

PARLIAMENTARY OVERSIGHT OF EXTRACTIVES RESOURCES AND CLIMATE CHANGE POLICIES - CAPACITY GAP ASSESSMENT

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Parliamentary Oversight of Extractives Resources and Climate Change Policies Capacity Gap Assessment

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Abbreviations

ABFA	Annual Budget Funding Amount	
AEF	Africa Investment Forum	
AfDB	African Development Bank	
AFREC	African Energy Commission	
AMLA	African Minerals Legal Atlas	
AMV	African Mining Vision	
ASLF	African Legal Support Facility	
ASM	Artisanal Small-Scale Mining	
ANRC	African Natural Resources Center	
AUC	African Union Commission	
bcm	Billion cubic metres	
bpd	Barrels Per Day	
CSR	Corporate Social Responsibility	
СРА	Commonwealth Parliamentary Association	
DFIs	Development Finance Institutions	
DPR	DPR Department of Petroleum Resources	
DRC	Democratic Republic of the Congo	
EAC	East Africa Region	
ECOWAS	Economic Community of West African States	
EIA	Energy Information Administration	
EIB	European Investment Bank	
EITI	Extractives International Transparency Initiative	
EIAS	Environmental Impact Assessment Studies	
EMP	Environmental Management Plans	
ESG	Environment, Social and Governance	
FDI	Foreign Direct Investment	
GDP	Gross Domestic Product	
GHG	Greenhouse Gas Emissions	
GNPC	Ghana National Petroleum Corporation	

IEA	International Energy Agency
IGF	International Growth Forum
ILO	International Labour Organization
IMF	International Monetary Fund
IPU	Inter-Parliamentary Union
IOCs	International Oil Companies
IT	Information Technology
KAS	Konrad Adenauer Stiftung
LNG	Liquid Natural Gas
mbpd	Million Barrels Per Day
MCI	Mining Contribution Index
MEMSA	Mining Equipment Manufactures of South Africa
MMboe	Million barrels of oil equivalent
MMBtu	Million British Thermal Units
NAMCOR	National Petroleum Corporation of Namibia
NCDMB	Nigerian Content Development and Monitoring Board
NCI	Nigerian Content Intervention Fund
NDCs Nationally Determined Commitments	
NGCs	National Gas Companies
NLNG	Nigeria LNG Limited
NLNG NNPC	Nigeria LNG Limited Nigerian National Petroleum Corporation
NNPC	Nigerian National Petroleum Corporation
NNPC NOCs	Nigerian National Petroleum Corporation National Oil Companies
NNPC NOCs NGOs	Nigerian National Petroleum Corporation National Oil Companies Non-Governmental Organisations
NNPC NOCs NGOs NSIA	Nigerian National Petroleum Corporation National Oil Companies Non-Governmental Organisations Nigeria Sovereign Investment Authority
NNPC NOCs NGOs NSIA OPEC	Nigerian National Petroleum Corporation National Oil Companies Non-Governmental Organisations Nigeria Sovereign Investment Authority Organisation of the Petroleum Exporting Countries
NNPC NOCs NGOs NSIA OPEC PIAC	Nigerian National Petroleum Corporation National Oil Companies Non-Governmental Organisations Nigeria Sovereign Investment Authority Organisation of the Petroleum Exporting Countries Public Interest and Accountability Committee
NNPC NOCs NGOs NSIA OPEC PIAC PPE	Nigerian National Petroleum Corporation National Oil Companies Non-Governmental Organisations Nigeria Sovereign Investment Authority Organisation of the Petroleum Exporting Countries Public Interest and Accountability Committee Personal Protective Equipment
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NNPC NOCs NGOS NSIA OPEC PIAC PPE PPPS PRMA RECS	Nigerian National Petroleum Corporation National Oil Companies Non-Governmental Organisations Nigeria Sovereign Investment Authority Organisation of the Petroleum Exporting Countries Public Interest and Accountability Committee Personal Protective Equipment Public Private Partnerships Petroleum Revenue Management Act Regional Economic Communities
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NNPC NOCs NGOS NSIA OPEC PIAC PPE PPPS PRMA RECs SADC SDGS SMES	Nigerian National Petroleum Corporation National Oil Companies Non-Governmental Organisations Nigeria Sovereign Investment Authority Organisation of the Petroleum Exporting Countries Public Interest and Accountability Committee Personal Protective Equipment Public Private Partnerships Petroleum Revenue Management Act Regional Economic Communities The Southern African Development Community Sustainable Development Goals Small and Medium Enterprises

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- UNECA UN Economic Commission for Africa
- USD United States Dollar
- USEIA United States Energy Information Administration
- IWiM International Women in Mining
- WNA World Nuclear Association

Foreword

In a bid to align with the obligation of the 2015 Paris Agreement to limit global warming to well below 2 Degrees Celsius, ideally 1.5 Degrees compared to pre-industrialised levels, more and more countries are introducing strategies to reduce their national emissions of greenhouse gases (GHGs) over the coming decades. Ahead of the United Nations Framework Convention on Climate Change Conference of the Parties (COP28) that will take place in the United Arab Emirates in November 2023, several countries have enacted laws and policies that evidence their commitment to reduce greenhouse gases or have announced dates until which they aim to become carbon neutral.

Interestingly, this also includes more and more low and middle-income countries that still have trajectories of significant industrial and economic growth ahead of them. Therefore, the energy transition shift is not only a shift to decarbonise existing economies but also to enable industrialization and economic growth based on low-carbon technologies.

A substantial element of the transition towards carbon neutrality is the phasing out of fossil fuels and replacing these with renewable energies and green technologies. However, the move towards a low-carbon future will require vast quantities of minerals and metals. For instance, at least 16 different minerals or metals are needed to produce solar panels. Wind turbines and energy storage technologies equally require mineral and metal-intensive inputs. It is thus predicted that metals demand between 2021 and 2050 will likely double for wind and solar technologies, and even more for battery storage technologies. This strategically places Africa in a favorable position as access and availability of these minerals and metals are widely available in the region which boasts of large reserves of critical minerals such as platinum, manganese, cobalt, copper and bauxite. For instance, around 70% of the global cobalt production derives from the Democratic Republic of Congo.

At the same time, many countries in sub-Saharan Africa are rich in fossil extractives and derive a significant portion of their gross domestic product (GDP) from extractive industries. Therefore, considerations to transition towards carbon neutrality through passion out fossil fuels can be met with a degree of resistance. Any analysis of extractive industries in sub-Saharan Africa therefore needs to take into consideration all forms of extractives: Those that will need to

gradually phase out in order to reduce emissions but still play an important role today and those that will be needed for a low-carbon future.

The Konrad-Adenauer-Stiftung (KAS) Regional Programme Energy Security and Climate Change in Sub-Saharan Africa commissioned this study with a two-pronged objective. Firstly, the study examines the impacts of the changing attitudes of policymakers, financiers, investors, and consumers given the decarbonisation agenda, from the perspective of countries in Sub-Saharan Africa. Secondly, the study assesses parliamentary oversight capacity gaps as it relates to the extractives, environment, climate change and energy transition. This report feeds into the programmes' overall goal to improve good governance within the region, through effective institutions which are essential for sustainable extractives resources development and management.

Anja Berretta

Head of Regional Programme

Energy Security and Climate Change in Sub-Saharan Africa.

Parliamentary Oversight of Extractives, Resources and Climate Change Policies

Executive Summary

The report is broken down into two parts. The first part provides a brief analysis of the extractives industries. To ensure relevance to the study on climate change, energy transitions and decarbonisation, the scope of the analysis has been narrowed to concentrate on those extractive industries that are a significant part of the global and regional energy mix and those that are critical to transition to clean sources of energy. Therefore, the study examines the impacts of the changing attitudes of policymakers, financiers, investors, and consumers given the decarbonisation agenda, from the perspective of countries in sub-Saharan Africa.

The analysis concludes that depending on whether one takes a medium or long term view, impacts differ between energy minerals and metals. In the medium term, the future outlook for existing operations in both cases is stable, but prospects are poorer for greenfield projects in fossil fuels. The main cause of this is that investors have recently cut back on research and exploration for oil, gas, coal, and uranium. An additional factor is that some major oil and gas companies have begun to sell off poor performing assets or projects in high risk sovereign states in preference for assets with high returns and low sovereign risk. Sub-Sahara's risk profile increases the likelihood for more divestment. The study thus concludes that investment in uranium power plants will fall at a much faster rate than other energy sources, followed by coal and petroleum, respectively.

Decarbonisation of the world and energy transition will result in industry shrinkage, with some assets becoming redundant. For sub-Saharan states, both scenarios imply a drop in Foreign Direct Investment (FDI), national revenue and a shrink of national economies. The above notwithstanding, the study notes that subject to two factors this risk might be mitigated. The first would be governments investing in state-owned petroleum operations including exploration and R&D projects and thereby extending the life of assets. The second is the world's acceptance of gas as a transition energy resource. This would lead to an increase in FDI in large natural gas projects in the region.

Regarding energy transition and critical metals, the study concludes that medium and long term outlook is positive based on increased demand. Demand will be driven by the need for component parts for battery storage units, wind turbines, solar units, and infrastructure for electric vehicles. Geopolitically, China is poised to dominate supply in the short term, but this could change if mining of polymetallic nodules in the deep-sea goes ahead and if exploration in rare earths increases leading to discoveries in sub-Saharan Africa. However, it is also trite to note that any major technology or policy shift globally and regionally could potentially alter all the scenarios.

The second part of the study assessed parliamentary oversight capacity gaps as relates to extractives, the environment, climate change and energy transition. The study collected data from five sub-Saharan African countries and used a variety of tools to collect it including oneon-one interviews, group discussions, online questionnaires, and secondary sources. The data was gathered from parliamentarians, non-governmental organisations (NGOS), public officials and international development partners. To frame the gap assessment, the study examined capacity from three perspectives, namely; institutional capacity, individual competency, and an enabling environment. The study found that in all the countries considered, there were adequate constitutional, legal, and institutional provisions to enshrine the power and role of parliament to oversee the work of government. That said, the study noted that most of the institutional frameworks were based on convention and were not fit for purpose and therefore not responsive to resources and capacity needs of committees responsible. This is a major institutional limitation which also masks lack of capacity.

In terms of oversight of policy and legal implementation, the study exposed several loopholes. The first is the low level of knowledge, lack of oversight mechanisms, poor information management and dissemination systems. The study also found that inadequate attention is being paid to the risk of the impacts of climate change on women, who are also underrepresented in a significant majority of parliamentary committees. Moreover, the levels of sector and subject knowledge among parliamentarians was extremely low. This lack of correlation between the desired levels of competency for oversight work and the actual skills of committee members is a major capacity gap. Another gap noted is the over dependency for knowledge and information on the Executive Branch and officials. This dependency undermines the principles of independence based on a separation of powers between parliament and the Executive. Notwithstanding trends, the severity of incapacity and areas of particular weakness differed from country to country¹.

¹ Note of the publisher: The research period of this study has been completed before the Russian invasion to Ukraine that has had severe impacts of the global energy security and energy supply. Nevertheless, the findings of the study are valid also in the changed global energy scenario since 2022.

1. INTRODUCTION

1.1 About Konrad-Adenauer-Stiftung (KAS) and the Regional Programme Energy Security and Climate Change in Sub-Saharan Africa

Konrad-Adenauer-Stiftung (KAS) administered the Regional Programme on Energy Security and Climate Change in sub-Saharan Africa in 2017. The goal of the programme is to improve the political and social framework for climate-friendly sustainable development and stronger regional and international cooperation on energy security and climate change adaptation/mitigation. The KAS-Regional Programme on Energy Security and Climate Change has identified good governance through effective institutions as an essential foundation for sustainable extractives resources development and ensuring that the benefits from extractives reach those who need them most.

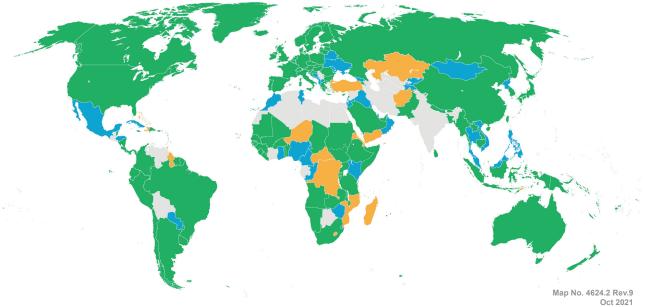
1.2 The Dilemma of Extractives Wealth, Climate Change and Energy Transition

The African continent has a range of extractive resources upon which many countries rely to sustain national economies. Through export revenue, employment creation, supply chains, infrastructure development and other domestic linkages, extractives are the economic cornerstone of many sub-Saharan African states. However, in the context of carbon emission reduction, climate change risk mitigation and transition towards cleaner energy sources, the resources are a double-edged sword.

On one hand, mineral resources present opportunities resulting from growing demand in industrialised economies for minerals that are critical to energy transition policies and rising demand for other minerals due to China's demand. The same applies to new business opportunities offered by manufacturers and service providers in clean energy supply chains. Equally, the estimated US\$ 6.7-plus billion worth of the voluntary carbon markets presents an opportunity for countries to trade in carbon credits. Data from the State of the Voluntary Carbon Markets 2021 shows that as of 31 August 2021, voluntary carbon markets had already posted US\$ 748.2M in sales for 239.3 million credits, each representing one ton of carbon dioxide_equivalent, reflecting a 58% year-to-date jump in value (up from US\$ 472.9M)¹.

1 https://www.ecosystemmarketplace.com/articles/press-release-voluntary-carbon-markets-rocket-in-2021-ontrack-to-break-1b-for-first-time/ For countries struggling to raise revenue, this could offer an additional source of finance especially because the carbon sequestration capacity of many sub-Saharan African countries has already drawn the attention of higher emitters among sovereign and corporate partners.

However, the drive to reduce carbon emissions also threatens to render the regions' coal, oil and gas (hydrocarbons) resources redundant. In the short term, lack of project finance could also prove to be a problem. Eventually, lack of investment in the technologies necessary to extract, process and safely transport the commodities to markets could make resource development an impossibility as developed nations ban fossil fuels altogether. The actions of countries in sub-Saharan Africa adds to pressures and challenges. Through an annual meeting of the 197 parties, sub-Saharan African countries and their international counterparts have signed up to the 1992 United Nations Framework Convention on Climate Change (UNFCCC), an agreement aimed at "preventing dangerous human interference with the climate system". The Conference of the Parties (COP) implements the Convention and follow-up instruments such as the 2015 Paris Agreement. It monitors the accepted framework for all international cooperation on the climate. This includes the Nationally Determined Commitments (NDCs) towards the reduction of carbon emissions that have been voluntarily submitted by sovereign and non-sovereign entities including countries in sub-Saharan Africa. Figure 1 below shows the progress (or lack thereof) of as of October 2021.



UNITED NATIONS Geospatial

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The boundaries and names shown and the designations used on this map do not imply official endorsement or accept status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

Net-zero commitment* New or updated NDC ** Net-zero commitment and new/updated NDC
Sources: * Energy and Climate Intelligence Unit ** UNFCCC

Figure 1: Consolidated COP Country-By-Country Status Report of the Paris Agreement Nationally Determined Commitments Towards Carbon Emission Reductions)

The voluntary nature of the NDCs does not lessen the challenge on signatories. For one, at the level of multilateral relations, it brings pressure on sub-Saharan African states through development agencies, sovereign rating agencies and other diplomatic channels. In terms of FDI, any appearance of lack of compliance with NDCs in the region, could dampen the enthusiasm of investors who are themselves looking over their shoulder at ratings agencies and most specifically Environment, Social and Governance (ESG) ratings in the global north. Therefore, responsible stewardship based on laws and capacity for implementation and oversight are essential ingredients for addressing many of these challenges.

PART A

2. ABOUT THE PROJECT

2.1 Scope of Work and Approach

Given the central role that parliaments perform in ensuring implementation of policies and laws, KAS wishes to assess their capacity for oversight. KAS' areas of interest are the capacity of parliamentarians to oversee policies and laws on climate change mitigation, transition towards a cleaner energy mix and the protection of groups that are vulnerable to climate change and emerging socio-economic conditions.

As part of the gap analysis report, the study provides a high-level analysis of sub-Saharan Africa's extractive sectors. The analysis has two separate sections. The first section is on hydrocarbons and the second is on mineral substances. In both sections, the report is confined to the exploration and extraction phases. The report is also biased towards substances that impact climate change, energy transition and security. In view of the scope of the study, the analysis focuses on the contribution of extractives to regional development and on issues that have a bearing on the broad subjects of climate change, women, energy security and transition.

3. HIGH-LEVEL ANALYSIS OF EXTRACTIVES INDUSTRIES IN SUB-SAHARAN AFRICA

There are two clusters of extractives. Those that are referred to as *energy minerals*, including petroleum and hydrocarbon substances namely thermal coal, coal bed methane, oil, natural gas shale gas, and uranium. The second but more diverse group of extractives, are those referred to as *solid minerals*. The latter can be further broken down into three major categories.² Namely, *metals substances* that vary widely in usage. A second variety of solid minerals, is what are referred to as *construction minerals*. The third group is industrial minerals that are non-metallic.

