should be read and interpreted. By including reference to the environment, labor rights and health concerns as well as to transparency, the states underscore the importance of upholding these public policy objectives.

Recommendation [3]: Highlight the importance of upholding high environmental standards in the preamble to the BIT

This umbrella provision must be accompanied by more specific environmental clauses that enable Colombia to reserve space to regulate environmental issues. The US model treaty could serve as inspiration when drafting the future BITs. Article 12 of the US model treaty rather extensively treats the environment issues. Article 12(1) emphasizes that environmental laws play an important role in protecting the environment.¹⁷³ Article 12(2) declares that the parties recognize that it is “inappropriate to encourage investment by weakening or reducing the protections afforded in domestic environmental laws” and each party shall ensure that it does not act in a manner that weakens the protections afforded in those laws.¹⁷⁴ In 12(4) the term environmental law is clearly defined so as to avoid any ambiguities. Finally in 12(5) an umbrella provision is included which states: “Nothing in this Treaty shall be construed to prevent a Party from adopting, maintaining, or enforcing any measure otherwise consistent with this Treaty that it considers appropriate to ensure that investment activity in its territory is undertaken in a manner sensitive to environmental concerns”. In other words, the BITs should reaffirm Colombia’s right to regulate in order to protect public interests such as the environment and public health and that that the adoption of such measures shall not constitute indirect expropriation, meaning that the state does not have to compensate the investor should the investment be in any way adversely impacted by the government action. Another solution could be to include a so-called general exceptions provision, that covers measures to protect the

environment and that applies to all obligations in the model treaty.¹⁷⁵

Recommendation [4]: Include a general exceptions provision that excludes measures to protect the environment entirely from the BITs alternatively include a provision in the BITs that stipulates that the adoption of measures in the name of public interests such as environment and public health shall not constitute indirect expropriation.

Recommendation [5]: Include clear, non-ambiguous and binding environmental provisions similar to those in the US model treaty in the drafting of Colombia's future BITs.

Additionally there should be a provisions included in the BITs that require corporations to comply with national environmental legislation, including the requirement that the companies conduct Environmental and Social Impact Assessments. The more specified the BITs are, the more pressure for arbitrators to take these issues into account when deciding on cases.¹⁷⁶

Recommendation [6]: Include binding provisions in the BITs that require that the corporations make Environmental and Social Impact Assessments

Recommendation [7]: Include binding provisions in the BITs that require compliance with all national environmental legislation.

3.4 Bilateral Investment Treaties and Human Rights

3.4.1 Context – Colombia and Conflict

Considering the issues with the armed groups that are specific to Colombia, certain provisions could be included that take aim at preventing human right's violations. One of the NGOs that was interviewed advocated that pressure should be put on investors not to conduct business with people who are involved in armed groups, that are in turn are illegally seizing land or are involved in other human rights violations and that the rights of the investors should be conditioned upon this premise.¹⁷⁷

Recommendation [8]: Include a provision in the BITs that conditions investors' rights upon the premise that they are not conducting business with people who are involved in armed groups carrying out human rights violations.

Many BITs refer generally to International Human Rights treaties. There has also been a human rights provision included in the EU-Colombia FTA but is in reality toothless.¹⁷⁸ On the contrary, there are concerns that the EU-FTA will exacerbate violent displacements as the agreement encourages investment in extractive industries without strengthening social rights.¹⁷⁹ Last year Canada and Benin signed a BIT,¹⁸⁰ which included a provision requiring the two countries to encourage their investors to comply with internationally, recognized standards of

corporate social responsibility. This treaty also highlights the importance of transparency and public scrutiny in the arbitration proceedings, allowing NGOs to file submissions with the tribunals under certain circumstances.¹⁸¹

One government employee¹⁸² expressed a desire that the future Colombian BITs comply with the CSR provisions in the OECD Due Diligence Guidance for Responsible Supply Chains Of Minerals from Conflict-Affected and High-Risk Areas.¹⁸³ This document aims at preventing companies involved in mining or trade in minerals from contributing or being associated with “significant impacts, including serious human rights abuses and conflict.”¹⁸⁴ It serves as a practical due diligence guide in the mineral supply chain to help companies contribute to sustainable development in high-risk areas. The companies guarantee not to in any way support non-state armed groups or to contribute to human rights violations.¹⁸⁵

Recommendation [8]: Include a provision in the BITs that conditions investors’ rights upon compliance with the OECD Due Diligence Guidance for Responsible Supply Chains Of Minerals from Conflict-Affected and High-Risk Areas.

3.5 BITs and Arbitration

3.5.1 Context – Colombia, BITs and Transparency

Corruption has been reported to be the most problematic factor for doing business in Colombia.¹⁸⁶ In 2013 the World Economic Forum published the Global Competitiveness Report for 2013-2014 where Colombia ranked no 106 with a value of 3.0¹⁸⁷ in terms to which extent the judiciary is independent from influences of members of government, citizens or firms.¹⁸⁸ The same report ranked Colombia at 95th place on the efficiency of the legal framework for private businesses in settling disputes with a score of 3.4, 1 = extremely inefficient; 7 = extremely efficient.¹⁸⁹

3.5.2 Make the Legislative Process Transparent and Public

Non-transparency in the legislative branches can create investor-state disputes without good reason. If the actions taken or legislation implemented by the host country are transparent this might prevent disputes, in that the investor will be satisfied that the enacted legislation does not constitute disguised protectionism. A transparent legislative process also provides predictability for the investor, the host state and the citizens. The investors will be informed about the laws and decisions before they are implemented. This makes it easier for an investor to determine if the treatment has been fair and equitable or if it constitutes disguised protectionism. This will prevent unnecessary disputes and also help attract investment as the investors feel that they can make a proper risk assessment.¹⁹⁰ This could be incorporated in Colombia’s future BITs through a provision similar to Article 10 (1) of the US model BIT which states that “each Party shall ensure that its laws, regulations, procedures, and administrative rulings of general application” concerning foreign investments are “promptly published or

*otherwise made publicly available.*¹⁹¹

Recommendation [10]: Ensure that the legislative process is transparent. Include a provision in Colombia’s future BITs stating that each party ensure that its proposed and enacted laws and regulations should be made publicly available so as to prevent investor-state disputes.

3.5.3 Make the Arbitration Procedure Transparent and Public

Arbitration proceedings are generally not public, meaning that there is no way to find out how the panel has reasoned in a certain case regarding the clause. Even if they were public, previous awards or decisions in no way bind arbitration panels. Therefore the unpredictability is worsened. In addition some critics have argued that the arbitrators have a bias in favor of transnational companies as well as an interest in maintaining the dispute resolution system.¹⁹²

One strong critique against including arbitration clauses in BITs are that BITs seldom include provisions that the parties are required to exhaust national remedies before submitting a dispute to arbitration. However, since Colombia’s legal system is known to be corrupt and inefficient,¹⁹³ a clause in the BITs requiring investors to first exhaust domestic remedies might disincentivize investment as it would become too much of an obstacle for investors to protect their investments. Therefore, the negotiation processes should focus on how to make the potential arbitral proceedings beneficial for Colombia. With this in mind, it does not seem feasible at this point for Colombia to not include arbitration clauses in future investment treaties. Instead, the focus should be on regulating the terms surrounding the arbitral procedure. There are several ways in which this should be done.

On April 1, 2014 the UNCITRAL Rules on Transparency in Treaty-based investor-State Arbitration (the "Rules on Transparency"), came into effect.¹⁹⁴ These procedural rules provide for “transparency and accessibility to the public of treaty-based investor-State arbitration.” The resolution states that the GA among other things recognizes the need for provisions on transparency in arbitral disputes so as to take into account the public interest in the arbitrations as well as believes that transparency will contribute to establishment of a harmonized legal framework for a fair and efficient settlement of dispute.¹⁹⁵

Recommendation [11]: Include in Colombia’s future BITs that the parties agree to apply the UNCITRAL Rules of Transparency in any arbitral dispute arising out of the BIT regardless if these are initiated under UNCITRAL Arbitration Rules, as well as in ad hoc proceedings.

It is imperative that the arbitration proceedings are transparent; that the hearings are public and that all documents related to the arbitration are made available to the public. This should include arbitral decisions and awards.¹⁹⁶ This would on one hand ensure that the public is informed of developments and decisions that directly or indirectly affect their lives and on the other hand provide the investor state, host state and investors with certain predictability, creating a better climate for investment. Even though arbitrators are not bound by previous arbitral awards, previous arbitration awards might be used by the arbitrators as guidance. Also, the understanding that the decisions will become public might encourage the arbitrators to

thoroughly justify the reasoning behind the awards, especially if it contradicts the reasoning of previously decided. In addition NGOs and Public Interest groups should be allowed to file submissions with arbitral tribunals where specified criteria are met.¹⁹⁷ It is imperative that the experts that are brought in to testify are not arbitrators but independent experts in the relevant field of expertise.

Recommendation [12]: Include a clause in the BIT stating that NGOs and Public Interest groups shall be allowed to file submissions with the arbitral tribunals during the proceedings.

Recommendation [13]: Through democratic debates and public scrutiny, include NGOs and citizens in the negotiation process to provide input in matters that might affect the development of the state.

3.5.4 Impose a Cap on the Costs of the Arbitration Proceedings

The dispute settlement mechanism is another source of controversy. Disputes surrounding the BITs are traditionally resolved by arbitration panels. Typically, in the case of a dispute, BITs allow an investor to sue states before international arbitration panels before having to exhaust domestic legal remedies. These disputes can affect important public interests, such as a dispute about contracts for a company to run water supply schemes raises important issues for people's access to water.¹⁹⁸ These arbitration proceedings are very costly, both in regards to the legal expenses and with regards to the compensation that they might have to pay. This in turn makes states unwilling or weary of regulating in areas of public interest such as social, environmental and labor; if there is a risk that foreign investments are detrimentally affected.

Recommendation [14]: Include clause in the BITs imposing a cap on the costs of lawyers and arbitrators in the arbitration proceedings.

Notes to Section 3

¹³⁶ Full list of Bilateral Investment Agreements (June 2013)

http://unctad.org/Sections/dite_pcbb/docs/bits_colombia.pdf

¹³⁷ *Investment Treaties & Why They Matter to Sustainable Development: Questions & Answers*, IISD, pages. 5-6 (2012)

http://www.iisd.org/pdf/2011/investment_treaties_why_they_matter_sd.pdf

¹³⁷ Mary E. Footer, *Bits and Pieces: Social and Environmental Protection in the Regulation of Foreign Investment*, Michigan State Journal of International Law, page 34 (2009)

<http://digitalcommons.law.msu.edu/cgi/viewcontent.cgi?article=1005&context=ilr>

¹³⁸ See for instance Lorenzo Colula, *Is the tide turning for Africa's investment treaties?*, (March 8, 2013) <http://www.iied.org/tide-turning-for-africa-s-investment-treaties>

¹³⁹ *The Role of International Investment Agreements in Attracting Foreign Direct Investment to Developing Countries*, UNCTAD Series on International Investment (2009)

http://www.unctad.org/en/docs/diaeia20095_en.pdf

¹⁴⁰ Interview with Colombian government official (March 2014)

¹⁴¹ Interview with Colombian government official (March 2014)

¹⁴² Interview with American investment arbitration lawyer (March 2014)

¹⁴³ *Investment Treaties & Why They Matter to Sustainable Development: Questions & Answers*, IISD, pages 506 (2012)

http://www.iisd.org/pdf/2011/investment_treaties_why_they_matter_sd.pdf

¹⁴⁴ Mary E. Footer, *Bits and Pieces: Social and Environmental Protection in the Regulation of Foreign Investment*, Michigan State Journal of International Law, page 39 (2009)

<http://digitalcommons.law.msu.edu/cgi/viewcontent.cgi?article=1005&context=ilr>

¹⁴⁵ For example the expropriation clause In Article VI of the Colombia – UK BIT states: “Investments of investors of a Contracting Party in the territory of the other Contracting Party shall not be the subject of nationalization, direct or indirect expropriation, or any measure having similar effects (hereinafter “expropriation”) except for reasons of **public purpose or social interest** (which shall have a meaning compatible with that of “public purpose”), in accordance with due process of law, in a non-discriminatory manner, in good faith and accompanied by prompt, adequate and effective compensation.

¹⁴⁶ Suzy H. Nikièma, *Best Practices Indirect Expropriation*, IISD, page 1 (March 2012)

http://www.iisd.org/pdf/2012/best_practice_indirect_expropriation.pdf

¹⁴⁷ Suzy H. Nikièma, *Best Practices Indirect Expropriation*, IISD, page 1 (March 2012)

http://www.iisd.org/pdf/2012/best_practice_indirect_expropriation.pdf

¹⁴⁸ *Metalclad Corporation v. United Mexican States*, ICSID Case No. Arb/AF/97/1, Award, para. 111 (Aug. 2000)

¹⁴⁹ *Investment Treaties & Why They Matter to Sustainable Development: Questions & Answers*, IISD, pages 16-17 (2012)

http://www.iisd.org/pdf/2011/investment_treaties_why_they_matter_sd.pdf

¹⁵⁰ For examples see for instance “*Investment Treaties & Why They Matter to Sustainable Development: Questions & Answers*,” IISD, page 16(2012)

http://www.iisd.org/pdf/2011/investment_treaties_why_they_matter_sd.pdf

¹⁵¹ Suzy H. Nikièma, *Best Practices Indirect Expropriation*, IISD, page 1 (March 2012)

http://www.iisd.org/pdf/2012/best_practice_indirect_expropriation.pdf

¹⁵² *Investment Treaties & Why They Matter to Sustainable Development: Questions & Answers*, IISD, pages 7-8 (2012)

http://www.iisd.org/pdf/2011/investment_treaties_why_they_matter_sd.pdf

¹⁵³ Suzy H. Nikièma, *Best Practices Indirect Expropriation*, IISD, page 2 (March 2012)

http://www.iisd.org/pdf/2012/best_practice_indirect_expropriation.pdf

¹⁵⁴ Suzy H. Nikièma, *Best Practices Indirect Expropriation*, IISD, page 3 (March 2012)

http://www.iisd.org/pdf/2012/best_practice_indirect_expropriation.pdf

¹⁵⁵ Suzy H. Nikièma, “Best Practices Indirect Expropriation”, IISD, page 4 (March 2012)

http://www.iisd.org/pdf/2012/best_practice_indirect_expropriation.pdf

¹⁵⁶ Article 4(2) of the Colombia-Switzerland BIT states: “Each Party shall ensure fair and equitable treatment within its territory of the investments of investors of the other Party. This treatment shall not be less favourable than that granted by each Party to investments made within its territory by its own investors, or than that granted by each Party to the investments made within its territory by investors of the most favoured nation, if this latter treatment is more favourable.”

¹⁵⁷ See for instance *Fair and Equitable Treatment*, UNCTAD Series on Issues in International Investment Agreements II (2012)

http://unctad.org/en/docs/unctaddiaeia2011d5_en.pdf

¹⁵⁸ “Investment Treaties & Why They Matter to Sustainable Development: Questions & Answers,” IISD, page 12 (2012)

http://www.iisd.org/pdf/2011/investment_treaties_why_they_matter_sd.pdf

¹⁵⁹ *Técnicas Medoambientales Tecmed S.A. v. United Mexican States*, ICSID Case no. ARB(AF)/00/2, Award, May 29, 2003 cited in *Investment Treaties & Why They Matter to Sustainable Development: Questions & Answers*, IISD, page 12 (2012)

http://www.iisd.org/pdf/2011/investment_treaties_why_they_matter_sd.pdf

¹⁶⁰ *Investment Treaties & Why They Matter to Sustainable Development: Questions & Answers*, IISD, page 12 (2012)

http://www.iisd.org/pdf/2011/investment_treaties_why_they_matter_sd.pdf

¹⁶¹ “Investment Policy Framework for Sustainable Development,” UNCTAD, (2012)

http://unctad.org/en/PublicationsLibrary/webdiaepcb2012d6_en.pdf

¹⁶² “Model International Agreement on Investment for Sustainable Development,” (2005) http://www.iisd.org/pdf/2005/investment_model_int_handbook.pdf

¹⁶³ Article 4(2c) Colombia-China BIT,

http://unctad.org/sections/dite/ia/docs/bits/colombia_china.pdf

¹⁶⁴ Agreement between Japan and Colombia for the Liberalization, Promotion and Protection of Investment http://arbitrationlaw.com/files/free_pdfs/japan-colombia_bit.pdf

¹⁶⁵ Trade Agreement Between the European Union and its Member States, of the one Part and Colombia and Peru, of the other part, http://trade.ec.europa.eu/doclib/docs/2011/march/tradoc_147704.pdf

¹⁶⁶ “COMMITTED to implementing this Agreement in accordance with the objective of sustainable development, including, the promotion of economic progress, the respect for labor rights and the protection of the environment, in accordance with the international commitments adopted by the Parties”

¹⁶⁷ Articles 106, 174, EU-Colombia Peru FTA

¹⁶⁸ Articles 268 – 286, EU-Colombia Peru FTA

¹⁶⁹ See Preamble, Sweden – Mauritius BIT, (2005)

<http://www.regeringen.se/content/1/c6/13/54/70/98401076.pdf>

¹⁷⁰ 2012 U.S. Model Bilateral Investment Treaty,

<http://www.state.gov/documents/organization/188371.pdf>

¹⁷¹ Joint statement issued by U.S. Department of State and the Office of the United States Trade Representative (April 20, 2012)

<http://www.state.gov/r/pa/prs/ps/2012/04/188198.htm>

¹⁷² *Desiring* to achieve these objectives in a manner consistent with the protection of health, safety, and the environment, and the promotion of internationally recognized labor rights.

¹⁷³ The Parties recognize that their respective environmental laws and policies, and multilateral environmental agreements to which they are both party, play an important role in protecting the environment.

¹⁷⁴ 2. The Parties recognize that it is inappropriate to encourage investment by weakening or reducing the protections afforded in domestic environmental laws. Accordingly, each Party shall ensure that it does not waive or otherwise derogate from or offer to waive or otherwise derogate from its environmental laws¹⁵ in a manner that weakens or reduces the protections afforded in those laws, or fail to effectively enforce those laws through a sustained or recurring course of action or inaction, as an encouragement for the establishment, acquisition, expansion, or retention of an investment in its territory.

¹⁷⁵ *Novel Features in Recent OECD Bilateral Investment Treaties*, International Investment Perspectives chapter, OECD (2006)

<http://www.oecd.org/investment/internationalinvestmentagreements/40072428.pdf>

¹⁷⁶ *Profiting from injustice*, Corporate Europe Observatory and the Transnational Institute, page 72 (2012)

<http://www.tni.org/sites/www.tni.org/files/download/profitfrominjustice.pdf>

¹⁷⁷ Interview with Colombian NGO (March 2014)

¹⁷⁸ Interview with European diplomat based in Colombia (March 2014)

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- ¹⁷⁹ Thomas Fritz, *The Second Conquest*, Transnational Institute, page 7 (2010) [http://www.tni.org/sites/www.tni.org/files/download/Fritz-2010 The%20Second%20Conquest Colombia-Peru-EU-FTA.pdf](http://www.tni.org/sites/www.tni.org/files/download/Fritz-2010%20The%20Second%20Conquest%20Colombia-Peru-EU-FTA.pdf)
- ¹⁸⁰ Canada-Benin BIT, <http://www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/fipa-apie/benin-text.aspx?lang=eng>
- ¹⁸¹ Lorenzo Colula, *Is the tide turning for Africa's investment treaties?*, (March 8, 2013) <http://www.iiied.org/tide-turning-for-africa-s-investment-treaties>
- ¹⁸² Interview with Colombian government official (March 2014)
- ¹⁸³ OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Second Edition, OECD Publishing (2013) <http://www.oecd.org/corporate/mne/GuidanceEdition2.pdf>
- ¹⁸⁴ OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Second Edition, OECD Publishing, page 12 (2013) <http://www.oecd.org/corporate/mne/GuidanceEdition2.pdf>
- ¹⁸⁵ OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Second Edition, OECD Publishing (2013) <http://www.oecd.org/corporate/mne/GuidanceEdition2.pdf>
- ¹⁸⁶ *The Global Competitiveness Report 2013-2014*, World Economic Forum, page 158 (2013) http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf
- ¹⁸⁷ 1 being heavily influenced; 7 being entirely independent
- ¹⁸⁸ *The Global Competitiveness Report 2013-2014*, World Economic Forum, page 415 (2013) http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf
- ¹⁸⁹ *The Global Competitiveness Report 2013-2014*, World Economic Forum, page 419 (2013) http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf
- ¹⁹⁰ *Fair and Equitable Treatment*, UNCTAD Series on issues in international investment agreements, page 51, (1999) <http://unctad.org/en/docs/psiteiitd11v3.en.pdf>
- ¹⁹¹ US Model BIT, <http://www.state.gov/documents/organization/188371.pdf>
- ¹⁹² See *Profiting from injustice*, Corporate Europe Observatory and the Transnational Institute, (2012) <http://www.tni.org/sites/www.tni.org/files/download/profitfrominjustice.pdf> and Cecilia Olivet and Pia Eberhart, *Arbitrators: Role in the Recent Investment Arbitration Boom*, (March 25, 2013) <http://www.iisd.org/itn/2013/03/25/arbitrators-role-in-the-recent-investment-arbitration-boom/>
- ¹⁹³ See section 1.5.1.
- ¹⁹⁴ UNCITRAL Rules on Transparency in Treaty-based Investor-State Arbitration, <http://www.uncitral.org/pdf/english/texts/arbitration/rules-on-transparency/Rules-on-Transparency-E.pdf>
- ¹⁹⁵ Resolution 68/109, United Nations Commission on International Trade Law Rules on Transparency in Treaty-based Investor-State Arbitration and Arbitration Rules

¹⁹⁶ For an example how this clause could be articulated see article 29 of the US model BIT.

¹⁹⁷ Lorenzo Colula, *Is the tide turning for Africa's investment treaties?*, (March 8, 2013) <http://www.iied.org/tide-turning-for-africa-s-investment-treaties>

¹⁹⁸ Lorenzo Colula, *Is the tide turning for Africa's investment treaties?*, (March 8, 2013) <http://www.iied.org/tide-turning-for-africa-s-investment-treaties>

4 Extractive Industries' Governance

It is difficult to think of another industry that touches upon so many interests. In Colombia, where private investment is encouraged and protected, it is the duty of the State not only to create an effective investment climate, but also to ensure that investments are made in an economically, socially, and environmentally responsible manner. That is, it is the job of the State to weigh those interests according to the country's fundamental principles, and to ensure that the institutions promote not only good monetary returns to companies and individuals as well as the nation, but also promote sustainable economic growth and development for all the population. This is certainly a great challenge for Colombia's society as a whole, considering how each part of it (civil society, the private sector and, of course, the public sector) have different interests and conceptions on natural resources, and the wealth they can bring.

The challenge, then, is how to generate the highest possible increase in prosperity out of natural resource extraction and commercialization. Success in achieving this goal will be determined by how each stakeholder in the industry behaves. Decision makers in the public sector have the constitutional duty to set the proper rules and conditions that shape the institutions, which govern the industry, and that will ultimately influence the behavior of each of the relevant stakeholders. The right incentives have to be aligned, and proper limitations need to be imposed so this goal can be achieved.

Taking that into account, the present chapter will present the current institutional setting relevant to the extractive industries (section 1.1.), in order to point out issues that are affecting their proper performance, and propose a series of measures to counteract these issues (sections 1.2. and 1.3.).

4.1 Colombia's Institutional Setting for Extractive Industries

Colombia has created a number of institutions to manage its natural resources. These institutions have substantially changed in the past decades, due to the firm but differing intentions and policies of successive governments to boost hydrocarbons and mining production. It is important to highlight that the main institutions in the sector were reformed by Juan Manuel Santos' government between 2010-2011, giving way to a new structure. Laws, regulations, and public agencies have been created, modified or eliminated in order to evolve into what is thought to be a more sound, comprehensive, and competitive framework for the extractive activities to develop. Indeed, the Revenue Watch Institute's Resource Governance Index has placed Colombia in the 9th place out of 58 countries, with a "satisfactory level".

Nevertheless, and as will be explained below, the institutional setting for hydrocarbons is considerably different from that for minerals, the former being much more developed than the latter. Furthermore, environmental rules and institutions have been and are seen as limitations to the industry's development as it will be explained, thus relegated and weakened by a raging policy that, as mentioned before, promotes investment in exploration and extraction. The next section will explain how the main institutions in the extractive sector function, in order to set

the stage that will allow us to note some issues regarding governance, and propose alternatives so they can be properly addressed. It is important to note that the Ministries are the policy designers and leaders; however, it is through their ascribed agencies that they actually implement such policies. We will therefore focus on such agencies, rather than on the Ministries, without disregarding their obvious importance and role in the extractive sector.

4.1.1 Hydrocarbons

Regulation in hydrocarbons has varied since 1953, depending on how much state intervention was allowed. The first important act was the Decree 1056 of 1953 (Code of Petroleum) that included basic guidelines and principles for hydrocarbon contracts. At the time, the state did not play a predominant role; the way the government granted exploration and extraction rights was through concessions.

The role of the government increased with the issuance of the Law 20 of 1969 and Decree 2310 of 1974. This regulation modified the rules governing the sector, and provided the administration of the exploitation and exploration of these resources under the model of association to the Colombian State Oil Company ECOPETROL. The company undertook activities in the oil chain as a State-owned Industrial and Commercial Company in charge of administrating the nation's hydrocarbon resources, and grew as some concessions ended, so the assets became part of its operation¹⁹⁹.

In 2003, with the issuance of Decree 1760, the government strengthened ECOPETROL, by removing all resource administration functions that were previously assigned to it, specifically, the administration of the hydrocarbon reserves, to instead have it concentrate on hydrocarbon exploration, extraction and commercialization activities. At the same time, ECOPETROL was restructured into a public corporation, governed entirely by commercial law and its corporate governance structure was changed into a more private-like setting²⁰⁰.

With the same decree, the government created the National Hydrocarbons Agency (Agencia Nacional de Hidrocarburos – ANH), which was empowered to administer all hydrocarbon reserves as well as engage in national and international promotion, the drafting, signing and administration of all contracts regarding exploration and extraction, and the collection of royalty payments mandated by law for these activities. The ANH has conducted several promotional rounds throughout the world, in which it provided geological information of different areas of the Colombia, in order to interest companies to bid on signing exploration and production contracts. The selection criteria vary for each process, in past rounds areas have been awarded taking into account the percentage share in production after royalties, or depending on additional investments in exploration activities²⁰¹.

This model, with a fairly straightforward process and clear set of rules, has been successful in attracting foreign investors to explore in Colombia. The companies that secure the right to explore a certain area of Colombian territory are obliged to sign an E&P (Exploration & Production) or TEA (Technical Evaluation Agreement) contract with the ANH:

1. Technical Evaluation Agreements (TEAs): In these contracts, the ANH awards an area for the contractor to technically evaluate it for a no longer than 18 months (on-shore) or 24 month (off shore). The contractor is allowed to do seismic exploration and other studies, but not drilling. Also, the contractor has the possibility to covert a TEA into an E&P Contract for part or all of the awarded area.

2. Exploration and Production Contracts (E&P Contracts): These contracts include exploration, evaluation, development and production. They gives the right to explore the contracted area and extract hydrocarbons.

The right to explore the awarded area differs from a conventional (6 years) to a non-conventional resource (9 years). The Annex A of the E&P contract in its Chapter I does not define what conventional resources are, but it does state that the contract excludes from the format “non conventional hydrocarbons, and those found in non conventional fields, and non developed discovered fields”. The National government, has defined the criteria to understand non-conventional fields through Decree 3004 of 2013. Once there is the formal declaration for commercial purposes of the field, the contractor may start the production for a period up to 24 years for conventional E&P contracts and 30 for unconventional. This agreement gives the contractor the right to exploit any resource in the area, with the due payment of royalties and other rights to the government.

4.1.2 Mining

Institutions for mining are organized differently from those for hydrocarbon exploration and extraction. However, one thing they have in common is that the statutes and the regulation of both sectors changed as a function of how interventionist the state is allowed to be, according to specific laws and regulations.

