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**Committee of Experts on  
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Item 3(e) of the provisional agenda

**Update of the Handbook on Selected Issues for Taxation of the Extractive Industries by  
Developing Countries**

**Chapter I: Overview**

**Note by the Secretariat**

*Summary*

The current text for the Overview Chapter is an update of the text in the previous version of the Handbook rendered necessary by the addition of new chapters on: (i) Tax Incentives; (ii) Tax Treatment of Subcontractors and Service Providers; (iii) Production Sharing Contracts; and (iv) Tax Treatment of Financial Transactions in the Extractive Industries. Furthermore, two existing chapters, Transfer Pricing and Decommissioning, were updated in part to align with the new chapters.

The update of the Handbook on Selected Issues for Taxation of the Extractive Industries by Developing Countries comes to conclusion with the background of the global economic devastation caused by the Covid-19 pandemic. In that context a substantial redraft of the section dealing with extractive industries data ensured in part to take into account the current situation and to adjust assumptions for future production as well.

The draft Chapter is presented for DISCUSSION and APPROVAL. The Subcommittee and the Secretariat are fully aware that in normal conditions the text would be presented twice to be

## Chapter 1

### OVERVIEW

#### Executive summary

1. The purpose of this chapter is to give an overview of some of the taxation issues for extractive industries in developing countries and the interactions between them, as well as options available, and the likely effect of choosing such options in particular circumstances. This is intended to assist policy makers and administrators in developing countries as well as to provide information to other stakeholders. The background contained in this chapter will provide a broader context for viewing the overall issue of natural resource development and the specific issues addressed in more detail in additional chapters.

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2. The work covered by this and each of the additional specific-issue chapters stems from a mandate given by the United Nations Committee of Experts on International Cooperation in Tax Matters (United Nations Tax Committee) to the Subcommittee on [Subcommittee on Handbook on Taxation of Extractive Industries](#) ~~Extractives Industries Taxation Issues for Developing Countries~~ to consider, report on and propose guidance on extractive industries taxation issues for developing countries, [in the form of updates to the UN Handbook on Selected Issues for Taxation of the Extractive Industries by Developing Countries \("the Handbook"\)](#) ~~focusing on the most pressing issues where guidance from the United Nations Tax Committee may most usefully assist developing countries~~. The work will seek to provide policy and administrative guidance at a very practical level.

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3. This chapter is intended to broadly identify issues of taxation of the extractive industries; address several of the most significant ones in short form; help build awareness; and, ultimately, along with the additional specific-issue chapters, assist those faced with these issues to make policy and administrative decisions in relation to them. [This publication is an update of the previous version issued in 2018 as a product of the UN Committee of Experts on International Cooperation in Tax Matters during for the period 2014-2017. It contains new chapters on topics not discussed in the previous edition as previous chapters will remain largely untouched except some adjustments rendered necessary by the introduction of new topics, an update of data where new numbers are available, and the current world-wide humanitarian situation induced by the COVID-19 pandemic.](#)

#### Background

4. Over the past 18 months, the world has been dealing the Covid-19 pandemic which has put the world economy on its knees. It started as humanitarian crisis but quickly evolved into a global socio-economic emergency with inter-generational devastating effects unseen since the World War II, leaving no country unharmed and almost all social groups affected with the brunt of the impact to the already vulnerable groups. Recent estimates indicate that COVID-19 may have pushed 71 to 100 million people into extreme poverty, and consequently erasing any gain recorded since 2017<sup>1</sup>. In developing countries, the COVID-19 crisis is having an immediate and amplified impact on the poorest and most vulnerable regions. Some experts do not hesitate to call what they see as a "lost decade" if the international community

<sup>1</sup> World Bank report (June 8, 2020), [Projected poverty impacts of COVID-19 \(coronavirus\): https://www.worldbank.org/en/topic/poverty/brief/projected-poverty-impacts-of-COVID-19](https://www.worldbank.org/en/topic/poverty/brief/projected-poverty-impacts-of-COVID-19)

does not come together quickly to propose adequate solutions with bold measures commensurate to the magnitude of devastation brought about by the pandemic.

5. It is against this backdrop that the Deputy Secretary-General in collaboration with Regional Economic Commission have conveyed a series of Regional Roundtables to assess the potential for the extractive industries to be an engine of the recovery and for the rebuild of the economy especially for natural resource-rich developing countries.

6. Extractive industries can generate substantial revenues for resource-rich countries to be used to accelerate their economic recovery and regain the path to sustainable development by investing in SDGs. It is important to note however, that developing countries endowed with natural resources for various reasons have not always been able to collect appropriate level of revenue to finance their development and to invest in safety nets crucial for achieving SDGs.

7. The sector is closely linked to many SDGs, including: i) affordable and clean energy; ii) decent work and economic growth; iv) industry innovation and infrastructure; v) peace and security; and Partnership for the Goals. The sector is, at varying degrees, linked to almost all other SDGs as well. As a case in point, it is noteworthy mentioning the extractive industries' dominant economic, social and political role in the lives of 3.5 billion people living in 81 countries, and accounting for a quarter of the world GDP.

8. With the right sectoral policy and an effective tax administration, the extractive industries can be an engine for increased foreign direct investment (FDI), a substantial source of public revenue, and foundation for reduced poverty programs at domestic level. Taking stock of such a potential, resource-rich developing countries can focus their efforts to key areas such as revenue collection and transparency, effective regulatory framework, environmental impact mitigation and rehabilitation, and increased local value and diversification.

9. In the current pandemic-ravaged world economy, all regional Roundtables sought to answer the generic question of how extractives can be leveraged as an engine for economic recovery and sustainable development especially for low- and middle-income countries. A related question being how extractive industries can be aligned with the outcomes of the Financing for Development programme in the era of COVID-19 to use the sector to anchor an economic rebuilding aligned with the SDGs and the Paris Agreement on Climate Change.

10. The Roundtables debated those important questions and raised several key points that need to be addressed if the extractive industries are to be the real engine of change in "building back better". Some of the recommendations were relative to the unique situation of each region but some key takeaways are as follows:

- Need for appropriate industrial policies to increase the added value of mineral exports;
- Creating fiscal buffer, through long term savings;
- Adequate and investment-conducive legal framework;
- Technical and capacity-building support to combat illicit financial flows, through traceability and transparency in the value chain ;
- Effort to integrate extractives into the circular economy;
- Use extractive industries and revenue to diversify the economy;
- Develop extractive industries in an environmentally-sustainable way (transforming waste into resource recovery, provision for decommissioning activities...)
- Convene stakeholders to create norms, standards, and disclosure frameworks.

11. A final Roundtable took place in April 2021 and here is key message... [to be completed when the Roundtable takes place]

12. Despite the disruption caused by the Covid-19 pandemic in the global economy and particularly the mining, and oil and gas sector, the industry outlook remains strong in the long run. Therefore, the analysis and description provided in the previous edition of the Handbook and in the added chapters remain applicable, notwithstanding a clear trend towards the growing importance to manufacture of cleaner energy technologies for several key minerals and metals.

13. As the world moves toward containment of the pandemic by immunization, economic activities, including mining and oil and gas, are steadily regaining ground. For instance, according to International Energy Agency (IEA), under the Stated Policies Scenario (STEPS), which takes into account current policies by governments aimed at greenhouse gas emissions reduction, in 2021 the global oil demand will continue to recover from its historic drop in 2020 and is expected to surpass the pre-crisis level by 2023. Likewise, natural gas recovers quickly from a drop in demand in 2020 as demand rebounds by almost 3% in 2021 to rise by 14% above 2019 levels by 2030<sup>2</sup>.

14. Extractive industries are engaged in finding, developing, producing and selling non-renewable natural resources such as crude oil, natural gas and mining products.<sup>3</sup> The extractive industries are an important sector and thus a potentially important revenue base in many developing countries and emerging economies.

~~Given projections that by 2040 world population will grow by 2 billion persons and per capita gross domestic product (GDP) will double, the International Energy Agency (IEA) forecasts that the world's energy requirements will increase by almost one third by 2040. While the growth rate of renewable energy supplies will far exceed that of conventional fuels, and energy efficiency improvements will be substantial, the IEA projects that oil and natural gas demand will increase by 12 per cent and 49 per cent, respectively, compared to 2014 levels.~~

15. The IEA, under the STEPS, expects the world energy demand to increase by 9 percent by 2030 and by 19 percent by 2040 while oil demand increases 5 percent and 6 percent by 2030 and 2040 respectively. The demand for natural gas is projected to be stronger on the two periods with increases of 15 percent by 2030 and 30 percent by 2040. Without significant technological through, these non-renewable source of energy will continue to be the major source of energy in the world by 2040. Combined, oil and gas will represent 53 percent of global energy demand in 2040. Coal demand is also expected to rise (by 5 per cent) over the same timeframe such that these three fuels, without other additional significant breakthroughs, will account for approximately 74 per cent of world energy needs in 2040 (down from approximately 81 per cent in 2014).<sup>4</sup>

~~The IEA also recently forecast that to meet the increased energy needs of the world, \$68 trillion of new investment will be required by 2040.<sup>5</sup> The IEA projected nearly two thirds of energy-related~~

<sup>2</sup> See International Energy Agency, *World Energy Outlook 2020, Outlook for Energy Demand*. Available at <https://www.iea.org/reports/world-energy-outlook-2020/outlook-for-energy-demand#abstract>

<sup>3</sup> Crude oil and natural gas are key energy resources, as well as inputs to other worldwide products, such as chemicals, plastics, and fertilizers. Hard minerals comprise a wide variety of products, such as copper, iron, gold, bauxite and numerous rare earth minerals, which are also used as inputs for many essential products, such as steel, aluminum, plastics, and fertilizers.