Quite apart from their chemical composition, the substances have different value chains horizontally, vertically, upstream, and downstream. The value chains give rise to specific industries, supply chains, commodity, and financial markets. Each also has its own unique impact on the social, physical, and economic environment. Most importantly, each differs in the way in which it contributes to climate change and or energy transition. Due to this diversity, a comprehensive analysis of the extractives sector would require more resources than is feasible given the purpose and scope of this report. Therefore, the analysis contained in this report is high level and the issues addressed were chosen for their pertinence to the study. The analysis starts with energy minerals under sub-paragraph 3.1 which is followed by solid minerals under 3.2. In both sections, the analysis examines the resources from three angles, namely;

- i. Resources Endowment, Production and Contribution to Economies
- ii. The Environment, Climate Change and Transition to Clean Energy
- iii. Future Outlook.

Under section 3.3 of the analysis focus turns to cross cutting issues, namely;

i. Geopolitics

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- ii. Impacts on Women
- iii. Impacts Digital Technology
- iv. Extractives Industries Response to the Changing Work Environment.

² https://www2.bgs.ac.uk/mineralsuk/mineralsYou/whatAre.html.

3.1 Overview of Energy Minerals

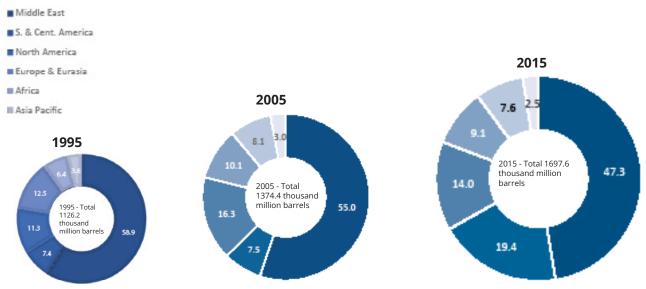
Energy minerals are used to produce electricity, fuel for transportation, heating for homes as well as offices and in the manufacture of other products including fertiliser and plastics. As sources of energy, the substances are dominated by petroleum and thermal coal that are available in large quantities in different parts of the world. Oil and gas have similar upstream value chains but differ from that of coal. The analysis of energy minerals in this report is confined to those that form a significant part of the energy mix and have a meaningful economic contribution, large environmental footprint and social impacts. The energy minerals analysed are oil, gas, thermal coal, and uranium.

3.1.1 Reserves, Production and Contribution to National Economies

Oil

Several countries in sub-Sahara have large oil reserves starting with Nigeria which is also number 16 worldwide. Out of the world's top 20 countries with proven oil reserves, four are in Africa, namely Algeria, Angola, Libya and Nigeria. In 2020, Africa's proven reserves stood at 125.3 bbl and accounted for 7.2% of the world's proven reserves.³ Until recently there had not been major discoveries in the region. Early this year Shell's and Total Energies discovery of oil with associated gas located offshore in the Orange Basin in Namibia's maritime waters. Though it is too early to determine the level of oil reserves, the two companies deem the oilfields significant and the Qatar State Oil company to have partnered with the National Petroleum Corporation of Namibia (NAMCOR) for the development of the fields. Figure 2 below shows the level of oil reserves at 10-year intervals from 1995 and 2021 in Africa.

³ Fuel for Thought, Africa oil and Gas Review 2019. Current Developments and a look into the Future. PWC Gas Review November 2019.



Source: https://www.iogp.org/global-production-report-2019/ (using data from the BP Statistical Review of World Energy, published in June 2019)

Figure 2: Oil Production by Region (Source; BP Energy Statistical Review 2021)

Though there was a general drop in volumes, the mid-2021 packing order for oil production in sub-Saharan Africa's leading producers mirrors that of reserves. One of the reasons for the drop in production were cuts by OPEC members following concern over the likelihood of a fall in demand due to impacts of COVID-19. As a result, oil industry reports show that *'countries like Nigeria and Angola are producing between 25%-30% less in 2021 than in 2019.'*⁴ Nevertheless, as shown in Table 1 below, crude oil remains the leading contributor to gross national product (GDP) among the top seven producers in the region.

Country	Annual Crude Oil Production (bpd)	GDP %
Nigeria	1.36m	13.8
Angola	1.14m	29.9
Republic of The Congo	271,000	21.2
Ghana	189,000	10.8
Gabon	160,000	36.7
Equatorial Guinea	153,000	60.0
Chad	109,000	30.6

Table 1: Crude Oil Contribution to GDP

The level of dependency makes the countries vulnerable to short-term crude price volatility as experienced in 2019 when crude fell US\$ 39 per barrel. The result was that the countries borrowed extensively from Development Finance Institutions (DFIs). This in turn has led to higher levels of sovereign debt. A report by the AfDB in 2020 states, *'in the short term, the average debt-to-GDP ratio in Africa is expected to increase significantly to over 70%, from 60% in 2019. Most countries in Africa are expected to experience significant increases in their debt-to-GDP ratios for 2020*

⁴ Grace Goodrich https://energycapitalpower.com/top-10-africas-leading-oil-producers-in-2021/

*and 2021, especially resource-intensive economies.*⁵ This means that though recent higher than normal crude oil prices will offer some relief, much of the public revenue will be ploughed into reducing national deficit and servicing debt rather than investing into the future.

On the other hand, petroleum companies cut back exploration and other development projects budgets in anticipation of an overall decline in demand for petroleum products due to transition to clean energy and the decarbonization of the global economy. For instance, in October 2020, international media reported that the head offices of BP and Shell had each announced that the two companies would cut jobs that would affect all their operations globally, especially new projects. According to an analysis by Deloitte in October 2020, the oil sector and related industries in the US retrenched an estimated 107,000 workers between March and August 2020. The same report stated that this was the fastest rate of layoffs in the industry's history. The report further estimated that about 70% of the jobs lost during the pandemic may not be recovered by the end of 2021. In sub-Saharan Africa, by February 2021, Shell Nigeria announced the sale of some 30 onshore oil fields. Chevron also followed suit. Though the assets are associated with the risk of bunkering, most observers also recognise that the actions of the majors is indicative of the need to divest from oil. If so, this could be the beginnings of a fall in inward investment and potential oil production in the medium term.

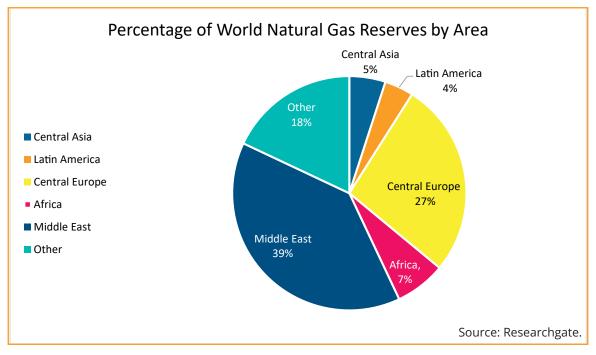
Gas

As with oil, sub-Saharan Africa has large natural gas reserves. Out of the 181 countries analysed by the BP Statistical Review of World Energy 2020, 6th Edition, of the top 20 gas reserves reported, four are in Africa. In addition, recent discoveries of gas have boosted the region's standing in the sector including discoveries made in Mozambique, South Sudan and Ethiopia's Ogaden Basin. According to analysts at PWC, the latter alone contains 8 tcf of natural gas reserves and at full capacity, the reserves are worth a potential US\$ 7 billion a year. The same report states that in 2019, at 509.6 tcf, Africa's proven gas reserves were up 4.5% from the previous year which equates to 7.5% of the world's proven reserves.⁶

As shown in the Figure 3 below, compared with Europe and the Middle East, gas reserves in the region are comparatively smaller but the reserves are not insignificant. In 2012 when the U.S. firm Anadarko Petroleum Corporation announced a further gas find off the coast of Mozambique, it was estimated to be up to 60 trillion cubic feet of recoverable gas. Analysts suggested that the find would be enough to meet the entire gas consumption of Europe's 4 biggest economies

⁵ https://www.afdb.org/sites/default/files/2021/03/09/aeo_2021_-_chap2_-_en.pdf

⁶ BP Statistical Review of World Energy 2020 | 69th edition



Germany, France, Britain and Italy for up to 6 years running.⁷

Figure 3: Distribution of Proven Natural Gas Reserves in 2020 (%)8

Therefore, notwithstanding the comparatively low reserves, seen in the contexts of global demand and national economies, the reserves represent important sources of supply, FDI and public revenue. For instance, in 2021 Angola exports totalled to around 4.48 million metric tons, valued at around US\$ 3.1billion. The gross revenue collected from gas exports in 2021 is almost three times greater than that obtained in 2020, because of the increase in prices on the international market. For emerging producers such as Mozambique, Senegal and Tanzania, gas projects can be transformative. On September 30 2019, an announcement by TotalEnergies of the company's US\$ 3.9 billion acquisition of rights to Mozambique's gas fields from Anadarko resulted in a US\$ 880 million capital gains tax payment to the country's tax authorities.⁹

In terms of usage, oil and gas both heat homes and buildings, but gas is much cheaper. The marketing of gas by products and the overall product economics and environmental impacts also differ vastly from those of oil. For example, gas projects can either be a function of gas associated with oil production or independent liquid natural gas discoveries that are developed based on their commercial viability. But when gas is part of the oil field, oil is preferred because there is greater demand for the product, and it generally commands a higher price than gas. Gas agreements often fix the price upfront with little flexibility over the duration of the uptake agreement. On the other hand, though traded in open markets, crude is also influenced by <u>actions of major OPEC producers towards whom traders and analysts look to speculate on price.</u>

9 Fuel for Thought, Current Developments, and a look into the Future. PWC Gas Review November 2019.

⁷ https://www.reuters.com/article/ozabs-eu-mozambique-aid-20120719-idAFJOE86I07520120719

⁸ https://www.researchgate.net/figure/Natural-gas-reserves-estimates-in-various-geopolitical-areas-percentage-of-total_fig2_237338604

As such the economics of gas differ fundamentally to those of oil at global, regional, country and even project level. Often oil developers opt to burn (flaring) the associated gas rather than capture and market it based on a simple cost-benefit analysis. While the practice of gas flaring might make sense for project economics and return on investment for project sponsors for host countries, it is a waste of a valuable natural resource and offers citizens a more costly option for meeting energy needs by importing oil-based fuel. Based on this, one could argue that in poorer countries, while the value of oil is overstated, that of gas is understated

Coal

Globally, the biggest coal reserves are in the United States, Russia, India and China, respectively. In Africa, the largest reserves and production is in southern Africa. In million short tons, the top eight countries are South Africa with 722.77m tons, Mozambique with 1975.34m tons, Zimbabwe with 553.36m tons, Nigeria with 379.19m tons, Tanzania with 296.52m tons, Swaziland with 158.73m tons, Botswana with 127.72m tons, and the Democratic Republic of the Congo (DRC) with 97.00m tons.¹⁰ Many of the countries remain committed to coal development and the need for energy supply and not revenue appears to influence policies. For instance, coal is Botswana's only source of energy.¹¹ In South Africa, it is estimated that almost 75% of production is used domestically. As such, wherein the contribution of oil and gas is primarily export revenue, coal's primary function is security of thermal power supply. Figure 4 below shows South Africa's production between 2009 and 2020. Production was at its lowest between 2015 and 2017 but also correlates with the country's acutest power shortages. The reason for low production was a delay in expanding energy generation through additional power generation plants. According to reports, *'only with shortages looming in the mid-2000s did the government announce a costly overhaul, including plans for two huge new power plants - Kusile and Medupi.'¹²*

¹⁰ The U.S. Energy Information Administration

¹¹ https://miningafrica.net/natural-resources-africa/coal-mining-in-africa/

¹² https://www.bbc.com/news/world-africa-47232268

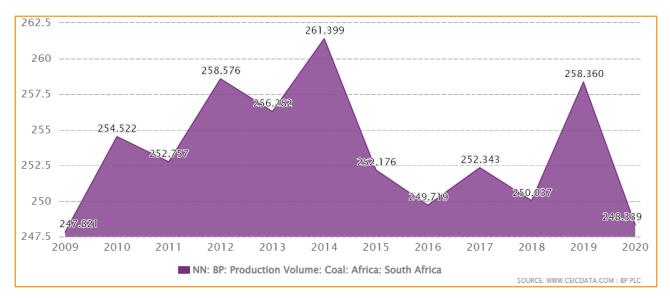


Figure 4: South Africa Coal Production

Nevertheless, in South Africa the coal industry contributes to the economy in other important ways. The industry employed 92,230 people in 2019 which represented about 19% of total employment in the mining sector with total coal sales revenue of R139.3 billion in that year being (est.US\$ 9.55). The coal industry spent R61 billion (est.US\$ 4.18) procuring goods and services, most of it locally, thus contributing to the creation and sustaining of jobs in other industries.¹³ As such to the degree that coal is produced in large quantities and is integrated into the national economy, as is the case in South Africa, its economic impacts are far reaching. As such, coal's national economic contribution cannot be seen only in the context of it as a source of energy.

Uranium

Though used much less as a source of energy globally, uranium remains an important part of the energy mix and the ensuing debate over an ideal roadmap to decarbonization. With the exception of countries in central Asia, uranium reserves are relatively small in relation to other energy minerals discussed above. Figure 5 below shows production levels by major producers worldwide. Of the top ten, two namely Namibia and Niger are in sub-Saharan Africa.

¹³ https://www.mineralscouncil.org.za/sa-mining/coal

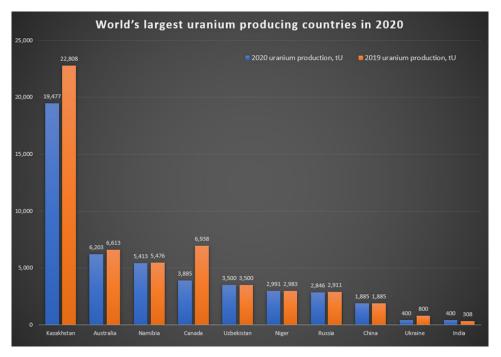


Figure 5: World's Largest Uranium Producers in 2020

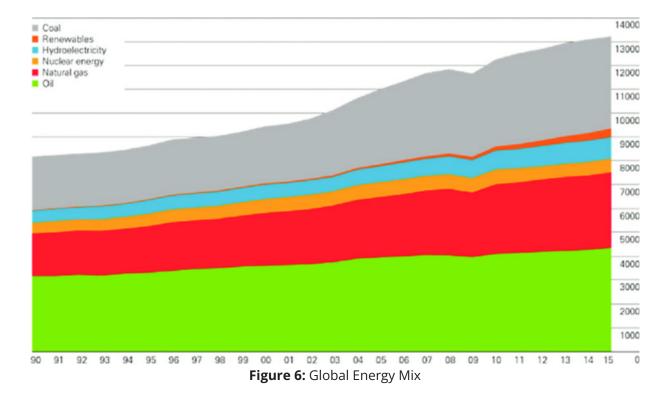
According to the data released by the World Nuclear Association (WNA) in 2020, the world's total uranium production amounted to 47,731 tonnes, a significant 13% decline over 2019 (54,742 tonnes), and the lowest level of uranium output in more than a decade. WNA said that in 2021, mined uranium covered only 74% of its global demand, which is also the lowest level in over a decade.¹⁴ In that same year, Kazakhstan produced the largest share of uranium from mines amounting to 41% of world supply. In Africa, Namibia moved one position up to third place. The country produced 5,413 tonnes of uranium, a 1% decline over 2019. In that country, Chinese companies have taken control over two uranium producing mines in Namibia, namely Husab and Rössing.¹⁵ As a result of a prolonged period of low uranium market prices, other mines closed in Malawi and Namibia in 2014 and 2018, respectively. The result being increasingly, both as a source of energy and revenue to national economies, uranium contribution is on the decline.

3.1.2 Energy Minerals, the Environment, Climate Change and Transition to Clean Energy

Energy minerals and specifically fossil fuels differ in their impact on the environment. The main driver is primarily level 1 emissions from each substance. The four energy minerals' relationship with the environment and their role in global transition to clean energy is each discussed briefly below. But first an overview of fossil fuels and global energy supply.

¹⁴ https://www.kitco.com/news/2021-09-16/World-s-largest-uranium-producing-countries-in-2020-report.html 15 https://www.kitco.com/news/2021-09-16/World-s-largest-uranium-producing-countries-in-2020-report.html

It is accepted that because of levels of greenhouse emissions, fossil fuels are an environmental nightmare that is responsible for much of the planet's rise in levels of temperature and related impacts on climatic conditions. But at the same time, the integrated nature of fossil fuels with industry and daily lives, (especially in industrialised economies) has made the desire for a global transition to cleaner sources of energy both costly and difficult. The result of the above factors is that for now, oil continues to hold the largest share of the energy mix (31.2%) including in Africa. According to BP, coal was the second largest fuel in 2020, accounting for 27.2% of total primary energy consumption. This represents a slight increase from 27.1% in the previous year. The share of both natural gas and renewables rose to a record high of 24.7% and 5.7% respectively. On the other hand, renewable sources have now overtaken nuclear energy which makes up only 4.3% of the energy mix. Hydro's share of energy increased by 0.4 % in 2022 to 6.9% and that was the first increase since 2014.¹⁶ See figure 6 below.



