Overcoming carbon lock-in: Rethinking Export Finance and Investment Law in Africa's Energy Landscape

Luisa Weber and
Lea di Salvatore

4 July 2025
Freiburg, Germany

perspectives climate research

Perspectives Climate Research

Perspectives Climate Research gGmbH (PCR) is an independent and internationally active research company based in Freiburg, Germany. PCR conducts research for both governments, international organizations, non-governmental organisations and the private sector maintaining high methodological standards. As the research branch of the renowned consultancy Perspectives Climate Group, PCR has extensive expertise in political science, economics and climate science and works on informing international climate policy as well as UNFCCC negotiations.

Authors

This research report was led by Luisa Weber (Perspective Climate Research) and Dr. Lea di Salvatore (University of Eastern Finland) and supported with input from Justiça Ambiental's Daniel Ribeiro and Perspectives' Ziqun Jia, Dr. Igor Shishlov and Philipp Censkowsky.

Acknowledgements

The authors would like to thank Samuel Okulony from the Environment Governance Institute Uganda, Prof. Christopher Gordon from the University of Ghana and Breeda Okpo as well as colleagues from the Africa Europe Foundation for their invaluable inputs reviewing this report. We further like to thank our interview partners for sharing their insights on ECA's risk assessment and risk management for the financing of energy projects in Africa.

Graphics and layout

Marielle Pesant, Rosaria Caddeo

Table of contents

Table of figures

Abbreviations

AEGEI – Africa-EU Green Energy Initiative
AU – African Union
CETP – Clean Energy Transition Partnership
CRC – Country Risk Classification
DRC – Democratic Republic of Congo
E3F – Export Finance for Future
ECA / ECAs – Export Credit Agency / Agencies
EIB – European Investment Bank
EU – European Union
GEM – Global Energy Monitor
GNI – Gross National Income
ICSID – International Centre for Settlement of Investment Disputes
IEA – International Energy Agency
IFC – International Finance Corporation
ISDS – Investor-State Dispute Settlement
LNG – Liquefied Natural Gas
OCI – Oil Change International
OECD – Organisation for Economic Co-operation and Development
OPIC – Overseas Private Investment Corporation
RE – Renewable Energy
SMEs – Small and Medium-sized Enterprises
SPV – Special Purpose Vehicle
UNFCCC – United Nations Framework Convention on Climate Change
USAID – United States Agency for International Development
USD – United States Dollar
USTDA – United States Trade and Development Agency
WB – World Bank

Executive summary

This report provides an empirical analysis of the role of Export Credit Agencies (ECAs) and Investor-State Dispute Settlement (ISDS) in shaping Africa's energy transition. By examining the financial flows from G20 ECAs between 2013 and 2023, the report reveals critical trends in the distribution of energy financing and assesses their implications for Africa's sustainable energy future. Our findings underscore the disproportionate support provided to fossil fuel projects, the structural barriers hindering the transition to clean energy, and the complex legal and financial challenges that accompany these investments.

Our analysis shows that, between 2013 and 2023, G20 ECAs provided USD 77.3 billion in energy finance to Africa. Of this, more than half—USD 41.1 billion—was directed towards fossil fuel projects, including coal, oil, and gas infrastructure. In comparison, renewable energy projects received only USD 8.8 billion, a mere 11% of the total financing. This stark disparity highlights a significant misalignment between the financial flows into Africa's energy sector and the continent's urgent need to expand sustainable, low-carbon energy infrastructure. Moreover, the financing of fossil fuel projects, particularly in the form of long-term infrastructure, risks creating a 'carbon lock-in' by trapping recipient countries into high-emission energy pathways.

Our findings indicate that many of the fossil fuel projects supported by ECAs benefit from additional legal protections granted to foreign investors and have access to Investor-State Dispute Settlement (ISDS) mechanisms, which further entrench this lock-in. ISDS allows foreign investors to challenge host country policies that they deem as impairing the profitability of their investments. These include also measures adopted for the public interest, such as regulation to protect the environment or emergency measures. The availability of ISDS mechanisms means that policy changes, such as the ones needed to transition away from fossil fuels, could lead to costly legal battles, further deterring governments from pursuing ambitious climate policies or even preventing the host government from adopting certain measures.

While investors have access to ISDS, international investment treaties are not particularly relevant for ECAs when assessing risk. Notably, investment treaties are not considered by most ECAs in their country risk assessments as a factor reducing political risks. This calls into question the relevance of investment treaties to attract foreign capital and financing as it does not affect perceived investment risks. While this had been the narrative for adopting investment treaties, the results show that, for ECAs, such treaties do not promote investment in clean energy, but rather fosters carbon lock-ins in the host States.

A substantial share of fossil fuel financing is concentrated in a few African countries, with Mozambique, Nigeria, and Egypt receiving the largest volumes of export finance. The focus of ECAs on high-risk fossil fuel projects, particularly gas and oil extraction, has overshadowed potential investments in renewable energy, despite Africa's vast untapped renewable resources. The financing of large-scale hydropower has been another key focus, but these projects often come with significant environmental and social costs that may undermine their sustainability. The analysis underscores ECAs traditional preference for large-scale projects, while decentralised renewable energy projects that provide energy access in rural and marginalised communities account for only a fraction of the analysed financial flows. Despite their limited share, these projects demonstrate that ECAs have the potential to cover energy access projects and could play a key role in mobilising private funds for such initiatives.

Our empirical analysis also highlights the critical role of risk assessment in shaping the financing decisions of ECAs. Renewable energy projects in Africa face high costs of capital due to perceived country-specific and project-specific risks. ECAs, however, often perceive these risks as insurmountable,

especially in less developed and politically unstable regions. As a result, most of ECAs' renewable energy financing globally is channelled to projects in high-income countries. Financing for clean energy projects in Africa remains insufficient. Moreover, as a twisted irony, climate change is likely to increase the risk and therefore the cost of investing in African countries particularly vulnerable to climate change.

ECAs in Africa show inconsistent alignment with international commitments and priorities of the European Union (EU) and the African Union (AU) for the energy transition. Despite pledges like the Clean Energy Transition Partnership (CETP) to phase out international fossil fuel finance, implementation has been uneven. While some ECAs are increasing support for renewable energy, their traditional focus on export promotion often limits their contribution to clean energy goals. ECA's limited financing for energy access projects is also at odds with the joint EU and AU priority to mobilise funding for universal energy access.

ECAs need to change their priorities and strategies to better support Africa's clean energy transition and align with international climate commitments. This will require policy changes in ECAs governance, updating their mandates to include climate and sustainable development objectives besides export promotion. ECAs need to be allowed to adopt more risk-taking behaviour and offer more flexible financing terms to be able to cover low-carbon projects in high-risk countries. ECAs further need to enhance and innovate their risk mitigation strategies, including collaboration with multilateral development banks (MDBs), to tailor them to renewable energy projects. By doing so, they could unlock substantial private sector investment and support Africa's transition to a low-carbon, climate-resilient energy future.

1. Introduction

1.1. Africa's climate and development nexus

The year 2024 has already registered a roughly 1.6°C increase in global temperatures compared to pre-industrial times, pushing ecosystems, weather patterns, and human societies to ward unprecedented and increasingly unpredictable changes (Copernicus, 2025). Indeed, without keeping a majority of fossil fuels unextracted (Welsby et al., 2021) the 1.5°C temperature goal is increasingly out of reach (IEA, 2024a). It is unequivocally clear that to limit global warming and avoid the worst impacts of climate disruption, the world must rapidly phase out fossil fuels, with no room for new coal, oil, or gas infrastructure (IPCC, 2018; IEA, 2021; IPCC, 2023b). Moreover, because of overinvestments in the oil and gas sector, 40 % of already developed fossil fuel reserves need to remain unexploited to stay within 1.5°C of global warming (Trout et al. 2022).

Africa finds itself at the epicentre of one of the defining global challenges of the 21st century: how to achieve equitable economic development – including universal energy access – while transitioning to a low-carbon and climate-resilient economy. Currently, over 600 million Africans still lack access to reliable electricity, a figure that represents nearly half of the global population living without modern energy access (IEA, 2022a). Expanding energy infrastructure is thus essential for poverty reduction, health, education, and industrialisation. However, whether this expansion is low- or high-carbon will have dire impacts on African countries, not only on the climate, but on the economy, society and environment at large. On the other hand, despite contributing only about 9% to cumulative global

greenhouse gas (GHG) emissions (IPCC, 2023a), the African continent is particularly exposed to the impacts of climate change, ranging from extreme droughts and floods to food insecurity and climate-induced displacement (IPCC, 2023). Therefore, accelerating Africa's energy transition is both a developmental and a climate imperative (IEA, 2022a).

To achieve the continent's energy and climate goals by 2030, the IEA calculated that it would necessitate annual investments of over USD 200 billion (IEA, 2024a). However, their projections indicated that Africa was set to attract only approximately USD 110 billion in total energy investment in 2024, with nearly USD 70 billion still flowing into fossil fuel supply and power generation, and only a limited share directed toward clean energy technologies (IEA, 2024a). Adding investment needs for broader development targets, the Cambridge Institute for Sustainable Leadership estimates a funding gap of roughly USD 1.8 trillion by the end of this decade alone (Fuller, 2024). As energy access remains one of the most pressing priorities, these figures illustrate a stark mismatch between needs and current financial flows. Progress in this area will require not only concessional finance and grant-based support for vulnerable households but also strategic interventions and policy reforms to create bankable, de-risked projects that can attract private capital (IEA, 2024a).

1.2. Role of foreign finance in Africa

This investment shortfall is especially problematic given the structural reliance of African economies on external financial flows. All African countries—except Seychelles—are classified by the OECD as eligible for Official Development Assistance (ODA), reflecting their low-income or lower-middle-income status. Of the 45 countries currently listed by the UN as Least Developed Countries (LDCs), 32 are African (OECD, 2023b). Domestic fiscal space is often insufficient to fund capital-intensive infrastructure projects, making the continent heavily dependent on foreign finance to meet both its energy access and climate objectives. However, the current trend of dwindling ODA, driven by shifting donor priorities—including the US withdrawal from the Paris Agreement and cuts to the US Agency for International Development (AID)—and budgetary pressures in other donor countries, threatens to exacerbate these challenges, reducing the resources available to support sustainable development goals (OECD, 2025).

Export Credit Agencies (ECAs), as state-backed financial institutions, play an important role in shaping Africa's energy landscape. In a nutshell, ECAs' guarantees, loans and political risk insurance can make large-scale infrastructure investments viable in high-risk environments by covering political, commercial or physical risks faced by exporters and foreign buyers (Shishlov et al., 2021). Besides multilateral development banks (MDBs), ECAs are the largest group of internationally active public financial institutions supporting fossil fuel infrastructure worldwide—at least historically (OCI, 2023a). By contrast, ECA financing for renewable energy—particularly in emerging markets—continues to lag behind (Censkowsky et al. 2025). Therefore, key questions for policymakers and exporters include how to overcome financing barriers for renewable energy and how to adapt mandates and financial instruments to ensure that ECAs effectively support the energy transition rather than slow it down.

Fossil fuel investments backed by ECAs are likely to lock African countries into carbon-intensive development paths, especially as many of the fossil fuel projects in question are also shielded by international investment law. This system provides additional legal protection to investors that can be leveraged against climate policies, often cherished as a further safeguard and de-risking instrument for project developers in the fossil fuel sector (Di Salvatore et al., 2023). Specifically, investor-state dispute settlements (ISDS) enable investors to directly sue host states for compensation in case of policy-induced stranding of assets and forgone profits (Tienhaara and Cotula, 2020). Taken together, ISDS and ECA finance are both important support schemes for foreign investments, especially for fossil fuels.

1.3. Objectives and methodology

The objective of this report is to examine the dual role of public ECAs and ISDS in shaping Africa's energy infrastructure. In doing so, it specifically pays attention to how investment protections and ISDS, applicable to ECA-supported projects, further impede the energy transition. The report further analyses financing barriers

for ECAs for renewable energy projects in Africa by analysing investment risks and employed risk mitigation strategies.

This report is based on a mixed-methods approach, combining quantitative data analysis with qualitative legal and policy assessment. The financial analysis draws primarily from the *Public Finance for Energy* dataset compiled by Oil Change International, covering export finance transactions from G20 countries between 2013 and 2022, with preliminary data included for 2023 (OCI, 2022). Some ECAs, e.g. from the Nordic countries, are not included in the dataset and therefore not included in this analysis, although they are active financiers in the energy sector (Schmidt et al., 2024). Large-scale fossil fuel, renewable energy and hydro-projects that were identifiable by name in the Public Finance for Energy dataset were cross-referenced with project-level information from the Africa Energy Tracker by Global Energy Monitor allowing for a more detailed analysis (GEM, 2024a). Export finance for refineries was excluded as the Africa Energy Tracker includes no information on this asset type. Only bilateral export finance transactions were included to focus on direct financial flows between provider and recipient countries. While this choice excludes certain flows (e.g. from the African Export-Import Bank), it allows to provide a more comprehensive picture of the financial flows between the Global North and African countries and their alignment with the global energy transition.

The legal dimension examines the role of investment agreements (IIAs) and national investment laws in protecting fossil fuel infrastructures in Africa. For this analysis, we assessed which fossil fuel projects that received ECA finance are covered by IIAs or national laws. We further looked at the impacts of ISDS in Africa based on a database of ISDS cases filed against African countries, and drew some conclusions on the impact this system may have on the African energy transition. The ISDS database was compiled from UNCTAD's Investment Policy Hub and the *Investment Arbitration Reporter*. Ultimately, this analysis highlights an additional layer of protection offered to fossil fuel investors and illustrates a source of potential legal challenges to the energy transition and adopting more ambitious climate policies.

The analysis of export finance flows and protection offered through international investment law was supplemented with insights from seven **semi-structured interviews with experts from the OECD-country based ECAs. The interviews were focused on ECAs'** risk assessment models, investment risk mitigation strategies, including the consideration of IIAs and ISDS and ECAs' own observations regarding barriers to clean energy finance.

This triangulated methodology allowed for a comprehensive understanding of the financial, legal, and political dynamics influencing Africa's energy transition.

The remainder of the study is structured as follows. **Chapter 2** provides an overview of export finance to energy projects in Africa between 2013 and 2023. **Chapter 3** analyses systemic barriers to clean energy finance, including carbon lock-in, legal protections for fossil fuel investments, and elevated financial risks associated with renewables. **Chapter 4** explores strategies to overcome these barriers, including shifts in ECA mandates, reforms in investment governance, and emerging tools for risk mitigation. **Chapter 5** provides a conclusion and policy recommendations. **Appendices I, II, and III** provide a more detailed account of the disaggregated financial flows into a) fossil fuels, b) clean energy, and c) other technologies such as large hydropower.

2. ECAs' support to energy projects in Africa

2.1. The role of ECAs in derisking energy investments

ECAs are either public entities or private companies that act on behalf of a government (OECD, 2021). Their *raison d'être* is the promotion of the trade and national export businesses competing for riskier markets abroad (OECD, 2021; Shishlov et al., 2021). ECAs provide, for example, guarantees to hedge risks against an exporter or lender not being repaid (see Figure 1 on the typical structure of an export guarantee). They further offer political risk insurances that hedge against a narrower set of risks, including political instability, expropriation, or unexpected currency fluctuations. They can also act as direct lenders with short-, medium- or long-term loans and may provide earmarked project finance or even equity instruments. In return, they receive risk premiums or interest payments. In the case of repayment loss, ECAs compensate exporters or lenders directly whilst being in the position to draw up a debt settlement arrangement with the Paris Club.[1]

Figure 1: ECA export guarantees

Source: authors based on Machlin (2019)

Opting for a state-backed transaction can significantly de-risk deals for exporters and crowd in public or private co-finance, especially for large-scale, long-term or particularly risky infrastructure projects (Shishlov et al., 2021). ECAs can act as insurers of last resort in highly risky environments. This is especially relevant for African countries that recently suffered from multiple major economic shocks due to the COVID-19 pandemic, geopolitical tensions and now tariffs. These crises have heightened business risks, making debt more expensive and less accessible for many African nations. In this challenging landscape, ECAs, unlike private financiers,

can finance and underwrite projects, thanks to their government backing (Ndlovu, 2024). This ability can be crucial for determining energy investments and hence the carbon pathways of African States.

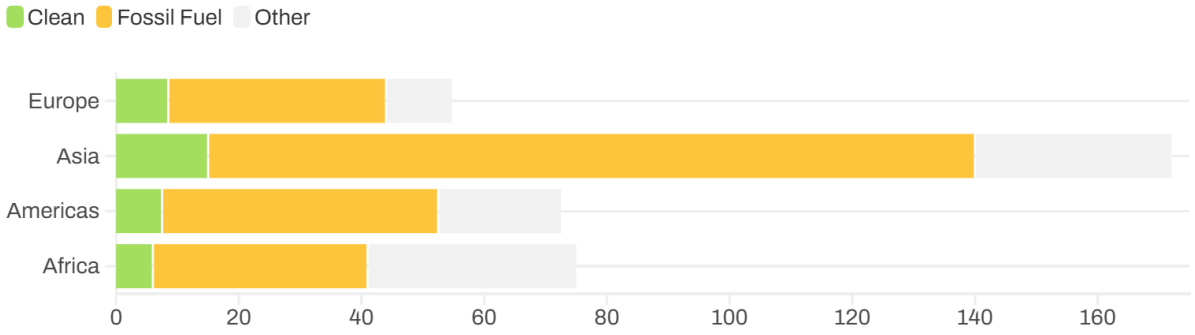
Energy access, sources and infrastructure development vary widely across countries in Africa. According to the Global Energy Monitor, at the time of the writing, there are 2609 energy infrastructures operating in Africa, from coal mines to wind farms to pipelines (GEM, 2024a). Moreover, 755 new projects have either been proposed or are in construction.

As discussed in the introduction, external financial support is crucial for the development of these energy infrastructures. Among the various financial actors, ECAs play an important role as they de-risk foreign investments by providing state-backed guarantees, loans and political risk insurance. They are particularly crucial for the energy transition as they are the largest group of internationally active public financial institutions supporting fossil fuel infrastructure worldwide (OCI, 2023a).

2.2. Export finance trends in Africa

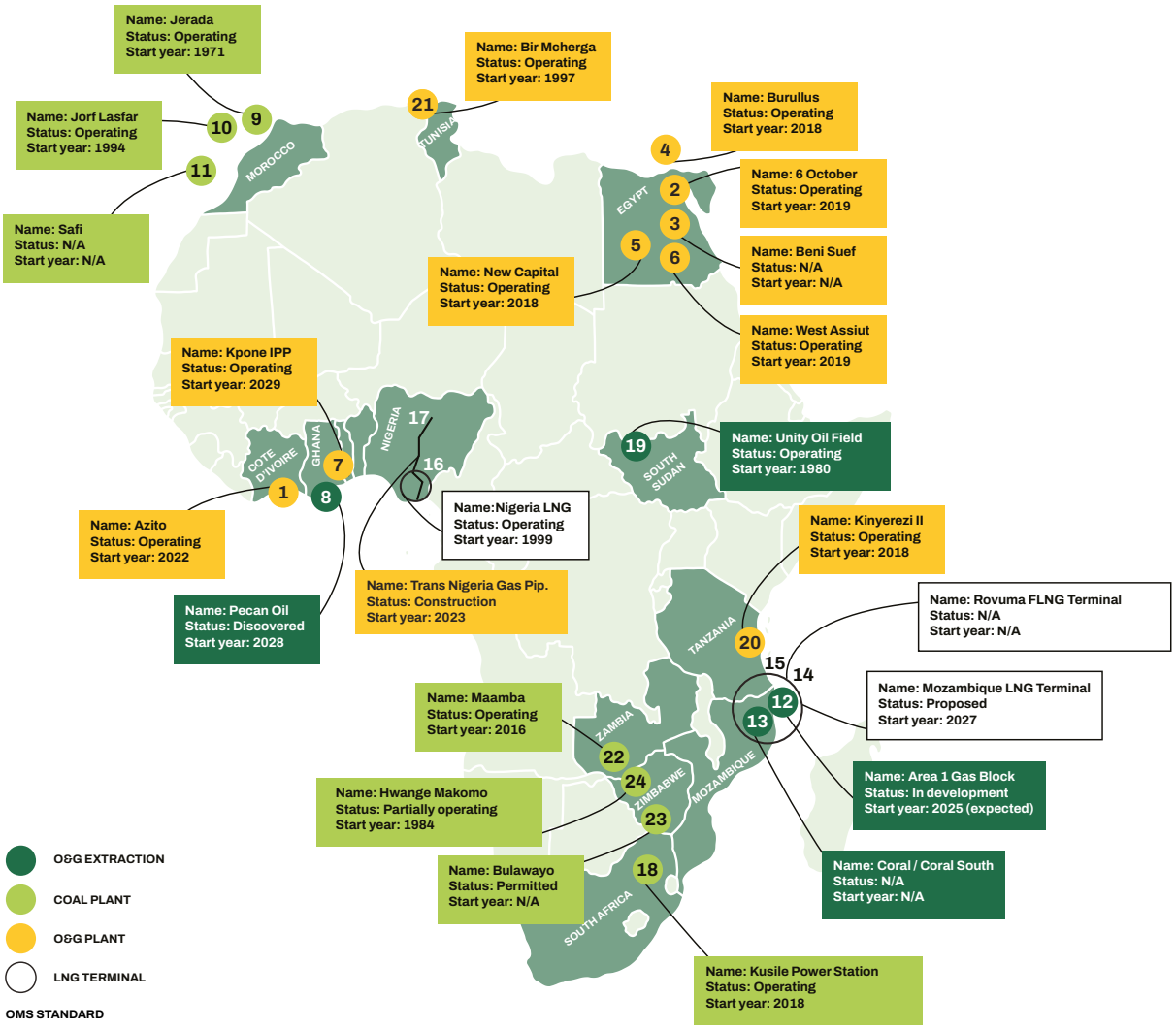
Between 2013 and 2022, ECAs from G20 countries have supported energy projects in Africa with a total of USD 77.3 billion. Of these USD 77.3 billion, more than half, USD 41.1 billion, financed fossil fuel projects, which comprise coal, oil and gas projects for extraction, transport and power generation (see a map of identified fossil fuel projects in Figure 3). A similar dominance of fossil fuel export finance can be observed for finance flowing to other continents (see Figure 2). USD 27.4 billion went to other projects which comprise large hydropower, biomass and biofuel projects and investments in electricity transmission networks. The smallest share, USD 8.8 billion, supported clean energy projects, which include wind, solar, geothermal, small hydropower and battery storage (see Figure 3).