With the rise of liberal policies around the world and the establishment of the “Washington Consensus”, liberalism was incorporated in the 1991 Constitution, setting a stage to promote private investment, and reducing the state’s intervention and participation in the economy. During the Samper government (1994-1998) a proposal for a new Code of Mines aimed at aligning the sector to the new constitutional framework was presented. This new Code intended to eliminate all protected areas, and softened the requisites for mining titles (such as the “first come, first serve” principle). It also extended concession periods up to 50 years, and reduced the role played by state-owned companies in the sector. However, Congress did not approve the bill due to disagreements over provisions governing indigenous communities.

It was only in 2001, during Andrés Pastrana’s government (1998-2002), that Law 685 was approved. The Law had the same basic features that the bill presented by Samper’s government. However, it recognized minority rights, and established the prerogative of the government to establish reserved, protected, and excluded areas for mining. It also established regulations regarding concessions, which are the basic pillar of the system. With few exceptions²⁰², any person or company that wants to explore and extract minerals must have a concession (mining title) granted by the mining authority, which until 2011 was the Institute for Geologic and Mining Research (INGEOMINAS).

The content of the concession contract, as well as the process that must be followed in order to obtain one, is regulated in Law 685 of 2001. Any person or company can file a request for a concession contract, provided the fulfillment of very low requirements²⁰³ set forth in articles 271 and 272. These low requirements were one of the reasons for the substantial increase of mining titles granted by Álvaro Uribe's administration (2002-2010), from 40.000 hectares in the previous government (1998-2002), to a total of 4'283.000 hectares by the end of 2010. It also resulted in a surge of requests, which reached 19.000²⁰⁴ by the beginning of the Juan Manuel Santos' government (2010-2014). This overloaded the institutional capacity of the INGEOMINAS.

This overload on the mining title granting system, along with the rise of informal and illegal mining, and the Santos' government's "Mining Locomotive" policy ultimately led to the conclusion that the mining sector's institutional framework in Colombia was inadequate and needed strengthening. The two main pillars of the reform were: the restructuring of the Ministry of Mines and Energy, with the creation of a Vice Ministry of Mines, and the creation of the National Mining Agency, ANM.

Decree 4415 of 2011 created by the Vice Ministry of Mines to enhance the importance of the sector, fill the institutional gap, and address the mining sector's pressing issues. The Vice Ministry's main function is to craft the policies for the promotion and development of medium and big-scale mining, and also to formalize and protect of small-scale mining. Overall, the creation of the Vice Ministry was received positively by the private sector²⁰⁵.

At the same time, the ANM was created by Decree 4134 of 2011, with the purpose of managing the state's mineral resources, and to promote their optimal and sustainable use, in coordination with environmental authorities, where applicable. Its structure is based on the ANH, which has the primary function of managing all hydrocarbon reserves of the country and promoting its exploration and extraction. Further, ANM's basic duties are to grant rights to exploration and production; to promote, sign, and monitor the concession contracts and other mining titles; design strategies to promote the exploration and production of minerals; manage the mining land registry; and collect and transfer royalties and other revenues derived from production activities, among other functions. It is worth noting that the agency has a Board of Directors composed of the Minister of Mining and Energy, the Minister of Finance, the Director of the National Planning Department, the Director of the Colombian Geological Service (formerly known as INGEOMINAS²⁰⁶), the Director of the Energy-Mining Planning Unit (UPME) and two representatives appointed by the President of Colombia (Article 7). Environmental authorities do not have a place on the board, which would have been a proper stage for coordination among sectors; this will be addressed later.

4.1.3 Environment

The Constitution of 1991 highlighted the importance of environmental protection through the establishment of a healthy environment as a right. As such, it is the obligation of the Colombian government to effectively protect it. To that end, Law 99 of 1993 established a new institutional setting, creating the Ministry of Environment and the Regional Autonomous Corporations (Corporaciones Autónomas Regionales – CARs), as the regional environmental authorities who

were given the function to grant environmental licenses for small-scale mining, and other environmental permits (water usage, waste dumping, forestry, etc). It also provided that the national environmental policy design and implementation should be coordinated between the national and the regional environmental authorities, i.e. between the Ministry and the CARs, through a National Environmental System (Sistema Nacional Ambiental – SINA). Furthermore, it created five different public research institutes with the purpose of supporting all specialized policy decisions from the Ministry regarding biological resources, marine resources, and hydrological resources.

Throughout the 1990s and up until 2002, three successive governments strengthened these environmental institutions. The Ministry of Environment began to be essential in the design of environmental public policy as part of the highest decision-making instances of the country. It is important to mention that during the 1990s the public budget allocated for the environment sector increased 2.3 times in real terms²⁰⁷.

However, the environmentalists interviewed for this report²⁰⁸ agree that Colombian environmental institutions have weakened since the early 2000s when Alvaro Uribe took office (2002-2010). With a pronounced bias on fiscal austerity²⁰⁹, the Uribe government pushed a very ambitious administrative reform in various sectors, including environment, merging the Ministry of Environment and the Ministry of Economic Development, giving way to the Ministry of Environment, Housing and Local Development (MAVDT) which therefore lessen the importance of environment.

This reform reduced the highest environmental public decision-making entity to a vice ministry. Furthermore, it created two additional vice ministries, Housing and Potable Water, taking functional and political space away from the environmental issues. Moreover, with the merger, the Minister had to resolve issues across multiple sectors with very different needs and urgencies and effectively creating conflicts within the Ministry. This reduced the effective leadership on environmental issues, and resulted in the frequent delegation of power and representation to the vice minister, or even lower authority levels. Without a clear and strong voice, the environmental sector lost relative importance both inside and outside the government²¹⁰.

This was even more pronounced taking into account the very decisive agenda towards private investment promotion as the main engine of economic growth in Uribe's two periods. Regarding the extractive sector, the focus on private investment resulted in decreased attention to environmental issues, as these represented an obstacle to the desired growth. Environmental protection was overridden by the relative higher importance of investment promotion and protection. In that period, INGEOMINAS even granted mining titles disregarding the existence of environmentally protected areas, such as the case of Santurban (Section 6). The issues resulted by heightened extractive activities are described in detail in chapter 6.3.

The decline of the public environmental sector can be illustrated by assessing the amount of resources allocated to it. In the period 2002-2006, the budget for environmental agencies hit an historic low since 1993-94, when the described environmental institutional structure was

created. Moreover, the resources allocated in the period 2006-2010 were equivalent to less than half of those allocated in the period 1995-1998, in constant terms²¹¹.

In mid-2010, Juan Manuel Santos' (2010-2014) came into power with the promise to prioritize environmental issues and to strengthen the institutions in charge of its protection. The central administration was again reformed by separating the Ministry of Environment from the Ministry of Housing, reinforcing the importance of a strong policy coordinator and implementer²¹². Also, through Decree 141 of 2011, the government attempted to reform the CARs, which were and are seen as non-transparent and non-technical entities with little capacity to enforce the environmental law and are coopted by political interests in the region. Indeed, most of the considerations that support the decree speak about the inefficiency, incompetence, mismanagement, lack of capacity, and ill-advised investments of these entities. There are several press reports that point to the corrupt practices within the CARs, which mostly serve regional political elites, and rent-seeking purpose.²¹³ Unfortunately, the Constitutional Court declared the Decree unconstitutional because of legal technicalities. The government has announced a new bill reforming CARs, but it has not yet been brought before Congress.

Another part of the administrative reform was the separation of environmental licensing from the Ministry itself, to an autonomous²¹⁴ agency called National Environmental Licensing Authority (Autoridad Nacional de Licencias Ambientales – ANLA). ANLA is in charge of granting licenses for all large-scale mining projects, all hydrocarbons extraction projects, and hydroelectric power plants, among other large projects. This was seen as a definite strengthening of the sector, as environmental licensing is a key component for environmental protection. Such strengthening can be illustrated with the increase in resources allocated to that end: for the fiscal year 2012, the government increased the budget for such functions 52% (from COP\$22.550 million to COP\$34.165 million), leading to a substantial increase in the number of employees from 283 to 509, which is a 80% increase. It also provided 50 different training sessions in different issues related to license granting²¹⁵.

4.1.4 How the Revenue from Extractive Industry is Managed

As asserted in the Economics Chapter, government revenues from the extractive industry come in two basic forms: royalties, and taxes (income tax, VAT, etc.). These two sources of revenues have different governance structures, with different distribution and allocation systems. On the one hand, the Royalty General System (Sistema General de Regalías) is well defined in the Constitution and other laws and regulations; they dictate clearly how royalties have to be collected, distributed, and allocated, with clear responsible institutions and well defined functions. On the other hand, extractive industry tax revenue is blurry, as they are part of the general tax system. In other words, there is no special tax governance structure for the industry, and no specific purposes to allocate such revenue. This section will describe how these systems function in Colombia.

Tax Revenue and the Participation of the Extractive Industries

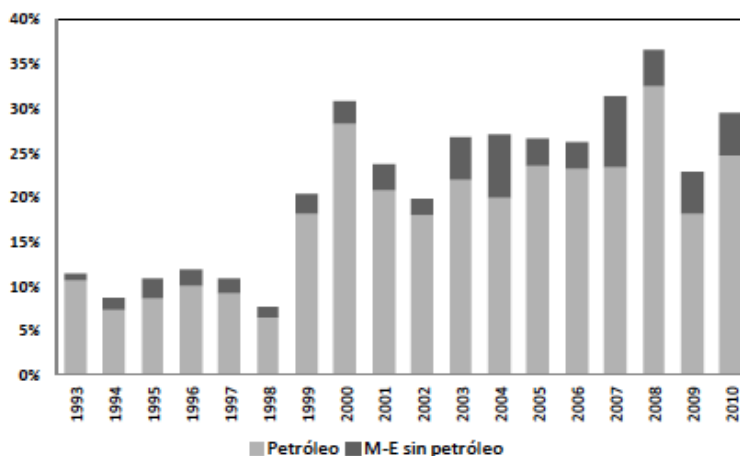
The National Tax and Duty Agency (Dirección de Impuestos y Aduanas Nacionales – DIAN) is responsible in Colombia to collect all national taxes, mainly income tax, value added tax (VAT),

wealth tax, and financial transactions tax, which constitute national rents. All the revenue that comes from these sources is catalogued as “regular income” for budgetary purposes, and it does not have any kind of specific allocations or purposes. In other words, the government can use this revenue for any purpose, that is, to finance any kind of governmental function or program. What is more, the Constitution prohibits any law to establish specific allocations for national rents, with very few exceptions²¹⁶. In 2012, regular income biggest portion corresponded to income tax (46%), followed by VAT (27%)²¹⁷. With this “regular income”, the government finances 50% of the national budget²¹⁸.

The extractive industries main contribution to Colombia’s government tax revenue comes from income tax, which accounted for 30-40% of total income tax collected in the country, which in 2012 was COP\$45.7 trillion, meaning that extractives contributed between COP\$13.7 and COP\$18.2 trillion. Also, as the government owns 89% of Ecopetrol, it gets an important amount of dividends which also finance around 5% of the national budget. It follows from the above that the extractive industries contribution to national finances is critical. As this revenue gets mixed with other tax collections, it is not clear how the government is spending it, that is, allocating it and effectively investing it.

For example, 18% of the national budget goes to finance the National Transfer System (Sistema General de Participaciones), which along with the royalty system, is the main tool for income distribution from the national to the regional and municipal levels, and is has to be allocated to health, education and basic sanitation. Also, other transfers are accounted in the budget for investments purposes, (21.5% of the national budget). It is not clear if expenses such as these, which can be considered as investment for present well-being and future wealth creation, are financed with tax revenue from extractive industries, or if such income is financing only operation expenses, which account for 50% of the national budget.

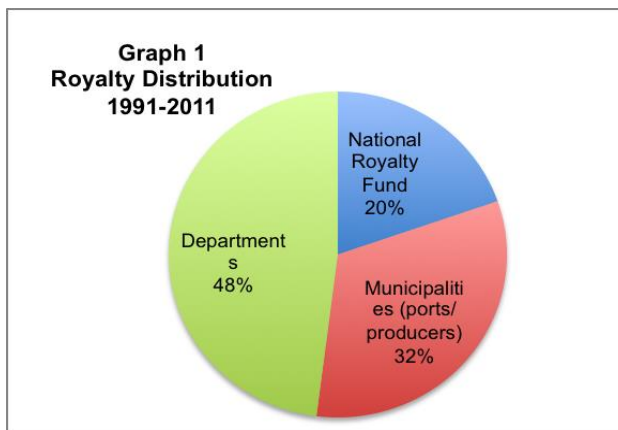
Figure 30 Oil, Mining and Energy income tax/Total income tax²¹⁹



Royalties – The outcome of the previous regime

In 1991, the Colombian Constitution set the foundations for royalties. It assigned property rights on the subsoil and its natural resources to the State, and granted exclusive rights on the royalty revenues to the sub-national governments, which accounted for approximately COP\$10 trillion in 2011. It is also expected that the total royalty revenue for the years 2013-2014 will amount to approximately COP\$17.5 trillion. Until 2011, the royalty regime was governed by Law 141 of 1994, which established the regulations regarding distribution and allocation of such revenue. 80% of all royalties were directly distributed to departments and municipalities where production was taking place, or where port for exports were located. Regional and local governments were basically autonomous in deciding how to spend the royalties they received; the central government had little or no influence at all on their decision-making regarding allocation.

Figure 31 Royalty Distribution 1991-2011



Source: Gaitán *et al*, 2012.

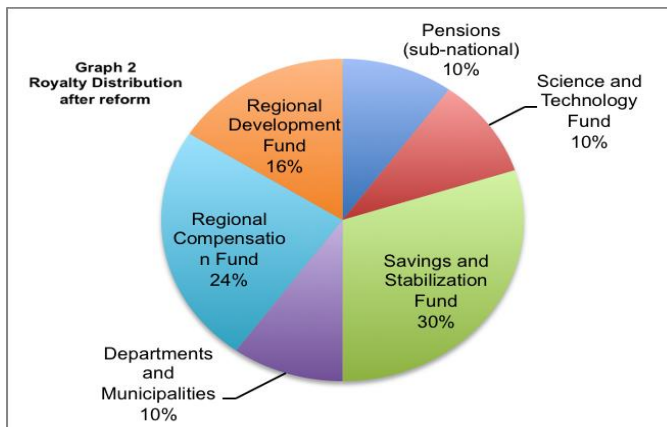
Overtime, the outcome of this allocation system was undesirable. The national government recognized that the process resulted in high inefficiencies, misallocation of resources, and ineffectiveness of public investments, corruption, and high inequality within and among regions as described below. Because of the criterion of direct allocation of royalties to production sites and ports, only 17 departments and 60 municipalities, out of the 1100 sub-national governments of Colombia, received 95% of the total royalties. By the same token, few sub-national governments that accounted only for 17% of Colombia's total population received 80% of royalty revenue. In addition, after twenty years of receiving royalties, these sub-national governments failed to achieve the education and potable water coverage goals set by law. Moreover, poverty levels remained very high if even reduced in the regions that received most of the royalties. Using poverty and extreme poverty line standards as reference, out of the eight regions that received most of the royalties in the period 1994-2010, only two are below the national average (50%). Furthermore, in three more than 60% of the population lives in poverty conditions, and more than 25% live in extreme poverty. To illustrate this, in the Department of Meta, which received 25% of the total amount of royalties in the period, 45% of the population lives under the poverty line²²⁰. These results show how the resources from royalties, let alone other government take, such as income taxes, were ineffectively and inefficiently spent.

However, these results also give way to a discussion: although royalty revenue was and still is an important source of income for the regions, and even though it is clear that they mismanaged those resources, what was the role of the central government in the undesirable outcome just described above? To be more precise, how did the central government spend the tax revenue referred to in the previous section in order to lower the named poverty levels? The point to this discussion is that growth and development derived from the extractive sector, has to come from both main revenue sources: royalties and taxes. Excessive focus on royalties can be misleading, as taxes collected from extractive activities are greater than the latter (COP\$10-12 trillion in royalties, versus a rough estimate of COP\$13.7-18.2 trillion only in income tax). However, as noted before, analysis on the expenditure of extractive industry tax revenue is very complex.

Royalties – The reform

In 2010, the Santos government proposed a constitutional reform of the royalty system to address the issues described above, reduce corruption and address other inter and intra regional inequalities.²²¹ The reform was approved and enacted in July 2011 (Legislative Act No. 5). The respective law and regulations were approved and enacted in May 2012 (Law 1530 of 2012). The reform's main changes are a new royalties' distribution system, and a new decision-making process for project funding approval. The reform established four different funds for different purposes, to which different percentages of the total amount of royalties were distributed (Graph 2): the Regional Development Fund, the Regional Compensation Fund, the Science and Technology Fund, and the Savings and Stabilization Fund. The National Royalty Fund, defined in the 1991-2011 system, was replaced by the two first funds mentioned above. Their purpose is to fund public investments in poor regions, in accordance with national and regional development plans. Of the four funds, these two are the only ones that constitute sources of revenue for sub-national governments. The third fund, Science and Technology, is aimed at financing research and technology projects along with other resources from the central government. The specifics on each of the named funds are addressed in Section 1 and 2.

All these changes resulted in a drastic reduction of the amount distributed directly to sub-national governments. The departments and municipalities where the extracted natural resources or ports were located, which received 80% of the royalties before the reform, now receive only 10%. Nonetheless, this benefits other regions, especially those with the lowest poverty levels. The resource allocation criteria for development projects was changed to consider primarily the "Unsatisfied Basic Needs Index", an indicator that measures poverty in a more exact and real manner compared to other income-based indicators.

Figure 32 Royalty Distribution After Reform

Source: Constitutional Reform – Acto Legislativo No. 5 de 2011.

With this change, regions that never received royalties or received small allocations from royalties will become the great beneficiaries of the reform, having the opportunity to access a larger amount of revenue through the new regional funds through specific local or regional projects. Nevertheless, the total percentage of expendable royalties has been reduced from 100% to 60%, without considering the 10% allocated for pension funds, which is in fact a form of savings to be spent in the future, and the 30% of the Savings and Stabilization Fund is to be spent only if royalty revenue is drastically reduced due to exogenous reasons such as a sudden decrease of international commodity prices.

The rationale behind the changes in royalty allocation, from producing regions to poor regions, is very sound. However, it raises questions regarding the compensatory nature of royalties. Indeed, if royalties are supposed to offset (at least partially) the negative externalities of resource extraction (environmental, social, economic, etc.). In some countries, (e.g. Nigeria, Iraq), producing regions take a high portion of royalties, and even tax revenue; if royalties are taken away from producing regions, then the externalities are not adequately offset. Nevertheless, history has demonstrated that regions in Colombia simply do not manage these resources as they should, taking away by them selves all offsetting effects of royalties. Redirecting royalty expenditure to regions in need, at least temporarily, is therefore a good policy.

The other main issue addressed by the reform was the decision-making process. The reform created the so-called Administration and Decision Governing Bodies (OCADs),²²² which consist of the respective governor, the mayor (or a plural number of mayors if it is a regional OCAD), and two central government officials (Ministers or their delegates); each level of government has one vote, for a total of three votes. Prior to 2011, the national government had moderate influence over only 20% of royalty expenditure through its participation in the National Commission for Royalties. This body was eliminated through the reform, but now the national government has a vote in every department and municipal royalty expenditure decision, either on directly assigned royalties or those assigned through any of the funds. All projects, despite their purpose or beneficiaries, must be revised and approved by the respective regional or municipal OCAD. This was one of the most controversial measures of the reform. The sub-

national governments saw it as a direct and clear attempt against decentralization. Indeed, this measure gives the central government the possibility to review every single local expenditure decision if it derives from royalty revenue, and also grants the central government the power to effectively decide on such investments. Furthermore, the national government has the prerogative of a tie-breaking vote to grant or deny allocation in cases where municipalities and departments disagree.

In sum, the reform reduced the amount of royalties directly allocated to producer regions in favor of those regions that were not previously recipients, especially if they are poor. Moreover, the expendable portion of the total amount of royalties was reduced by 40%. Additionally, the reform shifted decision-making from only sub-national governments to include the Administration and Decision Governing Bodies in which the central government now has a say as it has an equal vote with the respective governors and mayors.

4.2 Governance: room for improvement in the extractive sector

Overall, Colombia has attempted to create an institutional architecture that promotes natural resource extraction in an environmentally and socially responsible manner. Moreover, in the past years it has implemented a firm policy towards extractive sector promotion as an engine of growth, while making efforts to strengthen the environmental authorities. Notwithstanding, there is still a lot of room for institutional development, and significant regulatory and enforcement challenges to overcome. The next section describes the key issues in which efforts should be focused to boost the positive externalities and reduce or mitigate the negative ones associated with extractive activities. This chapter also analyzes the context and some key governance concepts playing an important part in Colombia, and how they can be critical for a better performance in natural resources' management. The context and recommendations are treated separately in this report, but are highly interconnected so changes to one should be expected to have an impact in the other.

4.2.1 Enhancing Coordination and Establishing Network Governance

As previously mentioned, there are many stakeholders in the extractive industry in Colombia ranging from institutions and governmental agencies to private actors with a commercial interest in the country. Civil society and organized communities are also significant, and use this framework to channel their concerns and demands. These different stakeholders are deeply interconnected and interact constantly. The functions and responsibilities of public institutions are intertwined. For example, the MME and its ascribed promotion agencies, ANM and ANH, cannot succeed in its purpose of increasing oil and mining production without the input of the Ministry of Environment and respective agencies, ANLA and CARs, which have the responsibility of assuring environmental sustainability, thus limiting production. At the same time, authorization by the Ministry of Interior is required if production is going to take place where indigenous communities are settled.

Local and regional governments also have multiple interests at play, including employment, royalties, taxation, infrastructure, water consumption, etc., which are directly related to extractive projects taking place in their territory. These elements have a more direct impact over them than over the National Government. To illustrate the variety of actors involved in the extractive sector, it is worth noting the following governmental finding regarding licensing:

It is estimated that in order to go through all the licensing procedure in Colombia, thirty different processes are required. Eleven have a social character, fourteen have an environmental character, four are geological, and one archeological. Seven state entities intervene in these processes, and it takes approximately three to six and a half years (35-78 months) to complete them²²³.

The main negotiation points between private and public actors include incentivizing foreign direct investment, taxation, governmental approach to social instability, licensing process, required infrastructure, international trade conditions, etc. Local communities are another essential player in the extractive industries as they are the ones entitled to grant the 'social license' to operate. Without social license to operate, production can be costly if at all possible. Therefore, the interaction between companies and the civil society, and their relationship with the national/regional governments are equally important. However, the interaction between these parties, particularly after the royalty reform, has resulted in heightened social and corporate tensions. Concerns vary between public and private sector: from one side the government is concerned about maintaining social stability, from the other, companies refuse to undertake what they consider the state's role in issues such as sanitation, education, road construction, etc.²²⁴

Based on the research for this project, it appears that Colombia's main issue lies in the lack of coordination between institutions in the extractive sector. This has resulted in environmental deterioration, lack of transparency, entitlement disputes, inadequate collection of royalties and other revenue, inefficient expenditure of the latter, etc. These consequences will only further deteriorate if no action is taken to improve the horizontal coordination between agencies in the central government, and the vertical coordination between the central government and the local and regional governments.

There are multiple bodies (think tanks, the Comptroller General, international organizations, etc.) producing information that could be useful to increase coordination and to redefine the extractive industry strategy, clarifying the roles and responsibilities as well as the liabilities to which each party should be subject. However, the fact that environmental and oil/mining authorities do not take into account the information each of them produces was a common concern among the interviewees, and has been a constant complaint from the private sector.²²⁵ Companies have to deal with unforeseeable issues when entering the regions and developing the projects, and the government has not been able to evaluate the quality of the projects before approval nor enforce the law in timely fashion to prevent social conflicts primarily due to the degradation of the environment. Furthermore, local and regional governments also pointed out the fact that the central government permits exploration and extraction with complete disregard to local communities' concerns, and without even informing local authorities²²⁶. Clear examples of how the ANH and the ANM have granted exploration rights overlooking

environmental concerns or social issues are the mining titles granted for gold exploration and extraction in California (Santander) and Piedras (Tolima), and for oil in Tauramena (Arauca)²²⁷.

There is no mandatory participation of local and regional governments in the design of energy policy, licensing, etc. In fact, there are no legal or administrative provisions granting the regional and local governments any say in the licensing of exploration and extraction operations. Moreover, article 37 of the current Code of Mines explicitly excludes them from decision-making process related to hydrocarbon exploitation²²⁸. In other words, the authorization process is completely centralized, which inhibits the development of a more coordinated, effective and efficient regime in terms of policymaking, contract modeling, license granting, and law enforcement.

These coordination problems, especially those related to horizontal coordination, have been acknowledged by Colombia's national government. Some important steps have been taken to align the public national agencies interests and eliminate licensing bottlenecks for the approval and execution of "strategic" infrastructure projects, considered essential for the country's development and growth²²⁹. Nevertheless, the newly created mechanism does not require broad participation of all stakeholders, nor does it address all projects. Also, to enhance vertical coordination, Colombia has implemented a new royalty allocation system, taking into account the stakeholders, primarily the regional and local governments. This system is explained in detail in section 4.1.4.

In general terms, to continue improving the institutional framework Colombia has to establish certain tools to foster these interconnections and interactions. This will allow the country to improve resource management and to increase social welfare. A general framework can be drawn from a *network governance*²³⁰ perspective, defined as:

*(1) relatively stable horizontal articulations of interdependent, but operationally autonomous actors who (2) interact with one another through negotiations which (3) take place within a regulative, normative, cognitive and imaginary framework that is (4) self-regulating within limits set by external forces and which (5) contributes to the production of public purpose.*²³¹

If each of the features listed above is contrasted with the Colombian extractive sector, it is easy to see how it should not be viewed as a simple network, but as a *governance network* where all actors are interdependent yet autonomous, operating in the same regulatory and institutional framework. Interactions between actors can be interpreted as a form of negotiation, especially when referring to the relations between companies and communities on one hand, and government and companies on the other. Regarding self-regulation, each actor has sufficient autonomy to act according to its interests, but ought to practice self-limitation understanding that overstepping other actor's interests can have a negative effect and actually turn against him. For example, if companies abuse environmental or social interests, they will be subject to penalties and even radical opposition, as observed in the Drummond's coal port temporary closure in Santa Marta, Goldstar's Saturban project in Santander, and Pacific Rubiales' workers protests in Meta, to name just a few examples. Along the same line, the government cannot abuse its power by imposing burdens to companies that could discourage investment.

Notwithstanding, this self-regulation has to be reinforced by setting coordination forums in which all actors can state their interests, acknowledge other parties' interests, bargain and negotiate to achieve optimal outcomes.

An adequate level of interaction would be achieved if the role of the government were exercised as one of a *primus inter pares*. Certainly, the government cannot bargain its Constitutional role as rule-maker and society organizer. However, it can use that power to set rules that foster higher and more effective interaction between all actors and organizations. The government must manage the network in a way that maximizes gains for each party. To that end, all actors have to be seen as equally important, and as legitimate parties with legitimate demands. Any excessive negotiating power of any actor has to be offset by the rule framework set in place for the network to properly function. In that way, negotiation processes will have optimal outcomes and would be potentially beneficial for all actors.

Attempts to Establish Network Governance in the Colombian Extractive Sector

Colombia has made two attempts to enhance coordination among public agencies, and overcome decision-making issues within the system in the extractive sector. The first one addressed the design, approval, and implementation stages of a project. The second addressed the distribution of royalties.

The first reform was directed at the reduction of 'bottlenecks' in the licensing process of large infrastructure and mining projects. It was outlined in CONPES Document 3762 of 2013, and established in the Decree 2445 of 2013. It established an Inter-sector Commission for Infrastructure and Strategic Projects, with the purpose of coordinating the functions of public agencies responsible of structuring, financing, contracting, and executing infrastructure, hydrocarbons, mining, energy, and other "strategic" projects. This Commission is formed by the Ministers of Finance, Mines and Energy, Environment and Sustainable Development, Transportation, a Presidential delegate and the Director of the National Planning Department. Other agencies can be invited to participate in the Commission, depending of the subject matter. However, these invitees do not have voting powers.