<sup>4</sup> See International Energy Agency, *World Energy Outlook 2016*. Available at <https://webstore.iea.org/download/direct/202?fileName=WE02016.pdf>. All amounts are based on the New Policies Scenario in the Outlook, which reflects the Paris Agreement that became effective in November 2016, with certain adjustments.

<sup>5</sup> See International Energy Agency, *World Energy Outlook 2015*. Available at <http://www.iea.org/publications/freepublications/publication/WE02015.pdf>.

investment to be in emerging economies.<sup>6</sup> This presents major challenges, but also significant economic development opportunities.

16. In its October 2020 report, the IEA estimates the investment needed to achieve universal energy access at \$40 billion per year between 2021 and 2030, with large share going to electricity. This is double the annual investment under STEPS but falls far short of the annual investment of \$3 trillion that is required by 2030 in the Sustainable Development Scenario (SDS). In fact, the SDS requires annual increase of 25% from 2021 to 2050. However, the large increase comes from renewable-based power which doubles the current level between 2020 and 2050. This increase in investment will also be partially offset by reduced fuel cost to mitigate the impact on consumers.

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17. It is against this backdrop that the IEA reports that the world is not on track to meet the energy-related components of the Sustainable Development Goals (SDGs). With the current trend three SDGs most related to energy consumption and production, to achieve universal access to energy (SDG 7), to reduce the severe health impacts of air pollution (part of SDG 3) and to tackle climate change (SDG 13), are unlikely to be met.

18. A substantial increase in investment in renewable energy will be needed. In its report on minerals for climate action, the World Bank reports that the production of minerals, such as graphite, lithium and cobalt, could increase by nearly 500% by 2050<sup>7</sup>, to meet the growing demand for clean energy technologies. This is a big opportunity for countries endowed in such minerals, especially developing countries, which with the appropriate policies can reap the benefits of their mineral production to fund the SDGs.

19. With minerals playing crucial roles throughout economic sectors, especially in agriculture, construction, energy, transportation, electronics, and medicine, the projections for population, economic and energy growth translate into increased demand for minerals. For example, steel demand could potentially exceed 2010 levels by 120 per cent in 2040, with the greatest increase being in emerging economies. Similar results are projected for copper.<sup>8</sup> The International Council on Mining and Metals (ICMM) has underscored the significance of regions with emerging economies, noting the large investments that were recently undertaken in Latin America, Africa and parts of Asia, and the outlook that these will likely increase in the next 10 years.<sup>9</sup>

20. Against this macroeconomic backdrop, a political, financial, monetary, and legal stability, as well as a labour market-fiscal stability, are crucial in developing countries' efforts to attract foreign direct investment in the extractive industries to contribute to mobilizing domestic resources for development. While resource development will be needed to meet worldwide energy demand and foster economic growth, the extractive industries are and will increasingly become an important sector in many developing countries and emerging economies. Not only will the direct investment that such industries generate be an important contributor to economic development, it will also provide a broader and potentially important, revenue base for additional economic development that countries may wish to pursue.

<sup>6</sup> See International Energy Agency, *World Energy Outlook 2014*. Available at <http://www.iea.org/publications/freepublications/publication/WEO2014.pdf>.

<sup>7</sup> World Bank Group report, "Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition."

<sup>8</sup> See K. Keramidis, A. Kitous and B. Griffin, *Future availability and demand for oil gas and key minerals*, p. 45. Available at <http://www.eisourcebook.org/cms/February%202016/Future%20availability%202012.pdf>.

<sup>9</sup> See International Council on Mining and Metals, *The role of mining in national economies*. Available at [https://www.icmm.com/website/publications/pdfs/social-and-economic-development/romine\\_1st-edition](https://www.icmm.com/website/publications/pdfs/social-and-economic-development/romine_1st-edition).

21. The tax and broader fiscal system that applies to the extractive industries should ensure that the government obtains an adequate and appropriate share of the benefits from its resources—taking into account that extractives are assets owned by the country and once extracted, they are gone—while providing a return commensurate with the risks borne and functions carried out by the parties. Tax laws and regulations that provide legal certainty and stability reduce financial risk and therefore aid in attracting investment. In addition, transparent administration of the tax system and the avoidance of double taxation further reduce risks and influence investment decisions in the extractive industries. Governments should seek to balance creating or sustaining a supportive environment for large investment with the country’s need for revenue streams that can be applied to their development efforts. Close collaboration among different governmental agencies, including ministries of energy and mining, environment, finance, tax policy and administration, along with those entrusted to govern, manage, or reinvest revenues from natural resource development, is important in arriving at the correct balance at the outset and on an ongoing basis.

22. The extractives industries are unique in many ways: the sector is shaped by high sunk costs in the form of substantial investments that cannot be recouped if a project is unsuccessful; long lead times from initial investment to project start-up and very long production/project lives; fluctuating costs and commodity prices that in turn influence the profitability of exploration, development and extraction; volatile demand; and environmental impacts, including ultimately ‘decommissioning’ or reclamation responsibilities.<sup>10</sup> The extractive industries are often located in remote areas, at great distance from their eventual markets. At the same time, companies active in the extractive industries have the potential of substantial earnings in excess of the return on investment required to induce their acceptance of the risks they assume (i.e. windfall gains).<sup>11</sup>

23. Given the large capital investment required to develop and produce natural resources, and the fact that the output is also physically present in the source country, often with world market benchmark prices available, the risk that the product sales value cannot be validated by tax authorities may be lower than for some other non-commodity-based businesses. Similarly, particularly in the petroleum industry where joint ventures are present, goods or services charged into the venture by the operator are generally required under industry practice to be at cost and subject to audit by the co-venturers.<sup>12</sup> Thus, base erosion and profit shifting techniques may differ as compared to other sectors. Nevertheless, given the large production values and associated development and production costs, there is growing concern about the erosion of the source country tax base via aggressive tax planning strategies, and thus fiscal regime design and administration procedures and practices should properly address these issues.

24. Governments will likely want to tailor their auditing plans and efforts based on the natural resource activities and parties involved, evaluating the potential risks presented and benefits to be gained from specific enforcement actions. While the challenges of dealing with these issues are the same for all natural resource countries, under-resourced and overstretched tax administrations in developing countries are often not as well equipped to deal with them. They may need augmentation, additional training, and capacity building as extractive industries activities commence, or significantly increase, in order to deal with them effectively. The information and knowledge needed to design and administer appropriate tax rules that apply to the extractive industries may be lacking or very thinly spread locally. Coordination

<sup>10</sup> For a more complete list of the risk factors investors face, see International Energy Agency, *World Energy Investment Outlook 2014, Special Report*, p. 32, Table 1.4 “Categories of risk facing an energy investment project”. Available at <https://www.iea.org/publications/freepublications/publication/WEIO2014.pdf>.

<sup>11</sup> See L. Burns, *Income Taxation through the Life Cycle of an Extractive Industries Project*, Asia-Pacific Tax Bulletin, vol. 20, no. 6 (18 November 2014), p. 401.

<sup>12</sup> Jack Calder, *Administering Fiscal Regimes for Extractive Industries: A Handbook* (Washington, D.C.: International Monetary Fund, 2014), p. 80.

between different parts of the government often proves challenging. Due to a lack of funding that often exists, access to specialists in tax design and administration is often asymmetrical as between multinational companies and developing countries.

25. \_\_\_\_\_ In designing an overall taxation regime and developing its administration, each country must carefully determine its priorities and consider a wide array of choices available to it. There are numerous issues it must deal with, and the approach on any particular issue may not be the same across countries. Ultimately, it is recommended that each country develop its own set of principles and goals, tailoring these to its specific priorities and to its unique circumstances (including location and quality of the natural resources to be developed, infrastructure, political and economic climate, development needs, and other resources available in country). Two examples, one from a country and the other from an investor perspective, are shown in boxes 1 and 2 to illustrate possible approaches that can be taken in developing principles and development goals. Once a country determines its own set of principles and goals, the choices it makes in its taxation system design, including the structure and administration of taxation, other fiscal terms, and legal/regulatory requirements, should be tested to determine whether they advance and are consistent with those objectives.

