



TRADE & INDUSTRIAL POLICY STRATEGIES

THE EUROPEAN GREEN DEAL (EGD) AND ITS IMPLICATIONS FOR AFRICAN TRADE

WORKING PAPER

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EXECUTIVE SUMMARY

The European Union (EU) is Africa's largest trading group, representing over 35% of African exports and 26% of African imports in 2022. A global climate change policy that will affect trade between the two continents is the European Green Deal (EGD), adopted in 2019 to make Europe the first climate neutral continent in the world.

The EGD is a multifaceted policy instrument that affects every sector/industry and everyone. Some of the key sectors that will be affected as the result of full implementation of the EGD include agriculture, forestry, fossil fuels, manufacturing of hard to abate sectors, light manufacturing, energy, water, transport, and waste sectors. As the EGD is accelerating policy implementation to realise the 2050 goal of climate neutrality, these industries will become highly exposed and vulnerable. About US\$135 billion of African exports are exposed due to the European Green Deal. This represents 84% of all African goods exported to the EU, representing 25% of all African exports to the World and 5% of Africa's total GDP.

Within this context, Africa need to react to the introduction of these climate-trade policies, or the development of the continent will continue to suffer at the expense of policies introduced elsewhere. First, the continent needs to advance climate-resilient developmental regionalism, through the creation of an African green industrial policy. This policy can be administered by the African Union (AU) and the African Continental Free Trade Area (AfCFTA). This policy tool will encourage green industrialisation across the continent.

Second, the continent needs to establish a regional carbon market to leverage the biodiversity and availability of high-quality carbon credits on the continent. This market can be used to collect revenue to finance climate action on the continent. Also, the market can be used to get carbon border tax incentives, such as a carbon border tax discount for exporting goods covered under the the carbon border adjustment mechanism (CBAM) into the EU.

Third, the continent needs to advocate for the use of debt for climate swaps. The low historical contribution of the continent to global greenhouse gas (GHG) emissions, and the debt of the African continent that threatens the development of the continent needs to be considered. The Global North countries, which are the biggest creditors to African governments, can swap their debt in African governments for the African governments investing in climate action. This will form part of the Global North countries' climate responsibility.

An overarching recommendation is the need to capacitate the entire African continent in climate action tools, mechanisms, and technologies. Dedicated mechanisms need to be developed to achieve technological transfers and capacity building in the continent.

In parallel, the continent needs to support the reform of multilateral systems. This can be done in two parts, the reform of the World Trade Organization (WTO), and the reform of the global financial system. As a start, the African Group at the WTO can start negotiations to reform the WTO to ensure climate compatibility of global trade, which will catalyse opportunities for the African continent. Africa, as well as other developing countries, need to coordinate the need for a fair global financial system. This will include the inclusion of climate change within the missions of the global financial system and create new rules for new money (climate finance).

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ABBREVIATIONS

AfCFTA	African Continental Free Trade Area
AU	African Union
CBAM	Carbon Border Adjustment Mechanism
CBDR-RC	Common but Differentiated Responsibilities and Respective Capabilities
EC	European Commission
EGD	European Green Deal
EPA	Economic Partnerships Agreement
ETS	Emission Trading System
EU	European Union
GATT	General Agreement on Tariffs and Trade
GEC	General Economic Co-operation
GHG	Greenhouse Gas
GSP	Generalised System of Preferences
ICE	Internal Combustion Engine
IRA	Inflation Reduction Act (United States)
JETP	Joint Energy Transition Partnership
JTM	Just Transition Mechanism
LNG	Liquefied natural gas
MFN	Most Favoured Nation
MRV	Monitoring, Reporting and Validation
RECs	Regional Economic Communities
SITC	Standard International Trade Classification
S&DT	Special and Differential Treatment
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UNFCCC	United Nations Framework Convention on Climate Change
UN	United Nations
US	United States
WTO	World Trade Organization

1. INTRODUCTION

The European Green Deal is a set of policy initiatives by the European Union with the overarching aim of making Europe the first continent to reach climate neutrality by 2050.

The EGD aims to accelerate the transition to a low-carbon economy across the European continent. It consists of a set of legislations, some of which are still being negotiated, while others have been approved. The legislation is both sectorial and cross-cutting, and affects global trade between Europe and the rest of the world.

The EU is Africa's largest trading group, with more than 35% of exports and 26% of imports in 2022. However, African trade with the EU is minimal constituting about 2.2% of all European Union trade. Consequently, the EGD, which aims to accelerate the pace of decarbonisation in the European economy and abroad, represents both a threat and an opportunity to African exports. While risks and exposure to the EGD differ country by country across the African continent, developing economies, especially most African countries, despite their low contribution to worldwide greenhouse gas (GHG) emissions remain vulnerable and highly exposed to the introduction of the green deal.

The purpose of this study is to analyse the implications of the European Green Deal on African trade. The objectives include understanding the EGD in the African context, and analysing affected African traded commodities and the implications that stem from its introduction. The methodology included a desk review, document analysis, and conducting extensive data analysis using an exposure and vulnerability methodology.

To effectively consider the impact of the EGD on African trade, this study proposes several policy responses. First, it is crucial for the African continent to adopt a regional approach in developing strategies that allow climate compatibility for industries. This can be achieved through the creation of what can be called an African green industrial policy, bearing in mind the specific needs and challenges of the continent. In addition, African countries should consider introducing climate change mechanisms and tools, including carbon markets and incentives for decarbonisation, such as investments in renewable energy technologies.

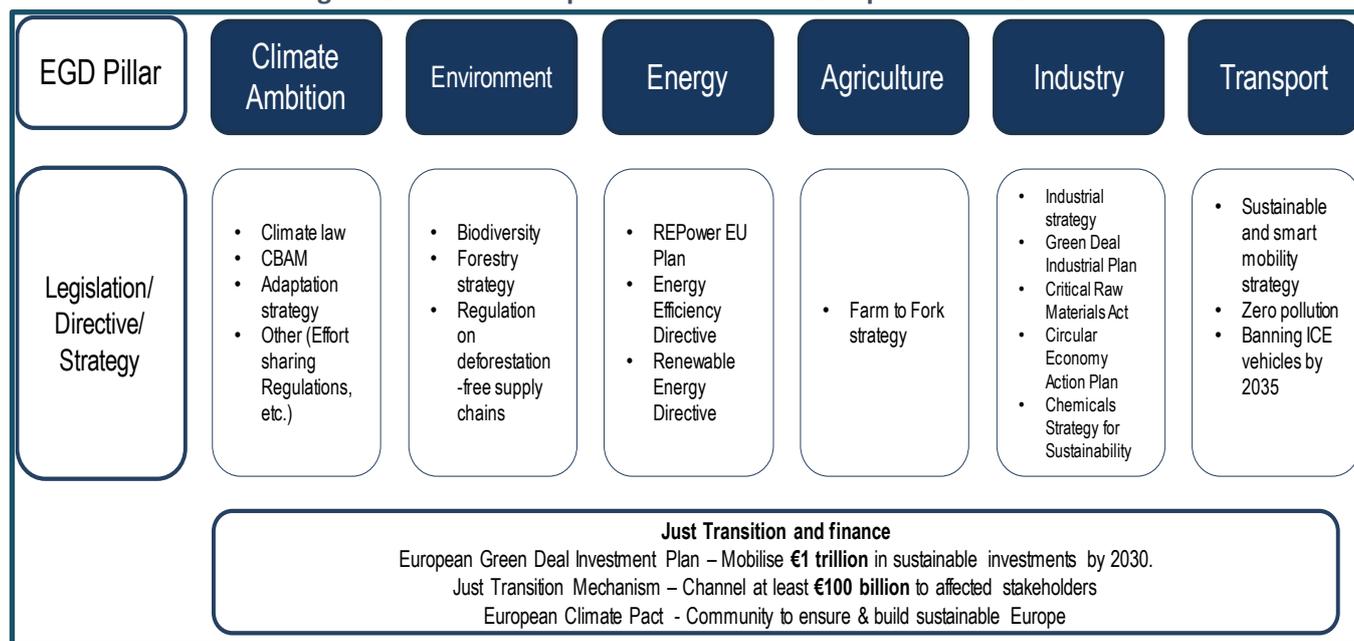
Furthermore, the study emphasises that Africa and developing economies should start negotiations to reform multilateral systems, considering the political economy issues. These negotiations should aim to allow fair trade and alliances to reform the global financial system, amid the need to create green/sustainable competitive economies. At the same time, capacity building and technical assistance is highlighted as an important lever to allow the continent to be globally competitive. This will accelerate global climate neutrality and make African economies globally competitive.

This study has five parts. The first part provides an overview of the European Green Deal, and the second part highlights how Africa trades with the EU. The third part highlights the implications for African trade. The remaining two parts examine international responses – what other countries are doing to respond to the EGD and their implications for Africa; and suggested policy responses the African continent can pursue to limit its exposure and vulnerability to any negative trade effects of the EGD.

2. UNDERSTANDING THE EUROPEAN GREEN DEAL

In 2019, the European Union adopted the European Green Deal in response to COVID-19 and climate change. The stated aim of the Green Deal is to “transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use”. The European Green Deal also aims to “protect, conserve and enhance the EU’s natural capital, and protect the health and well-being of its citizens from environment-related risks and impacts, at the same time, ensuring the transition is just and inclusive” (European Commission, n.d.).

Figure 1. Schematic representation of the European Green Deal



Source: Author’s representation.

Figure 1 provides an overview of the EGD. The aim to accelerate the transition to a low-carbon economy across the EU is supported by a number of pillars: increasing the EU’s climate ambition for 2030 and 2050; supplying clean, affordable, and secure energy; mobilising industries for a clean and circular economy; building and renovating in an energy and resource efficient way; accelerating the shift to sustainable and smart mobility; creating a healthy and environmentally friendly food system; preserving and restoring ecosystems and biodiversity; and creating a zero-pollution ambition for a toxic-free environment.

These core pillars are underpinned by the acceptance of the just transition of leaving no one behind and financing the transition. Underpinning these principles, the EGD seeks to make Europe a global leader for climate action. This is supported by the European Climate Pact (a movement of people across different backgrounds (including civil society, labour, and the private and public sectors) united around a common cause, each taking steps to build a more sustainable Europe, as well as the need to mobilise research and foster innovation.

These policies and directives, including strategies, are briefly outlined in the Appendix. This provides a summary of what the EGD entails, despite the complexities and difficulties around exactly what is included in the EGD.

The European Green Deal acknowledges that trade between the EU and the world will be affected by the policy measures the EU is taking for climate action. These policies include, among others, carbon

border taxes for hard-to-abate sectors; setting compliance standards for agricultural products; incentivising the decarbonisation of toxic industries (such as banning internal combustion engine (ICE) vehicles); and investing heavily in renewable energy sources. These policies have risks covering a wide variety of new and existing regulations, adding additional complexity to issues like labelling and control standards, while rolling out new considerations such as the need for the progressive transformation of hard-to-abate sectors (Wood, 2021).

The risks arising from the EGD fall under the following: (1) new and more stringent product standards; (2) a lack of alignment between participation structures; (3) shifting demand patterns; and (4) the compression and fragmentation of value chains.

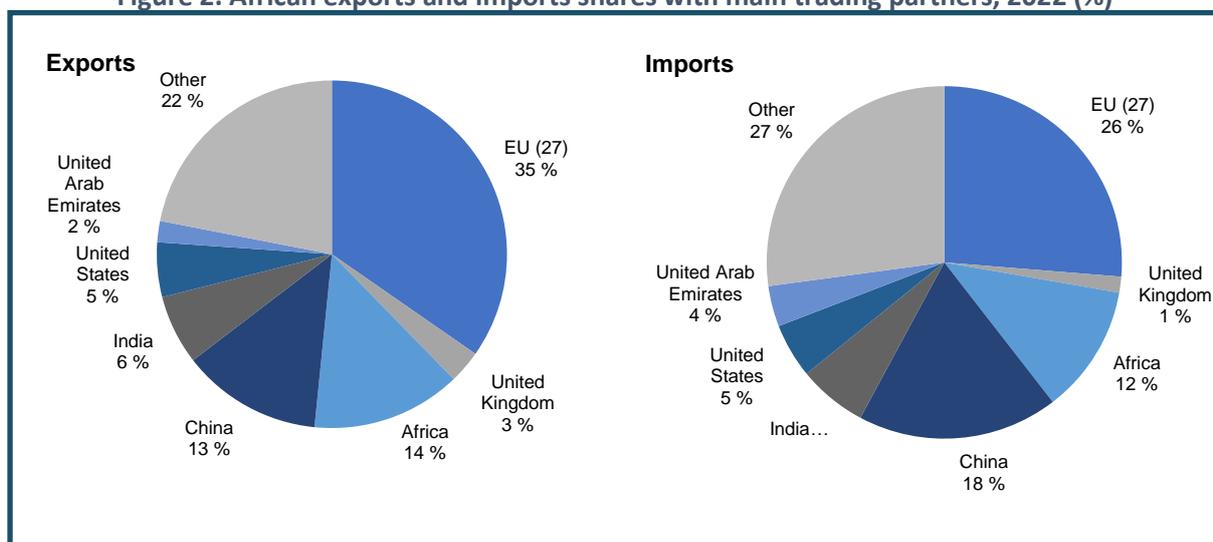
In Africa, the export basket is mainly dominated by primary goods, mainly fossil fuels, and agricultural goods. In other parts of Africa, this is dominated by manufactured goods, depending on the level of industrialisation. Africa will feel the effects of the full implementation of the EGD through both tariff and non-tariff measures. The impact will be different in countries and industries across the continent. The EU CBAM, regulation on deforestation-free supply chains, the Farm to Fork Strategy, the EU Chemicals Strategy for Sustainability, the banning of ICE vehicles by 2035, the industrial policy underpinned by the Critical Raw Materials Act, and the Circular Economy Action Plan, among other policy measures, are explored in this study. The impact of these policy instruments in Africa is outlined in Section 4. The following section outlines how Africa trades with the EU.

3. AFRICA–EU TRADE

3.1 Overview

In 2022 Africa’s exports to the rest of the world were US\$661 billion, accounting for only 2.7% of global exports. Total imports amounted to US\$694 billion in 2022, accounting for 2.8% of global imports. Consequently, Africa had a negative trade balance of US\$33 billion in 2022. Despite the African continent’s relatively low trade performance on the global stage, the EU is Africa’s biggest trading group. This highlights that any policy the EU introduces will affect Africa. In 2022, total African exports to the EU reached US\$230 billion, while imports accounted for US\$183 billion. The EU constituted more than 35% and 26% of the total value of African exports and imports, respectively. Despite the EU being a significance trading partner with Africa, Africa’s trade proportion in the EU reflects only 2.2% of total EU imports (MacLeod and Luke, 2023).