The establishment of the Commission can be considered a good coordination attempt, since it brings together a number of relevant actors to discuss concrete projects. However, it does not address the underlying problem, which is the top-down approach where the core of the central government dictates the other agencies' actions. The Commission considers all actors' sayings and analyzes problems and possible solutions, but the decision-making power remains with a few key players. Additionally, it excludes private actors such as companies, communities and civil society. Therefore, the decisions of the Commission have the potential to benefit some of the stakeholders while negatively affecting others, which contradicts its main objective.

However, the Commission only addresses issues related to the so-called "strategic projects of national interest", disregarding smaller ones. While smaller projects might need to be managed differently the absence of guidelines to manage them prevails.

The second reform derived from the 2011 royalty reform. It established the Administration and Decision Governing Bodies (OCADs) to allow all actors interested in royalty expenditure to participate in decision-making process. The mechanism has been criticized as an attempt for re-centralization, taking away decision-making power on royalties' expenditure from producing municipalities and departments. Nevertheless, from the network governance point of view it does provide better spaces for negotiation amongst all the relevant resource allocation actors and pushes for further coordination. The national government acts as *primus inter pares*, as asserted by the Ministry of Finance²³². Every proposed project is discussed, assessed, and approved or rejected by all members of the respective Governing Body, according to pre-established rules. Furthermore, since communities are not directly involved in the OCADs, an alternative process has been developed by the regional governments to discuss their needs and incorporate them in the planning priorities. These alternative processes are known as OCADtons.

The reforms described above represent a first approach to establish a network governance approach within the extractive sector in Colombia.

According to the previous analysis, Colombia should establish formal forums that foster network governance in the decision-making process of the extractive sector in all levels, and for all projects. Coordinated collaboration among actors is paramount, and the government should lead them in a way that ensures optimal gains for every stakeholder.

For the design, approval and implementation of projects, a model such as the one established in the Decree 2445 of 2013 can be improved by including private companies, civil society representatives, and local and regional governments. It can also be expanded following the OCADs model, that is, having regional Commissions for smaller projects as spaces for discussion and potential consensus. In these regional Commissions, institutions like the CARs and other civil society representatives might have much more relevance, counteracting the current intrinsic negotiation superiority of companies or the national government itself.

Recommendation [1]: Create two national committees, one for hydrocarbons and one for mining, in which all relevant actors (companies, civil society, local and regional governments, national government) have a voice and a vote to grant exploration and extraction rights for oil and gas and for large-scale mining.

Create regional committees with the characteristics and participation of the same actors from the national committee with the purpose of fostering coordination among institutions in the decision-making process to grant exploration and extraction rights for medium-scale mining projects.

4.2.2 Decisions Based on Reliable Information

Sound public policy design has to be based on reliable information regarding the subject matter to public intervention. The reliability is determined by the facts taken into account through sound research that complies with rigorous scientific standards. It is more likely for policy to be successful if its design and implementation, control, and monitoring are based on such

information. In order to have informed policy design and decision-making, three “types of knowledge and evidence that are central to the design, implementation and evaluation of policies and programs”²³³ have to be taken into account: scientific research, professional practice, and political judgment²³⁴. For these types of knowledge to effectively inform public policy, they have to be set in a framework that allows interaction between the different actors that produce such knowledge. In that context, the discussion and proposal of network governance becomes quite relevant in the sense that collaboration through network governance may not be possible if knowledge does not flow from one actor to another, and amongst all of them.

Then, public policy regarding the extractive sector in any of its stages (i.e. promotion, exploration, extraction, commercialization, tax and royalty payments, and revenue investment) is the corollary of the previous statement. Geological, environmental, economic, and social information are essential for a company to make an investment decision, and for the national, regional, or local authorities to grant any kind of license or permit, to monitor the extractive activities, to obtain fair compensation, and to make the optimal public investment decisions while spending the obtained revenues. That required information should have the best possible quality and can be obtained in multiple ways, preferable through independent sources.

However, Colombia faces issues related to information access and sharing between key sector actors. The country has taken some steps towards collecting more and better information, in order to inform the public policy debate and decision making in the extractive sector. Nevertheless, there is still some room to improve. Some examples described in the following paragraphs illustrate the impact that the lack of information and scientific studies have had upon Colombia’s extractive sector.

Promotion, Exploration, and Extraction

As explained before, the ANH and the ANM are in charge of the promotion of Colombia’s non-renewable natural resources. Since its creation in 2003, the ANH has completed several bidding rounds to open parts of the Colombian territory with good geological prospects for oil or gas findings for contest amongst companies interested in obtaining rights to exploration and production. The model has succeeded in attracting increasing amounts of foreign direct investment²³⁵ for such purposes. Nevertheless, once the companies have explored and found important reserves, they need to obtain production licenses, which often include a prior consultation processes. According to the Colombian Association of Oil Companies (Asociación Colombiana del Petróleo - ACP), these two stages raise the costs of investment and are slowing down the development of the sector. Moreover, the lack of unified criteria for EIA evaluations increases uncertainty and causes delays impacting the profitability of companies.

On the other hand, since 2010 the ANM is responsible for granting mining titles according to the requisites stated in the Code of Mines. In the past, mining titles were granted to companies to develop projects in forbidden areas, such as in national parks or in environmentally sensible areas such as high mountains and water founts. The lack of knowledge about biodiversity and about the environmental value of specific ecosystems has led to poor delimitation of forbidden areas for exploration or extraction. The consequence is that today, 37 mining titles granted in

national parks, and 17 in reserved forest areas, which account for approximately 50.000 hectares,²³⁶ are in danger of being revoked.

This situation has increased the risk profile of the mining sector in Colombia. Companies have expressed that while they will comply with laws and regulations and withdraw from investing in forbidden areas, they do demand clear rules and sound policies from the government²³⁷ to continue investing in the country. Issues surrounding the lack of coordination in the entitlement and licensing processes result in costly burdens.

Taking these complaints into consideration, the government has begun to address some of the problems. For instance, it is expected that the bidding rounds launched by the ANM in 2015 will follow a similar model to the one used by the ANH. This bidding round will take into account all the latest available social and environmental information, i.e. all delimitation made by the environmental authorities regarding national parks or high mountains, and all information regarding indigenous communities, so they will not offer to bid the areas where is not legally possible to conduct operations. The process will also force companies to conduct prior consultation if applicable²³⁸.

Along the same line, the Von Humboldt Institute, a public agency which purpose is to generate scientific knowledge regarding Colombia's biodiversity, is making great efforts to map all sensible environmental areas in order to have, among other purposes, a clear delimitation of the areas where extractive activities are admissible.

Furthermore, in order to have a better geological mapping, the Constitutional reform to the royalty system of 2011, established that 2% of the total resources of the Royalty General System should be destined to fund research and mapping of Colombia's mineral resources and deposits.

Royalties and Public Investment

As mentioned above, several changes were made to royalty management in the 2011/2012 reforms. One of these being that royalties could only be spent on projects that follow pre-established development priorities. The OCADs main task is to assess specific projects presented by local and regional governments. The projects have to be technically supported according to guidelines prepared by the National Planning Department.

In that sense, royalty expenditure, at least from a normative point of view, depend on assessments of specific projects, and the evaluation of the regional impact of these projects. Their approval requires public debates about their purpose, design, costs, and benefits. This dynamic is fundamental to effective public investments, and more specifically, is essential to ensure that natural resources become not only an engine of economic growth, but also a source of development for present and future generations. In that regard, Bertrand Badré, Managing Director and CFO of the World Bank, has underscored the importance of planning and project designing in infrastructure investment, which is an important portion of royalty expenditure, but that can also be extended to other kinds of projects:

"... promoting infrastructure investment requires more than money. Some countries generate massive growth benefits from their infrastructure spending, while others hardly

see a return. As a background note²³⁹ prepared by the World Bank Group for the G-20 explains, governments should pay more attention to the selection, quality, and management of infrastructure projects, as well as to the quality of the underlying investment climate.

Prioritizing investments, good planning, and sound project design can significantly boost the impact of new and modernized infrastructure on growth and job creation, as well as raise returns on scarce resources²⁴⁰

The Ministry of Finance has eagerly highlighted the importance of the royalty reform, which requires local and regional governments to file specific projects, providing a cost-benefit analysis²⁴¹. This is in contrast to the previous royalty regime which permitted these governments to spend their royalties without any national control or supervision over the technical details of a project. However, the OECD has pointed out that

“close attention will need to be paid to the degree to which royalty-transfers are actually achieving the policy outcomes envisaged by the reforms. For instance, earmarking a share of the royalties to the science, innovation and technology fund may indeed spur innovation-driven growth; however, it may also hinder a more effective allocation of resources since other spending areas may have higher social rates of return, at least in the short term. The allocation of public funds to specific investment projects may also hinder effective spending in the absence of close co-ordination among projects approved for each department or municipality.”²⁴²

Thus, the approval of projects using royalty payments have to be based on sound analysis and an assessment of the potential impact of each project, in a much broader context, taking into account not only the specifics of each project, but the impact of other investments in the region.

Information and Network Governance

Improving the Colombian information systems, especially regarding environmental resources, mineral resources, and indigenous communities, is only the first step of the challenge. A greater challenge lies in the sharing of this information and making this information available and useful for private and public entities involved in the licensing process, or the monitoring, of extractive activities. Coordination will be a key element to address this challenge. Information should elevate the level of discussion among all relevant stakeholders and be utilized in debates and negotiations to balance the power amongst all interested parties. The goal is to incorporate the scientific, practical, and political knowledge produced by state agencies and independent organizations into the decision-making process.

Recommendation [2]: Use the governance network framework to foster active sharing and discussion of information among all actors in the extractive sector (the offering areas to bid, granting exploration and production rights, granting of mining titles, granting of environmental licenses, monitoring of extractive projects, allocation of royalties, etc.)

4.2.3 More Transparency Leads to More Accountability

All citizens must have the means and opportunity to demand institutions to work properly, according to the functions that they have been entrusted. In other words, all citizens should have the right to hold institutions accountable, demanding that they act according to their legal obligations. There is wide consensus about the importance of accountability in the governance context. The responsiveness of institutions to people's demands is a key factor in tackling corruption and, furthermore, increasing the efficiency and effectiveness of such institutions. Transparency, on the other hand, is *sine qua non* in achieving effective accountability. The openness of the government and the availability of information are fundamental for citizens to successfully monitor the public sector. Information used for this purpose not only has to be readily available, but also reliable, organized, and understandable. In contrast, where low levels of transparency prevail, there are low levels of accountability, creating an environment where corruption and ineffectiveness flourish. Indeed, some of the effects of low transparency are:

“

- *A lack of transparency makes corruption less risky and more attractive.*
- *A lack of transparency makes it harder to use incentives to make public officials act cleanly.*
- *A lack of transparency makes it hard to select the most honest and efficient people for public sector positions or as contract partners.*
- *Informational advantages give access to rents, making reform difficult.*
- *A lack of transparency makes cooperation more difficult to sustain, and opportunistic rent seeking more likely.*
- *A lack of transparency may undermine social norms and reduce trust*²⁴³

Given the importance of the extractive industry for the Colombian economy and the significance of the revenue derived from it for national development, accountability and transparency are paramount to guarantee good resource management.

Transparency Issues in Colombia

Colombia does not rank well in international measurements of corruption. It has fallen from 70th in 2008 to 94th among 177 countries in Transparency International's Corruption Perception. Taking local and regional governments into account, the picture is even worse, as evaluated by Transparencia por Colombia in 2010²⁴⁴. The OECD has also assessed corruption in Colombia:

*Corruption affects sub-national governments in particular. In 2011 about 500 mayors (out of 1 102 municipalities) were punished by the Inspector General and more than 90% of them have been suspended from office. Furthermore, indicators show that the risk of corruption is high in some of the key institutions dealing with infrastructure and innovation. This suggests the need for better information systems as well as more transparency and accountability. These institutions include regional authorities in charge of granting environmental permits (Corporaciones Autónomas Regionales, CAR), port managers, and the institution in charge of financing research and development*²⁴⁵

As noted above, local and regional governments are recipients of royalties, and conduct government procurement for projects funded with royalties. Accordingly the OECD assessment

is quite relevant, as rents from natural resources can be subverted through corruption, especially at the local and regional levels, and therefore negatively impact economic development. Colombia has accordingly sought to improve its government procurement practices, using electronic resources and more transparent bidding processes. However, the conduct of government procurement procedures by the local and regional governments is still very opaque. In addition, corruption of the public sector by the private sector is increasing, making contractual monitoring even more of a challenge.²⁴⁶ Compounding this problem is the increase in the perceived impunity²⁴⁷, which discourages citizens from whistleblowing because of the ineffectiveness of the legal system.

Colombia has taken increased steps to fight corruption and enhance transparency, both in general and in the extractive sector in particular. Colombia has signed onto international agreements and accordingly adopted recognized standards. For example, Colombia is now part of the Open Government Partnership²⁴⁸, an international initiative to promote transparency within its country-members by committing to concrete goals for improvements in transparency and efficiency. Also, Colombia has begun the process to be part of the Extractive Industries Transparency Initiative's Standard –EITI-, establishing the National Coordination Table. This is the first step of a long accession process; however some sources have noted the lack of commitment by the government, and that EITI does not seem to be a priority.

Recommendation [3]: Decidedly move forward in the process of accession to the EITI.

The efforts made by the central government to set an information website for royalties²⁴⁹ and the adoption by Congress of the Information Access Law (Law 1712 of 2014) which provides that every person has the right to access all the information that public institutions hold, and the correlative obligation of the latter to disclose, are worth noting. However, information about contracts and revenues from the extractive industries (e.g. income taxes, property taxes, land taxes, etc.) is difficult, if not impossible to obtain on a disaggregated level. The media has complained that the adequate information to monitor the government and the companies is unintelligible, and disorganized. Without good information the media cannot perform its function to inform the public, nor the civil society can hold the government accountable.

Recommendation [4]: Create a web-based portal, which centralizes, organizes and makes readily, freely and easily accessible, at least the following information:

- Areas opened for bidding.
- E&P and TEA contracts.
- Mining titles: areas, applicants, concession contracts, etc.
- The amount of royalties paid, disaggregated by field/mine, and company.
- Income tax revenue from extractive industries, disaggregated by company.
- Type and amount of income tax exemptions, deductions, and the like, disaggregated by company.
- Projects approved to be funded with royalties.
- Local and regional procurement procedures.
- Expenditure impact assessments.

Finally, it is crucial to keep in mind that even though transparency is critical, it is not sufficient. Indeed, “transparency has an effect on corruption only under certain circumstances. Agents, whose access to information is increased, must also have an ability to process the information, and the ability and incentives to act on that information. The impact of transparency therefore depends on the level of education of an electorate, the extent to which key stakeholders have the power to hold a government to account, and the private or collective nature of the goods about which information is provided.”²⁵⁰

The first issue mentioned in the cited text must be emphasized: education is key for transparency to achieve its purpose, serving as a means for citizens to demand that their authorities are efficient and effective, and to make sure the extractive industries comply with the rules that have been set for them. In that sense, it is necessary to build technical capacity among the citizenry, and to set the conditions for effective monitoring of the industry by the media and the people. That translates not only into greater transparency in all extractive industry cycle, but in the expenditure of revenues as well.

Recommendation [5]: Media and civil society should raise awareness about the importance of natural resources for Colombia’s present and future economic development. They should start a public and massive campaign to this end, in order to stimulate demand for more transparency and accountability.

4.2.4 Capable Institutions Lead to Higher Accountability and Better Resource Management

It has been asserted above that Colombia has a good institutional framework for non-renewable natural resource management. In the past four years, the country has tried to strengthen its institutions and regulation regarding oil, gas, and mining exploration and extraction, but also regarding environmental protection and monitoring. The private sector has also recognized the government’s efforts to re-organize the sector and move forward in its development. Nevertheless, lack of capacity within institutions is seen as a major burden for the development of extractive sector.

It is important to highlight the importance of capacity, especially regarding extractive industries. A more educated, more prepared, and more knowledgeable society will be capable to demand greater accountability, changes and improvements from local, regional or national governments. It is a society that is aware of its rights, and the duties of the official running the state. Indeed, “*capacity development is ultimately about people. It is about people’s capabilities to move for change in their local environments*”²⁵¹. Capacity, then, is the cornerstone for better accountability and better institutions, capable of responding to the demands of the citizens, and to work in an effective and efficient manner, according to their mandate.

In Colombia, representatives from both the oil and gas sectors, and large-scale mining industries noted that the bureaucracy of the reformed institutions in the national level described in section 4.1, still do not have an adequate level of understanding of these sectors and industries. In particular, they referred to the lack of capacity in the environmental regional authorities²⁵²;

even representatives of these authorities acknowledged their limitations, compared to personnel in the private sector, both in terms of organizational capacity and knowledge. Furthermore, the central government expressed concern over capacity in the local and regional governments, specifically regarding the preparation, presentation and execution of projects financed with royalties²⁵³.

The OECD in its assessment about Colombia's governance has also addressed this, and asserted that

In Colombia, the main obstacle to enhancing local-government capability to design and implement medium and long-term policies is the weak institutional capacity and organisation in many of its departamentos and municipios. In general, like the national government, Colombian sub-national governments need to improve their recruitment systems (...)

Training of local public employees is of key importance in developing capacity in sub-national governments. At the moment, there is no evidence of a training strategy that links training of individuals to organizational objectives and there does not seem to be sufficient investment in training on the part of local authorities²⁵⁴

Capacity building is an on-going process with a long-term view. Colombia should address the issue with immediate programs that enhance the existing human capital, but also programs that aim to increase capacity in the long term.

As short and mid-term strategies, the government has tried to close the existing capacity gap by opening training courses in different kinds of areas at low cost and high quality through public institutions for higher education (National Service for Learning – SENA, Advanced School for Public Administration – ESAP). Furthermore, and especially regarding preparation and presentation of projects to be funded with royalties, the DNP has created several programs to technically assist the local and regional governments, as a way to build capacity. In fact, it has created, among other tools, the *Grupo de Fortalecimiento Territorial* (Local Strengthening Group), *Grupo Estructurador de Proyectos* (Project Structuring Group), *Red de Estructuradores* (Project Structuring Network), and *Formación de Formadores* (Trainers Training). According to the DNP, this has been a successful policy, having assisted 1.103 local and regional governments (out of 1.134), and having achieved project approvals, after successful preparation and presentation to the respective OCAD, in 865 of them (86%)²⁵⁵.

However, Colombia could rely more on the knowledge that the private sector can share, specifically regarding the extractive industries, where specialized expertise is needed to understand, analyze and assess them. There should be rules requiring companies to deliver reports on their economic, geological or environmental research to the authorities, in order for them to inform policymaking. Both the authorities and the private sector should see this information sharing as an opportunity for dialogue in a constructive process towards industry development.

Also, Colombia should build on partnerships with higher education institutions in the regions, in order to scale training policy up, and foster relationships between academia, regional and local

governments, as well as with regional environmental authorities. The network governance approach can be useful in fulfilling these two goals, as information flows from the private to the public sector in a way described in section 1.2.2. Some of that information can flow in the form of training to local and regional public officials; this kind of training would be a strong tool to enhance capacity in the regions. Also, participation of higher education institutions in the discussions regarding extractive industries' policies should not only inform the debate, but also help them assess what the industry needs in terms of knowledge to be imparted in their academic programs.

Recommendation [6]: Use network governance to enable information sharing between private sector, public sector, and academia, in the form of providing training to public officials in the local and regional governments, and in the regional environmental authorities.

Along the same lines, Colombia has to invest more in education for long-term capacity building, as noted by the OECD, and advised by the UNDP: *“The ‘demand side’ of what makes change in capacity happen stems from investing in education reform that includes literacy efforts linked with access to relevant knowledge, a progressive language policy that broadens opportunities for many otherwise unheard voices, and providing the safe space for citizenry to demand and dialogue around change”*²⁵⁶.

Recommendation [7]: Increase investment in education for long-term capacity building.

4.3 Conclusions

The main recommendation is to strengthen coordination between all actors, enhancing their participation in decision-making by setting a *network* in which there is a direct bargaining process, informed by reliable information gathered by all stakeholders. In order to increase accountability in the sector, that is, in order for citizens to be able to oversee and question the decisions taken within this network, there should be complete information about the process of granting exploration and production rights, environmental licensing, revenue from extractive activities, expenditures of such revenue, etc. This should strengthen accountability from the public institutions, with the correlative enhancement in efficiency and effectiveness. Finally, in order to design better policies, enhance monitoring of the industry, and effectively combat corruption, among other purposes, the government has to make special efforts regarding capacity, especially on local and regional authorities, building bridges between the private sector, the public sector, and academia, and investing in training.

Notes to Section 4

¹⁹⁹ Official Website of Ecopetrol:

<http://www.ecopetrol.com.co/english/contenido.aspx?catID=644&conID=36899>

²⁰⁰ In 2006, Law 1118 permitted the capitalization of the company, and the issuance of shares to the public. These measures have resulted in a more transparent and efficient company, which is now registered on both the Colombia and New York Stock Exchange. Since its transformation in 2003, Ecopetrol operates like any private company and is governed by the same laws and regulations as any other company in the sector,

²⁰¹ Latin Lawyer, The Business Law Resource for Latin America:

<http://latinlawyer.com/reference/topics/47/jurisdictions/8/colombia/>

²⁰² Law 685 of 2001. Title IV.

²⁰³ See <https://www.gobiernoenlinea.gov.co/web/guest/home/-/government-services/4367/maximized>

²⁰⁴ <http://www.portafolio.co/economia/inicio-operaciones-la-agencia-nacional-mineria>

²⁰⁵ Interview with Claudia Jiménez, President of the Association of Big-Scale Mining Companies (March 2014)

²⁰⁶ Since the function of mining authority is now in the ANM, the INGEMINAS remained as a research center for geological purposes, and was renamed as National Geological Service.

²⁰⁷ Rodríguez, Manuel. *La reforma de la institucionalidad ambiental de Colombia doce años después*. Revista Economía Colombiana. Contraloría General de la República, 297th Edition Bogota (July-August 2003)

²⁰⁸ Manuel Rodríguez, Julio Fierro, Álvaro Pardo, Mauricio Cabrera.

²⁰⁹ Fiscal austerity and administrative efficiency were two of the main proposals of Mr. Alvaro Uribe's presidential campaign. Such proposal materialized in a bill sent to the Congress by the then newly elected government, which became Law 790 of 2002. It merged several Ministries and gave special faculties to the President to reorganize the administration. It is clearly stated that the objective of such law is to "assure, within a framework of financial sustainability of the Nation, an adequate fulfillment of the State's objectives..."

²¹⁰ Rodríguez, Manuel. *Hacia la insostenibilidad ambiental: Un balance de la política ambiental 2002-2006*. Actualidad. Discusiones y propuestas. No. 18. Bogotá, Facultad de Administración, Universidad de los Andes (August 2007)

²¹¹ Rodríguez, Manuel. *Hacia la insostenibilidad ambiental: Un balance de la política ambiental 2002-2006*. Actualidad. Discusiones y propuestas. No. 18. Bogotá, Facultad de Administración, Universidad de los Andes (August 2007)

See also Environment Section 7 (Investment chart – MAVD Vs. ANM)

²¹² Bill 053 of 2011. Purpose exposition. Congress minute No. 516 of 2010.

²¹³ See, among others:, "Son las CAR nidos de corrupción?", *Ola Política*
<http://www.olapolitica.com/content/%C2%BFson-las-car-nidos-de-corrupci%C3%B3n>

“Las Car: una historia de corrupcion y malos manejos”, *Caracol Radio* (January 22, 2011) <http://www.caracol.com.co/noticias/actualidad/las-car-una-historia-de-corrupcion-y-malos-manejos/20110122/nota/1414941.aspx>

“Corrupcion y politiqueria contaminan corporaciones autonomas regionales”, *Semana* (January 27, 2009)

<http://www.semana.com/politica/articulo/corrupcion-politiqueria-contaminan-corporaciones-autonomas-regionales/99548-3>

²¹⁴ ANLA is today an agency separated from the Ministry of Environment and Sustainable Development, but it is still ascribed to it. Before this separation, it was a division within the ministry.

²¹⁵ Autoridad Nacional de Licencias Ambientales. *Accountability Report* (Rendición de Cuentas) for the year 2012. Bogotá (April 2013)

²¹⁶ Article 359.

²¹⁷ Data from DIAN.

²¹⁸ Ministry of Finance. Presentation on the 2014 National Budget bill.

²¹⁹ López, Enrique; Montes, Enrique; Garavito, Aarón; Collazos, María Mercedes. *La Economía Petrolera en Colombia (Parte II). Relaciones intersectoriales e importancia en la economía nacional*. Borradores de Economía. Número 748. Banco de la República. Bogotá, page 13 (2013)

²²⁰ Project of Constitutional Reform - Purpose exposition. Congress Minute No. 577 of 2010.

²²¹ *Idem*. See pages 19-21.

²²² Órganos Colegiados de Administración y Decisión.

²²³ CONPES Document 3762, page 5 (2013)

²²⁴ Interview with Lina Bravo, Modernization and Public Management Coordinator, Cerrejon Responsible Mining Foundation (March 19, 2014)

²²⁵ “Mineria reclama coordinacion en el gobierno”, *El Tiempo* (November 23, 2013)

<http://www.eltiempo.com/archivo/documento/MAM-4268327>

“Falta de coordinacion dentro del gobierno frena mineria”, *elColombiano* (Feb. 21, 2014)

http://www.elcolombiano.com/BancoConocimiento/F/falta_de_coordinacion_dentro_d_el_gobierno_frena_la_mineria/falta_de_coordinacion_dentro_del_gobierno_frena_la_mineria.asp

²²⁶ Interviews with Manuel Sierra, Finance Secretary of Riohacha, La Guajira; and César Arizmendi, Planning Secretary of La Guajira (March 2014)

²²⁷ “Tauramena, el primer municipio en rechazar la explotacion petrolera”, *El Tiempo* (Dec. 17, 2013) <http://www.eltiempo.com/archivo/documento/CMS-13293577>

“Consultas populares pueden poner en riesgo la inversion, dice el gobierno Colombiano”, *lainformacion.com* (Dec. 17, 2013)

http://noticias.lainformacion.com/economia-negocios-y-finanzas/petroleo-y-gases-primarios/consultas-populares-pueden-poner-en-riesgo-inversion-dice-gobierno-colombia_PQHguJSB4r7xk80C0goGX2/

²²⁸ However, in March 2014, the Constitutional Court declared that the named article was not unconstitutional, only under the understanding that that every decision that the national authorities make regarding land use vis-à-vis mining exploration and exploitation activities have to be agreed with the respective local and regional authorities, in order to protect the environment, fountains, and enhance the economic, social and cultural development of the local communities.

²²⁹ CONPES Document 3762 of 2013, Decree 2445 of 2013.

²³⁰ The concepts draws upon collaborative public management, which “is a concept that describes the process of facilitating and operating in multiorganizational arrangements to solve problems that cannot be solved or easily solved by single organizations. Collaborative means to co-labor, to achieve common goals, often working across boundaries and in multisector and multiactor relationships. Collaboration is based on the value of reciprocity”. See Blomgren, Lisa; O’Leary, Rosemary; Carlson, Christine. *Frameshifting. Lateral Thinking for Collaborative Public Management in Big Ideas in Collaborative Public Management*, London, page 3 (2008)

²³¹ Torfing, Jacob. *Governance Network Theory: towards a second generation*, European Political Science: 4. Page 307 (2005)

²³² Interview with Maria Isabel Ulloa, Coordinator for Royalties (March 2014)

²³³ Head, Brian, *Three Lenses of Evidence-Based Policy*. The Australian Journal of Public Administration., vol. 67, no. 1, page 7 (2008)

²³⁴ Idem.

