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What Does the European Green Deal Mean for Africa?

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Summary

On July 14, 2021, the European Commission adopted a set of intermediate proposals to cut greenhouse gas emissions by 55 percent from 1990 levels by 2030 as part of a broader European Green Deal (EGD). The EGD is a set of long-term policy initiatives that define the European Union's (EU) climate strategy to reach net zero emissions by 2050 and aim to make Europe the first mover in international climate policy. Toward this goal, the EGD provides a road map for a socioecological transition to a low-carbon future and the building blocks for a green economic growth strategy.

Its implications for Africa are multifaceted. Most prominently, a decline in European demand for fossil fuels alongside rising demand for cobalt, nickel, and other critical minerals for the energy transition will greatly affect global markets and, by implication, the economies of oil-dependent and mineral-rich African countries. The economy-wide effects of the EGD, however, extend beyond the energy transition. This paper identifies the implications of the EGD for African countries in seven main areas: agriculture, biodiversity, energy, critical raw materials (CRMs), circular economy, new technologies, and finance. It also recommends steps to orient the policy initiatives to Africa's development priorities.

Seven Implications of the EGD for Africa

- **New agricultural standards.** As part of its “Farm to Fork” policy package, the EU aims to become a leader in setting sustainable global food standards. Compliance with these standards as a condition for accessing the European market could constitute additional nontariff barriers for African agriculture exports to the EU. Still, an EU-Africa partnership can help combat agroecological challenges.

- **EU-Africa biodiversity strategy.** NaturAfrica is the EGD's biodiversity strategy to protect wildlife and ecosystems, provide local populations with economic opportunities in green sectors, and strengthen the links between biodiversity protection and Indigenous communities. To successfully design and implement NaturAfrica, Europe must take into account the human rights abuses and land dispossession that often accompany conservation initiatives. The initiative can complement existing programs such as the Pan-African Agenda on Ecosystem Restoration for Increased Resilience.
- **Shifting demand from fossil fuels to cleaner energy sources.** The EGD's energy strategy aims to secure affordable energy supply, increase clean energy, and replace fossil fuels in the carbon-intensive energy mix. In achieving these objectives, a European phaseout of oil by 2050 could lead to a decrease in oil demand and declining prices for African suppliers, particularly after 2030. The fossil fuel phase-out is already causing a decline in upstream investments by European development agencies, concessional lenders, and private financiers of hydrocarbon projects in Africa. Europe's plans to use decarbonized gas as a transition fuel would present some short-term opportunities for African gas producers. With an increasing European demand for green hydrogen, partnerships are being established with African countries through the European Clean Hydrogen Alliance to secure 40 gigawatts of hydrogen imports from non-EU countries by 2030.
- **Rising demand for critical raw materials.** The low-carbon energy strategies envisioned in the EGD will depend on the CRM inputs for clean energy and technologies. Consumption of these CRMs is projected to increase by a factor of four for graphite, five for cobalt, and eighteen for lithium by 2030; and by a factor of thirteen for graphite, fourteen for cobalt, and nearly sixty for lithium by 2050. Currently, the EU sources 28 percent of its barite needs from Morocco, 64 percent of bauxite from Guinea, 68 percent of cobalt and 36 percent of tantalum from the Democratic Republic of the Congo (DRC), and about 90 percent of the platinum group metals (PGM) from South Africa. Other countries, such as Ghana, Zambia, and Zimbabwe, also have the potential to supply copper, PGM, and bauxite to Europe. The projected demand in CRMs creates opportunities for Africa to replace Asian supply chains. There are, however, risks of reinforcing technology dependencies for Africa, accelerating environmental devastation, compounding climate disruptions, and importing Europe's carbon emissions.
- **Creating a circular economy.** The EGD's circular economy action plan aims to reduce material throughput by reusing and recycling materials. The plan is meant to provide a guideline for all sectors, with action focusing on resource-intensive sectors such as textiles, construction, electronics, and plastics. For some sectors in African countries, this could present new economic opportunities, as relocalizing part of the circular economy value chain to African producers could strengthen manufacturing, allowing African businesses to engage in higher-value activities. It is important to

align the EU's circular economy plan with existing African initiatives, such as the African Circular Economy Alliance, which was founded by Nigeria, Rwanda, and South Africa.

- **Deployment of new technologies.** The EGD aims to scale commercial applications of breakthrough green technology innovations and create corresponding markets to secure an advantage over competitors in the United States and China. African countries will struggle to adopt these emerging green technologies, some of which are still very costly. However, competition between producers, especially the EU and China, could lead to early price decreases and could enable African countries to proactively negotiate skills, knowledge, and technology transfer as well as the localization of jobs around these new technologies. Around 35 percent of Horizon Europe, a 95.5-billion-euro (\$113.5 billion) research and innovation funding program from 2021 to 2027, is dedicated to climate research. There could be collaboration opportunities between stakeholders in industry and research communities in Europe and Africa.
- **Financing the EGD.** To achieve its 2030 emissions targets, the European Commission estimates that annual investments of 260 billion euros (\$309.4 billion) will be needed. In total, the EU aims to mobilize at least 1 trillion euros in sustainable investments over a decade through international carbon markets, the revision of the European emissions trading system, and a carbon border adjustment mechanism (CBAM). As the CBAM could impose costs on exporters from low-income countries, including those in Africa, such unintended consequences should be mitigated in consultation with those to be affected. While the EGD does not outline a spending plan, it is worth noting that the amount of climate funds from the European Commission and the EU's lending arm, the European Investment Bank (EIB), to developing countries has not increased from an average of around 5.7 billion euros (\$6.7 billion) since 2018. Neither has it shifted away from a preponderance of nonconcessional loans over grant financing by the EIB nor have both institutions' focuses shifted from climate mitigation initiatives toward adaptation and resilience. The focus has also been on wealthier, middle-income countries rather than low-income economies.

Policy Recommendations

The EGD is mainly an internal policy instrument, yet its potential global spillovers will reach African countries in view of the strong economic and historical ties between the continents. Such effects will be felt in the market for agriculture, fossil fuels, and other natural resources. The impacts will also occur through the channels of Europe's financial muscle, technologies, and standards.

No outcome is predetermined, however. In fact, the transition envisioned in the EGD offers the promise of overhauling EU-Africa relations from the donor-recipient orientation of the

past toward a mutually beneficial partnership in the twenty-first century if the right steps are taken now. These steps include:

- **Forging genuine partnerships in sourcing CRMs and energy supplies from Africa by building industrial capacity, localizing value chains, and sharing technologies.** Clean energy hardware industries, such as battery and solar photovoltaic manufacturing plants, can be set up in mineral-rich countries, like the DRC, as the EU shifts from Chinese supply chains.
- **Aligning areas of the EGD that directly affect Africa with the continent's own stated development priorities.** These African priorities are outlined in continent-wide, subregional, or domestic policy documents. Overall, Europe should not use its financial muscle and technological standards to impose its foreign policy and geopolitical interests at the expense of Africa's own development aspirations.
- **Matching the EU's stated principles around sustainability with actual volumes of climate financing to Africa.** This climate financing should be separated from official development assistance and provided either as grants or at concessional rates to avoid saddling poor countries with unsustainable debt. The financing should also be rebalanced from its current heavy focus on climate mitigation toward climate adaptation and resilience.

