TRADE AND CLIMATE SUSTAINABILITY

BRIEFS 2025

THE AFRICAN CLIMATE FOUNDATION

LSE Firoz Lalji Institute for Africa

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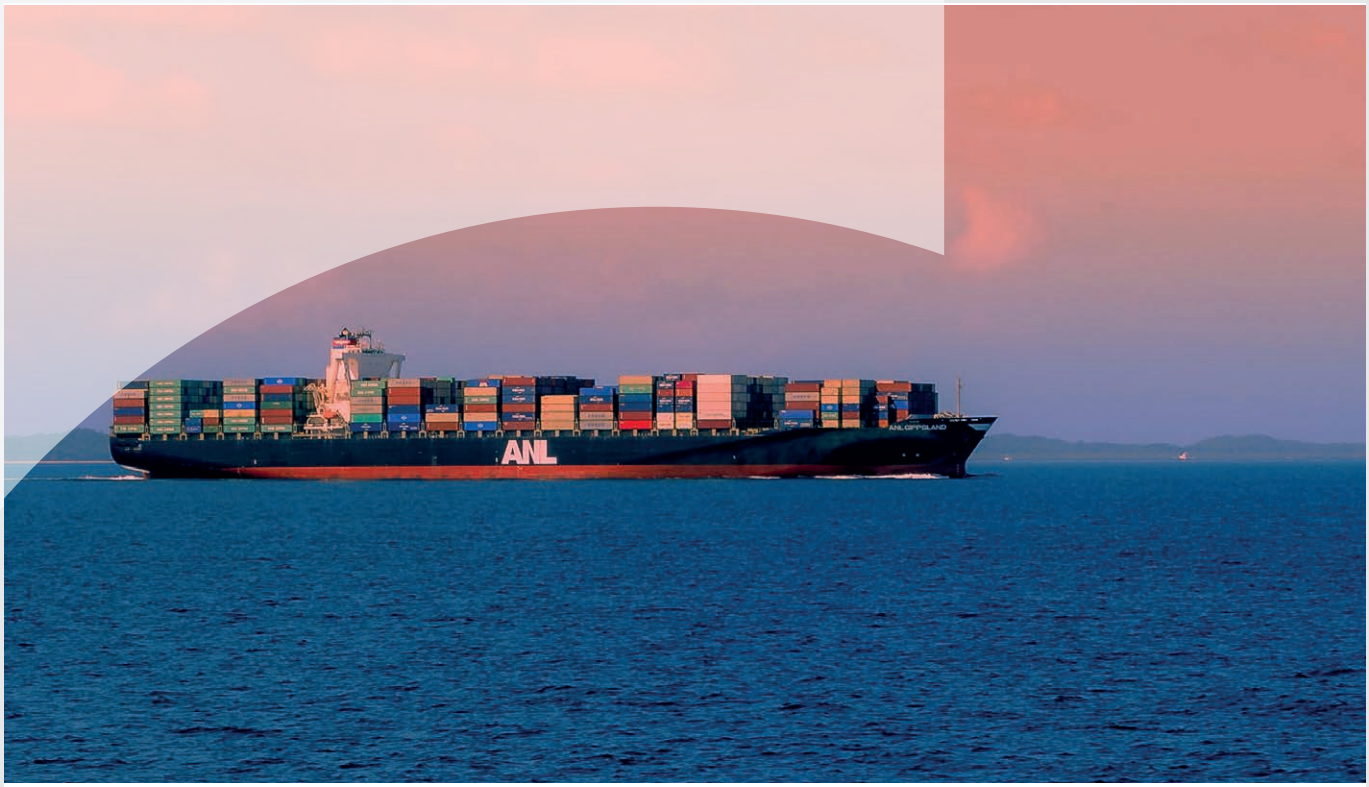

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This collection of briefs is a joint publication of the African Climate Foundation (ACF) and the Firoz Lalji Institute for Africa at the London School of Economics and Political Science (LSE). It was prepared under the overall guidance of David Luke of LSE and Sahele Fekede of ACF.

Thanks are due to Daniel Gay of Emergent Economics for peer review of the briefs and to Kelly Easton of ACF for preparing the collection for publication.

PREFACE

In 2023, the African Climate Foundation and the Africa Trade Policy Programme of the Firoz Lalji Institute for Africa at the London School of Economics jointly published the report Implications for African Countries of a Carbon Border Adjustment Mechanism in the EU. It was the first comprehensive study to focus squarely on the economic ramifications of the EU's CBAM from an African perspective. Widely acclaimed, it broke new ground by shedding light on how Africa could be disproportionately affected by emerging climate-related trade measures unless its voice is fully incorporated into global policy processes.

Building on this pioneering work, the two institutions are expanding their collaboration by launching this new series on global climate and trade policies and their implications for Africa. This initiative comes at a critical juncture. In 2025, amidst intensifying geopolitical turbulence, we are witnessing a retreat from climate ambition, a recalibration of global trade relationships, and a reconfiguration of supply chains. The interface between trade and climate sustainability – long neglected – is becoming increasingly central. Africa must be part of the conversation, not as a passive recipient of external decisions, but as a proactive agent shaping outcomes.

The series aims to interrogate key policy issues at this trade–climate nexus with a distinctly African lens. It will serve as a contribution to knowledge and a riposte to those forces seeking to dilute or divert attention from sustainability imperatives. It is part of the African Climate Foundation's broader work with continental experts to connect trade policy with green industrialisation, critical minerals strategies, and climate resilience – dimensions often overlooked in traditional trade discussions.

The current breakdown in global trade architecture offers an opportunity to incorporate fresh thinking. For too long, international trade negotiations have sidelined the linkages between trade and environmental sustainability. Correcting this imbalance is urgent. Africa must seize the moment to argue that climate action and development are not opposing forces, but two sides of the same coin.

This inaugural collection of policy briefs is based on rigorous research and focuses on themes that illustrate a fundamental truth: the gains from trade and the imperatives of climate sustainability are not mutually exclusive. With the right policy frameworks, they can reinforce each other, creating economically robust, socially inclusive and environmentally sound outcomes. Trade must be reclaimed as an instrument of development – a mechanism for building reciprocity and mutual prosperity among nations and peoples.

Whether it is designing an inclusive clean energy transition for South Africa, safeguarding the integrity of voluntary carbon markets, enhancing Africa's participation in transitional mineral value chains, or shaping instruments like the UK's CBAM to mitigate harm to developing countries, the case studies explored in this collection demonstrate that equitable and optimal outcomes are possible.

At the same time, with multilateralism under increasing strain, it is critical not to overlook the efforts underway at the World Trade Organization to keep the focus on urgent and emerging trade–climate issues. Two of the briefs in this collection engage directly with the ongoing discussions at the WTO and critically assess the modest outcomes of the most recent ministerial meeting.

I am confident that the insights gathered here will inform the continent's engagement, advocacy and policymaking. At a time when some are backtracking on climate commitments, as evidenced already in 2025, Africa must redouble its efforts to link trade and climate agendas in ways that advance both global sustainability and African transformation.

Prof. Carlos Lopes

Chair of the Board, African Climate Foundation.