Oil

The above facts mean that unless decarbonization is ramped up, Greenhouse gas emissions (GHG) and the flaring of associated gas by oil producers will continue the environmental damage for years to come. Gas associated with oil production is burned because developers find it cheaper to burn it through flaring rather than capture it for consumption. According to the World Bank, 'global gas flaring decreased by 5% (from 150 billion cubic metres (bcm) in 2019 to

 <u>142 bcm in 202</u>0). Russia, Iraq, Iran, the United States, Algeria, Venezuela and Nigeria remain the top
 16 https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/primary-energy.
 html

seven gas flaring countries for nine years running, accounting for roughly two-thirds (65%) of global gas flaring.¹⁷ Environmental scientists and economists have concluded that flaring and other forms of releasing methane into the atmosphere are harmful environmentally and wasteful economically. Consider the following extract, *'flaring and venting waste 8% of global natural gas production annually, contribute 6% of global greenhouse gas emissions, and disperse a range of pollutants that harm human health and local environments. Capturing and using this gas would be a pro development, cost-effective means of reducing greenhouse gas emissions.¹⁸ Oil's environmental damage is not only confined to upstream but downstream non-biodegradable substances. But upstream oil's associated GHGs are the main source of environmental concern hence the call to end fossil fuel energy. The challenges for oil producers has been worsened by a decision by the World Bank, African Development Bank (AfDB), the European Investment Bank (EIB) and others to ban financial support for oil projects.*

Gas

While gas is also a source of emissions, captured from oil projects or extracted as a resource and subject to technological interventions, gas is considered less harmful to the environment. As such until 2020, it was universally considered a potential bridge between oil and cleaner sources of energy. But the pathway has been a difficult one because it was met with both political and civil society opposition. However so far, gas is more widespread as a heating fuel and is comparatively cheaper. The EU particularly is dependent on gas for heating, and this is a major policy consideration. Based on the relatively environmentally friendlier qualities of natural gas, the World Bank and other DFIs continue to fund aspects of gas development projects. But this is not without controversy. Luisa Abbott Galvao of Friends of the Earth *The World Bank Group's selective approach to phasing out fossil fuels is about as effective as throwing both water and gasoline at a house fire.*"¹⁹

Coal

Environmental effects of both coal mining and coal power plants do not bode well for either environmental protection or climate change. As with all mining projects coal mining often requires the stripping of top layers of soil, removal of plants and potential relocation of humans. The removal of topsoil leads to erosion, dust pollution and loss of habitat. Coal mining causes acid mine drainage, which causes heavy metals to dissolve and seep into ground. Both can contaminate surface water and underground aquifers. Workers exposed to coal dust for long periods sometimes face serious health problems. Coal, like other fossil fuels, emits fly

17 https://www.worldbank.org/en/topic/extractiveindustries/publication/global-gas-flaring-tracker-report

¹⁸ https://www.pnas.org/doi/10.1073/pnas.2006774117

¹⁹ https://www.devex.com/news/world-bank-boosts-climate-funding-but-activists-fret-over-gas-deals-100205

ash particles into the atmosphere which contribute to air pollution problems. Environmental impacts associated with using thermal coal to generate energy include emission, ground level ozone, smog, and acid rain. When burnt to release energy burning, coal produces several gaseous substances, including carbon dioxide, nitrogen oxide, sulphur dioxide and methane gas, all of which contribute to global warming and ultimately climate change.

However, supporters of coal (especially from poor countries) argue that the world needs coal least of which because it *is the cheapest source of energy and is used in 70% of the world's steel production and is a key component of many industrial processes, among others.*²⁰ Further environmental risks can be mitigated using technology to limit emissions, smog and other environmentally undesirable chemical substances associated with coal and thermal energy. Coal associations have pushed back and indicate that, *'different technologies have been developed to tackle different environmental impacts – from tackling air pollution, to cutting CO2 emissions and reducing water usage. These technologies mitigate the environmental impact of coal from mining through to end use.*²¹ Nevertheless, the future of thermal coal hangs in the balance as DFIs including the World Bank, African Development Bank (AfDB) and the European Investment Bank (EIB) have now banned financial support for coal projects.

Uranium

Uranium is a metallic substance and not a fossil fuel. It is soluble and potentially highly reactive. It is contained in many products including phosphate fertilisers. It occurs naturally in soil where it is absorbed by plants including food stuff. It also is found in air as dust that falls into surface water, on plants or on soils through settling or rainfall. As with most chemicals, uranium is not by its very nature dangerous, however *'some of its decay products do pose a threat.*²² On the other hand levels of dosage, unsafe ways of disposal leading to water and soil contamination causes toxins that can be harmful to the environment and living things.

As a source of energy, uranium is controversial because of the risk that nuclear power generation plants pose in the event that hazardous radioactive material derived from the uranium accidentally escapes into the air from the inner chambers of the otherwise tightly sealed plants. The argument on how likely this is and if the risk on the physical environment, humans and other life forms is worth taking is at the core of the question of whether environmentally uranium should be part of the global energy mix. Those who promote nuclear energy argue that though it is associated with significant level 2 emissions, unlike fossil fuel-fired power plants, nuclear power reactors do not produce direct carbon dioxide emissions or pollute the air while in operation. Furthermore,

²⁰ https://www.worldcoal.org/coal-facts/coals-contribution/ 21 https://www.worldcoal.org/clean-coal-technologies/

²² https://www.lenntech.com/periodic/elements/u.htm.

nuclear reactors and power plants have extensive safety and security features. As such they argue that the plants should be part of the energy mix.

The counter argument by opponents is based on the fear that an accident in a nuclear reactor could result in widespread contamination of air and water, human injury with intergenerational health defects. Further, accidents have occurred despite the fact that containment vessels are usually designed to withstand even extreme weather events and earth tremors. According to the U.S. Energy Information Administration (EIA), a major environmental concern relates to radioactive waste such as uranium mill tailings, spent (used) reactor fuel, and other radioactive matter. These materials can remain radioactive and dangerous to human health for thousands of years.²³ This concern and advocacy has led to an incremental decline in the use of uranium as a source of energy faster than other energy minerals.

Whether one examines fossil fuels or uranium, Africa's contribution to the environmental problem of energy minerals is negligible. Total carbon dioxide emissions in Europe in 2010 was 4677.5 and 3596.8 in 2020. Which represents an annual growth rate of 12.3% in 2020. In Africa, the figure for 2010 was 1171.6 in 2010 and 1254.0 in 2020. This represents an annual growth rate of -8.4% in 2020.²⁴ More importantly, regardless of levels of environmental harm, it is unlikely the world can rid itself of fossil fuels much less carbon emissions in the near future.

3.1.3 Future Outlook for Energy Minerals

Given the ongoing lack of consensus with respect to the energy mix during transition, the outlook for industries in the energy minerals is unclear. That said, some trends are starting to emerge. The first is that impact will differ from one resource to another. In the short term, gas is likely to be less impacted because of the EU's dependency on it for heating and the availability of project funding. The actions of the leaders of the bloc in March 2022, support this assumption. In November 2020, a proposal was tabled to the EU such that power plants fuelled by natural gas will not be classed as "sustainable" or "transition" investments in Europe unless they meet emission limits. Reports show that the limit of 100 grams of CO2 equivalent per kilowatt hour would prevent gas plants from being labelled as a "transition" technology on the way to reaching net-zero emissions by 2050. The proposed standards were tabled under the EU's sustainable finance taxonomy, which determines what type of investments make a substantial contribution to the EU's fight against climate change. Failing to obtain the EU's green label would deprive those gas power plants of billions of euros in funding as private investors seek shelter in

²³ https://www.eia.gov/energyexplained/nuclear/nuclear-power-and-the-environment.php

²⁴ https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2021-full-report.pdf

investments seen as climate friendly. However, on February 2, 2022, the European Commission endorsed fossil gas as a "transition" fuel under its sustainable finance taxonomy in a move that campaigners called *"the biggest greenwashing exercise of all time"*. ²⁵ The decision had been fiercely fought over by EU member states. Germany and much of Central and Eastern Europe had supported gas's inclusion while nations like Denmark, Sweden, Netherlands, Luxembourg and Austria had opposed it. This means that at least in the near future, albeit for different reasons, gas will be considered an acceptable clean energy transition product.

Though oil does not enjoy the same favoured status, it is too integrated into many industries for a sudden disruption. On the other hand, many oil rich countries have enough financial resources and political clout to resist pressure from the north and to invest in exploration and expansion of oil development projects. As recent as March 2022, reports in the media indicated that, '*Aramco said it would boost its capital expenditure (capex) to* \$40-50 *billion this year, with further growth expected until around the middle of the decade. Capex was* \$31.9 *billion last year, up* 18% from 2020 — indicating an increase of about 50% for this year at the middle of the guidance range.' ²⁶ This will not only encourage others but reassure smaller oil producers who may be uncertain about the outlook for the industry.

Even countries that may not have Saudi's level of sovereign cloud and financial wealth, will not give in to pressure because many of the companies are state owned and will want to avoid the dire impact on national economies and the politically detrimental nature of such actions. As such, unlike publicly listed IOCs in the north, the state's ownership of oil and gas companies shields them from activisms and financial vulnerability associated with stock markets. In sub-Saharan Africa , Angola's Sonangol and Nigeria's NNPC are a case in point. Rather than divest, in 2021, the Federal Government of Nigeria invested \$2.76bn in the Dangote Refinery. As such it is fair to assume that oil will remain part of the energy mix for the near future even if it means that assets will move from publicly listed entities to SOEs in the south. Other assets will be acquired by indigenous companies or private investors from other parts of the globe. Given recent oil and gas discoveries in the region, sub-Saharn Africa will benefit from this. For instance, in 2022, total investment spending in the Sangomar oil project in Senegal is expected to be between \$3.8 billion and \$4.2 billion, compared to \$3 billion in 2021. Woodside, the project sponsor, estimated 2022 production would increase by about 4% to between 92 million barrels of oil equivalent (MMboe) and 98 MMboe.²⁷

²⁵ https://www.investmentweek.co.uk/news/4044423/biggest-greenwashing-exercise-eu-includes-fossil-gas-plans

²⁶ https://edition.cnn.com/2022/03/21/energy/saudi-aramco-investment/index.html

²⁷ https://energycapitalpower.com/market-report-woodside-advances-oil-and-gas-projects-in-senegal



Source: Investweek.co.uk

Figure 7: Protests Against EU Energy Commission and Natural Gas

The fate of coal is different. Coal became the first casualty of decarbonizing global economies following the 2015 Paris Climate Change Agreement, when countries agreed to reduce GHGs and limit the rise in global average temperatures to well below two degrees Celsius and as close as possible to 1.5 degrees above pre-industrial levels. A strong focus on renewable energy sources and a substantial decline in fossil fuel production and consumption is key to achieving the Paris Agreement goals. As a result, the Paris Agreement was quickly followed with a call to close coal fire stations. The end result was DFIs soon ended funding of any new coal projects and the impact has already been felt.

In South Africa alone, net investment in the coal industry was R4.5 billion (US\$ 0.30681billion). In 2010, it decreased to R2.5 billion (US\$ 0.1705billion) in 2018 which is an average decline of 15% per year at a rate of 1ZAR = 0.06818US\$. This despite the fact that nearly 80% of the energy needs of South Africa are taken care of by coal. In many countries in the region, coal is also likely to be the first casualty of redundant assets too. South Africa is set to receive \$8.5bn (ZAR123.98) to help end its reliance on coal in a deal announced at the COP26 climate summit.²⁸ This deal is funded by wealthier nations, who are likely to pursue similar arrangements in other less developed countries. The effect will be a precipitous decline in thermal coal generation in the region. However, in China and India where countries in the north do not have the same leverage, the decline is likely to be slower.

²⁸ https://www.bbc.com/news/world-europe-60767454

Uranium appears to be more adversely impacted in part due to advocacy work following the Fukushima reactor accident in Japan in September 2011. The possibility of new production from Botswana, Tanzania and Zambia, as well as several projects under investigation in Niger and South Africa, could contribute to future regional production increases should market conditions improve.²⁹ But lack of funding leading to closures of smaller mines makes prospects for uranium to be a significant part of the global energy mix even poorer.

The above notwithstanding, the risk of resource redundancy still looms. What is less clear is what might trigger this and the time scale. This question of the pace and timing of decarbonization is at the core of the uncertainty over the future or lack therein of prospects for all energy minerals. Most commentators agree that while the drive towards decarbonization is irreversible, in the medium-term demand for energy minerals is good. In addition, a number of factors point to this fact the energy mix packing order will not change though the ratios will. For one, major oil and gas producers in the Gulf region are targeting 2060 and not the COP26, 2030 net zero target. China and India are heavily invested and dependent on coal. These countries defended their position successfully at COP26 and regional coal producers rallied behind them. Despite uncertainties, one of this is clear and it is that world is lagging behind climate change ambitions due to several essential elements for a speedy energy transition, namely:

- 1. Limited access by the EU and US to critical minerals
- 2. Inadequate investment in infrastructure and technology for a clean energy existence
- 3. Financial exit barriers based on investments made in mega fossil fuel projects
- 4. The resistance to being saddled with redundant assets by government, politicians, civil society and citizens in emerging markets
- 5. Limited investment in renewables by IOCs and other large energy companies
- 6. Risk of energy insecurity especially in Europe following the war in Ukraine
- 7. The lack of policies and regulatory frameworks to govern the new industrialization order
- 8. Barriers to change resulting from lack of public education and advocacy by governments
- 9. Modern day geopolitics of divisiveness
- 10. National politics of state-owned enterprises.
 - * The severity of impacts of these factors naturally differs regionally and nationally. In the Africa region factors 2,4,7,8 and 10 will be major impediments. A report by the Africa Center for Sustainable Development arm of the United Nations Development Program (UNDP), estimates that 'Africa will need \$70 billion in annual

²⁹ https://www.oecd-nea.org/upload/docs/application/pdf/2020-12/7555_uranium_-_resources_production_and_ demand_2020_web.pdf

investment towards the renewable energy sector until 2030 to implement a clean energy transition. The primary goal of such a transition includes the decarbonization of the economy, thus curbing carbon emissions and improving Africa's resilience to climate change-related natural disasters.³⁰ Ultimately, it appears that the one thing that might keep hopes for fossil fuels in the region, is the question of who pays the price for decarbonization. In this respect, the controversy revolves around culpability based on current and historic levels of carbon emissions and the north's failure to meet its commitment to pay the \$100b pledge.

3.2 Overview of Metal Substances

The vast range of mineral substances makes a credible analysis of all the related industries difficult. As such the analysis below is selectively, high level and biassed towards minerals that impact or will be impacted by decarbonization and transition to cleaner sources of energy. Generally speaking, there are three mineral categories. Metallic substances that are used in cars or for frames of buildings, electrical wiring, and aircraft and drink cans, used as a store of wealth, in jewellery and mobile phones. Construction minerals used in the manufacture of concrete, bricks and pipes and in building houses and roads. Lastly, industrial minerals are used in a range of industrial applications including the manufacture of chemicals, glass, fertilisers and fillers in pharmaceuticals, plastics, and paper. In this analysis focus is on the first category because of their impact by and/or on decarbonization and transition to cleaner energy sources.

3.2.1 Resource Wealth Production and Contribution to National Economies

The diversity of mineral substances described above means that every country in sub-Saharan Africa has some type of mineral deposit. What differentiates countries is the level of endowment leading to the deposits either being economic or noneconomic. Nevertheless, in metallic substances sub-Saharan Africa's front runners are DRC, South Africa, Guinea, Ghana, Liberia, Mali, Mozambique, Niger, Tanzania, Zambia, Zimbabwe.

Table 2 below shows the contribution of minerals to select national economies. However, based on a percentage, the size of a country's economy can distort the real value of minerals. Equally, because the study focuses on upstream activities, in countries in which mining is fully integrated upstream and downwards of the value chain, the economic contribution of mining can be understated. In South Africa, a study by the leading suppliers interest group, the Mining Equipment Manufactures of South Africa (MEMSA) demonstrated this <u>well. MEMSA</u> is a specialist mining equipment and services association of 36 members, 30 https://energycapitalpower.com/wp-content/uploads/AES_Africa_Renewables_2021.pdf

who collectively employed 5,000 people and had a sales turnover of US\$300 million in 2019. In that same year, The members exported about US\$ 16.46m (ZAR250m) worth of goods. They supply a range of goods for drilling, site preparation, transport, earth moving equipment, health and safety, information systems, environmental protection and refurbishment of component parts for a range of maintenance work and are as such part of the mining economic deliverables. As such in both economic and regional terms the table 2 below is merely indicative.