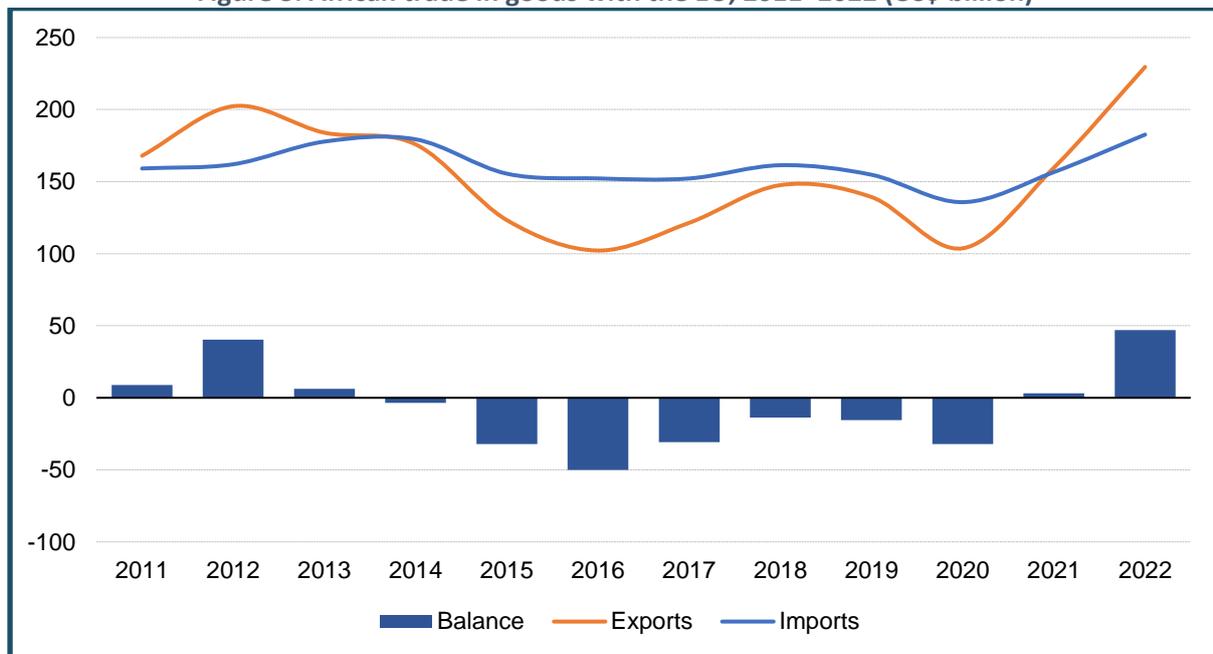
Figure 2. African exports and imports shares with main trading partners, 2022 (%)



Source: Adapted from Trade Map (2023), Bilateral trade between Africa and EU (27), United States, United Arab Emirates, India, China and the United Kingdom.

Trade between Africa and the EU from 2011 to 2022 (see Figure 3) shows a consistent underperformance for Africa. On average, trade between Africa and the EU deteriorated over this period. Exports declined by 0.5% from 2011 to 2022. Imports also declined – by 0.2% from 2011 to 2022. The trade balance worsened by 10% in the same period. Since 2014, Africa has been importing more from the EU than it is exporting. However, post-COVID-19, Africa’s trade performance started to improve. This is seen from 2021, when Africa started experiencing a positive rebound, resulting in a trade surplus.

Figure 3. African trade in goods with the EU, 2011–2022 (US\$ billion)



Source: Adapted from Trade Map (2023), Bilateral trade between Africa and EU (27).

The growth in African trade with the EU in 2022 can be attributed to the overall global trade recovery, driven by increased demand in fossil fuels such as coal, natural gas, and oil, amid the Russian invasion of Ukraine. In addition, sectors such as textiles, art (collectors’ pieces and antiques), lead (mainly used for paint, ceramics, pipes and plumbing materials, solders, gasoline, batteries, ammunition, and cosmetics) and musical instruments contributed to the upsurge of exports traded between Africa and the EU in 2022.

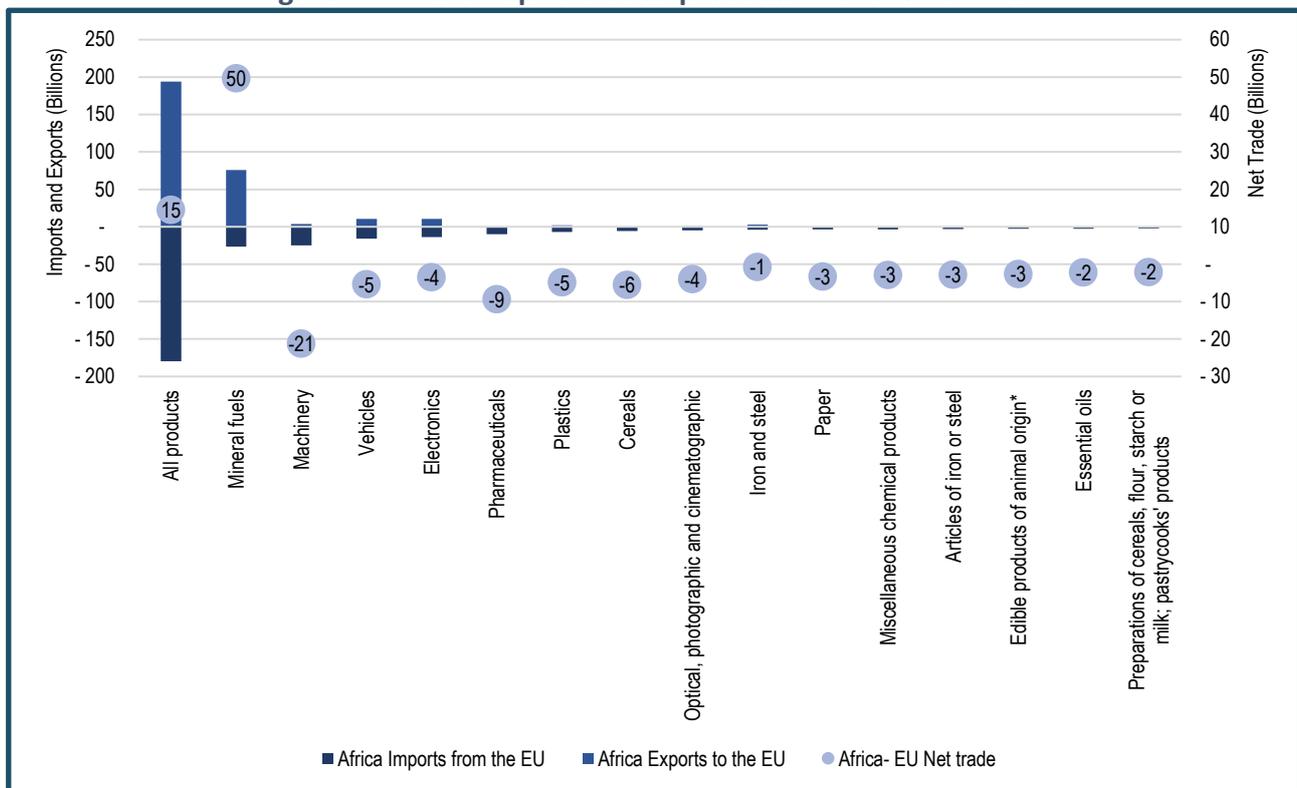
Africa’s traded products with the EU

The top 15 traded products between Africa and the EU, representing more than 70% of the Africa-EU trade basket, include: fossil fuels (15%), machinery (14%), vehicles (9%), electronics (8%), pharmaceuticals (5%), plastics (4%), cereals (3%), optical, photographic and cinematographic (3%), iron and steel (2%), paper (2%), miscellaneous chemical products (2%), articles of iron or steel (2%), edible products of animal origin including dairy produce, birds’ eggs and natural honey (1%), essential oils (1%) and preparations of cereals, flour, starch or milk, and pastrycooks’ products (1%).

Figure 4 and Figure 5 give a high-level picture of what is traded between Africa and the EU. Africa exports more than 65% of its products as primary goods, mainly energy products¹ (representing over 40% of all African goods exported to the EU) and includes food and drinks (including live animals) and raw materials.² Fossil fuels, such as natural gas, oil and coal dominate the trade basket from Africa to the EU. This is followed by manufactured products³ (34%) such as machinery, vehicles, and chemicals, such as plastics.

Due to the lack of industrialisation across the continent, Africa continues to import large volumes of manufactured products. In 2021, more than 67% of all African imports from the EU were manufactured products. This includes machinery, vehicles, and chemicals. Trade relations between the EU and Africa remain imbalanced; Africa continues to export primary goods to the EU, in return importing manufactured goods.

Figure 4. Africa's Top 15 traded products with the EU – 2021



Source: Author based on Trade Map, 2023.

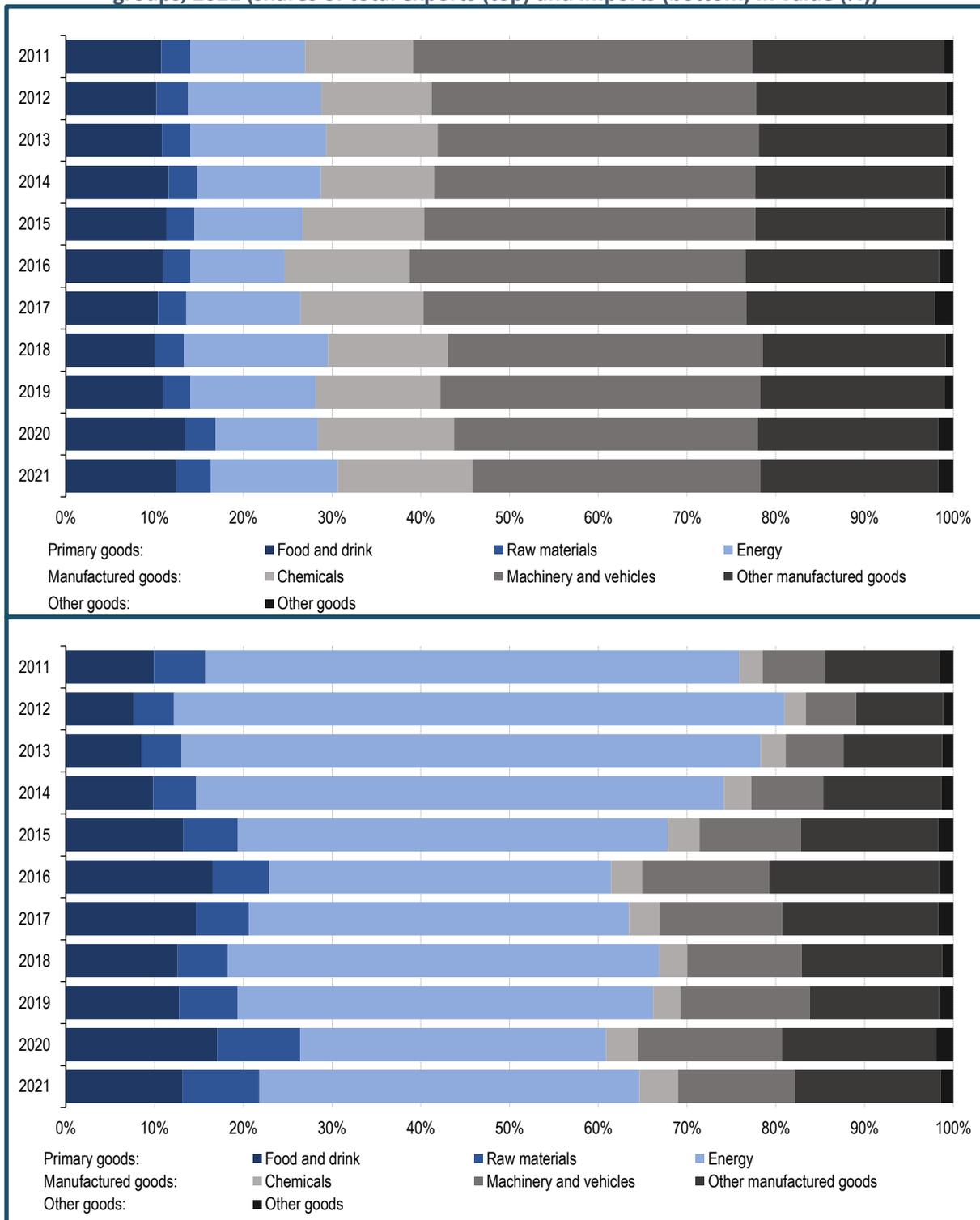
*Edible products of animal origins include dairy produce, birds' eggs, and natural honey

¹ Energy products include coal, oil, gas and electricity (section 0 and 1 as per the standard international trade classification (SITC).

² Raw materials include crude materials, inedible, except fuels and animal and vegetable oils, fats and Waxes (sections 2 and 4 as per the SITC).

³ Manufactured products include chemicals (section 5 as per the SITC), machinery and transport equipment (section 7), and other manufactured products (section 6 and 8, as per the SITC).

Figure 5. African exports (top) and imports (bottom) of goods to/from the EU by main product groups, 2021 (shares of total exports (top) and imports (bottom) in value (%))

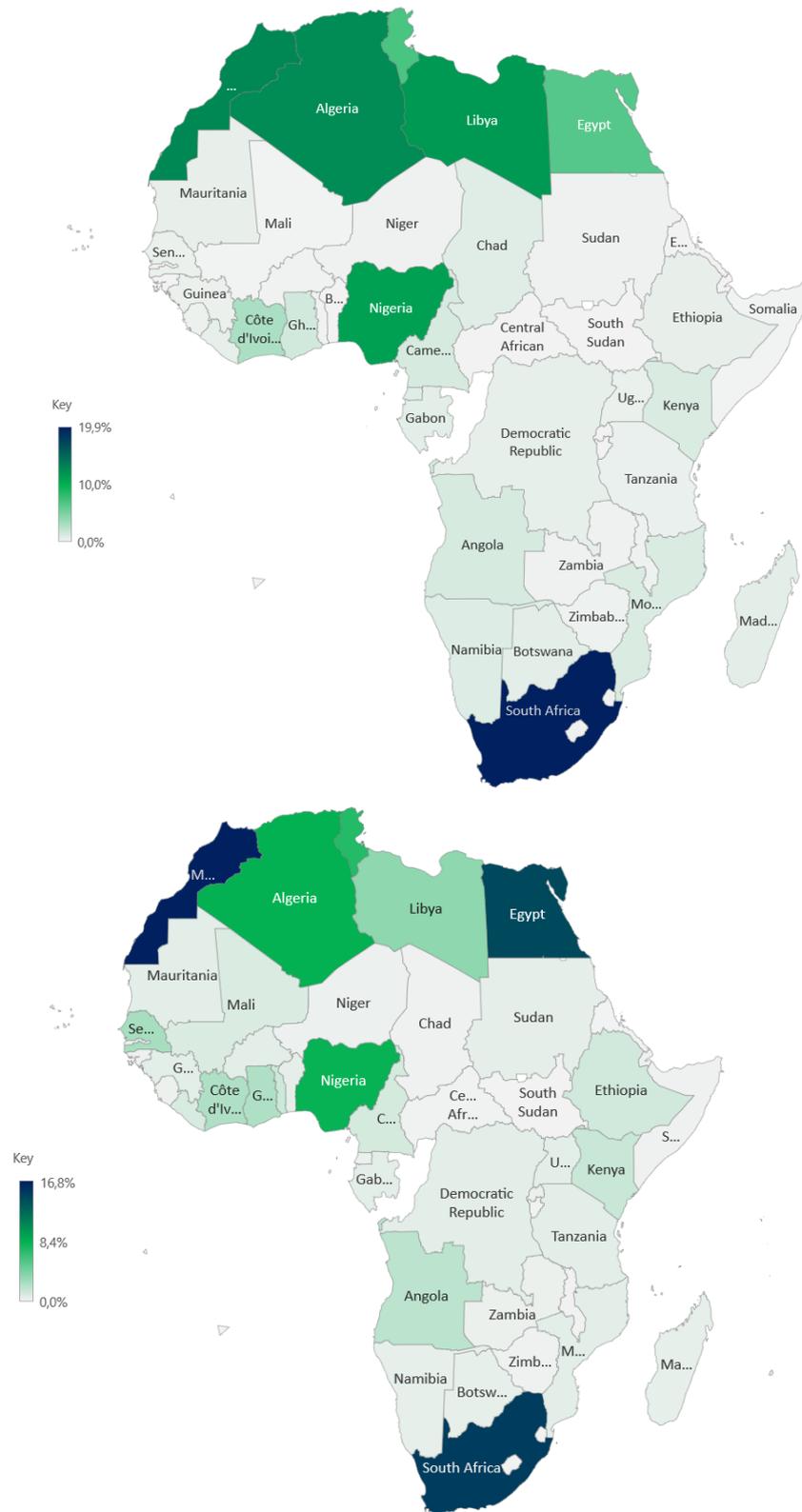


Source: Eurostat, 2022.

