

## Extractive Sector Initiative: Optimizing the Conditions for Natural Resource Development

### I. Basic Information for TC

▪ Country/Region:	Regional
▪ TC Name:	Optimizing the Conditions for Natural Resource Development
▪ TC Number:	RG-T3037
▪ Team Leader/Members:	Jose Luis Irigoyen (INE/INE), team leader; Virginia Snyder (INE/ENE) co-team leader, Hector Baldivieso (ENE/CNI); Martin Walter (INE/INE), Lenin H. Balza (INE/INE), Carlos Sucre (INE/INE), Ramon Espinasa (INE/INE); Julio Rojas-Lara (VPS/ESG); Javier Jimenez (LEG/SGO), Liza Lutz (LEG/SGO)
▪ Taxonomy	Research and Dissemination
▪ Date of TC Abstract authorization:	17 April 2017
▪ Beneficiary:	Argentina, Guyana, Nicaragua, and Peru
▪ Executing Agency	Inter-American Development Bank, through its Infrastructure and Energy Department
▪ Donors providing funding:	US\$200,000.00 Ordinary Capital Strategic Development Program for Infrastructure (OC-INF) US\$145,000.00 Canadian Facility for the Extractive Sector (CANEF RG-X1262)
▪ IDB Funding Requested:	US\$345,000.00
▪ Local counterpart funding, if any:	NA
▪ Disbursement period (which includes Execution period):	18 months
▪ Required start date:	01 August 2017
▪ Types of consultants:	Firms and individual contractuels
▪ Prepared by Unit:	INE/INE
▪ Unit of Disbursement Responsibility:	INE/INE
▪ TC Included in Country Strategy:	N
▪ TC included in CPD:	N
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	(i) institutional capacity and rule of law, and (ii) climate change and environmental sustainability

### II. Objectives and Justification of the TC

- 2.1 This project supports efforts to strengthen conditions for extractive sector (oil, gas and mining) development in Latin America and the Caribbean (LAC), through: (i) needs assessment and activity road-mapping for the establishment of new regulatory frameworks in the hydrocarbon sector; and (ii) scoping opportunities to reinforce the legal, institutional, and policy frameworks that underpin the mineral sector. The project -- which will be implemented in Argentina, Guyana, Nicaragua and Peru-- will support the generation of knowledge products and dissemination activities to strengthen the

technical capacity of the stakeholders directly responsible for improving sector performance in each country and, more generally, of the decision-makers in LAC countries facing similar challenges.

- 2.2 Extractive industries -when they are adequately managed- contribute to long term socioeconomic development (Venables 2016). In the absence of sufficient legal and institutional capacity, however, the activities in the oil, gas and mining sector can trigger major social, environmental and economic risks for all stakeholders, including government, industry and civil society (Balza and Espinasa 2015; Kemp, Worden and Owen 2017; Brereton and Parmenter 2006). Governance weaknesses – encompassing inadequate institutional frameworks, writ large, and private sector practices-- hinder both the industry’s performance and competitiveness and the government’s capability of countries to leverage investments in the sector to promote responsible socioeconomic growth and environmental sustainability (NRGI 2017). Indeed, although oil, gas and mining in LAC account for approximately 4% of regional GDP, and approximately 50% of total exports for resource-rich countries,<sup>1</sup> conditions for natural resource development remain imperfect: countries continue exploring opportunities to strengthen the sector’s socioeconomic contribution and to mitigate potential negative socioenvironmental impacts through improvements of regulatory, institutional and policy frameworks (Vieyra and Masson, 2014).<sup>2</sup> Extractive industries insufficiently integrated with national and local economies forgo opportunities for promoting shared resource-based economic development (Bastida 2014).<sup>3</sup>
- 2.3 Despite neighboring oil producers in Suriname, Trinidad & Tobago, and Venezuela, Guyana has never been an oil producer. Since 2008, foreign companies have embarked upon exploratory activities and made significant discoveries of crude oil in 2015 and 2016, estimated around 800 million to 1.4 billion barrels of oil equivalent (bboe).<sup>4</sup> These discoveries would place Guyana among the 40 largest reserves holders in the world, ahead Brunei and Equatorial Guinea and behind neighbors Colombia and Argentina.<sup>5</sup> Early figures<sup>6</sup> estimate that production could reach 250,000 barrels of oil equivalent per day (boe/day).<sup>7</sup> Should these production levels be met,

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<sup>1</sup> Not including Mexico, due to the confounding effect of the Maquila/NAFTA manufacturing scheme.