To tap into the opportunities presented by the EGD and mitigate potential risks, African countries must clearly articulate and assert their own climate transition agendas. They should outline their own climate change priorities, considering their resource endowments, historical legacies, development strategies, and geopolitical interests, while also presenting clear demands of the EU around specific aspects of the EGD. Elements of these transition agendas can include:

- **Updating geological surveys** of their endowments of fossil fuels, CRMs, and renewable resources to help attract foreign direct investment (FDI).
- **Strengthening market-creating instruments** by updating local content laws, policies, and regulations to reflect the low-carbon transition and to cover the specificities of CRMs.
- **Working closely with local private sectors to leverage new financial instruments** emerging in the context of the EGD toward job creation, skills upgrading, technology adoption, and investments in research and development to power local innovation.
- **Developing their own overarching climate action strategy** by finalizing the African Union's climate action plan; updating sector-specific strategies in areas

such as mining, biodiversity, the circular economy, and agriculture; and developing common positions on managing the energy transition, especially the various aspects of the oncoming fossil fuel obsolescence in Europe.

Research communities have a role to play as well. There are knowledge gaps where further study is needed: on generating better data and conducting in-depth forecasting, conceptualizing a just transition for Africa attuned to the continent's realities, examining how to avoid replicating the technology dominance and dependency of the oil and gas era, and advocating for clarity on the allocation of EU climate financing across industries, sectors, and countries.

The European Green Deal: A Vision to Combat Climate Change

The EGD is a roadmap for a socioecological transition to a low-carbon future and provides building blocks for a green economic strategy in Europe.¹ It comprises eight detailed policy areas (see appendix 1) as well as a European Climate Pact and a European Climate Law. The EGD aims to deliver on the European Commission’s vision to reach net zero emissions of greenhouse gases by 2050, decouple economic growth from resource use, and leave no person or place behind. The EU aspires to be the first mover in a global race to define new sustainability standards, develop green technologies, and establish future markets. As an intermediate step toward achieving the EGD objectives by 2050, the European Commission adopted on July 14, 2021, the Fit for 55 package of policy proposals to cut emissions by at least 55 percent from 1990 levels by 2030.²

The emerging path toward a net zero carbon future as outlined in the EGD matters greatly for African countries. The EU is the world’s third-largest economy after China and the United States, representing 16 percent of global gross domestic product (GDP) in purchasing power parity.³ It is also one of the three largest actors in international trade, accounting for 15.6 percent of global imports and exports.⁴ Therefore, reduced European demand for fossil fuels could depress global commodity prices, reduce the revenues of oil-dependent African countries, and disrupt their economies. At the same time, Europe’s transition to a green future could benefit African countries that have important “green” minerals, like cobalt and nickel, in abundance. As the EU is Africa’s largest trade partner—with a 28 percent share of both exports and imports with the continent—and is home to four of the ten economies that invested the most FDI in Africa between 2015 and 2019, Africa can expect other impacts as the EGD reshapes the EU economy, governance, and foreign policy.⁵

This paper seeks to identify the implications of key EGD components for African countries. This analysis draws on the European Commission's communications published under the banner of the EU Green Deal and other communications published in this context. The analysis is structured around seven main areas: agriculture, biodiversity, energy, CRMs, circular economy, new technologies, and finance.

BOX 1. Africa in the EGD: The Numbers at Stake

- The African continent exports 16.5 billion euros (\$19.6 billion) worth of agriculture produce to the EU, with agri-food making up 16 percent of EU-Africa trade.
- In 2019, oil exports represented the largest share of EU-Africa trade, with the EU importing 842,362 million barrels of crude oil worth 46.7 billion euros (\$55.7 billion) from African countries.
- Africa is the fastest-growing region of gas production at an average growth rate of 5.6 percent per year, and, according to the International Energy Agency, it is expected to account for 295 billion cubic meters of global supplies in 2025. Europe's gas import requirements will remain stable until 2025 and will rise thereafter to supplement declining domestic gas production.
- Green hydrogen FDI from Europe to Africa could reach 75.6 billion euros (\$90 billion) by 2030.
- Europe will mobilize 1 trillion euros in sustainable investment by 2030—a significant part of it on research and development, and some in partnership with African stakeholders through Horizon Europe.
- The EU's consumption of CRMs for batteries, fuel cells, wind turbines, and photovoltaic cells (PVs) in renewables and electric vehicles (EVs) will increase by a factor of four for graphite, five for cobalt, and eighteen for lithium by 2030 and by a factor of thirteen for graphite, fourteen for cobalt, and nearly sixty for lithium by 2050.
- The EU currently sources 28 percent of its barite needs from Morocco, 64 percent of bauxite from Guinea, 68 percent of cobalt and 36 percent of tantalum from the DRC, and about 90 percent of PGM from South Africa. Other countries, such as Zambia, Zimbabwe, and Ghana also have the potential to supply copper, PGM, and bauxite to the EU.
- With 28 percent of the world's registered patents in environmentally related innovations, the EU is a leader in the green technological transition.
- In 2018, the ten countries that received the most climate financing from EU institutions included only three in Africa, all of which— Cameroon (82 million euros or \$97 million), Egypt (208 million euros or \$247 million), and Morocco (429 million euros or \$510 million)—are middle-income countries.

Seven Implications of the EGD for Africa

New Agricultural Standards: Farm to Fork Strategy

The farm-to-fork strategy is a policy package that aims to promote an agroecological, healthy, and affordable food system in the EU. It is a cornerstone of the EGD. As part of the strategy, the EU seeks to promote new global food standards with the aim of becoming a standard setter for sustainability.⁶ Agriculture is one of the main export sectors in Africa: it absorbs about 50 percent of the labor force and accounts for 40 percent of GDP.⁷ Agri-food trade between Africa and Europe makes up approximately 16 percent of total exports trade with Europe, amounting to about 16.5 billion euros (\$19.6 billion). Cocoa makes up 33.4 percent of the trade, while edible fruits and nuts represent 24.3 percent.⁸

Requiring compliance with food regulations as a condition for accessing the EU market is a strong incentive for exporting countries to adapt to the EU's new standards.⁹ However, it will constitute an additional nontariff barrier for African countries. Currently, under the EU's Common Agricultural Policy (CAP), EU farmers receive up to 50 percent of their income as direct payments. This has, in part, helped to make the EU the leading global exporter of agri-food and given its farmers a competitive advantage over their African peers. Thus, new food regulations under the EDG will further burden African countries, since they do not enjoy the CAP subsidy and are already challenged with meeting European market rules of origin as well as sanitary and phytosanitary standards. As one of the core EU policies, the CAP is key to helping the union achieve its ambitions in the agricultural sector. The reformed CAP stipulates that 30 percent of the overall EU budget must contribute toward climate objectives.¹⁰ A study by the Center for Development Research in Germany suggests that stronger environmental and climate guidelines could dampen European agricultural exports to Africa.¹¹

The EU can nevertheless partner with Africa in its efforts to combat agroecological challenges. The African agricultural sector faces serious threats from both climate change and land degradation. If land degradation continues at the current pace, more than half of the cultivated agricultural area in Africa will be unusable by 2050.¹² African countries can adapt to and even combat the manifestations of climate change with the use of agroecological technologies. The EU can provide financial and technological assistance to complement Africa's effort. One avenue to channel such support can be through the African Union's Comprehensive African Agricultural Development Program, which aims to address Africa's agroecological threats and accelerate adaptation to new standards.¹³

NaturAfrica: The EU's African Biodiversity Strategy

The EGD's biodiversity strategy has at its core a net gain commitment to give back to nature more than is taken away. This principle commits the EU to putting at least 30 percent of the land and 30 percent of the sea in the EU under protection toward reversing biodiversity loss.

