

Transforming Extractive Industries for Sustainable Development

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I. Introduction

Since the industrial revolution, natural resources – notably fossil fuels – have underpinned our global economic system, shaping geopolitics and the course of human development. Historically, extractive industries¹ have also been a major driver of economic growth, particularly for now-advanced economies that benefitted during and after the Industrial Revolution. While Europe and North America once played a dominant role in the production of metals and other commodities, the extraction of resources has increasingly moved to developing countries, including China.

Currently, mineral resource extraction plays a dominant role in the economies of 81 countries that account for a quarter of global GDP, half of the world's population and nearly 70 per cent of those living in extreme poverty.²

This trend is likely to continue as the demand for the materials and critical metals needed as inputs to the renewable energy and related technologies increases, and as the higher cost of labour and stricter environmental standards in developed countries continues to make production in developing contexts attractive.

Extractive industries have immense potential to drive growth, support sustainable development, and reduce poverty in developing countries.

Yet, the actual contribution of extractive industries to sustainable development in countries rich in raw materials has often been mired by financial, economic, governance, social and environmental concerns, leading to the so-called resource curse or paradox of plenty.³

In effect, the abundance of raw materials has often locked many developing countries into patterns of primary product export specialization, constituting a barrier to long-term economic development. **Of the 72 countries classified as low or middle-income countries in 2019, 63 had increased their dependence on extractive industries for growth over the preceding two decades,⁴** with low value added, accompanied by a declining share of exports of manufactures with greater technological intensity.

The COVID-19 pandemic caused an extraordinary socioeconomic crisis throughout the world, resulting in a 4.3 per cent contraction of world GDP, the first increase in extreme poverty since 1998, and the loss of the equivalent of 255 million full-time jobs relative to the level in 2019.⁵ The collapse in revenues and GDP growth and

1 Extractive industries recover raw materials from the earth, process them, and turn them into products and services for use by consumers. These raw materials may be fossil fuels (notably coal, oil and gas), minerals (such as bauxite, phosphate, potash, copper, gold and diamonds, rare earth minerals) and aggregates (such as sand, gravel and clay). Sigam, C. and Garcia, L. (2012). Extractive Industries: Optimizing Value Retention in Host Countries, ECLAC. Available at https://unctad.org/system/files/official-document/suc2012d1_en.pdf.

2 The World Bank (2020). Extractive Industries: Overview. Available at www.worldbank.org/en/topic/extractiveindustries/overview.

3 Addison, T. (2020). Extractives for Development (E4D)- Risks and Opportunities, UNU-WIDER. Available at <https://www.wider.unu.edu/project/extractives-development-e4d-%E2%80%93-risks-and-opportunities>.

4 Roe, A. and Dodd, S. (2016). Like It or Not, Poor Countries are Increasingly Dependent on Mining and Oil and Gas, UNU-WIDER. Available at www.wider.unu.edu/publication/it-or-not-poor-countries-are-increasingly-dependent-mining-and-oil-gas.

5 Secretary-General (2021). Liquidity and Debt Solutions to Invest in the SDGs: The Time to Act is Now. Available at www.un.org/sites/un2.un.org/files/liquidity_and_debt_solutions_to_invest_in_the_sdgs.pdf.

rapid growth of financing needs also exacerbated debt burdens and risks across the globe, including in commodity-dependent countries.

Yet the crisis also resulted in a moment of reckoning, with many stakeholders calling for a more sustainable, resilient, and inclusive future. With fragilities in the global economy and across societies thrown into stark relief, crisis response and recovery efforts to address the impacts of the pandemic provide a window of opportunity to overcome the obstacles historically associated with the extractive sector. During the pandemic, for instance, there has been a political shift and an increase in commitments to net-zero carbon emissions by mid-century, including from several large emitting economies.⁶ Today, two thirds of global CO₂ emissions and 70 per cent of the global economy are covered by net-zero commitments. There is also an increased appetite for sustainable and environmental, social and corporate governance (ESG) investments. A net-zero emissions global economy presents vast commercial opportunities ahead. Those who capitalize on these trends the fastest, will benefit the most.