26. \_\_\_\_\_ To summarize, some reoccurring issues that countries face are summarized below. They underscore the interests that a country will need to balance, such as

- Attracting foreign or domestic direct investment in the extractive industries;
- Ensuring the government receives an appropriate share of revenues;
- Weighing timing issues in relation to receipt of revenue;
- Ensuring sound environmental policies and protections exist;
- Fostering the development of local capacity in providing goods and services to the extractive industries;
- Reconciling transparency, and confidentiality; and
- Designing appropriate governance rules for the extractive industries, including capacities to deal with potential corruption.

Additionally, as revenues are generated under the fiscal plans, management of such funds over the short and long-term requires planning, diligence, and governance structures.

**Box I.1:  
Investment principles and goals: country perspective:**

**Mozambique Natural Gas Master Plan<sup>a</sup>**

In June 2014, the Cabinet Council of the Republic of Mozambique adopted a comprehensive plan for the development of its natural gas resources to “maximize the benefits to Mozambican society, in order to improve the living standards of its population, while minimizing the negative environmental impacts”.<sup>b</sup>

The Natural Gas Master Plan focuses on three pillars for development: economic and institutional, financing and tax, and environmental and social development, as summarized in the table below.

With respect to the investment environment, the Plan further provides for the Government to “identify the essential elements of the business and investment environment needed to encourage investment in general, in the Mozambican economy, and that need to be in place and maintained in a transparent, stable and lasting way”.<sup>c</sup> It finds that, since “the development of the gas resources will require huge investments, throughout periods that will stretch for decades, it is vital that this environment is sustained and ameliorated as necessary”.<sup>d</sup>

### Principles of the Natural Gas Master Plan

**Regulatory clarity.** Clear definition of the responsibilities of regulators. This will have a positive impact on investment decisions, especially in downstream natural gas projects.

**Sustainable use of revenues.** The gas revenues constitute a clear form of directing the gas use to the economy for the creation of added value for the industry, and expansion of economic development. On the other hand, there would be sufficient revenue for supporting infrastructure and economic development in a number of areas in addition to the natural gas sector.

**Identification of needs and coordination of infrastructure.** It is necessary to define how the necessary infrastructure for the development—ports, roads, airports—needs to be created based on the gas production and use to meet the needs of communities that will host these gas-oriented enterprises. In addition to the infrastructure for natural gas, there is also a need for coordination with the planning of electricity and the development of other infrastructure.

**Education and training.** The limited professional training and capacity building are a major obstacle to the employment of Mozambican workforce in the gas sector. Continuous efforts of technical training and education in general must be developed in the specialties that the industry will need.

**Regional development.** The gas discoveries made by Anadarko and ENI, in the Rovuma Basin, are located in Palma, in the far northeast region of Cabo Delgado. The largest employment figures would come from development centres near these major cities. However, Cabo Delgado is in urgent need of programmes to stimulate development, as it is also one of the least developed areas of the country.

**Promotion and inclusion of small and medium-sized enterprises (SMEs).** Natural gas is an attractive fuel for SMEs, for its uses in heat production and raw materials. It can also stimulate the production process that allows them to be internationally competitive. Appropriate mechanisms to encourage the use of gas for the development of SMEs should be adopted.

**Environmental sustainability.** Lessons learned from some countries show that there can be no development if the exploitation of resources damages the environment and traditional livelihoods in an unacceptable manner. The Government's approach to the development of the gas market has been, and will be, implementing a policy of sustainability and environmental protection. This is doubly important where offshore projects are implemented, and may affect fisheries and tourism.

**Use of local resources.** The use of local resources such as raw materials, national labor force and domestic enterprise services, should be prioritized in order to raise people's living standards, and make national companies profitable and create internal capacity to operate, generate employment among nationals and ensure maintenance of the machinery and equipment used in the national Natural Gas operations.

**a** Republic of Mozambique, Cabinet Council, Natural Gas Master Plan, 2014. Available at <http://www.inp.gov.mz/en/Policies-Legal-Framework/Policies/NATURAL-GAS-MASTER-PLAN2>

**b** Ibid, p. 23.

**c** Ibid, p. 28.

**d** Ibid, p. 28

<i>Pillars</i>	<i>Strategic objectives</i>
<i>Economic and institutional aspects</i>	Ensure the availability of gas for the domestic market, facilitating the industrialization of the country.
	Develop and implement a communication plan to increase transparency and manage expectations.
	Maximize national support for the development of natural gas projects.



	Encourage and support the use of natural gas in domestic industries.
	Increase institutional expertise in matters related to gas, including exploration, development and marketing of natural gas.
<i>Financing and tax aspects</i>	Establish and maintain a good business environment.
	Establish a financing mechanism for the development of gas projects and for local development initiatives.
	Improve the existing legal framework regarding natural gas.
	Ensure the Government's share of gas, both in kind and in cash.
<i>Environment and social development</i>	Ensure that the local communities, in particular in the areas of exploration and production, are benefiting from natural gas-related activities.
	Create and/or increase the environmental awareness of local communities.
	Prevent and/or mitigate environmental damage resulting from the production and use of natural gas.
	Strengthen institutional capacity for the implementation of environmental legislation.
	Training and capacity building of the national workforce.

**Box I.2:****Investment principles and goals: investor perspective**

Investor principles for developing country natural resources investment policies.<sup>a</sup>

**The overall fiscal and regulatory structure should begin with an alignment on valuing and recovering resources in a manner consistent with the country's framework for economic development, and should**

- Create the greatest overall value from the country's resources
  - Provide revenues for country (including all governmental stakeholders) to reinvest;
  - Promote growth in local economies as part of value creation via development of local infrastructure, industries, jobs and training;
  - Generate value through maximum life cycle economic recovery of resources consistent with the most efficient, safe and environmentally sound development and decommissioning and restoration.
- Be equitable to both government and investors
  - Ensure the government, as ultimate steward of the resources, receives for the country an equitable share of the benefit from its resources;
  - Provide that investors receive a share reflecting all of their contributions and commensurate with the overall risks they bear.
- Align government and investing companies' interests throughout project life
  - The regime should be responsive such that equitable sharing of value is realized through all stages of the project life cycle and across ranges of outcomes and market conditions;
  - Recognize that projects and relationships are long-term and seek ways to promote partnership and mutual trust.
- Promote a stable and sustainable business environment

- Country and investors should be able to plan ahead and rely on agreed terms;
  - Investors should be willing to manage and accept business risks (e.g., exploration, technical, project execution and operation, and market conditions (price and costs) and country should seek to provide maximum possible certainty on rights and economic terms (e.g., rule of law, contract terms, legal framework, and fiscal terms);
  - Investors and country should operate in good faith to resolve and satisfy potential disputes quickly and efficiently; adoption of mutually agreed dispute resolution procedures, such as mediation and/or arbitration practices, may promote this goal.
  - Be administratively simple
    - Provide a clear, practical, enforceable, stable, and non-discriminatory framework for administration of laws, regulations, and agreements;
    - Adopt programmes promoting cooperation and trust between tax administrators and taxpayer.
  - Be competitive
    - Should attract widest range of potential investors to ensure country maximizes competition for its resources;
    - Should strive to be competitive with other countries given relative attractiveness and risks of resource development.
- a** This illustration is, with modifications to broaden coverage to all extractives, based largely on a set of investment principles published in the EI SourceBook and developed by the International Tax and Investment Center. Available at [http://www.eisourcebook.org/2889\\_OilGasSpecifics.html](http://www.eisourcebook.org/2889_OilGasSpecifics.html).

### Industry overview

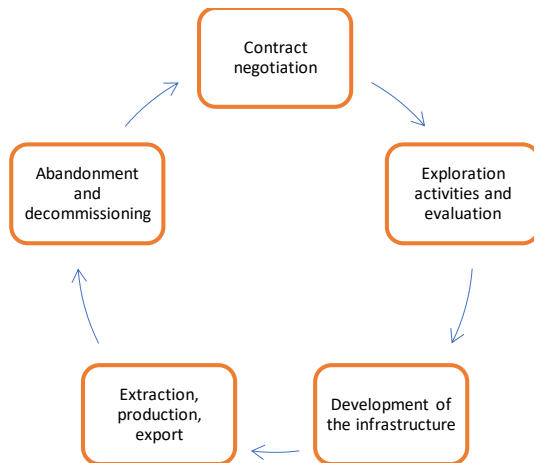
27. \_\_\_\_\_ As noted, there are similarities but also many differences between the extractive industries and other industries that should be taken into account when designing and administering a tax regime. In order to better understand the specific problems that may arise in the extractive industries, a diagram of the generalized life cycle of a natural resource project is shown below in figure I, followed by an overview of the oil and gas and hard minerals industry structures.