Country	Metallic Minerals, Metals &	Metallic Minerals, Metals & Coal		
	Coal Export Contribution (%)	Production Value(% GDP)		
Angola	2.3%	1.7%		
Botswana	92.7%	31.8%		
DRC	87.3%	22.6%		
eSwatini 5	5.5%	-		
Kenya	5.1%	3.5%		
Lesotho	22.2%	1.1%		
Madagascar	27.3%	41.6%		
Malawi	1.5%	-		
Mauritius	4.3%	-		
Mozambique	47.5%	48.2%		
Namibia	54.2%	8.8%		
South Africa	35.2%	16.5%		
Tanzania	44.7%	4.3%		
Uganda	15.9%	0.03%		
Zambia	75.0%	21.1%		
Zimbabwe	41.5%	16.8		

Table 2: Contribution of Minerals to GDP

Source: https://www.equinetafrica.org/sites/default/files/uploads/documents/EQ%20EI%20Mining%20and%20 Health%20May2020.pdf

3.2.2 Metal Substances, the Environment, Climate Change and Clean Energy Transition

There are different forms of mining and this analysis relates to onshore mechanised large scale and Artisanal Small-Scale Mining (ASM) activities. In both cases, mining can be a source of potential problems for the physical and social environment as well as a contributor towards solutions to reduce carbon emissions. On the problematic side, mining has a large environmental footprint which is a function of two major factors. Mining occurs mainly onshore and competes for land, soil and water with other natural species, and economic development, and cultural needs. Depending on the physical scale of a project and method of extracting ore, mining's environmental impacts include deforestation, soil erosion, water and air pollution. On the other hand, upstream minerals processing releases chemical substances and other pollutants into the atmosphere, into surface and underground bodies of water and these can result in environmental damage and health hazards. Mining also consumes a lot of energy. The result is that between levels 1 and 2 emissions, mining's carbon footprint can be significant.

One of the main differences between mining of metal and energy minerals is its relationship with the social environment. Most of today's mining occurs in remote locations, its impact upon human settlements can be both direct and immediate. The impact does not have to be negative though. In fact, with proper pre-project consultation, planning and implementation, a lot of positive social outcomes can be realised. Here are a few examples,, thanks to bauxite mines, a joint IFC and the government initiative facilitated more than USD 21 million worth of supply contracts for suppliers capacitated and registered to leverage the mine's supply chain. In Ghana's Obuasi gold mining area, in 2010, AngloGold Ashanti introduced a malaria infection reduction campaign for its workers, families and immediate community. The result being by 2012, it had reduced malaria cases in the Obuasi mine area by about 75%.³¹

Thanks to the notion of the social licence to operate, strategies to use large scale mining's financial and managerial muscle to benefit communities has been on the rise for more than three decades. In recent times ESG Ratings and Impact Investing have added to the momentum as the brand value of these practices have turned what was traditionally Corporate Social Responsibility (CSR) into a strong business value proposition and a strategic imperative for most large mining companies. For instance, at the onset of the Covid-19 pandemic, mining companies put programs in place to support governments to mitigate the risk of infections at community level. Specifically, in the early stages when the governments were still mobilising funding for their COVID-19 responses, mining companies in Ghana, South Africa and the DRC donated Personal Protective Equipment (PPE) to communities. Ironically, EGS has relegated regulation to a lower level of importance as increasingly enlightened self-interest based on the need to mitigate the risk of poor ESG ratings drives corporate behaviour more than regulators in sub-Saharan Africa can reasonably enforce national laws.

Regarding ASM, in twenty-three sub-Saharan countries, ASM is an important source of revenue for people living in rural areas, where it is largely conducted as an informal but sometimes also illegally. But here too ASM is a double-edged sword. On one hand, ASM provides livelihoods to over 10 million people in sub-Saharan Africa, and yet is potentially dangerous claiming an

³¹ AGA Malaria and PublicPrivate Partnerships in Ghana's Health Sector A CASE STUDY African Natural Resources Center, African Development Bank, 2016

incalculable number of lives every year. In Guinea ASM mining 'revenues account for almost 16% of expenditure on health, education, water and infrastructure development, 80% of export revenues and 20% of the national GDP.' ³² However, ASM is a hazard for workers. For instance, in *June 2019 more than 40 artisanal miners were killed at a mine collapse at Glencore's cobalt mine in the DRC*. ³³ A key challenge is poor legal and policy frameworks and the absence of measures to ensure health and safety standards, protection of community and women's rights as is the case in formalised mining operations. Others include conflicts with mechanised mining and encroachment on agricultural land. Not properly regulated and planned for both ASM and large scale merchandised mining can therefore be counterproductive and marginalise other aspects of life.

Though not without challenges, in the goal of energy transition, large scale mechanised mining and ASM are part of the supply chain of critical minerals. For an example, in the critical minerals rich part of the DRC, Trafigura partnered with the US Non-Governmental Organizations (NGO) PACT to *'reduce child labour in mining by strengthening local child protection institutions, enhancing economic opportunities.'* ³⁴

But mining's most important role in energy transition is as a source of metallic substances that are classified as critical because they are used to make essential parts for energy storage batteries, wind turbines, solar panels and electric cars, among others. These products are the backbone of the infrastructure necessary to reduce the use of fossil fuels and therefore reduce carbon emissions.

Many of the minerals are available in significant quantities in sub-Saharan as shown under paragraph 3.2.1 above and are mined through large scale mechanised systems and rudimentary ASM methods. As an example, in the DRC a significant proportion of global cobalt production originates from ASM. According to the US Geological Survey, an estimated 20-30% (Clowes and Kavanagh 2020) of the 100,000 metric tons of cobalt produced in DRC in 2019 comes from ASM, providing an essential livelihood for approximately 150,000-200,000 people.³⁵ Also in the DRC, the state owned entity Gecamines accounts for over 60% of cobalt produced globally. In Rwanda, ASM employs 60,000 workers in all mining and quarrying activities in 2019 of which at least half are estimated to be ASM miners. ASM activities accounted for 70% of production and were mainly in tin, tungsten, and tantalum, total mineral exports from Rwanda were worth US\$ 377 million in 2017-2018.³⁶ The geo-politics of demand for the minerals is discussed in detail under the relevant report but largely revolve around access to these resources.

34 https://www.trafigurafoundation.org/programmes/pact-drc/

³² https://www.lifegate.com/artisanal-small-scale-mining-africa

³³ https://www.industriall-union.org/calls-to-formalize-artisanal-and-small-scale-mining-in-africa

³⁵ State of the Artisanal and Small-Scale Mining Sector 2020

³⁶ Author(S): Daniel Limpitlaw* and James McQuilken**Using A Market-Driven Approach To Improve Economic Returns And Mine Safety organization(s): *Limpitlaw Consulting, **Pact

3.2.3 Future Outlook for Metal Substances

For fossil fuels, the number of substances is small and even smaller when one looks at those that meaningfully form part of the energy mix. By contrast, the number of minerals that are not only essential for current and future industrial development is as nearly as long as those in the periodic table. This is because each of the substances has unique natural characteristics and presently very few have man made alternatives to replace them. When it comes to minerals that are critical for the energy transition, the role of these minerals is understated. The reason being, lately focus has been on minerals that are critical for battery storage technologies. However, though important, this is only a fraction of the metallic substances needed to meet the entire supply chain needs of renewable energy projects. What is often overlooked are minerals that form the backbone of the very functionality of day-to-day living including new energy efficient inventions. This and mankind's current lifestyle drive demand for metals. Minerals are part of any building, civil engineering structure, medical instruments, aeroplanes, trains, cars, homes, home appliances, IT gadgets and home wear. Unless mankind is dislodged from current lifestyle, these minerals too remain critical.

However, even if focus was only on minerals deemed essential for transition to cleaner energy sources, the list must be expanded beyond battery storage to include among others, conductors, minerals that provide the structural soundness for hydro-electric dams, windmills and solar panels.

Failure to do so underestimates demand and the full range of minerals that are essential. In many respects therefore, the question is not if the outlook for minerals is good, but rather how the world ensures adequate but environmentally responsible sourcing. Currently, there are arguments for and against space geology, deep-sea and polar mining. Others have argued for the circular economy but that requires not only new ways of thinking by suppliers and consumers but new laws that hitherto do not exist. In the short-term environmentalists have suggested that recycling on a large scale is the answer. However, material waste experts have countered that proposal with a sobering statistic. Based on levels of efficiency in production, population growth, and realizable human demand today, merely recycling metals would not solve the problem. Apparently, it would require 30 years of recycling every metal ever produced by mankind and maintenance of current levels of mineral production to meet today's demand. So, while it is not possible to predict the future of metallic substances with specificity because of all the changing variables, based on the above, it does appear that in the medium term the outlook is fairly stable albeit subject to normal market volatility and technological disruptions.

3.3 Common Factors: Energy Minerals and Metal Substances

While there are many differences between energy mineral projects and metals, there are also a number of important areas of intersection. Namely, the proliferation of SOEs, impacts on women and gender, and future outlook in view of decarbonization. These matters are discussed briefly below:

3.3.1 State-Owned Enterprises and Decarbonization

In 2016, the African Development Bank's (AfDB) African Legal Support Facility (ASLF) and the World Bank's Governance Practice collaborated to create an online database of all mining laws in Africa, known as the African Minerals Legal Atlas (AMLA). A cursory review of the laws shows that in Africa, mineral resources are constitutionally and legally vested in the State. As a trustee, the State performs a custodial role for the benefit of citizens. A similar initiative was launched by the ASLF in 2020 for the petroleum sector and suggests a similar trend. Though incomplete, the data so far shows that as with mineral resources, in most African countries oil and gas resources are also vested in the State for the benefit of citizens. The constitutional duty of the State and its custodial role are evidenced by several factors.

The first is provisions in the laws that entitle the State to equity and or production sharing in the development of mineral, oil, and gas resources in most African jurisdictions. For instance, in Guinea, the minimum stake by the government is 10% carried interest but can increase to 35%, subject to a given set of conditions. In Ghana, the state is entitled to 10% carried interest for oil deposits, and in Botswana the law stipulates the right for the state to purchase 15%, with an option to increase or decrease the shareholding, subject to negotiated terms with the investor. In Mozambique, the laws that regulate solid minerals and hydrocarbons not only vest the resources in the state but provide for state participation. Article 8 (1) of the Petroleum Law No. 3/2001 provides that "the state reserves to itself the right to participate in petroleum operations in which any legal person is involved" (The Mozambique authorities do not stop here, however, but also insist on citizens acquiring equity). This has led to a proliferation of State-Owned Entities (SOEs) in major and small mineral and petroleum producing countries in the region. The last is the State's right to a range of fiscal payments from companies developing extractive resources. In mining, three of the largest SOEs are Morocco's Office Cherifien des Phosphates, Mauritania's iron ore producer National Industrial and Mining Company, the stateowned Zimbabwe Mining Development Corporation and the DRC's Gécamines.

In the petroleum sector, Nigeria's NNPC, Algeria' Sonatrach and Angola's Sonangol dominate the petroleum industry nationally and regionally. In mining the DRCs, Gécamines and ranks

as the fifth biggest producer of copper and also the primary producer of cobalt in the world.³⁷ In the words of its President Albert Yuma Mulimbi, *"our country holds 80% of the world's cobalt reserves. It currently accounts for around 65% of global production, or 95,000 tonnes (tn) per year, of which 18,000tn, or \$800m in revenue at current prices, comes from artisanal mining sites."*

SOEs and other public enterprises could play a central role in championing extractive supply chains and transition to cleaner energy sources. However, with a few notable exceptions like NNPC which has taken a lead in strategies for renewable sources, in most countries the role of the companies with respect to the countries' energy security and decarbonization goals, is unclear. In the case of fossil fuels, it is also likely that in case of redundant assets and an inability to attract new owners, governments will step in and salvage value. Otherwise, from this study it was not clear whether these organizations perform any role beyond that of private companies. But the lack of proactive action represents a lost opportunity as the countries forfeit the ability to use its position to lead by example. On the other hand, by taking on more investments in extractives as well as renewable energy businesses, SOEs could add to state financial burden, public finance mismanagement and debt problems.

3.3.2 Extractives Projects Impacts on Women and Gender

As with other industries, the impact of extractives on women differs from that on men. To start with, women represent a large percentage of the workforce engaged in ASM, at an estimated 40 or 50% in Africa alone.³⁸ Women are part of the labour force in precious metals operations like gold in Ethiopia, all of the gold and diamond producing ECOWAS countries, clean energy critical minerals from the Lake District, the DRC, and Zimbabwe.

All major mechanized mining employers including women. But there is an invisibility problem which leads to inadequate recognition and reward for women. In Africa's largest formal mining sector in South Africa, with a total of 453,543 employees in 2018, women only accounted for 12%.39 Progress has been very slow, over the last 15 years. According to the Minerals Council of South Africa, 'the number of women working in the mining sector has increased significantly in the past 15 years or so – from around 11,400 in 2002 to around 53,000 women in 2015, increasing to 54,154 in 2018.'40 As with ASM, the contribution of women to the mining sector is often masked by the dominant profile of men's roles in mining, which hinders women's meaningful participation. Because they are unable to participate in key stages of mining, women are often unaware of important information,

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³⁷ https://www.sciencedirect.com/science/article/abs/pii/0892687589900873

³⁸ https://www.iisd.org/publications/women-artisanal-and-small-scale-mining-challenges-and-opportunities-greater

³⁹ women in mining in south africahttps://www.mineralscouncil.org.za > 3-fact-sheets

⁴⁰ women in mining in south africahttps://www.mineralscouncil.org.za > 3-fact-sheets

which gives men an advantage that allows them to exercise control over strategic matters. There is also a lack of provision for a gender sensitive work environment though the aftermath of the COVID-19 pandemic might benefit women based on the need to reduce numbers of workers needed to be physically in the workplace during a pandemic or other crisis. The debate might speed up the discussion on ways to address the historic challenge that compels female workers to balance responsibilities at home with professional responsibilities in the office. But the pathway is unclear, and the process will no doubt be made complex by the novel nature of remote working. Limited understanding of the new environment of working and living in the same space, suggest a need for a slow and cautious approach to avoid unintended consequences.

The role of women in corporate leadership positions is equally unsatisfactory whether one is looking at mining or the petroleum sector. In a 2019 article published by the Royal Institute of International Affairs, (Chatham House), on gender diversity and regional representativity in boardrooms, the extractives fared poorly relative to say IT industries .⁴¹ But in sub-Saharan Africa some governments have taken the lead in tackling inequalities in extractives industries. On February 23, 2022, South Africa's Mineral Resources and Energy Deputy Minister, Dr Nobuhle Nkabane, announced that the authorities in that country were '*drafting a women in mining strategy, which is expected to level the playing field between men and women in the industry*.⁴² In Ethiopia, that government has been working through cooperatives to ensure women can obtain legal licences for gold ASM operations and market the product at a fair price through the State's sole gold buyer and trader. Guinea has a similar model. International professional associations such as the International Women in Mining (IWiM) advocates for gender parity and describes itself as, '*a leading not-for-profit global organisation pursuing gender equality and promoting women's voices, access to opportunities and leadership in mining*.⁴³ WIMA has a regional and national network in Ghana, RSA, Zambia, Namibia and more.

ASM associations and cooperatives are also active in Malawi, Madagascar, DRC and Tanzania. The focus of the organizations is fair trading, access to safe, healthy, and environmentally friendly mobile modular processing plants and the ban on the use of mercury. The outcomes should help the plight of women especially in ASM. But in general, the extractives industries are increasingly advancing the interests of women in part due to EGS ratings, national laws, advocacy groups, among others.

⁴¹ Khama, Sheila, Boardrooms Need Local Voices, Royal Institute of International Affairs, October 2019

⁴² https://www.sanews.gov.za/south-africa/strategy-women-mining-pipeline

⁴³ https://internationalwim.org/

PART B

4.1 Sustainable Development and Governance of Extractives Resources

As can be seen from Part A of the report, extractive projects are subject to a myriad of challenges. In light of this, various tools and frameworks have been developed to guide policy and ensure responsible development of the resources. These guidelines are generally framed around two concepts, namely *sustainable development*, and good *governance*. These and other internationally recognized standards enable policymakers and lawmakers to have a structured approach towards tackling complex issues that necessitate trade-offs. In turn this enables governments and parliaments to make decisions that are grounded in an understanding of global and regional trends, as well as national development priorities. The importance and relevance of the two concepts is discussed briefly below.

- * Sustainable Development: The concept of sustainable development is defined by the International Institute for Sustainable Development (IISD) 'as development (policies, processes, institutions, and others) that meet the needs of the present without compromising the ability of future generations to meet their own needs'.⁴⁴ It seeks to reconcile economic, social, and environmental matters and is sometimes referred to as 'the triple bottom line'. Though not unique to extractives, the desire to harmonize these factors makes sustainable development principles arguably the most important foundation for responsible stewardship of a country's finite natural resources.
- * Good *Governance: The* second factor that underpins development of extractive resources is governance. To define it, this study considers the African Union, the African Development Bank, and the United Nations Economic Commission for Africa (UNECA) definitions. The definition has been modified to read:

44 https:/www.iisd.org/

"Governance refers to the legal and institutional environment in which various actors in the mineral, oil and gas sector interact."⁴⁵ In this context, governance refers to an enabling legal and institutional environment that promotes principles of transparency, public participation and accountability to citizens and is used as the yardsticks for responsible stewardship. The definition notwithstanding, a 2020 governance and democracy assessment report by the Afrobarometer indicates that ordinary Africans in 18 African countries believe things are getting worse rather than better. Most citizens say corruption increased in their country during the previous year.⁴⁶ For good governance to prevail, the principles of transparency, accountability and public participation must inform day-to-day interactions and the overall relationship between citizens and political leaders. Equally, there must be adequate checks and balances between parliament and the Executive Branch of government.