Biodiversity is one of the few policy areas in the EGD with a defined EU-Africa strategy. The EGD biodiversity strategy aims to establish green alliances with African partners and to launch NaturAfrica. This strategy seeks to protect wildlife and ecosystems while providing local populations with economic opportunities in green sectors. Europe also states its intention to strengthen the links between biodiversity protection and the role of Indigenous peoples and local communities.

NaturAfrica is a timely initiative for the African continent. As temperatures are expected to rise faster in Africa than in the rest of the world, it is estimated that climate change could result in the loss of over 50 percent of some birds and other animal species by 2100.¹⁴ Climate change could also result in 20 to 30 percent reductions in the productivity of African lakes, with serious impacts on the people whose livelihoods depend on the lakes' flora and fauna. In the Lake Chad region, for example, the impact of climate change has contributed to a significant deterioration of the natural ecosystem of the lake, thus helping to fuel violent clashes between herdsman and farmers as well as religious extremism.¹⁵

In designing and implementing NaturAfrica, Europe should align more closely with African realities and with the continent's own biodiversity priorities. These realities include the need to address what some civil society groups have described as longstanding problems of human rights abuses and land dispossession associated with a conservation approach.¹⁶ These problems persist in part because both host governments and external actors have various incentives to engage in activities that contribute to biodiversity loss. A leaked European Commission document details the NaturAfrica program's aim to promote global alliances, such as the new global coalition for biodiversity made up of national parks, aquariums, botanic gardens, zoos, and science and natural history museums.¹⁷ A global biodiversity strategy with this focus could further entrench problematic conservation strategies. Instead, efforts should be made to complement and reinforce existing initiatives on the continent. One of these is the Pan-African Action Agenda on Ecosystem Restoration for Increased Resilience, which was endorsed at the African Ministerial Summit on Biodiversity in November 2018 and which offers policy measures, cooperation mechanisms, and practical actions on land and ecosystem restoration in Africa.¹⁸

Energy: Shifting Demand From Fossil Fuels to Cleaner Sources

A central aspect of the EGD is a fundamental change to Europe's energy production and consumption in achieving critical objectives. These objectives include securing an affordable energy supply that meets the needs of European consumers and businesses. Scaling up the production and uptake of clean energy from renewable sources to replace fossil fuels toward the goal of climate neutrality by 2050 is another objective. Overhauling Europe's energy systems is crucial to the EGD, as energy production and consumption account for more than 75 percent of the EU's greenhouse gas emissions. Achieving these twin objectives will entail a European phaseout of oil by 2050, the use of natural gas as a transition fuel, and a stronger role for green hydrogen in the energy mix.¹⁹

Fossil fuel phaseout.

The European Commission's main strategy is to end consumption of fossil fuels, even as the EGD outlines different measures for restructuring the transport and energy sectors. In the energy sector, for example, coal will be rapidly phased out and replaced by renewables and decarbonized gas as a transition fuel.²⁰ In the transport sector, the commission will examine road pricing mechanisms, extend the European emissions trading system to the maritime sector, and reduce or eradicate emissions trading allowances and current tax exemptions for aviation and maritime fuels specifically.²¹ The EU is also planning to collaborate with global partners for the development of international carbon markets and to provide further financial incentives for fossil fuel phaseout.

The implications of an EU fossil fuel phaseout would be significant for African countries. In 2019, Africa supplied the EU28 (before Brexit) with more than 22 percent of its crude oil imports. This was 842.36 million barrels of oil, and it totaled 46.7 billion euros (\$55.7 billion) in revenue for African countries (see appendix 2). Crude oil exports to the EU and imports of refined petroleum products from the EU represent the largest share of import and export trade between Africa and the EU.²² As the EGD takes force, the nature and volume of this trade in crude oil and refined products will also change.

The volume of refined products that African countries could import from the EU will fall, but this is unlikely to adversely reduce energy use in Africa. The shortfalls can be offset by a ramp up of domestic refining capacity in Algeria, Angola, Egypt, Nigeria, and Uganda, among other countries, where more than twenty new facilities are set to begin production from 2022 onward.²³ Major oil exporters like Algeria, Libya, and Nigeria, which together account for more than 18 percent of Europe's crude oil imports (see appendix 2), are at risk of experiencing steep declines in their export revenues, however. Compared with Saudi Arabia's fiscal break-even price for 2021 of 64.01 euros (\$76.20) per barrel, Nigeria's high break-even price of 120.97 euros (\$144) per barrel means it will experience a decline in demand earlier than countries or regions with lower production costs.²⁴ Whether alternative markets in the East (like China and India) could step in to absorb the excess oil supplies from African producers remains unclear, as these Eastern countries also plan to reduce their carbon emissions. Additionally, Angola is the only African country that features among the top ten oil suppliers to China.²⁵

The fossil fuel phaseout is already causing declining investments in existing and new hydrocarbon projects in Africa. Nongovernmental actors and activist shareholders are intensifying efforts to stop all new upstream investments in coal as well as oil and gas projects in 2021. European development agencies and concessional lenders are under similar pressure, and in many cases they have already banned or set a date to end investment in upstream fossil fuels. For example, the EIB's 2019 Energy Lending Policy announced a total phaseout of all projects reliant on unabated fossil fuels, supporting only those projects grandfathered in through 2021.²⁶

Natural gas, however, remains a contentious gray area. A recent court ruling in the Netherlands ordered the world's top oil and gas trader, Royal Dutch Shell, to accelerate its transition plans by reducing greenhouse gas emissions by 45 percent by 2030 from 2019 levels.²⁷ The French oil giant Total has struggled to secure financing from European lenders for 2.9 billion euros (\$3.5 billion) for its East African Crude Oil Pipeline, which is aimed at transporting oil from the region to international markets via Tanzania, because of intense advocacy by environmental groups.²⁸

Gas as a transition fuel.