#### *Extractive industries structures: life cycle*

28. \_\_\_\_\_ The life cycle of an extractive industry project has five broad phases, as illustrated below:

Figure I.1:

#### **Life cycle of an extractive industry project**



Source: UN/DESA.

#### ***Extractive industries structures: oil and natural gas***

29. The oil and gas industry involves exploration and production, transportation and the refining of crude oil and natural gas, and manufacturing, distribution and marketing of crude oil and petrochemical products and liquefied petroleum gases.

30. In the oil and gas industry, reserve ownership and production are dominated by governments and government-owned or sponsored national companies, the latter increasingly investing outside of their residence countries and becoming major competitors of publicly traded multinational companies. Government-owned national oil companies (NOCs) control 78 per cent of global oil reserves and 58 per cent of global oil production.<sup>13</sup> In addition to NOCs, international oil companies (IOCs)<sup>14</sup> also supply oil to the market, such that 84 per cent of the world's oil is produced by about 100 companies (NOCs or IOCs).

31. NOCs can encompass various degrees of government involvement, and often operate as government agencies or corporate entities. NOCs operating as an extension of the government mainly aim for macroeconomic goals such as employing residents, furthering a government's domestic or foreign policies, generating long-term revenue to pay for government programmes, and supplying inexpensive

<sup>13</sup> NOCs are, for example, Saudi Aramco (Saudi Arabia), Pemex (Mexico), the China National Petroleum Corporation (CNPC), the Nigerian National Petroleum Corporation (NNPC), and Petróleos de Venezuela, S.A. (PdVSA).

<sup>14</sup> IOCs are integrated companies such as ExxonMobil, BP p.l.c., Royal Dutch Shell or Repsol, and many companies focused purely on exploration and production, such as ConocoPhillips, Apache, Tullow and Ophir Energy.

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domestic energy. In contrast, NOCs with strategic and operational autonomy<sup>15</sup> balance profit-oriented concerns with the well-being of the country as a whole.<sup>16</sup>

32. IOCs are investor-owned, market-oriented, and mainly aim to increase shareholder value. Various degrees of size, specialization and integration exist in IOCs. Often, companies specialize in one or more individual industry segments, such as the exploration and production, refining, transportation/distribution or marketing segments.<sup>17</sup> Many of the largest multinational oil and gas companies integrate all businesses, and are referred to as “vertically integrated” oil companies.

33. The oil and gas industry is often considered to have two major parts: the upstream activities—those related to the exploration and production of crude oil and natural gas, and the downstream activities—those related to the transportation, refining and marketing of oil and natural gas and their products.

#### *Upstream*

34. The exploration and production activities are the beginning stages of the life cycle and involve large upfront capital investment that carries significant risks in terms of achieving commercially successful results. Lead times from exploration through development to first production are long—often 10 years or more—further increasing project risks.

35. Investors often seek to reduce risks via project diversification, often in cooperation with other partners. The oil and gas industry is characterized by joint ventures (JVs) involving an operator along with several other investing partners that own undivided interests in the project and participate in decisions pursuant to an operating agreement. This approach is (and has traditionally been) the most common way of sharing economic risks. JV partners can also include government bodies or NOCs.

36. The first phase of upstream activities (i.e. the acquisition of exploration rights) can occur via several methods, including participation in companies; entering into a joint venture with other investors to find or to develop resources; international bids (unilaterally or with partners); direct negotiations with governments and/or nationally owned oil companies; and outright purchases of assets or companies.

37. An exploration contract or licence can last for several years, divided into subperiods during which the company commits to a series of investments in geological, geophysical and seismic work and to drill a certain number of exploratory wells.

38. The operation, management, and policymaking procedures of a JV are regulated in a “joint venture” or partnership agreement called a Joint Operating Agreement (JOA). In the JOA, one of the participating companies is designated as the “operator”, responsible for the day-to-day management of the activities to be performed, and the implementation of the decisions taken by the partners, including representation vis-a-vis local governments and third-party providers of services and materials.

Photo I.1:

#### **Upstream offshore production facility**

<sup>15</sup> NOCs with strategic and operational autonomy are, for example, Petrobras (Brazil) and Statoil (Norway).

<sup>16</sup> See U.S. Energy Information Administration, *Oil: Crude Oil and Petroleum Products Explained—Where our oil comes from*. Available at [http://www.eia.gov/energy\\_in\\_brief/article/world\\_oil\\_market.cfm](http://www.eia.gov/energy_in_brief/article/world_oil_market.cfm).

<sup>17</sup> There are independent refining, marketing, pipeline, shipping, and exploration and production companies, as well as major service companies (also referred to as subcontractors) providing seismic, drilling, construction, environment and environmental and other services and technologies for all phases of the international oil and gas industry.

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Source: Currahee/ 123RF.com

39. \_\_\_\_\_ The operator assigns its own resources to the project (i.e., a team of technical and administrative support) that are charged at cost to the joint venture and allocated to each party based on its ownership percentage.

40. \_\_\_\_\_ Non-operator companies are responsible for controlling and overseeing that the activities performed by the operator are carried out according to quality standards and that the costs are in conformity with the agreement and budget of the consortium.

41. \_\_\_\_\_ In the case of a commercial discovery, following government approval, the development phase commences, consisting of investments in engineering, development drilling, construction of processing facilities, civil works, platforms, well production and control facilities, and oil and gas transportation/offloading systems.

42. \_\_\_\_\_ The operator forms a development team to conduct the development project, which involves coordinating with the partners as well as with the numerous subcontractors and service companies involved, and to ensure compliance with, and sound administration of, the contracts involved.

43. \_\_\_\_\_ The development phase can last from a few months to three years or longer depending on the size, location and complexity of the site to be developed.

44. \_\_\_\_\_ Once the facilities and offloading systems are commissioned and development surveys are completed, the production phase starts. Contractually, this phase usually lasts between 15 and 25 years, provided that the economic limit of the field has not been reached earlier. Throughout time, new and/or improved assisted recovery techniques are applied to maximize production levels and reserve recovery.

45. \_\_\_\_\_ Throughout the project, the environmental impacts need to be assessed and managed to minimize adverse impacts and, at the end of the project's life, contracts generally provide for the decommissioning of the structures, and restoration of the site.

#### ***Downstream***

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46. “Downstream” is the term generally given to the transportation of crude oil and natural gas and to the refining, storage, distribution and marketing of crude oil and its derived products. Refining involves conversion of crude oil into industrial and consumer products such as petrol, diesel, liquid petroleum gas, aviation fuel, bunker for marine transport, and chemical feedstock. Marketing can involve retail petrol station activities and other marketing to wholesale or retail customers, including petrochemical manufacturing activities.

47. Activities connecting the pure upstream and downstream functions are sometimes referred to as “midstream,” and consist of trading and transportation (by pipeline, rail, barge, tanker or truck) storage, and wholesale marketing of crude oil, natural gas or refined petroleum products. These functions can be performed within integrated companies (where they are also called the Supply and Transportation (S&T) function) or by independent businesses specializing in one or more of these activities.

Photo I.2:

#### Downstream refining complex



Source: photowrzesien/ 123RF.com

48. An integrated company’s S&T function is important since companies often lack sufficient production of their own, in total or in the right locations or specifications, to meet their refining or marketing needs. These constraints are addressed by businesses actively involved in purchasing, exchanging, and/or selling of crude oil, intermediate or end products. Additionally, the fact that many producing and refining countries export their production to other markets requires a robust supply and transportation industry.

#### *Liquefied natural gas: an expanding business*<sup>18</sup>

<sup>18</sup> See United States Department of Energy, *Liquefied Natural Gas: Understanding the Basic Facts* (Washington, D.C.: 2005), available at [http://energy.gov/sites/prod/files/2013/04/f0/LNG\\_primerupd.pdf](http://energy.gov/sites/prod/files/2013/04/f0/LNG_primerupd.pdf) (August 2005); see also *B.C. and Petronas reach LNG agreement paving way for energy giant’s proposed \$36-billion investment*, Financial Post (May 2015), available at <http://business.financialpost.com/commodities/energy/malysias-petronas-and-b-c-reach-lng-deal-paving-way-for-companys-proposed-35b-investment/wcm/368d8783-0dc6-4d95-ba93-019db3191e9e>.

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49. The liquefied natural gas (LNG) business involves upstream, midstream, and downstream elements in the commercialization of natural gas resources through extracting and processing, liquefying, transporting such liquefied gas in special ships, re-gasifying it in processing facilities, and delivering it to customers. LNG projects involve very large upfront capital investments, with a development phase typically between five and six years. Given the significant upfront capital investment, LNG suppliers typically require revenue certainty by having off-take contracts for a significant portion of the expected LNG production to be in place prior to a final investment decision. Once LNG projects are in the production phase, they can continue producing for 30–50+ years depending on the size of the gas resource and the investment of additional capital expenditure during the project life.