²³⁵ Interview with ACP’s Alejandro Martínez (March 2014)

²³⁶ “Escandalosa adjudicación de títulos mineros en parques nacionales”, *La Silla Vacía*, <http://lasillavacia.com/historia/la-escandalosa-adjudicacion-de-titulos-mineros-en-parques-naturales-26448>,

“Piden frenar títulos mineros en parques nacionales”, *Semana* (March 21, 2013) <http://www.semana.com/nacion/articulo/piden-frenar-titulos-mineros-parques-naturales/337470-3>,

“Quien responde a los títulos mineros en parques?”, *El Espectador* (May 2, 2013) <http://www.elespectador.com/noticias/actualidad/vivir/articulo-419826-quien-responde-los-titulos-mineros-parques>

²³⁷ Interview with Claudia Jiménez from Large Scale Mining Companies Association (March 2014)

²³⁸ Interview with Juan Guillermo Castro, Vice President of Promotion of the National Mining Agency (March 2014)

²³⁹ World Bank Group, Strong, Sustainable and Balanced Growth: Enhancing the Impact of Infrastructure Investment on Growth and Employment (February 2014) <http://siteresources.worldbank.org/EXTSDNET/Resources/infrastructure-background-note-G20.pdf>

²⁴⁰ Bertrand Badre, “Infrastructure Unbound”, *Project Syndicate* (March 26, 2014) <http://www.project-syndicate.org/commentary/bertrand-badre-cautions-that-money-is-not-enough-in-meeting-countries--public-investment-needs>

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- ²⁴¹ Interview with Maria Isabel Ulloa (March 2014)
- ²⁴² OECD, OECD Public Governance Reviews: Colombia. Implementing good governance. Multi-level governance in Colombia. p. 241. Paris (2013)
- ²⁴³ Kosltad, Ivar; Wiig, Arne. Is transparency the key to reducing corruption in Resource-Rich Countries? World Development, Vol. 37, No. 3, page 522 (2009)
- ²⁴⁴ Índice de Transparencia Departamental, Índice de Transparencia Municipal.
- ²⁴⁵ OECD. OECD Public Governance Reviews: Colombia. Implementing good governance. Multi-level governance in Colombia. p. 234. Paris (2013)
- ²⁴⁶ According to Transparencia por Colombia.
- ²⁴⁷ See Transparencia por Colombia, Perception Index (2013) , http://www.transparenciacolombia.org.co/index.php?option=com_content&view=article&id=441:indice-de-percepcion-de-corrupcion-2013&catid=94&Itemid=490
- ²⁴⁸ See Open Government Partnership, <http://www.opengovpartnership.org/>
- ²⁴⁹ Sistema General de Regalias: www.sgr.gov.co
- ²⁵⁰ Kosltad, Ivar; Wiig, Arne. Is transparency the key to reducing corruption in Resource-Rich Countries? World Development, Vol. 37, No. 3, page 529 (2009)
- ²⁵¹ 'Capacity is Development' A Global Event on Smart Strategies and Capable Institutions for 2015 and Beyond. A Report. United Nations Development Program. Marrakesh, page 4 (2010)
- ²⁵² Alejandro Martínez, ACP. Claudia Jiménez, SMGE.
- ²⁵³ Maria Isabel Ulloa, Roayalties Coordinator in the Ministry of Finance.
- ²⁵⁴ OECD. OECD Public Governance Reviews: Colombia. Implementing good governance. Multi-level governance in Colombia. page 249. Paris (2013)
- ²⁵⁵ Villarreal, Javier. El Gobierno Nacional y la Regionalización de la inversión en el marco del Sistema General de Regalías (SGR).
- ²⁵⁶ 'Capacity is Development' A Global Event on Smart Strategies and Capable Institutions for 2015 and Beyond. A Report. United Nations Development Program. Marrakesh, page 4 (2010)

5 The Social Dimension of Extractives

The massive influx of wealth that comes with increased extractive activities has brought pressures on the existing tensions between the Colombian government and communities, especially in indigenous and rural areas, where such social tensions are highest given the weak state presence in these areas. As the revenues from extractive projects have continuously increased, so has the expectancy for the government to alleviate issues of poverty, bolster weak public institutions, modernize basic infrastructure, as well as offer more opportunities for individual and communal development (jobs, higher education, and trainings). Moreover, the extractive process itself, as outlined in the Environment Section, produces negative externalities that impact local communities. In response to growing frustrations from the extractive process, impacted communities have largely engaged in social protests to voice their grievances and demand compensation. The following sections aim to address the underlying issues fueling these conflicts by recommending strategies to incorporate community consent in the extractive process and address issues of social inequality in the natural management strategy of the national government.

5.1 Issues of Community Consent

5.1.1 Legally Define the Process and Procedure for Prior-Consultation

The national government holds legal claims to subsoil rights, as explained in section (governance), establishing central authority over natural resources in the country. Law 685 of 2001, commonly known as *The Mining Code*, is a direct product of the government's emphasis on expanding the extractive industry to be a key driver of Colombia's economy. It is important to note that Colombia contains historically legally protected peoples— Afro-Colombian, Indigenous, and peasant communities —that tend to reside in rural and remote areas where significant amounts of natural resources are situated. The Colombian Constitution of 1991 and the International Labor Organization (ILO) Convention 169 (signed by Colombia) establish the right of prior-consultation of Indigenous and Afro-Colombian communities; however a specific national law on prior-consultation has not yet been codified. The legal ambiguity on prior consultation has created difficult challenges to establishing a standardized, nationally recognized framework for the implementation and protection of prior consultation. Free, Prior and Informed Consent (FPIC) is currently the only mechanism for protected communities to voice their needs and grievances with the process of natural resource extraction in their areas; however, it does not currently grant them the authority to veto or simply object to any government approved projects. Consequently, as indicated in the 2012 ABColombia Report on Mining and Human Rights in Colombia:

“... government policies aimed at rapidly expanding natural resource extraction through Foreign Direct Investment (FDI) conflict with policies on the protection of ecologically sensitive areas, the rights of peasant farmers (campesinos), Indigenous and Afro-Colombian Peoples, land restitution and the protection of areas for agricultural use.”²⁵⁷

Colombia's National Development Plan, based on the expansion of the mining and energy sector, conflicts with the constitutionally protected right to self-determination of impacted communities. This conflict is exacerbated by the confusion that arises from the absence of a clearly defined process and procedure of FPIC and prior-consultation. Under the current statutes, the process of prior consultation begins only once the government awards a company a mining contract. However, it is still unclear how these groups can effectively exercise their right to withhold consent or veto a project that is infringing upon their protected rights.²⁵⁸

Insofar that the current legal system does not allow for communities to officially withhold their consent on a project, impacted communities launch social protests against companies as a means to express their grievances and withhold their consent. The Center for Research and Popular Education/Peace Program (CINEP/PPP) released a report in 2011 highlighting that:

“[t]here has been a substantial increase in both the number and intensity of social conflicts associated with natural resource exploitation. CINEP found that between January 2001 and December 2011, 274 collective social actions associated with the extraction of petroleum, coal and gold took place in Colombia, with social protest against mineral extraction rising consistently from 2005²⁵⁹.”

These protests often seek to block the transportation routes of the company involved in the extractive process. For example, train tracks, main roads, access to ports and the mining sites are often blocked by mass protests. The main objective of these protests is to impose costs on the companies, which in turn will compel them to engage directly with the communities, and not just engaged with the central government in Bogota.

Figure 33 Protest Roadblock by Wayu Indigenous community in La Guajira Region in Colombia

Source: Alejandra Espinosa and Fadi Nassar

In the region, the experience of Bolivia provides an important perspective on the establishment of laws on the process of prior consultation.

**The Rights of Indigenous Peoples to Prior Consultation: The Situation in Bolivia, Colombia, Ecuador, and Peru
Due Process of Law (DPLW)²⁶⁰**

Bolivia legally recognized the right to prior consultation in its Political Constitution of 2009 (which defines the State as plurinational), as well as through the incorporation of international law into domestic law and the adoption of regulations, decrees, and enforcement standards, especially for hydrocarbon exploration and extraction. Despite the progress made, regulations governing the mining, metallurgical, forestry and other extractive industries are still either nonexistent or inadequate and fragmented, as are regulations on broader environmental issues.

Factors favoring observance of the right to prior consultation in Bolivia include, first, the legal recognition of territorial organizations. This has enabled groups such as the Confederation of Indigenous Peoples of Bolivia (CIDOB), the National Council of Ayllus and Markas of Qullasuyu (CONAMAQ), the Unique Confederation of Rural Laborers of Bolivia (CSUTCB), and the Bartolina Sisa National Federation of Peasant Women to represent indigenous peasant communities. The first three organizations also act as agents in prior consultation processes relating to indigenous

territories. A second positive factor is the adoption of a cross-cutting approach, meaning that indigenous issues are included on the public policy agenda at all levels of government. An example of progress was the adequate consultation process conducted in the indigenous territory of Charagua Norte and Isozo, which produced the desired outcomes at all stages using the mechanisms and institutions of the Guaraní indigenous people.

“The state has taken the prior consultation process as a form of legalized eviction, where entities like the Ministry of the Interior believe that the process is only a way to provide information to the communities so that they say ‘yes.’ But that is not the spirit of the prior consultation process. La Guajira continues to be one of the poorest regions in the country, and the state takes advantage of the communities’ poverty. Via the so-called pre-consultation process, the state allies with the company, offering groceries and vehicles in order to buy people’s consent.” – Jackeline Romero Epiayu – Movimiento Fuerza de Mujeres Wayuu (Wayuu Women’s Force Movement)

The rise of social protests draws to attention the social impacts caused by the current shortcomings of the existing legal system. In that spirit, the following recommendations are proposed:

Recommendation [1]: Adopt legislation (in contrast to a Presidential Decree or Directive), which establishes clear procedures on prior consultation and incorporates the standards from the jurisprudence of the Constitutional Court.

Recommendation [2]: Establish a strong follow-up mechanism to ensure that agreements made during the process of prior consultation are upheld.

5.1.2 Incorporate “Social License” as a Requirement for Obtaining National/Regional Environmental License

A social license to operate (SLO) refers to the level of acceptance or approval by local communities and stakeholders of extractive companies and their operations.²⁶¹ The term “Social License to Operate” was coined in the late 1990’s by Canadian mining executive Jim Cooney, in an effort to reduce the risks of public criticism, social conflicts, and the damage to a company’s reputation.²⁶² The concept has developed fairly recently from the more established notion of Corporate Social Responsibility (CSR) and is based on the belief that extractive companies do not only need government permission or permits, but they must also obtain “social permission” from the communities where the extractive operations take place. In many countries with large extractive sectors, SLOs are increasingly becoming an integral part of operating within democratic institutions.²⁶³ The absence of an SLO in various extractive projects throughout Latin America (such as Colombia, Peru, and Ecuador) has been associated with social conflict, loss of machinery due to vandalism, higher financial costs, increased difficulty in hiring skilled labor, costly delays of mine operations, and operational shutdowns due to community opposition.²⁶⁴

Increasingly, impacted communities are demanding more involvement in the decision making process of local mining projects, a greater share of the benefits from the extractive business, and assurances that mineral extraction will be effectively regulated, safe, and responsible.²⁶⁵ However, in the case of Colombia, the government's mining agenda and emphasis on natural resource extraction has dramatically increased the number of mining concessions and permits throughout the country without first consulting local communities or obtaining their consent. These communities have decried many of the environmental impact assessments performed by mining companies as insufficient or flawed, leading to social mobilization against mining projects in various regions.

How are Social Licenses to Operate Obtained?

A Social License to Operate is granted by the stakeholders involved and impacted by the extractive operations. An SLO is based "on the degree to which a corporation and its activities meet the expectations of local communities, the wider society, and various constituent groups."²⁶⁶ A key aspect of the social license is that it does not refer to a formal agreement or document between the stakeholders, but rather it is based on the "real or current credibility, reliability, and acceptance of mining companies and projects."²⁶⁷ An integral aspect of obtaining a social license is the relationship that companies establish with the various stakeholders. According to the World Bank, governments, mining companies, and local communities should undertake trilateral negotiations from the onset of mining projects.²⁶⁸ However, there is currently no established or standardized formula for mining companies to obtain and maintain an SLO in Colombia. Nonetheless, there are several principles that are essential to the process, including the establishment of good relations. These relations should be based on "mutual respect, open and ongoing communication, inclusion of all stakeholders, honesty, plain disclosure of information, and transparency of mining exploration and exploitation processes."²⁶⁹

The Social License to Operate is based on the establishment of good relationships between the various stakeholders, as well as a participatory and inclusive framework for discussions. These relations should not, however, be solely dependent on companies providing material benefits to impacted communities since this can create "clientilistic" relations in which communities expect companies to pay and provide public services that should in fact be provided by the government, and in some cases resorting to protest and conflict in order to obtain these benefits. This can create a moral hazard by incentivizing community members to use protests, blockades, and even violence to extract economic concessions from companies. The Prospectors and Developers Association of Canada cautions mining companies that short-term direct capital infusions are "not necessarily what communities want or need to meet the objectives of long-term sustainability,"²⁷⁰ instead advising them to "engage the community in a discussion of the risks, costs, and benefits, to recognize needs and opportunities and discuss trade-offs²⁷¹." It further recommends that mining companies "interact with communities, indigenous peoples, organizations, groups and individuals on the basis of respect, inclusion, and meaningful participation."²⁷²

Recommendation [3]: Incorporate SLOs as a part of obtaining community consent for extraction by requiring mining companies to be sensitive to local cultural norms, create realistic expectations, develop fair conflict resolution mechanisms, be consistent and predictable regarding their ethical behavior but flexible enough to accommodate the needs of the community, and start the engagement process as early as possible.

Although there are no official SLO mechanisms established in Colombia, the country offers legal procedures in which to achieve community consent. Specifically, a process known as *consulta popular* or popular vote aims to incorporate the participation of local communities (not only indigenous or Afro-Colombian) in the decision making of mining projects. Article 2 of the Colombian Constitution concerning fundamental principles establishes the government's responsibility "to facilitate the participation of all in the decisions that affect them."²⁷³ Despite the constitutional grounding of the popular vote in Article 2, the central government has effectively overruled local jurisdictions' ability to veto mining in their territories by claiming the national government's right to subsoil minerals as established by the Mining Code. However, even within the Mining Code, the popular vote has legal support in Article 35, which permits municipal authorities to restrict mining activity in their territory. Although the Code does not use the word "prohibit", it does use the word "restrict" which could be interpreted in favor of establishing the popular vote.

The costs of forgoing social licenses and the popular vote can be observed by looking at the case study of the social conflict that erupted in the mining region of Piedras in 2013.

Popular Vote (Case Study: Piedras, Tolima)

In May 2013, the city council in Piedras, a small farming town in the central Colombian department of Tolima, decided to issue a popular vote. The question on the ballot was whether the community should allow extractive activities to proceed in the region, recognizing the potential negative impacts to public health, the water supply and agriculture of its territory. The mining project on the ballot, which is currently in the feasibility study phase and is estimated to hold 24 million ounces of gold in reserves worth more than \$30 billion,²⁷⁴²⁷⁵ would be the third-largest mining project of AngloGold Ashanti (AGA). AGA is one of the world's largest gold producers with mining operations in Colombia, Africa, and Australia.²⁷⁶

In January 2013, AGA began considering the Piedras region for a gold-ore processing plant; however, almost immediately after this initial activity and mining investigation began, local community residents staged protests and road blockades aimed at stopping AGA's operations. Since the region is primarily dominated by large-scale rice production, protesters were mainly concerned with the potential water usage and contamination effects of a gold ore processing plant. Subsequently, AGA filed a lawsuit against Piedras Mayor Arquimedes Avila for failing to take action to prevent the roadblock and "halting the freedom of movement" of company personnel. The legal battle did not lead to a resolution, intensifying hostility between the local community and the mining company.

On July 28, 2013, the people of Piedras voted overwhelmingly by 99 percent to reject the La Colosa mining project. Under Colombian law on *consulta popular*, the election results are

binding if at least one third of voters participate, which in the case of Piedras was a minimum of 1,700 voters²⁷⁷. Indeed, 2,995 Piedras' voters cast ballots in the 2013 referendum, representing nearly 60% of the total eligible electorate; however, different interpretations of this law's jurisdiction have spurred conflict over the referendum's legal standing.

The national government under the Santos administration, specifically the Ministry of Mines and Energy, has declared that local governments cannot decide the fate of mining projects within their jurisdictions since all subsoil is designated as a "public utility" and the property of the national government, thus giving precedence to the national government over popular votes. Despite the fact that the site of the La Colosa project is in an area of both agricultural production and biodiverse ecosystem, including a forest reserve, the Colombian government has made the gold mining project a national priority under the Mining Code, effectively streamlining, and in some aspects bypassing, environmental regulations. The national government's rejection of the people's will in Piedras, along with a disregard for health and environmental regulations in an effort to facilitate the "mining boom," are social issues that local mining communities faced with the impending impacts of large extractive projects must address.

An article appearing in the Harvard Winter 2014 Review of Latin America stresses the link between the absence of obtaining a social license and the outbreak of social conflict:

"The continuation of the tradition to control and own the minerals and fuels in the subsoil for the national interest has provided governments with important sources of revenue, opening possibilities for social investment but also for corruption and the emergence of less democratic leaders. It is certainly easy to understand that no national government would forego such a rapid revenue checkbook. But it also needs to be recognized that the coexistence of state ownership of the subsoil with a more empowered civil society, stronger constitutional rights about the environment and cultural diversity, along with private and collective property rights over the land, will bring additional conflicts for designing and implementing any kind of mining activities under it."²⁷⁸

Recommendation [4]: The national government should formally recognize and respect the popular vote as a mechanism for local communities to veto or object mining operations. It should allow local "Consultas populares" to check the Central Government's authority to regulate use of mining resources and therefore veto mining projects at the local level, in order to provide alternative channels to address social concerns and mitigate social conflict revolving mining projects.

5.2 Social Equity Issues

5.2.1 Provide Necessary Resources to Ensure Strong Community Participation in Social Development Projects

As discussed in the section on governance, Colombia's history of violence with paramilitary groups and the FARC has fostered a low government presence in many rural areas where extractive resources are found. Absent or weak state presence in regions with extractive industries has fostered an environment where extractive companies have become the main provider of basic goods and services rather than the government. This shift in responsibilities poses challenges to the companies, the communities, and to the government.

Companies

Companies pay an assigned portion of their revenues to the government to be distributed as Royalties. Since local communities are usually unaware about the technicalities of the Royalty system they demand more direct forms of compensation from companies (such as the provision of electricity, gas, health services) incurring higher costs on affected companies.

Communities

While companies should be more socially responsible and engaged, they should not replace the role of the government in fulfilling its central duty as a provider of these services to the communities.

Companies engaging in CSR and other means of social and economic development in the environments they operate in are doing so with a limited time frame in contrast to the long-term nature of public institutions. With little exception, as soon as the project expires, the social engagement funded by companies in the surrounding environment comes to an end. Insofar that social development projects like improving education, healthcare services, and youth empowerment are long-term processes, it is important that a government supported system is in place to secure the sustainability of social development projects.

Government

The strengthening of public institutions is a needed step to secure Colombia's long-term transition to a more stable, secure, and developed country. In recognition of this necessity of improving public governance, the replacing of the government's traditional role as the provider of services (such as education, healthcare, and necessities like water) by companies could foster an environment that does not encourage the strengthening of public institutions in remote areas. Should this occur, the government will face challenges when the companies finish their operations and no longer provide these services. Public institutions must be able to provide adequate support for communities in these territories and this can only be achieved through the government taking a more proactive role in the provision of public services.

Moreover, while companies can have an active role in the social and economic development of the surrounding environments they are operating in, they can also opt to socially disengage or offer minimal support. The lack of a strict set of Corporate Social Responsibility (CSR) standards

allows for a myriad of company approaches when it comes to engaging with communities. This reality draws to attention the need for a strong government that can set and enforce appropriate and objective CSR standards that protect communities and allow for healthy relations between companies and communities.

Recommendation [5]: To avoid misunderstandings and conflicts between Companies and local environments, the government should make information about the Royalty System and the amounts given by the respective company more available and accessible.

Recommendation [6]: Companies should work with communities to provide workshops that train local leaders to better engage the government over decision making concerning Royalties needed for social projects in their locales. While the primary purpose of royalties is to foster social development, communities are often unaware or not familiar with the specifics of the royalties system. Companies have an interest to educate communities about the Royalty System and in supporting communities to demand these services from the government through the setting up of local foundations. The Cerrejon Foundation, is the best example of a foundation that is primarily working with youth, local communities, and community leaders to train them to engage effectively with the government on issues of strengthening public institutions.

5.2.2 Prioritize Oil and Mineral Producing Regions for Royalty Development Funds

Favorable market prices and improved security conditions have led to an expansion of Colombia's oil and mining industry, as well as an increasing flow of royalty revenue to local and national governments. In an effort to centralize how mining and oil royalties are managed and to more evenly distribute the approximately \$3 billion the country receives annually, the Colombian government under the leadership of President Santos adopted the General System of Royalties in 2011. President Santos praised the reform effort as "the great fairness reform of Colombia," vowing to use the additional resources to advance the social and macroeconomic objectives of the country. Despite President Santos' frequently reiterated commitment to fairness, the mineral and oil producing regions of the country have completely denounced the reforms as unfair and unjust, especially given the drastic difference in the amount of royalties received by these regions. The reform reduces the percentage of royalties received by mineral and oil producing regions from 70 percent to 25 percent, creating significant capital deficiencies and budget shortfalls for regional and local governments in extractive regions throughout Colombia. During a focus group with community members from La Cianaga, a coal mining port town near Santa Marta, several community groups including the local fishermen union, municipal leaders, and labor associations, criticized recent actions by the national government as being inconsistent with the local community interest. The government action was a response to a coal spill off the Caribbean coast by the Drummond coal mining company, effectively shutting down its port for several months as a consequence of the environmental damages. Despite the national government's intentions to penalize Drummond for violating environmental protections and protect the impacted communities, the community members in our interviews expressed their discontent with the fact that the national government had failed

to consult the community at any point before taking a decision that impacts the economic livelihood of the region.

Figure 34 Drummond Port Operations in La Cianaga



Source: German Cash and Maneesha Shrivastava

Regions with large mineral and oil deposits have strongly opposed the new reforms, arguing that since the extractive activities take place in their jurisdiction and since their local communities bear the brunt of the environmental and social impact, these areas should receive significantly larger shares of royalties to cover the costs incurred from extractive damages. Traditionally, royalties have been invested in social development projects in order to address the issues of inclusive economic growth in mining regions, which are usually in remote, poor, and underrepresented areas with weak state presence or legitimacy. However, the recent royalty reform has taken away a critical source of revenue for social development projects in producing areas, creating sustainability issues for many social development projects in these regions. Based on field work carried out in the mining region of La Guajira, representatives of the Wayuu indigenous community were concerned that the royalties that were allocated to the region were invested in social projects like improving education. Insofar that investing in education is a long-term process, the restricting of funds would undermine and potentially jeopardize the social progress made before the Royalty Reform.

Recommendation [7]: Given the immediate and detrimental impacts faced by local communities from the extractive process, as well as the environmental and economic impacts of extractive activities in regions with natural resources, the national government should allocate more funds to oil and mineral producing regions. This should be done by prioritizing these regions in the dispersal of social development funds and allocating revenues to address the direct economic and environmental costs of extractive projects to local communities.

5.2.3 Formation of a “Social Development Fund” Financed by Extractive Companies and Managed by Independent Community Development Board

The Royalty Reform of 2012 established a Regional Development Fund in order to finance social projects that capitalize returns to scale and respond to the needs of a specific region. In an effort to prioritize and benefit Colombia’s most vulnerable populations, the funds are allocated using poverty, unemployment and population criteria.²⁷⁹ Additionally, the reform created a Regional Compensation Fund, which is tasked with financing projects that improve living conditions in the poorest regions. The revenues are destined primarily to populations located in border regions and on the coasts, areas with some of the highest levels of poverty and where the majority of the country’s Afro-Colombian and indigenous communities reside. The fund is intended to last for 30 years, after which the funds will be transferred to the Regional Development Fund. According to a 2011 report by the US embassy in Colombia²⁸⁰, the royalty reform was supposed to increase the amount of revenues received by the poorest regions, in some cases by over \$800 million annually, as was predicted for the four departments of the Pacific region, one of the poorest in the nation.

However, as of early 2014 information regarding mining royalties since the reform remains publicly unavailable. SIMCO, the Colombian Government’s Mining Information System, has not updated their database since September 2012. The most recent figure provided for royalties is \$USD 701 million for the first three quarters of 2012, whereas in 2011 it was \$USD 1.6 billion for the year. These figures have yet to corroborate the Colombian government’s claim that royalty reform would increase the poorest region’s royalty revenues twentyfold and provide direct funds for social development projects.

Recommendation [8]: In order to ensure an equitable and accessible process of resource allocation through the regional development and compensation funds, the Colombian government should incorporate local community leaders and organizations in the decision making, budgeting and implementation process of these funds. Without the active participation of local community groups, the reform efforts will be unable to effectively address some of the main issues affecting poverty-stricken and socially marginalized communities.

Recommendation [9]: The social development funds should be managed by independent committees comprised of local, regional and national governments, extractive companies, and local community groups and leaders, in line with the World Bank’s guidelines.

Recommendation [10]: To avoid the type of ‘clientilistic’ relationships between companies and communities mentioned in the earlier section on obtaining an SLO, the local and national government should engage in public-private partnerships that establish regional development funds that require both companies and governments to be financially and politically invested in the success of these development committees.

5.3 Conclusions

The social conflicts surrounding the extractive industries in Colombia can be understood as revolving over the need to incorporate community consent and social equity in the natural resource management strategy of the country. This report offers two strategies for the government to secure community consent for extractive projects: 1) defining and institutionalizing the process of prior consultation of Indigenous and Afro-Colombian communities, and 2) improving mechanisms to obtain social licenses, such as the Popular Vote, in impacted regions. The engagement of impacted communities in the extractive process must come hand in hand with a natural resource management strategy focused on promoting social equity. This report offers three approaches to enhance social equity: 1) inclusion of impacted populations in social development projects, 2) prioritization of oil and mineral producing regions for royalty development funds, and 3) the formation a social development fund.

Notes to Section 5

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6 Media

6.1 Why Media Coverage of the Extractive Industries is Crucial in Colombia

Media coverage of the extractive industry is crucial to promote accountability, good governance, and responsible natural resource management. This role that the media plays is evidenced by a recent incident in the Caribbean coast of Colombia concerning U.S. firm, Drummond Company, Inc. (Drummond). On January 2, 2014, a 45-year-old journalist and longtime environmental activist, Alejandro Arias, posted on his blog photos of Drummond loading coal onto open barges that was to be delivered to ships for exportation. Of significance is the fact that this process of loading coal onto open barges, which frequently caused spills, had been banned one day earlier by a new environmental law²⁸¹. The images of Santa Marta's sandy beaches blackened by pollution were splashed on the cover of the major Colombian newspapers and caused an outrage amongst the public, who regard their Caribbean beaches as one of their most valuable assets. In response, the national government of Juan Manuel Santos fined the company and shut its port down. This was an extraordinary and unprecedented penalty, resulting in Drummond not being able to resume its exports until it met the relevant environmental standard, which took approximately three months.

President Santos' decision to suspend exports and close down Drummond's port surprised the markets.²⁸² Drummond is Colombia's second biggest coal exporter and supplies about 24% of Europe's imported coal, and Santos government is widely regarded as pro-business. Such a drastic sanction, which entailed the loss of a significant revenue source for the government, was unexpected, but the strong public backlash against Drummond seemed to weigh more in the government's decision. "If they [Drummond] don't do things properly, we'd prefer not to have this money, and they have to learn that Colombia must be respected," said Environment Minister Luz Helena Sarmiento.²⁸³

As proved by this example, scrutiny by the media is essential to assist the government making good strategic choices about what is best for the country. An active, knowledgeable press plays a critical role in helping the public understand and engage in governance issues that enables them to hold government and companies more accountable (see section on governance). This is true for any society, but in resource-rich countries such as Colombia, addressing the role of news media is even more crucial because of the potential disruption that the extractive industries can have on the environment and the livelihoods of local communities.

This section provides a description of the media landscape, analysis of the main challenges facing the media sector in Colombia and policy recommendations to strengthen the media's role in covering the extractive industries.