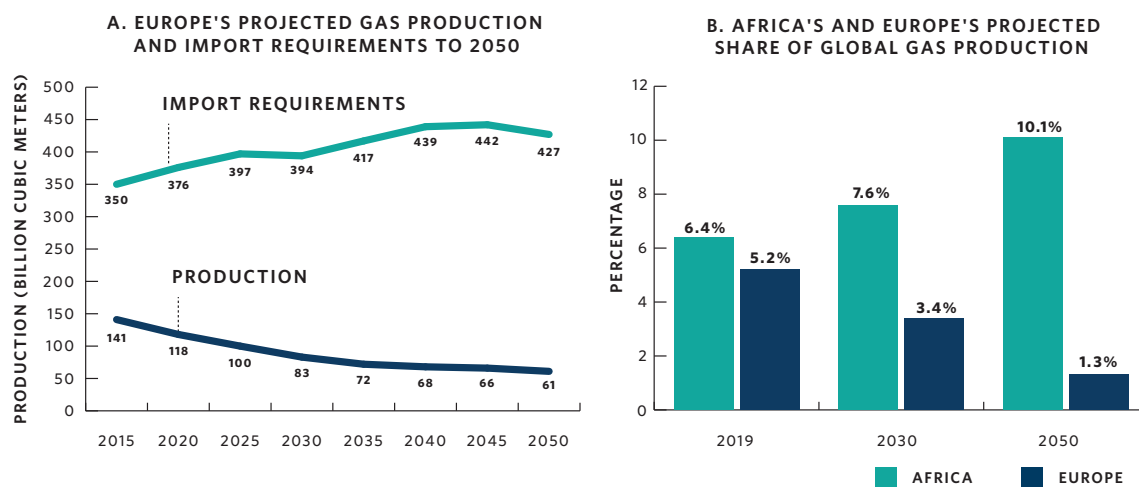
The EU's goal is to base its power sector on renewable energy sources, with decarbonized gas complementing the efforts as a transition fuel. For gas to serve this purpose and be viable in the medium term, decarbonization of its extraction, processing, and use will be necessary. There is already a debate on the feasibility of decarbonizing gas at scale.²⁹ Countries that are able to produce gas in cost-effective and commercially viable ways, even as renewable energy sources expand, could benefit during this transition phase.

Current debates appear to indicate that the gas phaseout will be much slower than that of oil in the EU. While gas production in the region has been falling and will maintain that trajectory—because of factors like the EIB's decision to stop supporting new fossil fuels, including natural gas projects, by the end of 2021—demand for gas has been stable, and gas will continue to be important to the energy demands of the steel, chemical, and heavy-duty transport industries in which immediate electrification is difficult. Figure 1 shows the different trajectories of gas production and import requirements between 2015 and 2050.

Rising gas import needs for Europe create short-term market opportunities for African countries with appropriate infrastructure in place. By 2050, Europe will have the lowest share of global gas production, largely because of production cuts in the northwestern countries of Norway, the United Kingdom, the Netherlands, and Denmark. Africa is the fastest-growing region of gas production at around 5.6 percent per year, and the continent is projected to supply about 295 billion cubic meters of gas in 2025.³⁰ By 2050, Africa's share of global gas production is projected to reach 10.1 percent, up from its 6.4 percent share in 2019, compared with Europe's 1.3 percent in 2050 (see figure 1b). In addition to Algeria, Nigeria, and Angola, which already export gas to Europe, other exporting countries could include Equatorial Guinea and new producers such as Mozambique and Tanzania.

As the EGD positions natural gas as a transition fuel, however, cost-intensive long-term investments could create various risks to African gas producers that are major suppliers to the European market. The risk that hydrocarbon assets become stranded in these African countries looms large. Then, of course, the environmental impact of sustained gas extraction on food and water security, as well as biodiversity, cannot be ruled out.

Figure 1. Projections on European and African Gas Production



Source: Sitowise, "Nord Stream 2 Annual Monitoring Report 2018," May 2019, <https://www.nord-stream2.com/media/documents/pdf/en/2019/06/nord-stream-2-environmental-and-technical-monitoring-annual-report-2018.pdf>; and Gas Exporting Countries Forum, "GECF Global Gas Outlook 2050 Synopsis," February 2021, https://www.gecf.org/_resources/files/events/gecf-to-unveil-latest-edition-of-flagship-publication-global-gas-outlook-2050/2020-edition-of-the-gecf-global-gas-outlook-2050.pdf.

Growing role for green hydrogen.

Green hydrogen, or hydrogen that is produced by employing renewable energy-based electricity such as water electrolysis, takes on a special role in the EGD. Countries with high solar and wind potentials could benefit from Europe's upcoming demand for green hydrogen and position themselves as suppliers. To support the development of a hydrogen industry in Europe, the EU has established the European Clean Hydrogen Alliance, whose strategy includes securing 40 gigawatts of hydrogen imports from non-EU countries by 2030.³¹

To build the necessary strategic partnerships, the EU and the African Union have launched interregional energy initiatives on African hydrogen potentials. The most notable is the Africa-EU Energy Partnership (AEEP). According to the AEEP, green hydrogen FDI in Africa from Europe could reach 75.6 billion euros (\$90 billion) by 2030. According to the AEEP's analysis, capturing even a modest market share could be transformative for African countries.³² By blending hydrogen with natural gas or converting the infrastructure, oil-producing countries could use parts of the existing infrastructure and energy partnerships to build up hydrogen production.

Some African countries are already developing strategies to capitalize on the opportunities to export green hydrogen to Europe. Morocco has established a National Hydrogen Commission and announced the development of its Green Hydrogen Roadmap.³³ In 2020, the commission signed a declaration of intent with Germany to finance the development of a project that the Moroccan Solar Energy Agency proposed to produce green hydrogen in

what will be Africa's first industrial green hydrogen plant research platform. South Africa has also established Hydrogen South Africa, a hydrogen research and development strategy, with the goal of spurring innovation along the entire hydrogen value chain, including fuel cell technologies. There is also a lively debate regarding how to ensure that South Africa becomes an exporter of green hydrogen, with investment in the development of blue hydrogen as a bridge to the carbon-neutral green hydrogen.³⁴ Member countries of the Southern African Development Community and the Economic Community of West African States have further partnered with the German government to look for viable candidates for green hydrogen production and export from Africa.³⁵

In the long term, demand for clean energy will increase opportunities for resource-rich countries in Africa and elsewhere to produce low-carbon secondary goods for export. With its rich iron ore resources and significant production potential for green hydrogen, Côte D'Ivoire could, for instance, increase its production of energy and material-intensive goods such as steel.

Exporting green hydrogen as a primary resource also comes with a set of risks, however. For example, reliance on imported technologies could reinforce technological dependence even as green hydrogen production heaps pressure on land and water resources.

Rising Demand for Critical Raw Materials

Even though the EGD envisions decoupling growth from resource consumption, it is critical to have access to new raw materials that are essential inputs in clean energy and technologies such as solar PV panels, wind turbines, battery storage, and EVs that require more minerals to build than their fossil fuel-based counterparts. These raw materials are crucial to realizing the energy strategies outlined in the EGD. Both the World Bank and the International Energy Agency project that growth in the use of low-carbon technologies will increase the demand for certain CRMs. To meet the goals of the Paris Agreement by 2040, for example, mineral demand for use in EVs and battery storage will grow at least thirty times. Demand for lithium will grow over forty times, while demand for graphite, cobalt, and nickel will grow by about twenty to twenty-five times. The expansion of electricity networks also means that copper demand for grid lines will more than double over the same period.³⁶

The EU lists thirty CRMs, some of which are present in Africa.³⁷ The EU currently sources 28 percent of its barite and 24 percent of phosphate rock needs from Morocco, 64 percent of its bauxite from Guinea, 68 percent of its cobalt and 36 percent of its tantalum from the DRC, and about 90 percent of its PGM from South Africa (see map 1). Ghana, Zambia, and Zimbabwe also have the potential to supply copper, PGM, and bauxite to the EU. The EU's consumption of such CRMs for batteries, fuel cells, wind turbines, and PVs in renewables and EVs will increase by a factor of four for graphite, five for cobalt, and eighteen for lithium by 2030 and by a factor of thirteen for graphite, fourteen for cobalt, and nearly sixty for lithium by 2050.³⁸

MAP 1. African Suppliers of CRMs to the EU



Source: Adapted from European Commission, "Critical Raw Materials Resilience: Charting a Path Towards Greater Security and Sustainability," COM/2020/474 final, September 3, 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0474&from=EN>.