Photo I.3:  
**LNG tanker**



Source: photowrzesien/ 123RF.com

***Extractive industry structures: mining***

50. The mining industry worldwide is often described as having a formal and an informal sector. The formal sector has been estimated to include approximately 6,000 public and state-owned companies. Within this group, the 20 largest companies accounted for some 30 per cent of global output in 2010, and the largest 150, sometimes referred to as the “majors,” accounted for approximately 85 per cent of global output.<sup>19</sup>

Photo I.4:  
**Large-scale mining project**

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<sup>19</sup> See Magnus Ericsson, *Mining industry corporate actors analysis*, POLINARES Working Paper No. 16. Available at <http://www.eisourcebook.org/cms/Mining%20industry%20corporate%20actors%20analysis.pdf>.



Source: dennisdvwater/ 123RF.com

51. The majors are often broken into two categories: global (the largest 50 companies, with asset bases in excess of \$10 billion) and senior companies (the next largest 100 companies with asset bases generally in the \$3 billion-10 billion range) followed by approximately 350 “intermediates” with lower access to capital but with goals of growing into the major category. Below the intermediates are three categories of so-called junior companies: those large enough to be involved in exploration and production, those only involved in the exploration phase, and, finally, the smallest involving companies that are at the threshold of the formal industry sector and are seeking venture capital to grow within the industry.

52. The informal sector of the industry includes 15 to 20 million firms operating in 30 countries and employing 80 to 100 million people. This compares to the approximately 2.5 million people employed by the formal sector, half of whom are employed by the majors. The formal mining sector operates under legal and fiscal frameworks, but application of such rules and standards in some parts of the informal sector of the industry can be challenging.<sup>20</sup> For some minerals, artisanal and small-scale miners can account for a substantial amount of the value of minerals extracted (e.g., less than 5 per cent of worldwide iron, lead, zinc and copper but 25 per cent or more of gold, tin and tantalum).

Photo I.5:  
**Small-scale mining**

<sup>20</sup> The informal sector of the industry is made up of small-scale and very small-scale (sometimes described as “artisanal”) minors. See International Council on Mining and Metals, *Trends in the mining and metals industry, Mining's Contribution to Sustainable Development* (October 2012). Available at <http://www.ibrarm.org.br/sites/1300/1382/00002639.pdf>.

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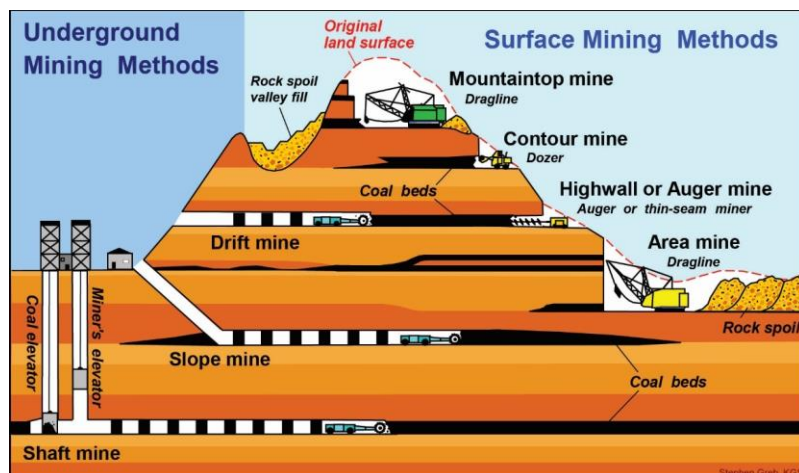
Source: sergioz/ 123RF.com

53. \_\_\_\_\_ The mining industry life cycle is delineated into four stages: prospecting/exploration, development, production (including ~~pro-ees-Sing~~processing), and closure/reclamation. The period between the production and permanent closure stages may involve a suspension of production where the mine is placed under “care and maintenance”. This may become necessary for a number of reasons, including prevailing economic conditions or unfavourable resource prices, and may continue until fundamentals improve or the operations are otherwise turned around.

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54. \_\_\_\_\_ The mining industry typically does not have the level of unincorporated joint ventures that oil and gas does; it is more common for one investor to be involved in any particular project. There is less direct government participation in mining projects as compared with the oil and gas sector, and the mining sector does not have national mining companies comparable to NOCs. But like the oil and gas industry, the use of subcontractors is prevalent throughout many phases of the life cycle of a mine.

Figure I.2:  
**Schematic of underground and surface mining methods**



Source: Kentucky Geologic Survey, reprinted with permission. Available from <http://www.uky.edu/KGS/coal/coal-mining.php>

#### **Prospecting/exploration**

55. \_\_\_\_\_ The exploration phase, often consisting of reconnaissance and prospecting activities, generally involves the greatest uncertainty. The inherent risks of the exploration stage are similar to those described for the oil and gas industry. Exploration and prospecting activities are undertaken to identify whether mineral deposits exist. Subsequently further work is undertaken to define the mineral deposits (the ore body)—that is, its extent and location as well as its pe

culiarities. Following this, a feasibility study is undertaken to determine the commercial and financial viability of the project. Risks and potential upsides are also taken into account at this stage. Significant risks of commercial viability are inherent to exploration as the feasibility and other studies could conclude that a project is not commercially viable based on external market variables as well the mining company's own internal trigger points. The time frames from exploration through development to first production can range from three to 10 years.

#### **Development**

56. \_\_\_\_\_ Once exploration activities have demonstrated that there is a viable mining opportunity, the development phase commences. During the development, detailed geological and geothermal studies are undertaken to map the ore body and to substantiate the economics of the mine. This enables detailed mine planning. The required infrastructure and mine processes are developed at this stage. During the development stage, significant capital investments are made in expectation of eventual income when the mineral is extracted.

57. \_\_\_\_\_ In addition to the above and in recognition of the socioeconomic and environmental implications of mining, regular studies should be undertaken to determine and properly plan for minimizing the impact of mining on the environment as well as surrounding communities.

#### **Production**

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58. Physical production of the ore, which can be called the “mine/mill” phase of mineral development, makes up the bulk of the mining life cycle. At this stage, due to the detailed development work that has been done, the overall life of the mine, based on current economic and market fundamentals can be determined. The ore that is mined is generally physically prepared (via crushing, grading, and grinding) and concentrated for further processing so as to extract the raw mineral.

59. Waste and tailings resulting from the processing activities need to be carefully managed at this stage so as to prevent adverse environmental effects.

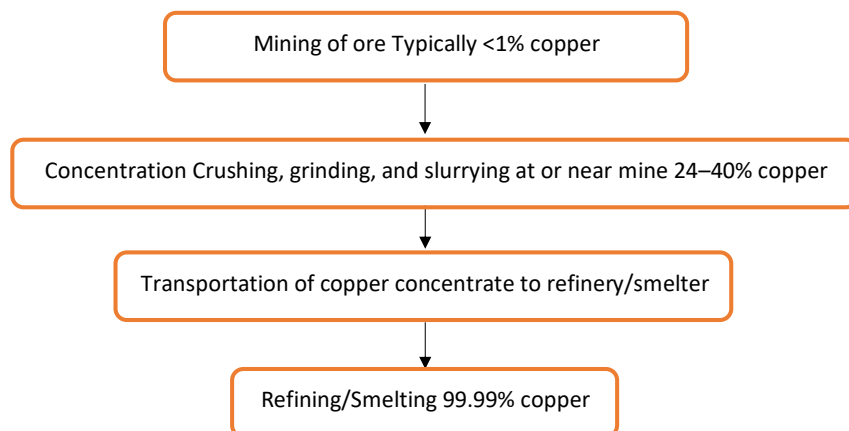
60. The ore or unrefined mineral product may then be further processed near the mine/mill facility, but is more often transported to an offsite processing facility. Processing can take the form of smelting, leaching or refining, which are value-adding processes that result in the final products being available for sale in the open market.

61. Prospecting/exploration, development, and production are similar to oil and gas upstream activities, and the further processing and transportation are similar to the oil and gas downstream. The terms “upstream” and “downstream” are, however, not as commonly used to describe mining activities as they are for oil and gas.

62. Similar to the oil and gas industry, sale and transportation of ore, unrefined metals, and ultimately the upgraded and refined metals and metal products globally is an increasingly important aspect of the industry. Many mineral-producing countries export ore or upgraded products to markets around the world. Further, mechanisms to reduce or manage risks—including commodity price risks—are necessary realities of a business undertaking the inherent risks of worldwide mining. Thus, as within the oil and gas business, these logistics and risk management issues need to be addressed by active businesses or functions designed to meet business objectives and optimize processes and costs.