6.2 Background

In South America, Colombia is home to one of the largest media industries with scores of publications, TV channels and radio stations. News media in Colombia, like in the rest of Latin America, emerged as a privately driven initiative and as a result, today is owned by only a handful of large groups. A description of the characteristics of Colombia's media landscape will help better understand the main challenges facing the coverage of the extractive industries.

The media landscape in Colombia has, not surprisingly, both positive and negative features. On the positive side, Colombian news media is considered to be relatively independent and inquisitive, according to the interviews we conducted.²⁸⁴ The private media in Colombia are generally free to express a range of opinions and cover sensitive issues without official restraints.²⁸⁵ Even the media outlets that are reputed to have ties to the government are at times surprisingly critical, says Anastasia Moloney, the *Thomson Reuters Foundation's* Latin America and Caribbean correspondent.²⁸⁶ Colombian news media have also been acclaimed for their quality of reporting. Weekly magazine *Semana*, the most influential in Colombia, was awarded the prestigious 2013 Columbia University Maria Moors Cabot Award for its exposure of former President Alvaro Uribe's illegal spying on journalists, judges, and politicians.

Another positive development is the emergence of the Internet, in particular social media, as a new arena of political discourse. The Organization of Internet World Stats, which publishes Internet usage measures, ranks Colombia as the 18th most connected country to the Internet. According to this organization, around 27 million Colombians, more than half the population, were online by June 2012.²⁸⁷ The U.S. State Department notes that there are no official restrictions on Internet access in Colombia.²⁸⁸ In 2014, Facebook chose Colombia to open its first office on the Pacific coast of Latin America, due not only to the size of the Colombian market but also to the high penetration of Facebook in the country. There were more than 46 million cellular telephones in 2012, according to the CIA World Factbook, which ranks Colombia as the 29th country by that measure.²⁸⁹

On the other hand, there are also many negatives in the media industry in Colombia. In the past, journalists have been subjected to death threats, violence and even killed, a consequence of a five-decade conflict. According to Fundación para la Libertad de Prensa (FLIP) 142 journalists have been killed in retaliation for their work since 1977.²⁹⁰ Further, researcher and advocate at FLIP, Jonathan Bock, said that 73 journalists received threats in 2013, although as for today no single case has been brought to court.²⁹¹ As a result, advocacy groups place Colombia extremely low on their freedom of speech and expression indexes. For example, Colombia ranks 126th out of 179 countries in the 2014 Press Freedom index by Reporters Without Borders—a slight improvement compared with its position (143rd) in 2012²⁹². Colombia even ranks lower than neighboring countries Venezuela and Ecuador where the Special Rapporteur for Freedom of Expression accused Hugo Chavez and Rafael Correa for systematic violations against the local media²⁹³.

It is worth noting that even though Colombia is still a dangerous country for journalists, the bloody years of the 80s and 90s seem to be past²⁹⁴. The number of deaths among journalists has dropped dramatically and journalists in Bogota and other large cities are no longer the victims of

terrorist attacks due to their criticism of organized crime (such as the murder in 1986 of the executive editor of newspaper *El Espectador*, Guillermo Cano). However threats continue to negatively affect media professionals today and safety concerns still exist which is evident at the entrance of media organizations where strict security measures are in place. Although according to Jonathan Bock, threats against freedom of expression are more visible at the local and regional level, than the national level.²⁹⁵ This appears to be true as on a few days before our interview with Bock, a gunman killed a cameraman of a local television channel in the Pacific coast town Buenaventura who had received death threats just seven months after he taken images of a murder²⁹⁶.

Another negative aspect of the Colombian media landscape is the high concentration of media ownership.²⁹⁷ Colombia's main commercial media are controlled by only a handful of large groups. According to the *Financial Times*, the three richest Colombians on *Forbes'* annual list of billionaires own the largest media groups in the country.²⁹⁸ Luis Carlos Sarmiento, who has a \$14 billion fortune, bought Colombia's largest-circulation newspaper *El Tiempo* in 2012. Alejandro Santo Domingo, with a \$12 billion wealth, owns the country's second-biggest newspaper *El Espectador* and the private TV channel *Caracol*. Carlos Ardila has a fortune of \$5 billion and owns *RCN* media group, which has a television joint venture with American multi-national mass media corporation *News Corp*. In the face of this growing trend towards large concentration of media, Colombian anti-trust laws are not enough to guarantee the necessary pluralism in a democratic society, according to some experts.²⁹⁹

6.3 Challenges

In this context, we have identified a number of key challenges that the media industry in Colombia faces today. We have also formulated a number of recommendations for the government to address these challenges and as a result improve the media coverage of the extractive industries.

Figure 35 Statue of a miner in California, eastern Colombia



Source: Kine Elisabeth Martinussen.

6.3.1 Poor Resource Capacity and Lack of Training

Reporting on the extractive industries in Colombia presents a series of challenges. These challenges, however, are different depending on whether the journalist works in Bogotá or in Colombia's regions, said Lorenzo Morales, freelance journalist and Professor of Journalism at Universidad de los Andes in Bogotá.³⁰⁰ For example, most journalists interviewed in Bogotá pointed at the lack of funding to travel to mining areas as their main concern, whereas the biggest challenge for journalists in the regions is access to equipment, lack of training and poor pay.³⁰¹

When asked about what problems and challenges he encounters when reporting on the extractive industries, Jorge Salgado does not hesitate. "We don't really cover it. We do not cover any particular beats or topics. If something specific happens, for example an accident or a protest, then we might write about it. But we don't do follow-up stories, and investigative reporting is non-existent," he said. Salgado is the editor of *Choco 7 Dias*, one of the largest newspapers in the department of Choco, northern Colombia.³⁰² According to him, what *Choco 7 Dias* and other local and regional media outlets do cannot be considered journalism that is in the interest of the public.

For Salgado, the media coverage in Choco is very "superficial and sensationalist". Salgado argues that his newspaper cannot run long-form journalism because they can only afford to print a limited number of pages. Many news outlets at Choco lack personnel due to financial constraints, and very often small community media cannot even afford to pay their staff. This is the case for Yuberth Moreno, Director of *Radio Lloró Stereo* and leader of *Red Barule*, a network of community radio stations based across the department of Choco. Neither of these positions is paid, but Moreno sees journalism as a vocation more than a profession. Helped by his wife and two young volunteers, he works tirelessly to empower the people of Lloró and keep them informed. "We give voice to ordinary people and we try to engage them, but apathy is one of the main problems of this region," he says, adding that journalists in the department also lack education and resources to provide quality reporting. "We need financial sustainability but also training to improve our reporting skills."³⁰³

Pablo Correa, journalist at Bogota-based newspaper *El Espectador*, also advocates for more training opportunities for media professionals. *El Espectador* is one the largest newspapers in the country but with no in-house training, and a lack of specialized journalism at universities in Colombia, journalists of mainstream media outlets are demanding more access to journalism education. Correa, who writes about science and the environment, was awarded a fellowship in 2012 at the Knight Science Journalism program at the Massachusetts Institute of Technology (MIT). "This opportunity changed the way I work and the way I see journalism. It exposed me to new ideas," he said.³⁰⁴

According to Ricardo Ávila, Executive Editor of Colombian financial newspaper *Portafolio*, the media coverage of the extractive industries in Colombia is generally poor because the emergence of the sector still is a new phenomenon. While in an interview he acknowledged that Colombian journalists need more time to become familiar with the subject, he added that more training is needed to improve the financial skills of media professionals. "They [journalists] need training to learn how to read a balance sheet or a profit statement," he said.

For journalists at major news outlets in the capital, however, lack of funding for travel is one their main concerns and an obstacle to investigate stories in mining regions. According to Correa, media organizations are generally not able to afford to send journalists out into the field. He admits that he has covered regional issues from Bogotá but he believes there is an added value in field trips. In August 2013, Correa traveled to Colombia's Amazon jungle to report on gold mining activities in the Caquetá River³⁰⁵ and said the interaction with local communities and sources enriched his reporting.

Recommendation [1]: Provide supplemental funding for trips. News outlets should encourage and facilitate in-the-field reporting when possible. If they lack the resources, Colombian media organizations should apply for grants from national, regional or international philanthropic foundations.

Recommendation [2]: Offer financial assistance with funds from foundations or international organizations to journalists at national, and especially regional and local media to access training opportunities.

Recommendation [3]: Provide financial support to small community media in remote regions so they can invest in equipment and pay their personnel.

6.3.2 Self-censorship and Threats Against Press Freedom

Even though the government has recently engaged in formal peace talks with the Revolutionary Armed Forces of Colombia (FARC), the five-decade bloody conflict is still an open wound for many Colombians.

For Jonathan Bock, researcher and advocate at Colombian press freedom group Fundación para la Libertad de Prensa (FLIP), self-censorship and fear is a consequence of the conflict and a major threat to journalism in the regions.³⁰⁶ To help the local population overcome this fear, Consejo de Redacción, a nonprofit organization, is mentoring and providing journalists in the region with hands-on training on reporting in hostile environments and assistance in producing investigative stories. Rather than sign their work, they use Consejo de Redacción as their byline. The idea behind this initiative is to give a greater voice to reporters in regions with poor media freedoms, empowering them in the long term without risking their lives.

Bock argues that journalists in mainstream media in Bogota are more emboldened, as they have stronger media outlets backing them. Pablo Correa (*El Espectador*), Cristina Castro (*Semana*), and Andres Bermudez (*La Silla Vacía*) cover the extractive industries for their respective media outlets—three of the more respected news organizations in Colombia. They say they have not suffered any threats or censorship in response to their work³⁰⁷. Journalists working for smaller media companies outside the capital, however, have a different experience. According to Monica Valdes, a representative of the World Association of Community Broadcasters in Colombia, reporters in the regions avoid covering the extractive industries for fears of

retaliation. Instead, they usually air religious and lifestyle programs and they focus their news coverage on more routine and superficial happenings in the community.³⁰⁸

Yuberth Moreno, Director of *Radio Lloró Stereo* in Chocó, says he has faced threats in the past and other pressures when reporting on mining. For example, in one case Moreno was told he was going to lose his license in a community council meeting after he spoke out about the environmental and health impacts of illegal mining in Lloró. When he reported that some neighbors could not sleep because of the noise generated by the excavators, the staff supervising the mining operations visited him and asked him to “tone down” his statements.

Enabling a legal environment for journalists to report safely is essential to ensure freedom of expression, media pluralism and, ultimately, a vibrant democracy.

Recommendation [4]: Empower and inform journalists about their rights so they can assert them.

Recommendation [5]: Enhance collaboration between local, regional, and national media. This will allow local news outlets to share stories vital to their community that might be too risky to publish themselves.

Recommendation [6]: End of impunity is a shared responsibility of the legal system, law enforcement bodies, and civil society. The laws are already in place, but law enforcement officials must prompt investigations and prosecute those that attack or threaten journalists. Civil society should also pressure to ensure that justice is served for every victim.

6.3.3 Poor Quality of Public Information about the Extractive Industries

Access to information is a fundamental right that has been recognized by international human rights tribunals such as the Inter-American Court on Human Rights³⁰⁹ and the European Court on Human Rights³¹⁰. In Colombia, the recognition of this right rests on international and domestic norms. Article 19 of the Universal Declaration of Human Rights states that the right of access to information improves governance and the lives of individuals as it assists public administration to become more transparent and accountable and enables citizens to engage more meaningfully in public life.³¹¹ Article 20 of the Colombian Constitution grants the right to freedom of speech and article 74 enshrines the right of all persons to access public documents except in the cases stated by laws. Colombia’s first Transparency and Access to Public Information Law, N. 1712, was passed on March 6, 2014.

Based on the right to access public information, organizations such as US nonprofit The Revenue Watch Institute have demanded that the disclosure of information about operations, revenues, licensing and contracts represents the basic building blocks of a transparent oil, gas and mining sector. It should be acknowledged that Colombia’s performance in some of the key aspects that affect access to public information about the extractive industries is relatively good, such as

timeliness and comprehensiveness. The country received a "satisfactory" score of 73 out of 100 in Revenue Watch's Ranking of Reporting Practices. Colombia is ranked 11 among the 58 mining and oil producing countries surveyed. The government publishes comprehensive data on production volumes, exploration, and the licensing process, but disclosure of contract terms and revenues is incomplete³¹².

Colombia needs to improve the quality of public information available on the extractive industries. A common complaint that we heard during our interviews with Colombian journalists is that while information on databases is readily available, it is often difficult to decipher. They claim it is not user-friendly, in particular databases containing information about land titles, royalties, taxes, and environmental licenses.

Figure 36 Interview with Ricardo Ávila, Executive Director of Portafolio, financial newspaper



One complaint is that these databases are designed to be handled by experts. For instance, Andrés Bermúdez, from *La Silla Vacía*, needed the help of an engineer at the National Mining Agency to obtain the information he was looking for. He sat down for hours with the engineer at the government office to cross-reference information from mining titles and national park maps. Bermúdez says that much of the information concerning the mining industry is designed for specialists. He says "The government does not seem to consider this as information of public interest".³¹³

Pablo Correa from *El Espectador* echoes Bermúdez's complaint. He said that three years ago the Environment Ministry announced the launch of a database with information on legal violations. When he checked the new resource, Correa was disappointed to see that much of the information was incomplete, missing key data on type of breach or region where the infraction

was committed. To make the matter worse, nobody at the ministry could help him. “They told me that the person who had put up the database no longer worked there,” Correa says.

As referenced above, Colombia’s first Transparency and Access to Public Information Law was passed on March 6. Pursuant to this norm, public agencies and private companies performing public functions will be required to make information available to the public or justify deniability. The law will come into effect in September this year for national government agencies and in March next year for local governments.³¹⁴

There is little hope, however, that this new law will affect the current practice of private companies in the extractive industries. Under the new law, private persons who exercise public functions are also compelled to release information, but it is unclear whether the extractive industries will be considered to be included under that category³¹⁵. According to the journalists we interviewed, the responsiveness of public officials to journalist’s requests had been positive, but this differs when it comes to private companies in the extractive industries. At present they remain reluctant to release information to journalists when requested.³¹⁶

The new rule appears to exhibit other weaknesses. Various provisions appear to limit and restrict access to information based on certain circumstances, for example “international relations”, “public security” or the “macroeconomic and financial stability of the country”³¹⁷. Although the right of access to information can be limited, these provisions are vague and generic and could potentially be subject to abuses by both the government and private companies.

While Colombia’s Constitutional Court has previously held that in order to restrict access to information, the restriction has to be based on a law that should determine what information could be subject to restriction in precise and clear terms and what authorities can establish that restriction³¹⁸, this law merely lists different circumstances under which access to information can be restricted, without providing clear rules of the circumstances under which this can happen. In this way, further legislation that defines terms such as “international relations” and “public security” would be useful in order to minimize the amount of discretion that public officials have when applying restriction or limitations to access to information.

Recommendation [7]: Make databases user-friendly. Content should be understandable by journalists and public without technical expertise.

Recommendation [8]: Enact further legislation that defines the terms under which provision of information can be denied. Clarity about the circumstances in which a fundamental right can be trumped is essential.

6.3.4 Collusion between Private Companies and News Media

Companies frequently use their leverage as advertisers in newspapers to promote positive coverage or to silence criticism. Self-censorship created by advertising influence is a phenomenon difficult to measure, but occasionally this phenomenon comes to light. One recent

case, which involved dual-listed Canadian-Colombian oil company, Pacific Rubiales, raised concerns about the independence of corporate interests from the Colombian media. Daniel Pardo lost his job as a columnist at Internet news portal *Kien&Ke* after publishing a critical piece about Pacific Rubiales.

In his article, 'Pacific IS Colombia' which appeared in *Kien&Ke* in October 11, 2012, Pardo wrote that stories in *Kien&Ke* such as 'The human factor of Pacific Rubiales' or 'The influential Colombian in Pacific Rubiales' are advertising features presented as journalism. To add more evidence of the cozy relation between the extractive industries and the media, Pardo mentioned a recent event organized by *Semana* magazine and sponsored by Pacific Rubiales³¹⁹. Eight hours after his story was posted at *Kien&Ke*, Pardo was fired by e-mail. The article is still accessible online at *Kien&Ke's* website.

However for many, Pardo's dismissal was considered almost a blessing, as it threw a different light onto the problem of corporate influence in Colombian journalism. Previously, Freedom House Country Reports had noted that Colombia had a widespread perception that journalists accept bribes in exchange for biased coverage.³²⁰ Though this observation was dropped from the 2013 report.³²¹

Independence in media coverage is generally guaranteed by funds other than advertising. Accordingly, some new media in Colombia are making an effort to seek alternative sources of funding. A case in point is *La Silla Vacía*, a news website founded in 2009 by a former *Semana* editor, Juanita León. With a readership of approximately 300,000 users per month, *La Silla Vacía* runs with the help of crowd funders and international donors such as the Ford Foundation. "Part of our success comes from the fact that we are not aligned with any political party, unlike most news outlets here," says Andrés Bermúdez, one of *La Silla Vacía* editors. "We are critical of both the left and the right."

To avoid the pernicious influence of bribes, some of the most reputed international media have drafted ethics codes to avoid their employees accepting gifts or bribes. For example, reporters at *Thomson Reuters* and *Bloomberg* are dismissed if they accept gifts or bribes. The Colombian Press Association could similarly draft an ethics code for the key players in the Colombia news media industry to sign up to and make a similar commitment to punish this kind of behavior.

A related issue concerning the influence of corporate interests in media reporting is the worrisome trend towards media concentration into the hands of a few powerful groups, as we mentioned in subsection 2. Amendment to antitrust laws in Colombia could be necessary to guarantee the necessary pluralism in a democratic society. This is an issue that presented itself during our research and that deserves further examination.

Recommendation [9]: The Colombian Press Association should draft an ethics code with severe sanctions on journalists who accept bribes or gifts in exchange for biased information.

Further Research: Survey the possibility of enacting antitrust legislation restricting media concentration in Colombia.

Santander and Paramo de Santurban: the big victory of media and civil society against an open pit gold mine project.

Figure 37 Demonstration in Defense of Water in Bucaramanga, Eastern Colombia, on February 26, 2014



Source: Bucaramanga's Water Defense Committee

In a country where environmental causes do not rank high in the list of public concerns, “The Large March in Defense of Water” was an unprecedented development.

On Friday, February 26, 2011, tens of thousand of people demonstrated in the streets of Bucaramanga, in the eastern department of Santander, against a one billion dollar open pit gold and silver mine project by Canadian company GreyStar.

“Water yes, Gold no,” was one of the slogans chanted by protesters concerned about the pollution to the source of rivers and streams that supply water to 2.2 million inhabitants.

The demonstration marked a turning point in the one-year old civic struggle against the project. Under an increasing pressure from Colombian news media, GreyStar withdrew its request for an environmental permit only three weeks later.

But what role did the news media play in a mobilization that is still today considered the largest one against mining in Colombia?

Lorenzo Morales, a professor at Universidad de Los Andes in Bogotá, says that one of the reasons for the big mobilization was the presence of well-established news media. “Santander is much more developed than other mining regions such as Chocó,” says Morales.

Santander is home to some well-established media, such as newspaper *Vanguardia Liberal*, the sixth largest in Colombia with more than 100,000 daily readers.

Vanguardia Liberal, founded in 1919, belongs to Grupo Galvís Ramírez y Cia, owner of some other Colombian regional newspapers. It is the only daily newspaper in Santander.

Vanguardia Liberal published some special reports on the conflict. Its reporters made reporting trips to the towns most affected by the project, California and Vetás, a two-hours drive away from Bucaramanga, said Gustavo Gallo, the Economic News Desk.

“We are very careful in our coverage. If at time we took sides, it was to defend the environment,” said Gallo.

Reporting by national news organizations was more crucial than that of local media for the protest in Bucaramanga, according to some of the organizers.

Erwing Rodríguez-Salah, who was one of the main spokespeople, says that the national media led the coverage from the beginning.

It was national TV channel CM& the first that dispatched reporters to the Paramo in December 2010 and afterwards aired a series of reports that according to Rodríguez-Salah had a “tremendous impact” in public opinion, both in Santander and the rest of the country.

In March 17, 2011, *Radio Caracol*, the most listened-to station in Colombia aired in its prime time show *Hora 20* a debate between Rodríguez-Salah and the Mining Minister Carlos Rodado.

One day later, GreyStar announced that it suspended its project.

Rodado had supported the project only three months before in an interview with RCN radio. “I hope that the project comes through because it is a good gold and silver field.”

Leonardo Acevedo, the dean of Environmental Chemistry at Universidad Industrial de Santander says that media coverage was key to drive the protest. “Had people not taken to the streets, the government would have granted GreyStar the license.”

Chocó: the vulnerability of a region with poor news media outlets

It is the poorest department in Colombia, but one of the richest in gold and platinum. Despite this wealth of natural resources, there is currently no multinationals operating in Chocó. The economy of the department, however, is mainly based on small-scale mining—often illegal—representing 22% of the regional GDP. Other economic sectors remain underdeveloped in Chocó, resulting in a high dependence on mining and wide unemployment rates.

According to Colombia’s National Department of Statistics, Chocó has a population of 458,543 people, 73.7% of whom are African Colombian and 11.3% are indigenous people. About 65% of them live below the poverty line with less than 3 dollars a day. As a result, 80% of the population reports unmet needs.

With an illiteracy rate of 24% and only 4% of the population holding an advanced degree, the media sector in Choco is underdeveloped. The circulation of newspapers is very limited and almost non-existent outside Quibdó, the capital. There are four commercial radio stations based in Quibdó but their signal reach only a small coverage area. In this context, community media appear to be the main source of news and information for rural communities.

According to Monica Valdes, from AMARC, journalists from mainstream media do not travel to Choco or other remote regions in Colombia. Instead, they tend to cover regional issues from Bogotá. Andrés Bermúdez, from *La Silla Vacía*, acknowledges the criticism and points at the lack of adequate infrastructure in some of these regions and the lack of funding in media outlets as the main reasons for not undertaking trips more often. “The only way to get to Chocó is by plane, and a round trip costs more than \$400,” he says, adding that once there, it is difficult to move around due to the lack of roads and public infrastructure.

Chocó is the only department of Colombia with a Pacific and Atlantic coastline. With the wettest forest and one of the most biologically diverse ecosystem on the world, the department hosts 8,000 different species of plants, 2,000 of them cannot be found in any other part of the world, according to World Wildlife Fund.

Environmental Researcher Helcías Ayala, from Instituto de Investigaciones Ambientales del Pacifico, warns that many of these species may become extinct as a result of the impact of illegal mining on the environment.

The department has important reserves of gold, platinum, silver, and copper. However, the lack of strong institutions and oversight from the State has fueled corruption and mismanagement of these resources. Criminal groups have taken advantage of this weakness and isolation and have gained control over the land and natural resources of Chocó. As a result, 38% of the population has been displaced, according to the United States Agency for Development (USAID).

“Chocó is a social bomb that could explode at any moment,” Andres Bermudez says. Monica Valdes agrees with the diagnosis and argues that the media plays a crucial role in holding people accountable and fostering good governance. “We need to empower community media so they can fulfill this role,” she says.

But for Yuberth Moreno, director of the network of community radios of Chocó, the first step to improve the regional media landscape is to overcome the barriers of fear. “Chocó doesn’t make progress because people are scared,” Moreno says. “Journalists will cover the extractive industries and people will speak out when they feel they are safe to do so.”

6.4 Conclusions

Media coverage of the extractive industries – including oil, gas, and mining – is of particular interest to anyone who believes that transparency in governance, business, and politics is an important aspect for resource-rich countries.

We have identified a number of weaknesses affecting Colombian news media that should be addressed by government officials, media owners, and journalists. Some of these flaws can be solved with financial resources, such as the lack of specialized training for journalists. Others, however, require political will and adequate enforcement, such as the impunity of crimes committed against journalists.

It is our hope that all actors involved consider the findings of this report and implement the necessary changes towards a better media oversight of the extractive industries.

Notes to Section 6

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²⁸⁵ Report “Freedom of the Press in Colombia,” Freedom House, <http://freedomhouse.org/report/freedom-press/2013/colombia#.U2O7z9wTHII>

²⁸⁶ Interview with Anastasia Moloney, the *Thomson Reuters Foundation’s* Latin America and Caribbean correspondent, (Feb. 26, 2014)

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²⁹⁰ Interview with Jonathan Bock, Researcher and Advocate, Fundación para la Libertad de Prensa (FLIP) (Mar.19, 2014).

²⁹¹ Interview with Jonathan Bock, Researcher and Advocate, FLIP (Mar. 19, 2014).

²⁹² World Press Freedom Index 2014, Reporters Without Borders <http://rsf.org/index2014/en-index2014.php>

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²⁹⁴ Press Freedom in Colombia, The Committee to Protect Journalists (CPJ) <http://www.cpj.org/americas/colombia/>

²⁹⁵ Interview with Jonathan Bock, Researcher and Advocate, FLIP (Mar. 19, 2014).

²⁹⁶ Pronouncement regarding January-Februar 2014, FLIP. <http://flip.org.co/es/content/balance-enero---febrero-de-2014-cada-dos-d%C3%ADas-se-vulneró-la-libertad-de-prensa-en-colombia>

²⁹⁷ Report “Freedom of the Press in Colombia,” Freedom House, <http://freedomhouse.org/report/freedom-press/2013/colombia#.U2PE twTHII>

²⁹⁸The History and Politics of Colombia Media, *The Financial Times*, <http://www.ft.com/intl/cms/s/0/621bcdfc-9de5-11e2-9ccc-00144feabdc0.html>

²⁹⁹ Observatorio de Medios de Comunicación en América Latina. Konrad Adenauer Stiftung, Page 51, 2008

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- ³⁰⁰ Interview with Lorenzo Morales, Freelance Journalist and Professor of Journalism at Universidad de los Andes in Bogotá, (Feb. 26, 2014).
- ³⁰¹ Interview with Yuberth Moreno, Director of *Radio Lloró Stereo* and leader of *Red Barule*, (Mar. 18, 2014).
- ³⁰² Interview with Jorge Salgado, Editor at *Chocó 7 Días*, (Mar. 18, 2014).
- ³⁰³ Interview with Yuberth Moreno, Director of *Radio Lloró Stereo* and leader of *Red Barule*, (Mar. 18, 2014).
- ³⁰⁴ Interview with Pablo Correa, Journalist at *El Espectador*, (Mar. 20, 2014).
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<http://www.elespectador.com/noticias/medio-ambiente/oro-ultima-bonanza-el-amazonas-articulo-443125>
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- ³²⁰ Report “Freedom of the Press in Colombia,” Freedom House,
<http://www.freedomhouse.org/report/freedom-press/2012/colombia>
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7 Managing Colombia's Rich Environmental Resources

7.1 Colombia's Environmental Heritage

Colombia places particular emphasis on the preciousness of its environmental heritage. The environment receives special protection in its constitution, and Colombia has signed and ratified 105 environmental treaties and agreements.³²² Colombia is rich beyond gold and emeralds; it ranks as the fifth most biologically diverse country in the world and houses 10% of all known variety within its borders.³²³ This is valuable to the world, but also to Colombia's domestic economy.³²⁴ A healthy environment provides cornerstones to improve human welfare and guarantee social equality. Biodiversity is essential for direct goods and services like climate regulation, soil formation, water purification, and prevention of natural disasters, which are necessary for other productive activities.³²⁵

However, Colombia has suffered from poor air and water quality, soil deterioration, and unmanaged and unmitigated landscape transformation, some of which coincide with extractive industry expansion.³²⁶ Since 2001, Colombia has considered extractive industries an opportunity to use its rich natural resources to achieve greater social development and equitable distribution of wealth across regions.³²⁷ As a consequence, environmental institutional capacity has been overshadowed, despite the environment's legal standing, and has hindered the efficiency of the government's environmental policies.³²⁸ Colombia's National Policy for the Management of Biodiversity and Ecosystem Services (PHGIBSE) recognizes they need define responsibilities for risk management and provision of ecosystem services by coordinating the public and private sectors, as well as civil society to ensure preservation.³²⁹

This chapter aims to identify opportunities for Colombia to improve its environmental management strategy, and to create a competitive long-term environmental regulatory framework. Our recommendations are designed to lessen the risk to citizens by clearly defining government and private responsibilities, encouraging the development of a contingency preparedness force and improving rules and guidelines in domestic legislation. The conclusions we reached in our independent research reflect recommendations in the recently published Organization for Economic Co-operation and Development (OECD) Environmental Performance Review for Colombia. Managing Colombia's rich environmental resources can provide health, economic, and cultural benefits in the years to come, while responsibly extracting mineral and hydrocarbon resources.