Despite data gaps on resource reserves, it is evident that Africa possesses significant potential as a major supplier of CRMs.³⁹ African countries may experience increased demand for raw materials for green technologies as the EU seeks to reduce its dependence on Asian supply chains for the materials' sourcing and processing. These opportunities carry their own risks for the continent, however. Risks loom large of reproducing past extractive relationships in which African countries are consigned to the role of raw material suppliers without localizing benefits like high-skilled jobs that come from technology diffusion and developing manufacturing capacities. There could also be environmental and social consequences of material extraction in terms of pollution, habitat destruction, and resource depletion that exacerbate existing fragility. Finally, without proactive mitigation, the EU could export its own carbon emissions to these countries.

Creating a Circular Economy

To reduce dependencies and secure adequate CRM supply, the EU seeks to diversify its supplies, improve resource efficiency, substitute critical materials, and increase resource circularity. Beyond reducing resource dependencies, creating a circular economy—which is another key policy area of the EGD—aims to reduce material throughput by reusing and recycling materials. This strategy aims to reduce the adverse environmental impacts of processing materials on water and land resources while contributing to several other goals central to the EGD, which include reducing greenhouse gas emissions, increasing energy security, and reducing biodiversity loss. The circular economy action plan provides a guideline for all sectors, with action focusing on resource-intensive sectors such as textiles, construction, electronics, and plastics.

The European Commission also seeks to stop exporting waste outside of the EU. European and African waste markets are linked intricately. The reduction of waste trade could have a wide range of impacts, some negative, on African countries. Items sent to African markets are used either directly, after refurbishment, or as scrap materials. As such, economic activities in the industries and small businesses using these materials could be reduced by a circular reshaping of resource flows. Nevertheless, this could present new economic opportunities for some other sectors. Relocalizing part of the global value chains to African producers could strengthen the manufacturing sector, thereby opening new opportunities for African businesses to engage in higher-value activities. If this transition is well managed, it could have positive GDP effects driven by a combination of higher consumer spending, higher investment, and improvements in the trade balance. Existing African initiatives on the circular economy, such as the African Circular Economy Alliance, which was founded by Nigeria, Rwanda, and South Africa, can be built upon by both EU and African stakeholders.⁴⁰

Deployment of New Technologies

To keep production systems aligned with the climate neutrality objective, the EGD aims to develop the first commercial applications of breakthrough technologies and create

corresponding markets. The EGD thus seeks to foster the deployment of technologies and infrastructure such as smart grids, energy storage, carbon capture storage, carbon capture storage and utilization, clean hydrogen networks, and other alternative fuels.⁴¹

With 28 percent of the world's registered patents in environmentally related innovations coming from Europe, the EU is a leader in the green technological transition.⁴² Europe is home to leading wind turbine manufacturers as well as major players in green production, auto electrification, the circular economy, and hydrogen implementation.⁴³ Germany, in particular, is promoting green hydrogen and has a strong portfolio of electrolyzer producers such as Siemens, ThyssenKrupp, and Sunfire.⁴⁴ Having learned from its experience with PV manufacturing—a technology developed in Europe at a high cost but later produced at more competitive costs by China—the EU aims to maintain its green technology advantage in scaling commercial applications of its innovations.

As the low-carbon transition accelerates, African countries will be under pressure to adopt emerging green technologies, some of which are still very costly. Competition between producers, especially the EU and China, could nevertheless lead to early price decreases and provide African countries with opportunities to proactively negotiate skills, knowledge, and technology transfer as well as the localization of jobs around these new technologies. Partnership between Africa and Europe could drive down prices just by the sheer size of the combined markets, contributing to an economic global public good—if investments are carefully made. As part of its contribution to research and development, much of it technical, the EU has earmarked about 35 percent of Horizon Europe—its key research and innovation funding program from 2021 to 2027 that is worth €95.5 billion (\$113.5 billion)—as contributions to climate objectives. As some of the funding is designated for climate-related technology and policy projects in African countries, this has relevance for African stakeholders, especially the private sector and research communities.⁴⁵

Financing the European Green Deal

To achieve its 2030 emissions targets, the European Commission estimates that annual investments of 260 billion euros (\$309 billion) will be needed.⁴⁶ In total, the European Green Deal Investment Plan, also known as the Sustainable Europe Investment Plan (SEIP), aims to mobilize at least 1 trillion euros (\$1.1 trillion) in sustainable investments by 2030. One of the ways it aims to generate these investments is through the development of international carbon markets and the revision of the EU Emissions Trading System. Although the EGD does not outline a spending plan, the activities of the commission and the EIB illustrate how it distributes climate funds to developing countries, including those in Africa.

EU Emissions Trading System.

About 20 percent of the revenues from the EU Emissions Trading System will be allocated to the SEIP.⁴⁷ In total, nearly three-quarters of the SEIP will come from EU budgets and from the EIB, while at least a quarter will be mobilized from the private sector. To sustain

the flow of investment, the EGD aims to mobilize the public and private sectors. As green bonds will become increasingly important financing assets, the EU is looking to establish a uniform green bond standard within the EU. The European Commission has stated that the EU should partner with Africa on green finance.⁴⁸ For African countries, green bonds can present an opportunity to finance sustainability-driven investments from external sources. This is especially needed, as Africa's green bond market trails those of other regions.⁴⁹

Carbon Border Adjustment Mechanism.

Even though it is not strictly a financing mechanism, the CBAM will generate some revenue for the EU.⁵⁰ The main goal of CBAM, though, is to prevent carbon leakage by placing a carbon price on certain products imported into the EU. In the case of different ambition levels between the EU and its trading partners, the CBAM will not only prevent carbon leakage but also help Europe avoid negative effects on its domestic and international market competitiveness. The CBAM will thus allow the EU to protect itself against carbon leakage—either because companies are relocating their production to other regions or because European products are replaced by more carbon-intensive but cheaper imports—as well as generate additional revenues.

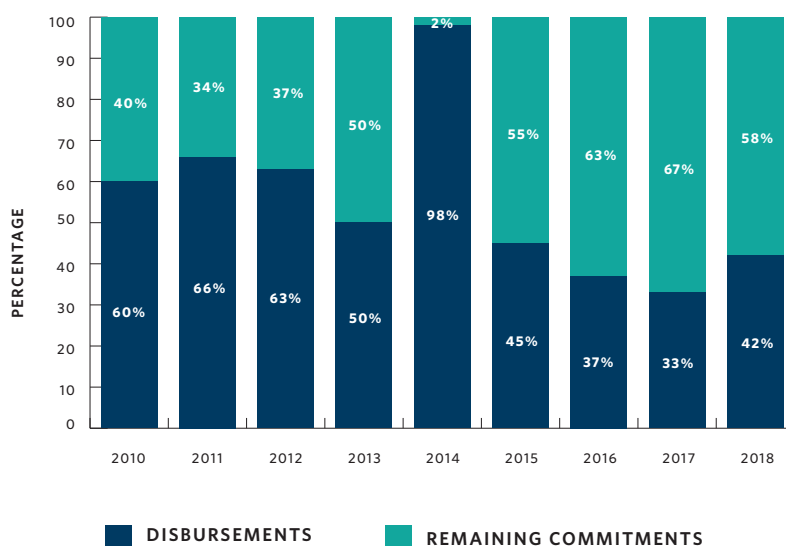
Efforts are being focused on ensuring that the CBAM adheres to World Trade Organization rules.⁵¹ As the mechanism could create unintended consequences, such as additional costs for exporters and attendant economic risks for African countries in particular, proactive risk mitigation measures should be taken. An study released by the United Nations Conference on Trade and Development on July 14 estimates that exports by developing countries would be reduced by 1.4 percent if the plan were implemented with a tax of \$44 per metric ton of CO₂ emissions.⁵² The African countries whose exports of aluminum, cement, iron, and steel will be exposed to impacts of the CBAM include Algeria, Egypt, Mozambique, and South Africa, according to the report.