ACRONYMS

ASCM	Agreement on Subsidies and Countervailing Measures
ATPP	Africa Trade Policy Programme
CBAM	Carbon Border Adjustment Mechanism
CGE	Computable General Equilibrium
EU27	Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden
FFSR	Fossil Fuel Subsidy Reform
FSA	Fisheries Subsidies Agreement
GHG	Greenhouse Gas
IDP	Informal Dialogue on Plastics Pollution and Sustainable Plastics Trade
LDC	Least Developed Countries
LSE	London School of Economics
NDC	Nationally Determined Contributions
SAJETIP	South African Just Energy Transition Investment Plan
SAM	Social Accounting Matrix
TESSD	Trade and Environmental Sustainability Structured Discussions
TRIMs	Trade-Related Investment Measures
UN	United Nations
WTO	World Trade Organization

INTRODUCTION

Welcome to this inaugural annual collection of *Briefs on Trade and Climate Sustainability 2025*. The collection is inspired by a growing recognition that trade and trade policy have a key role to play in advancing planetary sustainability. The nexus between trade and climate is becoming increasingly established as a specialised area of both analytical investigation and policy discourse. Moreover, in a context of growing global uncertainty and policy fluidity, a perspective on emerging trade–climate issues that takes into consideration African development aspirations and interests is essential. It is against this background that the Africa Trade Policy Programme (ATPP) at the London School of Economics (LSE) Firoz Lalji Institute for Africa and the African Climate Foundation prioritised the preparation of six briefs on topical trade–climate issues as a resource for African policymakers, stakeholders and partners. It is our expectation that as an annual collection of briefs, the series will help to shed light on issues on the evolving trade and climate agenda.

One of the six briefs in this collection models the likely distributional impacts of the South African Just Energy Transition Investment Plan (JETIP) to highlight not only the trade-offs associated with the clean energy transition but also the short-term disruptive effects, including on production and trade. Three of the briefs provide insights for the articulation of African interests in policy areas that are still evolving. These are the analysis of African interests in voluntary carbon markets; a review of African integration into transition minerals value chains and the strategic measures required to ensure that this opportunity to boost industrial development is not missed; and the delineation of the issues in current World Trade Organization (WTO) green trade discussions. A fifth brief, which encompasses advocacy provided by the ATPP in the context of the UK government's consultations for the design of its Carbon Border Adjustment Mechanism (CBAM), provides a summation of key African concerns as such policy measures are taken. And finally, the sixth brief is a factual record of the sustainability outcomes of the 13th WTO Ministerial Conference that took place in Abu Dhabi, UAE, in March 2024.

Written by ATPP associates, covering disparate subjects, and far from exhausting the current range of issues in the trade–climate nexus, the briefs collectively shed light on urgent and pressing subjects with major policy impacts.

The first brief in the collection by **Oluwasola Omoju** is on the South African JETIP. The JETIP aims to mobilise international resources to develop clean energy solutions. Omoju employs computable general economic modelling of economy-wide and distributional effects to forecast an initial rise in electricity prices with negative

impacts on several economic sectors in addition to the coal and conventional energy sectors. The initial effect on household welfare is also regressive. The modelling results underscore the complexity of clean energy transitions and the need for policymakers to ensure that such initiatives are accompanied by complementary socio-economic policies to mitigate consequences that may emerge for export competitiveness and for some sectors and households.

Aimed especially at African negotiators engaged in the Paris Agreement Article 6 discussions, the brief on Africa's interests in voluntary carbon markets by **William Davis** outlines practical measures that could be locked into a UNFCCC agreement to safeguard the integrity of carbon credits. These include independent and transparent certification schemes; effective regulatory oversight of certification initiatives that reduce emissions as much as they claim to do; requirements that certification schemes take community rights into consideration; and where a trusted scheme that can provide high-quality offsets is established, this should replace carbon border adjustment mechanism charges.

The brief on transition mineral value chains, also by **William Davis**, undertakes a critical review of current trends in this sector and makes the case that African countries are in a strong position to demand a better deal on transition minerals, as the world needs the continent's reserves of this key resource for the energy transition. Africa should leverage this position to secure support for its aspirations to keep more transition mineral value chains on the continent. At the same time, African countries should insist on high environmental, social and governance standards in transition mineral value chains. This should include regulation of the overseas operations of firms that are subject to their jurisdiction. This can strengthen the social licence to operate and avoid disputes that slow down investments.

WTO Director-General Ngozi Okonjo-Iweala is well known for her view that trade and the WTO are part of the solution to problems of climate change and environmental degradation. Discussions are ongoing at the WTO that aim to put climate and environmental considerations at the heart of trade discussions. These include the Trade and Environmental Sustainability Structured Discussions (TESSD), the Informal Dialogue on Plastics Pollution and Sustainable Plastics Trade (IDP), Fossil Fuel Subsidy Reform (FFSR) and the Fisheries Subsidies Agreement (FSA). In the brief on Greening Trade and the WTO, which provides insights of particular interest for African WTO negotiators, **Colette van der Ven**, **Sunayana Sasmal** and **Sanvid Tuljapurkar** unpack Africa's defensive and offensive interests in key areas proposed for reform with implications for policy space for green industrialisation. These areas include reforms to the Agreement on Subsidies and Countervailing Measures (ASCM), the Agreement on Trade-Related Investment Measures (TRIMs) and the Agreement on Agriculture in relation to subsidies for sustainable agriculture.

The brief on the UK CBAM by the **ATPP** advocates for measures that the UK government could incorporate into its CBAM that is due to take effect from 2027. Among these measures are to (i) incorporate exemptions for least developed countries and small vulnerable countries; (ii) utilise some of the CBAM revenues to support the green transition in low-income countries; (iii) recognise that emission intensity varies between countries in calculating emissions default values; and (iv) adjust for carbon prices, including local taxes on the use of fossil fuels in partner countries.

The final brief in this collection on the 13th WTO Ministerial Conference by **Colette van der Ven** highlights the disappointing outcome on sustainable trade issues as consensus could not be reached among WTO members in an increasingly fractured geopolitical global order. While the Abu Dhabi Ministerial Declaration reasserted the importance of sustainable development as an overarching objective of the WTO, it did not mention climate considerations and lacked a dedicated paragraph that addresses trade and the environment. Other expected outcomes, such as the revitalisation of the work programme on trade in environmental goods and services and the initiation of a deliberative process on industrial policy, which was a major demand by the African Group, did not come to fruition. Members failed to agree on starting the second phase of the AFS negotiations.

It is our expectation that African policymakers, trade and climate negotiators, stakeholders in the private sector and civil society, international partners, students and academics will find the insights provided from an African perspective in this inaugural annual collection of briefs on trade and climate useful in navigating various trade and climate discussions.

David Luke, ATPP, ***London School of Economics*** **Sahele Fekede,** ***African Climate Foundation***

ASSESSING SOUTH AFRICA'S JUST ENERGY TRANSITION INVESTMENT PLAN AS A MODEL FOR SUPPORTING 'JUST TRANSITION' IN DEVELOPING COUNTRIES

Oluwasola Omoju

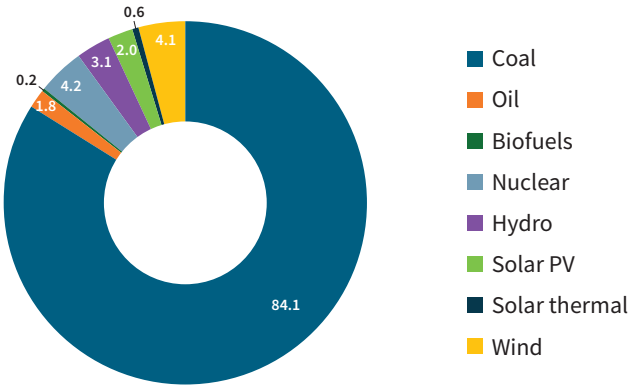
BACKGROUND

Mitigating climate change requires a global and well-coordinated country-level approach, due to the global externalities of the effects of climate change. Developed and emerging economies like the United States, European Union, United Kingdom, Japan, India and China are largely responsible for the global rise in greenhouse gas (GHG) emissions associated with climate change. According to a recent report, the US, China, India, EU27, Russia and Brazil accounted for 61.6% of global GHG emissions in 2022 (Crippa, et al., 2023). The contribution of developing countries, especially the sub-Saharan African region, is minimal. For instance, South Africa accounted for only 0.99% of global GHG in the same year. Despite the limited contribution of developing countries to the climate crisis, they are equally obligated to contribute to the reduction of greenhouse gas emissions under the Just Transition Framework of the Paris Climate Agreement, with financial and technical support from advanced countries.