3.2 Africa trade with the EU: Understanding the dominant players

The maps in Figure 6 highlight the key African trading partners to the EU (including their level), while Table 6 in the Appendix highlights trade performance of African countries with the EU in detail.

Figure 6. Proportion of exports by African countries to the EU (top), and proportion of imports by African countries from the EU (bottom) (%)



Source: Author based on Trade Map, 2023. General note: There is no trade data for Cameroon, Djibouti, Eritrea, Guinea, Guinea-Bissau, Liberia and Sierra Leone. Where data is available, the latest data available has been used. But mostly, 2021 data has been used to do the analysis.

The following section looks at exports to the EU of selected major countries by highlighting their top exports.⁴ These countries are differentiated by tiers. Tier 1 countries have an export value of more than US\$10 billion to the EU. Tier 2 countries have export values of between US\$1 billion and less than US\$10 billion. Tier 3 countries have an export value of less than US\$1 billion (these countries are not discussed).

Tier 1 exporting countries

Tier 1 exporting countries include South Africa (with total exports to the EU amounting to US\$24 billion), Morocco (US\$22 billion), Algeria (US\$19 billion), Libya (US\$18 billion), Nigeria (US\$17 billion), Tunisia (US\$12 billion) and Egypt (US\$12 billion). The exports of Tier 1 exporting countries are dominated by vehicles and fossil fuels and, to a certain extent, also by electrical machinery and equipment as well as textile commodities (Tunisia).

Table 1. Top African countries exporting fossil fuels to the EU – by type of fossil fuels, 2021

COUNTRY	VALUE OF EXPORTED MINERAL FUEL (US\$)	CONTINENTAL SHARE (%)	TYPE OF MINERAL FUEL EXPORTED	% SHARE OF EXPORTED MINERAL FUEL
Algeria	17 997 162 000	27.1	Gas	53
			Oil	44
Libya	17 491 714 000	27.0	Oil	93
			Gas	5
Nigeria	16 483 619 000	12.0	Oil	85
			Gas	15
Egypt	5 231 238 000	8.0	Oil	73
			Gas	26
Angola	2 177 025 000	3,3	Oil	55
			Gas	45
Chad	1 399 332 000	2,1	Oil	100
Equatorial Guinea	1 331 237 000	2.0	Oil	77
			Gas	23
Tunisia	751 690 000	1.0	Gas	3
			Oil	93
Gabon	735 872 000	1,1	Oil	100
South Africa	612 315 000	0.9	Coal	48
			Oil obtained from coal	38
Mozambique	234 190 000	0.4	Coal	99

Source: Author based on (Trade Map, 2023) – Bilateral trade between various African countries and the European Union (EU 27).

South Africa and Morocco are the two biggest exporters to the EU. They dominate the vehicle exports market to the EU. In 2021, they together constituted 95% of all African vehicle exports to the EU. These two countries also dominate other exports to the EU.

South Africa as the single largest exporter to the EU also dominates exports of ores (68% of all African ore exports to the EU), natural stones and pearls (58% of all African natural stones and pearls exports to the EU), and machinery and mechanical appliances (65% of all African machinery and mechanical appliance exports to the EU).

⁴ The product-country analysis is based on the latest available trade data from the African countries. Some data for certain African countries date to 2017, while other countries' latest data date to 2021. The analysis is proportionally based on the latest available data, and reference to the date in the analysis is made to be 2021.

Morocco also exports other commodities, which include electrical machinery and equipment, articles of apparel and clothing accessories (not knotted, not crocheted), fish and crustaceans, molluscs and other aquatic invertebrates, and edible vegetables and certain roots and tubers. Morocco exports a large share of total African exports to the EU of these exports (see Table 2).

Table 2. Tier 1 Countries – Top exports to the EU, 2021

Countries (Ranked by value of exports to the EU)	Top exported products	Value Of Exports (US\$, 000)	% share of total African exports to the EU	
South Africa (US\$24bn)	Vehicles	5 436 663	53.3%	
	Ores, slag and ash	4 187 924	68.1%	
	(including daimonds, silver & platinum)	3 872 329	58.1%	
	Machinery & mechanical appliances	1 903743	65.1%	
	Edible fruit and nuts (peel of citrus fruit or melons)	1 467911	37.1%	
	Other	7 174 087	5.5%	
Morocco (US\$22bn)	Vehicles	4 288 338	42.0%	
	Electrical machinery and equipment	3 908 874	44.9%	
	clothing accessories (not knitted or crocheted)	2374 375	54.0%	
	molluscs and other aquatic invertebrates	1 376 287	42.8%	
	Edible vegetables and certain roots and tubers	1 193 327	66.2%	
	Other	8 625 091	6.5%	
	Algeria (US\$19bn) -2017	Fossil fuels (Gas and Oil)	17 997 162	24.7%
Inorganic chemicals		334 581	13.7%	
Fertilisers		160 909	9.0%	
Orgaic chemicals		47 815	5.3%	
Sugars and sugar confectionery		38 904	11.5%	
Other		180 595	0.2%	
Libya (US\$18bn) -2019	Fossil fuels (Gas and Oil)	17 491 714	24.0%	
	Iron and steel	51 828	1.8%	
	Orgaic chemicals	17 895	2.0%	
	molluscs and other aquatic invertebrates	10 052	0.3%	

	Machinery & mechanical appliances	7 308	0.2%	
	Other	20 764	0.0%	
Nigeria (US\$17bn)	Fossil fuels (Gas and Oil)	16 483 619	22.6%	
	Cocoa and cocoa preparations	353 076	5.9%	
	Raw hides and skins (other than furskins) and leather	71 821	27.2%	
	Residues and waste from the food industries	62 574	31.2%	
	Vehicles	51 761	0.5%	
	Other	225 929	0.3%	
Tunisia (US\$12bn)	Electrical machinery and equipment	3 773 888	43.4%	
	clothing accessories (not knitted or crocheted)	1 555 028	35.4%	
	Fossil fuels (Gas and Oil)	751 690	1.0%	
	cinematographic, measuring, clothing accessories (not knitted or crocheted)	576 508	71.8%	
	Other	4 401 656	6.1%	
Egypt (US\$12bn)	Fossil fuels (Gas and Oil)	5 231 238	7.2%	
	Iron and steel	953 713	32.4%	
	Plastics and articles thereof	865 814	52.4%	
	Electrical machinery and equipment	822 902	9.5%	
	Fertilisers	492 192	27.4%	
	Other	3 480 864	4.8%	

Source: Author based on Trade Map (2023) Bilateral trade between various African countries and the European Union (EU 27).

In Algeria, Libya, Nigeria, Egypt and Tunisia exports to the EU are dominated by fossil fuels, which combined represent 75% of total fossil fuels coming from the continent to the EU (See Table 1). These countries also export other commodities to the EU.

Algeria also exports chemicals, such as inorganic chemicals, fertilisers and organic chemicals as well as sugar. Libya also exports iron and steel, organic chemicals, fish and crustaceans, molluscs and other aquatic invertebrates, and machinery and mechanical appliances.

Nigeria exports cocoa, raw hides and skins, residues and waste from the food industries, as well as vehicles.

Egypt exports iron and steel, plastics, electrical machinery and equipment as well as fertilisers. Tunisia exports electrical machinery and equipment, and textiles which dominate the export basket to the EU, as well as optical, photographic and cinematographic commodities.

Tier 2 exporting countries

Tier 2 exporting countries to the EU reflect other important players on the continent. Their export value is between US\$1 billion and US\$10 billion. The selected countries include Côte d'Ivoire (with total exports to the EU amounting to US\$4 billion), Ghana (US\$3 billion), Angola (US\$2 billion), Equatorial Guinea (US\$1.6 billion), Chad (US\$1.4 billion), Mozambique (US\$1 billion), and Kenya (US\$1 billion).

The exports of Tier 2 exporting countries are dominated by agricultural goods, such as cocoa and live trees, and fossil fuels. These also include manufactured goods such as machinery and mechanical appliances, iron and steel, as well as aluminium and natural stones and pearls.

Côte d'Ivoire, Ghana and Equatorial Guinea dominate cocoa exports to the EU. These countries combined represent more than 77% of all cocoa exports to the EU. In Côte d'Ivoire and Ghana, cocoa dominates the export basket to the EU. In 2020, total cocoa exports to the EU from Côte d'Ivoire amounted to US\$3 billion, representing over 76% of the country's total exports to the EU. In Ghana, this amounted to US\$1.4 billion in 2019, representing over 58% of the country's total exports to the EU.

These countries also export other key goods to the EU. In Côte d'Ivoire, these exports include rubber, fossil fuels, edible fruits and nuts, as well as articles of iron and steel. In Ghana, these exports include fossil fuels, preparations of meat, fish or of crustaceans, molluscs or other aquatic invertebrates, aluminium, and edible fruits and nuts.

While the top fossil fuel exporting countries are explored in Tier 1, other countries such as Equatorial Guinea, Angola, Chad, Mozambique, and even Ghana, export fossil fuels to the EU. Equatorial Guinea, Angola, Chad, Mozambique also exports other goods to the EU.

Equatorial Guinea, apart from cocoa and fossil fuels, also exports organic chemicals, wood and machinery and mechanical appliances to the EU. Angola exports natural stones and pearls, fish and crustaceans, molluscs and other aquatic invertebrates, machinery and mechanical appliances, as well as salt, sulphur, earths and stone, plastering materials, and lime and cement to the EU. Chad exports natural stones and pearls, lac, gums, resins and other vegetable saps and extracts, oil seeds and cotton to the EU. Mozambique's export basket to the EU is dominated by aluminium and other exports, such as ores, tobacco, fish and crustaceans, molluscs and other aquatic invertebrates.

Kenya, which is also part of the Tier 2 exporting countries, is an outlier in its exports. Kenya's export basket is dominated by agricultural produce. These include live trees, coffee, edible fruits and vegetables, as well as preparations of fruits and vegetables. Worth noting is that live trees and other plants from Kenya to the EU represent over 51% of all African live trees and other plants exported to the EU.

Table 3. Tier 2 Countries – Top exports to the EU, 2021

Countries (Ranked by value of exports to the EU)	Top exported products	Value Of Exports (US\$, 000)	% share of total African exports to the EU	
Côte d'Ivoire	Cocoa and cocoa preparations	3,104,390	51.9%	
	Rubber and articles thereof	297,080	33.7%	
	Mineral fuels (Gas and Oil)	196,837	0.3%	
	Edible fruit and nuts; peel of citrus fruit or melons	185,409	4.7%	
	Articles of iron or steel	43,023	8.6%	
	Other	238,152	0.3%	
Ghana	Cocoa and cocoa preparations	1,486,245	24.9%	
	Mineral fuels (Gas and Oil)	648,253	0.9%	
	Preparations of meat, of fish or of crustaceans, molluscs or other	89,411	9.1%	
	Aluminium and articles thereof	74,035	4.0%	
	Edible fruit and nuts; peel of citrus fruit or melons	68,705	1.7%	
	Other	176,000	0.2%	
Angola	Mineral fuels (Gas and Oil)	2,177,025	3.0%	
	Natural stones & pearls (including diamonds, silver &	196,245	2.9%	
	Fish and crustaceans, molluscs and other aquatic invertebrates	28,289	0.9%	
	Machinery & mechanical appliances	18,269	0.6%	
	Salt, sulphur; earths and stone; plastering materials, lime and	17,391	2.7%	
	Other	23,568	0.0%	
Mozambique	Aluminium and articles thereof	601,159	32.7%	
	Mineral fuels (Gas and Coal)	234,190	0.3%	
	Tobacco and manufactured tobacco substitutes	102,240	18.2%	
	Ores, slag and ash	88,256	1.4%	
	Fish and crustaceans, molluscs and other aquatic invertebrates	40,323	1.3%	
	Other	62,271	0.1%	

Kenya	Live trees and other plants	440,576	51.8%	
	Coffee, tea, maté and spices	166,737	10.7%	
	Edible fruit and nuts; peel of citrus fruit or melons	109,437	2.8%	
	Edible vegetables and certain roots and tubers	74,244	4.1%	
	Preparations of vegetables, fruit, nuts or other parts of plants	73,108	13.2%	
	Other	194,461	0.1%	

Source: Author based on Trade Map (2023) Bilateral trade between various African countries and European Union (EU 27).

3.3 Africa-EU trade relations – Looking into trade arrangements

In conjunction with understanding how Africa trades with the EU, it is important to understand the trade arrangements between the two continents, and within the continent. In this sub-section, trade arrangements between the EU and Africa and trade arrangements within the continent are briefly discussed to add context to how Africa trades. Africa has established trade relations within and outside the continent to facilitate trade. These vary from free trade areas to customs and monetary unions (MacLeod, Luke, and Guepie, 2023). There are 11 regional economic communities in Africa, and six trade arrangements between the EU and African countries. These arrangements are discussed briefly in the following sub-sections. This mirrors the trade patterns explored in section 3.2.

Regional Economic Communities (RECs) in Africa

There are 11 RECs in Africa, with differing historical origins, institutional structure, and political and economic rationale. Some countries have overlapping mandates in multiple regional economic communities. These RECs are outlined in Table 4.

Table 4. Africa's Regional Economic Communities

REC	Category	Country coverage
Arab Maghreb Union (AMU)	General economic co-operation (GEC)	Algeria, Libya, Mauritania, Morocco and Tunisia
Economic and Monetary Community of Central Africa (CEMAC)	Legacy, customs and monetary union and GEC	Cameroon, Central African Republic, Chad, Equatorial Guinea, Gabon and Republic of the Congo.
Community of Sahel–Saharan States (CEN-SAD)	GEC	Comprises of 31 African states in the Sahel and the Sahara
Common Market for Eastern and Southern Africa (COMESA)	Custom Union and GEC	Comprises of 21 African member states in the Southern and Eastern African regions
Economic Community of Central African States (ECCAS)	Free Trade area and GEC	Comprises of 12 African states in the central region of Africa
East African Community (EAC)	Custom Union and GEC	Comprises of 7 African states in the Eastern African region
Economic Community of West African States (ECOWAS)	Custom Union and GEC	Comprises of 15 African states in the Western African region
Intergovernmental Authority on Development (IGAD)	GEC	Comprises of 8 African states in the Eastern African region
Southern African Development Community (SADC)	Free Trade area and GEC	Comprises of 16 African states in the Southern African region
Southern African Customs Union (SACU)	Legacy, customs and monetary union and GEC	Botswana, Eswatini, Lesotho, Namibia, and South Africa
West African Economic and Monetary Union (WAEMU)	Legacy, customs and monetary union and GEC	Comprises of 8 African states in the Western African region.

Source: Adapted from MacLeod, Luke and Guepie, 2023.