Consultations with those to be affected by the CBAM are a good start. In a joint statement, the governments of Brazil, South Africa, India, and China identified the potential problems that a unilateral CBAM might create.⁵³ The concerns they raise will find resonance across other African countries.

Climate financing for Africa.

Although the EGD does not outline a spending plan, the separate climate financing activities of the EU via the European Commission and the European Development Fund, along with the EIB, are illustrative. These data provide limited insights for various reasons, including incomplete reporting by most countries (such as reporting either commitments or disbursements but not both). Furthermore, reporting by multilaterals, including EU institutions, is not standardized. The discrepancy between commitments and disbursements of climate finance from the EU (highlighted in figure 2) is one example of the consequence of such limited data. The rate of disbursement for 2010–2018 (shown in figure 2) was constructed using officially reported disbursements from the EU (not the EIB) compared with official

Figure 2. Rate of Disbursement of Climate Financing From the EU as a Percentage of Commitments, 2010–2018



Source: Act Alliance EU, “Falling Short: Seven Ways in Which the EU Should Improve its Climate Support to Developing Countries,” 2020, <https://actalliance.eu/wp-content/uploads/2020/09/Falling-Short-Seven-ways-in-which-the-EU-could-improve-its-climate-support-to-developing-countries.pdf>.

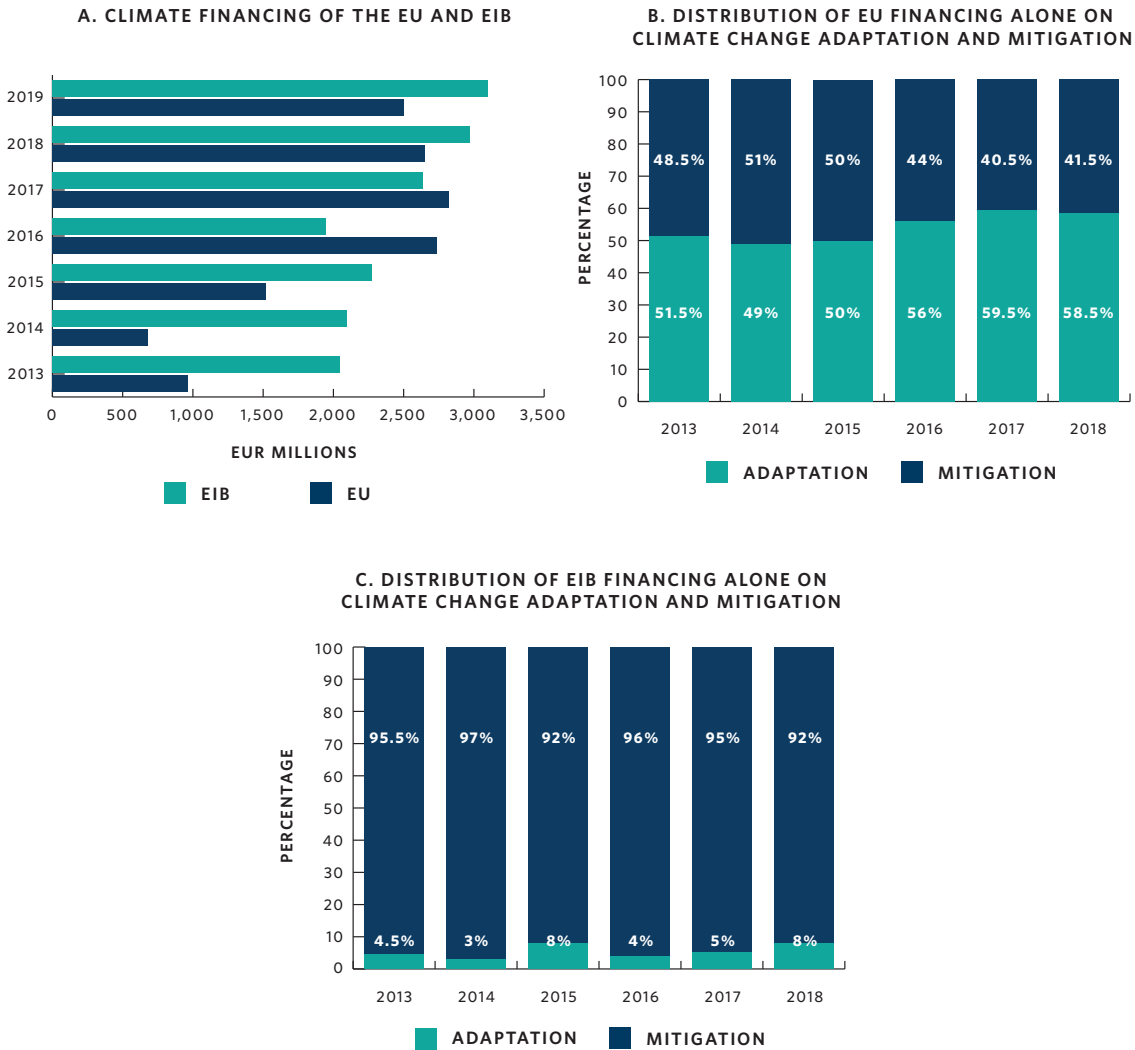
commitments, although the total disbursement figures are likely not comprehensive. The actual rate of disbursement is likely higher than what is shown in figure 2, though the lack of proper reporting makes it difficult to ascertain the exact amount and can undermine trust.

The EU has so far provided grant funding. For example, the Global Climate Change Alliance Plus initiative for least developed and small island countries has provided 737.5 million euros (\$872.8 million) over its first and second phases (2007–2014 and 2014–2020, respectively). The EIB, on the other hand, has done its financing via nonconcessional loans. Furthermore, in the EU’s new long-term budget, about 30 percent of the 79.46 billion euros (\$94 billion) earmarked for 2021–2027 will be devoted to scaling up efforts on climate change, although further details are not provided.⁵⁴

A breakdown of the distribution of climate financing from the EU and the EIB to all developing countries in 2013–2019 yields four important insights. First, grant financing has been leveling off, at around 5.7 billion euros (\$6.7 billion) per annum from 2017 into 2019 (see figure 3a). In the EU, this climate financing is increasingly being integrated with official development assistance.⁵⁵ Second, most of the climate financing by the EIB is in the form of loans at market rates rather than grants. Other than 7 percent equity (counted as grant equivalent), all of the EIB’s activities are loan based, and of those loans, only 8 percent are concessional; the total grant equivalence share for the EIB’s financing in 2018 was 11 percent, according to ACT Alliance EU. Third, there is a disproportionate focus on financing mitigation measures, despite urgent needs to support developing countries in building

their adaptability and resilience to climate change. Nearly 60 percent of EU funds go to climate mitigation. The volume and distribution of this financing are insufficient to meet the vast needs of developing countries on climate action. For example, a climate change–related drought is already evident in the southern areas of Madagascar, causing severe hunger and resulting in people subsisting on wild leaves, locusts, and raw red cactus fruits.⁵⁶

Figure 3. Climate Financing of the European Commission and the European Investment Bank



Source: Act Alliance EU, “Falling Short: Seven Ways in Which the EU Should Improve its Climate Support to Developing Countries,” 2020, <https://actalliance.eu/wp-content/uploads/2020/09/Falling-Short-Seven-ways-in-which-the-EU-could-improve-its-climate-support-to-developing-countries.pdf>; and European Commission, “International Climate Finance,” accessed October 8, 2021, https://ec.europa.eu/clima/eu-action/international-action-climate-change/international-climate-finance_en.