Some commodity-dependent developing countries, including low and middle-income countries have a 20-30 year window of opportunity to potentially benefit from the green transition, as many are rich in the commodities needed for the renewables revolution and clean technologies, including lithium, graphite, manganese, cobalt, and critical raw materials (CRMs). Conversely, many countries facing severe fiscal deficits due to COVID-19 have rolled back social and environmental safeguards to attract investments and boost their economies in the short-term.

The challenge now is to both ensure that (i) **those countries rich in the materials needed for the green transition can capitalize on these trends and achieve economic and social benefits**, in the same way that now-advanced economies benefitted from their resources during and after the Industrial Revolution, while keeping sustainability objectives, including the goals of the Paris Agreement, front and centre; and (ii) that those countries and workers who are dependent on the fossil fuel industry, as well as vulnerable communities, including women, indigenous communities, and youth, have economic diversification plans and are adequately supported and reskilled where necessary during this transition. **The transition to a net-zero economy must be a just transition for all countries, regardless of their sources of income, current energy mix or level of development.**

As our world moves toward an uneven and partial recovery, **failure to transition to more sustainable systems will generate stranded assets, perpetuate vulnerabilities, jeopardize the fight against climate change and threaten human well-being, ecosystems, and economies for decades, if not centuries, to come.**⁷

Transforming extractive industries⁸ must be part of the solution. This will require giving equal weight to the management of the impact of extractives on societies and the environment, as has been given to economic considerations in the past. A shift in mindset is also needed away from short-term economic considerations to long-term financial risks and broader-based benefits associated with the transition to net-zero economies, that include social, environmental and cultural externalities.

6 OECD (2020). Green Budgeting and Tax Policy Tools to Support a Green Recovery. Available at www.oecd.org/coronavirus/policy-responses/green-budgeting-and-tax-policy-tools-to-support-a-green-recovery-bd02ea23.

7 Regional Economic Commissions (2021). Extractive Industries: Transition to Sustainable Systems, Regional Policy Brief.

8 Extractive industries recover raw materials from the earth, process them, and turn them into products and services for use by consumers. These raw materials may be fossil fuels (notably coal, oil and gas), minerals (such as bauxite, phosphate, potash, copper, gold and diamonds, rare earth minerals) and aggregates (such as sand, gravel and clay). Sigam, C. and Garcia, L. (2012). Extractive Industries: Optimizing Value Retention in Host Countries, ECLAC. Available at https://unctad.org/system/files/official-document/suc2012d1_en.pdf.

II. Challenges in the extractive industries sector

The purpose of this policy brief is to capitalize on the opportunity provided by COVID-19 to build back better by identifying concrete recommendations for transforming the extractives sector into an engine for sustainable development, which can support a just transition to a net-zero, circular, and inclusive global economy. The recommendations identified in this policy brief build upon the outcomes of five Regional Roundtables on Extractive Industries hosted by the United Nations Regional Economic Commissions between October 2020 and March 2021, and which fall under the purview of the Financing for Development in the Era of COVID-19 and Beyond Initiative.⁹ Given the breadth of this topic, this policy brief focuses on extractive industries from the perspective of financing for development, and provides concrete recommendations to be implemented at the global, regional, and national levels.

FINANCING FOR DEVELOPMENT AND GOVERNANCE

Between 1998 and 2008, the value of global natural resource trade rose six-fold from \$600 billion to \$3.7 trillion. Yet governments have not always been able to collect appropriate levels of revenue

due to weak or regressive tax systems, a lack of long-term planning, unsustainable debt burdens and illicit financial flows, including corruption and tax evasion. In Africa, UNCTAD estimates that \$88.6 billion in illicit financial flows leaves the continent every year, more than the total amount of the annual \$48 billion received in official development assistance (ODA), and \$54 billion in foreign direct investment.¹⁰ Governance deficits, and weak environmental, social, legal and policy frameworks and coordination mechanisms between and within sectors and between national and local levels, are also a particular concern to export-dependent countries.

The sheer value of some extractive industries has often resulted in an overdependence on revenues from extractive industries and lacklustre efforts to pursue economic diversification, leaving economies vulnerable to economic shocks and price volatility. Investments and revenues in the sector have sometimes hindered diversification efforts.¹¹ In addition, activities are often driven by governments or large companies with the ability to access greater levels of finance due to their size and ratings, which excludes smaller private sector players and encourages enclave-style economies that fail to create links with host economies and communities.