Several countries, including South Africa, have pledged to reduce GHG emissions as stated in their Nationally Determined Contributions (NDC). Under South Africa's updated NDC, the country committed to an emissions target of 398–440 MtCO2e by 2030 and a target to reach net zero by 2050 (Presidential Climate Commission, 2021). Electricity production and consumption in South Africa is currently dominated by fossil fuel, prominently coal. As shown in Figure 1, fossil fuel is the major source of electricity generation in South Africa. According to

data from the International Energy Agency, coal accounted for 84.1% of electricity generation in 2022 while oil contributed 1.8%. This is followed by nuclear power, which accounted for 4.2%. Renewables only accounted for 10%. Among renewable electricity sources, wind accounted for 4.1%, hydro 3.1%, solar PV 2.0%, solar thermal 0.6% and biofuel 0.2%.

Figure 1: Electricity generation in South Africa, 2020, by source (%)



Source: International Energy Agency[1]

The achievement of the NDC and energy transition is contingent upon the mobilisation of climate finance, beyond what available public finance can cover. Hence the need to mobilise external and private funding. Under South Africa's Just Energy Transition Investment Plan (SAJETIP) (see Box 1), the governments of the United States, United Kingdom, European Union, France and Germany agreed to provide support to South Africa to decarbonise its energy system.[2] The plan sets out the investment requirement for South Africa between 2023 and 2027 to

Box 1

South Africa is one of the largest greenhouse gas emitting countries in Africa, with its overdependence on coal consumption a driving force of its high emission-intensive economy. Addressing the global climate crisis therefore requires the country to contribute its fair share to GHG emissions. The SAJETIP is a five-year investment plan (2023–2027) aimed at decarbonising the country's energy system and economy, in line with its Nationally Determined Contributions.

The SAJETIP emerged from the Just Energy Transition Partnership forged at COP26 between South Africa and developed country partners like the United States, United Kingdom, European Union, France and Germany. The objective of the partnership is to 'establish an ambitious long-term partnership to support South Africa's pathway to low emissions and climate-resilient development, to accelerate the just transition and the decarbonisation of the electricity system, and to develop new economic opportunities such as green hydrogen and electric vehicles amongst other interventions to support South Africa's shift towards a low carbon future'. The partnership recognises the unique socio-economic challenges of transitioning the energy system in South Africa in an equitable and just manner.

The limited public finance available to support the energy transition in South Africa means that its climate ambitions are dependent on the level and nature of financial resources it can mobilise from the international community. Under the political declaration of the Just Energy Transition Partnership, the international partners agreed to mobilise about $8.5 billion in grants and concessional capital between 2023 and 2027 to support South Africa's transition from fossil fuel to clean energy. The SAJETIP prioritises three key sectors to support the South Africa transition – electricity, new energy vehicles and green hydrogen. The indicative allocation of the funds shows that electricity accounts for $7.65 billion of the $8.5 billion (90%). Within these three sectors, the cross-cutting areas of intervention include infrastructure, planning and implementation capacity, skills development, economic diversification and innovation, and social investment and inclusion.

reduce its emissions level to 350–420 megatons of carbon dioxide equivalent and to achieve its decarbonisation goals as stated in the latest Nationally Determined Contribution (NDC). According to Farand (2022), the SAJETIP proposes an initial catalytic fund of $8.5 billion to be invested in three priority sectors: electricity, new energy vehicles and green hydrogen; as well as two cross-cutting targets for skills development and municipal capacity. The goal of the SAJETIP is to achieve energy security, just transition and economic growth.

Considering South Africa's dependence on fossil fuels for electricity generation and the recent blackouts that have negatively impacted the economy, it is important to examine the SAJETIP with a view to assessing its potential long-term economic and distributional impacts. While the SAJETIP has been widely assessed (Presidential Climate Commission, 2023; Vanheukelom, 2023), there is currently no empirical analysis of its economic or distributional impacts.

This briefing note assesses the economy-wide and distributional impacts of the SAJETIP using computable general equilibrium (CGE) modelling and South Africa's social accounting matrix. The analysis provides insights into how 'just' the SAJETIP is by highlighting its effects on different sectors and agents of the South African economy. It also recommends policy measures to be taken to optimise the benefits of the SAJETIP while mitigating any negative effects. In terms of policy, the briefing note provides an empirical basis for assessing any framework for providing decarbonisation and 'just transition' support to other developing countries.

METHOD AND DATA

To assess the economic and distributional impacts of the SAJETIP, a CGE model is employed. CGE models have been widely used to analyse energy and energy transition policies (Omoju, et al, 2024). The CGE model used in the analysis (PEP-1-1 model) was developed by Decaluwé, et al. (2013)[3] and is a a single-country static CGE model.[4] The model follows the classical closure rule[5] and the elasticities used for the analysis are obtained from the literature (Decaluwé, et al., 2001). A major limitation of the static CGE models is that they do not capture dynamic economic transitions where impacts may vary over time, which is common with climate and energy transition issues. The impacts of the energy transition may vary from year to year, which a static CGE model may not capture. Nevertheless, the analysis in this brief provides insights into the economy-wide effects of the SAJETIP.

Box 2

The objective of the SAJETIP is to support South Africa's energy transition from coal-based electricity dependence to renewable energy. To model the economic and distributional effects of the SAJETIP, some assumptions are made. The electricity activity in the SAM is disaggregated into conventional and renewable electricity in the ratio 95% to 5%. The row and column of electricity activity is divided based on this ratio. The electricity commodity is not disaggregated under the assumption that both the conventional and renewable electricity sector produces a common undifferentiated electricity commodity.

The international support/investment for the SAJETIP is aimed at key transition sectors such as renewables, electric vehicles, green hydrogen, capacity building and skills development. However, given the limitation of information in the SAM (the SAM does not contain information about green hydrogen or electric vehicles), it is assumed by the modelling that these foreign investments from the rest of the world go to the renewable electricity sector. Funding from the rest of the world under the SAJETIP is modelled as an increase in the supply of capital to the renewable electricity sector. The new capital injected into the renewable electricity sector is sector-specific, which means that the capital cannot be used in other sectors at least in the short term.

Also, to create an incentive for transitioning to renewable energy, a 10% activity tax is imposed on coal activity. This is aimed at increasing the cost of using coal for electricity production vis-à-vis other inputs with the goal of reducing coal use in the sector.