<sup>2</sup> Institutional safeguards can help prevent mineral and hydrocarbon revenues from appreciating real exchange rates and contributing to a concentration of the economy on extractive activities to the detriment of the rest of the economy (i.e. “Dutch Disease”; Sachs and Warner, 2001); they can help detract from rent seeking and corruption (Karl, 1997). Specific tools, such as effective counter-cyclical mechanisms and sound environmental monitoring governance systems, can make LAC economies more resilient to terms-of-trade shocks from changes in mineral commodity prices, and reduce socioeconomic externalities (WDI 2013; ECLAC 2013; WEF 2012). They can also foster new investments to propel resource-based development.

<sup>3</sup> Modern extractive industry operates globally and the production process is increasingly fragmented; the need to reduce costs and to respond to dynamic investment environments drives a process of increasing outsourcing of non-core activities and supply chain diversification (OECD Dev 2014).

<sup>4</sup> These discoveries were made in the offshore Stabroek block. The rights to this block – located 193 km from shore – are held by ExxonMobil (45%), Hess (30%) and CNOOC (25%). For details on the discoveries see Press Release [1](#), [2](#), and [3](#).

<sup>5</sup> Brunei holds 1.1 bboe in reserves and produces 115 boe/day in production; Equatorial Guinea holds 1.1 bboe in reserves and produces 280 boe/day; Colombia holds 2.0 bboe in reserves and produces 890 boe/day; Argentina holds 2.0 bboe in reserves and produces 612 boe/day.

<sup>6</sup> These figures were presented by the rights-holding company, which has already applied for a production license (see [AP report](#)).

<sup>7</sup> ExxonMobil estimates production around 100,000 boe/day from the Liza wells site in the Stabroek block using a floating facility (see [Project Overview](#)), while industry estimates place production from the Payara field – also in Stabroek – around 150,000 boe/day (see [Estimates](#))

the value of yearly oil production<sup>8</sup> could reach US\$3.65 billion.<sup>9</sup> This figure represents 115% of the Guyanese GDP, which stands at US\$3.17 billion. At present, the Guyanese petroleum sector is governed through a variety of institutions aimed mainly towards regulating imports and distribution of oil products and not towards oil and gas production. There is a need to build up regulatory for the oil and gas sector, ahead of the start of production, including issues such as: production level supervision and certification, data collection and management, design of taxes and royalties, contract design, technology transfer programs, revenue collection and management capacity, environmental rules and regulations, health and safety standards and monitoring, specialized labor local training, port and airport facilities construction and management, peripheral infrastructure development, or local content stipulations.

- 2.4 Nicaragua has long been developing its natural resources and has established extensive regulatory and institutional frameworks for its mineral sector, unlike those available in Guyana for its nascent upstream hydrocarbon sector.<sup>10</sup> Still, Nicaragua's mining sector has developed rapidly in the last ten years: gold production in 2016 was 264,000 ounces, and approximately 30% of production was artisanal in origin.<sup>11</sup> The annual value of mining exports reached about US\$400 million, making mining one of the three main export sectors. Forecasts from the Ministry of Energy and Mines (MEM) suggest that in the medium term, medium-term gold production could rise to about 150,000 ounces annually. In view of the sector's development, the Government of Nicaragua - through the MEM - has adopted a series of accompanying measures, aimed at improving inter-institutional coordination for the management of the licensing process and concessions (together with the Ministry of Environment and Natural Resources and municipal and regional authorities) and promoting the formalization of artisanal miners. Authorities have identified further opportunities to improve sector governance efficiency through enhancement of institutional, normative and operational frameworks, increasing technical capacity, and modernizing information management systems. More recently, in June 2017, the government established a state-owned company, the *Empresa Nicaragüense de Minas* (ENIMINAS), to participate more extensively in sector operations.<sup>12</sup>
- 2.5 Argentina, Bolivia and Chile hold nearly two-thirds of the world's lithium reserves - what is known as the *Lithium Triangle*<sup>13</sup> - at a time when demand for the resource is soaring worldwide. Lithium is a crucial element in the batteries that power cellphones, GPS, laptops, and many other electronic devices and is set to continue growing with the emergence of Electric Vehicles and Energy Storage Systems. Argentina alone