Figure 2: G20 export finance deals by recipient continent (2013-2022)



Source: Authors based on (OCI, 2022), Note: data for 2023 is preliminary

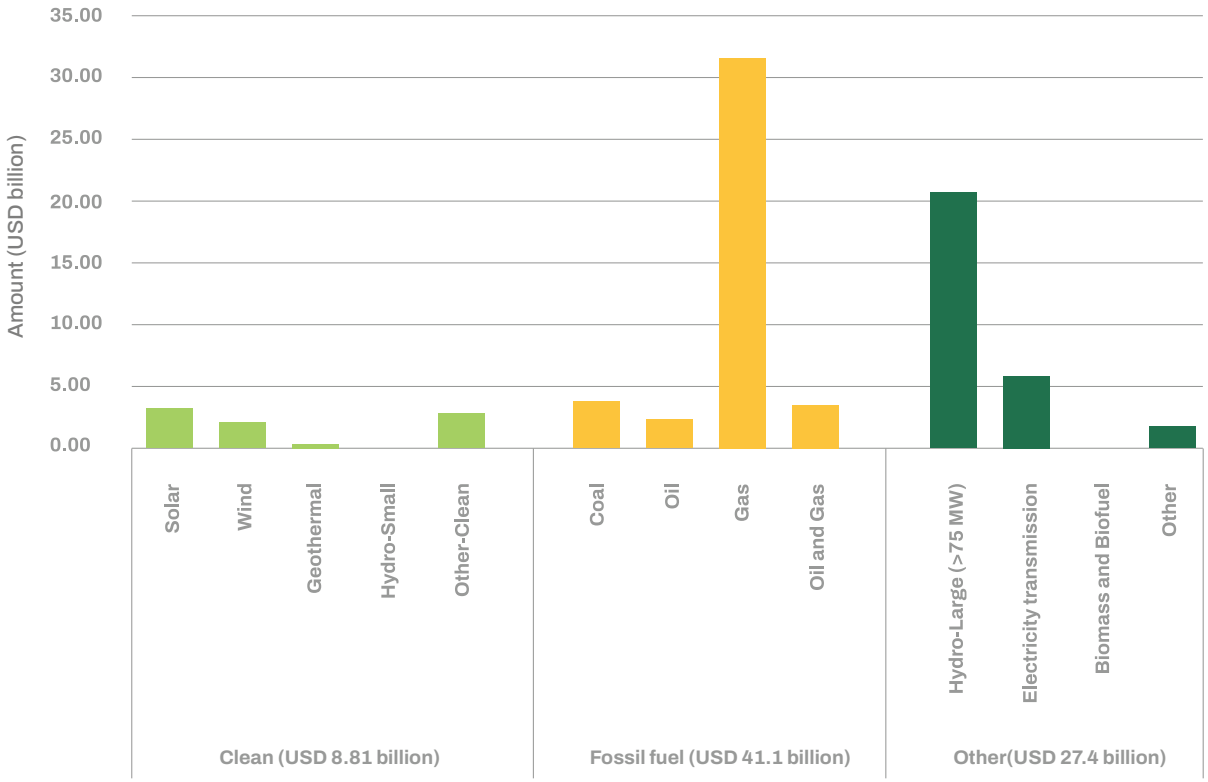
Figure 3: Identified oil, gas and coal projects that received export finance between 2013-2023



Source: Authors based on (OCI, 2022), Note: data for 2023 is preliminary
Graphic by Marielle Pesant

Categorised by energy source, the largest share of ECA finance is supporting gas projects in the up-, mid- and downstream sectors (40%) (see Figure 4). The second-largest share of export financing went into large hydro projects, which received most of the financial support from China. Clean energy received the lowest share of export finance. Together, ECA's financing of solar, wind, geothermal, small hydropower and other clean energy sources was only about a quarter of the financing going into gas projects.

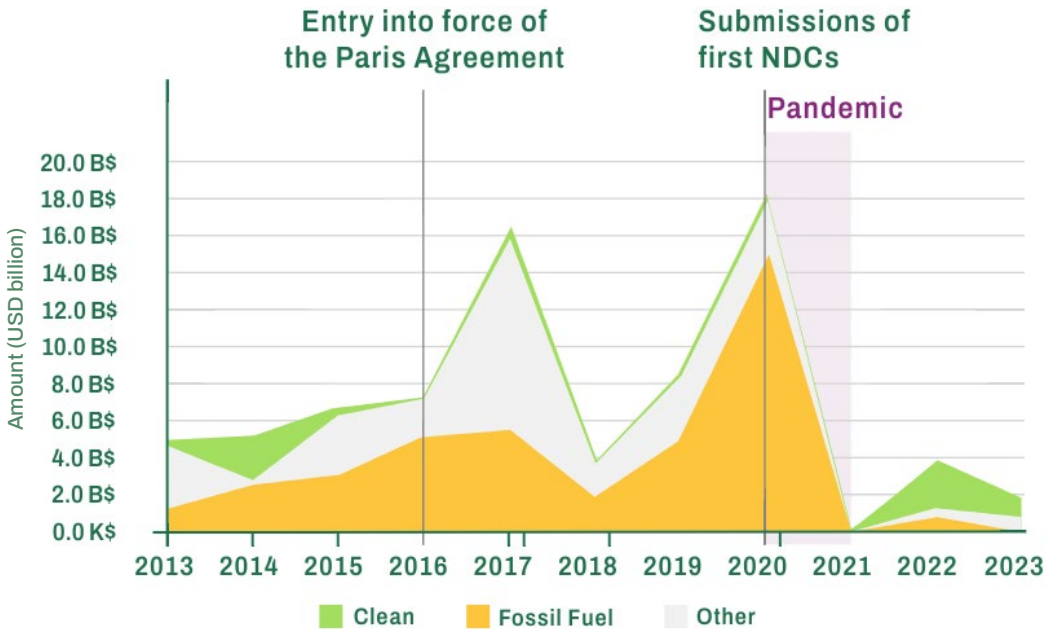
Figure 4: G20 ECA finance by energy source in Africa, 2013-2023



Source: Authors based on (OCI, 2022), Note: data for 2023 is preliminary, totals by technology added in brackets

While energy export finance fluctuated substantially year-on-year over the last decade, it was consistently dominated by fossil fuels until 2020 (see Figure 4). Total export finance volumes are strongly impacted by individual large-scale transactions, like the multi-billion dollars transactions from China in 2017 supporting hydropower in Nigeria and Angola. The record high in 2020 resulted of the conclusion of major financing deals for Mozambique's and Nigeria's gas sectors. The decline in financing in 2021 can be attributed to the economic uncertainty due to the COVID-19 pandemic, causing gas prices to drop (Tucker and Reisch, 2021). 2022 saw an increase in export financing for clean energy. However, the total volume of export financing for Africa's energy sector is well below pre-crisis levels. Data for 2023 is preliminary and may potentially not include all export finance deals. It, however, indicates that export finance for Africa's energy sector continues to be cleaner but lower than in previous years.

Figure 5: Evolution of G20 export finance for energy projects in Africa 2013-2023

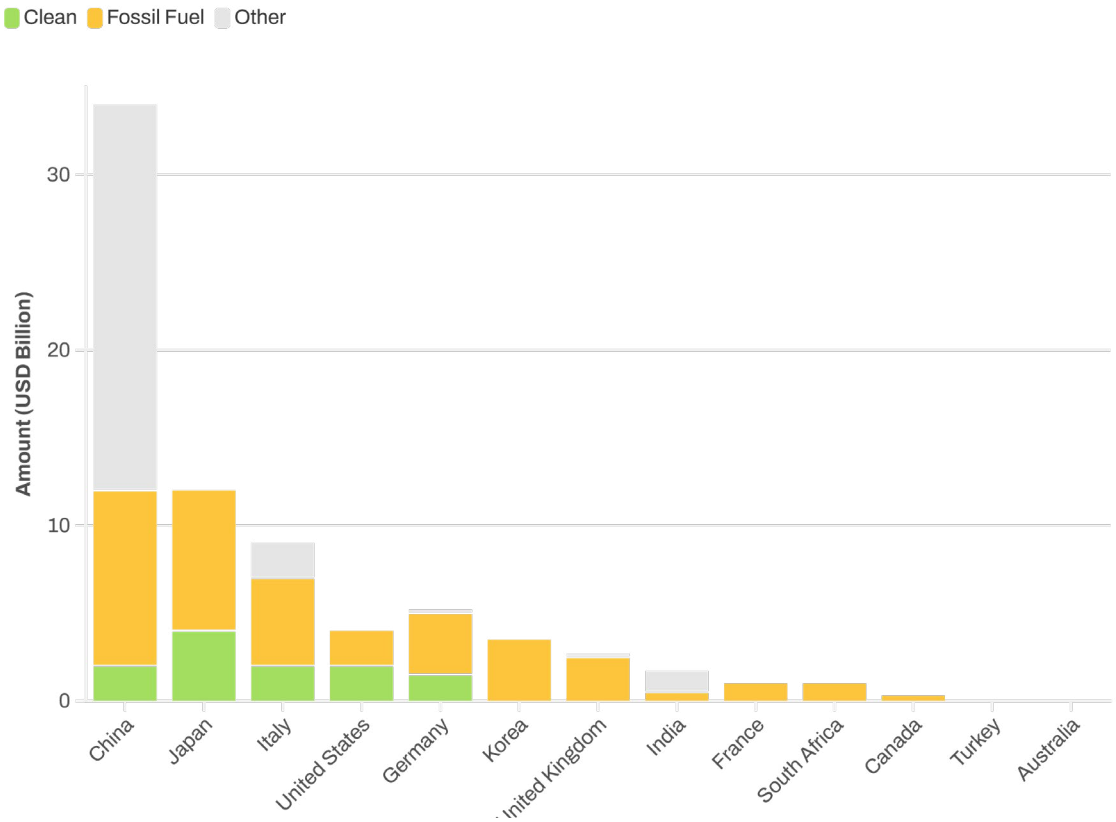


Source: Authors based on (OCI, 2022), Note: data for 2023 is preliminary

This analysis is consistent with observations on global export finance trends in scientific literature. Censkowsky et al. recent analysis of the global export finance in the energy sector shows that ECAs' support for fossil fuels has continued over the years, with a sharp decrease during the pandemic. They also noted that, "support for oil and gas value chains via guarantees is picking up again in 2022-2023." (Censkowsky et al., 2025, p. 7). For instance, in March 2025, US Exim reapproved a USD 4.7 billion loan for the LNG gas megaproject in Mozambique (Prinsloo et al., 2025).

Between 2013 and 2023, Asian ECAs, especially China and Japan, were the main providers of export finance for energy projects in Africa (see Figure 5). 44% of all export finance for energy projects flowing into Africa came from China. The largest share of Chinese export finance for Africa flowed into large-scale hydropower projects. China was also the most important provider of export finance for coal projects in the last decade, followed by Japan. This observation is consistent with analyses describing China as the most important public financier of coal projects in the 2010s, especially after the OECD tightened coal finance from its members in 2015 (Ma and Gallagher, 2021; Jia et al., 2025). In 2021, both the OECD and China committed to phasing out international coal finance (Wang et al., 2024).

Figure 6: G20 countries providing export finance to energy projects in billion USD, 2013-2023 (Africa)



Source: Authors based on (OCI, 2022), Note: data for 2023 is preliminary

While European ECAs provided smaller total volumes than Asian export finance, their support was still heavily dominated by fossil fuels in Africa. Italy was the largest export finance provider among European countries, with Italy's SACE ranking as the third most significant ECA for Africa. Italy's export finance heavily targeted fossil fuels with over 80% going to oil and gas (O&G) projects. Germany's export finance was dominated by a few large transactions for O&G plants in Egypt. The United Kingdom's largest transactions supported O&G extraction projects in Ghana and Mozambique.

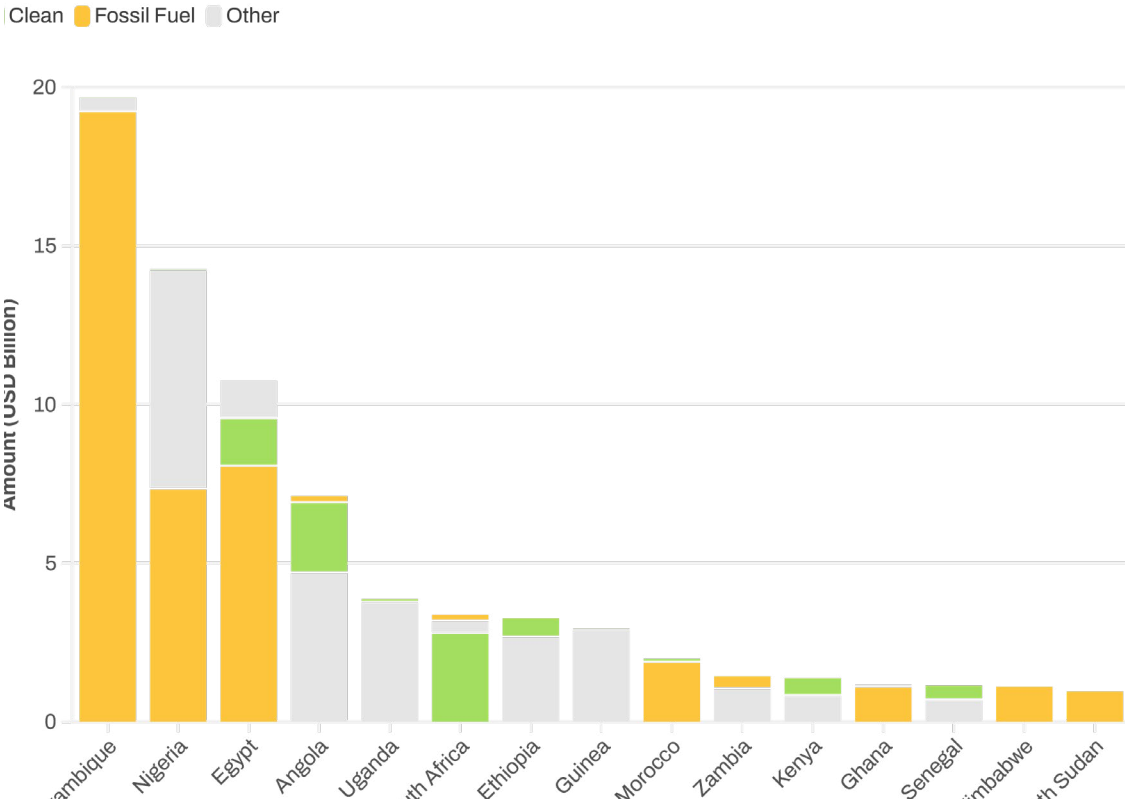
A closer look at the data reveals that ECA financing is often driven by the export interests of provider countries rather than the development needs of recipient nations. Countries like China, Japan, and Italy dominate fossil fuel finance in Africa, frequently backing projects that also benefit their own domestic companies. This is not surprising, given ECAs' mandates to support national exporters and facilitate the expansion into foreign markets and lack of explicit focus on clean energy access.

However, the continued support for fossil fuels is at odds with the objectives of the Paris Agreement of making finance flows consistent with a low-carbon development pathway (Article 2.1.c). All analysed ECA home countries provided export finance to fossil fuel projects after adopting the Paris Agreement. In their legal opinion, Cook and Viñuales find that ECAs, as government agencies, have a duty of due diligence under customary international law, which would include "in principle, not to finance new fossil fuel-related projects/activities or increase the financing of existing ones" (Cook and Viñuales, 2021). Moreover, five of the eleven analysed G20 countries are also signatories to the Clean Energy Transition Partnership (CETP) and have pledged to phase out international support to fossil fuel

investments in 2021 (CETP, n.d.). The trends presented so far therefore show a stark misalignment with States' climate commitments and obligations under international law.

ECA finance is concentrated in a few African countries, both for energy export finance in general and for fossil fuel projects specifically (see Figure 6). The top three recipient countries – Mozambique, Nigeria, and Egypt – absorbed more export finance than all other countries combined. Only 36 out of 54 African countries have received export financing from G20 countries for the energy sector between 2013 and 2023. Furthermore, the volume of export finance directed to energy projects is below one billion USD for most African nations, with 22 out of the 36 recipient countries falling into this category.

Figure 7: Top 15 recipients of export finance from G20 countries for energy projects in Africa in billion USD, 2013-2023



Source: authors based on (OCI, 2022), Note: data for 2023 is preliminary

Among the biggest recipient countries of export finance from G20, fossil fuel support dominates in Mozambique, Egypt, Nigeria, Morocco, Ghana, Zimbabwe and South Sudan. South Africa is the only country where the majority of bilateral export finance supported clean energy projects. Uganda and Guinea received significant export finance support from Chinese ECAs for large-scale hydro dams, categorized as 'other' energy projects. Consequently, while the share of clean energy finance has marginally increased in recent years, the overall picture remains one of fragmented underinvestment. Export finance for clean energy has been considerably lower than the global average and remains far from the investment needed to support the energy transition (Censkowsky et al., 2025).

A detailed account of the energy projects financed by ECAs during the period 2013-2023 can be found in Appendices I, II, and III.

3. Challenges for clean energy investments in Africa

So far, ECA finance has mainly focused on supporting fossil fuel infrastructures in a handful of African countries, presenting major challenges to their sustainable and low carbon development. First, they contribute towards locking African economies into high-emission infrastructures – so-called carbon lock-ins. Second, high carbon investments are likely to benefit also from added legal protection granted to foreign investors. Such protection ultimately reinforces the carbon lock-ins and risks to severely curtail the capacity of the recipient country to adopt measures in the public interest, including the ones aiming at transitioning to a low-carbon system. These two aspects are explored in the following two sections. Section 3.3 then dives into other barriers that ECAs face in supporting clean energy investments.

3.1 ECA-financed carbon lock-ins in African energy infrastructure

Carbon lock-in refers to the self-reinforcing processes through which societies are locked into carbon-intensive systems—such as fossil fuel-based energy infrastructure, technologies, and institutions (Unruh, 2000). Ultimately, this form of path dependency creates an inertia that "constrains technological, economic, political, and social efforts to reduce carbon emissions", making the shift to low-carbon alternatives difficult and costly (Seto et al., 2016). This inertia is supported by the technological infrastructure that has been developed in the fossil fuel sector, by the institutional framework set in place to allow such development and by societal demand at large, which has become reliant on such fuels (Unruh, 2000; Seto et al., 2016). In the African context, carbon lock-in manifests in several forms.

First, considering that energy infrastructures in the fossil fuel sector have a particularly long life and huge initial costs, they are likely to lock the territory in which **they are established into a high-carbon cycle for a long duration**. Moreover, decommissioning, phasing out, and disposing of these infrastructures can be particularly costly, raising the costs of the transition considerably (Seto et al., 2016). The fossil fuel projects that have been recently supported by ECAs are likely to generate an infrastructural carbon lock-in in the regions where they are developed.

Second, once financial or contractual obligations are embedded, they can significantly limit a country's fiscal and policy flexibility, since, by design, institutions, norms, rules and policies usually are created with the intentional effort of establishing a long-lasting institutional architecture (Seto et al., 2016). Fossil fuel subsidies are an example of these policies that only change through (slow) incremental changes in the institutional framework (van Asselt et al., 2018). The ECA's financial support to the fossil fuel projects analysed in this report can be considered a type of subsidy. Another example can be found in the protection of fossil fuel investments under international investment law, which will be discussed in section 3.2. For many African governments already managing debt distress, the risk of default or litigation makes it politically and economically difficult to cancel or shift away from carbon-intensive infrastructure, even in the face of clear climate and environmental risks faced by their own people.