Figure I.3:

**Schematic of physical mine processing activities**<sup>21</sup>



Source: <http://investingnews.com/daily/resource-investing/base-metals-investing/copper-investing/copper-refining-from-ore-to-market/>

<sup>21</sup> Note that concentrate containing other elements may be yield credits (for desired ones such as gold or silver) or financial penalties (for undesired ones such as lead).

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### Overview of fiscal instruments and their characteristics

63. Minerals and oil and gas agreements or contracts often have some unique features and at times are subject to specific legal, tax, and commercial requirements. They often are limited to certain geographical areas and may involve a completely different legal, tax and economic regime from general business activities, and even from natural resource contracts covering a different area. Requirements often include separate and independent accounting for each mine or contract area.

64. Fiscal systems governing natural resources generally fit into two broad categories: concession or contract regimes.<sup>22</sup>

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#### Concession regimes

65. Concession regimes are often also described as “tax and royalty” regimes. These are common both to the mining and petroleum industries and are usually prescribed by law.<sup>23</sup> Minerals or oil and gas extracted pursuant to these arrangements belong to the investors, who in exchange for such rights generally pay a royalty on the volumes extracted as well as other payments such as bonuses and delay rentals. In addition, some sort of profit-based taxation is usually due on the profits related to the venture or the exploiting company. Concession regimes may also involve equity participation.

66. Application of a regular corporate profit tax ensures income is taxed at the corporate level just as in other sectors. However, many countries apply a higher tax rate on mining and petroleum activities, while others have separate income tax regimes addressing sector-specific issues. In contrast to royalties and bonuses, profit taxes are only levied on a profitable investment.

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67. Some of the most important profit-based taxes used are company income taxes, excess profits (or variable income) taxes, and resource rent taxes. Since such taxes are profit based, in early years of projects, or in low-price environments, they will yield less revenue than some non-profit-based taxes. In high-priced environments, the opposite is generally true.

68. Royalties are generally calculated as a percentage of the gross volume or value of the production (i.e., costs do not reduce the base) and are due once production commences (versus profit-based taxes which are often delayed as production ramps up and cost recovery reduces net profits). They are relatively predictable and ensure some payments in times of low prices and revenues. As the payment of royalties does not require the project to be profitable and are not reduced by production costs, governments seeking revenues early in the project life might choose to impose royalties as one part of their overall fiscal structure.

69. Bonuses can be attractive to governments since they provide early revenue and are easy to administer. Since bonus payments are usually made upfront before knowledge of commerciality, and are unrelated to production, they are generally less attractive to investors. Bonus costs can be recovered, if at all, only from profits.

<sup>22</sup> For further information about fiscal instruments in the extractives sector, see IMF, *Fiscal Regimes for Extractive Industries: Design and Implementation* (2012), available at <https://www.imf.org/external/np/pp/eng/2012/081512.pdf>; IMF, *Guide on Resource Revenue Transparency* (2007), available at <http://www.imf.org/external/np/pp/2007/eng/051507g.pdf>; Philip Daniel, Michael Keen and Charles McPherson (Eds.) *The Taxation of Petroleum and Minerals: Principles, Problems and Practice* (New York, Routledge, 2010) particularly, chapter 4, Carole Nakhle, “Petroleum fiscal regimes: evolution and challenges”, p. 89 and chapter 5, Lindsay Hogan and Brenton Goldsworthy, “International Mineral Taxation: experience and issues,” p. 122.

<sup>23</sup> For example, in South Africa, permits are issued and rights are granted under national legislation.

**Contract regimes**

70. Contract regimes generally embody two categories: production sharing contracts and risk service contracts.

**Production sharing contracts**

71. Production sharing contracts (PSCs) are common within the oil and gas industry, but less so in the area of hard minerals. Under such contracts, states share the results of the exploitation with the investors.

72. PSCs generally provide a formula for sharing the production between the investor and the government (or government-owned company). As with the concession arrangements, ownership of the investors' share of such production generally vests with the investors upon production.

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73. Normally, but not always, a royalty on gross production is payable, with a certain percentage of the remaining production (usually called "cost oil") allocated to the investor to cover its actual investment and production costs. Recoverable costs exceeding the cost oil allocation for a particular year are generally carried forward. After deducting any royalty amounts and cost oil entitlement, the remaining amount (called "profit oil") is allocated per percentages or formulas in the agreement between the investors (as a return on investment) and the government. Profit oil is generally also subject to the profit-based taxes imposed, which can be variable. Thus, the government obtains its share of profit oil outright, along with a payment or a larger in-kind allocation of the investors' profit oil to cover the investors' income taxes. The profit oil allocation percentage between the investors and the government can also change over time based on overall profitability of the project. Costs recoverable under the cost oil definitions may be different in amount and in timing from those that are deductible under income or profit-based tax rules.

**Risk service contracts**

74. Risk service contracts are found primarily in the oil and gas sector. Under a service contract, the State owns the oil and gas that can be exploited and pays a fee to the investors for the exploration and production services. All production is effectively owned by the State, in contrast to concession regimes and PSCs.

75. Risk service contracts can take several forms, but they generally place full investment risk on the contractor/investor in return for a fee (which may be paid in the form the oil or gas produced). The fee can be subject to profit-based taxes.

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**Other fiscal terms****Equity participation**

76. Governments may also desire an equity stake in a project, as a means of increasing government revenues over time or for non-fiscal motivations such as a desire for direct government ownership, the possibility to participate in decision-making, or a means to promote knowledge transfer. State equity can take different forms. Fully paid-up equity on commercial terms puts the government on the same footing as the private investor. Where governments do not have, or do not wish to risk, the funds needed to bear the costs on an ongoing basis as a full equity partner, they may request their cost shares to be advanced by the other investors. Under a carried interest arrangement, the government's equity share of exploration and/or development costs are advanced by the other investors, with a recovery of such "carried costs" to come from production. Where a government owns an equity share of the project, its interests with respect

to that share are well aligned with the other investors; this can promote ongoing cooperation and collaboration.

Table I.1:  
**Types of petroleum rights and contracts**

Type of contract	Cost and risk	Exclusive right to operate	Right to production
Licence/concession {or Concession (tax and royalty) Contracts}	Private company	Private company	Private company
Joint venture {or Participation/Association (or Arrangements)}	Private company	Shared	Shared
Production sharing {or Product Sharing Contract/Agreement (PSC/PSA)}	Private company	State	Shared
Service contract	Private company	State	State

### ***Other taxes and fees***

77. A number of other taxes and fees can also be imposed on the natural resources industries. Some of the more common ones are briefly noted below.

78. Broad-based consumption taxes in the form of value added, sales, or goods and services taxes are often levied by countries and are designed as taxes on domestic consumption. They are generally refundable on exports. Since much of the natural resource production in developing countries is exported, consumption taxes usually do not provide lasting revenues to governments. In the exploration and development stages for the extractives industry, consumption-based taxes can, contrary to their design, represent a cost to the industry. This is because during the exploration and development phases, significant capital expenditure is incurred but no exports or revenues exist. Thus, companies are often faced with negative cash flow impacts from consumption taxes unless refunds are processed in a timely manner. Consumption taxes can put additional strain on tax administrations, as they require significant administrative efforts.

79. In general, sales or other disposition of business assets are frequently subject to income taxation on the net gain from such transfers under a country's tax on ordinary income or in the form of a capital gains tax. The scope of transactions covered by such taxes varies widely.

80. Dividend or other profit distributions, interest, royalties and subcontractor payments to non-residents are common and can be significant. Withholding taxes on these payments, which allow source States to effectively tax this income, are often borne by investors and are another component of the overall fiscal take. Withholding tax rates on payments to subcontractors are typically set at relatively low levels, reflecting the fact that they are levied on a gross basis. In many circumstances, regional, multilateral or bilateral income tax, trade, and investment treaties may reduce withholding tax rates and may also take precedence over other general provisions of tax laws, dispute resolution procedures, or other statutory provisions.

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81. Numerous other fees and taxes can become part of an overall fiscal package, including items such as customs duties, excise taxes, pipeline fees, export fees, property taxes, and personal income taxes. Source countries should be conscious of the overall fiscal package applicable to investors. The optimal design of any tax system governing the extractive industries, including the application of bilateral tax or investment treaties, will often be a blend of the fiscal instruments described above. As mentioned, fiscal policy will need to be designed to further a country's development plan, which is tasked with balancing various needs.

82. Tax provisions applicable to the natural resource sector may be the same as for all other industries and encompassed in a more general tax law. In other cases, there may be a desire for special tax legislation applicable just to the natural resource sector. A third option is to tax extractive industries according to the corporate income tax laws, but with additional provisions applicable specifically to their industry. Application of tax, trade or investment treaties may also be general or industry specific. The most effective overall design should provide a country with adequate resources and ensure administrative ease while being responsive to the needs of investors.