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<sup>8</sup> Using an estimated crude oil price of US\$40 per barrel

<sup>9</sup> Industry analysts place the upper bound of production estimates at 350,000 boe/day (See [Analysis](#)).

<sup>10</sup> Nicaragua's main legal framework for the mining industry includes "the Nicaraguan Political Constitution; Law No. 387 "Special Law on the Exploration and Exploitation of Mines" ("Law 387"), its regulations (Decree No. 119-2001, "Regulations to Law 387"); Law No. 316 "General Law on the Exploitation of Natural Riches" ("Law 316"); Law No. 217 "General Law on the Environment and Natural Resources" ("Law 217"), and its regulations (Decree No. 9-96, "Regulations to Law 217"); as well as some others laws, administrative or technical norms, regulations, etc., governing other specific aspects, activities and exploitation of other natural resources in connection with the mining activity." Taken from: [Alvarado and Asociados](#) (July 2017)

<sup>11</sup> On the sector's social and economic impact in Nicaragua see recent sector assessments: (i) FUNIDES and CAMININC (2016) *Impacto Económico y Social de la Minería en Nicaragua*. Noviembre 2016, Managua; and (ii) IEEPP (2017) *La Minería industrial en Nicaragua: una mirada desde la óptica fiscal*. Instituto de Estudios y Políticas Públicas, Centro Humboldt. Managua.

<sup>12</sup> See parliamentary press [release](#)

<sup>13</sup> US Geological Survey. See [Mineral Commodity Summaries 2017](#)

accounts for 11% of total global lithium production: it is the world's third-largest producer and is expected to become the largest exporter of the metal over the next decade. Optimizing the development of the lithium industry will be critical for the region to ensure that the potential of the sector to contribute to long-term economic welfare is realized. To this end, countries will need to ensure the lithium development industry is effectively integrated into its economy through a combination of upstream, downstream, side-stream and lateral linkages.

- 2.6 Resource-based economic growth in Peru has been crucial to the reduction of poverty. Since 2005, the Peruvian economy accelerated its growth, which resulted in significant per capita income growth (from US\$ 2,790 to US\$ 6,370), and cutting poverty by more than half (from 49.2% to 22.7% in 2014), and extreme poverty by 60% (reaching 4.3%). Within this context, the contribution of mining to economic growth in Peru has been significant and is currently reflected in 58% of total exports, 8.8% of GNP, and 9.2% of internal taxes in 2014 (SUNAT). The fundamental axis of this dynamic development of mining has been its capacity to attract foreign and national investments. At the same time, following global trends, there has been growing concern about the social and environmental impact that mining activities can generate, and the contributions that the mining sector make to sustainable development. Unlike some of its neighbors, which are pursuing encompassing institutional strengthening and capacity building efforts, Peru has already established a sophisticated framework for sector development and demands more targeted support. To address challenges related to sector planning and decision-making, authorities are prioritizing efforts to improve specific processes associated with permitting of extractive sector projects and modernizing information management systems.
- 2.7 Despite their obvious diversity, the challenges of the extractive sector in Argentina, Guyana, Nicaragua and Peru illustrate some of the most urgent concerns for resource-rich LAC countries. The needs of the countries targeted in this project are prototypical in the region and the lessons learned in promoting best practices in each one of them will also benefit LAC countries dealing with similar problems. Moreover, it will support the implementation standardized methodologies for sector improvement. The target countries already benefit from support from the IDB as well as other technical and financial assistance sources, provided through bilateral and multilateral programming, albeit support for strengthening governance in the extractive sector is often limited. Ongoing and past analytical efforts provide important contextual and sector information for project implementation; the review of existing work will be a critical aspect in all country efforts.
- 2.8 This project is aligned with both the Updated Institutional Strategy for the 2016-2019 period approved by the Governors in March 2015, and IDB country strategies, on key themes including (i) institutional capacity and rule of law, and (ii) climate change and environmental sustainability.<sup>14</sup> It will provide useful information for decision-makers to lead institutional strengthening and reform efforts. It targets a critical sector for climate change and sustainability. The TC is also aligned with the main objectives of the OC-INF, which seek to promote both greater investment and performance in region's infrastructure, as well as to improve the design and monitoring of public policies in the sector. In addition, the TC is aligned with the overarching goals of the Extractive Sector Initiative (ESI) of the Inter-American Development Bank (IDB) which supports the