Third, once a market has been created and lifestyles are being shaped around it, as it is the case for example of light vehicles or any other type of energy consumption in our modern society, consumers demand that product (Seto et al., 2016).

In developing countries across Africa, carbon lock-in presents a particularly significant challenge

due to ongoing infrastructure development and expansion, limited access to clean technologies, and external investments that often favour fossil fuels. While extractive fossil fuel projects in Africa are mostly focused on exports and often lead to little local value addition, fossil fuel projects for power generation can serve important development needs. However, investing in coal and O&G power generation implies committing to high-emission development pathways at a time when energy demand is rapidly increasing, reducing flexibility for future low-carbon transitions. Furthermore, political and financial dependence on international fossil fuel actors constrains African nations' ability to pursue sustainable alternatives (Chen et al., 2021).

Moreover, in the African context, where many States have low levels of industrialisation, developing fossil fuel industry comes with a hefty price tag. Besides the initial investment costs, additional costs are linked to the likelihood of these assets becoming stranded during their lifetime. Stranded assets are investments that lose their value before the end of their expected life—a growing risk for fossil infrastructure as financial institutions, development banks, and global markets shift toward low-carbon portfolios (Carbon Tracker, 2015).

Lastly, there will be additional future costs for decommissioning and transitioning to low-carbon options. These additional costs would all be forgone if States developed directly low-carbon systems. In this context, the low levels of industrialisation could be considered an advantage to leapfrog the energy transition. Without deliberate policy action and increased support for renewable energy, these countries may become locked into high-carbon systems that undermine long-term climate resilience and sustainable development.

Export finance to coal and O&G plants sustains carbon-intensive power generation

Recent investments in coal power generation will lock recipient countries into carbon-intensive electricity production and bear a high risk of becoming stranded assets. Some of the coal power plants that received export finance rank among Africa's most polluting power plants. For instance, South Africa's Kusile coal-fired power station, a 4,800 MW plant in Mpumalanga, is one of the largest and most carbon-intensive energy projects in Africa (GEM, 2024a).

The environmental and social impact of ECA-financed coal power

In addition to its immense climate footprint, the Kusile Power Station has experienced cost overruns of nearly three times its originally planned costs, making it one of the most expensive coal-fired power stations in the world. These escalating costs undermine the project's financial viability and prolong the return on investment, effectively locking South Africa into a high-carbon pathway. Construction initiated in 2008, the first three of the total six units initiated operations between 2018 and 2021 and have planned retirement in 2069, 2070, and 2071 (GEM, 2024b). This means that South Africa is likely to be locked into coal power generation well beyond the mid-century target of achieving net-zero. Moreover, this infrastructural lock-in also extends to the supporting infrastructures, such as the ones needed for transport of coal.

Beyond emissions, the economic and environmental externalities of Kusile are considerably high. Independent analysis commissioned by Greenpeace and undertaken by the University of Pretoria estimates annual external costs of ZAR 31.2 to ZAR 60.6 billion (approximately between USD 1.63 and 3.17 billion at current conversion rate), covering impacts on human health, water scarcity, coal mining, and air pollution. Redirecting even 30% of Kusile's external costs could fund renewable energy projects delivering up to 14 times its capacity in a matter of years (Greenpeace, 2011).

According to OCI's database, in 2013, Kusile plant received financial support in the form of a guarantee from France (almost USD 90 million). Additionally, the plant had received previous support from the German (EUR 705 million) and US ECAs (USD 805 million), respectively in 2009 and 2011 (GEM, 2024b). In total, this project

has been financed by at least 22 financial institutions, including from development banks, investment funds and ECAs (GEM, 2024b). For example, in 2018, China Development Bank landed USD 2.5 billion to South Africa to develop this project (Khumalo, 2018). The total financial support for this project is therefore likely to run in the billions of USD.

Coal power plants received significant support beyond South Africa. For example, in Morocco, three out of its four operating coal power plants received substantial export finance from ECAs from China, Japan and South Korea. The lifetime emissions of those three ECA-financed power plants add up to 335 million tCO2 (GEM, 2024a). Two plants started operations in the 70' and 90', but expanded production in the 2010', thanks to, amongst other, the support of ECAs. The third one, the Safi power station, became operational in 2018. Similarly to the South African power plant, these infrastructures are highly likely to lock Morocco into a high-carbon development pathway for the next decades.

For more details on the various projects supported by ECAs, please refer to Appendices I, II, and III.

According to assessments by Climate Analytics, a global energy transition aligned with 1.5°C limit to global temperature increase would imply a coal phase-out for Africa by 2034 (Yanguas Parra et al., 2019). In this Paris-aligned scenario, governments would have to close all operating coal power plants within the next decade. However, closing down these power plants and retiring the related infrastructure would impose a significant cost on these countries, given that large amounts were recently invested in their development. Moreover, by becoming the dominant source of energy production, these investments crowd out much-needed renewable energy investments.

These plants also face a significant risk of becoming a stranded asset. Indeed, as global and national climate policies tighten, and the cost of renewables continues to fall, the economic viability of coal is rapidly deteriorating. This risk, combined with the externalities presented above, would make these investments not economically viable had they not been heavily subsidised by international financial institutions.

Investments in gas power generation increased the dependency on fossil fuel imports, especially for North African states, while the rollout of RE stagnates. For instance, export finance from Germany's and Italy's ECAs to gas power plants in Egypt increased Egypt's power generation capacity substantially (Siemens, 2015). In 2022, fossil gas made up 79% of Egypt's electricity mix, while solar and wind power only had a share of 5% (IEA, 2022c). Since 2013, Egypt has been a net energy importer (IEA, 2022c). With falling domestic gas production, Egypt is seeking out long-term deals for LNG imports to meet its energy demand (Ezz and Rashad, 2024). Other countries that received export finance for gas power are also heavily reliant on gas imports. Tunisia's grid is 96% gas-powered, with only 2% from wind and solar (IEA, 2022f). In Ghana, Côte d'Ivoire, and Tanzania, gas dominates, while solar and wind contribute less than 1% to the national electricity generation (IEA, 2022b, 2022e, 2022d). Arguably, ECAs' investment preferences for gas and coal power have, to a varying extent, supported recipient countries' dependency on fossil fuels, leading to vulnerability to price shocks from fuel imports. As a result, those African countries risk being locked into emission-intensive electricity generation at an increasing price tag, since energy transition costs are higher for countries with relatively young fossil fuel energy infrastructure (Firdaus and Mori, 2023).

Carbon lock-in effect of fossil fuel extraction and transport projects

Fossil fuel extraction and transportation projects have significant environmental and social consequences, damaging local ecosystems, disrupting livelihoods, and contributing to climate change. In Mozambique, the gas megaproject in the Northern Region of Cabo Delgado has fuelled the ongoing civil conflict by supporting militarisation and exacerbating social-economic drivers fuelling the conflict that has already displaced over 100,000 civilians and caused mass massacres, some of them in the premises of the project (Perry, 2024). Submissions to the environmental impact assessment of the LNG megaproject reveal that

the project has large-scale nefarious impacts on the territory (Justiça Ambiental and Natural Justice, 2024). In Ghana, offshore O&G projects have negatively impacted fishing communities, harming both marine biodiversity and local economies (Abibiman Foundation Ghana et al., 2020). Similarly, gas flaring and methane leakage during extraction and transport, such as at Nigeria's LNG site, significantly increase greenhouse gas emissions (Abibiman Foundation Ghana et al., 2020). The O&G projects in Mozambique and Nigeria's LNG terminal are examples of "carbon bombs," each projected to emit approximately 1 GtCO2e over their lifetime, making them some of the largest fossil fuel extraction projects globally (Kühne et al., 2022).

Investing in fossil fuel extraction projects for export while the primary consumers of these exports in Europe and Asia are transitioning away from fossil fuels creates substantial economic risks, including inflating public debt. When new O&G reserves are discovered, countries often take on additional debt to fund their infrastructure and development needs, trusting the O&G revenues will make repayment possible (Tucker and Reisch, 2021). This pattern has been seen in Mozambique and Ghana, where the discovery of offshore reserves has led to increased borrowing, leading to unsustainable debt burdens (Gaventa, 2021; Abbott Galvão and Ribeiro, 2024). However, revenue-sharing agreements of those projects are often to the disadvantage of host states, allowing them to cash in at a very late stage (Tucker and Reisch, 2021). In the case of Mozambique, the particularly favourable fiscal terms agreed to in the concessions contracts are unlikely to bring Mozambique the expected revenues since long-term revenues from O&G projects are highly uncertain (West and Lépiz, 2021; Halsey et al., 2023).

Some of Africa's main fossil fuel producers rely heavily on O&G revenues to fund their national budgets, making them vulnerable to global price fluctuations and the transition away from fossil fuels (Jansen, 2023). This dependency intensifies their economic risks, especially as many of Africa's new O&G projects, including the East African Crude Oil Pipeline and others, involve unconventional sources, such as deep-sea extraction. These projects are among the most expensive globally, making them particularly susceptible to price volatility. In the event of a decline in O&G prices, these high-cost projects are likely to be among the first to be pushed out of business, further exacerbating financial instability for these countries (Tucker and Reisch, 2021).

The commitment to fossil fuel extraction and exportation could lock African countries out of the opportunities presented by the global shift to renewable energy. Africa is home to 60% of the world's solar resources, but only has 1% of the installed solar capacity (IEA, 2022). The continent possesses a comparative advantage in renewable energy, particularly solar and wind, which could be harnessed for sustainable development. With some exceptions, most African countries have so far avoided becoming heavily reliant on coal-fired electricity or building and accumulating large mid- and downstream fossil fuel infrastructure. This gap presents an opportunity for African countries to leapfrog fossil fuel infrastructure and embrace green energy solutions (Ember, 2024). However, recent investments in fossil fuel mega-projects risk locking the host countries of those projects into carbon-intensive pathways while locking out climate resilient low-carbon energy infrastructure.

3.2 Foreign investment protection and ISDS

Foreign investors have access to additional protection and access to Investor-State Dispute Settlement (ISDS), where they can bring claims against host states when they believe their investments have been harmed due to the host state's actions or policies. International investment law governs the legal relationship between foreign investors and host states, primarily through a network of international investment agreements (IIAs), national legislation, and investment contracts. A central feature of this regime is ISDS, a mechanism that enables foreign investors to initiate arbitration proceedings directly against states if they believe that state conduct—such as regulatory changes or administrative decisions—has adversely affected their investments. Unlike traditional diplomatic protection, ISDS provides investors with a direct legal avenue to seek compensation or other remedies, often bypassing domestic courts. While this system offers added legal protection for investors, it has also sparked significant debate about its implications for states' regulatory autonomy, public interest policymaking, and accountability (CCSI, 2022).

African States have faced numerous ISDS claims over the years. We collected a database[2] of 371 ISDS cases initiated against African countries from 1972

until June 2023. There has been a growing number of cases initiated each year against African States, with particularly high numbers since 2010, in line with global trends, which have seen a steep increase especially in the last decade. (ICSID, 2024; UNCTAD, 2022) Some African countries are already facing a large number of claims compared to global averages (see Table 1). As a comparison, Argentina and Venezuela, some of the most sued countries, have faced 74 and 71 investor-state disputes so far.[3] 73% of the ISDS claims against African countries where the nationality of the investor is known have been initiated by high-income countries.

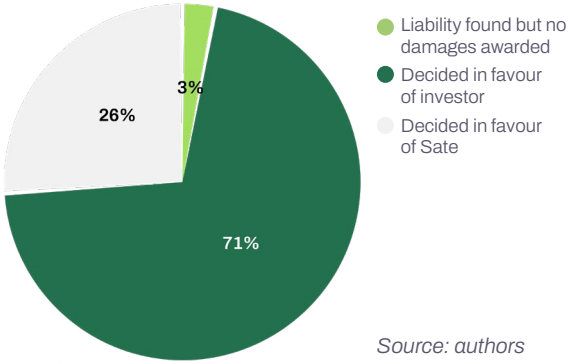
Table 1: 10 most-sued African countries

COUNTRY	INCOME LEVEL*	N OF CLAIMS
Egypt	Lower middle income	54
Libya	Upper Middle income	27
Ghana	Lower middle income	22
Congo	Lower middle income	15
Congo, Democratic Republic of the	Least Developed Country	15
Nigeria	Lower middle income	15
Gabon	Upper Middle income	14
Tanzania	Least Developed Country	14
Algeria	Lower middle income	13
Guinea	Least Developed Country	13
Cameroon	Lower middle income	12
Morocco	Lower middle income	9

*Source: authors; *Note: Based on the WB 2024 list of countries based on per capita GNI*

Moreover, in cases where the arbitral tribunal decided the dispute on the merits,[4] over 70% of the cases were decided in favour of the investor, as opposed to the ISCID average of 61% (ICSID, 2022, p. 14). At the other end of the spectrum, for example, the USA has faced 24 ISDS claims but lost none so far, and the UK has faced two investment arbitrations, with only one partial award decided in favour of the claimant (*Channel Tunnel Group Limited v. France and United Kingdom*, PCA Case No. 2003-06, Partial Award (30 January 2007)).

Figure 8: Outcome of awarded ISDS cases in Africa



Source: authors

The escalating incidence of ISDS cases against African countries presents multifaceted challenges that may significantly impair their development trajectories.

Engaging in ISDS proceedings imposes substantial financial strains on nations, while impacts are increasingly harsh on countries with low incomes. Adverse rulings can result in compensation awards that far exceed the annual budgets of these countries, exacerbating fiscal deficits and economic instability. There has been an increasing worrying trend to claim and grant what has been referred to as 'crippling compensations' (Paparinskis, 2022). Investors in the extractive sector routinely claim exorbitant amounts of money for projects that, in some cases, never even started, by claiming compensation for, *inter alia*, also lost future profits (see example in text box Digoil v. DRC). Large ISDS payouts can exacerbate economic inequalities by depleting public finances, leading to austerity measures that disproportionately affect vulnerable populations. For instance, in the Tethyan Copper v Pakistan case, Pakistan - a lower income country - was ordered to pay USD 5.84 billion plus interest at a daily rate of USD 700,000 to the investor for the denial of a mining license (*Tethyan Copper Company Pty Limited v Islamic Republic of Pakistan*, ICSID Case No. ARB/12/1, Award (12 July 2019)). The amount awarded alone amounts to twice Pakistan's annual health expenditure (Schneiderman, 2022). Considering the crippling impact of this award on Pakistan's public finances and public debt, Jeffrey Sachs has qualified the award as a death sentence for the country (Sachs, 2019).

Moreover, the legal expenses associated with defending against ISDS claims can be exorbitant, often reaching millions of dollars (Hodgson et al., 2021). The diversion of resources to settle ISDS claims or pay awards undermines essential public services and investments in infrastructure, social programs, and other developmental priorities, hindering progress toward sustainable development goals.

For example, 14 cases initiated against the Democratic Republic of the Congo (DRC) have been concluded. DRC is one of the countries with the lowest GNI per capita in the world (USD 660 in 2023 – the highest recorded) and listed as an LDC. At the time of writing of the 14 concluded cases, 7 have been disclosed (the award was publicly disclosed). Amongst those 7 disputes, in two cases the investors were awarded over USD 30 million respectively, and in one instance (Digoil v DRC, ICC Case No. 22370/DDA), the investor claimed and was awarded almost USD 617 million (see text box: Digoil v. DRC).

ISDS case: *Divine Inspiration Group (Digoil)* v Democratic Republic of Congo, ICC Case No. 22370/DDA

The ISDS case *Digoil v DRC* concerns two production-sharing contracts (2007 and 2008) for hydrocarbon resources in the Central Basin of DRC. The government, after unilaterally terminating the contracts by failing to issue the Presidential Orders approving the two contracts, settled the dispute amicably in 2010 and agreed to repay his debt to the investor - USD 8.9 million (*Digoil v DR Congo*, ICC Case No. 22370/DDA, Final Award (7 November 2018, (Award) para 75). DRC breached the amicable settlement and failed to repay its debt, so the investor initiated arbitration proceedings. However, the total amount claimed through ISDS differs widely from the initial sum agreed in the settlement. In this case, 'the Applicant quantified the loss as $ 617,400,878, consisting of $ 597,847,994 in lost revenue calculated using the discounted cash flow method and $ 19,552,884 for expenditure incurred' (Digoil v DR Congo, Award, para 89). In other words, the investors claimed almost USD 600 million for the lost revenues he was expecting to accrue from this project, which effectively never started.

In 2018, the arbitral tribunal found that DRC had breached the original concessions contracts (2007 and 2008) (*Digoil v DR Congo*, Award, paras 167 and 194) and awarded the investor the total amount claimed 'plus interest calculated at the rate of return on 20-year US Treasury bonds plus 2% from the date of the final award until full payment' (*Digoil v DR Congo*, Award, para 260). The tribunal also held that DRC 'shall bear the full costs of the arbitration fixed by the Court at the sum of EUR 691,437, and the costs incurred by the Applicant in its defence for the amount of USD 1,109,933.62' (ibid.). In sum, DRC has to disburse to the investor roughly USD 618 million plus interest, a sum almost 80 times higher than the amount previously agreed with the country in their amicable settlement.

DRC then sought the annulment of the award in Paris and in 2020, the Paris Court of Appeal dismissed the appeal for annulment (ECLI:FR:CA:2020:CV-01130-RJL, para 36). The award staying in force, DRC has to pay the amount awarded plus interests, and the legal fees and tribunal costs of the annulment proceeding.

Such damages awarded put a large economic burden on the State's coffers, possibly diverting money that could otherwise be used for development objectives.

African states risk facing large arbitration claims if they were to phase out or increase regulation for the fossil fuel projects under analysis. In the Global North, ISDS claims are increasingly initiated against climate and environmental policies. For instance, Australia is facing claims amounting to close to USD 300 billion dollars for future losses for denying permits to a coal mine due to climate concerns (IISD, 2024). Accordingly, criticisms are mounting around this system for protecting fossil fuel investors and providing them with an exclusive avenue to claim compensation for lost future profits on assets that will inevitably be stranded in a world striving to decarbonise. Further examples of ISDS claims targeting environmental policies are *Rockhopper v Italy* (ICSID Case No. ARB/17/14), *Eco Oro v Ecuador* (ICSID Case No. ARB/16/41), and *Ruby River Capital v Canada* (ICSID Case No. ARB/23/5) (See also: Arcuri, 2023; Arcuri et al., 2024).

The threat of ISDS claims can lead to a 'regulatory chill,' where governments hesitate to implement policies protecting public health, the environment, or labour rights due to fear of litigation (Tienhaara, 2017). This undermines the sovereignty of low-income countries, limiting their ability to enact regulations that address urgent social and economic issues, such as transitioning away from fossil fuels. This regulatory chill effect extends to the RE sector, where it discourages governments from adopting RE-promoting policies out of fear of repercussions for adjusting these policies at a later stage. In Europe, for example, Spain is one of the most-sued countries under ISDS due to the withdrawal of RE subsidies in the early 2010s in the face of the global economic recession. The multitude of ISDS claims from RE investors has arguably increased the costs of the energy transition for respondent states and has potentially prevented the adoption of further incentives for RE (Mehranvar and Sachs, 2024).

The prevalence of ISDS claims reinforces a neocolonial dynamic, subjecting low-income countries to decisions by international arbitration panels that may not fully appreciate local contexts nor development priorities (Cotula, 2020). This dependency impedes the ability of States to pursue autonomous and sustainable development strategies, perpetuating systemic inequalities in the global economic order.

In summary, the increasing number of ISDS cases against low-income and lower-income countries imposes severe financial burdens, restricts regulatory autonomy, and perpetuates structural inequalities, thereby undermining their development objectives and sovereign duty to regulate.

ISDS coverage of the energy projects under analysis

According to our database, 20% of ISDS cases initiated in Africa relate to a fossil fuel investment. This is in line with previous research that showed that fossil fuel investors worldwide have been particularly active in the ISDS world, initiating over 20% of the cases known to date and largely outnumbering any other sector (Di Salvatore, 2021; Di Salvatore et al., 2023).

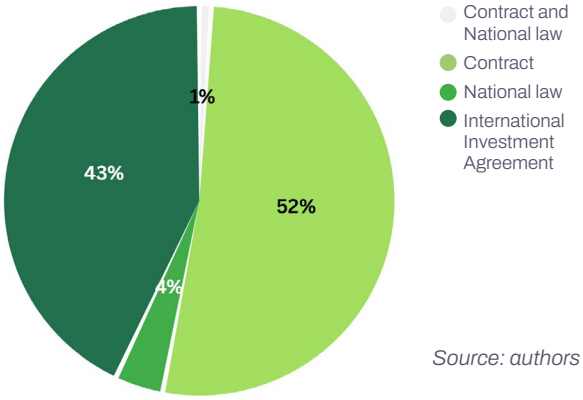
Moreover, globally, in all the fossil fuel cases where an arbitral tribunal has reached a decision, 75% of the cases were decided in favour of the investor, and no claims brought by a carbon major[6] has ever been dismissed on the merits (Di Salvatore et al., 2023). This means that fossil fuel investors have been able to navigate the ISDS system extensively and successfully.