### Transparency in the extractive industries

83. The extractive industries are the subject of a number of transparency initiatives, and the extractives sector is often in the forefront of a growing movement for greater transparency for all businesses.<sup>24</sup> For example, the Extractive Industries Transparency Initiative (EITI) which grew out of the Extractive Industries Transparency Initiative London Conference, held in June 2003, began by requiring (i) all investors doing business in the country to report all payments made to governments or their agencies; (ii) governments to publicly report on the payments as having been received; and (iii) an independent audit and reconciliation to be done. On its website, the EITI describes how

(...) it has evolved from its beginnings as a narrow set of rules focused on revenue collection into an international standard covering the wider governance of extractive resources. It now encompasses beneficial ownership disclosure, contract transparency, the integration of the EITI into government systems and transparency in commodity trading. The focus of EITI Reports has moved from compiling data to building systems for open data and making recommendations for reforms to improve the extractive sector governance more generally.<sup>25</sup>

84. Public access to extractive industries contracts between investors and countries is a growing element in promoting overall transparency. In some cases, governments are now requiring such

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<sup>24</sup> In addition to EITI, a number of other important transparency initiatives exist that are specific to the extractive industries, including certain requirements under the Dodd-Frank provisions of US law, the European Union Accounting Directive, plus UK and Norwegian government payments rules, and the Extractives Sector Transparency Measurement Act (ESTM) in Canada. In addition, a major project within the IMF to update its general fiscal transparency code and to formalize the update as a new Natural Resources Fiscal Transparency Code is in its final stages. See <http://www.imf.org/external/np/exr/consult/2016/ftc/>. See also, *Transparency Mechanisms and Movements: Tools to Foster Openness and Accountability*, Natural Resources Governance Institute (2015). Available at [http://www.resourcegovernance.org/sites/default/files/documents/nrgi\\_primer\\_transparency-mechanisms.pdf](http://www.resourcegovernance.org/sites/default/files/documents/nrgi_primer_transparency-mechanisms.pdf).

<sup>25</sup> See <https://eiti.org/history>.

publication, and in most cases more general transparency initiatives (like the EITI) either recommend or require extractive industries finalized contracts to be made publicly available.<sup>26</sup>

85. \_\_\_\_\_ A properly designed and cost-effective reporting mechanism can help to create a climate of trust between investors and governments, and with the public, with respect to natural resource development.

86. \_\_\_\_\_ Investments in natural resources in developing countries can play an important role in providing governments with the resources needed to reduce poverty while meeting the world's energy and economic needs. However, natural resource development must be done safely, efficiently, and in an environmentally sound way. Investors, working together with developing country governments and local communities, must earn trust and support. Likewise, governments must gain the trust and support of investors. And both governments and investors, given the high impact (both physically and financially) of natural resource development, must also gain the trust and support of the public at large. Transparency in reporting is a key element contributing to the development of trust.

#### Issues for developing countries; the role of the United Nations Tax Committee

87. \_\_\_\_\_ As evident from this Overview, designing appropriate tax regimes in resource-rich countries is far from easy. Developing countries are faced with additional difficulties given the often-prevalent lack of resources in tax administrations. As mentioned above, the need for revenue should be balanced with the need to attract foreign investment. At the same time, governments have to ensure that investments adequately contribute to economic growth and employment creation, while adhering to social and environmental standards.<sup>27</sup>

88. \_\_\_\_\_ [In addition to this slightly updated overview and the Handbook on Selected Issues for Taxation of the Extractive Industries has been enriched with four new chapters including \(i\) Tax Incentives; \(ii\) Tax Treatment of Subcontractors and Service Providers; \(iii\) Production Sharing Contracts; and \(iv\) Tax Treatment of Financial Transactions in the Extractive Industries. Furthermore, two existing chapters, Transfer Pricing and Decommissioning, were updated in part to align with the new chapters. A brief description of topic discussed in the new chapters and the updated one follows below:](#)

#### Tax Incentives

89. \_\_\_\_\_ [This chapter provides a general framework on the design and use of tax incentives with a specific analysis of their use in the extractives sector in developing countries. The chapter attempts to define what qualifies as "tax incentive". At the simplest level, a tax incentive could be considered a difference between the default regime, and the one that is being examined that results in a reduction in the tax burden \(whether in the quantum or timing of the tax liability of the taxpayer\).](#)

90. \_\_\_\_\_ [In its subsequent sections the chapter describes the legal framework for an effective tax incentive policy before delving into its concrete application in general and within the extractive industries. The application is described in two different concepts, namely profit-based incentives and cost-based](#)

<sup>26</sup> In addition to EITI (<https://eiti.org/>) other sources include the EI SourceBook available at <http://www.eisourcebook.org>, Open Oil, available at [openoil.net](http://openoil.net) and Resource Contracts, available at <http://www.resourcecontracts.org/>. Sample mining agreements and models/examples of mining contract provisions are available under the Model Mining Development Agreement Project, available at <http://www.mmdaproject.org/>.

<sup>27</sup> See Africa Progress Panel, *Equity in Extractives, Africa Progress Report* (2013), p. 63. Available at [https://static1.squarespace.com/static/5728c7b18259b5e0087689a6/t/57ab29519de4bb90f53f9ff/1470835029000/2013\\_African+Progress+Panel+APR\\_Equity\\_in\\_Extractives\\_25062013\\_ENG\\_HR.pdf](https://static1.squarespace.com/static/5728c7b18259b5e0087689a6/t/57ab29519de4bb90f53f9ff/1470835029000/2013_African+Progress+Panel+APR_Equity_in_Extractives_25062013_ENG_HR.pdf).

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[incentives. Before concluding, the chapter examines the interaction with investor and other tax regimes and how incentives in one country influences the beneficiary company and its tax planning for other activities in different jurisdictions.](#)

[91. The chapter describes incentives in the context of BEPS and several of its implications in relation to tax challenges of the digital economy.](#)

#### **[Tax Treatment of Subcontractors and Service Providers](#)**

[92. This chapter considers the taxation issues that arise from the use of subcontractors in the extractive sector. The increased complexity of extractive activities led to specialist businesses that are subcontracted by resource companies. Subcontractors open the market to more competitors, including local companies in developing countries. More competitors increase the number of bidders on projects and allows for new partnerships and operating models.](#)

[93. The use of subcontractors also gives rise to complex tax issues and some countries' tax administrations may have limited experience in administering these challenges. This chapter is focussed on a limited range of key tax issues specific to subcontractors engaged directly by resource companies and that are not otherwise covered in the general discussions in this Handbook.](#)

#### **[Production Sharing Contracts](#)**

[94. The chapter examines the concept and some of the mechanisms of Production Sharing Contracts or Agreements \(PSC or PSA\) in detail. PSCs are among the most common types of contractual arrangements for petroleum Exploration and Production \(E&P\).](#)

[95. PSCs typically relate to the petroleum industry and are rarely seen in the mining industry. This is largely related to the fact that direct participation of government bodies in mining is not as common as in the oil and gas industry. However, some countries, have recently explored the possibility of PSCs in the mining sector. PSCs are used worldwide, and most common in African and Asian countries, as well as in certain countries of South America.](#)

[96. This chapter intends to improve understanding as to what PSCs are, including relevant terminology, what the tax mechanisms of the contracts are and what areas need attention in a PSC. It intends to discuss aspects of interest to tax administration, investors and other stakeholders.](#)

#### **[Tax Treatment of Financial Transactions in the Extractive Industries](#)**

[97. The chapter elaborates on different financing approaches commonly used in the mining, and oil and gas sectors and provides guidance on tax-related issues.](#)

[98. There are a lot of crosscutting issues between financial transactions in extractive industries and intragroup transfer pricing within the same MNE. This chapter will focus on tax treatments of financial transactions that are not discussed in the United Nations Practical Manual on Transfer Pricing. The transfer pricing considerations related to the intra-group financial transactions along the value chain are not addressed as such in the United Nations Practical Manual on Transfer Pricing. In addition, because of the importance of intra-group financing in the extractive industries, beyond the market price compliance issues, thin-capitalisation and important financial expenses may constitute a risk of base erosion for local companies. Such issues will be discussed here.](#)

[99. This chapter elaborates on the thin capitalization rule in the extractive industries, reviews current debate on interest limitation issues and provide concrete application examples in developing countries as part of financing mechanisms. Other topics developed include hedging instruments, performance guarantees, and farm-in/farm-out agreements.](#)

~~The United Nations Tax Committee has approved work in the area of taxation of extractives on several areas considered the most pressing for developing countries. In addition to this Overview, issue-specific chapters cover, in order:~~

~~100. [The new chapters above are not numbered yet. In the final text they will be numbered with the help of the editor to check the overall flow of the text throughout the book].~~

~~101. A summary of the existing chapters is reproduced below:~~

## **Chapter 2: Tax treaty issues**

102. Bilateral tax treaties play an important role in coordinating tax rules for cross-border activities and eliminating obstacles to cross-border trade and investment. Extractive activities usually include numerous cross-border elements. They are undertaken by investors, licence holders, service providers and suppliers who are often not resident in the source country. Natural resources produced are typically exported. These elements raise several tax treaty issues for the extractive industries that are discussed in this chapter.