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<sup>14</sup> IDB Group Country Strategy for [Argentina, Guyana, Nicaragua y Peru](#).

coordination of the Bank's efforts to optimize conditions for the development of oil, gas and mining sector in a way that maximizes socioeconomic benefits for countries, and mitigates potential risks. Better hydrocarbons and mining governance can help make a significant contribution to reducing emissions and negative externalities on biodiversity, ecosystems and livelihoods.

### III. Description of activities/components and budget <sup>15</sup>

3.1 **Component 1. Hydrocarbon Sector:** This component supports the identification of opportunities to strengthen the hydrocarbons sector in Guyana through:

3.1.1 **GUYANA.** Activity 1.1. Execution of a needs assessment and roadmap for establishment of a regulatory framework for responsible hydrocarbon sector development, examining issues such as: production level supervision and certification, data collection and management, design of taxes and royalties, contract design, technology transfer programs, revenue collection and management capacity, environmental rules and regulations, health and safety standards and monitoring, and specialized labor local training. Targeted issue areas will be determined through engagement (interviews/workshops/etc.) with critical sector stakeholders including government, industry, and civil society organizations, and with other firms and organizations such as the World Bank Group and others.

3.2 **Component 2. Mineral Sector:** This component will finance three activities aimed at improving conditions for the responsible development of the mining sector in Nicaragua, Argentina, and Peru, through:

3.2.1 **NICARAGUA.** Activity 2.1. Detailed analysis of the management framework for the mining sector in Nicaragua, through an evaluation of the current institutional setup and capacity, regulatory system, and implications for medium and long-term sector development. The evaluation and accompanying recommendations will be prepared in close collaboration with the MEM and other relevant ministries, the private sector (e.g. Chamber of Mines, operating companies, etc.), municipal and regional governments, and community representatives. It will provide fact-based recommendations and potential priority areas for potential intervention by country authorities

3.2.2 **ARGENTINA.** Activity 2.2. Comprehensive framework report that effectively links lithium sector activities to other key sectors of Argentina's economy. This effort will support identification of the factors that have constrained the full potential of the lithium sector in the past and the specific opportunities and strengths that must be leveraged if the sector is to contribute to increased wealth creation and poverty reduction. The analysis will review relevant market trends and local implications, and specific challenges in prospective areas (e.g. infrastructure, institutions, labor market capacity, etc.) relevant for strategic planning and sector governance.

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<sup>15</sup> The project team will request no-objection from IDB country liaisons ahead of implementation of in-country activities.

3.2.3 **PERU.** Activity 2.3. Targeted process improvement activities in Peru, including: analysis of available mining sector information assets, data collection systems / methodologies and data management platforms, and technical, human and financial resources necessary for their treatment; implementation of a platform for enhanced use of information resources for decision-making processes and for public access; and developing environmental assessment capacities through training for public officials.

3.3 **Component 3. Knowledge Dissemination:** This component will finance editing, translation and publication of the knowledge products resulting from Components 1 and 2. Knowledge dissemination efforts will ensure that lessons learned in the targeted countries contribute to wider awareness of the challenges and opportunities associated with natural resource development at the local, national, and regional level. The component will also support targeted outreach efforts (dissemination workshops, seminars, etc.).