Access to ISDS is usually granted through International Investment Agreements (IIAs), Treaties with Investment Provisions (TIPs), Contracts, and National Laws. IIAs are investment treaties signed between States to protect investors when operating in the territory of another State Party to the agreement. These can be bilateral (bilateral investment

treaties (BITs) or multilateral and they typically contain provisions to provide foreign investors with additional special protection against measures adopted by the host state that may negatively impact their investments. They also provide access to its enforcement mechanism, ISDS. TIPs are broader agreements, like the EU-Canada Comprehensive Economic and Trade Agreement (CETA), that include a part on investments. They may as well include investment protections and access to ISDS. Investor-state contracts are specific agreements between an investor and a host state. These contracts allow for tailored guarantees and dispute resolution provisions, including ISDS clauses. Lastly, certain States – mainly low and lower-middle income ones - provide foreign investors access to ISDS mechanisms through domestic investment laws (Berge and St John, 2020).

As shown in Figure 7, in Africa, the majority of the claims have been initiated based on a contract or an IIA. Such high share is quite unusual to the average 7% of all ICSID cases initiated based on a contract (ICSID, 2024, p. 7). Globally, contract-based investment arbitrations are twice as frequent in fossil fuel arbitrations than in non-fossil fuel arbitrations (Di Salvatore, 2021, p. 16) and 80% of these are initiated against low-income countries (Di Salvatore et al., 2023).

Figure 9: ISDS cases in Africa by legal source



Source: authors

While the incidence of contract-based ISDS in the energy and African contexts is particularly high, research and reform processes have mainly focused on IIAs and ISDS.[7] Previous research on the contracts in the fossil fuel industry in Mozambique has shown that these contracts are particularly unbalanced towards the investor. They grant, amongst other concessions such as protection against direct and indirect expropriation, direct access to ISDS and are, *de facto*, through a series of stabilisation clauses, locking the country into these contracts without the possibility of amending the applicable legislation nor the fiscal regime for the duration of the contract (Di Salvatore and Gubeissi, 2024).

In the context of the present report, while a similar analysis of the contracts concluded in relation to the energy projects financed by ECA would be particularly insightful, it is not feasible for an Africa-wide analysis. This is due to the general lack of disclosure of such contracts. This strongly underscores the need for more transparency in the contract-based ISDS cases and in the extractive sector. It also underscores the need for further research in relation to contract-based arbitrations in the extractive sector to better comprehend this rapidly growing and spreading trend and how it impacts climate, environmental and social imperatives. Nevertheless, we analyse the coverage of the fossil fuel projects in Africa under IIAs and national law, as illustrated in the following paragraphs.

Analysing the coverage of the 50 ECA financing deals, encompassing the 24 fossil fuel energy projects presented earlier, we find that 39 deals are covered by an IIA and in 35 cases, investors have access to ISDS. To determine the coverage, we have considered only the nationalities of the donor and recipient parties. This approach captures just a fraction of the access to ISDS mechanisms available to global corporations, which extends broadly through their complex corporate structures and subsidiaries worldwide. For example, a company could potentially initiate a claim through one of its subsidiaries, if that subsidiary is based in a country with a more favourable IIA concluded with the host State. Even with this limitation, considering that the actual coverage is likely to be much wider, the results show an extensive coverage of IIAs and access to ISDS.

From the total ECA financed amount of USD 36.575 billion for specific fossil fuel assets, approximately USD 31 billion — 85% — is tied to deals covered by at least one IIA with ISDS provisions and have therefore access to ISDS. As explained above, this is a conservative estimation of the access to ISDS granted to these investors; yet, it underscores the critical role that IIAs play in governing and potentially safeguarding fossil fuel infrastructure assets within this context.

ECAs	ECA's Coun-try	n of deals	ISDS	Total amount covered (USD)
Export-Import Bank of the United States	US	2	1	4.7 billion
Japan Bank for International Co-operation	Japan	4	3	4.4 billion
Export-Import Bank of China	China	5	4	4.3 billion
Servizi Assicurativi del Commercio Estero	Italy	8	8	4.1 billion
China Export and Credit Insurance Corpora-tion	China	3	2	3.9 billion
Euler Hermes	Germany	2	2	3.9 billion
Nippon Export and Investment Insurance	Japan	6	2	2.5 billion
UK Export Finance	UK	4	4	1.5 billion
BPI France	France	1	1	592 million
Export-Import Bank of Korea	Korea	6	2	573 million
Compagnie Francaise d'Assurance pour le Commerce Exterieur	France	2	2	187 million
Export-Import Bank of India	India	2	2	110 million
Export Development Canada	Canada	1	1	75 million
Export Credit Insurance Corporation	South Africa	2	0	0.00
Korea Trade Insurance Corporation	Korea	1	0	0.00

Source: authors

All the African States in which a fossil fuel investment has been supported by ECAs has adopted national legislation regulating investments. However, only half of these laws provide for access to ISDS – 6 of 12.[8] These are Ghana,[9] Nigeria,[10] South Sudan,[11] Tanzania,[12] Tunisia,[12] and Zimbabwe.[14] These national laws cover the investments under analysis. In the case of Zimbabwe, the national law overlaps with the IIA with India (in force until 2027). These national laws provide coverage to an additional seven transactions, raising the amount covered by ISDS to almost USD 35 billion – 95% of the total amount financed by ECAs.

The types and extension of the legal protections granted to foreign investors is however likely to be much broader due to their complex international corporate structure that allows them access to a variety of IIAs through their branches and subsidiaries. This allows them to choose the most favourable IIA, a trend referred to as "treaty shopping". Moreover, these investments are likely to have additional protections and guarantees in their contracts.

This additional layer of protection, which grants foreign investors access to ISDS, further exacerbates the institutional locking of the recipient countries into high-carbon dependency paths for the duration of the investment (on average 50 years). In this context, ISDS is a powerful tool in the hands of investors in the fossil fuel industry to fight back any type of regulation that may affect their profits. The investment protection framework just presented, in relation to the fossil fuel industry de facto plunges these countries into an institutional carbon lock-in for the foreseeable future.

In the next section, we examined whether and how ECAs rely on this framework, specifically on IIAs.

ECAs' reliance on international investment agreements and ISDS

According to our interviews with ECA experts from OECD countries, most ECAs do not consider the existence of investment treaties to assess political risks in the recipient country for their export loans

and guarantees. Previous research has shown a considerable disconnect between ECA's services, especially political risk insurance, and IIAs, where ECAs do not incorporate IIAs in their risk assessments (Poulsen, 2010; Yackee, 2012). Interviews with ECAs reveal that they generally still do not consider investment treaties as being relevant for their risk assessment, except for one interview partner who confirmed the consideration of IIAs for the assessment of expropriation risks of their political risk insurance instrument.[15] Apart from this very specific application, however, investment treaties seem otherwise not to be considered in ECAs general risk assessments. An analysis of the correlation between bilateral investment treaties and country risk ratings by the OECD and five ECAs[16] from OECD member states confirmed that African countries that signed investment treaties with those countries did not receive more favourable risk ratings by ECAs.

As mentioned above, while it is not common practice among ECAs to consider investment treaties for country risk assessments, there are individual examples of FDI promotion schemes that consider investment treaties for their political risk insurances (PRIs). For instance, Germany's investment guarantee scheme generally offers political risk insurance in those countries that signed a bilateral investment treaty with Germany (BMWK, 2024, n.d.a). PRIs cover only specific risks like war, direct and indirect expropriation and currency convertibility and capital transfer risks. PRIs thus have a high overlap in risk coverage with investment treaties (Alschner, 2025). Due to the coverage of these risks through bilateral investment treaties, Germany can support the investor in pursuing ISDS awards to reclaim insurance payouts. Germany's investment guarantee scheme is, however, not covered in the analysed dataset (OCI, 2022). Its importance for foreign energy finance in Africa can thus not be assessed. Notably, only one of the analysed export finance transactions was a dedicated political risk management instrument (75 million from Canada's EDC for Egyptian gas power plants). The remaining finance was provided as loans and guarantees in nearly equal shares. Therefore, the use of bilateral investment treaties as a risk mitigation instrument seems to be limited for the analysed African fossil fuel projects.

The double coverage – by ECAs and IIAs -, whether intentional – when ECAs rely on IIAs – or not, fosters carbon lock-in and can potentially shift risks and financial burden on recipient countries. In the case of the fossil fuel industry, on the one side ECAs offer billions in financial support and on the other side IIAs shield the investor from climate policies enacted by the host country. This double coverage potentially emboldens companies to invest in fossil fuel projects they would otherwise deem too risky. Moreover, as argued by Alschner, recouping losses through ISDS de facto shift the financial burden to the shoulders of the recipient country and enables extracting wealth from South to North (Alschner, 2025). Better coherence between export finance and investment law and climate objectives is therefore much needed.

Another important aspect is that this finding calls into question is the relevance of investment treaties in attracting export credits. Supporters of investment treaties have long argued that the system promotes FDIs (Cameron, 2013). However, research has failed to establish the correlation between investors' protection and ISDS and the attraction of foreign capital (Poulsen and N, 2010; Pohl, 2018), and recent economic analysis has, on the contrary, pointed out that the effect of investment promotion is, at best, 'negligible' (Brada et al., 2021). If investment treaties do not increase capital inflow, host states are mainly left with litigation risks arising from investment treaties' ISDS clauses while receiving virtually no benefits in return. This lack of benefits makes many developing countries increasingly critical of investment treaties and leads to more frequent termination of investment treaties, as done by India, Bolivia and South Africa (Lang and Gilfillan, 2016).

3.3 High investment risks for renewable energy projects covered by ECA finance

Although there is a general trend towards more export finance for RE projects especially from European ECAs (E3F, 2024), these financial flows are shifting away from developing countries and increasingly directed at high-income countries (Censkowsky et al., 2025). ECAs are demand-driven, meaning their financing portfolios typically align with the preferences of their national exporters, who tend to favour markets with high profitability prospects (Censkowsky et al., 2025). The costs and risks associated with doing business in a particular country and sector are key factors in determining these profitability prospects.

One of the most important cost factors for RE projects is the cost of capital, which can be up to

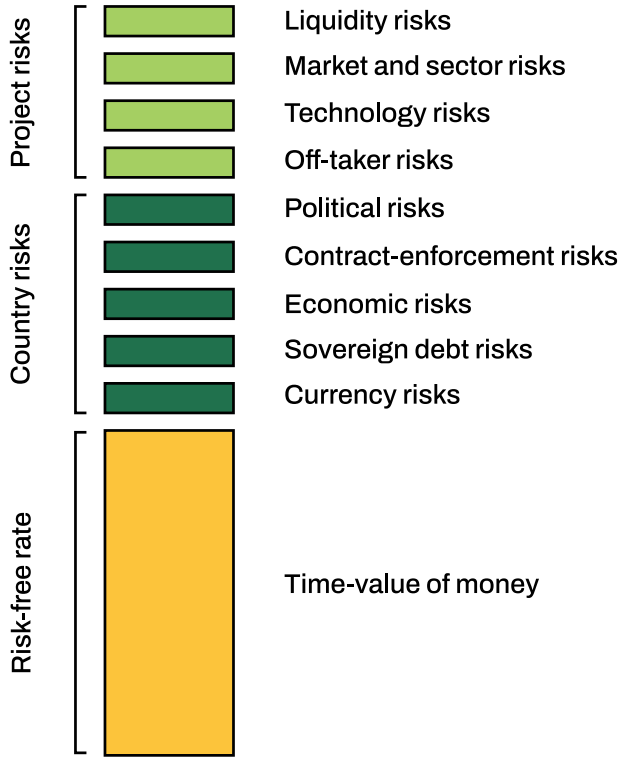
two or three times higher for RE projects in some emerging economies than in advanced economies (IFC and IEA, 2023; IEA, 2024b). Real and perceived risks for each country, sector and project are the main drivers for the differences in the cost of capital (Steffen, 2020). Reducing risk premiums is thus key to making RE projects affordable and thus overcome a major investment barrier for the energy transition (Das and Rodrigues, 2025).

The following section outlines the risk assessment and risk management done by ECAs for the financing of energy projects in Africa. The section builds on desk research and semi-structured interviews with experts working for ECAs in OECD countries.

What is the cost of capital?

On top of the risk-free rate, the cost of capital for a project is primarily determined by two types of risks: country-specific risks and project-specific risks (see Figure 10). Country risks are derived from the country's political, financial and economic situation, indicating political stability, the legal system's strength, economic prospects and the country's capacity to repay sovereign debt (OECD, 2017). Further country-specific risks concern financial factors such as inflation, exchange rate fluctuations, and potential issues arising due to currency convertibility regulation. Project-specific risks stem from sector regulations, the maturity of the technology used, the perceived reliability of off-takers, and liquidity concerns. For developing countries, country-specific risks can account for 60% to 90% of the total cost of capital (IFC and IEA, 2023)

Figure 10: Composition of cost of capital depending on the risk premium



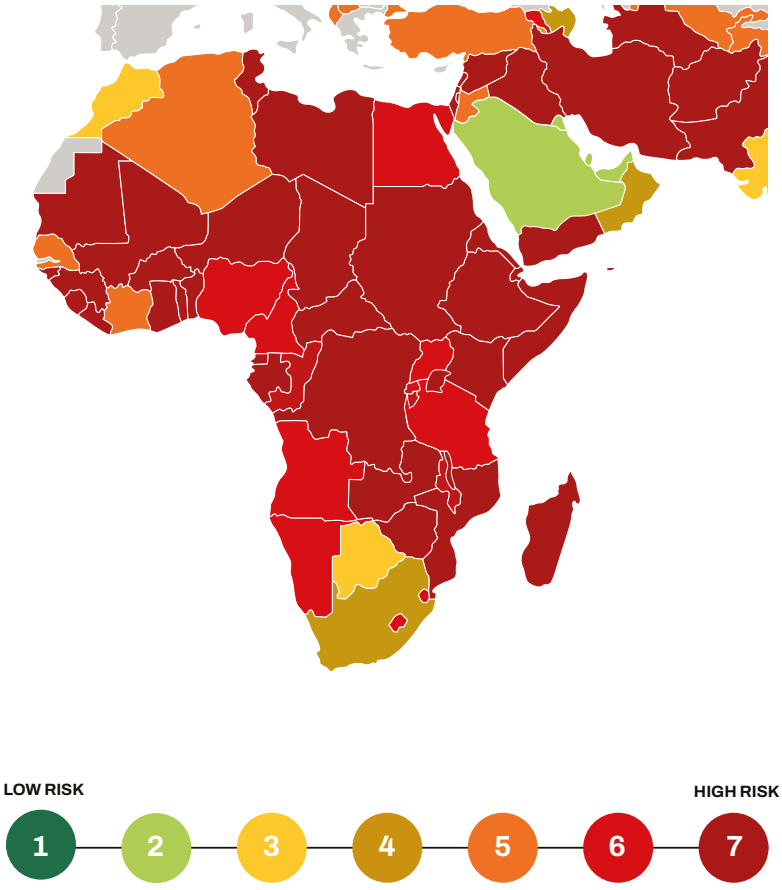
Authors based on (Steffen, 2020; IFC and IEA, 2023)

ECAs' risk assessment

RE projects can be funded either traditionally through on-balance sheet financing or off-balance sheet financing, also called project financing or special purpose vehicles (SPVs). In the first option, a big corporation or state is the main buyer. SPVs in contrast are structured as an independent entity and are not recorded on the project developer's balance sheet. Project finance is more common in OECD countries, whereas traditional on-balance sheet financing is prevalent in developing markets (Steffen, 2020). **According to our data analysis and interviews, African RE projects are mostly structured as on-balance sheet financing with the recipient state or a state-owned utility company as the main buyer**. When the state is the primary buyer, financiers like ECAs mainly consider country-related risks.

The OECD's country risk classification (CRC) assesses country risks for most African countries to be high to very high. The only exceptions are Morocco and Botswana, where country risks are assessed to be medium-low (see Figure 9). ECAs in the OECD member states use the CRC as a baseline defining a minimum premium rate per recipient country (OECD, n.d.). This standard is meant to prevent ECAs from undercutting each other to give an advantage to their exporters, thereby distorting the market (EKN, 2023). However, the exact factors defining political, economic and financial risks in the OECD's country risk assessment model and expert deliberations are confidential (OECD, n.d.). It is thus difficult for policymakers in African countries to predict how their actions and policies will impact their country's risk ranking and cost of capital. **The finding underlines the need for more transparency in the OECD country risk classification so that recipient countries know which policies work for mobilising foreign capital for their development needs.**

Figure 11: OECD country risk classification for African countries in 2025



Source: (CESCE, n.d.)

In addition to the OECD's CRC, ECAs' in-house country risk assessments mostly depict Africa as a high-risk region for foreign investments and exports, although the assessment varies by African country and by ECA (Allianz Trade, 2024; Atradius, 2024; Coface, 2025; CREDENDO, 2025). ECAs assess recipient states for their financial capacity to absorb project-specific risks and repay loans based on their payment history, the political landscape, and economic performance. Klasen and colleagues state that the revision of the country risk assessments can lead to shifts in ECA's resource allocation, changing the terms and conditions of export finance for low-income and least-developed countries (Klasen et al., 2024).

Investment risks inherent to renewable energy projects

Deploying RE projects in developing countries is challenging due to renewable electricity generation's decentralised nature and variability. Mature electricity markets and sufficient grid capacity are prerequisites to accommodate variable-rate electricity. Low readiness of electricity markets and grids can lead to curtailment risks. This means that RE providers would be unable to sell their electricity to the market in case of oversupply and have to temporarily shut down facilities (IFC and IEA, 2023). Further, delays in connecting new solar and wind farms to the grid can lead to a loss in revenue for the project developer. Lastly, electricity price volatility is a major risk to project profitability if the price is not fixed in power purchase agreements or feed-in tariff regulations (Das and Rodrigues, 2025).

In our interviews, ECAs further highlighted currency risks as a major concern. A power plant, no matter if using fossil fuels or renewable energy sources, will sell electricity to local consumers and produce revenues in domestic currencies. Domestic currencies, especially in developing countries, often have volatile exchange rates or may be subjected to convertibility regulations. However, the loans and guarantees offered by ECAs to these projects are mostly denominated in hard currency, making debt repayment very expensive for African borrowers, especially since African currencies have depreciated in recent years (Kemoe et al., 2023). Consequently, projects for electricity production, and especially RE projects with high upfront costs and high cost of capital, are considered riskier than export-focused ventures like O&G extraction. Oil and gas are traded on the global market in US dollars and thus generate revenue in hard currency. Thus, no currency conversion is needed to repay debt. This makes O&G extraction projects less risky and more attractive for ECAs.

One interview partner noted that while RE and fossil fuel projects in Africa face similar country-specific risks, the high profits of extractive and export-focused fossil fuel projects increase investors' risk appetite. This could partially explain the high level of export finance directed at up- and mid-stream fossil fuel projects in high-risk countries like Mozambique, Nigeria and Ghana, while very low to no investments in renewable energy were observed in those countries (see Figure 12. Figure 15 and Figure 9). Furthermore, fossil fuel investors often enjoy favourable conditions for extractive projects in African countries, like low royalties, tax breaks or low required state ownership stakes. Offering these benefits has long been viewed as the primary way to attract foreign capital to high-risk countries and projects (Tucker and Reisch, 2021). However, in the context of the energy transition, the allocation of such benefits to the fossil fuel industry generates carbon lock-in.

4. Overcoming barriers to support the energy transition in Africa

In the Glasgow Statement on the Clean Energy Transition Partnership (CETP) signed at COP26 in 2021, 34 countries and five public financial institutions pledged to end new direct public finance for fossil fuels by the end of 2022 and prioritise clean energy investments. In Europe, the Export Finance for Future (E3F) coalition, including Denmark, France, Germany, the Netherlands, Spain, Sweden, the UK, Finland, Italy, and Belgium, has played a key role in promoting climate-aligned financing of ECAs (OCI, 2022). However, the implementation of the CETP, which is not an international agreement and therefore does not provide for binding obligations on its signatories, has been inconsistent. Some countries are fully restricting fossil fuel financing, while others have failed to follow through on their commitments. This gap highlights the need for the international community to further define international obligations in relation to financial flows in the context of the implementation of the Paris Agreement (OCI, 2023b).