4.2 The State's Custodian Role in Extractives Resources Development

In almost all countries in sub-Saharan Africa, extractive resources are vested in the State for the benefit of citizens. To ensure effective custodianship, governments have enacted several laws to protect national interests and one of the most significant is provisions for the State's ownership of extractive resources. A sustainable approach and good governance are the panacea given the custodial role of the State (through the government of the day and its agents), the finite nature of extractive resources and the need to protect inter-generational value. In the context of the study, the stewardship must give regard to the importance of checks and balances in respect to the roles of the executive and the legislative branches of government. Both arms of government secure their mandates through the electoral process. Both are therefore legitimate and essential agents of their constituents. The two protect public interest and derive their authority based on the principle of '*separation of powers*'. While the Executive branch runs the affairs of government, parliaments oversee the work of government.

 ⁴⁵ African Union Commission, African Development Bank & UNECA (2011) "Action Plan for Implementing the AMV" December 2011,
 46 Keulder, C ; Afrobarometer Dispatch No. 421 https://afrobarometer.org/publications/ad421--January 2021

4.3 Parliamentary Oversight and Extractives Resources Development

An important aspect of the ability to derive economic value from the resources is the degree to which public institutions, and especially those with responsibility for oversight, are able to perform duties competently. Another consideration is the question of how well those responsible for the development of the resources ensure that the benefits go to those who need them most. A crucial part of the enabling environment is the need for effective oversight of the design and implementation of the policies and laws. The combination of these factors places the role of public institutions at the epicentre of responsible resources development based on principles of sustainable development and good governance. This factor is recognized and embedded in the mandates of parliaments and is described by the Botswana Parliamentary as 'Parliamentary oversight can be described as Parliament performing a watchdog function over the executive and thus causing the executive to account. This would entail overseeing the use of allocated funds through scrutiny by committees such as the Public Accounts Committee and the Committee on Statutory Bodies and State Enterprises.'⁴⁷

Generally, parliamentary oversight focuses on four main roles, namely:

- 1. Proper implementation of laws and policies
- 2. Good governance based on compliance with due process
- 3. Sustainable management of national resources through management of national savings and budgets
- 4. Effective administration of public institutions through exclusion of partisan interference.

To remain true to this constitutional intent, parliamentarian's oversight role of ensuring that the government remains answerable to the electorate must be upheld. This is possible through constant monitoring of government's actions based on the skills and knowledge of the parliamentarians. This includes but is not limited to individuals, the collective members, and Committees with delegated authority. Using these powers parliament can and should hold individuals and/or institutions to account. In the context of extractive resources, parliamentarians can ensure that sustainable development and governance principles are complied. They can detect and prevent abuse of power and respect the actions of investors, the rights and voice of citizens. Parliamentarians can also hold the government answerable for how revenue from the extractives is spent and make government work more transparent and thereby increase trust in public institutions.

⁴⁷ https://www.parliament.gov.bw/index.php/parliamentary-business

Two aspects of the structure and processes adopted by parliament places the representatives in a unique position to achieve oversight and to protect public interest. The first is the provision of statutory instruments and the creation of committees with specific powers enshrined in a country's Constitution. One of the most important aspects of the oversight function is the consideration by committees of annual reports of organs of State, and reports of the Auditor-General. Another is the right of parliamentarians to question government actions. Parliamentary questions afford members an opportunity to interrogate the Government on matters of service delivery on behalf of the public. In addition, using the same mechanisms parliamentarians can demand that laws be enacted, and the committees be created. The goal being to avail citizens an improved quality life now and in future.

Parliament's mandate suggests that it is impossible for the State to fully discharge its duties as custodian of extractive wealth without robust oversight by its members. This expectation is predicated upon the capacity of parliamentarians to comprehend the myriad of issues and to use this understanding to make fact-based decisions in a timely manner. However, given the relatively novel nature of matters relating to decarbonization, climate change and energy transition, the oversight capacity cannot be taken for granted and gaps can and do manifest. If not addressed, the gaps will erode the very premise of parliamentary oversight as envisioned in democratic ideals and principles of protection of public interest.

4.4 Challenges Facing Parliaments

In addition to the challenges presented by the twin pillars of sustainable development and governance principles, parliamentarians must contend with internal and external challenges that are unique to their work environment. Some can potentially impede effective oversight as discussed briefly below. Parliamentary appointments change based on electoral outcomes. This means that even when the parliamentarians have been capacitated, the cyclical nature of the appointments can erode the investment made in skills development.

Internally, parliamentarians must also dialogue with an array of stakeholders with divergent interests. This factor makes the task of representing the public challenging. Challenges include reconciliation of partisan interests, individual personal ambitions and expectations of political donors. On the other hand, the political economy looms large in the extractive sectors. Spurred on by rent seeking behaviour and corruption, negotiations and agreements between host governments and investors can result in suboptimal outcomes. Equally challenging is the fact that policy decisions and laws enacted by parliament are often based on partisan political interests, ideology, and not collective national interests. Performing an oversight role against this backdrop calls for capacity based on an ability to balance several but often opposing views.

External challenges speak directly to the scope and dynamic nature of governance and sustainable development challenges in extractive sectors. These include the impact of extractives on climate change, transition to clean energy, the role of minerals in the clean energy agenda and the potential redundancy of hydrocarbon assets. Other matters relate to the (Sustainable Development Goals (SDGs), Environment, Social and Governance (ESG) investing, public sentiment towards extractives sectors, civil society scrutiny, volatile commodity markets, illicit financial flows, and impacts technological changes on the law. The fact that all of the issues and the environments in which they must be addressed continuously changes, adds to the difficult work of parliamentarians.

Therefore, the ability of parliamentarians to disaggregate the diversity of issues and prioritize work in keeping with global trends requires a level of knowledge that cannot reasonably be taken for granted. More importantly, without a clear understanding of the gaps and a deliberate capacity building drive, parliaments are at risk of underperforming. This makes KAS's decision to commission a parliamentary oversight capacity gap assessment as relates to extractives, climate change and transition to clean energy therefore timely.

4.5 Project Scope, Objectives and Deliverables

The thrust of the study was to gather data and use it to assess gaps in the ability of parliamentarians to oversee laws, policies and institutions responsible for extractives development and the environmental impacts thereof. The study specifically focuses on oversight gaps on matters relating to decarbonization, climate change risk mitigation, transition to clean energy, energy security and impacts on women.

4.6 Sampling, Data Collection and Limitations

In order to ensure the integrity of the information, robustness of the data collection process, and findings, the study adopted a multi-layered approach. Starting with the selection of the six countries from which the data was collected, the criteria was based on several considerations. The first was a country's level of economic dependency on extractives resources. The assumption being that the larger the sector's contribution to the national economy, the greater the need for effective oversight to mitigate the risks from environmental damage and political interference, and other resource curse related negative impacts. For example, the fact that Botswana depends on mining for up to 75% of its foreign earnings while Ghana relies on oil for up to 29% of its export revenue makes the two countries vulnerable to the resource curse. A second factor was a country's level of extractive resource endowment. The study recognizes the correlation between

levels and diversity of extractive resources and the necessity for an equally diverse but complex policy, legal and institutional landscape. Specifically, under such circumstances the order of magnitude of potentially negative economic, social, and environmental impacts is magnified. The DRC's mineral wealth is a case in point. A third factor was the need to assess different systems of governing, hence a combination of non-federated and federated systems like that of Nigeria. A fourth consideration was the desire to ensure regional representativity based on geopolitics, size of national economies, national demographics, and governance track record. Regarding the latter factor, the selection criteria gave regard to differences in country ratings by international and regional indices as relates to governance in general and specifically in the extractives sector. Finally, the goal was to balance countries that are rich in minerals with those that are rich in petroleum resources. This resulted in a sample comprising Botswana (minerals), DRC (minerals), Ghana, (minerals and petroleum). In the end, it was impossible to collect data from Guinea because the timing of the planned fieldwork was disrupted by a military coup, a factor that also ruled out Burkina Faso which had been considered as an alternative.

While focused primarily on parliamentarians, the sample from which data was collected included a diverse group of stakeholders. The guiding principle for the selection of stakeholders was the recognition that parliamentarians perform their duties in an environment that includes a network of formal and informal relationships. As such the stakeholders are a reliable source of insights into the work of parliaments and can sometimes also be sources of support to parliaments. As providers of support, the actions (or inactions) of such stakeholders can therefore enhance or diminish the capacity of parliamentarians. Therefore, in order of importance the target population was made up of:

- 1. Relevant parliamentary committees
- 2. Parliamentary support staff
- 3. Technocrats
- 4. Think-tanks
- 5. (NGOs)
- 6. Donors.

The data was only collected from parliamentary committees responsible for oversight of extractives work, the environment as relates to extractives, climate change risk mitigation, transition to clean energy and support for vulnerable groups (especially women). Table 3 contains the list of parliamentary committees identified in the five countries.

Table 3: List of Parliamentary Committees by Country

COUNTRY	COMMITTEE NAMES							
Botswana	Women's	Agriculture,	Wildlife,	Select				
	Caucus	Lands & Housing	Tourism,	Committee				
		Committee	Natural	on SDGs				
			Resources &					
			Climate Change					
DRC	Lands and	Environment,	Mines and	n/a				
	Forestry	science &	energy					
	committee	technology	committee					
		committee						
	Mines and	Lands and	Environment,					
Ghana	Energy	Forestry	Science, and					
Ghana			Technology					
Nigeria	Senate	Senate	Senate	The Senate	Senate			
	Committee	Committee	Committee on	Committee	Committee			
	on	on Up Stream	Up Stream Gas	on Power	on Women			
	Environment	Petroleum Sector	Sector		Affairs			
Tanzania	Energy and	Industries, Trade	Land, Natural					
	Minerals	and Environment	Resources					
	Committee	Committee	and Tourism					
			Committee					

Regarding the tools for collecting data, the study used a combination of focus group discussions, one-on-one meetings, online questionnaires, review of literature and parliamentary reports as well as third party publications. As can be seen from Table 3, the structure of committees differed from country to country. The same was true for government departments and agencies. This ruled out the use of a single standard questionnaire or presentation to guide data collection from the two groups. Therefore, instead of a standard questionnaire, the consultant designed a series of questions on five main aspects and extracted relevant portions to tailor make specific questionnaires in keeping with mandates of individual committees. Annexure 2 shows the sample content that was used to design hybrid questionnaires for the different committees. Annexures, 1, 2, 5,6 and 7 are samples used for other stakeholder clusters and government agencies. That said, questions generally covered five broad issues namely:

- 1. Human and financial resources available to parliamentary staff
- 2. Nature of support by technocrats

- 3. Access to oversight tools for extractives, environmental, climate change and transition to cleaner sources of energy
- 4. Views on levels of capacity
- 5. Committee work relating to groups vulnerable to climate change risk.

The original goal had been to meet a whole committee but this was not always possible. Therefore, group discussions were replaced with one-on-one, face-to-face unstructured interviews with chairpersons of relevant committees. In both cases, though face-to-face meetings were preferred, this was not always possible either, in which case, they were replaced with virtual meetings. In the case of focus group discussions with public officers on one hand and NGOs and think-tanks on another, discussions were moderated using a PowerPoint presentation that was structured in keeping with the profile of the sample group. (see annexure 4). To reach respondents that were unavailable through either of the two means of interaction, structured online questionnaires were used. All interviews and questionnaires were responded to anonymously. In a number of cases the conversations were recorded using an electronic device and transcribed later but for purposes of the report, all comments are included anonymously.

The gap assessment approach derives from a commonly used stage-by-stage capacity gap analysis tool that is outlined in Figure 8 below. Given the scope of the study the report only contains information on the first four of the five steps depicted in figure 8. The first two steps are covered under section 5 of the report and the next two under section 6.



Figure 8: Gap Analysis Process Outline

The data collection tools and methods had some limitations. In the first place, securing the time of parliamentarians was a major challenge. Their availability depends on their presence in one central location based on the timing of parliament sessions. The timing of the sessions naturally differed from country-to-country leading to delays in the completion of the data collection phase. Even when parliaments were in session, access was difficult for two additional reasons. First, the members' diaries were prioritised around the business of parliament and secondly because depending on what was being discussed it was difficult to secure an appointment with all members and/or chairpersons of relevant committees.

On the other hand, the exercise proved costly (see annexure 8). The reason being in most of the countries, stakeholders demand to be paid for time spent in interviews and in some cases

the rate was prohibitive leading to the use of secondary sources and third parties instead. This is an important factor to note because it is not confined to parliamentarians but extends to requests for offsite meetings with NGOs, think-tanks and technocrats. In this respect Botswana was the exception to the rule hence the higher rate of parliamentarians interviewed relative to cost. Otherwise, there was generally a willingness to engage except in Tanzania where after first inviting the consultant to discuss modalities, on arrival the senior administrators determined that parliamentarians and staffers should not grant the consultant interviews. So, data from that country is based on interviews with technocrats, NGOs, online sources and third parties.

5. RESPONSES AND RESULTS FROM DATA COLLECTION AND LITERATURE REVIEW

5.1 Overview

This section details results from data collected in the countries in the sample and is confined to the assessment of conditions as outlined in stages 1 and 2 of the step-by-step gap analysis tool.

Stage 1: Gap Analysis Process Outline

Assessment of Current Conditions

5.2 Responses from the Data Collection

A total of 135 respondents participated in the survey which used the combination of tools described under section 4 of the report. As shown on table 4, the response rate was highest among public officials, at 24.4%, followed by researchers/think-tanks, at 21.48%, and parliamentarians and NGOs each at 20% of the entire sample. The results from discussions with parliamentary staff and members of parliament are reported separately. But, when added together, the 6.6% response rate of parliamentary staff, and the 20% of members of parliament increases the overall parliament cluster response rate to 26.6%. This makes it the highest response rate. The fact that members of parliament and parliamentary staff are the largest cluster among the groups of respondents is ideal given the intimate levels of knowledge the two have on the workings of parliament. That said, the evenly distributed response rate among the range of external stakeholders bodes well for the integrity and robustness of the findings and helps validate official sources.

FACE TO FACE AND ONLINE RESPONSES CONSOLIDATED							
Stakeholder	No. of Respondents By Country						
Cluster	Botswana	DRC	Ghana	Nigeria	Tanzania	Totals Per	% of
						Stakeholder	Responses
						Group	

Table 4: Interviews and Responses by Stakeholder Group

Grand Total					155	100.00	
Country						135	100.00
Totals Per	37	24	26	33	15		
Donors	3	2	3	0	2	10	7.41
NGOs	7	6	4	5	5	27	20.00
&Think-tanks							21.48
Researchers	3	6	6	10	4	29	21.49
Institutions							24.44
Government	5	5	8	11	4	33	24.44
Staff							6.67
Parliamentary	3	1	2	3	0	9	6.67
Parliament							20.00
Members of	16	4	3	4	0	27	

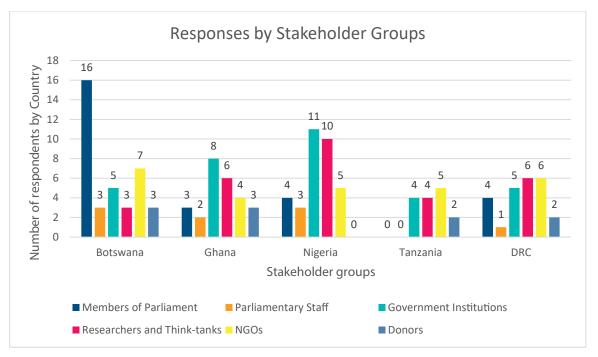


Figure 9: Graphic Illustration: Responses By Stakeholder Group

At 27.41% of the responses, Botswana had the highest response rate, followed by Nigeria at 24.44% Ghana 19.25% the DRC 17.78% and Tanzania 11.11%. However, the gap between the top three countries is narrow with only 4 responses between the highest Botswana and Nigeria as the next highest. The higher rate among Botswana parliamentarians can be explained by the fact that the committee members opted to have a focus group discussion in which the entire committee participated. By contrast, Ghana and the DRC only committee chairpersons were available for interviews. This also affects the response rate in each country as shown under Figure 10 below. In countries in which there were no parliamentarians interviewed, it was either because the authority declined to participate or the honorarium was prohibitive.

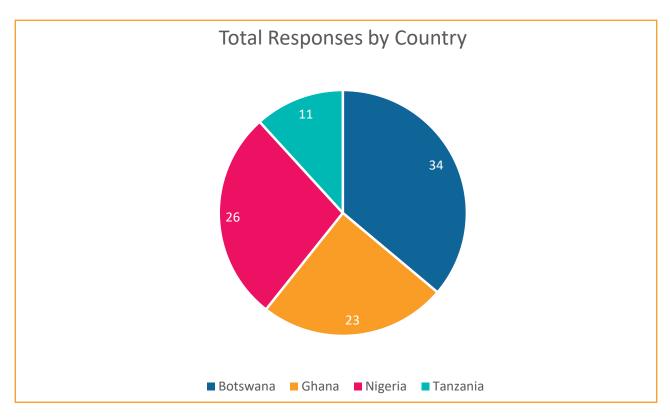


Figure 10: Total Responses by Country

5.3 Results from Data Collection

The results have been reported separately according to the different sample clusters in the five countries. These are namely:

- 1. Parliament staff
- 2. Members of relevant parliamentary committees
- 3. Public officials responsible for relevant functions
- 4. Civil society groups (i.e., researchers, think-tanks, and NGOs).