MacLeod, Luke and Guepie (2023) categorise these regional economic communities into five groups: legacy, customs and monetary union, custom union, free trade areas, and general economic corporation. MacLeod, Luke and Guepie (2023) see all these regional economic communities having an objective of general economic corporation. There are also two free trade area communities, Economic Community of Central African States (ECCAS) and Southern African Development Community (SADC), and four custom unions, Common Market for Eastern and Southern Africa (COMESA), East African Community (EAC) Economic Community of West African States (ECOWAS), and Southern African Customs Union (SACU). These RECs are important levers for implementing the African Continental Free Trade Area (AfCFTA), an important free trade agreement to boost intra-African trade, operational from 2021.

Africa-EU trade arrangements

Outside the continent, African countries also have bilateral engagements with other global markets to boost and promote trade. However, in this sub-section, only trade arrangements between the EU and African RECs and countries are explored. Africa-EU trade relations can be traced back to the 1960s era of post-Africa independence (officially), and Africa-EU trade is more prevalent in the Northern and Southern African countries. This is evident in the top two countries exporting to the EU being South Africa and Morocco, as highlighted in section (3.2). Luke et al. (2023) highlighted that the EU in Africa have divided the continent into two parts, i.e. Northern and Southern Africa. However, in recent years, the EU has started to expand its reach on the continent by including Eastern Africa. Across the African continent, the EU is using six trade arrangements to facilitate and support trade between the two regions. These arrangements include five preferential schemes as well as the most-favoured nations (MFNs) (Luke et al., 2023):

1. Economic Partnerships Agreements (EPAs) – applicable to 15 African states. The largest is the SADC-EU EPA (between the EU and South Africa, Botswana, Lesotho, Namibia, Eswatini, and Mozambique). These agreements are reciprocal, semi-asymmetrical free trade area agreements.
2. Everything but Arms (EBA) – applicable to 33 least developed countries, providing quota-free, duty-free markets on a unilateral basis.
3. Euro-Mediterranean Association Agreements – applying to Algeria, Egypt, Morocco and Tunisia. These agreements are reciprocal, semi-asymmetrical free trade area agreements.
4. Generalised System of Preferences (GSP) – applicable to the Republic of Congo, Kenya and Nigeria and provides for full or partial removal of customs duties on two-thirds of tariff lines on products within the EU market.
5. GSP Plus – These are like EBAs but require the exporting country to implement international human rights, labour and environmental conventions.
6. MFN (in World Trade Organization terms): applying to Libya and Gabon.

These trade arrangements are important levers in the context of negotiating concessions in relation to the European Green Deal impacting negatively on the African continent. The following section explores the implications of the EGD on African trade.

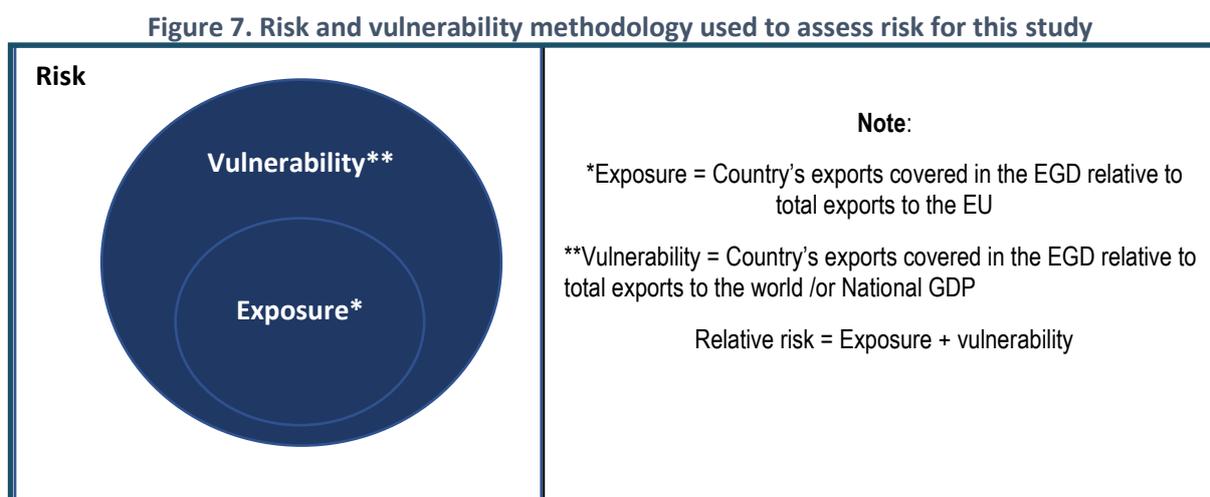
4. EGD IMPLICATIONS FOR AFRICAN TRADE

To measure the implications of the European Green Deal on African trade, this study adopted an exposure and vulnerability methodology to measure relative risk. The methodology is based on Eicke et al. (2021) and Perdana and Vielle (2022). They measure a country's exposure of total exports to be affected by an international policy measure (such as the EGD) relative to the total exports of the country/region introducing the policy (i.e., the EU). Vulnerability is measured by total exports affected

by a certain international policy measure for the country relative to the country's total exports to the world. Vulnerability is used to reflect the diversification of economies – the level of reliance of exports to a certain market.

Using this lens, this study measured the extent to which African countries are exposed to the EGD in the exports covered by the EGD relative to their total exports to the EU. This measurement provides insights into trade with the European Union for each African country. In addition, the study examines vulnerability, which reflects the overall diversification of exports, by analysing the proportion of exports covered by the European Green Deal relative to the country's total exports to the world.

Vulnerability can also be understood from a macro view, in terms of national GDP, i.e. total exports covered in the EGD relative to national GDP. Figure 7 provides a view of the vulnerability and exposure methodology used in this study.



Source: Author's illustration.

The following sub-sections outline the exposure and vulnerability of African trade relative to the European Green Deal. The exposure and vulnerability, which indicates relative risks of exports covered in the EGD, reflect the implications on African trade as the result of full implementation of the EGD. The Appendix provides more detail on the data and sectors covered in this analysis.

4.1 Exposure and associated risks

Exposure is measured as the exports of a country covered by the European Green Deal relative to its overall exports to the European Union. This sub-section analyses the exposure of African products and African countries to the EGD, categorised by risks.

The sub-sections below highlight the African products exposed to the European Green Deal by country in three risk categories. These associated risk categories have been highlighted to map out countries to be affected based on their economic characteristics. They include the cost of non-tariff barriers implemented for agricultural exporting countries, the displacement of exports by electric vehicles for fossil fuel exporting countries, and the costs from implementing CBAM and circular economic solutions for mining and manufacturing exporting countries. Agricultural exporting countries include countries exporting meat, coffee, cocoa, rubber and forestry. Fossil fuel exporting countries include countries exporting coal, oil, natural gas and electricity. Mining exporting countries includes other mined products, such as ores and metals. Manufacturing exporting countries include countries exporting chemicals, machinery and equipment, textiles, and transport. For more detail on the

product grouping, see the Appendix. Figure 11 (in the Appendix) also highlights each African country's overall exposure to the European Green Deal.

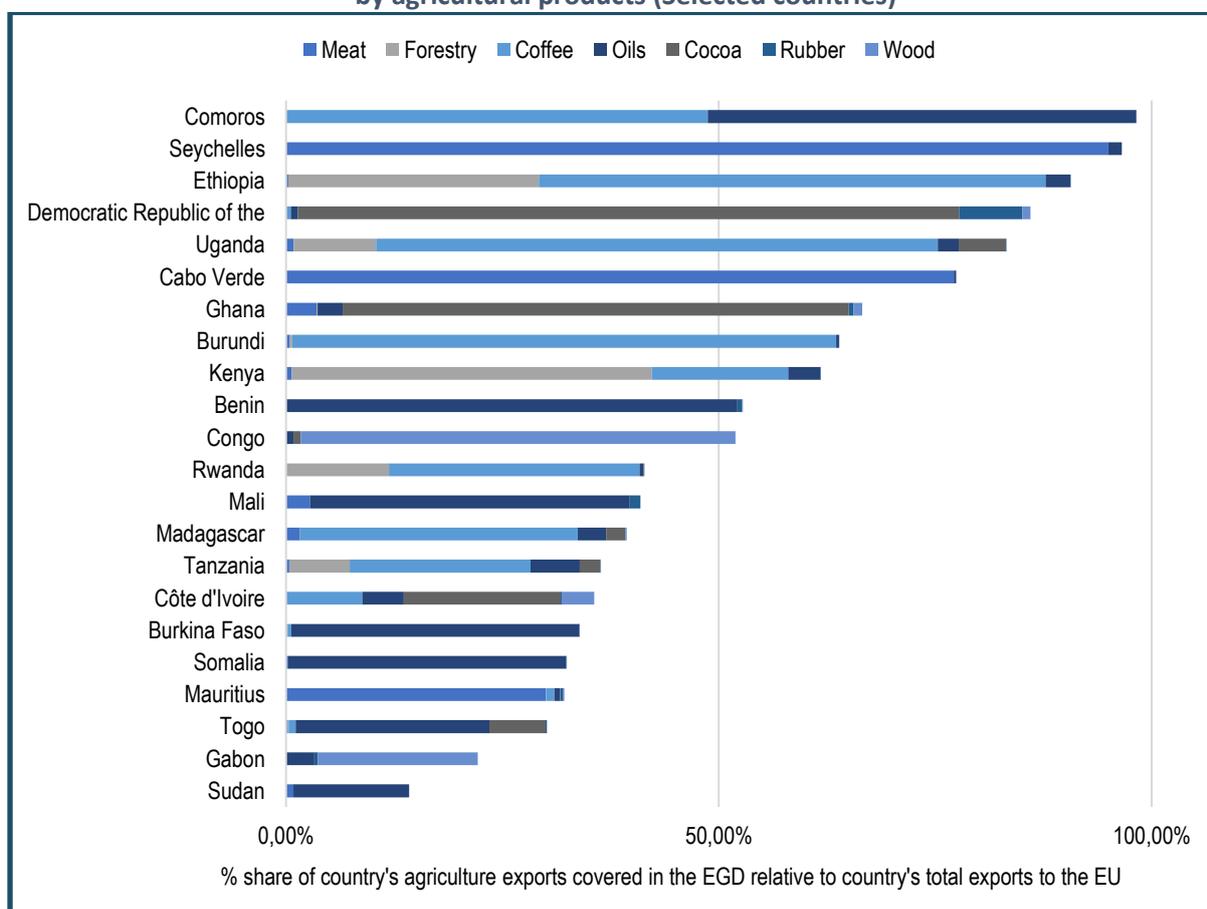
Overall, every African country will be affected by the full implementation of the European Green Deal, although their level of exposures differs. Total exposure of African exports to the European Green Deal amounts to US\$135 billion, reflecting 84% of all African exports to the EU exposed due to the European Green Deal.

As the EU is Africa's largest trading group, representing over 35% of Africa's total exports in 2022, this makes the continent more exposed to the introduction of global climate change policies, such as the EGD. The exposure is the result of tariff and non-tariff measures, i.e. CBAM, regulation on deforestation-free supply chains, the REPower EU plan, Farm to Fork strategy, transport regulations across the EU, and the Circular Economy Action Plan. Below is a detailed analysis of the exposed countries by their risk category to the EGD.

Cost of non-tariff barriers implemented for agricultural exporting countries

Agricultural exporting countries will be mainly affected by the regulation on deforestation-free supply chains (a non-tariff barrier), to a certain extent affected by the Farm to Fork strategy. The regulation on deforestation-free supply chains involves implementing a higher standard for goods that contribute to deforestation. Sectors/goods that will be subjected to higher and strict standards will mainly include agricultural products such as palm oil, cattle, soy, coffee, cocoa, timber, and rubber, as well as derived products (such as beef, furniture, leather, or chocolate).

Figure 8. African countries' exposure to the European Green Deal – by agricultural products (Selected countries)



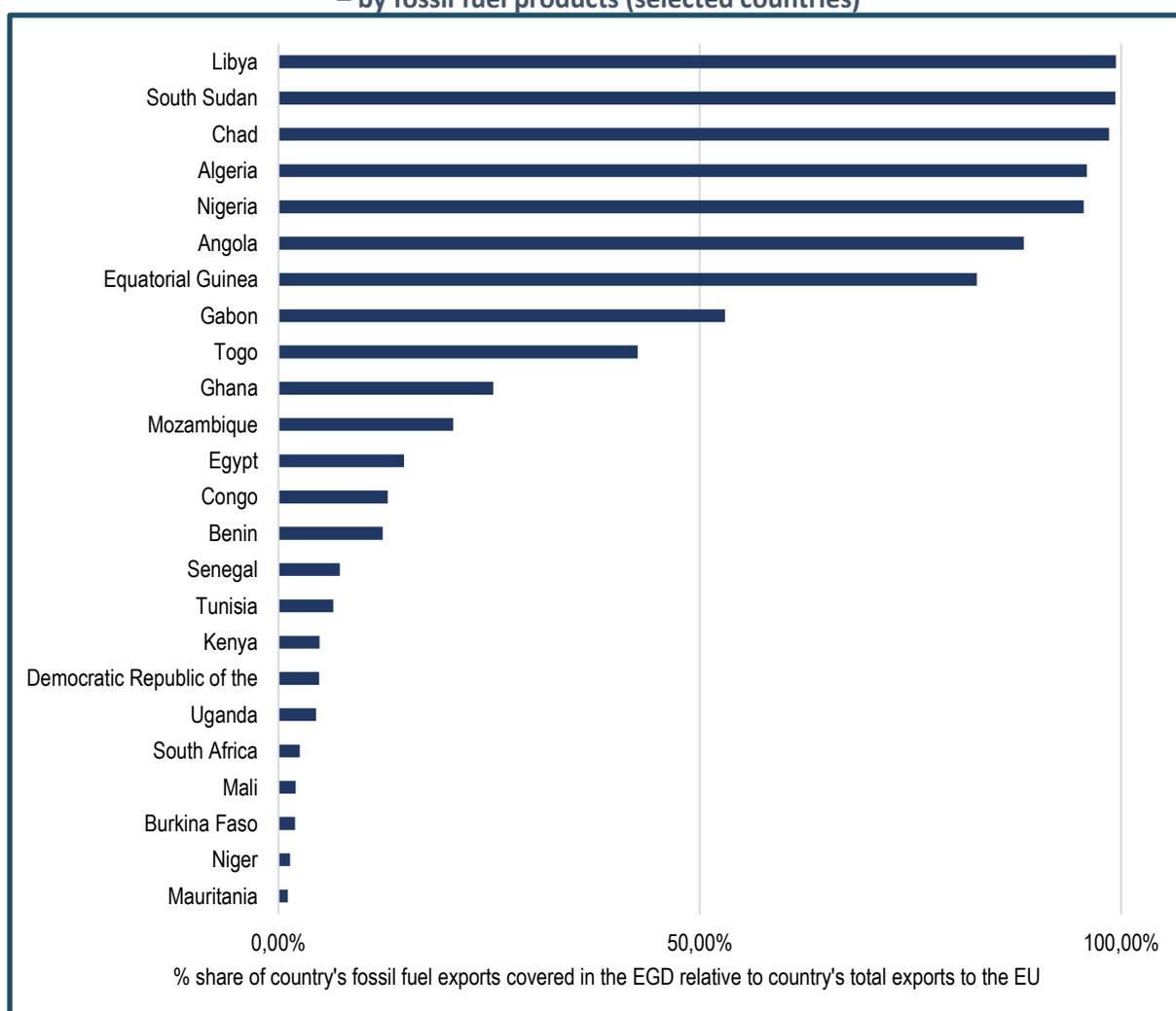
Source: Author's calculation based on the methodology outlined above.