ECAs have, however, demonstrated increasing interest in financing wind, solar, and hydrogen projects, signalling a shift in priorities (Schmidt et al., 2024). Through an updated Climate Change Sector Understanding adopted in 2023, ECAs under the OECD Arrangement on Officially Supported Export Credits are allowed to extend more flexible and attractive financing terms to climate-friendly projects (OECD, 2023a). Some ECAs, for instance in the UK, Sweden, Germany and Denmark have introduced climate-friendly finance mechanisms designed to de-risk renewable investments and attract private capital (Schmidt et al., 2024).

ECAs may require adjusting their mandates and policies to allow for more support for the energy transition in developing countries. Most ECAs have primarily focused on export promotion, with financing decisions driven by the needs of national exporters. With updated mandates, ECAs could intentionally shift their portfolios toward projects that are beneficial for climate mitigation and sustainable development (Angiuoni, 2022). In the African context, ECAs would need to shift their focus and learn how to support SMEs and decentralised projects, as they have traditionally financed predominantly multinational companies and large-scale projects (Abibiman Foundation Ghana et al., 2020).

4.1 Aligning export finance in Africa with EU and AU priorities

The energy transition is high up on the list of priorities for the collaborative efforts of the African Union (AU) and the European Union (EU). In its Agenda 2063, the AU declares its goal to *"harness [...] all African energy resources to ensure modern, efficient, reliable, cost-effective, renewable and environmentally friendly energy to all African households"* (AU, 2015, p. 16). In the Joint Vision for 2030, adopted at the 2022 6th AU-EU summit, heads of state from both the EU and AU declared their support for these goals and promise to increase finance and expand lending instruments for priority sectors. This is supposed to be done by utilizing the Global Gateway Initiative, the main strategic investment initiative by the EU (EU and AU, 2022).

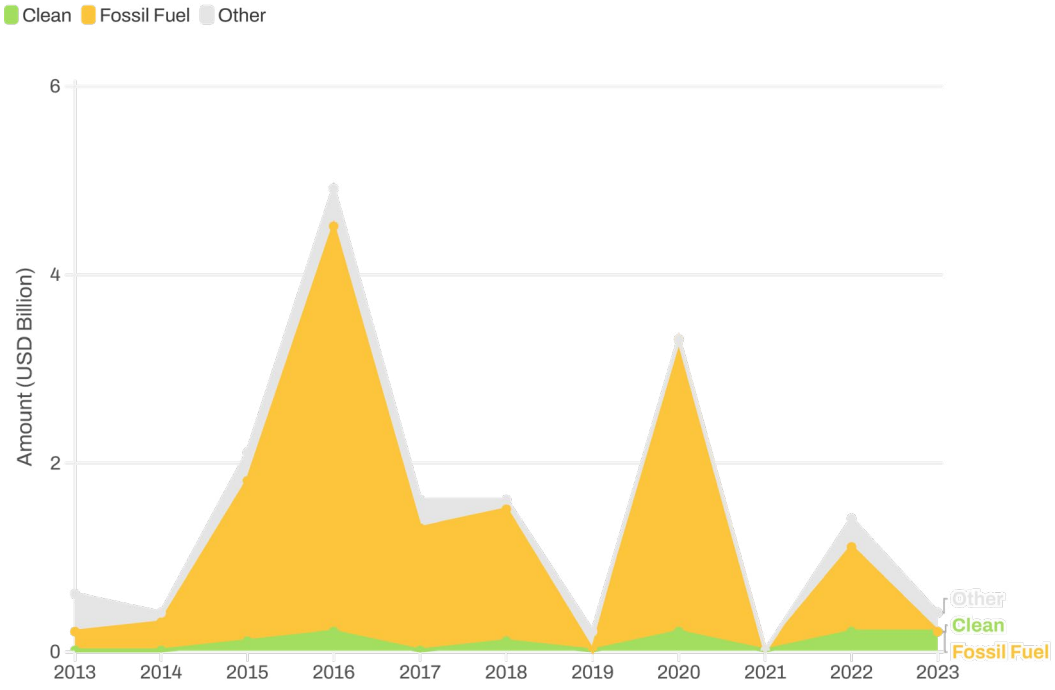
For instance, as part of the Global Gateway Strategy, the Africa-EU Green Energy Initiative (AEGEI) was launched at the 6th EU-AU summit, aiming at accelerating the transition to renewable energy. By 2030, it seeks to add 50 GW of renewable energy capacity and provide electricity access to 100 million people. So far, the AEGEI

has received a budget of €540 million by the European Commission and envisions mobilising up to €20 billion from EU member states and the private sector through the Team Europe approach.[17] Key members of the AEGEI are the EU member states and their relevant development finance institutions, development agencies as well as the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD) (European Union, 2023).

ECAs are notably missing among the actors in the AEGEI initiative. The exact reasons for ECAs' absence from the AEGEI are not currently known to the authors and go beyond the scope of this research. In any case, structural changes are needed within ECAs and the Global Gateway Initiative to enable ECA financing to effectively contribute to its objectives. Specifically, this would entail taking advantage of ECAs' ability to crowd in private investments. ECAs could make access to RE technologies more affordable if projects focused on clean energy access are scaled up, which currently make up only 3% of the overall export finance flows for Africa's energy sector (see Appendix C).

Given ECAs' market-driven approach, it is not surprising that the European export finance to Africa does not reflect the EU and AU's commitments to the energy transition (Figure 12). Within the assessment period, investments in fossil fuel projects dominated the ECAs' portfolios, in stark contrast with the financial objective of the Paris Agreement embedded in Article 2.1(c). At the same time, financing in clean energy has remained low, and did not show a significant increase in 2022 following the announcement of the Global Gateway Initiative and the EU-AU summit.

Figure 12: Export finance from European G20 countries for energy projects in Africa, 2013-2023



Source: Authors based on (OCI, 2022)

A recent study commissioned by the European Parliament on the alignment of European export credit agencies with the EU policy goals concludes that ECAs have so far mainly focused on promoting exports and have "generally done so with relatively little consideration of other high-ranking policy goals."(Raza et al., 2024, p. 25). However, the study finds that while there are reservations within the ECA community about increased state intervention in their market-driven field, updated sectoral policies and institutional mandates could serve as key levers to align ECAs with the EU (and AU) priorities (Raza et al., 2024).

It is important to underline that public ECAs, as government agencies, have a duty of due diligence under customary international law, which would include "in principle, not to finance new fossil fuel-related projects/activities or increase the financing of existing ones" (Cook and Viñuales, 2021). This continued finance to high-carbon investments is therefore at odds with the ECAs' Countries' commitments under the Paris Agreement, especially in relation to the goal of making finance flows consistent with a low-carbon development pathway (Article 2.1 (c)). Accordingly, the respective home states of the ECAs should align their mandates with this objective.

4.2 Promoting innovative risk mitigation strategies to enable export finance to clean energy

While ECAs can lay the foundation for greening their financing through policy and mandate reforms, high political and economic risks still pose significant barriers to implementing renewable energy projects in emerging markets.

ECAs manage their risk exposure through the conditions of the offered loans and guarantees, mainly the charged risk premium and the coverage conditions. If a transaction is deemed to be particularly risky, ECAs charge a higher risk premium or reduce the covered amount of the export guarantee. Further, ECAs can adapt their country policies by, for instance, capping overall financing or prohibiting coverage for high-risk countries. These financial conditions lead to export finance being more expensive or even unavailable to potential clients in risky countries and contexts. However, ECAs can incentivise 'green' exports by allowing more generous and flexible financial terms for climate-friendly exports in accordance with the OECD arrangement on export credits (OECD, 2023a; Schmidt et al., 2024). To enable these exports to reach lower-income countries, ECAs need to allow these green financing instruments to also cover higher-risk projects.

ECAs mitigate both currency and financial risks by seeking out projects with stable revenue streams, preferably in 'hard' currency, and attempting to distribute risks among multiple stakeholders. Interviewees mentioned a preference for projects with hard currency revenue streams, such as facilities producing energy or synthetic fuels for export. This reduces exposure to local currency fluctuations and makes projects more attractive to investors. However, one interview partner mentioned that debt coverage in local currency is possible on a case-by-case basis providing there is a well-functioning currency exchange market. This option is favourable for the project developer (buyer), especially for projects that only generate income in local currency, e.g., renewable energy projects. Additionally, ECAs reduce financial risks through reinsurance and co-financing arrangements. Partnering with multilateral development banks (MDBs) and other financial institutions can further spread risks, enhance project credibility, and attract additional investments.

Most interview partners mentioned long-term contracts like power-purchase agreements (PPA) and off-take agreements as the most important tools to mitigate risks in the energy sector. PPAs define the terms under which electricity is sold, mitigating a range of risks inherent to renewable energy projects. PPAs mitigate curtailment risks, ensuring that delivered electricity can be offloaded to the grid. If buyers are unable to absorb delivered energy due to temporary oversupply, PPAs define the terms under which power producers are still paid. Most PPAs fix the price per kWh. Remuneration can further be denominated or linked to a currency in which the power producer holds its debt. That way, PPAs reduce the risks of both electricity price and exchange rate fluctuations (OPIC, et al., 2019).

In high-risk countries, PPAs need to be especially robust to make a RE project bankable. For instance, one interviewee mentioned that PPAs for African RE projects require a public guarantor, meaning that the government guarantees that electricity can be sold at the agreed price and conditions. **A study by US agencies further recommends including provisions allowing for 'offshore arbitration', meaning ISDS, as conflict**

resolution (OPIC, et al., 2019). According to some interviewees, this is a basic requirement for PPAs and less of a risk mitigation strategy. Considering the risks presented earlier on investment protection and ISDS and the high relevance of contract-based arbitrations in Africa, further research is needed to assess how commonly ISDS clauses are included in PPAs and what the impact of such clauses is on the right to regulate of recipient countries.

The assessment of loss recovery options seemed to take a subordinate role in ECA's risk assessment and risk mitigation. Most interviewees mentioned diplomacy as a preferred tool to solve conflicts and ensure project implementation. ECAs often use the network of embassies and national agencies abroad to advocate for conflict solutions. If diplomatic measures do not prevent a project from defaulting, most interviewed experts referred to national legal systems to remedy breaches of contracts or unmet financial commitments. If the recipient state's government, as the main buyer, defaults, the case is brought to the Paris Club, where creditor countries coordinate debt restructuring negotiations with the debtor country.

Interview partners mentioned the possibility of ECAs deliberately absorbing unmitigable risks to enable investments in high-risk countries. To do so, public ECAs need to be allowed by their government to become more risk-taking by receiving the mandate to support certain initiatives or focus on specific sectors and regions. For instance, under the Compact for Africa, the German ECA Euler Hermes improved the scope of coverage for transactions with selected countries in South-Saharan Africa (BMWK, n.d. b). Consequently, ECAs could expand their RE coverage in LDCs and other high-risk countries by adopting targeted political initiatives and a higher risk appetite, driven by political will.

Lastly, some interviewees mentioned that ECAs are concerned with the impacts of climate change and are increasingly integrating the risk from extreme events into their risk assessment. According to the IEA, Africa's energy infrastructure is at high risk from extreme climatic events and needs to be more resilient to climate risks to reduce the economic impacts. For example, the IEA notes that "over 60% of thermal power plants in Africa are at high or very high risk of being disrupted by water stress" amongst other risks (IEA 2022a). Adjusting premiums to these climatic risks will, in turn, make energy investments more costly. As a tragic irony, the countries that have contributed the least to climate change but are the most vulnerable to its impacts will have to bear the increased costs associated with its risks. To mitigate these risks, shifting away from fossil fuels towards a climate-resilient low-carbon energy system is therefore imperative.

4.3 Aligning the investment protection with the clean energy transition

As discussed above in Section 3.2, existing research demonstrates that the **relationship between IIAs and the promotion of foreign investment is, at best, negligible.** Similarly, the present analysis finds **little evidence that IIAs play a meaningful role in reducing investment risks for ECAs**. Conversely, IIAs often contribute to entrenched institutional lock-in within host countries. While national investment laws may be designed to actively promote investment, their effectiveness largely depends on their substantive content, which varies significantly across jurisdictions. For instance, measures addressing practical barriers to investment—such as streamlining visa issuance—can be highly effective in facilitating foreign investment. In contrast, vague, treaty-like provisions (e.g., protection against indirect expropriation), especially when paired with direct consent to ISDS, can lead to regulatory chill and deepen institutional carbon lock-in (Bonnitcha et al., 2023).

Contracts may also reinforce institutional lock-in, particularly when they combine stabilisation clauses, treaty-like language, and access to ISDS. This phenomenon is evident in the fossil fuel sector in Mozambique, where such provisions have exposed the country to significant financial risk through ISDS claims and locked the country into a high carbon system way beyond the mid-century mark for achieving net zero (Di Salvatore and Gubeissi, 2024).

In its current form, international investment law is heavily skewed toward the protection of foreign investors' profits. It provides robust legal mechanisms for investors while imposing no reciprocal obligations on them and offering no equivalent remedies or protections for other stakeholders affected by investments.

One proposed path forward is for states to terminate existing IIAs (Mehranvar and Brauch, 2024). Indeed, a number of countries have already begun the process of unilaterally terminating or withdrawing from IIAs.[18] However, such unilateral terminations can be politically challenging, particularly for African states. First, even if IIAs have not proven effective in attracting foreign investment, a coordinated withdrawal may be perceived as hostile by the international investment community. Second, these agreements usually have sunset/survival clauses of up to twenty years, making the treaty enforceable up to twenty years after withdrawal or termination. As a result, investor protections and access to ISDS persist long after a treaty's formal end, delaying the shift to more sustainable investment governance. This issue has already manifested in Europe, where fossil fuel investors have relied on the 20-year sunset clause of the Energy Charter Treaty despite multiple states' withdrawal from it (Jackson, 2024).

To meet the goals of the Paris Agreement, it is essential to fundamentally rethink investment promotion and protection in the energy sector. Both capital-exporting and capital-importing countries share a responsibility to align financial flows with a low-carbon development trajectory and should collaborate in pursuit of this objective, as embedded in the Paris Agreement. Accordingly, parties to existing investment agreements should engage in cooperative efforts to terminate these treaties and neutralize the effects of sunset clauses (Braoudakis et al., 2024). This cooperative approach would thus mitigate the political risk of unilateral termination or withdrawal.

This process should be accompanied by the development of more effective and equitable tools for promoting and facilitating investment in the clean energy transition. States should replace IIAs with more balanced frameworks for cooperation and investment promotion that are specifically designed to govern energy investments, in line with the Paris Agreement (Brauch et al., 2024; Ostransky and Bonnitcha, 2024). In this context, all the stakeholders besides foreign investors should be taken into consideration, such as, for example, financiers like ECAs, national investors and affected stakeholders.

5. Conclusions and recommendations

The analysis presented in this report reveals a persistent misalignment between current export finance practices and climate and development goals. Despite growing global recognition of the urgent need to decarbonise and climate commitments, G20 ECAs have, between 2013 and 2023, channelled more than half (USD 41.1 billion) of their energy finance in Africa towards fossil fuels, with a comparatively meagre USD 8.8 billion allocated to clean energy. This allocation has not only failed to support Africa's renewable energy potential but has also undermined the continent's energy sovereignty and long-term climate resilience.

This financing pattern contradicts the commitments under the Paris Agreement—particularly Article 2.1(c), which calls for aligning financial flows with low-emission, climate-resilient development—and thus undermines Africa's low-carbon development goals. Fossil fuel investments have largely reinforced carbon-intensive energy systems, particularly in countries like Mozambique, Nigeria, and Egypt. Simultaneously, clean, decentralised, and socially beneficial renewable energy projects remain significantly underfunded. Notably, only 3% of export finance for energy projects during the assessment period went towards initiatives directly aimed at expanding electricity access, despite more than 600 million people in Africa still lacking reliable electricity.

Moreover, the legal protections granted to fossil fuel investors and access to ISDS further exacerbate these challenges. Our analysis shows that of the total ECA's finance to fossil fuel projects (USD 37 billion), approximately USD 35 billion — 95% — is tied to deals covered by IIAs or national laws giving access to ISDS provisions. This is likely to be an underestimation of the risk of ISDS, since global energy corporations can access virtually all IIAs that are applicable to a country where they have subsidiaries. Moreover, additional protections and access to ISDS is likely to be found in contracts. ISDS has already been heavily relied upon by fossil fuel investors to challenge public interest regulations, including environmental and energy policies, and risks discouraging further climate ambition due to the threat of exorbitant compensation claims.

This dual layer of financial and legal reinforcement effectively entrenches high-carbon infrastructures and restricts policy space for governments seeking to advance clean energy transitions. To meet the goals of the Paris Agreement, it is essential to fundamentally rethink investment promotion and protection in the energy sector. Both capital-exporting and capital-importing countries share a responsibility to align financial flows with a low-carbon development trajectory and should collaborate in pursuit of this objective. States should replace outdated and asymmetrical IIAs with frameworks for energy investment governance aiming at fostering cooperation and investment promotion. These should be specifically designed to govern energy investments, in line with the Paris Agreement and considering all stakeholders (e.g. financiers, national investors, affected stakeholders).

The findings of this report highlight several interlinked barriers to a sustainable energy transition in Africa:

- **Lack of Transparency**: The lack of transparency in the operations of ECAs and ISDS mechanisms presents a serious barrier to democratic accountability and public oversight. ECAs, despite being public finance institutions that deploy taxpayer funds, rarely disclose detailed information about their portfolios and financing decisions. Similarly, ISDS proceedings—particularly those based on contracts—are often shrouded in confidentiality, concealing disputes that may involve significant public interests, especially in the energy sector. This opacity undermines the public's ability to scrutinize how public resources are used, how state obligations are formed (e.g. in resource contracts), and how decisions that affect national policy space

are made. It also obscures the financial implications for states, which must use taxpayer money to pay for fees of guarantees, repay loans, defend against ISDS claims or pay arbitral awards. In addition, this lack of transparency has constituted a significant barrier to academic inquiry, as noted throughout this report.

- **Carbon lock-in**: ECA-backed fossil fuel infrastructure is long-lived, capital-intensive, and self-reinforcing, thereby locking African countries into high-emission development pathways for decades, way beyond the mid-century mark for achieving net-zero.

- **Institutional (legal) lock-in**: Most fossil fuel investments backed by ECAs are protected under IIAs and national investment laws granting access to ISDS. These protections can severely limit the policy space for African governments to enact measures aiming at achieving the energy transition without facing the threat of costly arbitration claims.

- **Investment risk asymmetry**: Clean energy projects in Africa face significantly higher financing costs due to perceptions of political and financial risk, exacerbated by opaque risk assessment processes and insufficient de-risking mechanisms.

- **Export-oriented finance logic**: ECA decision-making is often driven by national export interests rather than recipient countries' development needs or climate priorities. This has resulted in high levels of support for fossil fuel infrastructure and limited attention to local energy access or system resilience.

The report has further shown that while ECAs possess the potential to serve as key enablers of sustainable development, their current investment strategies fall short of this promise. Clean energy projects remain underfunded, under-supported, and often perceived as too risky, despite their potential to enhance energy access, promote regional resilience, and deliver long-term socio-economic benefits.

To realign ECA finance with the African climate and development priorities, a systemic shift is necessary. This shift includes phasing out support for fossil fuels; scaling up investment in both decentralised and utility-scale renewable energy; and reforming investment governance to curtail the disproportionate influence of ISDS and foster an effective governance that promotes and facilitates energy investments in line with the Paris Agreement.

Achieving Africa's energy transition is not merely a matter of redirecting capital—it is a matter of equity, justice, and international responsibility. By transforming their financial instruments and aligning their mandates and policies with climate objectives, ECAs can play a transformative role in supporting Africa's shift to a low-carbon, climate-resilient, and inclusive energy future.

Recommendations for export finance providing governments

- **Phase out financing of fossil fuels** in a manner that is consistent with the Net Zero by 2050 roadmap by the International Energy Agency (IEA, 2021) as well as 1.5°C globally, which implies an immediate phase out of support for any new fossil fuel infrastructure investments.

- **Increase financial support to renewable energy and other sustainable activities in Africa**, contributing to international climate finance commitments. A greater proportion of export finance should be directed towards **enhancing energy access** in Sub-Saharan Africa, particularly through clean energy projects.

- **ECA's mandates and policies need to be updated** by adding climate and sustainable development objectives besides export promotion. This will allow for more intentional financing decisions and portfolio management, and a shift towards more environmentally and socially beneficial projects.

- **Increase ECAs' collaboration with development finance institutions and MDBs** to deliver on international climate and development commitments, by for instance increasing ECAs' involvement in the EU's Global Gateway under the Team Europe approach to fulfil commitment under the Africa Europe Partnership.

- **Develop innovative risk mitigation strategies** to channel more export finance into African countries with high country risks and high cost of capital. This could involve fostering partnerships with development finance institutions and initiatives or adopting more flexible and risk-tolerant approaches to financing for priority sectors and geographies.

- **Increase transparency** by for instance publishing the OECD country risk classification methodology and deliberations. This would create clarity regarding which policies adopted by recipient countries actually reduce perceived investment risks and attract foreign financing. Information on the contractional implication and the expected environmental and social impact of export finance deals should also be made available.
- **Reform existing energy investment governance**. Both capital-exporting and capital-importing countries should cooperate to replace outdated foreign investment protections with effective frameworks for energy investment governance aiming at fostering cooperation and investment promotion aligned with the Paris Agreement.