⁹ United Nations (2021). Financing for Development in the Era of COVID-19 and Beyond Initiative. Available at www.un.org/en/coronavirus/financing-development.

¹⁰ UNCTAD (2020). Tackling illicit financial flows in Africa for sustainable development in Africa. Geneva: UNCTAD, 248 pp. Available at https://unctad.org/system/files/official-document/aldcafrica2020_en.pdf.

¹¹ Real exchange rate appreciation due to foreign currency inflows have negatively impacted the international competitiveness of other tradable goods.

SOCIAL EQUITY AND INCLUSION

While extractive industries generate jobs, they can have direct and indirect negative social impacts unless such effects are controlled for, and have sometimes contributed to the displacement of populations, economic, social and gender inequality, and even armed conflicts. Many jobs entail old infrastructure, limited implementation of safety regulations and insufficient personal protective equipment, which leave some who work in or are exposed to this sector at risk of illness, injury or death. Some extractive industries typically create a limited number of jobs for local communities, as they tend to be highly technology-intensive and generally dominated by foreign multinationals, while in other cases mine or production sites are the only source of jobs and income for entire towns or regions, making them completely dependent on their existence. Additionally, while the formal mining sector employs more than 3.7 million workers worldwide, up to 100 million people make a living from artisanal or small-scale mining.¹²

a. GENDER

In a highly masculinized industry – with some countries banning women from holding certain positions – women form a minority of the workforce, yet are more exposed to environmental and economic hazards. With fewer economic

opportunities at hand, women are also disproportionately affected by negative externalities including involuntary resettlement, loss of access to land and finance, natural resources and clean water, air and soil pollution, and mercury contamination. Many women suffer from increased gender-based violence, prostitution, and sexual slavery related with the industry, while an estimated 1 million children work in mining at the expense of attending school, particularly in the informal artisanal and small-scale mining sector in developing countries.¹³

b. INDIGENOUS PEOPLES' RIGHTS

Indigenous peoples are estimated to constitute one-third of the world's 900 million extremely poor rural people, the group that accounts for the bulk of those with no access to modern energy.¹⁴ According to the report of the Special Rapporteur on the Rights of Indigenous Peoples, extractive industries have long constituted “the most pervasive source of the challenges to the full exercise of indigenous peoples' rights.”¹⁵ Land loss, the destruction of sites of cultural or spiritual significance, marginalization and systematic discrimination and the impacts from associated air, water, and social pollution have also exacerbated the loss of lives, health, livelihoods, identities and cultures, pushing many indigenous peoples into extreme poverty while prompting localized armed conflict.¹⁶ Human rights defenders, including land and environmental

12 UNEP, Why Does Extractives Matter? Available at www.unep.org/explore-topics/extractives/why-does-extractives-matter.

13 World Vision (2021). Five Things You Need to Know About Children and Mining. Available at www.worldvision.ca/about-us/media-centre/5-things-about-children-mining.

14 Indigenous Peoples Major Group for Sustainable Development (2018). Available at <https://indigenouspeoples-sdg.org/index.php/english>.

15 Anaya, J. (2011). Report of the Special Rapporteur on the Rights of Indigenous Peoples, A/HRC/18/35. Available at <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G11/146/39/PDF/G1114639.pdf?OpenElement>.

16 Indigenous Peoples Major Group for Sustainable Development (2020); United Nations Department of Economic and Social Affairs, 2021; World Commission on Dams, 2000; pp. iv and 110–112; Marcus Colchester, “Dams, Indigenous Peoples and Ethnic Minorities”, WCD Thematic Reviews, Social Issues I.2, prepared as a Commission input (Cape Town, World Commission on Dams, 2000); Baqué and Doyle (2017); Rights and Resources Initiative (2015).

defenders, in extractive sectors, which include a high percentage of indigenous people, are especially vulnerable to death and harassment.¹⁷

c. ENVIRONMENT

Extractive industries have a significant environmental impact at both the local and global level. Water, air and soil contamination from extraction, smelting and transportation processes, water use competition, and the destruction of habitat and protected areas are among the persistent environmental challenges facing the sector. Limited legislation and weak law enforcement lead to ecosystem degradation and a loss of biodiversity. Negative environmental impacts are also exacerbated by informal and illegal extractive industry operations, often driven by extreme poverty, which by definition are not subject to oversight and can cause irreparable damage.