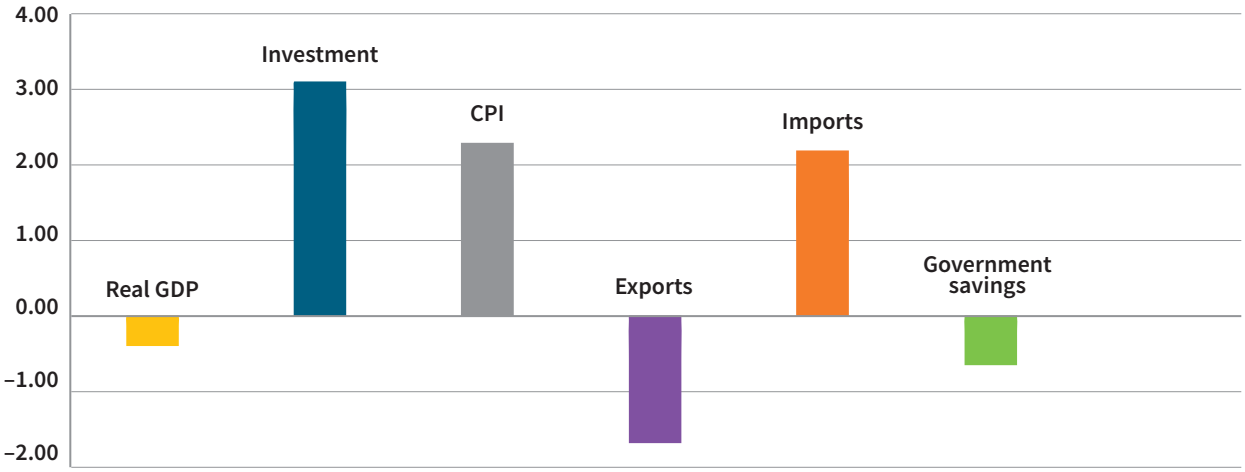
The CGE model is calibrated on South Africa's 2019 Social Accounting Matrix (SAM) (Van Seventer and Davies, 2023). The 61 activities in the SAM are initially aggregated to only 17 activities (agriculture, forestry, fisheries, processed food, coal, solid minerals, petrochemicals, light manufacturing, heavy manufacturing, electricity, transportation, financial services, wholesale and retail trade, education, health, public administration and other services). The electricity activity is further disaggregated into conventional electricity and renewable electricity using data on the proportion of conventional and renewable electricity.[6] The 108 commodities in the SAM are aggregated into 19 commodities (cereals, vegetables, livestock, forestry, fisheries, processed foods, coal, solid minerals, petrochemicals, light manufacturing, heavy manufacturing, electricity, transportation, financial services, wholesale and retail trade, education, health, public administration and other services). The 10 labour categories,[7] which are classified according to the nature of the employment, remain as in the SAM. The SAM has four agents – households, firms or enterprises, general government and rest of the world. The 14 household categories are classified based on decile and percentile.[8] A brief description of how the SAJETIP scenario is modelled is described in Box 2.

RESULTS AND FINDINGS

Macroeconomic effects[9]

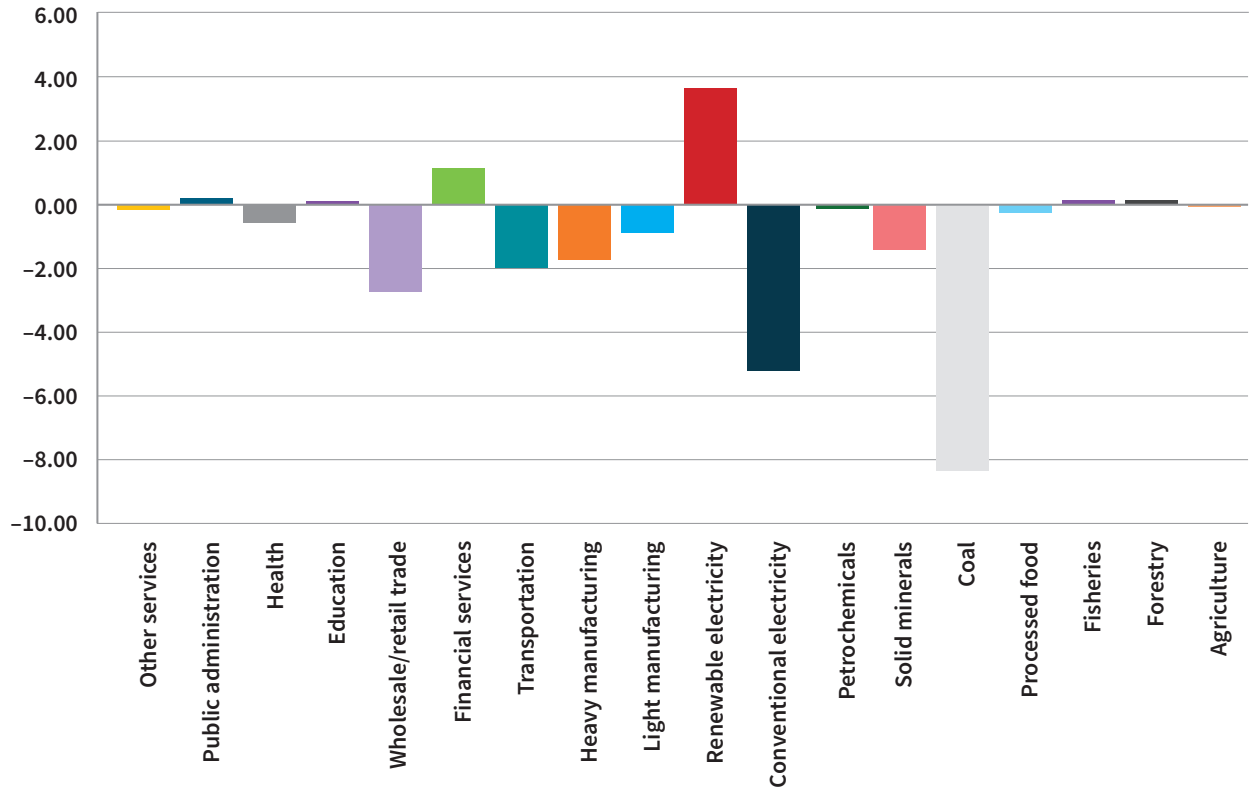
The aggregated macroeconomic effects of the SAJETIP are presented in Figure 2. Overall, the SAJETIP results in a 0.41% decline in South Africa's real GDP. Foreign investment in the renewable electricity sector (from the supporting countries) boosts the aggregate capital stock of the economy by 3.11%. However, due to the increase in the cost/price of electricity and other allied commodities, the aggregate consumer price index increases by 2.3%. Exports decline by 1.7% while imports rise by 2.2%. The decline in exports is due to the loss of competitiveness of key sectors of the South African economy as a result of the high cost of production induced by the transition. Imports also increase to complement the shortfall in domestic output of key commodities. Lastly, government savings (government fiscal balance) reduce by 0.67%. The reduction in government fiscal position is due to the reduction in government revenue while government expenditure remains unchanged.[10]

Figure 2: Aggregate macreoeconomic impacts (%)