References

Abbott Galvão, L. and Ribeiro, D. (2024) A Risky Bet: *The IMF's Role in Mozambique's LNG Development, Friends of the Earth*. Available at: https://foe.org/blog/a-risky-bet-the-imfs-role-in-mozambiques-lng-development/ (Accessed: 18 November 2024).

Abibiman Foundation Ghana, Friends of the Earth Ghana, Friends of the Earth Nigeria, Les Amis de la Terre Togo, Environment Governance Institute, Uganda, Friends of the Earth Netherlands and Both ENDS (2020) *A Just Energy Transition for Africa? Mapping the impacts of ECAs active in the energy sector in Ghana, Nigeria, Togo and Uganda*. Available at: https://egiuganda.org/wp-content/uploads/2020/11/Final-Report-for-the-ECA-mapping.pdf.

Allianz Trade (2024) 'Country risk ratings, September 2024 review'. Available at: https://www.allianz-trade.com/content/dam/onemarketing/aztrade/allianz-trade_com/en_gl/erd/map/country-map/2024/Q32024countryriskratings-EXT.pdf.

Alschner, W. (2025) 'To Transform the International Investment Regime, Look to Political Risk Insurance and Not (Only) to Investment Treaties', Investment Treaty News, 27 January. Available at: https://www.iisd.org/itn/2025/01/27/transform-international-investment-regime-political-risk-insurance-wolfgang-alschner/ (Accessed: 13 February 2025).

Angiuoni, R. (2022) 'The role of ECAs in supplementing a flourishing African investment climate', *Berne Union Bulletin*. Available at: https://www.berneunion.org/Articles/Details/709/The-role-of-ECAs-in-supplementing-a-flourishing-African-investment-climate (Accessed: 23 April 2025).

Arcuri, A. (2023) 'On how the ECT fuels the fossil fuel economy: Rockhopper v Italy as a case study', *Europe and the World: A law review*, 7(1). Available at: https://doi.org/10.14324/111.444.ewlj.2023.03.

Arcuri, A., Tienhaara, K. and Pellegrini, L. (2024) 'Investment law v. supply-side climate policies: insights from Rockhopper v. Italy and Lone Pine v. Canada', *International Environmental Agreements: Politics, Law and Economics*, 24(1), pp. 193–216. Available at: https://doi.org/10.1007/s10784-023-09622-w.

van Asselt, H., Merrill, L. and Kulovesi, K. (2018) 'Fossil Fuel Subsidies and the Global Climate Regime', in H. van Asselt and J. Skovgaard (eds) *The Politics of Fossil Fuel Subsidies and their Reform*. Cambridge: Cambridge University Press, pp. 140–155. Available at: https://doi.org/10.1017/9781108241946.010.

Atradius (2024) *Country Risk Map. Amsterdam*. Available at: https://atradius.co.uk/article/risk-map.html.

AU (2015) *Agenda 2063: The Africa We Want. | African Union*. Available at: https://au.int/en/agenda2063/overview (Accessed: 10 April 2025).

Berge, T.L. and St John, T. (2020) 'Asymmetric Diffusion: World Bank "Best Practice" and the Spread of Arbitration in National Investment Laws'. Rochester, NY: Social Science Research Network. Available at: https://doi.org/10.2139/ssrn.3447365.

BMWK (2024) *Investment Guarantees Interim Report 2024*. Available at: https://www.investitionsgarantien.de/_Resources/Persistent/1/8/f/3/18f34c191989e6c84ca26adbaaef107f5fe8bdc3/BMWK_Investment%20Guarantees_H1_2024-EN--2.pdf.

BMWK (n.d.a) *Financing and guarantees for foreign transactions*. Available at: https://www.bmwk.de/Redaktion/EN/Textsammlungen/Foreign-Trade/financing-and-guarantees-for-foreign-transactions.html (Accessed: 11 March 2025).

BMWK (n.d. b) *Focus on Africa | Federal Export Credit Guarantees, Export Credit Guarantees of the Federal Government*. Available at: https://www.

exportkreditgarantien.de/en/knowledge/knowledge-transfer/background-knowledge/focus-on-africa.html (Accessed: 11 March 2025).

Bonnitcha, J., Nikiéma, S. and St John, T. (2023) *Rethinking National Investment Laws: A study of past and present laws to inform future policy-making*. International Institute for Sustainable Development. Available at: https://www.iisd.org/system/files/2023-07/rethinking-national-investment-laws-en.pdf.

Braoudakis, N., Craveia, R. and Baldon, C. (2024) 'Neutralising the ECT Sunset Clause Inter Se', *ICSID Review - Foreign Investment Law Journal*, 39(2), pp. 347–370. Available at: https://doi.org/10.1093/icsidreview/siae011.

Brauch, M., Klonsky, E., Everard, F., Guanglin, Q., Alviano, T., Cuddihey, J. and Wang, M. (2024) 'An International Law Framework for Climate-Aligned Investment Governance', *Columbia Center on Sustainable Investment* [Preprint]. Available at: https://scholarship.law.columbia.edu/sustainable_investment/28.

Carbon Tracker (2015) *The $2 trillion stranded assets danger zone: How fossil fuel firms risk destroying investor returns*. Carbon Tracker. Available at: https://carbontracker.org/reports/stranded-assets-danger-zone/ (Accessed: 10 April 2025).

CCSI (2022) *Primer on International Investment Treaties and Investor-State Dispute Settlement*. Columbia Centre for Sustainable Investment. Available at: https://ccsi.columbia.edu/content/primer-international-investment-treaties-and-investor-state-dispute-settlement.

Censkowsky, P., Waidelich, P., Shishlov, I. and Steffen, B. (2025) 'Quantifying the shift of public export finance from fossil fuels to renewable energy', *nature communications*, 16.900.

CESCE (n.d.) *Riesgo País: Diagnóstico de riesgos políticos y comerciales, Cesce España*. Available at: https://www.cesce.es/en/contry-risk (Accessed: 7 March 2025).

CETP (n.d.) 'Who we are | Clean Energy Transition Partnership'. Available at: https://cleanenergytransitionpartnership.org/who-we-are/ (Accessed: 6 May 2025).

Chen, X., Li, Z., Gallagher, K.P. and Mauzerall, D.L. (2021) 'Financing carbon lock-in in developing countries: Bilateral financing for power generation technologies from China, Japan, and the United States', Applied Energy, 300, p. 117318. Available at: https://doi.org/10.1016/j.apenergy.2021.117318.

Coface (2025) *Visualize Country Risk worldwide with the Coface Map, Coface*. Available at: https://www.coface.com/news-economy-and-insights/business-risk-dashboard/country-risk-map (Accessed: 7 March 2025).

Copernicus (2025) *Copernicus: 2024 is the first year to exceed 1.5°C above pre-industrial level*. Available at: https://climate.copernicus.eu/copernicus-2024-first-year-exceed-15degc-above-pre-industrial-level (Accessed: 10 February 2025).

Cotula, L. (2020) '(Dis)integration in Global Resource Governance: Extractivism, Human Rights, and Investment Treaties', *Journal of International Economic Law*, 23(2), pp. 431–454. Available at: https://doi.org/10.1093/jiel/jgaa003.

CREDENDO (2025) *Country risk - Africa, Credendo*. Available at: https://credendo.com/en/country-risk/africa (Accessed: 7 March 2025).

Das, D. and Rodrigues, N. (2025) *Can rethinking risk accelerate the Global South's energy transition?*, *Climate Home News*. Available at: https://www.climatechangenews.com/2025/02/25/can-a-different-approach-to-risk-accelerate-the-energy-transition-in-the-global-south/ (Accessed: 7 March 2025).

Di Salvatore, L. (2021) *Investor–State Disputes in the Fossil Fuel Industry*. Winnipeg: IISD. Available at: https://www.iisd.org/system/files/2022-01/investor%E2%80%93state-disputes-fossil-fuel-industry.pdf (Accessed: 10 February 2025).

Di Salvatore, L., Cotula, L., Nanda, A. and Wang, C.Y. (2023) I*nvestor-state dispute settlements: a hidden handbrake on climate action.* IIED Briefing. Geneva: IIED. Available at: https://www.iied.org/21971iied (Accessed: 10 February 2025).

Di Salvatore, L. and Gubeissi, M. (2024) 'Billion-Dollar Exposure: Investor-State Dispute Settlement in Mozambique's Fossil Fuel Sector', *Columbia Center on Sustainable Investment* [Preprint]. Available at:

https://scholarship.law.columbia.edu/sustainable_investment/30.

E3F (2023) E3F Status Report 2023. Available at: https://www.linkedin.com/posts/export-finance-for-future-e3f_e3f-status-report-2023-activity-7136818051324227584-w0Bb/?utm_source=share&utm_medium=member_desktop (Accessed: 6 June 2024).

E3F (2024) Export Finance *For Future Transparency Report 2024*.

EKN (2023) *OECD updates country risk assessment model.* Available at: http://www.ekn.se/en/ekn-magazine/ekns-magazine/oecd-updates-country-risk-assessment-model/ (Accessed: 25 October 2024).

Ember (2024) 'Africa', *Ember*. Available at: https://ember-energy.org/countries-and-regions/africa (Accessed: 17 March 2025).

Environment Governance Institute Uganda (2024) *A just energy transition for the African Great Lake region: Mapping The Impacts of ECAs Active in the Energy Sector in Uganda, DRC, and Tanzania*. Kampala, Uganda.

EU and AU (2022) *A Joint Vision for 2030*. Available at: https://www.consilium.europa.eu/media/54412/final_declaration-en.pdf.

European Union (2023) *EU-Africa: Global Gateway Investment Package –Green Energy Initiative*. Available at: https://international-partnerships.ec.europa.eu/document/download/91802393-289f-4c46-b57f-baf8a6f0bb2a_en?filename=aegei-factsheet-nov-2023_en.pdf.

Ezz, M. and Rashad, M. (2024) 'Exclusive: Egypt in talks with foreign companies over long-term LNG purchases, sources say', *Reuters*, 20 November. Available at: https://www.reuters.com/business/energy/egypt-talks-with-foreign-companies-over-long-term-lng-deal-sources-say-2024-11-20/ (Accessed: 13 March 2025).

Firdaus, N. and Mori, A. (2023) 'Stranded assets and sustainable energy transition: A systematic and critical review of incumbents' response', *Energy for Sustainable Development*, 73, pp. 76–86. Available at: https://doi.org/10.1016/j.esd.2023.01.014.

Fuller, K. (2024) *Financing Africa's Low Carbon Transition*. Text. Cambridge: Cambridge Institute for Sustainability Leadership (CISL). Available at: https://www.cisl.cam.ac.uk/news-and-resources/publications/financing-africas-low-carbon-transition (Accessed: 10 April 2025).

Gaventa, J. (2021) *The failure of gas for development, Mozambique case study*. E3G. Available at: https://www.e3g.org/wp-content/uploads/Gas-for-development-Mozambique-case-study-December-2021.pdf.

GEM (2024a) 'Africa Energy Tracker'. Global Energy Monitor. Available at: https://globalenergymonitor.org/projects/africa-energy-tracker/.

GEM (2024b) *Kusile power station*, Global Energy Monitor. Available at: https://www.eskom.co.za/eskom-adds-800mw-to-grid-as-kusile-unit-5-achieves-commercial-operation/.

GEM (2024c) *Rovuma LNG Terminal*. Available at: https://www.gem.wiki/Rovuma_LNG_Terminal.

GEM (2024d) *Trans Nigeria Gas Pipeline*. Available at: https://www.gem.wiki/Trans_Nigeria_Gas_Pipeline.

GEM (2024e) *Trans-Sahara Gas Pipeline*. Available at: https://www.gem.wiki/Trans-Sahara_Gas_Pipeline.

GEM (2025) *Nigeria LNG*. Available at: https://www.gem.wiki/Nigeria_LNG_Terminal.

Greenpeace (2011) *The True Cost of Coal*. Greenpeace Africa. Available at: https://www.greenpeace.org/africa/en/publications/1750/the-true-cost-of-coal/ (Accessed: 10 April 2025).

Halsey, R., Bridle, R., Vazi, B. and Geddes, A. (2023) *Navigating Decisions: The risks to Mozambique from liquified natural gas export projects*. International Institute for Sustainable Development. Available at: https://www.iisd.org/system/files/2023-12/navigating-decisions-lng-exports-risks-mozambique.pdf.

Hodgson, M., Kryvoi, Y. and Hrcka, D. (2021) 2021 *Empirical Study: Costs, Damages and Duration in Investor-State Arbitration.* British Institute of International and Comparative Law. Available at: https://www.biicl.org/documents/136_isds-costs-damages-duration_june_2021.pdf (Accessed: 1 February 2025).

ICSID (2022) *The ICSID Caseload - Statistics*. 2022–2. ICSID, p. 32. Available at: https://icsid.worldbank.org/sites/default/files/publications/The_ICSID_Caseload_Statistics_2022-2_ENG.pdf (Accessed: 1 February 2025).

ICSID (2024) *The ICSID Caseload - Statistics*. 2024–1. ICSID. Available at: https://icsid.worldbank.org/sites/default/files/publications/ENG_The_ICSID_Caseload_Statistics_Issue%202024.pdf (Accessed: 1 February 2025).

IEA (2021) *Net Zero by 2050 – Analysis*. Paris: IEA. Available at: https://www.iea.org/reports/net-zero-by-2050 (Accessed: 10 April 2025).

IEA (2022a) *Africa Energy Outlook 2022*, IEA. Available at: https://www.iea.org/reports/africa-energy-outlook-2022/key-findings (Accessed: 13 March 2025).

IEA (2022b) *Cote D'Ivoire - Countries & Regions, IEA*. Available at: https://www.iea.org/countries/cote-divoire (Accessed: 13 March 2025).

IEA (2022c) *Egypt - Countries & Regions, IEA*. Available at: https://www.iea.org/countries/egypt (Accessed: 13 March 2025).

IEA (2022d) *Ghana - Countries & Regions, IEA*. Available at: https://www.iea.org/countries/ghana (Accessed: 13 March 2025).

IEA (2022e) *Tanzania - Countries & Regions, IEA*. Available at: https://www.iea.org/countries/tanzania (Accessed: 13 March 2025).

IEA (2022f) *Tunisia - Countries & Regions, IEA*. Available at: https://www.iea.org/countries/tunisia (Accessed: 13 March 2025).

IEA (2024a) *Africa – World Energy Investment 2024, IEA*. Available at: https://www.iea.org/reports/world-energy-investment-2024/africa (Accessed: 10 April 2025).

IEA (2024b) *World Energy Investment 2024 – Analysis*. IEA Publications. Available at: https://www.iea.org/reports/world-energy-investment-2024 (Accessed: 7 March 2025).

IFC and IEA (2023) *Scaling Up Private Finance for Clean Energy in Emerging and Developing Economies, IFC*. Available at: https://www.ifc.org/en/insights-reports/2023/scaling-up-private-finance-for-clean-energy-in-edmes (Accessed: 19 February 2025).

IISD (2024) 'Billionaire Clive Palmer files another arbitration against Australia', IISD, January. Available at: https://www.iisd.org/itn/en/2024/01/13/billionaire-clive-palmer-files-another-arbitration-against-australia/ (Accessed: 1 February 2025).

IPCC (2018) 'Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments', 8 October. Available at: https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/ (Accessed: 30 January 2025).

IPCC (2023a) *Emissions Trends and Drivers*. Cambridge University Press. Available at: https://doi.org/10.1017/9781009157926.004.

IPCC (2023b) *Sixth Assessment Report — IPCC*. Available at: https://www.ipcc.ch/assessment-report/ar6/ (Accessed: 9 April 2025).

Jackson, E. (2024) 'The Energy Charter Treaty: Letting the sun set on sunset clauses', *Review of European, Comparative & International Environmental Law* [Preprint]. Available at: https://doi.org/10.1111/reel.12583.

Jansen, L. (2023) *Global Decarbonization in Fossil Fuel Export-Dependent Economies*. UNDP. Available at: https://www.undp.org/publications/dfs-global-decarbonization-fossil-fuel-export-dependent-economies (Accessed: 3 February 2025).

Jia, Z., Schmidt, M. and Shishlov, I. (2025) *Alignment of China's Energy Sector Export Finance with the Paris Agreement*. Freiburg: Perspectives Climate Research. Available at: https://perspectives.cc/publication/alignment-of-chinas-energysector-export-finance-withthe-paris-climate-agreement/.

Justiça Ambiental and Natural Justice (2024) *Comments on Coral North Floating gas project show EIA shortcomings and expose its harmful impacts, Natural Justice*. Available at: https://naturaljustice.org/comments-on-coral-north-floating-gas-project-show-eia-shortcomings-and-expose-its-harmful-impacts/ (Accessed: 10 April 2025).

Kabakci, F. (2024) *South Korean firms build 75% of all LNG carriers delivered in 2023, Anadolu Agency*. Available at: https://www.aa.com.tr/en/energy/lng-lpg/south-korean-firms-build-75-of-all-lng-carriers-delivered-in-2023/42016 (Accessed: 4 February 2025).

Kemoe, L., Moustapha, M.M., Hamza Mighri, Saad Quayyum, H. and Quayyum, S. (2023) *African Currencies Are Under Pressure Amid Higher-for-Longer US Interest Rates, IMF*. Available at: https://www.imf.org/en/Blogs/Articles/2023/05/15/african-currencies-are-under-pressure-amid-higher-for-longer-us-interest-rates (Accessed: 28 April 2025).

Khumalo, S. (2018) 'Eskom's R33.4bn loan deal with China Development Bank', *The Mail & Guardian*, 24 July. Available at: https://mg.co.za/article/2018-07-24-eskom-inks-r334bn-loan-deal-with-china-development-bank/ (Accessed: 16 May 2025).

Klasen, A., Krummaker, S., Beck, J. and Pennington, J. (2024) 'Navigating geopolitical and trade megatrends: Public export finance in a world of change', *Global Policy*, 15(5), pp. 1007–1014. Available at: https://doi.org/10.1111/1758-5899.13417.

Kühne, K., Bartsch, N., Tate, R.D., Higson, J. and Habet, A. (2022) '"Carbon Bombs" - Mapping key fossil fuel projects', *Energy Policy*, 166, p. 112950. Available at: https://doi.org/10.1016/j.enpol.2022.112950.

Lang, J. and Gilfillan, B. (2016) *Bilateral Investment Treaties - a shield or a sword*. Bowman Gilfillan African Group. Available at: https://www.bowmanslaw.com/wp-content/uploads/2016/09/PPI-article_mailshot_08112013_1038389_1-1.pdf.

Ma, X. and Gallagher, K.P. (2021) *Who Funds Overseas Coal Plants?* Global Development Policy Center. Available at: https://www.bu.edu/gdp/files/2021/07/GCI_PB_008_FIN-1.pdf.

Mehranvar, L. and Brauch, M. (2024) 'Breaking Free: Strategies for Governments on Terminating Investment Treaties and Removing ISDS Provisions', *Columbia Center on Sustainable Investment* [Preprint]. Available at: https://scholarship.law.columbia.edu/sustainable_investment/48.

Mehranvar, L. and Sachs, L. (2024) 'The Role and Relevance of Investment Treaties in Promoting Renewable Energy Investments', *Investment Arbitration and Climate Change*, 268. Available at: https://doi.org/10.2139/ssrn.4781814.

NS Energy (2018) 'Mambilla Hydropower Project', NS Energy. Available at: https://www.nsenergybusiness.com/projects/mambilla-hydropower-project-nigeria/ (Accessed: 21 March 2025).

OCI (2022) 'Public Finance for Energy'. Available at: https://energyfinance.org/#/data.

OCI (2023a) *Changing the trade winds: Aligning OECD export finance for energy with climate goals*. Washington DC. Available at: https://www.oilchange.org/wp-content/uploads/2023/05/OCI-CHANGING-THE-TRADE-WINDS.pdf.

OCI (2023b) *Promise Breakers: Assessing the impact of compliance with the Glasgow Statement commitment to end international public finance for fossil fuels.* Washington D.C.: OCI. Available at: https://www.oilchange.org/publications/promise-breakers-assessing-the-impact-of-compliance-with-the-glasgow-statement-commitment-to-end-international-public-finance-for-fossil-fuels/http:/priceofoil.org (Accessed: 5 September 2024).

OECD (2017) 'Operational procedures for the country risk expert group'.

OECD (2023a) 'Agreement to expand export credit support for climate-friendly and green projects'. Available at: https://www.oecd.org/en/about/news/press-releases/2023/04/agreement-to-expand-export-credit-support-for-climate-friendly-and-green-projects.html.

OECD (2023b) *ODA recipients: countries, territories, and international organisations*. Available at: https://www.oecd.org/en/topics/sub-issues/oda-eligibility-and-conditions/dac-list-of-oda-recipients.html (Accessed: 10 March 2025).