On a global scale fossil fuels accounts for a staggering 73 per cent of the world's greenhouse gas emissions, placing the spotlight of climate mitigation efforts squarely on extractive industries.¹⁸ Eliminating fossil fuel subsidies and adopting efficient fossil fuel pricing in 2015 would have lowered global carbon emissions by 28 per cent, increased tax revenues by 3.8 per cent of global GDP, and contributed to net economic benefits amounting to 1.7 per cent of global GDP.¹⁹

To limit the global temperature increase to 1.5 degrees Celsius above pre-industrial levels in line with the science and the Paris Agreement, the world needs to decrease fossil fuel production, including coal, oil and gas, by roughly 6 per cent every year. A rapid phase out of coal, which has historically been a significant portion of the global energy fuel mix, is a main priority, with coal-fired electricity generation accounting for 30 per cent of global CO₂ emissions in 2018.²⁰ Global coal use must fall by 80 per cent below 2010 levels by 2030, while OECD nations should end coal use entirely before 2030. All coal-fired power stations must cease operating by 2040 at the latest. This is a hugely difficult challenge in some regions of the world given present energy strategies, which still favour the construction of large coal-fired plants. Oil and gas must quickly follow this trend as well, while gas should be phased out by 2050.

As the global population increases, the demand for minerals and metals is almost certain to rise. In 2017, extraction reached 92 billion tons compared with 27 billion in 1970. If current trends continue, the world will require 190 billion tons of material every year by 2060, including for green technologies needed for a transition to a sustainable future. These trends make the need for an inclusive and circular economy increasingly urgent.²¹

17 Global Witness (July 2020). Defending Tomorrow. Available at www.globalwitness.org/en/campaigns/environmental-activists/defending-tomorrow.

18 Climate Watch. Available at www.climatewatchdata.org/ghg-emissions?breakBy=sector&calculation=ABSOLUTE_VALUE&chartType=percentage&end_year=2018§ors=total-excluding-lucf&source=CAIT&start_year=1990.

19 IMF (2019). Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates. Available at www.imf.org/en/Publications/WP/Issues/2019/05/02/Global-Fossil-Fuel-Subsidies-Remain-Large-An-Update-Based-on-Country-Level-Estimates-46509.

20 IEA (2019) Global Energy Status Report. Available at www.iea.org/reports/global-energy-co2-status-report-2019/emissions.

21 UNEP (2019). UN Calls for Urgent Rethink as Resource Use Skyrockets. Available at www.unep.org/news-and-stories/press-release/un-calls-urgent-rethink-resource-use-skyrockets.

III. Potential contributions to sustainable development

Over the past year, the COVID-19 pandemic has wreaked havoc on lives and economies worldwide, sending some commodity prices collapsing and others skyrocketing. At the same time, the imperative of accelerating efforts to address the climate crisis is placing an unprecedented level of pressure on the extractives sector. In this unique context, **action taken in the extractives sector today could determine the capacity of many countries to recover from the crisis in the short term, achieve the Sustainable Development Goals (SDGs) and the Paris Agreement in the medium term, and determine the ability of the entire world to secure a just transition to a net-zero future in the long term.**

FINANCING FOR DEVELOPMENT

At the outset of the pandemic, COVID-19 had a disproportionate impact on economies dependent on extractives, as the crisis led to a sharp initial fall in commodity prices, with oil

45.5 per cent in 2019, to 58.8 per cent in 2020.²² The IMF estimates that the Gulf Cooperation Council (GCC) fiscal financing needs increased from 8.7 per cent of GDP in 2019 to 13.5 per cent in 2020, with debt issuance reaching \$59 billion in the first three quarters of 2020, \$15 billion more than total issuance for the whole of 2019.²³

In response, some countries earmarked funds in their stimulus packages to support the fossil fuel industry. According to the Energy Policy tracker, \$278 billion has been committed in countries' recovery stimulus packages in support of the fossil fuel sector and fossil fuel-dependent industries in the Group of 20 (G20) countries, mostly unconditionally. This continued financial support to the fossil fuel sector appears to be at odds with the political commitments to net-zero emissions by 2050 by most of the world's largest emitting economies. By contrast, clean energy commitments have risen to \$241 billion, but 79 per cent of that sum has been given as conditional support.²⁴

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