Agricultural exporting countries highly affected (see Figure 8) by the EGD, among others, include Comoros, Seychelles, Ethiopia, Democratic Republic of the Congo (DRC), Uganda, Cabo Verde, Ghana, and Burundi. The exposure stems from various agricultural products covered in the EGD for these countries. For example, in the Seychelles, exposure stems mainly from meat products representing 95% of the country's exports to the EU. In Ethiopia, exposure emanates from coffee and forestry products, both representing 87% of the country's exports to the EU. Ugandan coffee, representing 65% of the country's exports is exposed; and, in Mauritius, exposure comes from meat products, representing 30% of the country's exports to the EU. These countries, as presented in figure 8, will be subjected to higher non-tariff barriers to access the European Union market, as the result of a full implementation of the EGD.

Displacement of exports by electric vehicles for fossil fuel exporting countries

Fossil fuel exporting countries, such as Libya, South Sudan, Chad, Algeria, Nigeria, Angola and Equatorial Guinea are highly exposed to the EGD. These countries are extremely exposed, as their export baskets are dominated by the exports of fossil fuels.

Figure 9. African countries' exposure to the European Green Deal – by fossil fuel products (selected countries)



Source: Author's calculation based on the methodology outlined above.

There is a risk of displacing the exports of fossil fuels of these countries to Europe as the result of full implementation of the EGD (specifically on the introduction of electric vehicles). For example, in Algeria and Nigeria, over 95% of their exports are exposed as the results of the EGD (see Figure 9), highlighting that virtually all goods exported to the EU from both countries are covered by the EGD. These include mainly fossil fuels (oil and gas), in both countries. Algeria's exposure stems mainly from fossil fuels (oil and gas), representing 96% of the country's exports to the EU. Nigeria's exposure comes mainly from (oil), representing 96% of the country's exports to the EU. Libya, South Sudan, Chad, Equatorial Guinea and Angola emulate the same picture, with Libya, South Sudan and Chad having a higher proportion of their exports to the EU exposed.

The exposure of these countries results mainly from the introduction of the REPower EU Plan. This plan involves increasing demand of fossil fuels, such as coal, oil, and gas, in the short term to power the EU amid the Russian cut in supply of fossil fuels, due to the Russia invasion of Ukraine. As the EU increases demand of alternative fossil fuel supply, these countries will benefit from the short-term increased demand. Despite some possible increase in the short term due to the Russia-Ukraine war, exports will be negatively exposed in the long run.

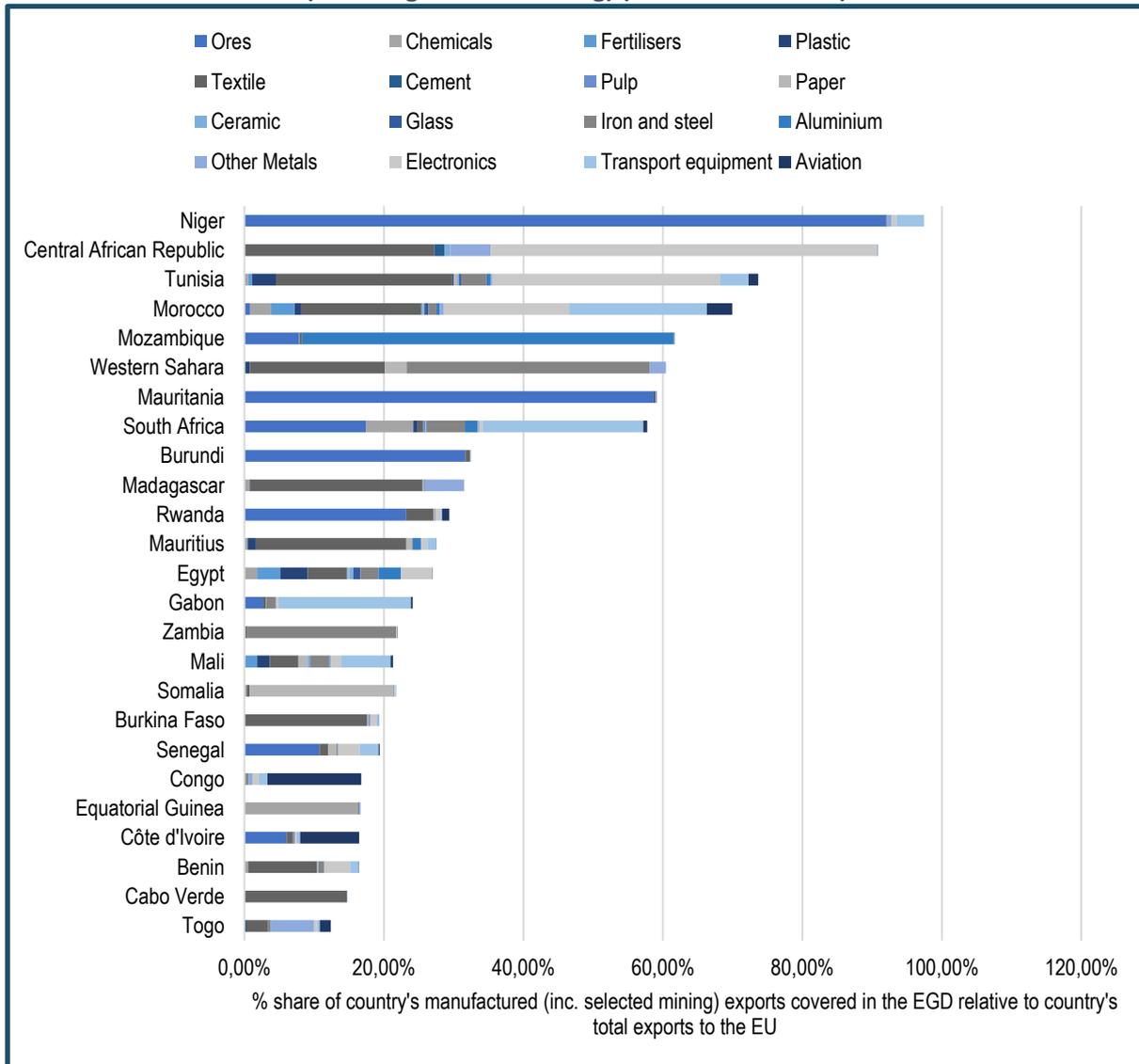
Costs from the implementation of CBAM and circular economic solutions for mining and manufacturing exporting countries

The focus of the European Green Deal is predominantly to reduce waste in the manufacturing sector. The main aim of the EGD in this sector is to reduce the waste generated by the sector for both environmental and GHG emission contributions from the upstream to the downstream. This sector will be exposed by the following policy measures introduced under the EGD:

1. **Carbon Border Adjustment Mechanism.** This involves imposing a carbon border tax on sectors, such as cement, aluminium, fertilisers, electric energy production, hydrogen, iron and steel, as well as some precursors and a limited number of downstream products.
2. **Farm to Fork Strategy.** This strategy includes banning the use of chemical pesticides, hazardous pesticides, nutrients, fertiliser, antimicrobial resistance and promotes organic farming across Europe.
3. **EU Industrial policy.** The EU has adopted the industrial strategy, which is supported by the green industrial plan, as well as the envisioned Critical Raw Materials Act, which will act as an enabler for the EU industrial policy.
4. **Circular Economy Action Plan.** This plan seeks to promote the EU as a circular economy, and sectors to be covered include textiles, construction, electronics, plastics, and chemicals such as per- and polyfluoroalkyl substances.
5. **Transport legislation.** The EGD, through its transport legislation, aims to achieve a 90% reduction in transport-related greenhouse gas emissions by 2050. Already, the EU has adopted a ban on the sales of ICE vehicles by 2035 to support this.

Figure 10 highlights the manufacturing products (including mining products) covered under the EGD and African countries to be affected by the full implementation of the EGD. Manufacturing exporting countries (including mining exporting countries) to be heavily exposed by the EGD include Niger, Central African Republic, Tunisia, Morocco, Mozambique, Western Sahara, Mauritania and South Africa.

Figure 10. African countries' exposure to the European Green Deal – by manufactured products (including selected mining) (selected countries)



Source: Author's calculation based on the methodology outlined above.

In the manufacturing sector, Tunisia, Morocco and South Africa are heavily exposed to the EGD. In Tunisia, the country's export basket, which is diversified, will be heavily exposed, with 75% of the exports to the EU exposed. Exposure in manufactured exports stems mainly from electronics (32%) and textiles (25%), as well as transport equipment (4%), iron and steel (3.6%) and plastic (3.4%). Tunisia will be affected by CBAM, the Circular Economy Action Plan, and transport legislation such as the banning of ICE vehicles.

Morocco, with a similar export basket to Tunisia will also be affected. In Morocco, electronics and textiles, and transport equipment (vehicles) are highly exposed. This highlights that the banning of ICE vehicles by 2035 in the EU will have an impact on the exports of Morocco to the EU. In parallel, Morocco will also be affected by CBAM and the Circular Economy Action Plan.

South Africa and Egypt are other countries to be affected the same as Morocco and Tunisia, but their level of exposure is not the same compared to these countries. South Africa with a higher exposure (57%) will be affected the same way as Morocco (with the transport sector heavily exposed compared to other sectors), while Egypt will be affected the same way as Tunisia.

Countries such as Equatorial Guinea, Mauritius, Madagascar, Mozambique, Somalia and Zambia are heavily exposed in certain sectors. In Equatorial Guinea, 17% of the country's exports to the EU are exposed. The exposure in the manufacturing sector stems mainly from organic chemicals. In Mauritius and Madagascar, exposure in the manufacturing sectors stems mainly from textiles. The Circular Economy Action Plan will heavily impact these two countries. In Mozambique, 61% of the country's exports are exposed, which stems mainly from aluminium, which will be exposed by CBAM.

In mining exporting countries, exposure mainly comes from the exports of ores, which include iron ore and critical minerals such as manganese, titanium and nickel. Highly affected countries include Niger, Mauritania, Burundi, South Africa and Mozambique (see Figure 10). These countries will be affected by Critical Raw Materials Act, mainly due to the exports of critical minerals such as manganese, titanium, and nickel, and CBAM mainly due to their exports of cement and iron ore to the EU. Mauritania, South Africa, and Morocco will be affected mainly by CBAM, while Niger, Burundi, Mozambique, Senegal, Rwanda and South Africa's exports will be affected by the Critical Raw Materials Act.

4.2 Vulnerability

Vulnerability of countries reflects the same characteristics detailed in the exposure section. Countries that are vulnerable to the introduction of the EGD are those that are exporting fossil fuels and manufactured products. To some extent, agricultural goods (such as Cabo Verde's meat exports) and mined products (such as Mauritania's iron ore exports) are also affected.

This sub-section briefly outlines the countries that are likely to be vulnerable to the full implementation of the European Green Deal.

Vulnerability can be understood as the measure of total exports of a country covered by the European Green Deal relative to its overall exports to the world. This is also calculated based on the national GDP of African countries, measured by total exports covered in the EGD relative to national GDP.

Overall, 25% of the total African exports to the world, representing 5% of total GDP of Africa, are vulnerable to the EGD. This means that 25% of African exports, representing 5% of Africa's GDP, are dependent on the European Union market. In addition, most African countries' export baskets are not diversified, and are therefore prone to any policy change in the EU. Table 5 highlights these vulnerabilities.

Countries most vulnerable to the European Green Deal include Cabo Verde, Tunisia, Libya, Algeria, Chad, Morocco, Nigeria, Equatorial Guinea, Comoros, Seychelles, Côte d'Ivoire, Niger, Ethiopia, Madagascar, and Mauritius.

Cabo Verde's exports are highly dependent on the European Union market, making the country the most vulnerable as 89% of its total exports to the world are covered in the EGD and exported to the EU. This is followed by Tunisia and Libya, at 60% and 54% respectively. It is also worth noting that Cabo Verde's economy is dependent on the service sector, accounting for more than a third of the country's GDP. So, exports (especially commodity exports) make a small contribution to the country's GDP, hence the high export vulnerability and low GDP vulnerability, as outlined in Table 5.

Table 5. African countries vulnerable to the European Green Deal (selected countries)

Countries	GDP Vulnerability		Export Vulnerability	
Africa	5.1%		25%	
Cabo Verde	2.3%		89%	
Tunisia	21.0%		60%	
Libya	28.9%		54%	
Algeria	10.7%		49%	
Chad	13.7%		47%	
Morocco	13.5%		46%	
Nigeria	3.3%		36%	
Equatorial Guinea	16.8%		31%	
Comoros	0.1%		29%	
Seychelles	11.8%		28%	
Côte d'Ivoire	5.9%		27%	
Niger	1.2%		25%	
Ethiopia	0.7%		24%	
Madagascar	5.0%		24%	
Mauritius	2.8%		21%	
Mozambique	5.1%		19%	
South Sudan	0.7%		18%	
Burundi	0.6%		17%	
Mauritania	7.5%		17%	
Gabon	9.0%		17%	
Ghana	3.7%		16%	
Uganda	1.4%		15%	
Egypt	1.2%		13%	
South Africa	4.2%		12%	
Kenya	0.8%		11%	
Central African Republic	0.6%		9%	
Togo	1.4%		7%	
Angola	2.8%		6%	
Congo	0.3%		5%	
Somalia	0.3%		5%	
Senegal	0.8%		4%	
Benin	0.3%		4%	
Rwanda	0.4%		3%	
Namibia	1.1%		2%	
Tanzania	0.2%		2%	

Source: Author's based on Trade Map, Bilateral trade between countries and European Union (EU 27) and the World Bank (2023).

GDP vulnerability is highly depended on the proportion of exports to the GDP, i.e. exports covered in the EGD relative to the national GDP of African countries. Libya, Tunisia, Equatorial Guinea, and Chad have the highest GDP vulnerability. Libya's exports covered in the EGD represent 29% of its national GDP, while Tunisia, Equatorial Guinea and Chad's exports covered in the EGD represent 21%, 17% and 14% of their national GDP, respectively.

These countries are fossil fuel exporting countries, except for Tunisia, which depends less on fossil fuel exports. In the short term, exposed to the REPower EU Plan will be positive. However, the increased demand of renewable energy worldwide will threaten this positive impact in the longer term.

Countries such as Tunisia, Algeria and the Seychelles will be exposed negatively by the Circular Economy Action Plan, mainly because of textile exports.

While it is true that every African country will be vulnerable to the full implementation of the EGD, some countries will be minimally vulnerable. These countries have less than 1% of their total exports to the world covered under the EGD. They include Sao Tome and Principe, Burkina Faso, Western Sahara, Malawi, Zambia, Lesotho, Mali, Eswatini, DRC, Sudan, Gambia, Zimbabwe, and Botswana.

The more vulnerable the continent is to the EGD, the less it will be able to respond to the deal or similar policies. This means that the continent will face hard times finding new markets or introducing resilient infrastructure to enable continued access to the European Union market.

Many parts of the continent are still less industrialised, and many countries still have lower agricultural standards. The continent also has less capacity to decarbonise carbon-intensive facilities – and lacks ambitious climate policies. This includes having minimal mechanisms in place to incentive decarbonisation, such as carbon pricing or carbon markets. These are serious concerns that the continent can contest or negotiate with the EU in terms of market access to the EU. In Section 6, some policy responses to deal with these concerns are outlined. In the next section, international responses to the EGD and their implications for Africa are outlined.