103. In particular, the chapter includes commentary on which taxes are covered by a treaty, when activities of investors, contractors and subcontractors are taxable, how tax jurisdiction may vary throughout the life cycle of a natural resource project, how the term “royalties” as used in tax treaties differs from mineral/oil and gas royalties, whether a tax or other levy is creditable in the resident state of the investor, aspects of non-discrimination, and the territorial scope of the treaties.

104. The chapter also introduces the concept of permanent establishment (PE) and issues that arise in its application, considering the perspectives embodied in the United Nations Model Convention and its Commentary, as well as references to the Organization for Economic Cooperation and Development Model Convention and other specific bilateral treaties.

## **Chapter 3: Permanent establishment issues**

105. This chapter focuses on Article 5 of the United Nations Model Convention and how this article influences the taxation of the extractive industries. Whereas the permanent establishment issue is addressed more generally in Chapter 2 on tax treaty issues, this chapter elaborates in-depth on the significance and existence of PEs of the investor and its subcontractors as a result of different activities performed by the extractive industries in the source country.

106. In the extractive industries, costs often arise before a permanent establishment is set up or after a permanent establishment has ceased to exist. Preparatory costs can include planning or exploration costs. Subsequent costs can arise due to decommissioning or activities associated with other liabilities. In addition, issues with respect to companies that rent drilling rigs, perform their activities on-board such rigs, and activities that take place at different wells or contract areas are also covered.

## **Chapter 4: Indirect transfer of assets**

107. This chapter deals with the question of whether and how a capital gains tax could be implemented. Domestic legislation could tax gains on sales of capital assets as general ordinary income, as capital gains taxable under the corporate income tax law, or under a stand-alone capital gains tax law. In cases where there is a capital gains tax on sales occurring within a country, the question of how indirect sales should be taken into account. Instead of transferring an asset (e.g. a mine itself (direct transfer)), the owner of an entity holding the asset may transfer its interest in that entity (thus “indirectly” transferring the underlying asset).

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108. In the case of a direct transfer of a mining or petroleum right, even by a non-resident, the source country can levy a tax under its domestic law on the gain from the sale of such property. The chapter reviews issues and considerations a country may face in taxing or, in some circumstances, not taxing such direct transfers. Next, the chapter considers indirect sales of mining or petroleum assets. For example, in order to protect the tax base of the source country in those cases, an indirect transfer tax rule could be implemented to tax indirect sales. The chapter reviews issues involved in making, implementing, and administering such a decision. An indirect transfer tax rule may involve both domestic law and applicable tax treaty issues, and the interrelationship of these is outlined in depth.

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#### Chapter 5: Transfer pricing issues

109. This chapter considers and analyses several examples of transfer pricing issues that arise in the extractive industries. It focuses on issues relating to the major stages in the extractive industries value chain, and suggests methods and approaches that might be considered in addressing the particular issues identified. Thereafter, the chapter provides several case examples that apply to both mining and O&G followed by more specific examples focused first on mining, and then on oil and gas, reflecting that mining and petroleum, while similar, also have certain important differences.

110. The chapter provides background information and a useful summary and checklist for developing countries in addressing some of the issues that commonly arise in the extractive industries. It should be used in conjunction with the recently updated United Nations Practical Manual on Transfer Pricing for Developing Countries (2017).

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#### Chapter 6: The tax treatment of decommissioning

111. At the end of its life cycle, the decommissioning of an extractive facility in a way that avoids environmental damage and adverse effects on local populations must be addressed. A key element in achieving comprehensive closure/dismantling of extractive facilities is ensuring adequate financial resources are available on closure. Properly taking into account decommissioning at the outset of projects and when designing fiscal rules governing the extractive industries is particularly important in developing countries where, quite often, there may be a lack of general legal framework addressing these issues.

112. Further, the financial and budget consequences must be planned for in advance of and throughout natural resource projects. For example, where a government directly participates via an equity share in a project, or through involvement of its national oil company, it will have to plan for funding the share of decommissioning costs associated with its participating interest. In addition, even without direct participation, project-related net income, and thus income taxes paid to the government, will be reduced by the costs incurred in performing the decommissioning work. Where decommissioning cost deductions are not permitted until their actual expenditure (generally at the end of the project) tax losses may be incurred. How these are treated for income tax purposes will have an impact on when decommissioning is conducted and can significantly affect government budgets and even the overall value obtained by a country from the development of its natural resources. Governments must carefully plan for this impact.

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113. This chapter describes these issues and examines the tax treatment and considerations involved in dealing with them. Examples from countries that have specific rules on decommissioning are reviewed and options for decommissioning, and their implications, are presented for consideration by countries in formulating their national policies and legislation.

#### Chapter 7: The government's fiscal take

114. This chapter describes the various forms of payments and other compensation that governments can receive from the development of natural resources, their timing and responsiveness to differing

economic environments, implications of each together with their cumulative impact on investors, and the sensitivities associated with their interaction with other statutory tax rules.

### Chapter 8: Tax aspects of negotiation and renegotiation of contracts

**115** How countries attract outside investment while balancing their economic, environmental, and social needs is a major challenge, requiring careful upfront planning and priority setting. In some countries, laws are independently enacted governing the framework for investments in resources, and investors must determine whether they will invest based upon those prescribed rules. In many developing countries, however, where resource development is beginning, no overall framework exists, and often a negotiated framework for development between an investor or investors and the government governs natural resource development. This chapter reviews various issues that arise in connection with the negotiation of such contracts, and the options regarding their renegotiation as circumstances or the parties involved change.

### Chapter 9: Value added tax

**116** The chapter on value added taxes (VATs) covers the key issues raised in applying VAT on the extractive industries, including policy and administration issues over the life cycle of natural resource projects. In particular, since many developing countries export most of their natural resource production, a VAT intended to tax domestic consumption should not provide a large source of lasting revenue, but timing and refund issues can be significant. The chapter covers these issues and addresses the effect a VAT may have as a barrier to direct investments. Implications on local content sourcing and other local economy spill over effects are described.

#### For more information

- Africa Progress Panel, *Equity in Extractives*, Africa Progress Report (2013). Available at [https://static1.squarespace.com/static/5728c7b18259b5e0087689a6/t/57ab29519de4bb90f53f9fff/1470835029000/2013\\_African+Progress+Panel+APR\\_Equity\\_in\\_Extractives\\_25062013\\_ENG\\_HR.pdf](https://static1.squarespace.com/static/5728c7b18259b5e0087689a6/t/57ab29519de4bb90f53f9fff/1470835029000/2013_African+Progress+Panel+APR_Equity_in_Extractives_25062013_ENG_HR.pdf).
- L. Burns, *Income Taxation through the Life Cycle of an Extractive Industries Project*, Asia-Pacific Tax Fiscal Regimes for Extractive Industries Bulletin, vol. 20, no. 6 (18 November 2014), p. 401.
- Economic Commission for Africa and The African Union, *Minerals and Africa's Development: The International Study Group Report on Africa's Mineral Regimes*. Available at [http://www.africaminingvision.org/amv\\_resources/AMV/ISG%20Report\\_eng.pdf](http://www.africaminingvision.org/amv_resources/AMV/ISG%20Report_eng.pdf).
- EI SourceBook. Available at <http://www.eisourcebook.org/>.
- International Monetary Fund, *Fiscal Regimes for Extractive Industries: Design and Implementation* (2012). Available at <https://www.imf.org/external/np/pp/eng/2012/081512.pdf>.
- International Monetary Fund, *Guide on Resource Revenue Transparency* (2007). Available at <http://www.imf.org/external/np/pp/2007/eng/051507g.pdf>.
- Philip Daniel, Michael Keen and Charles McPherson (Eds.), *The Taxation of Petroleum and Minerals: Principles, Problems and Practice* (Routledge: New York, 2010). See particularly Chapter 4: Carole Nakhle, *Petroleum fiscal regimes: evolution and challenges*, p. 89, and Chapter 5, Lindsay Hogan and Brenton Goldsworthy, *International Mineral Taxation: experience and issues*, p. 122.
- Silvana Tordo, *Fiscal Systems for Hydrocarbons: Design Issues*, World Bank Working Paper No. 123 (World Bank: Washington, D.C., 2007).
- Extractives Industry Transparency Initiative, *2016 Progress Report*. Available at <https://eiti.org/eiti> and <https://eiti.org/files/progressreport.pdf>.

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