Table 1. Top Ten Recipient Countries of Climate Finance From EU Institutions, 2018

Recipient Country	Total Received in 2018 (millions of euros)
India	430
Morocco	429
Serbia	320
Turkey	244
Egypt	208
Argentina	155
Ukraine	119
Uzbekistan	115
Bangladesh	110
Cameroon	82

Source: Act Alliance EU, "Falling Short: Seven Ways in Which the EU Should Improve its Climate Support to Developing Countries," 2020, <https://actalliance.eu/wp-content/uploads/2020/09/Falling-Short-Seven-ways-in-which-the-EU-could-improve-its-climate-support-to-developing-countries.pdf>.

Finally, EU climate financing disproportionately goes to middle-income countries rather than low-income economies. In 2018, only 14 percent of climate financing from EU institutions (including the commission, European Development Fund, and the EIB) went to the least-developed countries, compared with 23 percent to upper-middle-income countries. Interestingly, three European countries were among the top ten recipients of climate finance from EU institutions in 2018 (see table 1). Only three of the ten were in Africa: Morocco, Egypt, and Cameroon, which received, respectively, 429 million euros (\$510 million), 208 million euros (\$247 million), and 82 million euros (\$97 million). The large gap between the financing received by Egypt and by Cameroon alone highlights the need for setting new modalities for providing more climate financing to Africa.

Policy Recommendations

The EGD presents policies and visions for a transition to a green economy in Europe. While it is mainly an internal policy instrument, its significant potential global impacts make it effectively a foreign policy strategy that affects African countries. The strong economic and historical ties with the African continent ensure that the reorganization of European markets for agriculture, fossil fuels, and other natural resources envisioned by the EGD will

affect Africa. These impacts will occur through the channels of Europe's financial muscle, technologies, and standards; the EU (which then included the United Kingdom) provided 21.9 billion euros (\$25.9 billion) in official development aid to Africa in 2019.

Yet these outcomes are not predetermined. In fact, the EGD offers the promise of overhauling EU-Africa relations toward a mutually beneficial partnership. To realize this promise, Europe would have to treat African countries as partners, consult African stakeholders on the elements of the EGD that could disrupt the continent's economies and development priorities, and deploy European financing and technologies in a sustainable manner. African countries, for their own part, must also prepare for such a partnership on the EGD, rather than for aid dependency, by taking steps individually and collectively.

Reorienting EU-Africa Relations Toward Partnership and Sustainability

The transition envisioned in the EGD offers the promise of overhauling EU-Africa relations from the donor-recipient orientation of the past toward a mutually beneficial partnership—if the right steps are taken now. These steps include:

- **Forging genuine partnerships in sourcing raw materials and energy supplies from Africa by building industrial capacity, localizing value chains, and sharing technologies.** These include tapping into Africa's high solar radiation and wind energy potentials, geographical proximity to Europe, and longstanding energy supply relations.⁵⁷ Agriculture, biodiversity protection, the circular economy, and clean energy technologies are further areas in which useful EU-Africa partnerships can be built around upgrading knowledge and skills, localizing value chains, and strengthening industrial capacity. Specifically, clean energy hardware industries such as battery and solar PV manufacturing plants can be set up in mineral-rich countries like the DRC as the EU tries to shift away from Chinese supply chains.
- **Aligning areas of the EGD that directly affect Africa with the continent's own development priorities.** This alignment would help determine whether the EGD fulfills its promise of reorienting EU-Africa relations and prevents policy imposition. European decisionmakers should therefore consult African stakeholders on their aspirations and plans as outlined in continent-wide, subregional, or domestic policy documents. These include the AU's Comprehensive African Agricultural Development Program on agroecological threats, the Pan-African Agenda on Ecosystem Restoration for Increased Resilience on protecting biodiversity, and the Africa Mining Vision on mineral resources. Overall, Europe should not use its financial muscle and technological standards to impose its foreign policy and geopolitical interests that are at odds with Africa's own development aspirations.

- **Matching the EU’s stated principles to promote sustainability with increased climate financing to Africa provided at concessional rates and oriented toward adaptation.** Climate financing should be conducted separately from the provision of official development assistance. Integrating climate financing with this assistance risks ignoring the existing development challenges in poor countries, with consequences for overall well being on the African continent. To avoid burdening Africa’s low-income countries with unsustainable debt, more of the EU’s climate financing should be packaged in the form of grants; for instance, the grant equivalence share of financing from the EIB can be scaled up to at least 50 percent. If loans are necessary, they should be provided at highly concessional rates. This allocation of climate finance to Africa should be rebalanced from its current heavy focus on climate mitigation toward climate adaptation and resilience. This can include resilient transport infrastructure, forest and soil conservation, and stronger natural resource management, as the EU’s Global Climate Change Alliance Plus has already achieved in Togo and Tanzania.⁵⁸ Africa’s emissions of greenhouse gases are still a fraction of those of developed countries.

Positioning African Countries to Assert Their Climate Transition Agendas

To tap into the opportunities presented by the EGD and to mitigate potential risks, African countries must clearly articulate and assert their own climate transition agendas. They should, individually and collectively, outline their climate change priorities considering their resource endowments, development strategies, historical legacies, and geopolitical interests, while also presenting clear demands of the EU around specific aspects of the EGD that affect them. Some elements to make up these transition agendas can include the following.

- **Update geological surveys of resource endowments.** African countries should map and update their resource reserves for fossil fuels, CRMs, and renewables. They can also tap into development partners in these processes. An example is the ongoing H2Atlas-Africa, a joint project between countries in the Economic Community of West African States and Southern African Development Community and Germany’s Federal Ministry of Education and Research to explore green hydrogen production potentials in the subregions. Resource mapping can help attract FDI flows and help position African countries to capture some market share for green hydrogen supplies to Europe and some of the estimated 75.6 billion euros (\$90 billion) worth of investments.
- **Strengthen market-creating instruments.** African countries should update local content laws, policies, and regulations to reflect the low-carbon transition and to cover the specificities of CRMs and renewable resources like green hydrogen. An agenda to update local content requirements should aim to achieve, among other objectives, knowledge, skills and technology transfer, the localization of jobs, and forward and backward linkages to the rest of the economy.