6. INTERNATIONAL RESPONSE AND IMPLICATIONS FOR AFRICA

Countries globally (especially Global North countries and some Global South countries such as China and Brazil) are positioning themselves competitively by adopting green industrial policies, amid the need to create low-carbon economies. While these countries are pushing green industrial policies, Africa is being squeezed in the middle, trapped between development and fighting the impact of climate change. Africa will be impacted by the introduction of green industrial policies around the world, and these include the climate-trade policies.

There has been an increased drive by Global North countries to retain their global competitive edge amid the changing landscape of international trade post-COVID-19. Most of the responses are considered “protectionist measures”, and discriminate against foreign commercial interest. However, these measures started during COVID-19, when a number of green policies were introduced (including the introduction of the European Green Deal in 2019).

These policies aim to ensure countries’ competitiveness amid the growing need to be climate compatible. These policies include tariff and non-tariff or both policy measures. Some of these green policies are introduced in the US and in other developed and developing countries.

In August 2022, United States (US) President Joe Biden signed into law the ambitious, incentive-based clean energy and climate action law, the Inflation Reduction Act (IRA). The IRA seeks to promote the US as a global leader in clean energy technology, manufacturing, and innovation, with an aim to lower energy costs, accelerate investment in clean energy solutions, and strengthen supply chains including strengthening supply chains of critical minerals.

While the IRA is more a green industrial policy measure than a trade policy measure, it will have indirect spillovers to trade. Some of the spillovers will include an imposition of trade to other markets globally. This is evident by the green industrial policy the EU introduced post the adoption of the IRA in the US, as it has been noted that the IRA will make firms in the EU less competitive, thereby impacting their trade with the rest of the world.

Globally, there has also been a rise in tariff policy measures in the trade space, such as carbon border taxes. This comes after the EU introduced its CBAM, a policy tool that is part of the EGD. Countries

introducing such measures in their policy discussions include Japan, United Kingdom, Canada, Australia, and the US (Monaisa and Maimele, 2023; Muthusame and Maimele, 2023).

In developing countries, reactions to the introduction of green policies or climate-trade policies have been mixed. In the context of the EGD, which is a complex tool to understand, minimal research has been done to unpack the deal, especially in developing countries.

However, with certain measures, such as carbon border taxes. Which have been extensively studied, some countries have managed to take a position. For example, Brazil, Russia, India, China, and South Africa (BRICS countries) have predominantly opposed carbon border taxes. The BRICS countries' main concern is that the risks associated with the introduction of carbon border taxes will not be equally distributed across the globe and may disproportionately impact the Global South (Monaisa and Maimele, 2023).

It is worth noting that the African continent contributed less than 3% of global GHG emissions, historically, and is highly vulnerable to climate change. It is forecasted that the continent will lose in the new global order (of creating new money and shaping the fight against climate change) if it is not at the table.

Against this backdrop, developed countries post-COVID-19, in the name of developing economic recovery plans, have been introducing protectionist measures, masked as green policies. These protectionist measures harm economic relations and the global economy. Within this context the continent – in any scenario – is seen to continue to lose export earnings and incomes, due to tariff and non-tariffs measures introduced by developed countries and due to the impact of climate change.

Former South African Minister of Trade and Industry Rob Davies (2023) noted that the use of protectionist measures (such as using tariffs, carbon border taxes or non-tariff measures like higher standards, on agricultural goods), justified in the name of climate action, should be rejected, opposed and challenged in any way or in any forum possible by developing countries.

While some of these policies are general green policies, they are not necessarily green trade policies. One way or the other these policies have an indirect impact on trade. As such, the introduction of these green policies by the Global North present both economic challenges and green/environmental opportunities on the African continent. It is within this context that the use of a differentiated approach to account and act on climate change should be advocated by the continent.

7. SUGGESTED POLICY RESPONSES

Africa, despite contributing less than 3% of historical global GHG emissions, the continent is vulnerable to the impact of climate change. The introduction of climate-trade policies globally, such as the European Green Deal, international trade, and economies worldwide (especially developing economies) are set to be negatively and heavily impacted.

African economies will be heavily affected by these climate-trade policies. About US\$135 billion of African exports, representing 84% of all goods exported to the EU, accounting 25% of overall African exports to the world, and 5% of total Africa's GDP are under threat as the result of the European Green Deal. Africa should start to consider developing strategies to respond to such policies. These strategies need to include the climate compatibility of industries and ensure higher agricultural standards, with an aim of continual access to markets.

In this context, the continent could start to accelerate the introduction of climate change mechanisms, such as carbon markets and incentivising decarbonisation, as well as investing heavily in clean technologies. These will accelerate global climate neutrality and make African economies globally competitive.

In light of the high exposure and vulnerability of African economies to the Green Deal, the following section suggest a set of policy response options. These policy response options aim to catalyse a continental response to global climate change policies, such as the EGD.

6.1 Advance climate resilient development

The African continent through the AU and the AfCFTA or any other relevant body on the continent needs to advance climate resilient developmental regionalism. Ismail (2021) notes that developmental regionalism includes co-operation to build mutually beneficial trade integration (free trade integration), co-operation on industrial development and upgrading regional value chains (transformative industrialisation), co-operation on cross-border infrastructure and trade facilitation, as well as co-operation on the building of democracy, good governance and peace and security across the continent.

In this context, the AU and AfCFTA, or any other relevant body, can create a regional green industrial policy for Africa. This could be called an African Green Deal, encapsulating the green aspect of the pillars outlined above. This green industrial policy could be incorporated into the AU and AfCFTA. It could be streamlined to support the development of green regional value chains that are climate compatible, and ensure co-operation on the continent (green transformative industrialisation).

AfCFTA, which presents a huge opportunity for continental integration, could ensure co-operation on developing the regional green industrial policy/African Green Deal. In parallel, AfCFTA can also be used to ensure co-operation on regional infrastructure investment, renewable energy, and transformative green industrialisation (i.e., the creation of green corridors).

Apart from promoting co-operation and developing a regional green industrial policy, the free trade area could also strengthen development finance institutions to finance green projects; improve co-ordination and create a strategy for mineral use/transformation strategy; and facilitate trade as well as create regional harmonised standards for agricultural goods (Ismail, 2023).

As the AfCFTA opens new markets for African commodities, presenting less stringent climate change requirements, African commodities can be diverted from the EU market to the African Continent or other markets such as BRICS+ countries.⁵ However, greening the AfCFTA and other markets is urgently needed, to ensure long-term sustainability and the competitiveness of the African continent. Diverting African goods to the African market will increase intra-African trade, and allow the continent to transition at its pace, considering that the EGD's pace is not compatible with the African development pathway. The creation of an African Green Deal could be a co-ordinated response to climate change encapsulating numerous elements relevant to the continent. This green industrial policy can advance climate resilient developmental regionalism on the continent. This would position the continent to be globally competitive and make access to markets easier, amid the introduction of climate-trade policies, which acts as market barriers for goods coming from the continent.

6.2 Create a regional carbon market

Many African countries do not have carbon markets in place, which can be used to support climate action locally. There is a need to focus on climate adaptation, and to use these markets to get concessions/discounts to access markets that have green trade barriers. Fully functioning carbon markets are trading systems in which carbon credits are sold and bought. Companies or individuals (foreign and local) can use carbon markets to compensate for their greenhouse gas emissions by purchasing carbon credits from entities that remove or reduce greenhouse gas emissions (UNDP,

⁵ BRICS+ countries are a political alliance group of countries including Brazil, Russia, India, China, South Africa, Iran, the United Arab Emirates, Saudi Arabia, Argentina, Egypt, and Ethiopia.

2022). This can be reflected by one tradable carbon credit equating to one tonne of carbon dioxide, or the equivalent amount of a different greenhouse gas reduced, sequestered, or avoided.

Africa's lower contribution to the historical total GHG emissions globally, and the rich biodiversity and conservation across the continent, open a huge market opportunity for trade-reduced, sequestered or avoided carbon for already high-emitting entities on the continent and outside the continent. In the international market, African countries can trade off/sell carbon credits. The continent has many voluntary carbon markets developing, with the supply of carbon credits coming mostly from private entities that develop carbon projects, or governments that develop programmes certified by carbon standards that generate emission reductions and/or removals. There is also demand, mainly from private individuals that want to compensate for their carbon footprints, corporations with corporate sustainability targets, and other actors aiming to trade credits at a higher price to make a profit. These market dynamics create a big market opportunity for the continent to create a mandatory regional carbon market, to be governed possibly by the African Union.

This market will allow high-emitting entities on the continent (for example, firms based in South Africa – which will be highly exposed by the EGD) and outside the continent, to buy carbon credits from this regional carbon market. The funds collected from the regional carbon market can be recycled for climate action in the continent, i.e. paying for loss and damage, investing in climate adaptation/mitigation technologies, and incentivising decarbonisation in high carbon-intensive regions, as well as investing in high-quality standards specifically for agricultural goods.

The creation of a regional carbon market will not only raise funds for climate action locally. The market will also accelerate investment in green and clean technologies. Also, carbon markets require carbon pricing mechanisms to facilitate trade of carbon. A regional carbon price to facilitate trade can be introduced on the continent.

At present, carbon pricing has been introduced only in South Africa, meaning that South Africa is the only African country to get some carbon border tax discounts to access the EU market. Other countries such as Botswana, Senegal, Côte d'Ivoire, and Morocco are considering carbon pricing. The regional carbon price is not only for facilitating trade of carbon. It can also be used, for example, to get tax discounts for exporting carbon-intensive products covered under the EU CBAM or similar mechanisms. Also, the creation of a regional carbon market opens a door for smaller players such as verifiers to have access to the carbon markets. This will allow small players in the fight for climate change to also have access to markets and improve their livelihoods.

6.3 Debt for climate swaps

Another key recommendation is debt for climate swaps. Debt for climate swaps is what Essers et al. (2021) highlight as freeing debt from debtors and paying for climate action with the freed debt. Essers et al. (2021) highlight that this mechanism is when creditors allow debtor governments to reduce their contractual debt obligations (contributing to debt sustainability) in return for a commitment to devote the freed-up resources to local climate-related spending/investment (contributing to climate change mitigation and/or adaptation). Climate for debt swaps have limitations, including in some instances the effect on the overall debt burden being negligible (less buying back discounts). Also, climate swaps do not always create additional fiscal and/or external space. They are also known to create cash flow problems for governments. Negotiations for climate swaps also take time. For example, the climate swap project in the Seychelles (2015) took the government more than four years to negotiate. This project was also difficult to evaluate, such as whether the impact was felt by the country (Essers et al., 2021).

Although climate swaps projects tend to have many limitations, the concept of climate swap, if well designed and scaled properly, offers opportunities for the continent. In this context, it is known that

Africa's debt has been unsustainable for many years. Total African debt to external creditors (including bilateral, multilateral, and private creditors) in 2023 amounted to US\$645 billion. This is equivalent to 24% of Africa's GDP. On a yearly basis, almost US\$70 billion is paid to service this debt (Harcourt et al., 2023). These numbers are expected to increase, which will make African countries' response to climate change even more difficult.

Against this backdrop, it is recommended that African countries' debt be swapped for climate action. This needs to be well designed and scaled up, considering the limitations of the piloted climate swaps projects. It also needs to consider the historical responsibility of the continent in global GHG emissions contribution, and the difficulties to meet the pledge of US\$100 billion a year made by developed nations in 2009 to finance climate action in the Global South countries. Debt for climate swaps remains another key entry point for making the continent resilient in responding to climate change and its impact on the continent.

6.4 Capacity building and technology transfer

African countries lack capacity, due to financial and non-financial constraints. As a result, and in the process of creating low-carbon and climate-resilient economies, African countries need to be capacitated with mechanisms and tools to adapt to climate change, as well as technical assistance on improving agricultural standards, and complying with carbon border tax mechanisms and other tools to adapt to climate change.

In this context, dedicated mechanisms need to be developed to achieve technological transfers and capacity building on the continent. These mechanisms will need to allow technology transfer and position the African continent to not only be the supplier of critical minerals for the revolution of green industrialisation, but to be an active participant to solving climate change. Within the current EU CBAM mechanism, and the regulation on deforestation-free supply chains, for example, capacity building and technical assistance are urgently needed across the entire African continent.

This is especially urgent for the creation and use of the monitoring, reporting and validation (MRV) systems of GHG emissions, and offsetting huge compliance costs particularly for testing and setting standards to improve agricultural standards. The developed nations as part of their climate responsibility need to help Global South countries to prepare to adopt to these global climate change policies.

6.5 Reform of multilateral systems

In addition to these policy responses, in parallel, Africa needs to support the reform of the multilateral system in its entirety. This reform has gained traction as Global North countries have shown to be diverting from abiding by the rules set by the system. This is evident in the introduction of protectionist policies masked as green policies. These policies are discriminatory and harmful to other countries, especially countries in the Global South. The current climate emergency presents African countries as well as Global South countries with an opportunity to reform the multilateral system in its entirety, to reflect a more inclusive, fair, just and developmental-oriented system.

The following sub-sections highlight some policy responses on how the multilateral system can be reformed to benefit Africa. It presents these in two parts, reforming the WTO and reforming the global financial system.

World Trade Organization (WTO)

The World Trade Organization is generally known to have been unfair to Global South countries. This has been debated for many years, with the Global South countries requesting the reform of the WTO. Apart from the unilateral, unfairness, unjustness and exclusivity of the current WTO towards the Global

South countries, the WTO rules are not climate compatible, and are not development-oriented. The result has created tension between Global South countries and global climate change policies, introduced mainly by developed countries that seek to reduce GHG emissions embedded in traded goods and services, as well as standards introduced for agricultural goods such as to reduce deforestation.

Ismail (2020; 2022) highlighted the need to reform the WTO, and that some of the reforms should include the climate compatibility of the WTO. Ismail (2023) noted that the WTO, within its present set-up, should be reformed across many aspects. These include allowing free green technology transfers, i.e. allowing flexibility on the agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS); streamlining WTO and United Nations Framework Convention on Climate Change (UNFCCC) principles to ensure climate compatibility of trade; and strengthening the rules-based trading system – a multilateral, inclusive, fair, just, and development-oriented system.

Strengthen the rules-based trading system

First, Global South countries need to ensure that a multilateral, inclusive, fair, just and development-oriented trading system is in place. To ensure that the WTO can be reformed, the current trade war between the US, the EU and China need to be stabilised. The international trading system has started to become distorted and fragmented in applying a rules-based trading system as the result of the trade wars, which are now intensified by climate change. As a start, the Environmental Goods and Services Agreement (EGS) being negotiated in the WTO and other Joint Statement Initiatives (JSIs) should be inclusive and multilateral, rather than plurilateral and exclusive (Ismail, 2023). African negotiators (especially the African group) at the WTO need to be included in these negotiations.

This can be done by developed countries starting to support a positive green trade agenda and inviting developing countries to the negotiating table. In these instances, the African group of negotiators should call on OECD members to avoid unilateral measures such as CBAM and to engage in inclusive, multilateral negotiations towards a Global Green New Deal.

This, according to (Ismail, 2023), would require the United Nations (UN) to host a summit that includes the UNFCCC, the WTO, the G20 and all other UN agencies that work on issues related to climate change and its impacts. The African Group (through the African diplomats at the WTO), in addition, can work together with other countries (i.e., G20 and BRICS+ countries) to restore the integrity of the WTO. The aim would be to strengthen the rules-based trading system that is multilateral, inclusive, fair, just and development-oriented and to work towards a positive trade and environment agenda.