7.2 Coordinating Environmental Institutional Goals and Capacity

Colombia's environmental institutions have steadily evolved over the last fifty years. To ensure their regime functions efficiently Colombia must redefine licensing and enforcement responsibilities, and fund environmental institutions so they can remain proactive and independent. This section addressed how to coordinate Colombia's decentralized environmental management system. While coordination has happened over time, it needs a final push to clearly align responsibilities for enforcement and control; secure channels of funding and sufficient budget for environmental organizations nationally and in the regions; and strengthen the Ministry of Environment and Sustainable Development (MADS).

7.2.1 Steady Move Towards an Environmental Protection Centralized Approach

Environmental Management Development 1952-2011

Colombia has a unique decentralized approach to environmental management that has evolved and transformed over the last fifty year. Today, Colombia's environment system is coordinated under the Ministry of Environment and Sustainable Development (MADS).

Colombia first environmental institution was the 1952 Division of Renewable Natural Resources nested under the Ministry of Agriculture. It was tasked with ensuring rational development of natural resources, notably fisheries and forests.³³⁰ Autonomous Regional Corporations (CARs) emerged two years later and were responsible for promoting regional economic development. These regional organizations were authorized to pursue a range of activities, although they were primarily associated with agricultural irrigation and infrastructure development.³³¹ Over time, some CARs were recognized as effective agencies in natural resources conservation. In 1968 the President fused the Magdalena Valley CAR with Division of Renewable Natural Resources to create the National Institute of Renewable Resources (INDERENA) to manage natural resources in national territory not covered by local CARs. During this time CARs made remarkable advancements for Colombia's water infrastructure and wastewater treatment. However, budgets among CARs were not balanced, and INDERENA was underfunded and relied on less than Colombian Pesos \$5 to protect each hectare.³³² Under the umbrella of the Ministry of Agriculture, INDERENA struggled to align environmental management and protection with its parent institution and over time environmental responsibilities were transferred to other regional and national organizations, weakening INDERENA as a national environmental institution. A fragmented system of CARs without national coordination coincided with rapid environmental deterioration in Colombia.³³³

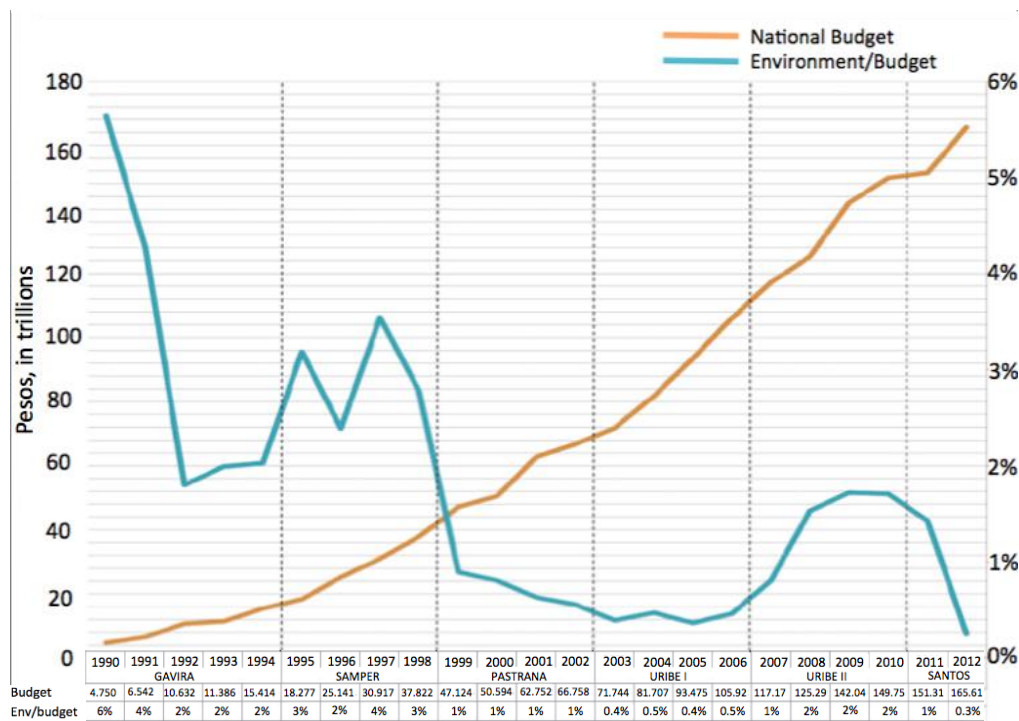
Comparative Decrease in Environment Expenditure

Today, Colombia's environmental management system rests on the 1991 Constitution and Law 99 of 1993. The Ministry of the Environment was tasked with coordinating the decentralized institutions. Between 2002-2011, the Ministry of Environment also included Housing and Territorial Development, but was dissolved in 2011 and replaced with the Ministry of

Environment and Sustainable Development (MADS) due to possible conflicting duties.³³⁴ MADS sets the national standards to be incorporated by CARs and other agencies, and must approve the legal rules set by CARs and Environmental Urban Authorities (AAUs).³³⁵

Colombia learned throughout the 1980s that an uncoordinated decentralized approach is ineffective and yields varying environmental protection among its population, yet percentage expense on national coordination of environmental institutions declined from 2% in 1993 to 0.5% in 2012.³³⁶ Creating and strengthening the Ministry of Environment and Sustainable Development in 2011 was an important step, but will not be complete without funding the ministry at a competitive rate to match the increasing activity in extractive industry.³³⁷ Furthermore, other ministries are occasionally allowed to bypass environmental recommendations and procedures in the name of national interest; after MADS attempted to safeguard parks and other protected lands from mining intrusions, the National Mining Agency (ANM) Resolution 000592 gave select organizations permission to circumvent environmental protection laws.³³⁸ The chart below illustrates increase in the Colombian general budget in contrast with a very variable and overall declining trend in environmental protection expenditure.

Figure 38 Colombia's National Budget (in Pesos, Trillions), and Percentage Expenditure on Environment



Source: Data from SIIF and DANE, prepared by Jesús Antonio Mena Rodríguez

The excerpt below from Sánchez-Triana et al. lays out the most important actors under the national environmental management system today.

Environmental Policies and Poverty Reduction: A Country Analysis of Colombia

Ernesto Triana-Sánchez, Kulsum Ahmed, and Yeward

Key environmental authorities

Ministry of Environment and Sustainable Development (MADS)

National Licensing Agency (ANLA)

National Parks System

CARs and Urban Environmental Authorities:

Territorial Authorities

Departments and Municipalities

Territories of Indigenous Peoples

Civil Society

Environmental NGOs

Universities and Private Research Institutions

Commercial firms and farms

Other national government institutions with environmental responsibilities

National Planning Department

Government oversight institutions

- Comptroller

- *Procuraduría*

Other ministries

Research institutes

National Environment Council

Technical Advisory Council

Ensure Equal Access to Environmental Protection Across Regions

Establishing Constant Revenue Stream for CARs

The ecosystem variability of Colombia favors a decentralized approach as environmental management depends on the regional expertise of CARs.³³⁹ However, CARs have few accountability controls and are not sufficiently funded, leaving them vulnerable to being captured by local interest.³⁴⁰ Today, CARs are funded through a combination of licenses, fines and fees; between 15% and 26% of municipal property taxes; and contributions from hydroelectric generation. Self-generated funding is by far the most significant source, totaling for certain CARs 92% of their revenue, but the amount depends on the population and level of economic activity within its jurisdiction.³⁴¹ This impacts the efficiency of CARs in two ways: first of all, rural CARs struggle to raise funds which can incentivize them to prioritize urban licensing issues (which generate funds) over rural monitoring which does not). Secondly, this leaves them vulnerable to capture by local interest.³⁴² Varying capacity of CARs due to local revenue collection will further decrease health and wellbeing of poorer populations.

Recommendation [1]: Strengthen alignment of national and regional environmental management by establishing additional revenue streams for both MADs, CARs, and ANLA. Securing a long-term source of revenue for CARs can remove some dependency on municipal level of income and counteract risk of capture by local interest. Furthermore, strengthening MADs to ensure regulatory compliance of the regional CARs results in closer cooperation without the loss of their autonomy. Finally, leaving all licensing decisions to ANLA secures careful environmental consideration of a project despite its location, and protects CARs from company influence.

7.3 Enhance Regulations to Protect Colombia's Biodiversity and Environment

Colombia is a biodiversity hotspot where a variety of topographic features enable the existence of a large diversity of fauna and flora.³⁴³ This bolsters several economic activities both directly and indirectly. For example, the market in bio-trade products reaches an estimated USD 25 million annually.³⁴⁴ However, the country has experienced setbacks in habitat protection from subordination of environmental protection to economic growth in the form of extractive industries, livestock grazing, and road traffic, in combination with a weak institutional framework.³⁴⁵ In 2006, the World Bank estimated that the cost of this environmental degradation amounted to 3.7 percent of Colombia's GDP.³⁴⁶

Colombia recently undertook legislative reforms in an effort aimed at the conservation of animals and plants, which are considered the country's principal assets. However, the 2014 Environmental Performance Index (EPI) ranks Colombia 74 out of 178 in loss of forest cover. Despite investment in water, it ranks 104th in wastewater treatment, 107th in access to sanitation, and 93rd in access to drinking water.³⁴⁷ Regionally, 13 other countries outperform Colombia in overall EPI score, and it is ranked 85th in overall EPI score globally.³⁴⁸ However, Colombia is maintaining relatively modest greenhouse gas emissions. According to Proexport, industrial greenhouse gas emissions per capita are lower than the global average, and the country only produces 0.37% of the world's emissions total.³⁴⁹

Improving environmental protection, performance standards, licensing procedures, and monitoring and enforcements mechanisms are all necessary steps to improve Colombia's environmental performance and bolster bio-trade and ensure a viable economy.

7.3.1 Increase Environmental Regulations to International Standards

Establishing clear guidelines across all sectors for environmental standards can unify various codes, rules, and decrees and ensure comprehensive management. Over the last two decades Colombia has made steps to protect its environment. In an attempt to counteract the negative impacts of human activities on ecosystems and biological resources, Colombia signed a number of international treaties in 1994. They include the United Nations Conference on the Human Environment, the Convention on Biological Diversity, the United Nations Conference on Environment and Development and the Convention on the Environmental Impact Assessment in

a Trans-boundary Context. Additionally, the 1991 Constitution established the inalienable right to a healthy environment. Further, it made the government responsible for handling and exploitation of natural resources, for their sustainable development, conservation, restoration or replacement, and for the prevention and/or monitoring of factors that might cause environmental deterioration.³⁵⁰

Recently the government has sought to increase foreign direct investment (FDI) in the mining industry, which has come at the expense of the environment. In 2010, President Juan Manuel Santos announced that mining would become one of the “economic engines” of Colombia’s development, bringing “prosperity to all, more jobs, less poverty and more security.”³⁵¹ A key reform by the government to increase FDI was a reduction in environmental regulations. “Easing” environmental regulations in an attempt to gain more FDI has led them being below international standards. Both foreign and national companies might find it easier to invest in Colombia than some other markets, as they do not have to invest heavily in environmental compliance through water treatment, hazardous waste management, and soil remediation, which increases the profitability of their operations. From a regulatory standpoint Colombia is comparable with other Latin American countries, but are considerably less stringent when compared to standards recommended by the World Health Organization (WHO) or those used in more developed economies such as Germany. Arguably, easing is neither in the interest of Colombia nor the extractive industries. Inadequate environmental regulation, enforcement, and undercutting of environmental protection have the potential to result in conflict between companies and the local population or conflict within the communities themselves (covered in this report’s Social chapter). Furthermore, different government agencies and institutions might use their jurisdiction to advance or halt extractive projects, causing inconsistent signals and an unfavorable business market for extractive companies.

Figure 39 Air Quality Standards in Different Countries

Maximum Permissible Limits ($\mu\text{g}/\text{m}^3$)						
Pollutant	Exposure time	WHO ³⁵²	Colombia ³⁵³	Germany ³⁵⁴	Chile ³⁵⁵	Mexico ³⁵⁶
Particulate Matter (PM10)	24hrs	50	150	50	120	120
Sulfur dioxide (SO ₂)	24hrs	20	250	125	250	288
Nitrogen dioxide (NO ₂)	1hr	200	200	200	400	395
Ozone (O ₃)	8hrs	100	80	120	120	150
Carbon monoxide (CO)	8hrs	10	10	10	10	12.6
<i>Sources:</i> <i>Aire de Calidad, Salud para la Metropli, Umweltbundesamt, Alcaldia de Bogotá, Sistema de Información de la Calidad del Aire (SINCA).</i>						

To illustrate the impact the environmental reforms have had on Colombia’s environment, Figure 39 above summarizes the air quality limits and how these compare to other countries. Once again, while Colombia ranks well among the other Latin American countries, on an international

scale it is considerably lower. For example, the air quality limits of Colombia are still well below the recommendations of the WHO and present serious threats for the population such as asthma, chronic respiratory illnesses, as well as increased chance of heart disease.³⁵⁷

Apart from regulating air quality, it is necessary for Colombia to evaluate the water regulations related to municipal water treatment and quality parameters for drinking water and other end uses. Current regulations focus on water treatment services and the quality of water to be used for multiple purposes. The main focus is the quality of water post treatment, which results in a higher financial burden for state utilities responsible of basic sanitation and water services.³⁵⁸ Placing greater emphasis on the quality prior to industrial discharges into open water bodies or municipal water networks could reduce the stress placed upon water treatment facilities, and contribute towards Colombia's goal of increasing municipal water treatment coverage.³⁵⁹ This will shift some of the financial burden of water treatment towards the highest polluting industries, which is increasingly important as water stress elevates due to climate change related phenomena, in particular *La niña*.³⁶⁰

The performance of the extractive industries and other productive sectors (i.e. manufacturing, tourism, etc.) cannot be monitored and corrected without predetermined limits that consider the potential impact that air, water, and soil pollutants can have in the surrounding ecosystems and the water table. It is also important to consider the financial and technical burdens that industrial discharges impose on the water treatment, sanitation, waste and hazardous waste management, and soil remediation services network, to accurately measure the impact these activities can have. Establishing differentiated standards for different types of discharge and re-use purposes can optimize the overall costs of enhancing water quality in Colombia.³⁶¹

Recommendation [2]: Increase environmental regulations to match them with international standards. The Colombian Government must impose stricter environmental regulations regarding air, water and soil in attempt to conserve its biodiversity and protect population's health. These standards can vary for different types of discharges and re-use purposes if applicable (for example water for industrial use versus drinking water) to optimize the overall costs of pollution control infrastructure and continue to present and attractive environment for FDI.

7.3.2 Require Environmental License at Mineral Mining Exploratory Phase

Poor Coordination Between National Mining Agencies and Environmental Institutions

The *Mining Code* of 2001 establishes that distributing mining titles is a separate process from granting environmental licenses.³⁶² As such, the National Mining Agency is not in unison with the environmental agency, and occasionally grants mining titles on protected land. Once a mining title has been granted, a company can begin exploring that area for minerals once they submit an Environmental Management Plan. Mining is divided into four phases, prospection, exploration, exploitation, and closure.³⁶³ This exploration stage is completely free process under the Mining Code, and there is no legal requirement for an environmental license, environmental permission or local authorization during the exploration phase of a mining project.³⁶⁴ In other words, companies can initiate the work of exploration without assessing the environmental

impact of their activities, even in a protected area. MADS, CARs, and environmental research institutions should be heavily involved even at the title granting stage, and most definitely during exploration.

Figure 40 A geologist (left) points out visual irregularities in the surface rock in the Páramo de Santurbán, a possible sign of gold.



Source: Kine Elisabeth Martinussen

The Environmental Impact of Exploration

The 2001 exemption of environmental license for exploration activity is a departure from the previous standard that required environmental licenses for all mining activities. This violates the Río Declaration on the Environment and Development, to which Colombia is a signatory, which states in Principle 15 “in order to protect the environment, the precautionary approach shall be widely applied by States.”³⁶⁵ Even the Colombian Constitutional Court has recognized the importance of environmental impact studies at this early stage of the mining process.³⁶⁶ The Court has expressed concerns regarding the removal of this important environmental safeguard from legislation. Exploration determines the location of mineral ores after prospection suggests their existence, and requires an Environmental Management Plan rather than submitting an EIA. The risk profile of each stage sometimes encourages high-risk companies to perform the prospection, selling information on to a larger company that moves in to explore. Exploration can be harmful in varying degrees, from mild geophysical and geochemical surveys, to invasive drilling.³⁶⁷ First of all, this stage requires heavy equipment, rigs, and infrastructure development to reach the drilling area. Environmental impact include disturbance of flora and fauna through habitat destruction and noise, introduction and spreading of weeds and pathogens, soil disturbance, erosion and compaction, dust emissions, disturbance to water drainage patterns or surface water bodies, and contamination of soil and water.³⁶⁸

Exploration Licensing Schemes

Many countries around the world require mining companies to obtain environmental licenses before the begin exploration, including Brazil. In their paper on environmental licenses in Brazil, Thaila de Mello Florencio and Geoffroy R.P. Malpass provided an explanation for how the licensing scheme is undertaken in Brazil. This provides a good example for Colombia.

A Brief Explanation About Environmental Licenses in Brazil³⁶⁹

Thalia de Mello Florencio and Geoffroy R.P. Malpass

Under Brazilian legislation there is a preliminary environmental license (LP), which is granted, in the planning stage of an extractive project. Basically, they have three types of licenses that follow a project through its life in order to balance the different levels of impacts at each stage.

The National Environmental Policy stipulates the need for environmental licensing of potentially polluting activities. This provision has attracted a great deal of attention from the public authorities over the past 6 years, particularly with regards to large-scale investments. The Federal Constitution established that an Environmental Impact Assessment (EIA) and a corresponding Environmental Impact Report (RIMA) must always precede licensing whenever works or activities can potentially cause significant environmental impact. Federal Decree No. 99274/90, complemented by CONAMA Resolution No. 37/97, set forth the three-stage process for the issuing of licenses as follows:

- **Preliminary License** – granted during the preliminary planning stage of a project for a maximum five-year term. The license signifies approval of the location and design of the project certifies its environmental feasibility and established the basic requirements and conditions to be complied with during subsequent stages of implementation.
- **Installation License** – authorizes the installation of the development in accordance with the specifications contained in the approved plans, programs and projects, including environmental mitigation provisions and other conditions.
- **Operating License** – authorizes operation of the development in accordance with environmental mitigation and operating requirements upon confirmation of reports and possible inspection visits.

The most important permits for mining are permits to withdraw water, construction of infrastructure, environmental mitigation measures and final disposal of mining waste and hazardous substances.³⁷⁰ Currently, CARs review EIAs submitted for small mining projects, while ANLA reviews large-scale projects. CARs also manage all additional permits related to water use and infrastructure requirements like roads and electricity transmission.³⁷¹ By making ANLA responsible for all EIAs, Colombia can develop a uniform standard of mining operation quality for the security and wellbeing of its citizens, as well as regulatory certainty for mining companies. This also removes incentive to approve a mining project for additional revenue streams. However, this requires increasing ANLA's funding from the treasury to help them manage the workload and strengthening the CARs to take advantage of their regional expertise, which can position them as expert monitoring agencies.

However, with the heavy delays of ANLA EIA approval, exploration might become prohibitively expensive or risky for the company. One solution is to license further upstream to qualify permissible drilling machinery, equipment, and exploration companies. Minnesota passed a series of rules to regulate drilling that include: requirements for licensing of explorers; regulations on who can conduct exploration drilling in the State; requirement of licenses on exploration process machinery.³⁷² Additionally, the Minnesota Pollution Control Agency and the community health board are granted access to inspect the drilling sites, while both the Minnesota Department of Natural Resources and Minnesota Department of Health visit each drilling site to monitor compliance.³⁷³ Licensing further upstream, granting licensing by company rather than location can help immediately increase standards of exploration without increasing ANLA's backlog.

Recommendation [3]: An environment license must be acquired before exploratory drilling phase of all mining projects. This is an important safeguard for the environment, as it will require the company to submit an EIA. The Government must reintroduce legislation that makes it a requirement for all mining licensees to submit an EIA before the exploratory phase commences. At a minimum, ANLA should move upstream and follow Minnesota's example to gain at least minimum regulatory oversight of exploration activities, and move to license at exploration stage once it has the capacity to do so. ANLA should require that EIAs be performed by recognized independent environmental consultancy agencies, paid by the extractive company. CARs can then monitor exploratory activities and report back to ANLA. Full compliance is necessary to maintain the exploratory license.

Additionally, the implementation of digital databases and automatized information management systems presents an opportunity to increase the efficiency of the licensing process as well as information sharing amongst government agencies and private companies. The use of these systems can help address ANLA's license backlog.³⁷⁴ Implementing these systems can also help Colombia develop a thorough inventory of its natural resources and draw maps to better assess the environmental impact of extractive activities. Information regarding mineral availability is currently obtained through the exploration stage of extractive projects and the government doesn't have access to this information unless the exploration company sells this information to another company for production.³⁷⁵ This has created an information gap for the government. While private entities might see risks in the information sharing with the government, the ANM can establish partnerships to protect information rights, but access information that are of high importance for multiple sectors of the Colombian economy.

Recommendation [4]: Digitalize through Geographic Information System (GIS) the Environmental Impact Assessment and licensing process to incorporate into national database to gain a better understanding of environmental baselines. It is important to design different tiers of publicly available information to protect companies' rights for exploitation and preserve the competitiveness of FDI in Colombia, while maintaining national databases and accessing current information.

7.3.3 Ensure Public Access Environmental Impact Assessment Process

Colombian law designates the Environmental Impact Assessment (EIA) process as the main tool in the decision-making process for any project, which may cause environmental impacts, including mining, oil and gas projects.³⁷⁶ EIA laws first came about in the United States in 1969 with the passing of the National Environmental Policy Act³⁷⁷ (NEPA). EIAs are intended to be an indicator of the likely positive or negative environmental impacts of an activity or project to make decisions for the benefit of the population and the environment.³⁷⁸ Shortly after the US enacted NEPA many developed and developing countries began to develop their own legislation. NEPA provided a baseline for EIA legislation in these countries and over the past 40 or so years, it has entered the fabric of environmental governance in over 100 countries, including Colombia.³⁷⁹ While many other EIA laws and policies have been adopted since NEPA's enactment the regime created by NEPA remains one of the most comprehensive and far-reaching in existence in the world today and provides the best comparative regime.³⁸⁰

Colombia adopted a formal EIA system into its legal framework more than two decades ago,³⁸¹ although it has not yet taken full advantage of the potential of the EIA process as a tool to manage the complex environmental situations it faces in its extractive industries and its regulations show important differences to NEPA. One of those differences, include the preparation of an environmental impact statement (EIS). *Law 99 of 2003* was the first law to specifically incorporate EIS' into Colombian Legislation.

Under this law, extractive industry companies are required to file an EIS in order to obtain an environmental license to being the exploitation phase of a project. The EIS must include a description of the project, the potential environmental impacts and the proposed measures to be undertaken to prevent, mitigate, correct or compensate these impacts. While *Law 99 of 1993* includes guidelines concerning methods and techniques for the identification and assessment of environmental impacts, unlike NEPA, the laws do not provide tools to measure actual environmental impacts and the economic burden such impacts present in terms of loss of economic productivity and health deterioration.³⁸² Further, the guidelines do not provide any explanation on proposed measure to prevent, mitigate, correct or compensate these impacts.

Figure 41 Coal mining and fishing, competing industries in La Guajira



Source: Photo by Alejandra Espinosa, Puerto Bolivar, La Guajira, Colombia, March, 2014.

The lack of guidelines to establish baselines, monitor performance and establish fair compensation present issues for both host communities and project developers. On one hand, host communities associate increasing health issues and environmental deterioration with the extractive industries' presence and demand further investment in environmental protection, health services, and development alternatives.³⁸³ On the other, companies claim that many of these issues cannot be directly associated with their operations and are thus unwilling to take on the "role of the state" or any further financial responsibilities as they operate in compliance with Colombian legislation or even higher standards.^{384,385} The evaluation of causal relationships between extractive industries' presence with environmental or social distress, as well as the measurement of negative externalities in Colombia is essential to establish fair compensation mechanisms to protect both the communities best interest and also the private companies assets.

A possible solution lies in the EIS assessment guides. Instead of containing a series of general recommendation concerning environmental impacts assessments, they could be modified to provide more specific information on types of environmental impacts, associated costs, and compensation mechanisms.

Recommendation [5]: Establish environmental baselines and include guidelines for environmental impact assessment and fair compensation in the EIS. The guides should contain specific information regarding the elements used to assess environmental impacts and adjustments showing the characteristics of environmental constituents.

Additionally, *Law 99 of 1993* stipulates that the decisions pertaining to the granting or denial of an environmental license, which is based on the EIS submitted by an extractive company to the relevant environmental authority, should be published in an official Journal, and sent to interested parties. However, the government is not required to publish its decisions in mass media such as the Internet or local newspapers. This is a particular problem in regards to project decisions made by regional environmental administrations, for example CARs, which grant most of the environmental licenses in Colombia. This policy evidently hinders public access to environmental information and the timely lodging of judicial action against administrative decisions made by environmental agencies. A further drawback is that there is no ongoing information process (or follow-up process by the relevant environmental agency) during the construction and exploitation/operational phases of a mining project to see whether the environmental impacts identified and mitigation recommendations made in the EIS were correct.

Recommendation [6]: Make all decision on the outcome of EIS and environmental licenses publicly available and easily accessible for remote communities. EIS and final decisions on environmental licenses should be made available in electronic form on company or government websites during and after the review period. This can invite the participation of those not directly involved with the public or private entities but with equal interest in the preservation of the environment.

A third issue with the current EIA process is in relation to public participation. As it currently stands, only indigenous populations benefit from public participation mechanisms, and only

when projects directly affect the territories where they live. Specifically, indigenous and African communities of Colombia have the right to *prior consultation*. For the rest of the population, participation is reduced to only information about the project.³⁸⁶ This does not allow the general population to take part in the decision-making process at all. This limited right to public participation goes against international EIA and NEPA standards, where all citizens have a right to participate in the EIA process.

Recommendation [7]: Public participation in the EIA process should extend to the entire community, not just indigenous and African communities.

7.3.4 Monitoring and Reporting to Enhance Enforcement Practices

In the case of the extractive industries, the lack of environmental inventories and baselines, paired with Colombia's limited institutional capacity to monitor the performance of both private and public entities, has increased dependency on information provided by the companies regarding emissions and operation status for environmental compliance. Companies are usually equipped with more financial resources, better technical capacity and have overall greater expertise.³⁸⁷

While partnering up with the private sector is a good formula to attract investment and encourage technology transfer, Colombia must protect its capacity to obtain objective and independent information to preserve the rule of law in its territory. This is essential as Colombia designs and implements effective mitigation strategies to prevent further deterioration of its environment. Some companies are already paying for environmental monitoring services either by having a designated monitoring team in house, or commissioning them to third party specialized environmental agencies.³⁸⁸ Moving towards third party measuring and certification could present a minor increase in costs and enhance the transparency of the monitoring process.

Recommendation [8]: Enhance performance monitoring and enforcement capacities to ensure compliance against environmental standards and also allow for timely mitigation action in case of contingencies and prevent social conflicts. Having third party agencies perform monitoring activities can reduce the required overhead in public organizations, reduce the financial burden for the state and enhance the reliability and transparency of the data management process.

The laws and regulations can only be good if adequately enforced. Colombia is a country that has invested in the redefinition of its environmental institutions and legal framework. Further investment in enforcement mechanisms, by strengthening the monitoring agencies, and promoting third party monitoring and verification is a necessary next step to improve the performance of the extractive sector.