OECD (2025) *International aid falls in 2024 for first time in five years, says OECD*. Available at: https://www.oecd.org/en/about/news/press-releases/2025/04/official-development-assistance-2024-figures.html (Accessed: 24 April 2025).

OECD (n.d.) *Country risk classification, OECD*. Available at: https://www.oecd.org/en/topics/country-risk-

classification.html (Accessed: 25 October 2024).

OPIC, U.S. Department of Commerce, USAID and USTDA (2019) 'Important Features of Bankable Power Purchase Agreements for Renewable Energy Power Projects'. World Bank Public Private Partnership Resource Centre. Available at: https://ppp.worldbank.org/public-private-partnership/library/important-features-bankable-power-purchase-agreements-renewable-energy-power-projects (Accessed: 3 January 2025).

Ostransky, J. and Bonnitcha, J. (2024) *Rethinking Investment Treaties*. IISD. Available at: https://www.iisd.org/publications/report/rethinking-investment-treaties-roadmap (Accessed: 16 May 2025).

Paparinskis, M. (2022) 'Crippling Compensation in the International Law Commission and Investor–State Arbitration', *ICSID Review - Foreign Investment Law Journal*, 37(1–2), pp. 289–312. Available at: https://doi.org/10.1093/icsidreview/siab029.

Perry, A. (2024) '"All must be beheaded": Revelations of atrocities at French energy giant's African stronghold – POLITICO', Politico. Available at: https://www.politico.eu/article/totalenergies-mozambique-patrick-pouyanne-atrocites-afungi-palma-cabo-delgado-al-shabab-isis/ (Accessed: 16 May 2025).

Philippot, L. (2024) *Financial institutions' involvement in the Mozambique LNG project.* Friends of the Earth Europe. Available at: https://friendsoftheearth.eu/wp-content/uploads/2024/03/Summary-__-Financial-institutions-involvement-in-the-Mozambique-LNG-gas-project-1.pdf.

Poulsen, L. (2010) *The Importance of BITs for Foreign Direct Investment and Political Risk Insurance: Revisiting the Evidence*. SSRN Scholarly Paper 1685876. Rochester, NY: Social Science Research Network. Available at: https://papers.ssrn.com/abstract=1685876 (Accessed: 10 April 2025).

Prinsloo, L., De Beaupuy, F. and Burkhardt, P. (2025) 'US Exim Approves $4.7 Billion Loan for Total's Mozambique LNG', Bloomberg.com, 14 March. Available at: https://www.bloomberg.com/news/articles/2025-03-14/us-exim-approves-4-7-billion-loan-for-total-s-mozambique-lng (Accessed: 10 April 2025).

Raza, W., Schlögl, L. and Pfaffenbichler, D. (2024) *Aligning European Export Credit Agencies with EU policy goals*. European Parliament. Available at: https://www.europarl.europa.eu/RegData/etudes/IDAN/2023/702590/EXPO_IDA(2023)702590_EN.pdf.

SACE (n.d.) *Growth Map, Sace*. Available at: https://www.sace.it/en/maps (Accessed: 11 March 2025).

Sachs, J.D. (2019) *How World Bank Arbitrators Mugged Pakistan, Project Syndicate*. Available at: https://www.project-syndicate.org/commentary/world-bank-corrupt-arbitration-ruling-against-pakistan-by-jeffrey-d-sachs-2019-11 (Accessed: 10 April 2025).

Schmidt, M., Shishlov, I., Censkowsky, P., Jia, Z. and Weber, L. (2024) *Best Practice Guide for the Paris Alignment of Export Credit Agencies*. Freiburg: Perspectives Climate Research.

Schneiderman, D. (ed.) (2022) 'The Stifling Threat of Debt', in *Investment Law's Alibis: Colonialism, Imperialism, Debt and Development*. Cambridge: Cambridge University Press (Cambridge Studies in International and Comparative Law), pp. 89–128. Available at: https://doi.org/10.1017/9781009153515.005.

Seto, K.C., Davis, S.J., Mitchell, R.B., Stokes, E.C., Unruh, G. and Ürge-Vorsatz, D. (2016) 'Carbon Lock-In: Types, Causes, and Policy Implications', *Annual Review of Environment and Resources*, 41(Volume 41, 2016), pp. 425–452. Available at: https://doi.org/10.1146/annurev-environ-110615-085934.

Siemens (2015) *The Egypt Megaproject: Boosting Egypt's energy system in record time*. Erlangen, Germany. Available at: https://assets.new.siemens.com/siemens/assets/api/uuid:38ad89c9f4532436a921ed151da1d987a985deec/siemens-egypt-megaproject.pdf.

Steffen, B. (2020) 'Estimating the cost of capital for renewable energy projects', *Energy Economics*, 88, p. 104783. Available at: https://doi.org/10.1016/j.eneco.2020.104783.

Tienhaara, K. (2017) 'Regulatory Chill in a Warming World: The Threat to Climate Policy Posed by Investor-State Dispute Settlement', *Transnational Environmental Law*, 7(2), pp. 229–250. Available at: https://doi.org/10.1017/S2047102517000309.

Tienhaara, K. and Cotula, L. (2020) *Raising the cost of climate action? Investor-state dispute settlement and compensation for stranded fossil fuel assets*. London: International Institute for Envrionment and Development (IIED). Available at: https://www.iied.org/17660iied (Accessed: 10 April 2025).

Tucker, B. and Reisch, N. (2021) *The Sky is the limit Africa: The case for a just energy transtion from fossil fuel in Africa*. OCI, Oilwatch Africa, Africa Coal Network, 350Africa.org, Health of Mother Earth Foundation, WoMin African Alliance. Available at: https://www.oilchange.org/wp-content/uploads/2021/10/Skys-Limit-Africa-Report-2021.pdf.

Unruh, G.C. (2000) 'Understanding carbon lock-in', Energy Policy, 28(12), pp. 817–830. Available at: https://doi.org/10.1016/S0301-4215(00)00070-7.

USEXIM (2020) *Annual report 2019: Keeping America Strong*. Washington, DC. Available at: https://img.exim.gov/s3fs-public/reports/annual/2019/EXIM_2019%20AnnualReport_508C_Web.pdf.

Welsby, D., Price, J., Pye, S. and Ekins, P. (2021) 'Unextractable fossil fuels in a 1.5 °C world', *Nature*, 597(7875), pp. 230–234. Available at: https://doi.org/10.1038/s41586-021-03821-8.

West, J. and Lépiz, D.Q. (2021) *Too Late to Count: a financial analysis of Mozambique's gas sector.* Open Oil, p. 18. Available at: https://stopmozgas.org/wp-content/uploads/2022/03/Too-late-to-count-a-financial-analysis-of-Mozambiques-gas-sector.pdf.

World Bank (2022) *Access to electricity (% of population) - Sub-Saharan Africa | Data*. Available at: https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?locations=ZG (Accessed: 18 March 2025).

Yackee, J.W. (2010) 'Do Bilateral Investment Treaties Promote Foreign Direct Investment? Some Hints from Alternative Evidence', *Virginia Journal of International Law*, 51. Available at: https://repository.law.wisc.edu/s/uwlaw/item/29946 (Accessed: 10 April 2025).

Yanguas Parra, P., Ganti, G., Brecha, R., Hare, B., Schaeffer, M. and Fuentes, U. (2019) *Global and regional coal phase-out requirements of the Paris Agreement: Insights from the IPCC Special Report on 1.5°C*. Climate Analytics. Available at: https://ca1-clm.edcdn.com/assets/report_coal_phase_out_2019.pdf?v=1679477882. Appendix A. ECAs' finance for fossil fuel projects

Appendix A. ECAs' finance for fossil fuel projects

The analysis identified 24 coal, oil and gas projects that received financing through 50 export finance deals encompassing a total of USD 36.6 billion. As shown in Table 3 Error! Reference source not found., of these 24 projects, nine are oil and gas power plants, seven are coal power plants, four are oil and gas extraction projects, three are LNG terminals, and one is a gas pipeline.[19]

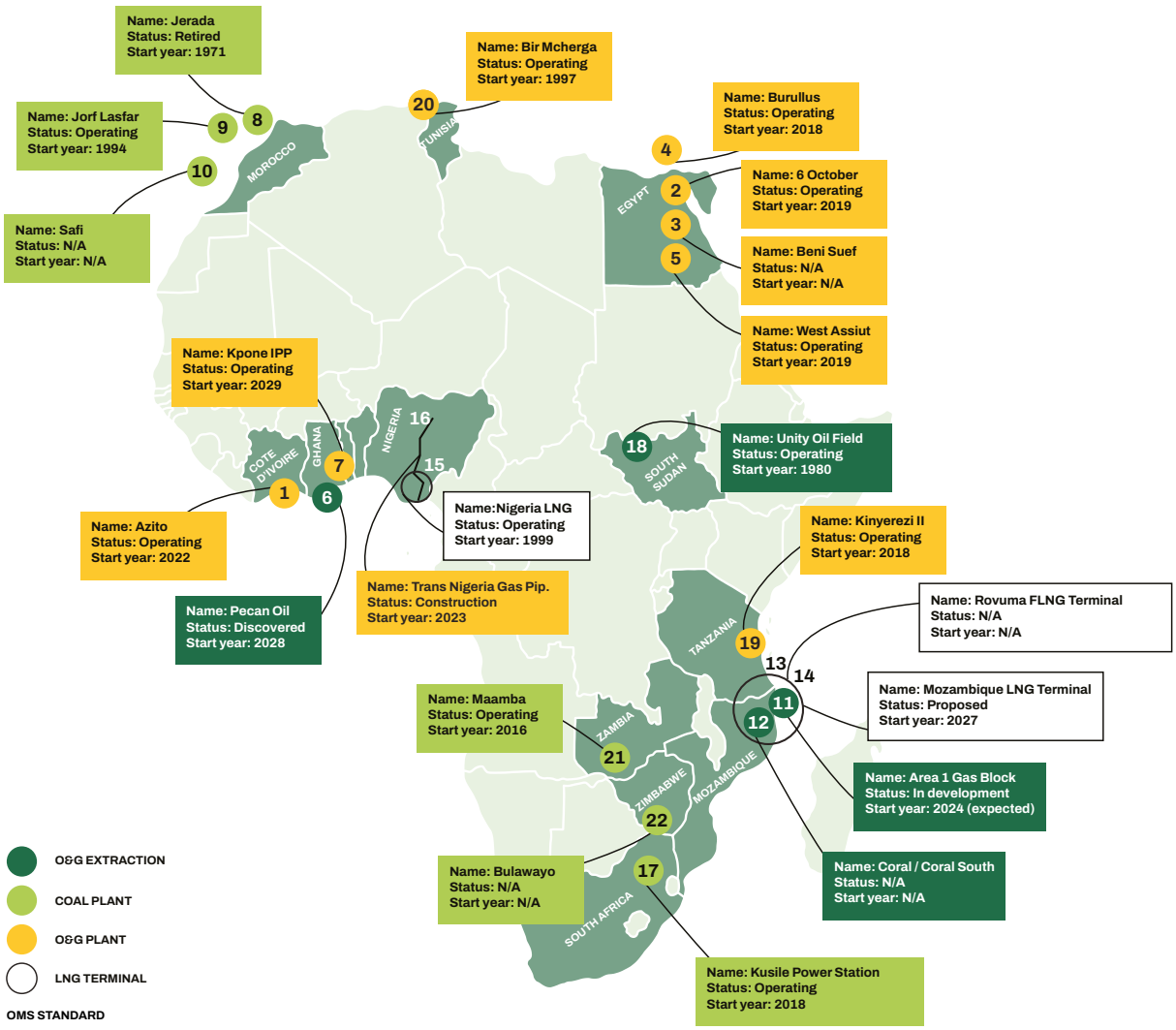
Table 3: Comparison of export finance deals for fossil projects with all fossil fuel projects that recently started operating

	O&G plants	Coal plants	O&G extraction	Gas pipeline	LNG projects	Total
All fossil fuel projects in Africa*						
Number of projects starting operation 2013-2023	128	12	96	36	21	**293**
Export finance to fossil fuel projects in Africa**						
Number of projects receiving export finance, 2013-2023	9	7	4	1	3	**24**
Number of ECA transactions	15	9	15	2	9	**50**
Export finance in USD billion 2013-2023	**$6.4**	**$3.4**	**$8.6**	**$4.9**	**$13.3**	**$36.6**

*Source: authors based on *(GEM, 2024) and **(OCI 2022)*

Export finance for fossil fuel projects is strongly concentrated in a few countries and a few large-scale projects. Fossil fuel extraction and transport projects in Mozambique and Nigeria received the largest volumes of export finance, followed by finance for gas power plants in Egypt. Overall, up-and-midstream projects received the largest share of total export finance. The 16 downstream projects (nine gas power plants and seven coal power plants) received less than a third of the analysed export finance.

Figure 13: Identified oil, gas and coal projects that received export finance between 2013-2023



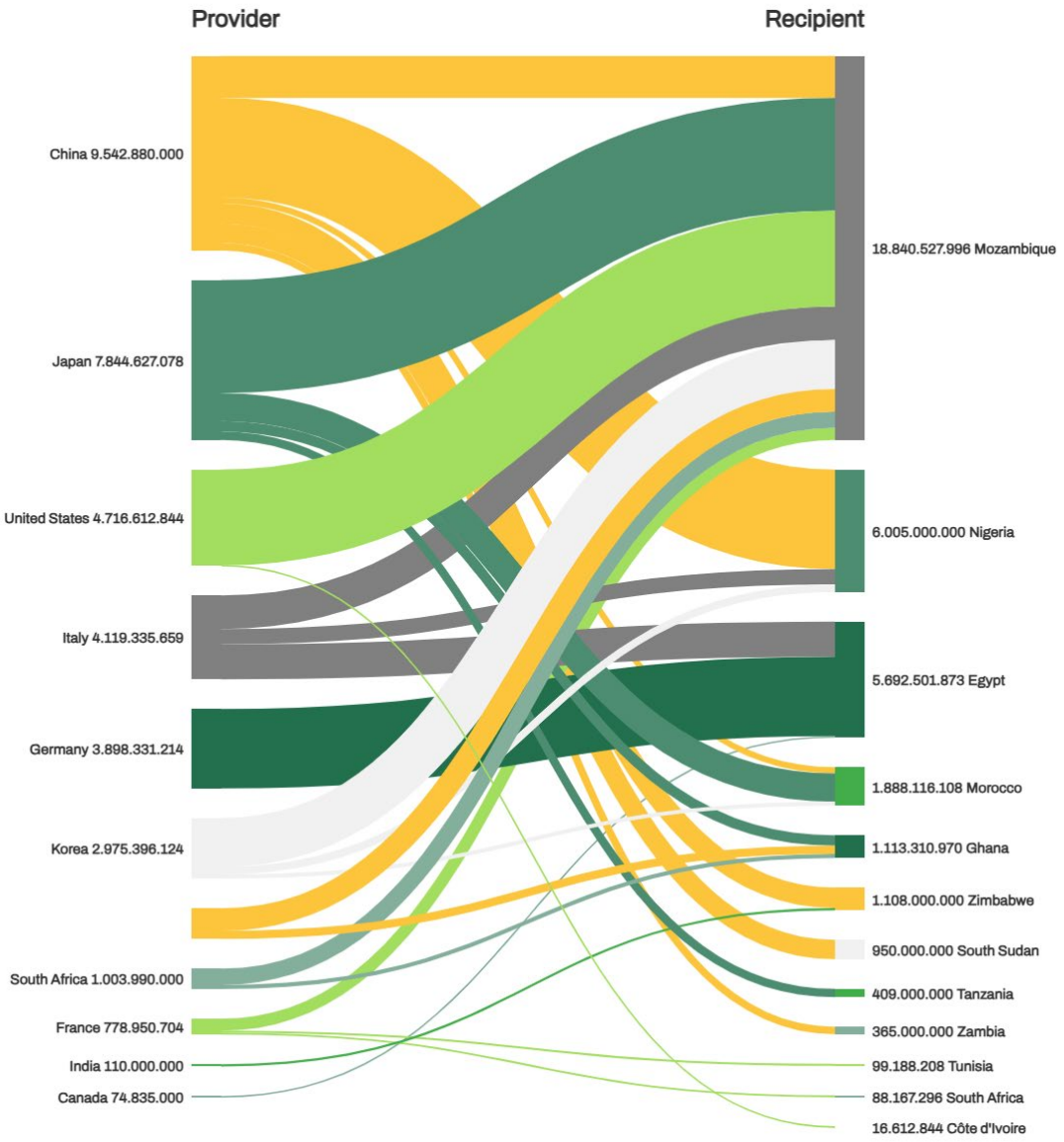
Source: Authors based on (OCI, 2022), Note: data for 2023 is preliminary
Graphic by Marielle Pesant

Mozambique's O&G extraction and transportation projects have attracted USD 18.8 billion from ECAs, accounting for approximately half of the analysed fossil fuel financing. Mozambique received export financing from the widest variety of ECAs among all recipient countries. The single largest transaction came from the US, a USD 4.7 bn loan from US EXIM for Mozambique LNG terminal, the largest transaction in the institution's history (Philippot, 2024). However, Japan is the overall biggest lender and guarantor with USD 5.5 bn for the proposed Rovuma LNG Terminal. The third-largest supplier of export finance for Mozambique's O&G projects is South Korea, with about USD 2.4 billion in loans and guarantees. The large finance volumes are linked to the export interests of domestic companies in the G20 countries. For example, South Korea, a leading producer of LNG vessels (Kabakci, 2024), will supply key technology for the Mozambique project; Mitsubishi, one of Japan's largest engineering firms, will manufacture turbines and compressors for the Rovuma LNG terminal (GEM, 2024c); and multiple American suppliers will also benefit from Mozambique's LNG projects (USEXIM, 2020).

Nigeria is one of Africa's top O&G exporters and is expected to increase production this decade (Tucker and Reisch, 2021), driving ECA finance in O&G transport infrastructure. Most of the export finance came from China for the Trans-Nigeria Pipeline (USD 5 billion) and from Italy and South Korea for Nigeria's LNG terminal (USD 1.1 billion). The Trans-Nigeria Pipeline supplies urban and industrial centres in the North of Nigeria with gas and is supposed to connect to the proposed Trans-Sahara pipeline, which would allow gas supply to Europe (GEM, 2024e, 2024d). The Italian and Korean export financing will enable the extension of the existing LNG facility with another LNG train whose construction will be led by Italian, Japanese and Korean engineering companies (GEM, 2025).

Export finance for gas power plants in Egypt exemplifies that ECA funding for fossil-fuel electricity generation is mainly directed at countries with above-average energy access in the region. Most of the ECA-supported power plants (9 out of 16) and most of the ECA-financed production capacity (79%) are in North Africa. Notably, Egypt's five gas power plants make up the biggest share of ECA finance for electricity generation in Africa. Tunisia and Morocco are also among the recipient countries for ECA finance for gas and coal power plants. World Bank data shows that Egypt, Tunisia, and Morocco had electricity access rates of nearly 97% in 2013 and 100% today. In contrast, Sub-Saharan Africa only had electricity access rates of 38% in 2013 and stood at 52% in 2022 (World Bank, 2022). ECAs only marginally benefitted the expansion of fossil fuel power generation capacity in Sub-Saharan Africa, as financed coal and gas power plants are fewer and smaller in comparison to the power plants financed in North African countries. This underlines that ECA's financing decisions are currently not positioned to maximize development impacts.