Advancing free green technology transfers

The WTO can use the example of the Doha Ministerial Declaration on the TRIPS agreement and public health. This reaffirmed flexibility of TRIPS member states in circumventing patent rights for better access to essential medicines. A similar declaration can be made to allow circumvention of patent rights for better access to green technologies. This will include expanding the TRIPS flexibilities for developing countries in relation to climate-related goods and services, and advance patent free green technology transfers for Africa's climate resilient development regionalism and green transformation (Ismail, 2023).

Streamlining the WTO and UNFCCC principles

African countries need sufficient policy space for their climate resilient development strategies and green transformation. Ismail (2023) noted that developed countries should recognise the principle of Special and Differential Treatment (S&DT) as highlighted by the WTO, and Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) as highlighted in the UNFCCC.

These two principles can be used to position the vulnerability of developing countries to have a tailored approach to fighting climate change, subsequently trading fairly in the international space. For example, these two principles can allow flexibility of rules for developing countries within the WTO, and the consideration of implementation concessions such as allowing more time to implement climate change trade-related policies, providing capacity building, and tariff reductions. The streamlining of these principles can be highlighted in the next Ministerial Conference, and the Ministerial Conference can deliberate on a 'Declaration on the TRIPS agreement', and these two principles above can be reflected in the declaration.

Reflecting on Article 20 of the General Agreement on Tariffs and Trade (GATT)

The European Union, in the WTO, will likely use Article 20 of the GATT to defend some of the protectionist measures introduced under the EGD, such as the introduction of CBAM. Article 20 of the GATT highlights that, "WTO members may restrict trade for a variety of social reasons, including protecting the environment, preventing prison labour, and otherwise promoting public morals". While the EGD is a warranted mechanism, it has negative implications for developing countries, in particular Africa. Reflecting on this, in parallel with the reform of the WTO under the aforementioned entry points, could be another avenue for reforming the WTO. This should be done to allow enough space to not harm developing countries, in the process of environmental protection.

Global financial system

The current global financial system funds a large share of developmental needs in the world, including financing to combat climate change. However, to date the mission of the global financial system (specifically the World Bank's mission) is solemnly focused on ending extreme poverty and fostering inclusive growth, despite US\$4 trillion-US\$6 trillion in climate finance required per year to transform the globe to a low-carbon economy (see the Nairobi Declaration on Climate Change and Call to Action – African Union, 2023).

In this context, the Bridgetown Initiative (2023), led by Barbados Prime Minister Mia Mottley, which African countries support, seeks to reform the global development finance system. Support for this initiative will see increased welfare in developing economies worldwide. The current need for reform highlights that the World Bank should include the goal of tackling climate change and a vision that stresses the need to work on global goals.

In Africa, a blanket approach has been applied to financing development in the continent. Among other models, the Bridgetown Initiative highlights the need for reforming the National, Regional and Global Operating Models. This means that a blanket approach for development issues based on countries should not be used any more. Instead, regional financing models need to be used. For example, a region encapsulating different countries might need more climate finance, and in this case tailored finance needs to be applied instead of only using a generalised view. However, there are some political economy concerns that need to be considered. In this context, in Africa a regional model of finance must be adopted. This will allow the regional approach to be used to solve the issues that the African continent is facing, regionally. The Bridgetown Initiative highlights that the use of regional models of finance can solve the issues that are affecting regions across the world today.

Last, the climate crisis requires the creation of new money, i.e. additional funding for climate finance, mainly transfers from the Global North to Global South (mostly in grants not loans). In developing countries, at most US\$6 trillion needs to be mobilised by 2030 for climate action. The creation of new money could be done through expanding capacity and improving the concessional lending terms of multilateral development banks as well providing grants and building a bigger World Bank. This will be critical for allowing developing countries, especially Africa, to finance its climate change needs.

7. CONCLUSION

African exports are at risk due to the introduction of tariff and non-tariff measures amid global decarbonisation and the fight for climate change. Immediate sectors at risk include carbon intensive, energy-intensive and resources/material-intensive sectors, which face mostly tariff barriers. Agricultural products are also at risk, mostly with non-tariff barriers, such as product standards, sanitary and phytosanitary measures and technical standards (MacLeod, Luke and Bashi, 2023). The risks differ country by country, differentiated by fossil fuel exporting, agricultural exporting, mining exporting and manufacturing exporting countries. From the exposure and vulnerability assessment, manufacturing exporting countries remain highly vulnerable and exposed to the introduction of the European Green Deal, and climate change policies around the world.

This paper analysed the implications of the European Green Deal on African trade. The study briefly outlined the European Green Deal in the African context and analysed the affected African traded commodities and the implications. As outlined in the suggested policy response, a regional approach in creating a climate resilient and low-carbon economy across the African continent prevails as a possible approach to co-ordinate the response(s) to the global structural changes. Therefore, in response to the EGD, and similar global climate change policies, the African continent needs a co-ordinated regional approach. This is supported by the Nairobi Declaration on Climate Change and Call to Action (African Union, 2023).

As highlighted, this could include establishing what can be called an African Green Deal – the Africa’s green industrial plan, which could be governed by the AU through the AfCFTA. The response must also seek to establish a regional carbon market to leverage the continent’s natural resources, as well as seeking debt climate swaps from Global North creditors.

In parallel, through the African Group at the WTO, the continent can negotiate reforming the multilateral systems. This can start with the reform of the WTO (considering the political economy issues) to allow fair trade and a tailored approach for climate action across the continent, and by supporting an alliance with other developing countries to reform the global financial system. Fundamentally, the African continent needs to be capacitated financially and non-financially, including technical assistance as well as allowing technological transfer, especially technology transfer of green technologies.

The European Green Deal’s immediate policies that will affect African trade in the short term are the EU CBAM; regulation on deforestation-free supply chains; transport legislation, such as the banning of ICE vehicles by 2035; the Farm to Fork Strategy; and the Circular Economy Action Plan.

Manufacturing and mining exporting countries will be primarily impacted by the ban of ICE vehicles in the EU by 2035, CBAM, the Farm to Fork Strategy, and the Circular Economy Action Plan. Agricultural exporting countries will be primarily impacted by regulation on deforestation-free supply chains and the Farm to Fork Strategy. Fossil fuel exporting countries are set to benefit from the REPowerEU plan in the short term, which seeks to replace the Russian gas supply. However, as climate action intensifies worldwide and investment in clean technologies increases, the export of fossil fuels might be under pressure, especially in the EU market. African countries need to wake up to the climate externalities being introduced by the Global North. Otherwise, these climate externalities will have a detrimental impact on the development of the continent, undermining the progress made thus far.

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APPENDIX

The European Green Deal – Context (Expanded)

This expanded context on the European Green Deal adds to Section 2 in understanding the European Green Deal.

Climate ambition

The European Green Deal has numerous policy tools that seek to increase the EU's climate ambition for 2030 and 2050 compared to 1990 levels. The following sub-sections unpack key policy tools that the EU is using to create a more climate ambitious roadmap for climate action across the region. These include the European Climate Law, the Carbon Border Adjustment Mechanism, and the EU Strategy on Adaptation to Climate Change. Other tools include directives and regulations such as the review of Emissions Trading System Directive; Effort Sharing Regulation; land use, land use change and forestry regulations; Energy Efficiency Directive; Renewable Energy Directive; CO₂ emissions performance standards for cars and vans; and the revision of the Energy Taxation Directive.

European Climate Law

The main aim of the EGD through the climate law is to reduce Europe's net greenhouse gas emissions by at least 55% by 2030 and make the continent the first to be climate neutral by 2050. The European Climate Law, which entered into force on 29 July 2021, is an overarching tool for promoting the European Green Deal. The law aims to ensure that all EU policies contribute to the goal of reducing net greenhouse gas emissions across Europe and that all sectors of the economy and society play their part. The climate law also seeks to create a predictable business environment for industry and investors and provides a mechanism for keeping everybody on track – with regular reporting on progress and tools to catch up if anyone falls behind.

In addition, the climate law focuses on renewing the focus on adapting to the impacts of climate change to strengthen Europe's resilience, including for its vulnerable communities. Underpinning the latter, the EU has established a European Climate Pact. This initiative seeks to connect people, communities, and organisations across Europe to share knowledge, learn about climate change, and develop and scale up solutions to fight climate change. The main aim is to create an open and inclusive process for climate action across the European Union, thus promoting a just transition process for climate action in Europe.

Carbon Border Adjustment Mechanism

On the 16 May 2023, the European Union's Carbon Border Adjustment Mechanism was fully legislated. CBAM is a carbon border tax on embedded GHG emissions of carbon-intensive products imported into the EU. The main intent of CBAM is to equalise the price of carbon between EU products and imports, by ensuring importers face similar conditions to EU manufacturers and that the EU climate objectives are not undermined by carbon leakage. The mechanism is intended to do this by promoting climate action abroad and raising revenue in the process. In parallel to adopting CBAM for climate action in and outside Europe, the scheme also seeks to phase out free allowances under the EU Emissions Trading System (ETS), through a review of the Emissions Trading System Directive.⁶ Between October 2023 and end of 2025, CBAM will allow companies exporting to Europe to only report on both direct and indirect GHG emissions embedded in the carbon intensive products (Monaisa and Maimela, 2023). The border carbon tax will apply from the year 2026, ramping up

⁶ The new rules in the ETS (a carbon market-based system of cap-and-trade of emissions allowances for energy-intensive industries, the power generation sector, and the aviation sector), increase the overall ambition of emissions reductions by 2030 in the sectors covered by the EU ETS to 62% compared to 2005 levels.

progressively until 2034 for a set of defined goods. The initial list covers cement, aluminium, fertilisers, electric energy production, hydrogen, iron and steel, as well as some precursors (such as iron ore) and a limited number of downstream products.

Adaptation strategy

Climate adaptation amid the continued climate risks of more frequent extreme weather events like floods, droughts, heatwaves, coastal erosion from rising sea levels is also considered in the European Green Deal. In February 2021, the European Commission (EC) adopted a new EU Adaptation Strategy. The strategy aims to increase and accelerate the EU's efforts to protect nature, people, and livelihoods against the unavoidable impacts of climate change. The strategy's principal objectives are to make adaptation smarter, swifter and more systemic, and to step up international action on adaptation to climate change.

Other

The EGD is a general tool that covers all facets of the European economy. This includes other mechanisms for reducing GHG emissions for other sectors and removing CO₂ from the atmosphere by capturing it in soil and forests. The EGD also includes land use, land use change, and forestry regulations. In March 2023, the European Council adopted the revised regulation on land use, land use change and forestry. As per the adopted regulation, the EU member states should ensure that emissions from land use and forestry are compensated by an equivalent removal of CO₂ within the sector for the period 2021-2030. Other sectors not covered by the ETS, including transport, buildings, agriculture, and waste are legislated through the Effort Sharing Regulation, which establishes binding annual greenhouse gas emission targets ranging between 0%-40% by 2030 compared to 2021 for EU Member States for the period 2021–2030.

Environment

The European Green Deal is also centered around protecting and conserving the environment. At the back of this are the biodiversity and forestry strategies. This includes the EU regulation on deforestation-free supply chains. This is supported by other actions the European Union is taking in realising the visions and ambitions of the EGD. This includes the chemicals strategy for sustainability; the zero-pollution action plan for water, air and soil; and the revision of measures to address pollution from large industrial installations.

Biodiversity strategy

The European Union's biodiversity strategy for 2030 is a comprehensive, ambitious, and long-term plan to protect nature and reverse the degradation of ecosystems in the European Union. The strategy aims to put the EU's biodiversity on a path to recovery by 2030 and contains specific actions and commitments. Some of the actions include establishing a larger EU-wide network of protected areas on land and at sea; launching an EU nature restoration plan; introducing measures to enable the necessary transformative change; and introducing measures to tackle the global biodiversity challenge. Part of the biodiversity strategy is the proposed nature restoration law, which seek to increase EU's biodiversity; secure ecosystem services, like cleaning water and air; pollinating crops; protecting human beings from floods; limiting global warming to 1.5°C; building up the EU's resilience and strategic autonomy; preventing natural disasters; and reducing risks to food security.

Forestry strategy and regulation on deforestation-free supply chains

The European Union forestry strategy for 2030 builds on the biodiversity strategy, which aims to adapt EU forests to the new conditions, weather extremes, and the high uncertainty brought about by

climate change. The strategy seeks to protect and restore forests, ensure that forests are managed sustainably, and understand what is happening to forests.

Another regulation within the environment space is the EU Regulation on deforestation-free supply chains. This regulation is about the need to limit products that promote deforestation across the world. Therefore, the regulation on deforestation-free supply chains discourages the consumption of commodities that promote deforestation across the world. These commodities include palm oil, cattle, soy, coffee, cocoa, timber and rubber, as well as derived products (such as beef, furniture, leather, or chocolate). This law will allow the EU to stop deforestation-related commodities and products on the EU market. Once the law is adopted, exporting companies to the EU of these products will need to conduct strict due diligence. This will require operators and traders to prove that the products are both deforestation-free (produced on land that was not subject to deforestation after 31 December 2020) and legal (compliant with all relevant applicable laws in force in the country of production). In December 2022, provisional political agreement had been reached by the European Council and European Parliament to adopt the regulation. Once the regulation is in force, operators and traders will have 18 months to implement the new rules while micro and small enterprises will enjoy a longer adaptation period.

Zero pollution

In conjunction with the biodiversity and forestry strategies, the EU wants to be a zero-pollution region by 2050. This is supported by the chemical strategy, zero pollution action plan for water, air and soil, and measures to address pollution from large industrial installations. In October 2020, the EC published a chemicals strategy for sustainability. The strategy aims to better protect citizens and the environment, and boost innovation for safe and sustainable chemicals. In parallel, in May 2021, the EC adopted a zero-pollution action plan for water, air and soil. The action plan aims to better prevent, remedy, monitor and report on pollution.

Clean energy

Decarbonising the energy system in the EU has also been an accelerator identified in the EGD to reach the EU's climate objectives. Building on this, the EGD seeks to decarbonise the EU energy system by accelerating a clean energy transition. The clean energy transition in the EU follows a number of key principles: ensuring a secure and affordable EU energy supply; developing a fully integrated, interconnected, and digitalised EU energy market; and prioritising energy efficiency by improving the energy performance of buildings in the EU; and developing a power sector based mainly on renewable sources. Among other key actions in the EGD that back this policy measure is the strategy for smart sector integration; the "renovation wave" initiative for the building sector; the strategy on offshore wind; the evaluation and review of the Trans-European Network – Energy Regulation and the REPower EU plan; and the Energy Efficiency Directive and the Renewable Energy Directive.

The main objectives of the clean energy transition for the EU include developing an interconnected energy system to better link/integrate renewable energy sources to the grid; promote innovative technologies and modern infrastructure; boost energy efficiency and eco-design of products; decarbonise the gas sector and promote smart integration across sectors; empower consumers and help member states tackle energy poverty; increase cross-border and regional co-operation to better share clean energy sources; promote EU energy standards and technologies at global level; and develop the full potential of Europe's offshore wind energy.

REPower EU Plan

The EU through the EGD has adopted the REPower EU Plan, which aims to replace gas supply from Russia with other suppliers, amid the war in Ukraine that cut oil and gas supply to the EU. This plan

covers energy sectors, including the accelerated demand within the EU of coal, gas, and oil. It seeks to cover the supply shortfall as the result of Russia's invasion of Ukraine. The plan also put some measures in place which include accelerating climate action abroad. This includes implementing the Just Energy Transition Partnership (JETP) with South Africa and explores similar partnerships with other countries in view of COP27. Other measures also include implementing the EU-Africa Green Energy Initiative, which aims to bring electricity access to 100 million people in Africa.