The results are contained in paragraphs 5.3.1 to 5.3.4. Donor responses were too few to constitute a standalone narrative. Additional observations relating to gender and the use of technology are covered under paragraphs 5.3.5 and 5.3.6 respectively.

5.3.1. Parliament Staff

Data collected from parliamentary staff focused on three key issues. The first relates to the availability of relevant committees, their structures, composition, mandates, and authority vested in them. The results show that all countries have committees necessary to oversee the work of government as relates to extractives, the environment, climate change and transition to clean energy sources. The structures vary but there are some common trends. Three

countries combine minerals with energy and three others combine environment, science and/or technology while two combine forestry and land matters. Committees responsible for energy cover renewable and non-renewable sources. All the committees are constituted as either 'Special' or 'Portfolio Committees'. This means that the committees are established at the beginning of each post-election swearing-in of Parliament and disbanded upon the dissolution of Parliament. Such parliamentary committees exercise oversight and scrutiny over government ministries, departments and special agencies within a given sectorial mandate. The committees periodically produce reports and present findings to Parliament. The committees also review government policies and legislation under their respective portfolios and have the powers to investigate the business of government if they deem fit.

Four out of the five countries have a coastline which differs in length and strategic importance. The lengths are DRC's 37 km, followed by Ghana's 550 km, Nigeria's 853 km and Tanzania's 1,424 km in length. Nevertheless, the study found that in the four countries parliament has no oversight committee dedicated to the marine environment. The absence of a dedicated committee was significant for two reasons. The first is the unique nature of the challenges and skills necessary to protect and monitor offshore environments. The second is the level of offshore activities in extractives, investment in regulatory and commercial activities by the same governments. Presently, only Tanzania has not started offshore petroleum production. But offshore petroleum development projects are on the cards and will be extensive. In addition to prior discoveries by BG Group, since commencing exploration offshore in Tanzania in 2011, Equinox has reported an additional 'nine discoveries with estimated volumes of more than 20 trillions of Standard Cubic Feet (Tcf) of gas'.⁴⁸ For their part, Ghana, and Nigeria, each have separate regulatory agencies for the gas and oil activities. The two countries also have separate state-owned oil and gas companies. Decisions to create these regulatory agencies and investment arms of government are understandable given the scale and therefore importance of the resources to national economies. What is not clear from the information gathered is why there is no dedicated parliamentary committee to oversee the work of government on offshore regulatory and commercial affairs of the state too.

On another matter, the study found that parliamentarians have support through dedicated secretarial and administrative staff. The staff perform a range of duties including management of an annual diary of meetings and secretarial work for the committees. In some cases, there is a pool of researchers available to conduct research to enable parliamentarians to respond

48 https://www.equinor.com/en/where-we-are/tanzania.html

to questions from colleagues on the floor or deliberate on policy and draft laws. In the case of Nigeria and Ghana, parliament enjoys the services of a research unit. In Ghana, the unit is known as the Governance and Security Unit, Department of Research Parliamentary Service. Parliaments also have budgetary support to conduct work in constituencies. For instance, according to parliamentary staff, Botswana parliamentarians receive US\$ 18,300.00 per annum for constituency work and 10% of their salary for travel.

On the subject of training, the study found that training of parliamentarians was provided but limited to induction courses and matters relating to the workings of parliament. The study found that the training courses do not respond to the needs of parliamentarians based on identified gaps in levels of knowledge and skills. Instead, the courses were generic and high-level in nature. They were augmented with occasional study tours, conferences and workshops organised by donors and regional parliamentary organs like the SADC Parliamentary Forum, Commonwealth Parliamentary Association (CPA) and the Inter-Parliamentary Union (IPU). However, during such events, the organisations tended to focus on regional policy discourse and the need for peer learning. On the other hand, NGOs that collaborated with parliament to conduct training tend to focus on either governance issues or the core subject of the particular NGO's work. This is to say driven from outside and not needs based.

Structurally and legally, the study found two outliers. In Ghana, the government has a dedicated Ministry for Parliamentary Affairs that reports to the Office of the Presidency. The Ministry potentially increases the resources available to address the oversight capacity needs of parliamentarians. In Tanzania, among others the Prime Minister's Office is accountable for Parliamentary Affairs but is not a standalone ministry as such.

When it comes to a legal framework for specifically regulating reduction of carbon emissions and moving the country towards net-zero emissions, Nigeria was the second outlier. The country stands apart from the rest of the countries because the Federal Government of Nigeria is the only country in the sample that has enacted a climate change law and is one of only five in the world. Nigeria passed the law known as the Climate Change Act in December 2021. Among others, the law provides for mainstreaming of climate change actions and the establishment of a National Council on Climate Change. Further, the Act, *'seeks to facilitate the intensive and complex cross-ministerial coordination of climate change action as well as the involvement of businesses and civil society needed to achieve long-term climate objectives, while also promoting climate-resilient social-economic development in the country.' ⁴⁹ Importantly, the new law requires the Federal Government to set five-yearly carbon budgets based on a National Climate Change ⁴⁹ o. m. atoyebi, s.a.n, and E. Caleb ;The Nigerian Climate Change Act 2021:Nigeria's Antidote to the Global Climate Crises, omaplex law firm , 2021.*

Action Plan. The budgets are intended to advance efforts to achieve net-zero GHG emission reduction between 2050 – 2070. This law and the full-fledged department for climate change staffed by professionals with a range of skills for climate change risk mitigation creates a clear line of sight for parliamentary oversight.

5.3.2 Parliamentary Committees

The interviews and focus group discussions with members of parliament revolved around four main issues. The first was information on the skills mix given the range of subjects under their remit, namely extractives development, climate change risk mitigation, transition to clean energy and national transition plans. Inferring from tertiary qualifications of the members, the study found that in the majority of cases, the skills of committee members did not correspond with the technical competencies necessary to comprehend natural and social science concepts and principles related to the work. However, the knowledge is necessary for them to supervise government work. Figure 11 and Figure 12 below summarizes the skills and experiences of the committee members by country.

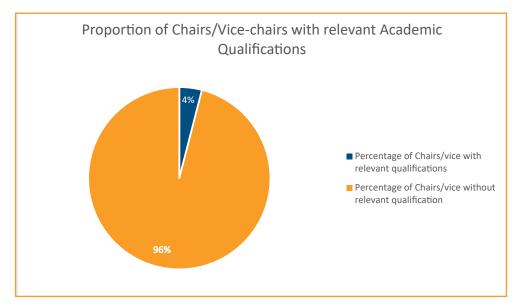


Figure 11: Proportion Of Chairs/Vice-Chairs With Relevant Academic Qualifications

As can be seen from figure 11, out of 26 committee chairs and vice-chairs in the five countries that were studied, only 4% have the relevant subject area academic qualifications or training; a significant 96% do not have the relevant qualifications related to the committees that they lead.

Figure 12 below shows that from all the pilot countries surveyed, only one country being Ghana has a chairperson of one of the committees that has relevant academic qualification for the specific committee.

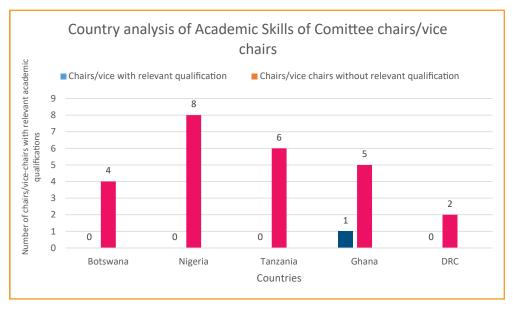


Figure 12: Country Analysis Academic/Skills Of Committee Chairs/Vice Chairs

To gauge knowledge and the parliamentarian's understanding of basic concepts relating to extractives, climate change and energy transition, parliamentarians were asked to comment on the relevance of select concepts to their work. The concepts were selected randomly but carefully for their relevance and frequent citation in policy and public discourse. They were, *sustainable development, climate change, decarbonization,* carbon sequestration, *carbon markets, circular economy, and gas flaring.* The responses showed that most of the parliamentarians were indeed familiar with most of the concepts, and some used them in the course of their work. That said, upon delving deeper into the policy aspects, it soon became clear that only a few members understood the challenges related to the concept and would be unable to supervise government work in which these concepts were central. Below is a brief description of some of the discrepancies that were identified during discussions.

Sustainable development: most respondents understood the concept as merely distinguishing long-term from short term goals.

Climate change: as with the concept above, the notion of climate change was misconstrued and used interchangeably with changing weather patterns, with little appreciation of the social and economic risk.

Decarbonization: this concept and others relating to it like sequestration, carbon sink and carbon trading were barely understood.

Carbon markets: Though trading by either the government or extractives companies occurs in all the countries, there was little to no knowledge of the various carbon trading systems.

Circular Economy: this concept is misunderstood and was frequently used interchangeably with recycling.

Gas flaring: Many in petroleum producing countries understood the theoretical meaning of gas flaring, but not the economic impacts as relates to its opportunity cost to decarbonization. The findings of the study are aligned with the opinions of parliamentarians as relates to their knowledge of the concepts. For instance, on being asked to comment on the capacity of parliamentarians and what can be done to reduce gaps, one lawmaker said, *'first, capacity building of the committee is crucial. The committee should be knowledgeable and educated about the industry. Professionals and experts should educate us so that we can properly address the issues confronting the industry. The committee lacks knowledge about the extent of the carbon dioxide emissions, the permissible levels, and technological options available.'*

A second piece of information gathered from parliamentarians related to the degree of support provided to parliamentarians by subject experts in and outside government. The study investigated availability of policy design and oversight tools documented by technocrats to help parliamentarians increase knowledge given that they are not subject specialists. Specifically, the study investigated systematic documentation of *fact sheets, concepts notes, policy briefs, position paper and policy analysis* for use as reference material for parliamentarians. The study found little evidence of regular documentation of tools by subject experts for use by parliamentarians. An online search found a few documents on the Ghana Parliament website. Tools found on the web page included fact sheets, policy briefs, budget briefs, background papers, committee briefs, procedural briefs, among others. However, there was no indication of the tools being regularly documented, disseminated, and used. Instead, the irregularity of production of the documents suggested that the Research Unit produced them on an ad hoc basis and not as part of a systematic capacity building program informed by the needs of parliamentarians. The exceptions were those documented in keeping with statutes.

Notably, only a handful of the tools dealt with the subject of extractives and in this case the focus was on oil revenue management matters. In this regard, the Ghanaian experience was typical across the five countries in which there was consistent evidence of standard procedures and mechanisms for oversight of extractives revenue management and expenditure processes. However, wherein parliamentarians rely on routine audits and financial reporting systems for oversight work on national budgets and public accounts, similar systems could not be identified when it comes to extractives, environmental impacts, climate change and energy transition risk oversight.

The third area of focus in the data collection process was the views of parliamentarians on the adequacy (or lack thereof) of financial resources. Most acknowledge that administrative support was adequate but deemed financial support insufficient. The parliamentarians specifically

lamented the lack of funds to engage subject matter experts to conduct research and/or administer routine training to enable them to keep abreast of trends. The cost of implementing and monitoring of climate change risk mitigation initiatives is, however, a major concern for many. According to Africa Energy, 'at COP 26 President Muhammadu Buhari estimated (that) Nigeria would need US\$400bn to reduce its dependence on fossil fuels just within the power sector. Nigeria's nationally determined contribution (NDC) plan requires US\$177bn over a ten-year period".⁵⁰

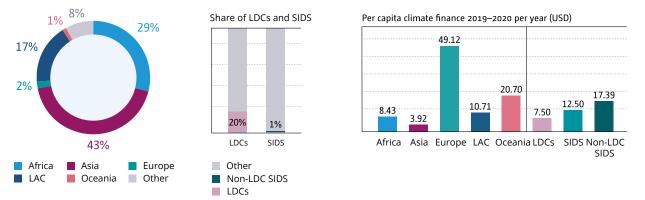
A fourth and final area of data collection from parliamentarians related to their ability to navigate the work environment. Based on the understanding that extractive projects, climate change and transition to clean energy agenda occurs in a complex environment of government institutions, donors, investors, and NGOs, data was collected in order to assess the ability of parliamentarians to navigate this landscape. The goal was to determine the ability and effectiveness of parliamentarians in coordinating among themselves and navigate national, regional, and global geopolitics of decarbonation.

Starting with coordination, the study found that all the governments in the study have assigned oversight for different aspects of the extractive environment, climate change and energy transition to different committees. But there were no requirements or guidelines for the committees to coordinate their work given the interrelated nature of mandates. (see Table 4). The structure of oversight committees mimics national public services administrative structures rather than being informed by an overarching goal such as climate change risk mitigation or speedy and affordable energy transition. The lack of coordination is evidenced by the absence of a single focal point for parliamentary oversight of matters pertaining to the above-mentioned two overarching issues. It was evident that regardless of the structure of committees from one country to another, a common challenge is the need for coordination. However, in the words of a Ghanaian lawmaker, '*There has not been a mechanism or forum where these issues are discussed collectively in-house, and thoughts generated. These complex issues have always been tackled in silos by committees that are discipline-bound. We may have to consider creating a multi-disciplinary committee structure that consolidates these issues from different perspectives and tackle them holistically'.*

Regarding the external environment, the study found that parliamentarians paid little attention to the work of DFIs trust funds, bilateral donors, international NGOs and philanthropic organisations that partner with host governments to tackle problems related to extractives, the environment, climate change and energy transitions. The exception to the rule were projects that were brought to parliament for approval or ratification. Parliamentarians appear unaware of many of the 50 Nigeria's net-zero obligation faces gas financing dilemma, Africa Energy, Issue 451 • 2 December 2021, www. africa-energy.com

initiatives that do not form part of national strategies and development plans that they monitor. Given the proliferation of climate change donor trust funds, size of the budgets and multiplicity of initiatives, this is a problem. For instance, reports show that, under the implementation of the first Climate Change Action Plan (2011-2015), the AfDB alone approved approximately 260 projects with climate-relevant components, with total Bank investments estimated at US\$ 12 billion. By 2018, the AfDB had made a commitment to nearly triple its annual climate-smart finance in Africa to reach US\$ 5 billion per year by 2020, representing a 40% increase in finance allocated to climate spending.⁵¹ For its part, The World Bank Group committed to increasing climate finance from 20% of lending in 2016 to 28% by 2020. This target was exceeded each year for the last three consecutive years. In total, over the duration of the Action Plan, the Bank Group has delivered over \$83 billion in climate finance.⁵²

Multilateral development banks - USD 38.3 billion per year 2019-2020



UNFCCC Standing Committee on Finance "Fifth Biennial Assessment and Overview of Climate Financial Flows" (2022) https://unfccc.int/sites/default/files/resource/J0156_UNFCCC%20BA5_2022_Report_v4%5B52%5D.pdf

Figure 13: UNFCCC Standing Committee on Finance, 2022.

For their part, major philanthropic foundations and international NGOs have thrown their full weight behind the problem of mitigating climate change risk among the region's poor. Notably, the Shell Foundation⁵³, the Ford Foundation⁵⁴, and Soros Open Society Foundation⁵⁵, to mention a few. On the civil society world, World Wildlife Fund,⁵⁶ Oxfam,⁵⁷ Cordaid⁵⁸ and Action Aid⁵⁹ are just a few whose activities do not form part of the work of parliaments but are increasingly influencing policy direction, public opinion, and the work of government.

⁵¹ https://www.afdb.org/sites/default/files/documents/publications/afdb-gender_and_climate_change.pdf

⁵² https://www.worldbank.org/en/news/immersive-story/2020/09/08/5-years-of-climate-leadership-the-world-bank-groups-first-climate-action-plan

⁵³ https://shellfoundation.org/focus-areas/

⁵⁴ https://www.fordfoundation.org/

⁵⁵ https://www.opensocietyfoundations.org/what-we-do/themes/economic-equity-and-justice

⁵⁶ https://www.worldwildlife.org/initiatives/climate

⁵⁷ https://www.oxfam.org/en/what-we-do/about

⁵⁸ https://www.cordaid.org/en/topic/resilience/

⁵⁹ https://actionaid.org/land-and-climate

5.3.3 Public Officials

The study found that public servants were unified in the belief that their reporting lines guided their line of communication with parliamentarians. Further that they are duty bound to keep out of politics except as a function of their daily reporting to the minister responsible or as a function of statutory requirements to report to parliament. Most recognized the contradiction in being supervised by parliament based on the fact that they were more technically competent than parliamentarians who supervised their work. Most also admitted to taking no proactive action to increase the knowledge of parliamentarians. The cyclical nature of parliamentary terms of office was deemed a problem even if an attempt was made to increase knowledge. The officials also confirmed that they did not routinely produce policy briefs and other policy tools unless requested by their superiors. They deemed this the role of parliamentary staff.

As with parliamentary committees, the study found that in the majority of the countries, day to day responsibility for climate change risk mitigation programs straddles different agencies. Some agencies were accountable for policy and while others were accountable for regulating third party activities as is the case in Ghana and Nigeria. In Tanzania environmental matters are the responsibility of the Vice President's Office. In Botswana environment and climate change are hosted by different ministries. But here too lack of coordination appeared a challenge and one which complicates parliamentary oversight.