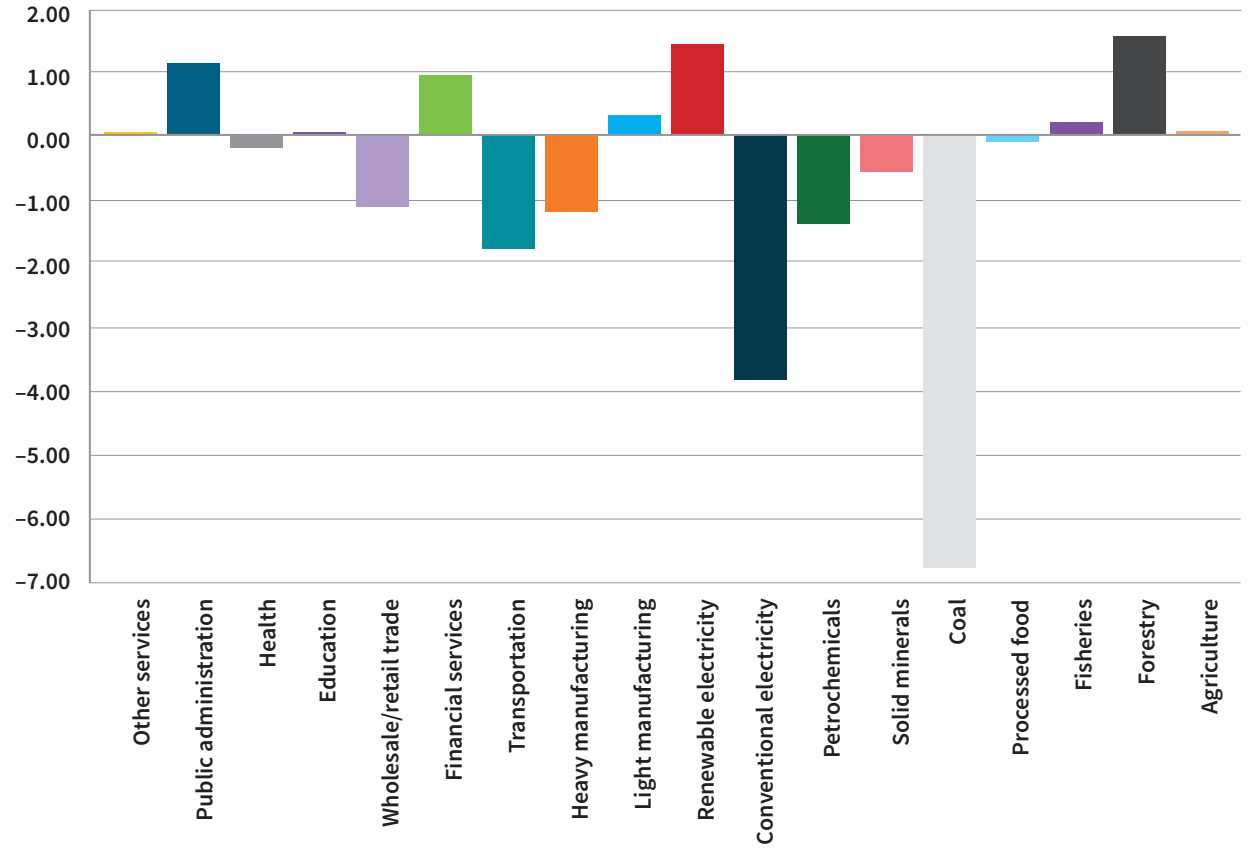
Source: Extracted from CGE analysis results

Figure 3: Effects on sectoral output (%)



Source: Extracted from CGE analysis results

Figure 4: Employment effects (%)



Source: Extracted from CGE analysis results

Sectoral effects

The SAJETIP reduces the use of coal as an intermediate input in electricity production in South Africa, in line with its objectives. The results show that the demand for coal as an intermediate input in the electricity sector reduces by 7.6%. The output of the conventional electricity sector shrinks by 5.2% while the output of the renewable electricity sector increases by 3.6%, reflecting the necessary transition in electricity production. Meanwhile, the price of electricity increases marginally by 0.9%. Although the increase in capital supply to the renewable electricity sector reduces the production cost in the sector, the imposition of an activity tax on the coal sector increases the production costs and price of coal, which consequently increases the price of conventional electricity. Overall, the composite/average price of electricity increases by 0.9%.

The impact of the SAJETIP is not limited to the electricity sector. Due to the interlinkage between the electricity sector and the other sectors, the effects on the electricity sector are transmitted to other sectors of the economy. The effects on the other sectors are also translated through the changes in the prices and use of input. As seen in Figure 3, some sectors like forestry, fisheries, financial services, education and public administration have increased sectoral output. The coal sector feels the largest effects of the transition as its output declines by 8.3%. On the other hand, sectors like agriculture, processed food, solid minerals, petrochemicals, light and heavy manufacturing, transportation, wholesale and retail trade, health and other services have reduced output because of the transition. These results suggest that efforts to diversify the energy consumption structure of South Africa, while notable in the fight against climate change, may have diverse effects on different sectors of the economy, with some sectors benefiting while others lose out. These mixed sectoral effects should be taken into consideration in policy decisions.

Employment effects

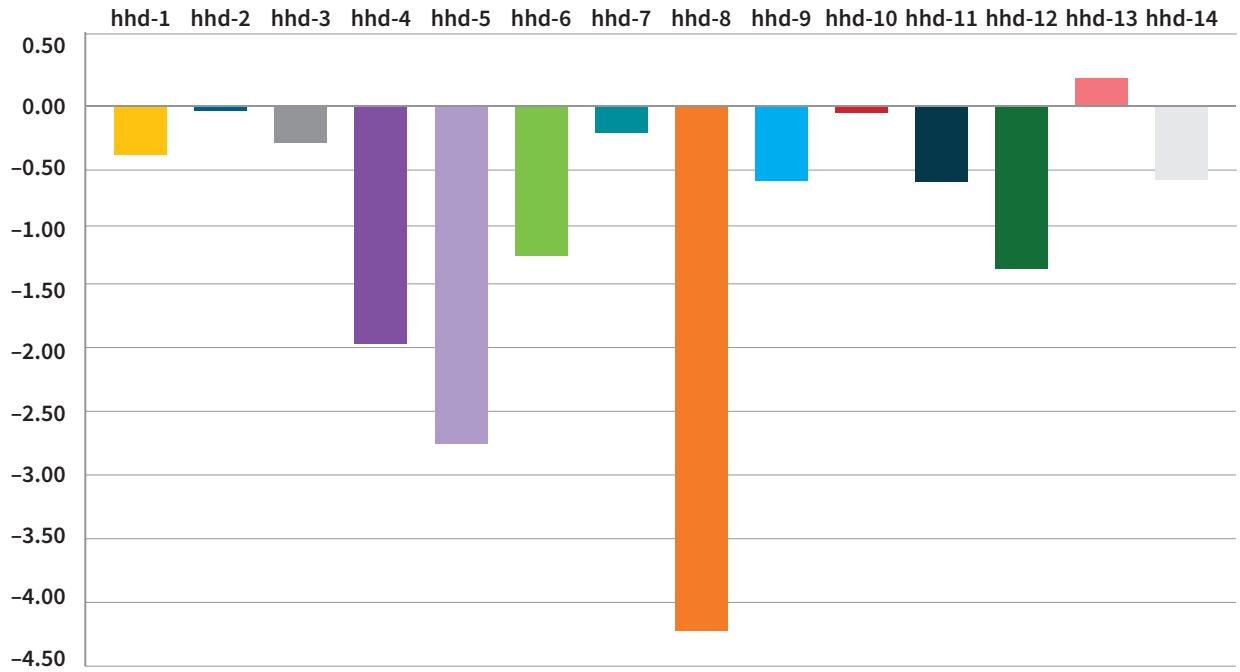
The employment effects of the SAJETIP are represented by the changes in labour demand and wages. The results show mixed employment effects across the different sectors, reflecting the 'justice' aspects of the transition. The mixed effects are driven by the labour shares and intensity in each sector and the changes in wages and sectoral output. Overall, the average demand for labour falls by 1.03%, which underscores the effects of the SAJETIP on the demand for labour. As seen in Figure 4, the sectors mostly impacted include coal, conventional electricity, transportation and petrochemicals, whose labour demand declined by 6.7%, 3.8%, 1.79% and 1.4% respectively. The decline in the demand for labour in these sectors is driven by the decline in sectoral output and changes in input prices. The decline in sectoral output implies a reduction in the demand for production input in the respective sector, but this reduction is also mediated by the relative prices of the production factor. The increase in the supply of capital to the renewable electricity sector reduces the rental price of capital, resulting in sectors substituting capital in place of labour. In the coal sector, which is one of the most impacted sectors, the effects on labour demand vary across the different types of labour category. The demand for ‘craft’ and ‘operators’ labour declines disproportionally compared to other categories of labour, reducing by 7.1% and 4.3% respectively. This is due to the intensity of the labour categories in the sector.