- **Secure financing for innovation and industry.** African policymakers should work closely with the local private sector to leverage new financial instruments emerging in the context of the EGD toward job creation, skills upgrading, and technology adoption. Such collaborations can also secure funding for vital research and development to power local innovation.
- **Update national and regional strategies.** Finally, African countries should develop their own overarching vision around climate action. At the continental level, it is imperative to finalize the African Union's climate action plan, which sets common principles for member states. Sector-specific strategies in areas such as mining, biodiversity, the circular economy, and agriculture should be updated. Africa should also develop common continent-wide or subregional positions on managing the energy transition, especially the various aspects of the oncoming fossil fuel obsolescence in Europe.

Knowledge Gaps

While this paper has identified some of the possible implications that the EGD will have for Africa and how it could reshape EU-Africa relations, some significant knowledge gaps remain and further research is needed.

- **Generating better data on relevant sectors and conducting in-depth forecasting.** This will entail quantifying and modeling the highlighted issues at continent-wide, subregional, and country levels toward helping policymakers have a clear understanding of what is at stake. Specific topics can include modeling CBAM impacts on agriculture, oil and gas, and merchandise exports from African countries to the EU; generating better data on climate financing; and quantifying changes to investment flows in hydrocarbons and CRM projects due to shifting European demand.
- **Conceptualizing a just transition for Africa.** African scholars and decisionmakers should design a just climate transition attuned to the continent's realities to provide a framework for domestic policies and relations with external partners, such as the EU. Such a conceptualization would marry Africa's development needs around quality jobs, sustained growth, and economic transformation with addressing climate change.
- **Avoiding new technology dependencies.** Extensive research is needed to examine how to avoid replicating the technology dominance and dependency of the oil and gas era, especially around hydrogen and CRMs.

- **Transparency on the allocation of EU climate financing.** There should be more publicly available information on the mobilization and allocation of EU climate financing across industries, sectors, and countries in comparison to commitments under the 2015 Paris Agreement. In-depth assessments of the risks and opportunities of Eurobonds for African countries will also be necessary. Further research can help outline steps to de-risking African economies to attract investments in gas projects that involve decarbonized production and green hydrogen, among other areas.

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Abbreviations

AEEP	Africa-EU Energy Partnership
CAP	(EU) Common Agricultural Policy
CBAM	(EU) Carbon Border Adjustment Mechanism
CRM	critical raw material
DRC	Democratic Republic of the Congo
EGD	European Green Deal
EIB	European Investment Bank
EU	European Union
EVs	electric vehicles
FDI	foreign direct investment
GDP	gross domestic product
PGM	platinum group metals
PVs	photovoltaic cells
SEIP	Sustainable Europe Investment Plan

Appendix 1: EGD Policy Areas

Biodiversity

European Commission, “EU Biodiversity Strategy for 2030: Bringing Nature Back into Our Lives,” 2020, <https://benoit-biteau.eu/wp-content/uploads/2020/05/BDS-Leak-15052020.pdf>.

Clean Energy

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Critical Raw Materials

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Farm to Fork

European Commission, “A Farm to Fork Strategy for a Fair, Healthy and Environmentally-Friendly Food System,” COM/2020/381 final, 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0381&from=EN>.

Sustainable Agriculture

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Sustainable Investment

European Commission, “Sustainable Europe Investment Plan,” COM/2020/21 final, January 14, 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0021&from=EN>.

Appendix 2: Crude Oil Imports and Deliveries in the European Union (EU28) in 2019

Region	Country of Origin	Volume (1,000 barrels)	Total Value (\$1,000)	CIF Price (2) (\$/barrell)	Percent of Total Imports
Africa	Algeria	136,117	8,878,235	6,522,509,926	3.56
	Angola	52,238	3,483,967	6,669,363,075	1.37
	Cameroon	12,601	825,637	6,552,250,461	0.33
	Congo	2,775	163,375	588,737,045	0.07
	Congo (DR)	1,852	114,306	6,172,439,024	0.05
	Egypt	34,521	2,228,398	6,455,145,433	0.90
	Gabon	5,873	374,410	6,375,205,435	0.15
	Libya	246,860	16,100,623	6,522,175,414	6.46
	Nigeria	309,172	20,914,284	6,764,603,269	8.10
	Other African Countries	36,414	2,381,774	6,540,773,412	0.95
	Tunisia	3,939	253,107	6,425,649,517	0.10
Africa Sum:		842,362	55,718,114	6,614,506,225	22.06
America	Argentina	935	57,866	6,190,922,124	0.02
	Brazil	32,650	1,964,776	6,017,712,625	0.86
	Canada	31,265	2,001,144	6,400,520,551	0.82
	Colombia	8,808	535,201	6,076,439,398	0.23
	Mexico	69,460	3,836,795	5,523,749,995	1.82
	Other Latin American countries	773	46,339	5,993,248,653	0.02
	United States	283,810	18,354,212	6,467,087,966	7.43
	Venezuela	33,924	1,742,459	5,136,399,097	0.89
America Sum:		461,624	28,538,792	6,182,257,239	12.09
Europe	Norway	396,160	25,954,325	6,551,482,081	10.37
	Other European countries	8,711	508,225	5,834,469,576	0.23
Europe Sum:		404,870	26,462,550	6,536,055,652	10.60
Former Soviet Union	Azerbaijan	163,506	11,104,764	6,791,641,087	4.28
	Kazakhstan	292,236	18,452,405	6,314,203,279	7.65
	Other FSU countries	21,909	1,438,688	6,566,526,277	0.57
	Russian Federation	969,918	61,683,032	6,359,610,475	25.40
	Ukraine	581	38,698	666,150,933	0.02
Former Soviet Union Sum:		1,448,152	92,717,586	6,402,478,149	37.92
Middle East	Iraq	333,618	20,410,547	6,117,936,477	8.74
	Kuwait	38,515	2,394,222	6,216,416,407	1.01
	Saudi Arabia	287,829	18,395,509	6,391,134,355	7.54
	Syria	107	6,765	6,322,429,907	0.00
	Yemen	1,425	94,339	6,619,018,151	0.04
Middle East Sum:		661,493	41,301,383	6,243,656,704	17.32
World		3,818,502	244,738,424	6,409,278,567	100,

Source: European Commission, Directorate-General for Energy, "EU Crude Oil Imports and Supply Costs," accessed September 29, 2021, https://ec.europa.eu/energy/data-analysis/eu-crude-oil-imports_en?redir=1.

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- 9 Examples of these food regulations include those on aflatoxins and other contaminants, flavorings, additives, and novel foods. Regulations on aflatoxins and other contaminants, for instance, set maximum levels to those that are achievable with good agricultural or fishery practices while also allowing for higher levels of aflatoxins after sorting and only if the items being imported are not intended for human consumption. For

flavorings, regulations state that only ingredients that are regarded as safe for human health by available scientific evidence—and that do not mislead consumers—can be added to food, while substances like agaric acid, aloin, and quassin, which do not meet the requirements, should never be added to foods. For additives, regulations state that aside from being safe for human health and not misleading to consumers, additives should be added to food only if there is a technological reason for them and if it has been proven that the need cannot be met by other means. Novel foods include those that have not been consumed in the EU prior to 1997 and those that are obtained from innovative production processes. https://ec.europa.eu/info/sites/default/files/food-farming-fisheries/farming/documents/agrifood-africa-all-countries_en.pdf.

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