5.3.4 Civil Society Groups

The findings of the study resonate with the views of civil society organizations some of whom have taken interest in parliamentary oversight capacity. During a focus group discussion in Nigeria, a member of a civil society organization said; *'we have found that there's a huge knowledge gap resulting from the lack of understanding of climate change conversation, its effects and the way forward in performing our duty of care to the environment.'* A member of the Nigeria civil society focus group discussion noted; *'Legislatures should be equipped with knowledge on specific subject matters regarding decarbonization, climate change and energy transition through concept notes, and policy briefs.'*

In recognition of this many NGOs have advocacy, training and research programs offered as a public good to disseminate information. The study found evidence that some specifically target parliamentarians. In Nigeria, the country's EITI office trained members of the national assembly. In Ghana, the UN University produced a report on potential stranded assets resulting from abandonment of fossil fuels. In Botswana, the coalition of NGOs in extractives reported occasional dialogue with parliamentarians. Unlike parliamentarians, the NGOs had more focused programs and used the internet and social media platforms to reach audiences to greater effect. Nonetheless, collaboration with parliamentarians is ad hoc.

5.3.5 Gender (Inclusion and Protection of Vulnerable Groups)

As can be seen from the summary of the findings contained under Table 5, few parliamentary committees achieve gender parity. Figures 11 and 12 too show no gender mainstreaming expertise. That said, all the countries surveyed have a ministry whose core mandate includes responsibility for women's and/or gender development policy laws and programs. Botswana has the Ministry of Nationality, Immigration and Gender Affairs. The DRC has the Minister of Gender, Family and Children, Ghana has the Ministry of Women and Children's Affairs or Ministry of Gender, Children and Social Protection of Ghana Nigeria has the Nigerian Ministry of Women and Special Groups. But only three countries have a dedicated parliamentary committee to oversee the work of government as relates to women development policy but with less attention to impacts of extractives, climate change risk or energy transition.

In some of the countries in the sample group, secondary sources also provided evidence of interventions in partnership with governments but funded by DFIs and international NGOs. The programs are designed to mitigate adverse impacts of climate change on women and other vulnerable groups. As such, the programs form part of the business of government and national development agendas though not part of the work of committees. Some of the largest and longest standing are those supported by the AfDB in Ghana and Tanzania.⁶⁰

Finally, the study shows that the number of women on parliamentary committees responsible for extractives, the environment and climate change is generally lower than that of their male counterparts as illustrated under Table 5 and Figures 14 below. Numbers of women who are chairpersons of the committees are even fewer. A fact sheet on the Ghana website states, 'Available data shows that women are underrepresented in Ghana's Parliament and in Parliamentary Committees as well.'⁶¹

From the table and chart below, the total number of females recorded across 8 committees studied in 3 countries (Ghana, Tanzania, DRC) for which data is available is 35, representing 23%; and the proportion of males is 77%. This shows that the number of males far exceeds the number of females on all the committees of interest.

60 https://www.afdb.org/sites/default/files/documents/publications/afdb-gender_and_climate_change.pdf 61 https://www.parliament.gh/epanel/docs/pub/WOMEN%20IN%20POSITIONS.pdf#viewer.action=download **Table 5** Total Number Of Females Recorded Across Eight Committees

GENDER	NUMBER	GENDER PERCENTAGE
MALES	120	77%
FEMALES	35	23%
TOTAL	155	100%

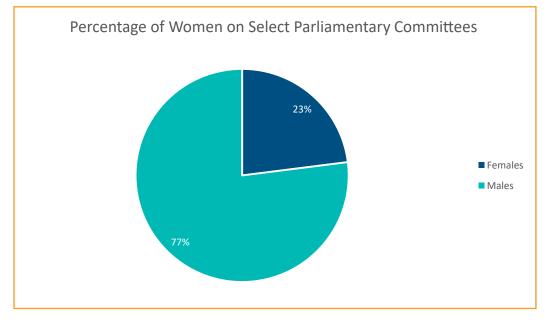


Figure 14: Percentage of Women on Select Parliamentary Committees

Figure 14 shows the percentage of women on committees by country and Tanzania records the highest ratio of females to male representation, followed by DRC, then Ghana. In Tanzania, 36% of all committee members are females, whereas DRC records 12% and Ghana records 9%.

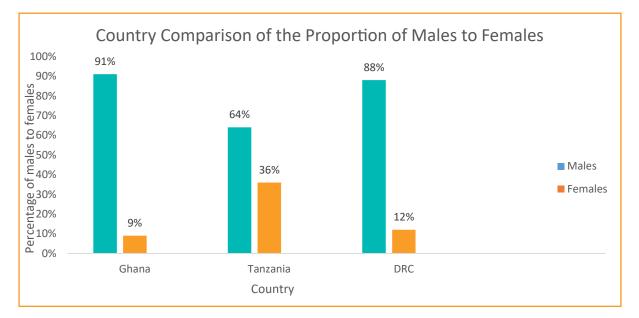


Figure 15: Country Comparison Of The Proportion Of Males To Females

Figure 15 shows the ratio of gender distribution across 3 of the pilot countries. The proportion of males to females is higher for the three countries and Ghana scores the highest.

5.3.6 Access to Information Technology and Digital Platforms

Using online searches, the study assessed parliament's use of up-to-date IT and digital technology applications. The study found that all countries had dedicated websites for national parliaments. However, the website designs are a stale replica of traditional manual library and resource centres that contain documents that have been digitised and saved on an online server. The content does not target the capacity needs of parliamentarians either. Instead, the web content primarily targets external stakeholders with a bias towards parliamentary work, its internal processes and documents generated by the institutions.

The websites have little to no interactive features to permit a more dynamic engagement with those that the parliamentarians oversee or represent. Ideally, parliamentarians should have real time access to information generated by arms of the government that they oversee. Parliamentarians should be able to access the information in real time, interact with each other and technocrats about matters of public interest. However, none of the websites for parliaments in countries in the study have interactive portals with this and similar features.

Another IT related capacity gap identified by the study is the very traditional and general nature of information contained in parliamentary websites. It focuses on traditional areas of public interest such as national budgets and financial accounts oversight and less on the subject of extractives and even less on the environment, climate change and transition to clean energy. This inward-looking focus by parliamentary sources includes bills, laws, debates is confirmed by the statement of the Ghana website which reads, *Welcome to the Institutional Repository of the Parliament of Ghana; an open access electronic archive for collecting, preserving, and sharing digital materials that has been created, owned and hosted by Parliament of Ghana.*

6. FINDINGS AND CAPACITY GAP ASSESSMENT

6.1 Overview

This section of the report uses the results to analyze parliamentary oversight capacity and focuses on identifying gaps and their underlying causes as depicted in stages 3 and 4 of the step-by-step gap analysis outline under figure 8.

Gap Analysis Process Outline



Primarily, the assessment addresses the following questions;

- * What is the current capacity of parliament to oversee the work of government in extractives, climate change and energy transition related issues?
- * What is the nature of the gap between the desired capacity and current levels?
- * What are the main causes of the gaps between the ideal and current state?

Though there is no universally accepted definition of capacity, for context, this report borrows from the Organization for Economic Cooperation and Development (OECD), According to the OECD, "*Capacity is the ability of people, organisations and society as a whole to manage their affairs successfully.*"⁶² For purposes of this study capacity gap has been defined as, 'the disparity between the desired ability of members of parliament to perform oversight duties and those observed during the study'. To assess capacity gaps and identify the root cause, the assessment has been framed around the concepts of:

- 1. Institutional capacity
- 2. Individual competencies
- 3. An enabling environment.

62 https://www.oecd.org/dac/conflict-fragility-resilience/governance/docs/46682429.pdf

The interconnectedness of the concepts means that to be capacitated, each must be optimal. Therefore, in conducting the assessment, each is examined to identify loopholes and the reasons behind the loopholes. Figure 16. Illustrates the interconnected nature of the three concepts and their points of intersection leading to an incremental rise in capacity. While each concept stands alone, the sum of the parts is nevertheless greater and that leads to synergies. The outcomes of the assessment are contained in sub-sections 6.2, 6.3 and 6.4.

Enabling Environment

(Skilled personnel, financial resources, research units, powers to act, information)

Coordination, Peer review mechanism, Public consultation, Economies of scale Information access, Knowledge platform Tools, systems & processes

Institutional Capacity

(Constitution, laws, parliament, fit for purpose committees, clear mandate) Skills development, IT Infrastructure, Information

Oversight

Individual Competencies

(Academic qualifications, work experience, professional knowledge, professional networks)

Figure 16: Sources of Capacity

6.2 Institutional Capacity Gaps

In order for parliamentarians to effectively discharge oversight duties, the right constitutional, legal and institutional frameworks leading (among others) to the creation of committees with relevant mandates and powers must be part of the governance structure. In addition to the frameworks parliamentarians must have access to the essential resources, especially financial and human. Together the frameworks and the resources form the foundation for parliamentary oversight capacity. The study shows that these provisions exist in all five countries. Therefore, taken on face value, the provisions translate into parliamentary capacity. However, not only are the frameworks not an end in themselves but evidence from the study shows that they have some limitations as detailed under sub-paragraphs 6.2.1, 6.2.2, 6.2.3, 6.2.4 below.

6.2.1. Not Fit for Purpose

In all the countries surveyed most committee structures are steeped in convention. Because of this, on matters of extractives, parliamentary oversight systems and processes do not meet modern day climate change and energy transition oversight requirements. Instead, systems skew towards traditional ways of overseeing management of public revenue as part of the conventional role of finance and public accounts committees. Systems and procedures as related to public finance are established and therefore stable. However, the same cannot be said for systems that support committees responsible for environmental protection, climate change and transition to clean energy sources in which systems and processes for oversight are still evolving. This suggests that parliaments have not kept up with the times and constitutes a capacity gap.

Another example of this lack of institutional capacity, relates to the absence of a dedicated committee of parliament to oversee government work on matters relating to offshore extractives activities and protection of the marine environment which is essential for the carbon sequestration capacity of the planet, among others. Oversight is administered as part of a single environment parliamentary committee. But the scale of offshore petroleum activities and the resulting environmental risk to marine life is high and therefore warrants dedicated resources and systems for oversight. The disparity between oversight capability of regulatory and investment arms of government impedes oversight and undermines the need for accountability by those responsible for the activities. Such lack of specialist institutional arrangements erode the role of parliament in protecting the environment through an imbalance of institutional structures.

6.2.2 Poor Coordination

Extractives, the environment, climate change and energy transition work of governments, straddles different policies, laws, government agencies and industries. It is therefore not surprising that there would be more than one committee in a single parliament responsible for overseeing work of government in these fields. To capacitate those responsible a critical link are systems and processes for coordination. To the degree that in most of the countries in the sample, there is no evidence of such systems, this points to a loophole, erosion of economies of scale and risk of duplication. The lack of coordination, the fact that the committees work independently, and silos not only undermines capacity, but it can lead to competition for resources and a potential race to the bottom. Conversely, addressing this challenge would enhance capacity.

Another example of poor coordination relates to the work of NGOs and philanthropic organizations that implement climate change risk related programs among communities. Though welcome, given their scale financially and operationally, if unsupervised, the interventions could lead to unintended consequences, including distortion of social norms and derailment of national development plans. This work of government and its partners on climate change risk, therefore, places an additional burden for which parliaments are not institutionally designed to cope with. Yet, the constitutional duty of parliaments requires supervision to ensure that implementation of partner programs not only meets donor conditions but that it meets governance, environmental and social standards. Lack of coordination between parliamentary committees and arms of government responsible for managing such relations is a capacity gap worth closing.

6.2.3 Protection of Women and Vulnerable Groups

It accepted that; 'women are more likely than men to be affected by climate change, studies show. UN figures indicate that 80% of people displaced by climate change are women. Roles as primary caregivers and providers of food and fuel make them more vulnerable when flooding and drought occur⁶³. National governments recognize the need to provide the right institutions to address the needs of women and some in the study have done so by creating a ministry with a portfolio for women. But only three out of the five countries in the study (Botswana, Ghana and Nigeria) have parliamentary committees dedicated to the affairs of women and/or gender matters. It should be noted however that the Women Caucus in Botswana merely performs an advisory function. Institutionally, the absence of a committee of parliament with oversight responsibility for women and gender creates an oversight gap in relation to the work of the relevant ministry. This can have undesirable outcomes including that the desired impacts of government programs and laws pertaining to women's welfare and development is weakened. In each of the countries surveyed the population of women averages 50% and so, the social and economic ripple effect could be far reaching.

6.2.4 Artisanal Mining Activities

The capacity of parliaments to regulate ASM activities in the region is insufficient to address the myriad of issues associated with the sub-sector. To start with, with a few notable exceptions, countries do not have laws and legal instruments to specifically regulate ASM. Yet ASM occurs at the intersection of several sustainable development opportunities and challenges. Opportunities include, employment, alternative livelihoods, small scale business opportunities, <u>employment for men and women, export and income tax revenue for the State</u>. 63 Halton, Mary; Climate change 'impacts women more than men', BBC News, science reporter, 8 March 2018

Challenges include environmental degradation, illicit trade in high value low volume substances, health and safety hazards. Money laundering and all forms of illicit trade activities are associated with ASM. For instance, it is estimated that around 40-50 % of small-scale miners work illegally in Ghana. ⁶⁴ The study shows that the Busia mining district in Tanzania experiences one to five deaths annually and that fatality rates are 90 times higher than in large-scale mines.⁶⁵ Some believe that the relative absence of legislation and poor government control in African countries make the environmental impacts of ASM arguably on par or worse than those of large-scale mines.⁶⁶ According to PACT, child labour, prostitution and other social ills typify ASM work in the DRC.

Whether one is assessing capacity to capture opportunities or contain the challenges of ASM, a missing link is parliamentary oversight starting with the absence of separate legal instruments to regulate the sector and address its unique environment. Notably, the lack of a specific ASM governance framework in most countries creates an oversight loophole based on the absence of legal tools. In this respect Ghana is the exception and rightly so given that it is estimated that direct employment in ASM is 1.1 million.⁶⁷ Among others, the country's Minerals and Mining Act, 2006 (Act 703) empowers the Minister of the Ministry of Lands and Natural Resources) to designate ASM zones and repealed and replaced earlier laws to consolidate regulations on the sale of mercury and minerals, use of explosives, and the need for an environmental permit.⁶⁸ But even then the question of the liability for end of life land reclamation is a daunting one. Given the scale of ASM activities and their unique physical and social environment and the role that some ASM minerals play in transition to cleaner energy, it has never been more urgent for parliaments to not only create dedicated laws and institutions but to beef up their own capacity for AMS oversight. The absence of such an effort diminishes capacity.

6.2.5. Structural Challenges

There are certain gaps in the capacity of parliamentarians that are borne of the very institutional structures that form part of the ecosystem of parliaments. A case in point is the relationship between themselves, the Executive Branch, and public officials. In the hierarchy of authority including powers of oversight, this structure places the parliamentarians at a disadvantage relative to the two other groups despite parliament ranking higher. In addition, when it comes

⁶⁴ https://www.lifegate.com/artisanal-small-scale-mining-africa

⁶⁵ https://www.lifegate.com/artisanal-small-scale-mining-africa

⁶⁶ https://www.lifegate.com/artisanal-small-scale-mining-africa

^{67 76}The World Bank classifications for country economies are based on GNI per capita, in current USD and using the Atlas method. See World Bank, 2018b for a detailed explanation of the methodology. The 2017 classification thresholds are low income (USD 12,235) (World Bank, 2018a). Individual country values are based on 2017 World Bank data (World Bank, 2018c)

⁶⁸ McQuilken, 2018.

to the day to day of government The Executive Branch and technocrats coordinate while parliamentarians are on the margins. But, for parliamentary oversight and supervision of government work to be effective, there needs to be synergy between all three. Among others there needs to be goal alignment and a common understanding of principles of sustainable development and an acceptance of good governance as pertains to climate change, transition to clean energy and extractive development. There also needs to be convergence around national interests. The study shows that this convergence of interests and views rarely exists and is instead overshadowed by partisan political interests of the Executive Branch and professional ambitions of technocrats.

One the causes of this is the fact that because the technocrats serve at the will of and report to Ministers (members of the Executive Branch), faced with the choice to indulge the expectations of parliamentarians over those of their principals, evidence shows that the technocrats opt for the latter. For their part, politicians in the Executive Branch use their position of leverage in relation to the technocrats to entrench themselves and score political points in parliament and before the public. Yet parliamentarians depend on the goodwill of both to access information and navigate administrative processes without which the full exercise of their legally and institutionally sanctioned power is not possible. In the final analysis, parliament's oversight duty is not only undermined but the overreliance on others for information erodes its independence which is at the root of parliamentary oversight. As a Nigerian NGOs leader put it; *'huge accurate data deficit* clouds the legislature's capacity to have proper oversight of the decarbonization, climate change and energy transition agenda. For instance, lack of measuring facilities to independently determine the various parameters of the extractive sector impedes legislative oversight.' This relationship of inferior technical expertise on the part of parliamentarians in relation to the people whose work they supervise is a serious capacity gap. Specifically, it undermines the principle of checks and balances. The study did not identify any meaningful investment in helping parliamentarians compensate for the challenge including ways to ensure that any attempt to obstruct the work of parliamentarians is dealt with proactively. In this regard some respondents suggested that the use of independent 'knowledge brokers, such as universities, professional/academic associations, civil society organisations, might be a better alternative to reliance on technocrats.'