The demand for labour increases in agriculture (0.03%), forestry (1.51%), fisheries (0.21%), light manufacturing (0.3%), financial services (0.93%), education (0.01%), public administration (1.10%) and other services sectors (0.02%). The average fall in the demand for labour vis-à-vis the supply in the different sectors reduces average real wages by 2.1%. Hence, policy measures to ensure a ‘just’ transition should prioritise skills development and social safety net policies for the categories of workers who are adversely affected.

Welfare effects

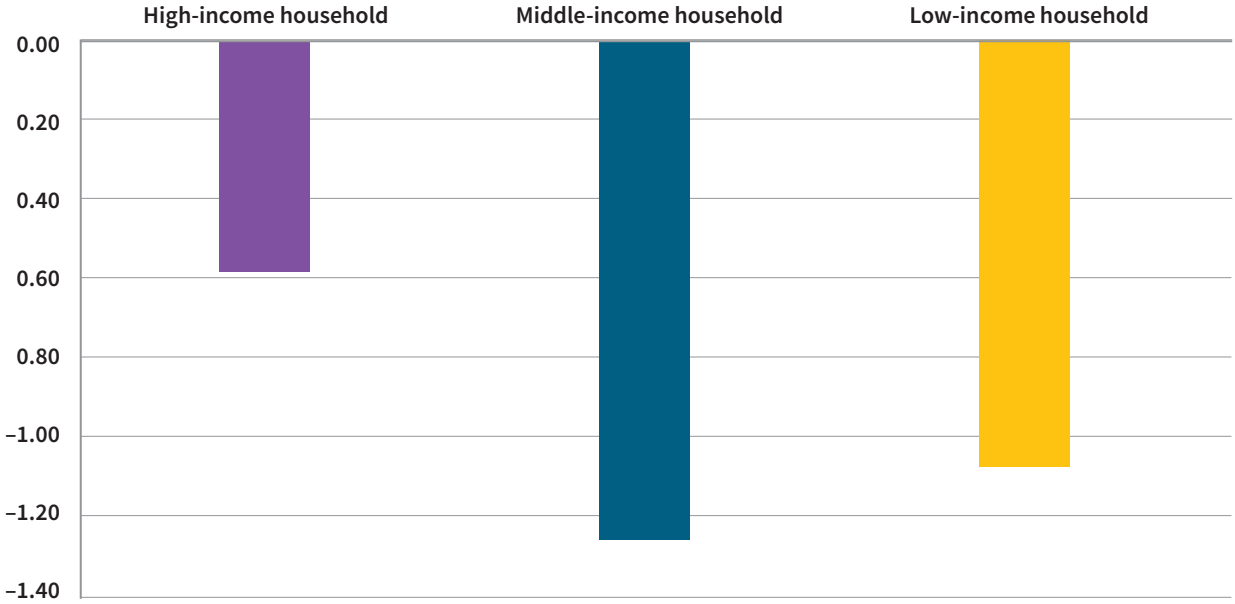
The welfare effect is measured in monetary terms and does not include positive health or well-being effects brought about by the transition. The SAJETIP will affect household income, consumption structure and ultimately household welfare. This is via the effects on wages, returns on capital, government spending and prices of commodities. Overall, the intervention increases the consumer price index by 2.3% (Figure 5), suggesting that the transition will induce a general increase in price level. The combination of the effects on household income, consumption and price results in the welfare effects.[11] The SAJETIP to some extent is regressive, as households in the lower decile experience relatively more negative effects on their welfare than those in the higher decile, although

Figure 5: Effects on household welfare (by decile) (%)



Source: Extracted from CGE analysis results

Figure 6: Effects on household welfare (by income categorisation) (%)



Source: Extracted from CGE analysis results

this is not absolute. Households in the 1st to 6th decile experience a decline in welfare of between –0.05% and –2.7% (Figure 5). In contrast, the welfare of households in the 7th to 11th decile declines by between –0.07% and –4.2%. Comparatively, households in the 12th to 14th decile have mixed effects on welfare. While the hhd-13 have a positive welfare effect of 0.2%, hhd-12 and hhd-14 have negative welfare effects of –1.3% and –0.6% respectively.

In terms of the range of the effects, these results suggest that lower-income households are generally negatively affected by the SAJETIP when hhd-1–hhd-6 are compared to hhd-7–hhd-11. However, the lowest household categories (hhd-12–hhd-14) have lesser negative welfare effects. This tends to suggest that the welfare effects of the SAJETIP vary across the different household levels, with households in hhd-7–hhd-11 experiencing more

adverse welfare effects. If the household categories are further aggregated into low-income (hhd-1–hhd-5), middle-class (hhd-6–hhd-10), and high-income (hhd-11–hhd-14) households, the average welfare effects on the different household groups are –1.07%, –1.26% and –0.58% (Figure 6). This implies that middle-class households are the most impacted (negatively) by the transition.

CONCLUSION AND RECOMMENDATIONS

This briefing note assesses the economic and distributional impacts of the SAJETIP to ascertain its suitability as a basis for supporting just transition in fossil-fuel-dependent and emission-intensive developing countries. Using a CGE model calibrated on South Africa's 2019 SAM, the analysis finds that while the SAJETIP has the potential to induce energy transition from coal to renewables in South Africa, it may have negative economic and distributional impacts, questioning the 'justice' aspect of the programme.

The SAJETIP increases capital formation in the economy but has an overall negative effect on South Africa's GDP. Due to the high cost of electricity associated with the SAJETIP, the production cost and price of domestic commodities increase. This hurts export competitiveness.[12] In contrast, aggregate imports increase. This has the tendency of impacting on the exchange rate and balance of trade and payments.

The SAJETIP, while reducing the outputs of coal, conventional electricity, agriculture, processed foods, solid minerals, petrochemicals, light manufacturing, heavy manufacturing, transportation, wholesale and retail trade, health, and other services, enhances the output of the forestry, fisheries, financial services, education and public administration sectors. This is as producers transfer production factors, especially labour, to these sectors. The changes in sectoral output are also reflected in the employment effects. The aggregate employment effect of the SAJETIP is negative (labour demand falls by 1.03%). Meanwhile, the employment effect varies for different types of labour. The SAJETIP leads to a massive loss of jobs for 'craft' and 'operators' types of labour in the coal sector relative to other types of labour. This underpins the need to ascertain the distributional impacts of the SAJETIP or other policies to enhance the energy transition to provide social policies to support those adversely affected.