Figure 14: Project specific export finance to fossil fuel energy in Africa in billion USD, 2013-2023



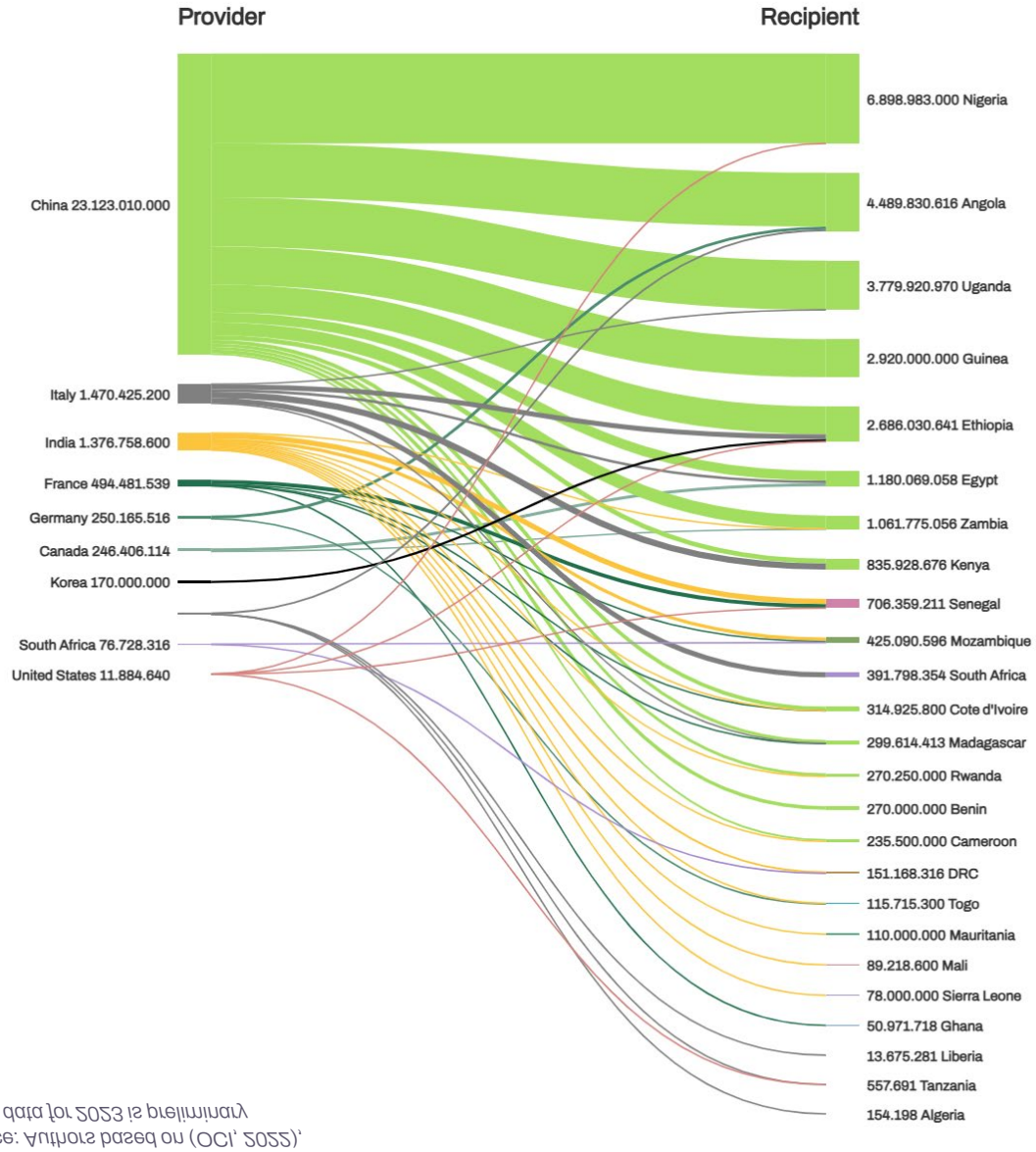
Source: Authors based on (OCI, 2022), Note: data for 2023 is preliminary

Only a small share of all fossil fuel projects in Africa received export finance, except for coal power stations. A total of 293 oil, gas, and coal projects started operating in Africa between 2013 and 2022. Only 24 have been supported by ECAs (table 2). This is most apparent in the rapid growth of O&G power generation over the last decade and the limited role of ECAs in financing O&G power plants. The situation is, however, different for coal-fired power plants. Although coal financing accounts for the smallest share of export financing for fossil fuel projects, ECAs were nevertheless involved in the financing of more than 50% of the coal-fired power plants that went online in Africa between 2013 and 2023. This underlines the importance of export finance in enabling coal power projects.

Appendix B. ECAs' finance for 'other' energy projects

Between 2013 and 2023, ECAs financial commitment for large hydro projects, transmission infrastructure and other projects like energy generation from biomass comprised USD 27.4 billion. Chinese ECAs are the most prolific actors, providing 85% of the finance, mainly to large hydropower projects. The largest recipients are Nigeria (USD 6.9 billion), Angola (USD 4.5 billion) and Uganda (3.8 billion). Besides these big transactions, there are a multitude of small projects in a wide range of countries, mainly for electricity transmission (see Figure 15).

Figure 15: Flow of export finance into 'other' energy projects, 2013-2023

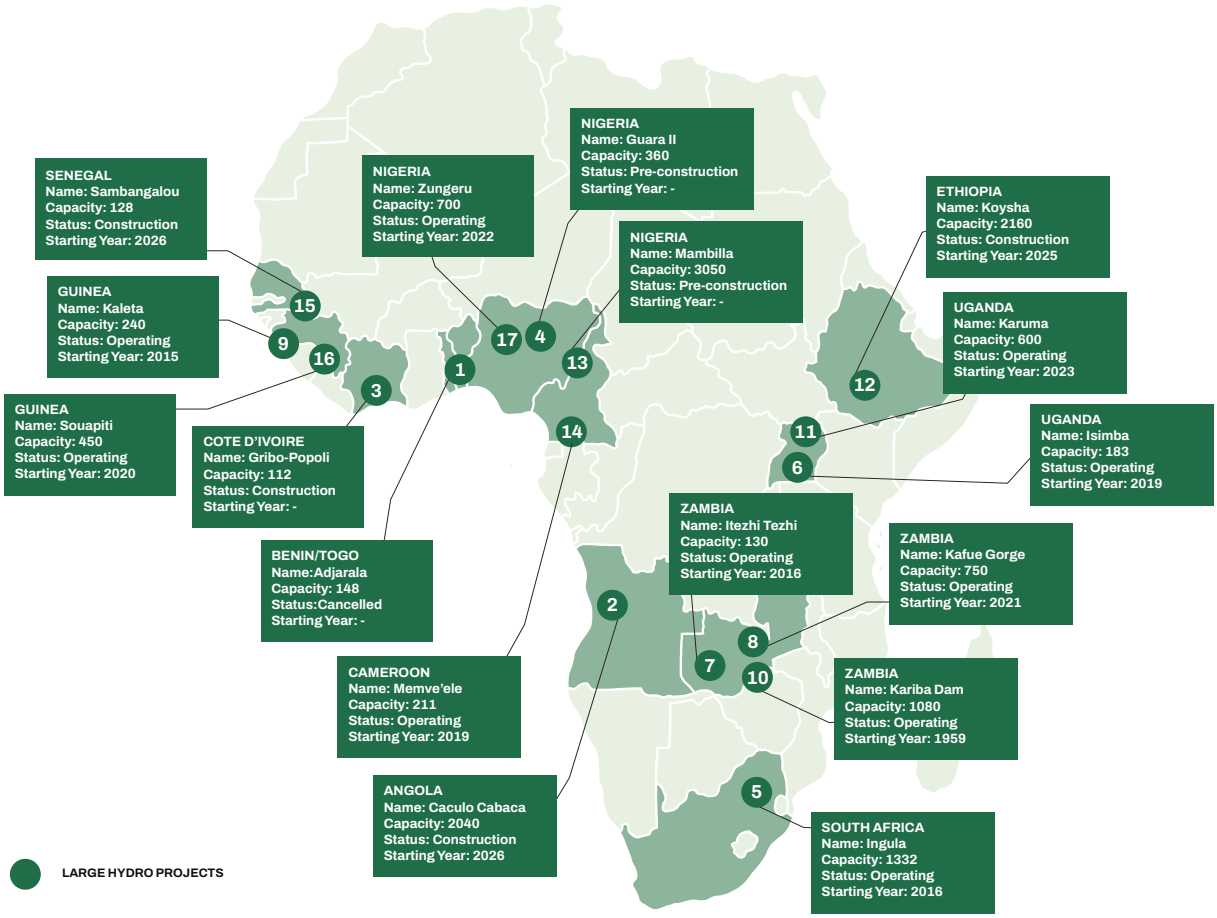


Source: Authors based on (OCI, 2023).
Note: data for 2023 is preliminary

With USD 20 billion, large hydropower projects constitute the second-biggest share of ECA finance for African energy projects, after gas finance. ECA finance for large hydropower is dominated by a small number of billion-dollar loans and guarantees issued by Chinese ECAs for projects in Uganda, Nigeria, Angola and Guinea. The largest project is the Mambilla hydropower project, which received a USD 4.9 billion loan from CHEXIM and will be Nigeria's biggest power plant upon completion (NS Energy, 2018). In addition to China, European ECAs are also active in financing large hydropower projects, although they commit significantly lower amounts.

Hydropower is not listed as clean energy in the OCI database, as these large-scale projects often have high social and environmental costs. A survey of the social-ecological impact of five ECA-financed hydropower projects in Nigeria, Togo and Uganda showed that local communities experienced or feared loss of income due to flooded agricultural land and frequently received late or inadequate compensation for loss of land and income. In all five cases, the flooding of forests resulted in methane emissions and negated those ecosystems' carbon absorption potential (Abibiman Foundation Ghana et al., 2020; Environment Governance Institute Uganda, 2024). Thus, mega-hydro power plants not only have detrimental effects on the environment but may also not be a fully low carbon technology for electricity generation.

Figure 16: Large hydropower projects (>75MW) that received export finance between 2013 and 2023



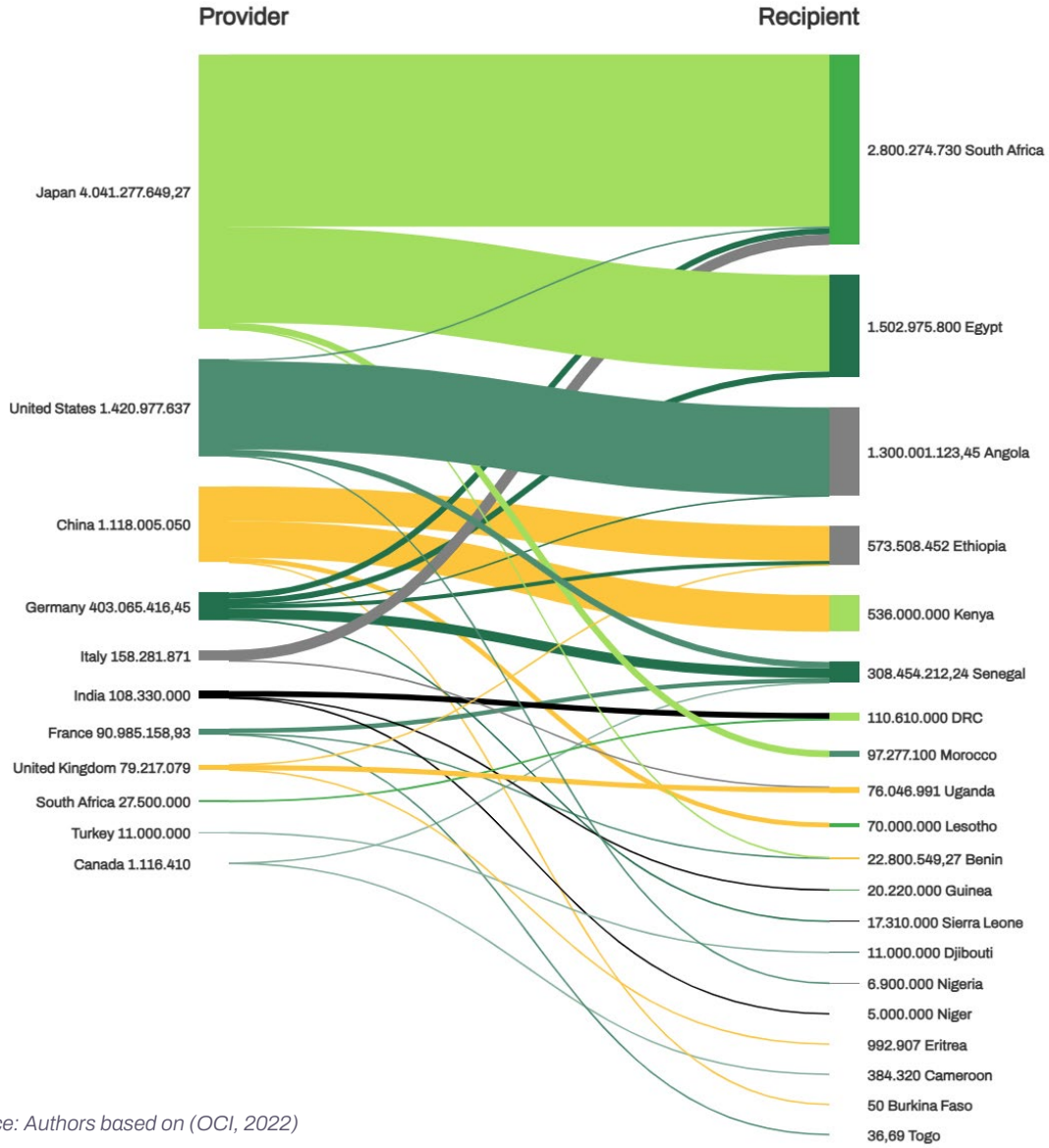
Source: authors based on (OCI, 2022), Note: capacity in MW, Graphic by Marielle Pesant

Financing for electricity grids is relatively common but only accounts for a small proportion of the export financing for Africa's energy sector due to the mostly small volume of the transactions. Besides China, India's Export-Import Bank was one of the most active financiers of transmission lines, offering loans to eight least-developed countries. Expanding grid infrastructure is vital, besides mini-grids and decentralised solutions, to achieve universal electricity access and enable the integration of RE energy sources. However, a substantial investment gap remains (IEA, 2022a).

Appendix C. ECAs' finance for clean energy projects

Between 2013 and 2023, ECAs from G20 countries financed USD 8.8 billion in clean energy, meaning wind, solar, geothermal and small hydropower and also grid capacity like battery storage. 20 African countries received export finance for their clean energy projects, with South Africa (USD 2.8 billion), Angola (USD 2.2 billion) and Egypt (USD 1.5 billion) being the biggest recipients. Eleven ECAs provided finance for clean energy projects, with Japan (USD 4.1 billion) being the biggest provider, followed by the US (USD 2.3 billion) and China (USD 1.2 billion). Among European countries, Germany (USD 0.4 billion) is the biggest provider of clean energy export finance for Africa, followed by France (USD 0.25 billion), Italy (USD 0.16 billion) and the United Kingdom (USD 0.08 billion).

Figure 17: Flow of export finance into clean energy, 2013-2023

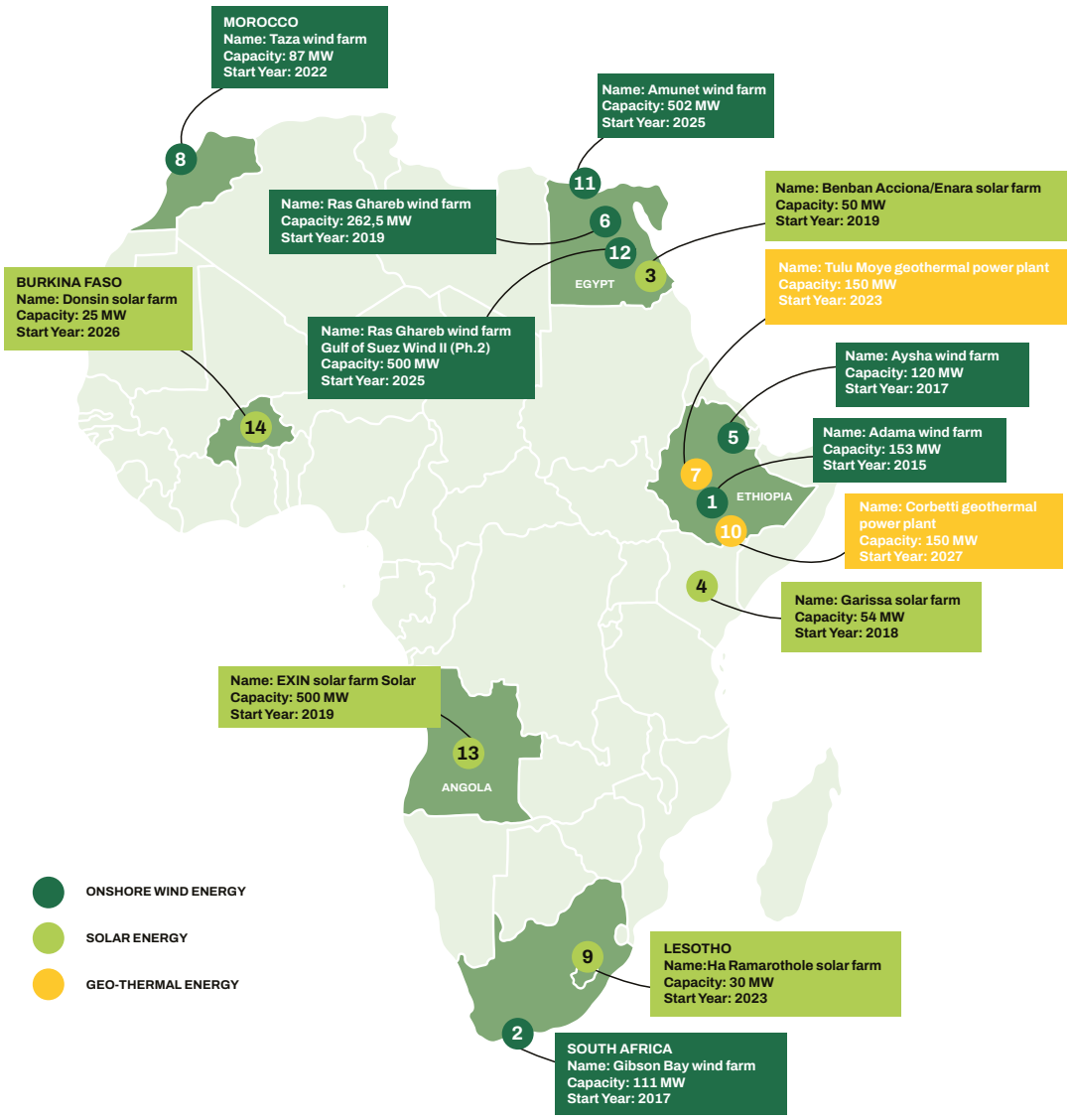


Source: Authors based on (OCI, 2022)

Africa is not the main focus for European ECAs' RE finance. According to the E3F report, Germany financed USD 5.3 billion in RE globally between 2015 and 2022, but only 8% of these financial flows went to RE projects in Africa, according to the OCI database. France directed 11%, Italy 16% and the United Kingdom 20% of its clean energy export finance to Africa (E3F, 2023). However, these countries' financial support for RE is very low in absolute terms – see Figure 17.

More than a third of the clean energy finance went to 14 utility-scale solar, wind and geothermal projects. These are mainly large-scale projects with capacities of 25 to 500 MW (OCI, 2022). Their concrete location, capacity and start date were identified by matching OCI data with the GEM Africa Energy Tracker, which lists utility-scale RE projects with capacities above 1 MW (GEM, 2024a). Half of the projects were onshore wind farms, five were solar parks and two were geothermal projects.

Figure 18: Utility-scale clean energy projects receiving export finance 2013-2023



Authors based on (OCI, 2022; GEM, 2024a),
Graphic by Marielle Pesant

These utility-scale RE projects are located in eight African countries. Egypt received the largest share of export finance (USD 1.5 billion) for the construction of three onshore wind farms and one solar power plant. The largest provider was Japan (USD 1.5 billion), being the financier of these Egyptian wind farms and one other wind farm in Morocco. Besides Japan, four other ECAs from G20 countries provide finance for large-scale RE projects, namely the United States, China, Germany and the United Kingdom. Notably, large-scale RE projects do not seem to attract simultaneous finance from multiple ECAs, as is the case for some of the analysed fossil fuel projects.

Approximately one-fifth of the analysed clean energy finance was allocated to decentralised electrification projects.[20] Seven African countries received export finance to support decentralised RE

production and electrification, with four G20 nations providing this financing. While other export finance projects in the energy sector can also contribute to expanding energy access, these projects stand out for their ability to reach underserved and remote communities through decentralised RE solutions, such as solar home systems and mini-grids. However, projects explicitly focused on enhancing energy access via decentralised RE account for only 3% of all export finance for African energy projects between 2013 and 2023. Table 4 provides examples of projects aiming at improved electricity access through decentralised RE projects.

Table 4: List of examples of electrification projects receiving export finance between 2013 and 2022

Recipient	Provider	Transaction	Project Description
Angola	US	USD 1,300 mil. (loan)	Deployment of 65 solar mini-grids for electricity production and storage
Angola	Germany	USD 215 mil. (loan)	Sustainable electrification of 60 villages
DR Congo	India	USD 83 mil. (loan)	Development of three solar PV projects in rural regions with low energy access
Ethiopia	Germany	USD 59 mil. (guarantee)	Supply of 100,000 solar-home systems
Niger	India	USD 5 mil. (loan)	Electrification of 50 villages with photovoltaic energy
Senegal	US	USD 92 mil. (guarantee)	Establishment of mini-grids with stand-alone solar units and limited low-voltage lines in 400 villages
Senegal	Germany	USD 148 mil. (guarantee)	Electrification of 300 rural villages with decentralised solar power systems and energy stores
Togo	France	USD 37 mil. (loan)	Installation of solar off-grid lighting in rural areas

Authors based on (OCI, 2022)

The remaining transactions in the clean energy sector did not specify details on financed assets, locations, and installed capacity and were therefore not further analysed.

Perspectives
Climate Research gGmbH
Hugstetter Str. 7
79106 Freiburg, Germany
info@perspectives.cc
www.perspectives.cc