6.3 Individual Competency Gap

Sustainable development policy frameworks for extractives and transition to clean energy is the necessary interface between the extractives industries and economic, social, and environmental wellbeing. However, it is a complex undertaking which requires certain competencies. These include basic theoretical grounding and an understanding of many technical, scientific, social,

economic principles and concepts as well as practical oversight tools. To assess the competency gap therefore, the study assessed parliamentarians against four types of skills namely:

- 1. Academic and technical skills
- 2. Knowledge of relevant concepts
- 3. Knowledge of oversight tools and mechanism
- 4. Extractive industry know-how.

The outcomes are detailed under paragraphs 6.3.1 to 6.3.5

6.3.1 Academic and Technical Skills

The study reviewed the academic qualifications, skills and work experience of committee members as relates to extractives industries, environmental protection, climate change energy and policy gender mainstreaming. As can be seen on figure 11, out of 26 committee chairs and vice-chairs in the 5 pilot countries that were studied, only 4% have the relevant subject area academic qualifications or training. As much as 96% of those reviewed do not have the relevant qualifications related to the committees that they lead. This confirms the statements made by some members that subject matter expertise is not a primary criteria for selecting chairpersons or vice-chairpersons to serve on parliamentary committees. The results also show that the pool from which the members are selected is lacking relevant skills.

This is a major competency gap because while parliamentarians need not be experts in all the fields, to discharge their duties, collectively it is necessary that there is a pool of theoretical knowledge to comprehend theories that underpin policy design and implementation. But this is not the case in part because of the process by which the members come to parliament and become committee members. On being pressed to comment on the appropriateness of the academic skills of members, a chairperson of a parliamentary committee in Ghana said, *'it is important to remember that parliamentary committees are not set up based on technical capabilities or expertise but on partisan and popularity* basis. Another lawmaker said, *"when parliament wants to create a committee on mines and energy, members of the parliament are chosen not experts. But demand that these MPs operate in a specialised area therefore they need specialised knowledge."* Technocrats and researchers also admitted that this reality erodes capacity. More importantly, it has the potential to undermine the credibility of parliamentarians in the eyes of the very people they supervise.

Figure 12 further illustrates the acute nature of the problem. It shows that from all the pilot countries surveyed, only one country (Ghana) has a chairperson with relevant academic qualification that is directly related to the committee that the chair.

6.3.2 Knowledge of Relevant Concepts

Insufficient understanding of concepts associated with extractives development, climate change, transition to green energy limits parliamentary oversight capacity. Particularly for those responsible for the relevant committees, not knowing and not understanding these essential concepts equates to not being equipped to speak the language of one's vocation. This is because development policies are formulated using a range of tried and tested scientific, economic, and social concepts necessary for rational and fact-based decision making. Grounded in the notion of *'proof of concept'* this approach standardised systems and increased objectivity on the part of decision makers. In an environment that can give rise to conflicting interests, facts and objectivity can help in adjudicating decisions and action of the Executive Branch and technocrats. The fact that some of the more common concepts including carbon trading, carbon sequestration, gas flaring, circular economy, carbon trading, gender mainstreaming, social safeguards, ESGs, impact investing, natural resource capital are not understood by parliamentarians is problematic.

On the other hand, when building capacity, understanding of concepts (or lack thereof) can be used to identify knowledge gaps between participants and therefore offer an opportunity to create a level playing field. Once understood by all, a common frame of reference based on a collective understanding of concepts is an essential enabler for parliamentary oversight without which there can be no policy coherence.

6.3.3 Knowledge of Oversight Tools and Mechanism

Just as academic skills are necessary to add to parliamentary capacity based on constitutional legal and institutional frameworks, academic skills too need to be augmented with practical skills using tried and tested policy design, implementation, and oversight tools. To the degree that the study found most of the parliaments did not have the benefit of such tools, this reduces capacity because ideally the tools should be part and parcel of the resources available to parliamentarians. Generally speaking, the tools can be differentiated between those that are used in the design of laws and policies and those that are deployed in the course of oversight. Examples of the former include gender mainstreaming guidelines, concepts notes, policy briefs, position paper, and fact sheets. The latter include audits, peers review mechanisms, environmental management plans and social safeguards reports.

In addition to augmenting academic skills, the tools increase the stability of the work environment based on standard templates that serve as constant learning tools and a point of reference for

new and old users. The tools also eliminate the need for in depth subject matter expertise on the part of the user by distilling information into easy to use and quick to understand formats. Most importantly, both the content and format can easily be updated to reflect changing new methods of learning, policy trends and new standards. Parliamentarians benefit from their use as they create a common frame of reference, providing them with a means to articulate a policy position to peers and constituents. Not having them as part of the knowledge base is a major capacity gap. This handicap is recognized by some lawmakers including an environment committee chairperson who stated; *We have the NDCs first and foremost as a guide to where we desire to be in terms of carbon and green economy aspirations. but that is not enough, we need to take each NDCs, deconstruct it and come out with the specific changes (that) must be implemented whether at the legislative level, institutional reforms level, for that desired state to be achieved. We need to have a framework that assists us to match what government or what everyone is doing in the country against the extent to which it contributes to the attainment of each NDCs.' Some of the tools could also provide a roadmap and develop tools to monitor progress with NDCs.*

6.3.4. Extractives Industry Know-How

Expecting parliamentarians to possess knowledge about the range of industries in extractives is unreasonable because the industries give rise to a range of professions. However, addressed in the context of the subjects of the study and the work of parliamentarians, the scope of essential know how needed narrows significantly. For most part it requires knowledge from only two angles. The first is the regulatory view which requires a high-level appreciation of the issues being regulated from an economic, environmental, climate change and energy point of view. The other is the investor perspective which is simplistically speaking a high-level appreciation of the economic and technical context of upstream activities. Together with the nature of the product, the value chains inform sustainable development challenges (economic, environmental, and social). Using conceptual knowledge as described under 6.3.2 and tools as described under 6.3.3 above would increase knowledge and oversight capability. For one it would enable parliamentarians to make the right choices based on knowledge of policy impacts. One example relates to gas flaring during oil production. If policymakers understood that it is a financial choice by investors, which nevertheless increases footprint, it would be simpler to apportion responsibility for the environmental damage. Equally, if policymakers understood the relationship between mineral processing, energy intensity and economic benefits they would not indiscriminately advocate for value addition but instead be selective so as to balance the rewards with environmental damage and energy security risk.

6.3.5 Geopolitics

In extractives, climate change and energy transition, there is a range of interests that operate at global, regional, and national levels but are often conflicting. The potential risk for the interests to impact the national agenda is high. To appreciate the scope of this risk, parliaments need to understand political, trade and other strategic drivers of geopolitical interests of those with whom they form bilateral, diplomatic and trade relations. Knowledge of the players and an understanding of the influence that they have on the work of national institutions and private investors is critical. Knowledge of geopolitics of transition to clean sources of energy and extractive resources development, associated risks and rewards is vital for parliamentary effectiveness. However, on assessing capacity as relates to these factors, all indications are that the work of committees occurs in a vacuum.

6.4 An Enabling Environment

The ability of parliamentarians to perform oversight duties and supervise the work of government is predicated upon a multiplicity of factors including resources, authority, unaffected and timely access to information. While constitutionally, legally, and institutionally parliamentary access to information is embedded in law, in reality access cannot be guaranteed. Those in control of generating, storing, and disseminating information are the real gatekeepers. They control the degree and timing of access. Their actions can have material consequences including undermining the value of the information. The risk of one or all of these obstructive actions materialising is high because parliamentarians operate at the intersection of many divergent goals and interests. This and the potentially negative impact of such an environment on the work of parliamentarians is understood by many in the study. But there appears to be no systems of checks and balances to guard against the risks. This and other matters discussed under 6.4.1 to 6.4.3 below are serious structural weaknesses.

6.4.1 Access to Information

Parliaments lack capacity due to inadequate access information caused by several factors but two stood out. The first is the fact that failure of committees to comply with the requirements of the law has no repercussions. For instance, in the DRC for lawmakers to exercise this control and secure information, the Constitution provides that both the Senate and the National Assembly could make certain demands on institutions including Cabinet Ministers. That said, in the event of lack of compliance however, *'the Constitution also made it clear that none of these means of control could lead to votes of no confidence against the government.'⁶⁹ One of the main*

69 Dr M Kodi, Corruption and governance in the DRC, , Institute for Security Studies, 2008

capacity gaps identified by the study emanates from limited use of Information Technology (IT) necessary to access data and information from government and third-party sources. Yet in today's world, information dissemination systems are dominated by the internet without which institutions and individuals are handicapped. So, when it comes to information, as with the rest of the world, parliamentarians operate in an environment that is driven by IT and cannot function without its full deployment. But from the study, it is apparent that the use of IT is limited.

Overtime the opportunity cost is high because the use of IT systems would enable parliamentarians to access data and information fast and reduce over reliance on intermediaries who filter information. It would also eliminate intermediaries between parliamentarians and their constituents. IT systems would empower parliamentarians to select independent sources of information from the government and technocrats they oversee. The internet would also enable parliamentarians to use third party sources to verify and/or validate information provided by the Executive Branch. Given the need for separation of powers, the ability of parliamentarians to independently verify information provided by administrators would strengthen the capacity of parliamentarians to oversee governments and reduce dependency on technocrats and therefore credibly exercise their authority over them.

Specifically, limited use of internet sources deprives parliamentarians from benefitting from a wealth of information that is available from open-source books on the subjects of the study. Such sources are an important aspect of the value of IT related capacity building because open source books tend to specialise in specific subject matter. Often, they contain articles, laws, reports, reviews, and concept notes written by subject experts that have also been peer reviewed. As such, they are widely accepted as reliable sources of knowledge building and exchange. The topical nature of extractives policies and environmental protection have led to the creation of some of the most robust extractives sourcebooks. Some are hosted by reputable global and regional academic institutions and DFIs.⁷⁰ Below are links to three examples of extractives sources books about whom a number of the parliamentarians interviewed were aware⁷¹.

⁷⁰ https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/AfDB_Inclusive_Climate-Smart_Finance. pdf

⁷¹ https://reliefweb.int/report/world/oil-gas-and-mining-sourcebook-understanding-extractive-industries https://www.dundee.ac.uk/projects/extractive-industries-source-book https://www.a-mla.org/en

6.4.2. Access to a Dedicated Interactive Web Portal

The absence of a portal dedicated to building the capacity of parliamentarians through continuous information sharing is another IT related capacity gap institutionally. It impacts the work of parliamentarians adversely because in addition to the value of information discussed in the preceding paragraph an interactive portal would enable parliamentarians to engage with their peers and external stakeholders continuously. In the end it would generate invaluable and easily accessible institutional memory.

6.4.3 Effective Engagement of Constituents

The capacity of parliaments to engage the public on climate change and energy transition matters but is very limited This in part due to lack of knowledge, tools, and IT facilities. Yet without a groundswell of public support behind energy transition plans, it is unlikely governments will successfully implement policies and laws on decarbonization and energy transition as they require the goodwill of citizens and particularly a change in consumer behaviour. As such it is essentially that parliamentarians be capacitated to effectively engage the public and for the public to be able to engage them in turn. At this stage, lack of knowledge coupled with limited financial resources and inadequate IT infrastructure were frequently cited as the root cause of the lack of engagement. One of the indicators of the gap is low levels of use of social media platforms. On 1/3/22, Ghana, Nigeria, and Tanzania Parliament Twitter accounts showed very low user statistics. The Ghana parliament recorded 322 Tweets and only 3477 followers as of 1/3/22 The Nigerian Senate recorded 34.7 tweets and 923.4k followers. The Tanzanian parliament recorded 1841 tweets and 417k followers. By contrast, the UK parliament recorded 19.7k tweets and 1.6 million followers. Given sub-Saharan Africa's cell phone connectivity, the numbers are extremely low and testify to a lost opportunity.

There are nevertheless exceptions. The Nigerian Government's Climate Change Department leads an advocacy campaign intended to educate the publics and local authorities at grassroots level on climate change risk and mitigation plans., *'the Education Awareness and Outreach Division was created as part of efforts to create awareness on the issues of Climate Change all across the country and is divided into three branches namely, Education, Awareness and Outreach.'⁷² Even then, some still perceive capacity gap related risk to derail national climate change risk mitigation plans. A Nigerian member of civil society among the respondents stated that 'while there is <i>the need for capacity development at both federal and state legislative levels, the state legislature needs critical attention – because of its bigger knowledge deficit and proximity to the grassroots.'*

72 https://climatechange.gov.ng/education-awareness-and-outreach-division/

7. CONCLUSIONS

From the results of the survey and the gap assessment report, the study reached the following brief conclusions

7.1 Essential Ingredients of Oversight Capacity

Oversight capacity of parliamentarians is not based on a single composite factor. Instead, it is predicated upon several interlinked factors. Among the most essential are:

- 1. Availability of institutional structures and material support for parliamentarians to carry out their duties
- 2. Uninhibited, timely and regular access to fact-based information
- 3. Knowledge of concepts on sustainable development and governance of extractives
- 4. Access to tried and tested mechanisms for translating concepts into practical policy design and oversight tools
- 5. Use of IT and digital social media platforms
- 6. An ability to engage the public and other sections of society continuously and constructively.

7.2 Differences Between Countries

The capacity of parliaments to oversee the work of government differs from country to country and from one policy issue to another. Some of the factors that may explain the differences are the presence of a strong civil society voice that either supports parliamentarians directly or independently reviews and comments on the work of government. Common causes of lack of capacity in the countries in the sample however are:

- 1. Limited subject expertise
- 2. Low deployment of IT facilities to manage knowledge
- 3. Insufficient use of independent sources of knowledge to augment in-house sources.

7.3 Lack of Continuity

The challenge of lack of continuity as relates to members of parliament, and therefore oversight committees, is a fundamental structural problem for capacity building. It undermines efforts to develop skills, build knowledge and create institutional memory. That said, there is no conscious effort to find institutional means to compensate for the problem which is an inevitable outcome of electoral politics. As such changes in parliamentary membership will continue to undermine institutional effectiveness.

7.4 Third Party Climate Change Risk Mitigation projects

Third party funding of projects on environmental protection, transition to clean energy and mitigation of impacts of climate change on vulnerable groups is increasing in leaps and bounds. The rise is driven by different factors including a proliferation of donor trust funds in DFIs that are procured through less onerous processes than mainstream sovereign loan processing channels. Nevertheless, the programs compete with government advocacy initiatives and influence public opinion and as such complicate the oversight work of parliaments. That is to say, on one level, the programs and program sponsors are welcome, but on another the programs add to the long list of stakeholders interests that parliaments struggle to reconcile. But this is not an excuse not to oversee these initiatives because in some cases, they are used as opportunities to carry favour with the electorates, national entrepreneurs, MPs and are therefore susceptible to corrupt practices.

7.5. Parliaments and Project Decommissioning Trust Funds Oversight

The question of post large scale and ASM mining project decommissioning financial liability does not receive adequate attention from parliaments. Through Environmental Impact Assessment Studies (EIAS) and implementing Environmental Management Plans (EMP) (including decommissioning plans), requirements for extractives projects to reduce adverse environmental impacts are embedded in law. At the end of the project life cycle, financial liability and the cost of decommissioning takes centre stage. Sometimes, the financial component is addressed through legal requirements for project owners to create and maintain a trust fund with adequate resources to meet decommissioning costs. However, between changes in project ownership, impacts of inflation over the life of a mineral or petroleum project and changing environmental reclamation standards, ensuring that the funds are sufficient can be

difficult. Therefore, such funds require constant monitoring and adjustment of the rules and revaluation of the financial value if necessary. Failure to ensure adequacy of financial resources to decommission and reclaim sites could spell environmental doom for climate change especially in case of ASM sites. But there is no evidence that the work of parliaments to pass laws to ensure alternative ways for governments to fund reclamation of ASM sites has started, and this is an important but missing link in the governance of the sector.

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The Konrad-Adenauer-Stiftung (KAS), Regional Programme Energy Security and Climate Change realizes activities around the nexus of energy security and climate change in sub-Saharan Africa. One of the key priority areas of the programme is to raise awareness of the implications of the global energy transition and low-carbon pathways from an African perspective as well as how to improve access to energy and energy security aspects on the African continent and beyond. Through its various activities, the programme creates awareness of the interconnectivity of climate change and other policy areas, while also promoting the exchange of ideas between policymakers at local, national, and regional levels.

In publishing this study, the Regional Programme on Energy Security and Climate Change seeks to address the important issue of parliamentary oversight of extractive resources and climate change policies.

Parliaments and parliamentarians play crucial legislative, budget approval and oversight roles which are important in policy-making and implementation, therefore ensuring government accountability and effectiveness. They also provide vital knowledge links with constituents which facilitates need-based and effective climate action. This publication seeks to shed light on the important role of parliamentarians in the energy transition in securing effective oversight of the extractive industries to deliver economic benefits and minimize environmental impacts.

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