Although the aggregate household welfare effects of the SAJETIP are negative, it is important to note that this welfare effect is only in monetary terms and does not capture non-monetary welfare effects. It also affects the different household categories differently. While it appears that low-income households are disproportionately affected compared to high-income households, the middle class bears the largest negative welfare effects of the programme. Thus, it is important to ascertain the welfare effects of this or other energy transition policies on different aspects or sections of society to ensure that its effects are just and fair.

Based on the analysis in this briefing note, the following recommendations are suggested:

- There is the need for complementary socio-economic policies alongside the SAJETIP to ensure the green transition is consistent with the objectives of robust economic growth, reduced inequalities and enhanced well-being. These can be in the form of green subsidies, tax breaks and grants. Tax breaks and tariff cuts can be offered for strategic sectors to acquire green technologies while green subsidies should be prioritised for the development of new clean technologies.
- To mitigate the employment effects of the SAJETIP, re-skilling programmes should be developed to support job transitions. Particularly, 'crafts' and 'operators' labour categories in the coal sector and other categories of workers in other affected sectors should be supported to re-skill and adapt their skills to the renewable and other expanding sectors of the economy.
- Policymakers in South Africa also need to develop a social safety net to support individuals, households and groups that lose welfare as a result of the transition. Welfare support measures such as cash transfers and unemployment benefits, etc. can be adopted to compensate for the income losses associated with the implementation of the policy.
- Although the SAJETIP would facilitate the energy transition in South Africa, its potential economy-wide effects show that the transition may not be equitable and just. As such it may not be a suitable model for other developing countries. Rather, suitable energy transition policies should take note of the economy-wide effect of the transition, rather than its immediate effects of changing the energy mix from conventional sources to renewables.

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ENDNOTES

1 **https://www.iea.org/countries/south-africa/electricity**

2 The preparation of this brief predates the US's withdrawal from the International Partners Group supporting the South African JETIP

3 To learn more about the model in detail, see Decaluwé, B., Lemelin, A., Robichaud, V., and Maisonnave, H. (2013). PEP-1-1: The PEP standard computable general equilibrium single-country, static CGE model, Version 2.1, Partnership for Economic Policy (PEP), Nairobi, Kenya

4 Static CGE models do not capture dynamic economic transitions where impacts may vary over time. Future analysis of the SAJETIP will adopt a dynamic model to assess the impacts over time

5 Exchange rate is the numeraire. Labour supply, government expenditure, different tax rates and investment are exogenous. International prices of imports and exports are also fixed in line with the 'small country hypothesis'

6 This makes the total number of activities 18. The disaggregated conventional and renewable electricity activities produce only one and the same undifferentiated product – electricity

7 The 10 labour categories include manager, professional, technical, clerical, sales, skilled agriculture, craft, operators, elementary and domestic

8 The 14 household categories include hhd-1–hhd-9 (Decile 1 to Decile 9); hhd-10–hhd-14 (percentile 90–92, 92–94, 94–96, 96–98, 98–100)

9 The results reflect the changes in the baseline compared to the SAJETIP scenario

10 The closure rule imposes that government expenditure remains unchanged

11 Welfare is depicted as the changes in the real household consumption budget

12 It is important to note that this analysis looks at South Africa in isolation. It does not consider what the rest of the world (other countries) are doing to mitigate climate change. If other countries take similar actions to mitigate climate change or promote energy transition, South Africa may benefit in relative terms

AFRICA'S INTERESTS IN VOLUNTARY CARBON MARKETS

William Davis

KEY MESSAGES

- Voluntary carbon credits can do more harm than good in Africa unless they are tightly regulated to ensure positive environmental and social impacts.
- It is therefore in the continent's interest to insist on **strict governance of voluntary carbon markets**. Diluting this could harm Africa through increasing global heating, and may not even increase the continent's sales of carbon credits.
- The devil is in the detail – Africa should insist on a number of features that will prevent conflicts of interest and ensure that high-quality carbon credits are issued.
- These include an impartial international certification scheme.

A summary of recommendations on what African governments should argue for at United Nations Framework Convention on Climate Change (UNFCCC) negotiations on voluntary carbon markets:

Figure 1: Recommended 'asks' on voluntary carbon markets for African UNFCCC negotiators

Source: Author

INTRODUCTION

Purpose of this brief

The purpose of this brief is to outline how African countries can get the most out of voluntary carbon markets, whether at the domestic, regional or global levels. This includes specific advice to African negotiators on positions that will be in the continent's interest on voluntary carbon markets as part of the United Nations Framework Convention on Climate Change negotiations (see Recommendations to African negotiators).

What are voluntary carbon markets?

Voluntary carbon markets are trading relationships in which buyers fund projects that will avoid emissions or remove greenhouse gases from the atmosphere. In return they receive carbon credits (also known as offsets), i.e., certificates attesting to the fact that they have avoided or removed a certain amount of greenhouse gases. They are different from 'mandatory' carbon markets in that purchasers are not required by law to purchase these credits.

In addition to existing voluntary carbon markets, countries are discussing creating a new international voluntary carbon market that countries can use to count towards their commitments under the Paris Agreement on climate change. In particular, under Article 6 of the Paris Agreement, countries are allowed to use carbon credits purchased from other countries to help meet their emission reduction targets under the agreement.[1] This includes trading between companies. The parties have agreed rules to govern such transactions. However, some details remain to be agreed.

WHAT ARE THE OPPORTUNITIES AND CHALLENGES WITH SUCH MARKETS?

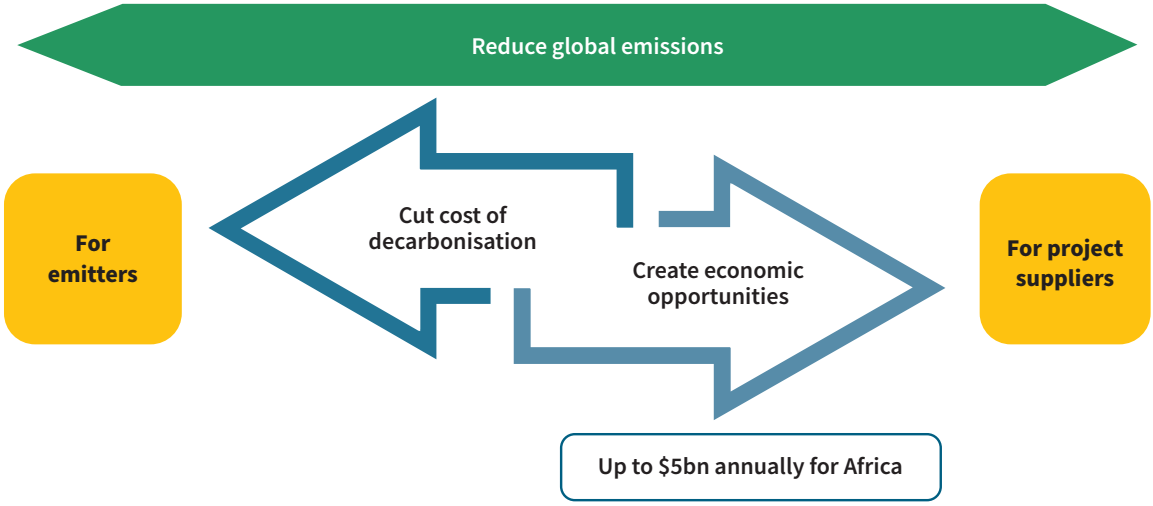
Opportunities

The main opportunity for voluntary carbon markets is that they can reduce overall emissions compared to if they did not exist, by encouraging purchasers to 'offset' their emissions through climate mitigation projects. This may lower emissions compared to a scenario where purchasers continue with business as usual. This is particularly the case for emissions that are hard to avoid – without the option of carbon offsets, businesses or governments that generate these emissions may risk doing nothing about them.