Voluntary Reporting Mechanisms and Self-Regulation

Large-scale extractive companies operating in Colombia, in both the oil and gas and mining sectors, have adopted a series of voluntary standards to match their local operations to globally accepted best practices. Some of the instruments that both the companies and the National Mining Agency are using as reference to improve the overall performance of the sector include the World Bank and International Finance Corporation (IFC) Equator Principles, the International Council on Mining and Metals (ICMM) Sustainable Development Framework, the Global Reporting Initiative, the UN Global Compact, environmental standards such as the ISO 14000 and the Norm AA 1000, as well as other financial reporting mechanisms such as the S&P Jones Indices.³⁸⁹ More recently the Colombian government and companies are working to subscribe to the Extractive Industries Transparency initiative (EITI).³⁹⁰ However, small company participation is relatively minor not only in Colombia but at a global scale.³⁹¹

The use of such voluntary initiatives can contribute to enhance the performance of the extractive industries. However, for most industry observers government regulation remains the preferred regulatory strategy even if slower to develop, as shown by interview data gathered by researchers of the University of Queensland in Australia.³⁹²

Voluntary schemes improve the conduct of the companies establishing performance benchmarks and enhancing the dialogue with multiple stakeholders and particularly host communities as means to obtain and maintain their license to operate. The dynamic nature of these standards can also make the regulatory process more efficient as long as the results are objective and issued and audited by independent third parties. Nonetheless, command and control regulation might be the only way to establish liability for damage resulting from the operation of private companies or subject them to criminal law and thus should not be obviated.³⁹³ Establishing stringent standards through regulation can be expensive for the companies as they implement the best available technologies, and also for the agencies in charge of monitoring and enforcement. However, relying in the use of *best practices* as a benchmark reduces the incentives to implement better albeit more expensive technologies for pollution control. Furthermore, in a country like Colombia with a high incidence of illegal mining operations, voluntary schemes will not be sufficient to mitigate the environmental damage and social impact of the extractive industries.³⁹⁴ The establishment of clear operation standards, and definition of monitoring and enforcement responsibilities within the government is a necessary step to reduce the environmental impact of extractive industries.

7.4 Mitigating Environmental Impact of Mineral Exploitation

The environmental and health impact of mining depends on a technology and mitigation efforts, the category of mine, and type of mineral they are exploiting. This section addresses health and environmental concerns from exploitation, having already argued that exploration must be included in environmental licensing. In general, mines are divided into open pit mines and underground mines, but also include in situ leach (ISL) mining, heap leaching, and brine mining, which are not as common in Colombia. Unmitigated mining presents severe health risks to operators, local communities, and to biodiversity. Overall, mining operations in Colombia can be

divided into large-scale mining, and artisanal and informal mining. The social impact each is covered in this report's social chapter, but they present unique environmental consequences as well. For clarity, this chapter will address specifically the informal miners.

7.4.1 Mineral Mines and Associated Impacts

Open Pit Mining

Open pit mining is the most common and damaging form of mining for minerals.³⁹⁵ Minerals that exist in small concentrations increases the amount of ore needed to mine, resulting in large operations. Associated hazards include exposing rock that has been undisturbed for geological eras, and when crushed may release radioactive elements (nucleides), riebeckite (causes black lung) and dust.³⁹⁶ Other dangers occur from unmanaged tailings: when pulverized rock mixes with liquids, toxic and radioactive elements may leak into the bedrock, contaminating the site for any future uses. Dust from the mine can mix hazardous materials into the air and is a danger to workers and nearby towns. Likewise, dust can affect populations along the transportation lines if it is not contained. Coal dust contains polycyclic aromatic hydrocarbons. These environmental toxins are absorbed into the lung tissue and may cause cancers or birth defects.³⁹⁷ Coalmines in Colombia are required to prevent dust, and in January they halted the coal-loading operations for export by Drummond Co. after they failed to upgrade their equipment to a covered loading system.³⁹⁸

Heavy metals contamination, and landscape transformation coupled with deforestation from mining operations and surrounding infrastructure development contributes to erosion and increased sediments in the water.³⁹⁹ Even with upgraded modern technology, open pit mining will still have a significant ecological footprint, but Colombia is taking the right steps to halt production and enforce their environmental laws.

Underground Mining

Underground mining is less likely to cause dust and causes less waste rock, however, tunnels may collapse and cause land subsidence, release toxic contaminants into the air and water, or explode.⁴⁰⁰ Typical underground mines in Colombia are gold, silver and emerald, but also coal. In 2010 Colombia National University estimated 3000 poorly regulated underground mines with only basic ventilation systems and no methane drainage system in place. With shafts deeper than 600 meters, methane levels can become dangerously high. Methane buildup may have been the reason behind the 2010 San Fernando mine explosion in Amaga, Antioquia, which killed 73 miners. According to emergency management officials, 71 lives were claimed in mining explosions between 2004-2009.⁴⁰¹ Heavy monitoring of methane levels and drainage systems are necessary to protect workers from these immediate and uncontrollable disasters.

Recommendation [9]: Colombia should prioritize frequent inspections of underground mines. With limited resources, monitoring and compliance should be focused on inspecting methane levels, drainage systems, and company contingency plans for underground mines. While open pit mining outweighs environmental impacts of underground mines, it is imperative to be proactive in protecting the health and lives of Colombian miners.

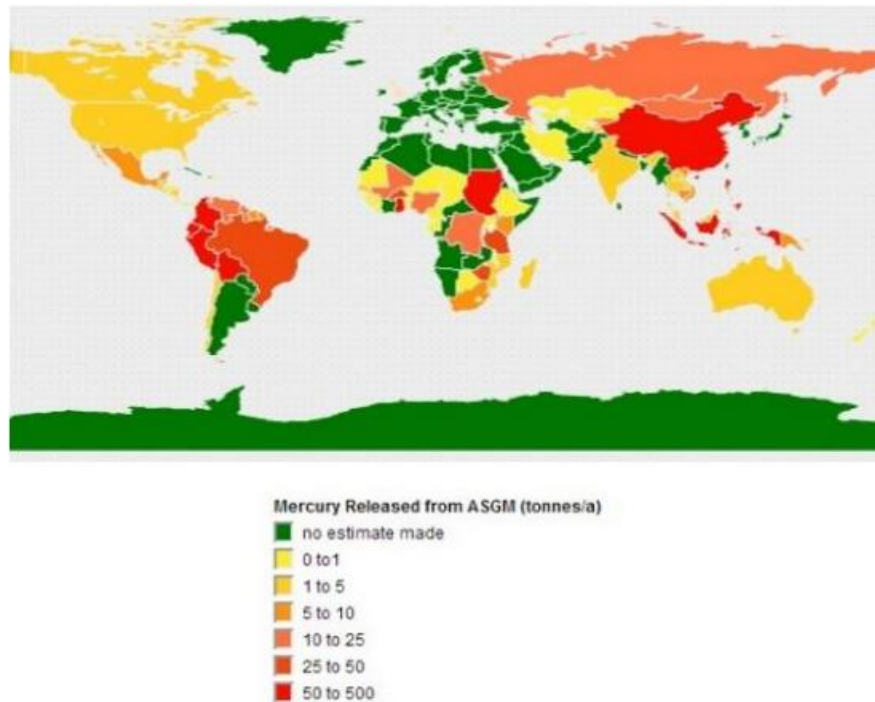
7.4.2 Targeting Informal Ore Processing Centers

Informal Mining and Mercury Pollution

Despite the small scale of artisanal mining their combined environmental impact is sizable and severely impacts human health.⁴⁰² Informal and artisanal mining has grown substantially over the last decade in response to precious metal price, and in certain cases, like the AngloGold *La Colosa* mine referendum, in the wake of expulsion of larger national actors. Worldwide, artisanal gold miners are the main consumers of mercury, and even small operations can leave behind eroded landscapes. Rudimentary technology and amalgamation release mercury, an inexpensive and easily accessible compound, directly to the surrounding soil and atmosphere.^{403,404}

Colombia possesses the shameful first position as the world's largest mercury polluter per capita exclusively from artisanal and informal gold mining. Despite recognizing and fighting the problem for over a decade, Colombia is unable to counteract the rising price of gold and the high profitability of artisanal mining. The 2011 census states unlicensed mines continue to account for 87% of operations, although the unofficial number might be higher.⁴⁰⁵ An effective way to formalize all small-scale miners remains a global problem with no simple solution, but Colombia can immediately ensure best practices in its recognized official processing centers by replacing mercury in amalgamation. Social conflict implications of artisanal gold mining are covered in this report's social chapter.

Figure 42 Mercury released by artisanal gold mining



Source: Mercurywatch.com, 2010

The effect of mercury depends on the age and stage of development of the person exposed, the duration and dose, and type of mercury. Fetuses are most susceptible to methyl mercury, which results in impaired neurological development. Subsistence fishing populations are especially at risk; in Brazil, Canada, China, Greenland, and Colombia, between 1.5/1000 and 17/1000 children in subsistence fishing populations showed cognitive impairment caused by the consumption of fish containing mercury.⁴⁰⁶ Exposure to high concentration mercury vapor impacts public health directly by causing respiratory tract problems, with symptoms including chest pains, dyspnea, cough, hemoptysis, impairment of pulmonary function and interstitial pneumonitis. Chronic, low to moderate dose exposure can lead to fatigue, memory loss, and depression.⁴⁰⁷ Last year, Colombia banned the use of mercury in the industrial and mining sectors, but the law will not be effective for another four years.⁴⁰⁸ However, this presents a step in the right direction to address the severe mercury pollution in the country, and will require mining companies to use alternative technologies for amalgamation.

Alternatives to Formalization

Formalization can be a long-term process, but Colombia must address environmental issues from artisanal mining today.

Colombia has a number processing centers (known as “cocos” in Antioquia) where artisanal miners amalgamate ore “free” or for a nominal fee. These centers use inefficient methods to extract 30% of the gold in the ore, and miners leave the residual tailings as payments. Investigating the concentration of mercury in the tailings with the original added concentration in the untreated ore suggests that a substantial part of mercury is pulverized and lost. Due to the historical presence of guerrillas in informal mining areas, most of the processing centers are located near urban areas, where mercury levels can reach 40,000 ng/m³ outside in the streets and 1 million ng/m³ inside some centers.⁴⁰⁹ Colombia should immediately target the processing centers and lend expertise and investment to reform their technology and reduce reliance on

Figure 43 Informal gold processing in California, Colombia.



Source: Kine Elisabeth Martinussen

Figure 44 A miner shovels ore for amalgamation in California, Colombia.



Source: Kine Elisabeth Martinussen

mercury, as is the practice in Ecuador (see excerpt).

Formalization is the final goal, but with ANLA's backlog it is likely that rudimentary mining operations will continue, as they do not expect to obtain a license in the short term. Peru spent significant resources on promoting and planning formalization of its 450 000 artisanal miners, but only 50 000 applied. Furthermore, out of those, only 27 000 are expected to receive licenses in the short term.⁴¹⁰ As a benefit, fostering environmental compliance can lead to later willingness to formalize and help Colombia retain profits from mining instead of them leaving the country, as is the trend with multinational companies.

Processing Centers in Artisanal Gold Mining (Ecuador)

Marcello M. Veiga, Gustavo Angeloci, Michael Hitch, and Patricio Colon Velasquez-Lopez

Efforts to organize the processing center by the Government of Ecuador have resulted in developing ways to explore a sustainable management of processing plants that involve miners to collaboratively solve common problems such as tailing and waste management. A working group encompassing engineers from the federal and provincial governments and experts hired by the APROPLASMIN, devised techniques to collect all processing tailings in a 22-km pipeline to dispose them in a formally constructed tailing dam located a safe distance from the river. Design studies were funded by the Government of Ecuador with a large decision making process for its operation carried out with participation of owners of processing plants. Beside the new tailing pond, a new industrial park is being designed for the two main regions of artisanal and small-scale gold mining of Portovelo-Zaruma and Ponce Enriquez. By improving the mineral processing conditions at Ponce Enriquez, there will be a marked reduction in the environmental contamination of town of Portovelo and the Puyango-Tumbes River (the latter is in Peru). All processing centers will eventually move to the new mining industrial park, and they will be encouraged to improve gold recovery techniques and to implement more sustainable waste management systems that include eliminating or at least reducing mercury use. The

Government is also establishing a new training center for the local miners to improve their technical, economic, environmental and social skills.

Recommendation [10]: Prioritize ore processing site technology development and education before launching formalization programs. Formalization on its own may adjust Colombia's internal census numbers and data on extractive activity, but will not sufficiently address the immediate need for environmental compliance and reduction in mercury use.

7.5 Oil and gas, and the Environment

The oil and gas production process can be divided into upstream, midstream and downstream activities. These three stages include processes in which oil and gas resources are defined as reserves, extracted and processes, and transported to demand sites.⁴¹¹ As an oil and gas producing nation Colombia faces environmental risks and challenges in all stages of the conventional hydrocarbon value chain. The section below outlines some of the risks associated with conventional oil and gas resources exploitation, and presents some considerations regarding the potential exploitation of unconventional resources in the country.

Upstream Activities

Exploration

Aiming to improve the efficiency of exploration activities and to increase profitability and minimize investment risks associated with frontier fields and unconventional resources' exploitation, companies continuously invest in research and development of state of the art technology, which can also mitigate to some extent the environmental impact of their exploration activities. During the exploration phase, companies determine the quantity and quality of the underground resources. This stage initially involves map analysis and aerial evaluations, and then gravimetric, magnetic and/or seismic surveys.⁴¹²

The seismic method is used to evaluate the geological structures and determine the quality of hydrocarbon reserves. This method, based on the reflective nature of sound waves, presents some particular challenges. When used for onshore exploration, the installation of sound emitting equipment can result in the removal of vegetation, erosion, and change in drainage patterns and hydrology.⁴¹³ Regarding offshore exploration, the long-term consequences are still unknown although some mitigation measures are available.⁴¹⁴ The main concern is that the vibrations used to evaluate the quality of the resources can impact the marine environment, particularly during migration and spawning seasons.⁴¹⁵

Moreover, Colombia's main basins are located close to highly sensitive environments such as the Andean foothills, the Amazonian jungles,⁴¹⁶ and off the coast in a rich marine environment. Since 2003 the government has worked on reforms to attract higher levels of FDI to this sector, which has seen a great increase in oil and gas output in the last decade. While production is on the rise due to increased investment of private companies in major basins such as Rubiales, no major finds might compromise output in the coming years.⁴¹⁷ This indicates that companies might push exploration towards frontier fields, where operations are riskier and environmental

sensitivity is typically higher.⁴¹⁸ The Colombian government needs to balance the costs and benefits derived from exploration and production activities, and implement good practices to preserve the value and diversity of its land and marine environments, as they present valuable long-term economical development alternatives.

Colombia could benefit from the implementation of the best available international standards to preserve marine biodiversity, for example, have been implemented in Norway. The following measures have been taken to mitigate the potential risks associated with marine exploration activities:^{419, 420}

- Establishment of protected fishing areas and buffer zones of 50 km surrounding their perimeter;
- Prohibition of seismic surveys during migration and spawning periods, and around fish nurseries; and
- Mandatory Fishery Expert present in all surveillance vessels.

Drilling and Production

Onshore drilling activities require the construction of associated infrastructure projects such as roads, camps, storage and waste management facilities. The main environmental impacts associated with these projects are the removal of vegetation, landscape transformation, and the disturbance of local population and wildlife. Drilling and production activities can result in heavy noise disturbances, leakages, spillages and water contamination, as well as the accumulation of muds and hazardous waste. The EIAs should include a thorough description of the controls that will be implemented to prevent impact derived from the construction, operation and decommissioning of drilling sites,⁴²¹ even if they don't result in extended production of hydrocarbons, considering the best available technologies. These controls include pollution control measures (covering air, water, soil) decommissioning procedures, remediation processes, as well as long term monitoring practices. Offshore drilling activities present additional challenges to those of onshore activities due to the sensitivity of the marine environment, as described above.

The main sources of pollution during the drilling process are the drilling muds produced from the mixture of soil with lubricants. Drilling muds are highly relevant because of their chemical composition and the volume. In particular, oil based is highly toxic and harder to break down in the marine environment.⁴²² The second source of pollution comes from *produced water (PAH)*, which is the largest volume aqueous waste from production operations.⁴²³ "Produced water contains dissolved oils, heavy metals and polycyclic, aromatic and hydrocarbons. "From an environmental standpoint, produced water can lead to a severe cascading effect: when the PAHs are discharged to sea, it could pass on to the marine life chain. PAHs are carcinogenic and its content from gas field is much higher than oil fields."⁴²⁴ Nonetheless, treating PAHs for compliance with reinjection standards represents a higher cost for companies than regular water treatment for discharge, and can reduce the profitability of their operations.

In Colombia, due to the nature of the hydrocarbon reserves the share of produced water associated in relation to oil is 9 to 1, three times higher than the global average (3 to 1), increasing the operational challenges.⁴²⁵ Moreover, Pacific Rubiales, partner of Ecopetrol in the Gaitan field – one of the largest gas field in the country has invested in a desalination plant to

treat and reuse produced water for operation. This project aims to reduce the costs of water treatment but has also helped to improve their overall environmental performance.⁴²⁶ Water optimization and reuse projects should be mandatory to reduce overall water stress derived from extractive activities, particularly in desert environments, such as La Guajira.⁴²⁷

Another major source of pollution in the production stage is the ventilation of natural gas (mostly methane) and. Venting gas into the atmosphere is one of the main sources of green house gas (GHG) emission worldwide. Colombia's national green house GHG inventory shows that fugitive emission in the oil and gas sector represent 2.5% of the total.⁴²⁸ Climate change initiatives focus on the combustion of CH₄ as means to reduce its leakage to the atmosphere from venting and gas flaring. On the other hand, flaring natural gas can result in health impacts, wildlife disturbances, and the deterioration of agriculture due to acid rain.⁴²⁹ It will be important for Colombia to draft regulations that incentivize gas recovery for redistribution, increasing the overall energy efficiency of the industry.⁴³⁰

Recommendation [11]: Strengthen the environmental considerations of current contracting schemes in the oil and gas sector to include:

- Differentiated water treatment standards for production water, particularly for reinjection and reuse purposes, and preservation of the marine environment. Current legislation only presents recommendations and reporting procedures.⁴³¹ Colombia should move towards the adoption of best available technologies and international standards, and ban all discharges prior to production.⁴³²
- Prevention of flaring and fugitive emissions of methane to reduce GHG emissions and contamination due to acid rain.
- Definition of special hazardous waste and mud cutting management requirements. Large volumes of hazardous waste are generated throughout the drilling process, and while mandated in the current regulatory framework not enough waste management and final disposal sites are in place.⁴³³

In terms of offshore discharges, mud management, produced water and gas reinjection, Colombia's environmental authorities should verify that International Oil Companies operating in their territory are following international practices and aiming to implement the best available technologies. The following table outlines some of the regional and national offshore drilling standards used in other nations such as Finland, Germany, Denmark, Portugal, Spain, and the United States.^{434,435}

Figure 45 Examples of National and Regional Offshore Drilling Regulatory Frameworks

Examples of National and Regional Offshore Drilling Regulatory Frameworks			
	OSPAR Convention North-east Atlantic⁴³⁶	Helcom Convention Baltic Sea⁴³⁷	United States⁴³⁸
Drilling muds	- Oil based muds shipped to shore. - Water based and synthetic based muds are	- Oil based muds shipped to shore - Water based and synthetic based muds are	- Oil based muds shipped to shore. - Water based and synthetic based muds

	tested for toxicity prior to discharge. - Prohibition on discharging muds containing more than 1% of oil.	tested for toxicity prior to discharge. - Prohibition on discharging muds containing more than 1% of oil. - Prohibition on discharge muds with more than 1 mg cadmium and mercury per kilo.	are tested for toxicity prior to discharge.
Produced water	- Re-injecting into the geological formation in vulnerable areas such as estuaries and coastal areas. - When discharged to sea, oil content is lowered to 30mg/L.	- Re-injecting into the geological formation in vulnerable areas such as estuaries and coastal areas. - When discharged to sea, oil content is lowered to 30mg/L.	- Re-injecting into the geological formation in vulnerable areas such as estuaries and coastal areas. - When discharged to sea, oil content is lowered to 15 mg/L in Alaska, 18mg/L in California, 29mg/L in Gulf of Mexico.
Gas	Either exploited or re-injected.	Either exploited or re-injected.	Either exploited or re-injected.

Source: Mozambique: Mobilizing Extractive Resources for Development, pp. 112

Midstream

Colombia's hydrocarbon transportation system relies mainly on six major oil pipelines, four of which connect production fields to the Caribbean export terminal at Covenas, one that connects the Llanos basin, which is the largest producing oilfield in the country, to the export network, and one that links the Putumayo basin to Colombia's Pacific port at Tumaco.⁴³⁹

Colombia's pipeline network presents operation risks associated with corrosion, leakages, blowouts, which can be mitigated through continuous appraisals and regular maintenance. However, in Colombia pipelines, along with other energy infrastructure, are constant targets of anti-government organizations attacks. Only recently, Ecopetrol declare force majeure on some volume deliveries after the Cano Limon-Covenas pipeline was damaged by a series of attacks by a leftists group. Repairs took longer than expected because of objections and demands made by indigenous communities near the site of the blast.⁴⁴⁰ The EIA estimates that Colombia's unplanned production disruptions in 2013 showed a 115% increase from 2012.⁴⁴¹ According to data provided by the Defense Ministry, "bomb attacks on Colombia's pipelines increased in 2013 to 259, the highest in a decade and a 72% jump from 2012."⁴⁴² Leftist rebels have declared that the rising discontent amongst the population can be linked to the uneven distribution of the benefits derived from foreign oil companies' investment. Social unrest is on the rise due to the recent royalty reform. Pipeline blowouts and associated leakages can have long-term impacts on the surrounding environment (i.e. soil and water contaminations due to product leakages). The recent events highlight the need for the federal government to engage more closely with the

communities during the Environmental Impact Assessment stage and all throughout the projects life to prevent this type of contingencies.

Downstream

Colombia is a net oil exporter, and while it processes crude in five domestic refineries it also imports some refined products, particularly diesel fuel. The country is planning some expansions to the Barrancabermeja plan, to improve the refinery's ability to process heavier crude oil,⁴⁴³ potentially imported from Venezuelan fields. The issues related to the refineries' operation are similar to the ones listed above regarding other stages of the hydrocarbon value chain. Colombia needs to invest mostly on monitoring and enforcement to ensure adequate performance and pollution minimization.

However, Colombia faces serious issues related to illegal trade of Venezuelan gasoline, particularly in La Guajira. There is no control or record about these operations, but it is clear that clandestine gasoline retail points like the one shown in the image below can have serious effects in the quality of soil and water in the region.

Figure 46 Illegal gasoline station at the side of the road, Albania, La Guajira, Colombia



Source: Photo by Alejandra Espinosa, Albania, La Guajira, Colombia, March 2014.

Colombian authorities have recognized that the price differentials between the legal and illegal markets are the key drivers of this activity. They acknowledge the detrimental impact this is having on the environment but have stated that they lack the capacity in terms of monitoring

staff, equipment, and enforcement mechanisms, to respond to this situation given the magnitude of illegal trade.⁴⁴⁴ It will be important for the Federal government to increase the institutional capacity to respond to this increasing environmental hazard.

Unconventional Resources and Relative Risk

The shale gas revolution of the United States has transformed the global energy landscape and shown that free market dynamics and a strong regulatory regime can support the development of unconventional resources, making innovative technologies and processes commercially viable.⁴⁴⁵ However, questions remain on whether this revolution is replicable in countries like Colombia, where the organizational and business culture are entirely different, there's a centralized regulatory regime, and the State owns the mineral rights.

The development of unconventional resources presents high risks associated with the nature of the drilling and hydraulic fracturing ("fracking") processes, and the intensive use of water. In its Golden Rules for unconventional resources exploitation, the International Energy Agency highlights barriers such as the lack of gas transport infrastructure, water stress, and the regulatory environment and gas-pricing regime as the main obstacles for shale gas development. All of these elements present an obstacle to Colombia in the short and medium term.^{446,447} Additionally, implementation of regulatory and technical recommendations of the IEA could represent a 7% cost increase in shale gas projects in China, for example.⁴⁴⁸ Even if some savings could be achieved through economies of scale, the optimization of water use in the facture stages, and the progress of the learning curves, some developing economies like Colombia might not be willing to pay this voluntary premium.

Finally, it is important for Colombian authorities to be aware that there's still lack of consensus amongst industry professionals and environmentalist concerning the adequacy of the federal and local performance standards of the industry that could prevent the replication of the US shale revolution in other countries.⁴⁴⁹

7.6 Planning for contingencies

Companies operating in Colombia should be expected to take human and environmental safety seriously, government preparedness in case of company failure can help prevent or contain contingencies. Colombia has national emergency preparedness in case of natural disasters, but lacks the same specific measures for environmental pollution contingencies particularly in the mining sector.

The oil and gas industry in Colombia operates in a variety of ecosystems, which increases the vulnerability of all energy infrastructure.⁴⁵⁰ Colombia's hydrocarbon sector is vulnerable to both, natural and man-made disasters so the need of having effective a contingency plan is essential. The private and public sector have designed a National Contingency Plan (PNC).⁴⁵¹ The PNC defines unified criteria to respond to oil and oil product spills in water bodies (i.e. oceans, lakes, river basins).⁴⁵² Colombia is also a signatory to international maritime conventions such as MARPOL 73/78, for pollution prevention. However, the Colombian Maritime Authority, DIMAR,

has acknowledged that while there's a National MARPOL Strategy, the focus of establishing vessels wastes treatment facilities in Colombian ports has been neglected.⁴⁵³

While limited to spills in water bodies, the PNC is a good first approach to establish clear response mechanisms in case of contingency. However, the Plan fails to establish clear financial responsibilities (i.e. fines, operation halts with no interruption of payment to employees, compensation for environmental damage) or even civil sanctions to respond in the event of an oil spill. It is important to highlight that "the risk, severity and timeliness of cleanup is heavily dependent upon the strength of laws, regulations, and contracts that place the burden of responsibility for spillage squarely on the company as opposed to the government in all circumstances. This is the only way for companies to internalize the cost associated with the risk of spillage into the production cost of oil and take precautionary steps to avoid it."⁴⁵⁴ However, while the private sector should be liable for any environmental damage, taking immediate mitigation action has a cost and the State should be prepared to respond in such case and resolve liabilities as a second step. It is important to highlight that any further plans for contingencies should address both, risks associated with the oil and gas industry as well as the mining sector.

In Norway the Petroleum Safety Authority is an independent agency to responsible for safety, emergency preparedness, and working conditions in the Norwegian petroleum industry. The agency supervision is designed to supplement and not replace internal control by industry.⁴⁵⁵ Coupled with preventative risk-management, the Coastal Administration is responsible for the state responsibility and preparedness in case of acute pollution. It is tasked with identifying and preventing acute pollution, and ensures that responsible operators or municipalities begin their necessary measures in case of contingency. Important tasks include coordinating private, municipal and state preparedness resources in a national system, ensuring that the responsible polluter and municipalities are acting in accordance with their obligations; investing and maintaining preparedness resources tied to state repository and vessels involved in preparedness system. A similar two-pronged approach can help prepare Colombia for pollution and contingency management.

Recommendation 12: Enhance the National Contingency Plan and establish and Environmental Contingency Fund. The resources of this fund shall ensure immediate response in case of contingencies. Outlays should be compensated through predetermined taxes, fines in case of non-compliance and extraordinary payments commensurate to the financial burden of environmental damage resulting from the contingency.

7.7 Conclusions

Colombia is a rich nation in terms of biodiversity and natural resources. As the country develops, the extractive industries have gained strength and resulted in important revenue for the regional and federal governments. However, the continued focused in the development of the extractive sector is placing increasing pressure upon Colombia's environment. The past two decades have shown a continued decline in environmental indicators, questioning the suitability

of the current regulatory and institutional framework to manage Colombia's competitiveness as a destination of FDI while preserving its valuable environment.