The REPower EU plan also seeks to boost the roll-out of renewable energy and energy efficiency and savings across the world, including in Western Balkans, Africa, the Mediterranean and the Indo-Pacific region. Biogas and biomethane and green hydrogen are also other renewable energy technologies explored. The EU through the EGD has set aside €210 billion to be used by 2027 to finance the REPower EU plan for clean energy and reduce reliance on gas from Russia. This initiative will be financed mainly from the Emission Trading System. The financing break down of the REPower EU plan includes: the power grid by 2030 to enable greater electricity (€29 billion); investments to import sufficient liquified national gas (LNG) and pipeline gas by 2030 (€10 billion); security of oil supply (€1.5-€2 billion); renewable energy by 2030 (€86 billion); key hydrogen infrastructure by 2030 (€27 billion); adapting industry to use less fossil fuels by 2030 (€41 billion); investing in energy efficiency and heat pumps by 2030 (€56 billion); and increasing biomethane production by 2030 (€37 billion).

Agriculture

Agriculture is another avenue that the EGD uses to reach EU's climate neutrality by 2050. In response to the climate change and biodiversity loss within the agricultural sector, the EGD seeks to maintain and put sustainable food systems at the heart of the green deal. The main aims of the EGD under the agricultural sector seek to ensure food security in the face of climate change and biodiversity loss, reduce the environmental and climate footprint of the EU food system, strengthen the EU food system's resilience, and lead a global transition towards competitive sustainability from farm to fork.

Farm to Fork Strategy

At the heart of the agricultural transition is the Farm to Fork Strategy. The strategy aims to make food systems fair, healthy, and environmentally friendly in the EU.

Key actions include having a common agricultural policy reform; a common agricultural policy strategic plan; an organic farming action plan; an EU agri-food promotion policy; a policy on welfare of farmed animals; sustainable use of pesticides; and nutrition labelling.

The Farm to Fork Strategy aims to accelerate the EU transition to a sustainable food system that should have a neutral or positive environmental impact, help to mitigate climate change and adapt to its impacts, and reverse the loss of biodiversity. The strategy also aims to ensure food security, nutrition, and public health, making sure that everyone has access to sufficient, safe, nutritious, sustainable food and preserve affordability of food while generating fairer economic returns. At the same time, the strategy aims to foster the competitiveness of the EU supply sector and promote fair trade.

The Farm to Fork Strategy aims to reduce the use and risk of chemical pesticides by 50% and the use of more hazardous pesticides by 50% by 2030, compared to a three-year baseline, comprising the average of 2015, 2016 and 2017. The strategy also seeks to reduce nutrient losses by at least 50%, while ensuring no deterioration on soil fertility, and to reduce fertiliser use by at least 20% by 2030. The strategy furthermore seeks to reduce the sales of antimicrobials for farmed animals and in aquaculture by 50% by 2030. Importantly, the strategy seeks to boost the development of EU organic farming area with the aim to achieve 25% of total farmland under organic farming by 2030.

Industry

The EGD also identifies industrial decarbonisation to achieve its climate neutrality by 2050. The main goal of decarbonising industries across the European Union is to harness the significant potential in global markets for low-emission technologies, sustainable products, and services. Worth noting is that achieving climate neutral and circular economy requires the full mobilisation of industries. This includes all industrial value chains, including energy-intensive sectors.

Industrial strategy, Critical Raw Materials Act and the Circular Economy Action Plan

Underpinning the need to decarbonise industries, the EGD has laid out a **new industrial strategy**. The strategy aims to support the twin transition to a green and digital economy, make EU industries more competitive globally, and enhance the EU's open strategic autonomy. In March 2023, the EU proposed the **Critical Raw Materials Act**⁷ to enable this twin transition. The main aim of the Act is to significantly improve the refining, processing and recycling of critical raw materials in Europe to support the green and digital economies.

Among others, key industry actions are the **Green Deal Industrial Plan** (an incentive-based tool for deploying clean tech manufacturing capacity in the EU), the **Circular Economy Action Plan**, including a sustainable products initiative – with a particular focus on resource-intensive sectors. These sectors include textiles, construction, electronics and plastics. The initiative also seeks to stimulate lead markets for climate neutrality as well as circular products in energy intensive industrial sectors. The proposals include support for zero carbon steel-making processes by 2030; legislation on batteries in support of the strategic action plan on batteries and the circular economy; and the legislation on waste reforms.

Chemicals Strategy for Sustainability

Another key EGD commitment is the EU Chemicals Strategy for Sustainability, which is also cross-cutting, affecting industries as well as the environment. The EU Chemicals Strategy aims to better protect citizens and the environment and boost innovation for safe and sustainable chemicals. Actions under the strategy include: banning the most harmful chemicals in consumer products – allowing their use only when essential; accounting for the cocktail effect of chemicals when assessing risks from chemicals; phasing out the use of per- and polyfluoroalkyl substances in the EU, unless their use is essential; boosting the investment and innovative capacity for production and use of chemicals that are safe and sustainable by design, and throughout their life cycle. The strategy also promotes the EU's resilience of supply and sustainability of critical chemicals, establishing a simpler "one substance one assessment" process for the risk and hazard assessment of chemicals, and playing a leading role globally by championing and promoting high standards and not exporting chemicals banned in the EU.

Transport

Transportation is also key for the EU to reach its ambition of climate neutrality by 2050. This requires a clear path. The EGD aims to achieve a 90% reduction in transport-related greenhouse gas emissions by 2050. Key actions include a sustainable and smart mobility strategy; connecting the Europe express; and banning internal combustion engine vehicles by 2035.

Sustainable and smart mobility strategy

The sustainable and smart mobility strategy aims to create sustainable mobility, smart mobility and resilient mobility. The strategy seeks to achieve these by reducing the dependence of the transport

⁷ This regulation still needs to be discussed and agreed by the European Parliament and the Council of the European Union before its adoption and entry into force.

sector on fossil fuels, making alternative choices available, and using pricing to reflect environmental impact. This includes harnessing the power of data, by using an integrated electronic ticketing system to facilitate seamless multimodal passenger transport and making freight transport paperless, and automating mobility on a large scale. It also entails building a strong, resilient single market, including creating a mobility system that is fair and just for all and ensuring the highest standards of safety and security in European transport.

Banning Internal Combustion Engine vehicles

In March 2023, the EU adopted a ban on the sale of new petrol and diesel cars from 2035. This is also done to support the main objective of the European Green Deal of reaching climate neutrality by 2050. Under the ban, the EU aims to cut emissions from cars by 55% and from vans by 50% by 2030, compared with 2021, to reach the goal of zero emissions from new cars and vans by 2035. This ban will be supported by proposals for more stringent air pollutant emissions standards for combustion-engine vehicles.

Other

Other key actions related to the transport sector include an assessment of legislative options to boost the production and supply of sustainable alternative fuels for the different transport modes. This includes a revised proposal for a directive on combined transport; review of the alternative fuel infrastructure directive; and the trans-European Transport Network regulation, including the initiative to increase and better manage the capacity of railways and inland waterways.

Just transition and finance

The just transition requires policies to be inclusive, and not leave anyone behind. The EGD has adopted key measures to ensure a just transition for the European Union. These measures include the proposal for a Just Transition Mechanism (JTM), including a Just Transition Fund, and the Sustainable Europe Investment Plan, as well as the European Climate Pact.

Financing the EU Just transition

The European Green Deal Investment Plan, also referred to as the Sustainable Europe Investment Plan, is the investment pillar of the EGD. To achieve the goals set by the European Green Deal, the plan seeks to mobilise at least €1 trillion in sustainable investments by 2030. Part of the plan is the JTM, which seeks to provide targeted support to European regions and sectors that are most affected by the transition towards the green economy. The JTM helps address the social and economic effects of the transition, focusing on the regions, industries and workers who will face the greatest challenges, and mobilising at least €100 billion.

These funds will be raised through financial support from the new Just Transition Fund of €7.5 billion, generating at least €30-€50 billion of investments; the InvestEU Just Transition scheme, mobilising €45 billion of investment; a new public sector loan facility with the European Investment Bank backed by the EU budget, mobilising €25-€30 billion of investments. Transition plans for beneficiary regions to steer the investments, attractive conditions and risk sharing for public and private investors, and technical assistance via a Just Transition Platform to advise and support will be other measures to support the EGD.

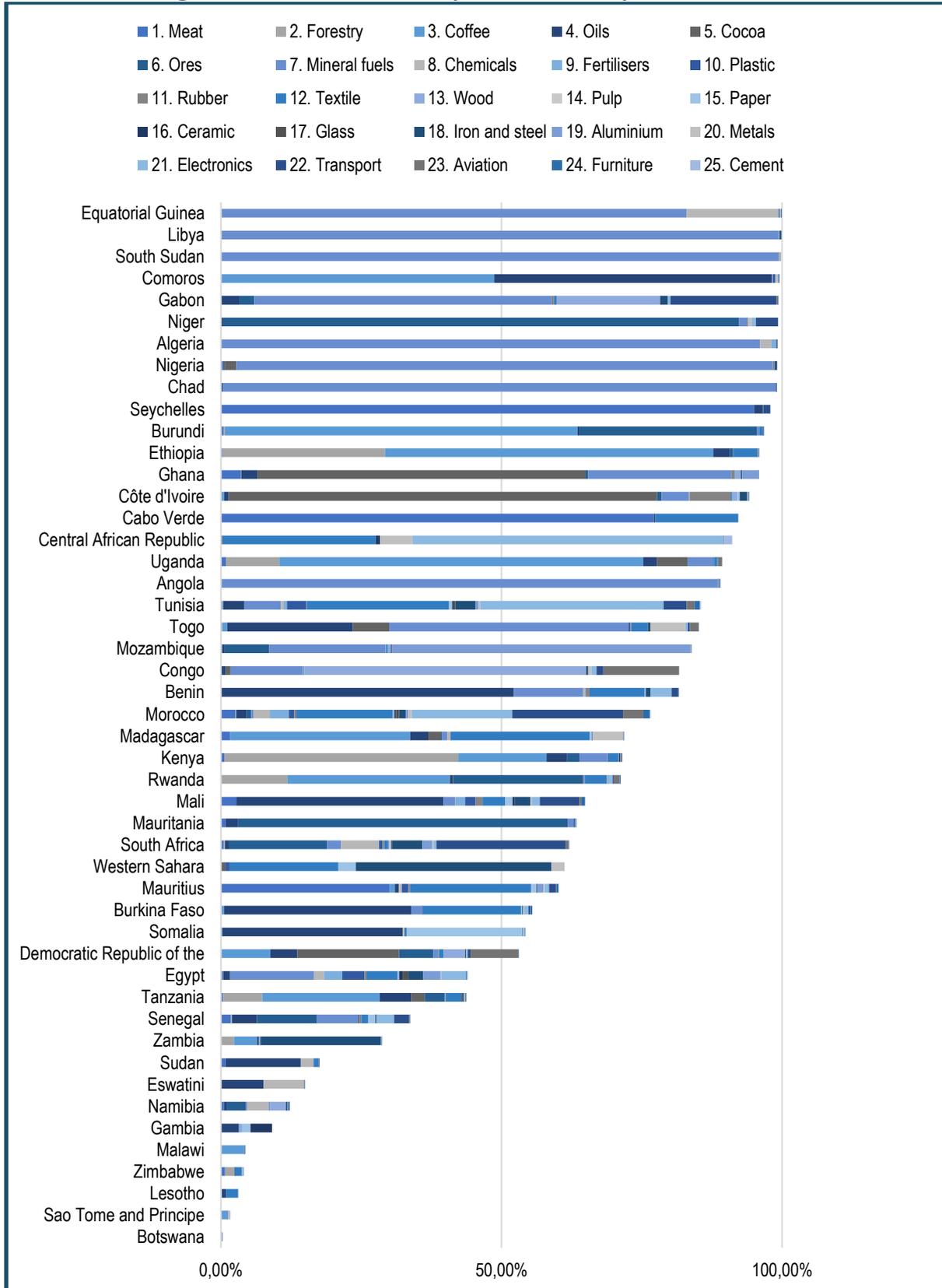
Another just transition action is the European Climate Pact, which will be financed from the €100 billion highlighted above. The European Climate Pact is a movement of people (including civil society, labour, private and public sectors) united around a common cause, each taking steps in their own worlds to build a more sustainable Europe. The main aim of the European Climate Pact is to share knowledge, learn about climate change, and develop and scale up solutions to fight climate change.

Table 6. Proportion of exports and imports by African countries to the EU

Country	Imports	Exports
South Africa	-15,2%	19,9%
Morocco	-16,8%	12,7%
Algeria	-8,3%	12,5%
Libya	-3,5%	11,5%
Nigeria	-8,2%	11,1%
Tunisia	-7,2%	6,9%
Egypt	-14,5%	6,4%
Côte d'Ivoire	-2,3%	2,9%
Ghana	-2,3%	1,4%
Cameroon	-1,1%	1,2%
Angola	-1,9%	1,2%
Mozambique	-0,6%	1,0%
Kenya	-1,4%	1,0%
Namibia	-0,4%	0,9%
Equatorial Guinea	-0,2%	0,8%
Chad	-0,1%	0,7%
Congo (DR)	-0,7%	0,7%
Botswana	-0,4%	0,7%
Gabon	-0,5%	0,6%
Madagascar	-0,4%	0,6%
Liberia	-0,9%	0,5%
Congo	-0,5%	0,4%
Mauritania	-0,5%	0,4%
Ethiopia	-1,1%	0,4%
Mauritius	-0,6%	0,4%
Uganda	-0,5%	0,3%
Senegal	-2,6%	0,3%
Tanzania	-0,5%	0,3%
Guinea	-0,6%	0,3%
Sierra Leone	-0,2%	0,2%
Zimbabwe	-0,2%	0,2%
Malawi	-0,1%	0,2%
Seychelles	-0,1%	0,2%
Zambia	-0,2%	0,2%
Sudan	-0,5%	0,2%
Lesotho	0,0%	0,1%
Niger	-0,2%	0,1%
Burkina Faso	-0,6%	0,1%
Togo	-1,3%	0,1%
Eswatini	0,0%	0,1%
Rwanda	-0,3%	0,1%
Cabo Verde	-0,3%	0,1%
South Sudan	0,0%	0,0%
Mali	-0,8%	0,0%
Somalia	-0,1%	0,0%
Burundi	-0,1%	0,0%
Central African Republic	-0,1%	0,0%
Benin	-0,5%	0,0%
Comoros	0,0%	0,0%
Sao Tome and Principe	0,0%	0,0%
Gambia	-0,2%	0,0%
Djibouti	-0,2%	0,0%
Eritrea	0,0%	0,0%
Guinea-Bissau	-0,1%	0,0%
Western Sahara	0,0%	0,0%

Source: Author based on Trade Map (2023).

Figure 11. African Countries exposed to the European Green Deal*



Source: Author based on Trade Map, Bilateral trade between countries and European Union (EU 27).

***Grouping of products by HS code**

Product grouping	HS Code included
Meat	1, 2, 5, 16 & 41
Forestry	6
Coffee	9
Oils	12, 15 & 33
Cocoa	18
Ores	26
Mineral fuels	27
Chemicals	28, 29 & 38
Fertilisers	31
Plastic	39
Rubber	40
Textile	42, 43, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 64
Wood	44
Pulp	47
Paper	48 & 49
Cement	68
Ceramics	69
Glass	70
Iron and steel	72 & 73
Aluminium	76
Electronics	85
Metals	81, 82 & 83
Transport	86, 87 & 89
Aviation	88
Furniture	94