### Indicative Budget

Activity/Component		IDB Funding OC-INF	IDB Funding CANEF	Total Funding
<b>Component 1. Hydrocarbon Sector</b>		<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ 100,000</b>
Guyana	Production sharing agreement (Benchmarking)	\$ 30,000	\$ -	\$ 30,000
	Pre-feasibility study: oil and gas supply base	\$ 40,000	\$ -	\$ 40,000
	In-depth assesment of Petroleoum Comission Bill	\$ 30,000	\$ -	\$ 30,000
<b>Component 2. Mining Sector</b>		<b>\$ 80,000</b>	<b>\$ 145,000</b>	<b>\$ 225,000</b>
Argentina	Technical study: Argentina's lithium industry - upstream, downstream, side-stream and lateral linkages.	\$ 24,000	\$ -	\$ 24,000
	Workshop with key countries stakeholders	\$ 16,000	\$ -	\$ 16,000
Nicaragua	Sector framework evaluation and action Plan	\$ 24,000	\$ -	\$ 24,000
	Workshop with key countries stakeholders	\$ 16,000	\$ -	\$ 16,000
Peru	Scoping report on information management	\$ -	\$ 15,000	\$ 15,000
	Information Management Platform	\$ -	\$ 80,000	\$ 80,000
	Capacity building program for the national environmental certification agency	\$ -	\$ 50,000	\$ 50,000
<b>Component 3. Knowledge Dissemination</b>		<b>\$ 20,000</b>	<b>\$ -</b>	<b>\$ 20,000</b>
Regional	Editing	\$ 5,000	\$ -	\$ 5,000
	Translations	\$ 5,000	\$ -	\$ 5,000
	Publications	\$ 5,000	\$ -	\$ 5,000
	Outreach	\$ 5,000	\$ -	\$ 5,000
<b>TOTAL COST</b>		<b>\$ 200,000</b>	<b>\$ 145,000</b>	<b>\$ 345,000</b>

- 3.4 The total Budget for this operation is US\$345,000, which will be co-financed by the OC-INF (US\$200,000) and by the Canadian Facility CANEF RG-X1262 (US\$145,000).

#### **IV. Executing agency and execution structure**

- 4.1 The Bank will act as the executing agency for the administration of the project. The IDB will lead implementation, programmatic oversight of the different activities and coordinate results reporting to both the INF Fund coordinator and the CANEF Facility coordinator on the project's progress and results.
- 4.2 The Bank will contract individual consultants, consulting firms and non-consulting services in accordance with Bank's current procurement policies and procedures established in AM-650 (GN-2765-1) and operational guidelines (OP-1155-4).

#### **V. Major issues**

- 5.1 The main risk for the implementation of the technical cooperation is that of insufficient access to qualified information for adequate sector assessment and implementation of governance strengthening activities. To mitigate this, the project team will implement all activities in close coordination with IDB country offices and key country stakeholders, including representatives from government, industry and civil society. To further mitigate this risk, the team will draw from well-established and recognized best practices and methodologies, which will help avoid risks and address potential issues with sector data - i.e. imputed and estimated data, projections and simulations, etc. We are also setting different layers of peer reviewing throughout the process to ensure quality and relevance.
- 5.2 In some of the target countries, such as Nicaragua, the IDB has limited established programming and support for work in the extractive sector. To mitigate the risk that activities in the sector will not be conducted in a coordinated fashion with other IDB operations, the team will liaise with the country office - and designated sector specialists –during the implementation of all TC activities.
- 5.3 To mitigate the risk that the project might not exhaustively account for all opportunities to improve extractive sector management in target countries, the team will support counterparts in scoping potential sources of additional financing to extend assessment efforts and address prioritized needs. Active engagement with and awareness of the work of other organizations operating in the field will also help avoid any potential overlaps with ongoing efforts.

#### **VI. Exceptions to Bank policy.** None apply.

#### **VII. Environmental and Social Strategy**

- 7.1 As per the IDB Social and Environmental Safeguards Screening Tool, the project Classification is "C"; the project implementation has no associated potential negative environmental and/or social impacts. See, [Safeguard Policy Filter Report](#) and [Safeguard Screening Form](#).

**Required Annexes:**

- [Results Matrix](#)
- [Terms of Reference I](#)
- [Terms of Reference II](#)
- [Terms of Reference III](#)
- [Terms of Reference IV](#)
- [Terms of Reference V](#)
- [Procurement Plan](#)