After careful analysis of the current national development strategy, and multiple interviews with key stakeholders within government, civil society, academia, and mining industry professionals in Colombia, we have found that Colombia possesses the institutional pieces to ensure effective environmental management, but still needs stronger alignment of their objectives, increased coordination, and improved efficiency of licensing, monitoring and enforcement.

The debate regarding the development of the sector has been channeled mainly through the Ministry of Mines and Energy and the Ministry of Environment and Development. However, the other actors of equal importance have been excluded from the discussion. Further analysis of the impact that mining could have in sectors such as tourism and services, agriculture, fishing and the manufacturing industries is required. Only a thorough analysis of the costs and benefits that mining could have in each of these sectors will allow the national government to make a conscious choice that results in the higher economic benefit for the current population and generations to come.

The current environmental legislation should be enhanced to match international environmental standards as these exhibit higher pollution controls. Matching these standards should not represent additional costs to companies that operate internationally, nor compromise Colombia's competitiveness, as the standards are already in use in other comparable markets. Moreover, it is in the industry interest to contribute towards the strengthening of the current regime. Companies can take a proactive role in the development of environmental impact assessments, reducing the risks for future operation disruptions based on non-traceable environmental liabilities. Additionally, the Ministry of Health must participate in the establishment of basic health quality standards and development of health impact assessments to ensure the long term costs and benefits of the extractive industries are taken into consideration before the authorization of further production licenses.

Improving the EIA and licensing process by encouraging inter-agency collaboration and new data collection technologies will be essential to establish a better picture of Colombia's baselines. This will also level the playing field between the oil/gas and mining sectors. The formalization of artisanal and informal mining present particular challenges due to the high associated costs of water and waste management treatment. However, finding ways to legalize these operations or targeting the processing centers for educational efforts are ways to increase revenue derived from mineral sales, preserve Colombia's environment, and protect the population from chemicals used in the mining process. Moreover, Colombia should ask for adequate compensation for extractive activities, and ensure that the state has the funds at hand to manage the sector under regular conditions, but particularly during contingencies.

With environmental institutions tracing back for more than half a century, special consideration for its natural heritage in its Constitution, and engagement in several international environmental treaties, Colombia has shown sustained devotion to environmental protection. It is our hope that the recommendations in this section can assist the Colombian government in

managing both immediate and long-term environmental issues from extractive industries in a way that benefits the Colombian people, nature, and economy.

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⁴⁵⁵ System-oriented means they audit target areas of company management plans, and verify whether they follow the guidelines in reality. Risk-based means that their planning gives priority to areas with the highest risk.

Conclusions

In recent years, Colombia has transformed into one of the fastest growing economies in Latin America, benefiting not only from increasing commodity prices but also from extensive internal reforms. The increasing price of oil, gas, and other valuable minerals such as gold, silver and emeralds have increased Colombia's attractiveness as a destination for Foreign Direct Investment, transforming the domestic economy shifting away from traditional agricultural activities.

Extractive industry FDI and royalties have the power to reduce poverty and promote economic prosperity at both the local and national levels in developing countries when employed as a part of a holistic and regimented national developmental strategy. In Colombia, these royalties have become an essential component of the country's economic ascendance and infrastructure development moving forward. However, the management and use of these resources presents economic, environmental, and social risks that need to be addressed to prevent other tradable sectors from becoming less competitive, increasing the country's exposure to volatile commodities' prices increases and governance deterioration. The Colombian government must work to ensure the wealth derived from the extractive industries is fairly distributed and translates into benefits for the entire Colombian population while preserving its unique environmental wealth.

Colombia has already begun the process of addressing its exposure to the positive and negative extractive resource externalities through the royalty reforms of 2011 and the Tax Reform of 2012. Through this reform, Colombia transformed its existing oil stabilization fund into a number of funds that invest royalties in regional projects today and in savings for future generations. Nonetheless, while Colombia's reforms present a necessary first step in addressing the potential socioeconomic repercussions of this growing segment of the economy, there are still vulnerabilities to segments of the economy and population that need to be addressed, including promoting greater transparency in revenue collection and expenditure.

The economic section of this report lists some specific steps the country can take, and evaluates a windfall tax scheme, the reduction of stabilization clauses, and improvements to the existing royalty funds. It is important to highlight that to promote economic diversification and resiliency, the country must address its large informal labor market to promote domestic growth and increase labor skill level and human capital among the Colombian labor force. Furthermore, extractive sector employment is made available to a small segment of the labor force through employment of companies and its subcontractors. As such, the Colombian government should closely monitor other segments of the economy such as its agricultural and manufacturing sectors to ensure that the economy does not become too reliant on extractive resource revenue.

Additionally, the reduction of stabilization clauses and tax exemptions would benefit Colombia by enabling the country's ability to reform royalty and tax regulations and increase its revenue through tax collection. In order to address the potential mismanagement of community expectations from extractive industry FDI, a national-level oversight of the Fiscal Rule should be

implemented in order to discourage capricious government spending and consequently encourage native economic growth.

It is clear that Colombia aims to maximize welfare derived from natural resource extraction, but to do this it is necessary to understand the interest and needs of the main actors of the industry and the society at large. Having a strong governance system is essential to effectively quantify the positive and negative externalities that extractive projects represent for the nation and manage the sector efficiently.

BITs provide foreign investors with numerous rights, without any assurance that it will generate pro-development investment. States have increasingly, on the basis of their right to regulate in with regards to social and labor areas or environmental protection, challenged breach of contract claims by the investor. Colombia has yet to be a party to arbitral proceedings concerning BITs. However, if Colombia's mining industry in the future gains more interest from larger international mining corporations, arbitral disputes may increase. Against this backdrop, it is imperative that Colombia's BITs are up to environmental and social standards in order to protect Colombia and its people and that they include clear language and clear definitions so as to avoid any ambiguities in interpretation in a potential arbitral dispute. Considering Colombia's vast source of natural resources, the country should have strong leverage in the negotiation proceedings to incorporate clauses beneficial to the development of the country.

Decision makers the public sector have the constitutional duty to set the proper rules and conditions that shape the institutions, which govern the extractive's industry, and that will ultimately influence the outcome in this maximization of welfare. However, the incentives have to be aligned, and proper limitations need to be imposed so this goal can be achieved. To promote good governance, Colombia needs to increase the coordination between all actors, enhancing their participation in decision-making by setting a network in which there is a direct bargaining process, informed by reliable information gathered by all stakeholders. Increasing the level of accountability is essential. The citizens need to be able to oversee and challenge the decisions taken within this network, there should be complete information about the process of granting exploration and production rights, environmental licensing, revenue from extractive activities, expenditures of such revenue, etc. The government will need to increase its the capacity of local and regional agencies in terms of the quantity and quality of available resources to perform the duties related to the oversight of the extractive industry.

From the social perspective, it is important to understand that the conflicts surrounding the extractive industries in Colombia can be understood as revolving over the need to incorporate community consent and social equity in the natural resource management strategy of the country. This report offers two strategies for the government to secure community consent for extractive projects. The first strategy consists of defining and institutionalizing the process of prior consultation of Indigenous and Afro-Colombian communities. The second addresses the need to improve mechanisms to obtain social licenses, such as the Popular Vote, in impacted regions. The engagement of impacted communities in the extractive process must come hand in hand with a natural resource management strategy focused on promoting social equity. This report offers three approaches to enhance social equity: 1) inclusion of impacted populations in social development projects, 2) prioritization of oil and mineral producing regions for royalty development funds, and 3) the formation a social development fund.

Colombia's environmental wealth is undeniable. However, the continued focus in the development of the extractive sector is placing increasing pressure upon the country's environment. Colombia has already invested great efforts in the strengthening of the environmental management sector and should continue to engage with public, private and social organizations to identify the risks associated with the extractive industries. Colombia has the institutional pieces to ensure effective environmental management. However, it still needs align their objectives, increase coordination, and improve the overall efficiency of its institutions in terms of licensing, monitoring and enforcement. The current environmental legislation should be enhanced to match international environmental standards as these exhibit higher pollution controls. Additionally, improving the EIA and licensing process, encouraging inter agency collaboration and using new data collection technologies, is necessary to establish an operation baseline and leveling the playing field between the oil and gas and mining sectors, as well as the different types of mining activities. The formalization of artisanal and informal mining present particular financial challenges. However, finding ways to legalize these operations is the only way to increase revenue derived from mineral sales and preserve Colombia's environment.

The current environmental legislation should be enhanced to match international environmental standards as these exhibit higher pollution controls. Additionally, improving the EIA and licensing process, by encouraging inter agency collaboration and using new data collection technologies, is necessary to establish an operation baseline and leveling the playing field between the oil and gas and mining sectors, as well as the different types of mining activities. The formalization of artisanal and informal mining present particular financial challenges. However, finding ways to legalize these operations is the only way to increase revenue derived from mineral sales and preserve Colombia's environment. Colombia should also identify ways to ensure adequate compensation for extractive activities and ensure that the state can gather funds to manage the sector under regular conditions but also during contingencies.

Further analysis of the impact that mining could have in sectors such as tourism and services, agriculture, fishing and the manufacturing industries is required. It will also be important for the country to establish basic health quality standards and development of health impact assessments to ensure the long term costs and benefits of the extractive industries are taken into consideration before the authorization of further production licenses. Colombia should also identify ways to ensure adequate compensation for extractive activities and ensure that the state can gather funds to manage the sector under regular conditions but also during contingencies.

Finally, media coverage of the extractive industry is crucial to promote accountability, good governance, and responsible natural resource management. An active, knowledgeable media plays a critical role in helping the public and parliaments engage in governance issues, enabling them to hold government and companies accountable. The main challenges that Colombia should address to improve the media coverage of the extractive industries are poor capacity and lack of training, self-censorship and threats against press freedom, poor quality of public information about the extractive industry, and the conflicts of interest between companies and media organizations.

In order to effectively capitalize on the economic gains of the extractive industries while minimizing the negative externalities, the Colombian government must develop a comprehensive natural resource management strategy that addresses the principal impacts and consequences of the extractive process, including issues of economic diversification and regulation, good governance, free and independent media, social development and community participation, as well as environmental protections and regulations.

This research was designed to understand Colombia's extractive industries current situation and present a list of recommendations aimed at providing comprehensive yet practical solutions to the most pressing issues identified through our field research and qualitative assessments. The team working in this project hopes this document becomes a useful tool for Colombia to develop a competitive and environmentally sustainable extractive sector for the benefit of local communities and the whole Colombian economy.

Summary of Recommendations

The Economic Implications of the Extractive Industry in Colombia				
1)	Economics (1/10)	1.1	Separate Extractive Resource Activities in GDP	Colombia's National Administrative Department of Statistics (DANE) should reshape the representation of GDP in order to better understand the effects of the extractive sector on the economy. The current representation does not easily segregate different components of mining and hydrocarbon production, distorting the representation of the economy. Including downstream hydrocarbon production in manufacturing, for example, understates the country's reliance on hydrocarbons in relation to GDP.
2)	Economics (2/10)	1.5.1	Invest in the development and update of railways.	The lagging infrastructure of Colombia presents a problem for commerce, especially in mining. A significant amount of railway tracks in northern Colombia is comprised of single line tracks, rather than the standard double track, especially as mining activity is expected to increase. The government could request proposals from design and construction firms to update and expand these tracks.
Fiscal Policy Framework of Colombia: Royalties, Taxes and Windfall Profits				
3)	Economics (3/10)	2.3.1	Royalty Reform of 2011	Information for royalty revenue is difficult to verify. The Mapa de las Regalias, an initiative of the SGR, has unverified information as of Spring 2014, while SIMCO has not updated figures on mining royalties since the third quarter of 2012. In order to properly understand economic effects, the government must transparently and regularly update these figures, especially revenues flowing to the state.
4)	Economics (4/10)	2.3.2	Tax Reform of 2012	Digitalize through Geographic Information System (GIS) the Environmental Impact Assessment and licensing process to incorporate into national database to better understand environmental baselines. It is important to design different tiers of publicly available information to protect companies' rights for exploitation and preserve the competitiveness of FDI in Colombia, while maintaining national databases up t
5)	Economics (5/10)	2.3.3	Fiscal rule of 2011	With the Fiscal Rule of 2011 described below, Colombia embarked on a path of responsible fiscal spending. It should strengthen its commitment and enhance saving for future

				generations by investing structural surplus over a certain threshold into its stabilization fund, similar to Chile's example, thereby maximizing the future value of the current revenues and benefits it sees from the extractive industries.
6)	Economics (6/10)	2.3.3	Fiscal rule of 2011	To shield from shifting political winds, Colombia could entrust oversight of the government's compliance with the Fiscal Rule to an independent body that is not swayed by shifting political winds.
7)	Economics/Legal (7/10)	2.4	Introduce windfall tax provisions	Windfall tax provisions should be introduced into relevant legislation so that they are not bargained away or ignored in negotiations with companies. This would help ensure the government retains the portion of revenue it earns.
8)	Economics (8/10)	2.4	Create a sub-fund	The current structure of the Savings and Stabilization fund should be modified. A sub-fund within the existing Savings and Stabilization fund could be managed by an external investment management firm with risk parameters agreed upon by the government.
9)	Economics (9/10)	2.4	Consider enhancing returns on savings	The government should consider the creation of a sub-fund that utilizes a set percentage of inflows into the Savings and Stabilization Fund that is invested into an investment portfolio with a longer average maturity. This would enable it to grow relatively small sums of royalty revenues (plus, perhaps fiscal surpluses over a certain threshold) more effectively. This would help enhance the returns on savings and provide the country with greater security in its saving.
10)	Economics (10/10)	2.4	Promote higher education in science and technology	In addition to investing royalties from the Science and Technology fund into projects that may include education-related plans, the national government should develop and concentrate efforts on enhancing Colombia's labor skill level and human capital to better compete for higher-skill labor and investment.
Bilateral Investment, Legal Aspects				
11)	Legal (1/14)	3.2.1	Define the Expropriation Clause	Clearly define the Expropriation clause in future BITs through the use of specific language.
12)	Legal (2/14)	3.2.2	The Fair and Equitable Treatment Clause	Clearly define the scope and content of the Fair and Equitable Treatment clause through the use of specific language.

13)	Legal (3/14)	3.3.2	Highlight the importance of upholding public policy interests in the preamble of the BITs	Highlight the importance of upholding high environmental standards in the preamble of the BITs
14)	Legal (4/14)	3.3.2	Highlight the importance of upholding public policy interests in the preamble of the BITs	Include a general exceptions provision that excludes measures to protect the environment entirely from the BITs, alternatively include a provision in the BITs that stipulates that the adoption of measures in the name of public interests such as environment and public health shall not constitute indirect expropriation.
15)	Legal (5/14)	3.3.2	Highlight the importance of upholding public policy interests in the preamble of the BITs	Include clear, non-ambiguous and binding environmental provisions similar to those in the US model treaty in the drafting of Colombia's future BITs.
16)	Legal (6/14)	3.3.2	Highlight the importance of upholding public policy interests in the preamble of the BITs	Include binding provisions in the BITs that require that the corporations make Environmental and Social Impact Assessments.
17)	Legal (7/14)	3.3.2	Highlight the importance of upholding	Include binding provisions in the BITs that require compliance with all national legislation.

			public policy interests in the preamble of the BITs	
18)	Legal (8/14)	3.4.1	Context- Colombia and Conflict	Include a provision in the BITs that conditions investor's rights upon the premise that they are not conducting business with people who are involved in armed groups carrying out human rights violations.
19)	Legal (9/14)	3.4.1	Context- Colombia and Conflict	Include a provision in the BITs that conditions investor's rights upon compliance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.
20)	Legal (10/14)	3.5.2	Make the legislative process transparent and public	Ensure that the legislative process is transparent. Include a provision in Colombia's future BITs stating that each party ensure that its proposed and enacted laws and regulations should be made publicly available so as to prevent investor-state disputes.
21)	Legal (11/14)	3.5.3	Make the arbitration procedure transparent and public	Include in Colombia's future BITs that the parties agree to apply the UNCITRAL Rules of Transparency in any arbitral dispute arising out of the BIT regardless if these are initiated under UNCITRAL Arbitration Rules, as well as in ad hoc proceedings.
22)	Legal (12/14)	3.5.3	Make the arbitration procedure transparent and public	Include a clause in the BIT stating that NGOs and Public Interest groups shall be allowed to file submissions with the arbitral tribunals during the proceedings.

23)	Legal (13/14)	3.5.3	Make the arbitration procedure transparent and public	Through democratic debates and public scrutiny, include NGOs and citizens in the negotiation process to provide input in matters that might affect the development of the state.
24)	Legal (14/14)	3.5.4	Impose a cap on the costs of the arbitration proceedings	Include a clause in the BITs imposing a cap on the costs of lawyers and arbitrators in the arbitration proceedings.
Extractive Industries' Governance				
25)	Governance (1/7)	4.2.1	Enhancing coordination and establishing network governance	<p>Create two national committees, one for hydrocarbons and one for mining, in which all relevant actors (companies, civil society, local and regional governments, national government) have a voice and a vote to grant exploration and extraction rights for oil and gas and for large-scale mining.</p> <p>Create regional committees with the characteristics and participation of the same actors from the national committee with the purpose of fostering coordination among institutions in the decision-making process to grant exploration and extraction rights for medium-scale mining projects.</p>
26)	Governance (2/7)	4.2.2	Decisions should be made based on reliable information	Use the governance network framework to foster active sharing and discussion of information among all actors in the extractive sector (the offering areas to bid, granting exploration and production rights, granting of mining titles, granting of environmental licenses, monitoring of extractive projects, allocation of royalties, etc.)
27)	Governance (3/7)	4.2.3	More transparency leads to more accountability	Decidedly move forward in the process of accession to the EITI.
28)	Governance (4/7)	4.2.3	More transparency leads to more	Create a web-based portal, which centralizes, organizes and makes readily, freely and easily accessible, at least the following information:

			accountability	<ul style="list-style-type: none"> - Areas opened for bidding. - E&P and TEA contracts. - Mining titles: areas, applicants, concession contracts, etc. - The amount of royalties paid, disaggregated by field/mine, and company. - Income tax revenue from extractive industries, disaggregated by company. - Type and amount of income tax exemptions, deductions, and the like, disaggregated by company. - Projects approved to be funded with royalties. - Local and regional procurement procedures. - Expenditure impact assessments.
29)	Governance (5/7)	4.2.3	More transparency leads to more accountability	Media and civil society should raise awareness about the importance of natural resources for Colombia's present and future economic development. They should start a public and massive campaign to this end, in order to stimulate demand for more transparency and accountability.
30)	Governance (6/7)	4.2.4	Capable institutions lead to more accountability and better resource management	Use network governance to enable information sharing between private sector, public sector, and academia, in the form of providing training to public officials in the local and regional governments, and in the regional environmental authorities.
31)	Governance (7/7)	4.2.4	Capable institutions lead to more accountability and better resource management	Increase investment in education for long-term capacity building
The Social Dimension of Extractives				
32)	Social	5.1.1	Legally Define	The government of Colombia must legally define the process and procedure for prior-consultation by adopting legislation (in contrast to a Presidential Decree or Directive), which

	(1/5)		the Process and Procedure for Prior-Consultation	establishes clear procedures on prior consultation and incorporates the standards from the jurisprudence of the Constitutional Court. The government should also establish a strong follow-up mechanism to ensure that agreements made during the process of prior consultation are upheld.
33)	Social (2/5)	5.1.2	Incorporate “Social License” as a Requirement for Obtaining National/Regional Environmental License	The Government of Colombia must incorporate Social License to Operate as a part of obtaining community consent for extraction by requiring mining companies to be sensitive to local cultural norms, create realistic expectations, develop fair conflict resolution mechanisms, be consistent and predictable regarding their ethical behavior but flexible enough to accommodate the needs of the community, and start the engagement process as early as possible. The national government should also formally recognize and respect the popular vote as a mechanism for local communities to veto or object mining operations. It should allow local “Consultas populares” to check the Central Government’s authority to regulate use of mining resources and therefore veto mining projects at the local level, in order to provide alternative channels to address social concerns and mitigate social conflict revolving mining projects.
34)	Social (3/5)	5.2.1	Provide Necessary Resources to Ensure Strong Community Participation in Social Development Projects	To avoid misunderstandings and conflicts between Companies and local environments, the government should make information about the Royalty System and the amounts given by the respective company more available and accessible. Companies should work with communities to provide workshops that train local leaders to better engage the government over decision making concerning Royalties needed for social projects in their locales. Companies have an interest to educate communities about the Royalty System and in supporting communities to demand these services from the government through the setting up of local foundations.
35)	Social (4/5)	5.2.2	Prioritize Oil and Mineral Producing Regions for Royalty Development	Given the immediate and detrimental impacts faced by local communities from the extractive process, as well as the environmental and economic impacts of extractive activities in regions with natural resources, the national government should allocate more funds to oil and mineral producing regions. This should be done by prioritizing these regions in the dispersal of social development funds and allocating revenues to address the direct economic and environmental costs of extractive projects to local communities.

			Funds	
36)	Social (5/5)	5.2.3	Formation of a “Social Development Fund” Financed by Extractive Companies and Managed by Independent Community Development Board	In order to ensure an equitable and accessible process of resource allocation through the regional development and compensation funds, the Colombian government should incorporate local community leaders and organizations in the decision making, budgeting and implementation process of these funds. Without the active participation of local community groups, the reform efforts will be unable to effectively address some of the main issues affecting poverty-stricken and socially marginalized communities. The social development funds should be managed by independent committees comprised of local, regional and national governments, extractive companies, and local community groups and leaders, in line with the World Bank’s guidelines.
Media				
37)	Media (1/9)	6.3.1	Poor resource capacity and lack of training	Provide supplemental funding for trips. News outlets should encourage and facilitate in-the-field reporting when possible. If they lack the resources, Colombian media organizations should apply for grants from national, regional or international philanthropic foundations.
38)	Media (2/9)	6.3.1	Poor resource capacity and lack of training	Offer financial assistance with funds from foundations or international organizations to journalists at national, and especially regional and local media to access training opportunities.
39)	Media (3/9)	6.3.1	Poor resource capacity and lack of training	Provide financial support to small community media in remote regions so they can invest in equipment and pay their personnel.
40)	Media (4/9)	6.3.2	Self-censorship and threats against press freedom	Empower and inform journalists about their rights so they can assert them.
41)	Media (5/9)	6.3.2	Self-censorship and threats against press freedom	Enhance collaboration between local, regional, and national media. This will allow local news outlets to share stories vital to their community that might be too risky to publish themselves.
42)	Media	6.3.2	Self-censorship	End of impunity is a shared responsibility of the legal system, law enforcement bodies, and

	(6/9)		and threats against press freedom	civil society. The laws are already in place, but law enforcement officials must prompt investigations and prosecute those that attack or threaten journalists. Civil society should also pressure to ensure that justice is served for every victim.
43)	Media (7/9)	6.3.3	Poor quality of public information about the extractive industries	Make databases user-friendly. Content should be understandable by journalists and public without technical expertise.
44)	Media (8/9)	6.3.3	Poor quality of public information about the extractive industries	Enact further legislation that defines the terms under which provision of information can be denied. Clarity about the circumstances in which a fundamental right can be trumped is essential.
45)	Media (9/9)	6.3.4	Collusion between private companies and news media	The Colombian Press Association should draft an ethics code with severe sanctions on journalists who accept bribes or gifts in exchange for biased information.
Environment				
46)	Environment (1/12)	7.2.2	Strengthen alignment of national and regional environmental management by establishing additional revenue streams for both MADS,	Securing a long-term source of revenue for CARs can remove some dependency on municipal level of income and counteract risk of capture by local interest. Furthermore, strengthening MADS to ensure regulatory compliance of the regional CARs results in closer cooperation without the loss of their autonomy. Finally, leaving all licensing decisions to ANLA secures careful environmental consideration of a project despite its location, and protects CARs from company influence.

			CARs, and ANLA.	
47)	Environment (2/12)	7.3.1	Increase environmental regulations to match them with international standards.	The Colombian Government must impose stricter environmental regulations regarding air, water and soil in attempt to conserve its biodiversity and protect population's health. These standards can vary for different types of discharges and re-use purposes if applicable (for example water for industrial use versus drinking water) to optimize the overall costs of pollution control infrastructure and continue to present and attractive environment for FDI.
48)	Environment (3/12)	7.3.2	An environment license must be acquired before exploratory drilling phase of all mining projects.	This is an important safeguard for the environment, as it will require the company to submit an EIA. The Government must reintroduce legislation that makes it a requirement for all mining licensees to submit an EIA before the exploratory phase commences. At a minimum, ANLA should move upstream and follow Minnesota's example to gain at least minimum regulatory oversight of exploration activities, and move to license at exploration stage once it has the capacity to do so. ANLA should require that EIAs be performed by recognized independent environmental consultancy agencies, paid by the extractive company. CARs can then monitor exploratory activities and report back to ANLA. Full compliance is necessary to maintain the exploratory license..
49)	Environment (4/12)	7.3.2	Digitalize through Geographic Information System (GIS)	Digitalize through Geographic Information System (GIS) the Environmental Impact Assessment and licensing process to incorporate into national database to better understand environmental baselines. It is important to design different tiers of publicly available information to protect companies' rights for exploitation and preserve the competitiveness of FDI in Colombia, while maintaining national databases up t
50)	Environment (5/12)	7.3.3	Establish environmental baselines and include guidelines for environmental impact assessment and	Establish environmental baselines and include guidelines for environmental impact assessment and fair compensation in the EIS. The guides should contain specific information regarding the elements used to assess environmental impacts and adjustments showing the characteristics of environmental constituents.

			fair compensation in the EIA.	
51)	Environment (6/12)	7.3.3	Make all EIA process final decisions publicly available.	EIS' and final decisions on environmental licenses should be made available in electronic form on company or government websites during and after the review period. This can invite the participation of those not directly involved with the public or private entities but with equal interest in the preservation of the environment.
52)	Environment (7/12)	7.3.3	Public participation in the EIA process should extend to the entire population	Public participation in the EIA process should extend to the entire community, not just indigenous and African communities.
53)	Environment (8/12)	7.3.4	Enhance performance monitoring and enforcement capacities	Enhance performance monitoring and enforcement capacities to ensure compliance against environmental standards and also allow for timely mitigation action in case of contingencies and prevent social conflicts. Having third party agencies perform monitoring activities can reduce the required overhead in public organizations, reduce the financial burden for the state and enhance the reliability and transparency of the data management process.
54)	Environment (9/12)	7.4.1	Prioritize frequent inspections of underground mines.	Colombia should prioritize frequent inspections of underground mines. With limited resources, monitoring and compliance should be focused on inspecting methane levels, drainage systems, and company contingency plans for underground mines. While open pit mining outweighs environmental impacts of underground mines, it is absolutely necessary to be proactive in protecting the health and lives of Colombian miners.
55)	Environment (10/12)	7.4.2	Prioritize ore processing site technology development and education before formalization.	Prioritize ore processing site technology development and education before formalization. Formalization on its own may adjust Colombia's internal census numbers, but will not sufficiently address the immediate need for environmental compliance.

56)	Environment (11/12)	7.5	Strengthen the environmental considerations of current contracting schemes in the oil and gas sector	<p>Strengthen the environmental considerations of current contracting schemes in the oil and gas sector to include:</p> <ul style="list-style-type: none"> - Differentiated water treatment standards for production water, particularly for reinjection and reuse purposes, and preservation of the marine environment. Current legislation only presents recommendations and reporting procedures. Colombia should move towards the adoption of best available technologies and international standards, and ban all discharges prior to production. - Prevention of flaring and fugitive emissions of methane to reduce GHG emissions and contamination due to acid rain. - Definition of special hazardous waste and mud cutting management requirements. Large volumes of hazardous waste are generated throughout the drilling process, and while mandated in the current regulatory framework not enough waste management and final disposal sites are in place.
57)	Environment (12/12)	7.6	Enhance the National Contingency Plan and establish and Environmental Contingency Fund	<p>Enhance the National Contingency Plan and establish and Environmental Contingency Fund. The resources of this fund shall ensure immediate response in case of contingencies. Outlays should be compensated through predetermined taxes, fines in case of non-compliance and extraordinary payments commensurate to the financial burden of environmental damage resulting from the contingency.</p>

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