This is particularly important because, while high-income countries may move fastest in reducing their emissions (according to the principle under the United Nations (UN) Framework Convention on Climate Change of Common but Differentiated Responsibilities According to Respective Capabilities), it is much less costly to cut emissions in some countries that rely on high-carbon energy, such as China, India or Russia.[2] This could also apply to South Africa, which relies on high-carbon energy, yet has high potential in renewable energy generation.[3] As a result, if rules can be agreed, there is potentially a 'win–win' solution where countries that can most cheaply mitigate climate change do so, and they are compensated by others for bearing more than their fair share of the climate mitigation burden.

For Africa, the sale of carbon credits may also represent an important economic opportunity. It has been estimated that the continent is currently only tapping into 2% of its maximum carbon credit potential, which implies that it could potentially increase its sales to over $5 billion annually.[4] This is all the more important as carbon credit projects that are not sold to other countries may help African countries deliver on their Nationally Determined Contributions under the Paris Agreement on climate change while getting paid for doing so (by the carbon credit purchaser).[5]

Figure 2: Main opportunities from carbon markets



Source: Author

Finally, despite the challenges discussed below, leading researchers in the area suggest that the problems facing carbon offsets could be addressed through a combination of better technical approaches to assess whether they are reducing or avoiding greenhouse gas emissions as advertised (or removing emissions from the atmosphere), and better governance approaches around how they are used.[6]

Challenges

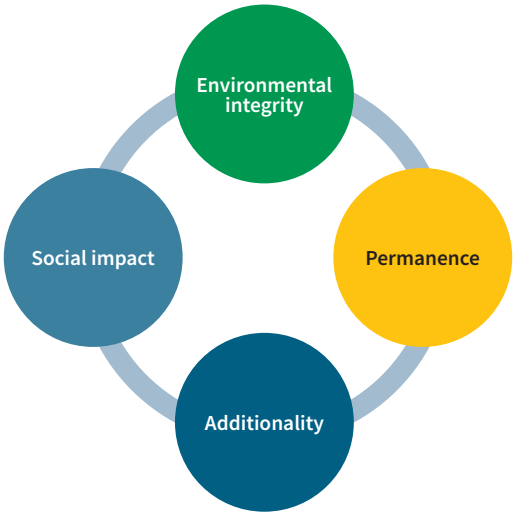
There are several challenges to carbon credits, as shown in Figure 3

- 'Environmental integrity' refers to the extent to which carbon credits represent real actions to prevent emissions and remove greenhouse gases from the atmosphere, and that the amounts of emissions being 'offset' are equal to what those purchasing them claim about them.
- 'Additionality' means that carbon credit projects would not have occurred without the funds being paid to purchase the credit.[7]
- 'Permanence' means that the greenhouse gas emissions avoided or removed from the atmosphere will not be re-emitted.
- 'Social impact' refers to carbon credits not carrying negative social impacts such as displacement of people from their homes or disruption of activities on which they rely to provide their livelihoods.

If purchasers (whether companies or governments) of carbon credits exaggerate the impact of those credits on the climate (whether in terms of environmental integrity, additionality or permanence), they may be able to avoid public pressure and scrutiny to reduce their emissions without doing anything to offset them. So, how to ensure that carbon credits represent real climate action? Organisations such as the non-profit Verra have already developed carbon credit standards and assess credits against them. Verra-certified carbon credits are already used for Colombia and South Africa's carbon taxes, as well as the International Civil Aviation Organization's Carbon Offsetting and Reduction Scheme for International Aviation.[8] However, a 2023 review of the standard's use found that carbon credits that it certifies represented a fraction of the claimed climate benefits (though Verra has stated that it has addressed weaknesses in these credits with updates to its Verified Carbon Standard).[9] This mirrors the findings of other research that raised concerns about carbon credits verified by other verification agencies.[10] As of 2022, Verra certified around 80% of carbon credits in Africa, while another non-profit organisation, Gold Standard, certified around 20%, with fewer than 1% certified by other organisations.[11]

Challenges with existing, private certification schemes may reflect a conflict of interest for certification bodies. Though the main certification schemes are run by not-for-profit organisations, they need to attract interest from project initiators in order to cover their costs. This could encourage private certification schemes to be lenient in

Figure 3: Key challenges to ensuring that carbon credits are high-quality



Source: Author

assessments and standards to encourage continued demand for their services. Indeed, even leading issuers of carbon credits have faced repeated concerns about environmental integrity and additionality of credits that they certify, even after revising their standards to deal with issues. They continued to face such concerns as of 2023, despite carbon markets having already existed for decades.[12] This suggests that there may indeed be a structural problem, such as a conflict of interest, with voluntary carbon markets that may require more than just a technical fix to standards.[13] This echoes the challenges that financial services Credit Rating Agencies have faced with conflicts of interest when rating financial institutions that have paid them to do so.[14]

Newer organisations such as the Integrity Council for the Voluntary Carbon Market have sprung up and propose to offer carbon credit standards that are developed without such a conflict of interest. However, the standards developed by the Integrity Council for the Voluntary Carbon Market have been criticised and could potentially be strengthened.[15] Moreover, these organisations are not involved in auditing whether individual projects meet these standards, so a conflict of interest may still exist in the auditing process.

The reputation of carbon credits, and quality concerns, play a significant role in carbon markets.[16] According to the African Carbon Markets Initiative, these concerns led to a decrease in demand for carbon credits of 22% in 2023, with prices falling by 30–50%.[17] Bloomberg NEF found that carbon credit purchases dropped in 2022 for the same reason.[18] This is consistent with research showing that investors are willing to pay more for carbon credits that they consider to be high-quality.[19]

As noted above, carbon credits are alleged to have had negative impacts on local communities, for example through forced displacements and undermining rights to use traditional lands.[20] Yet research on forest-based carbon credits suggests purchasers tend to prefer those with a positive social dimension and wider community benefits.[21] This underlines the importance of ensuring that carbon credit certification takes into account social, and not only environmental, impacts.

Another challenge with some carbon credits is that, particularly when they are around avoiding emissions or protecting carbon sinks (such as forests), they can create perverse incentives. For instance, to demonstrate additionality in forest protection projects, some carbon credit standards require that significant deforestation is already occurring. This could encourage individuals to start deforestation and then sell carbon credits for stopping it, with the effect that the promise of carbon credits has not reduced the level of deforestation overall (which might not have occurred at all if it had not been for this perverse incentive). This has affected Gabon, which is a highly forested country with low deforestation. One way to address this problem is to supplement carbon credits with intergovernmental solidarity payments to support developing countries that preserve their forests, as Gabon received in 2021.[22]

The Paris Agreement on climate change plans for countries to be allowed to purchase carbon credits to count towards meeting their emissions reduction commitments under the agreement. The agreement commits countries to ensuring that these credits are high-quality, in terms of both their environmental and social impacts, and to ensuring that there is no double counting.[23] Countries have since agreed that such credits should also be additional.[24]

This could help ensure that carbon credits traded between countries are high-quality and additional. But it could also do the same for private carbon credits, by creating and giving profile to a standard and verification mechanism that could be used by private carbon credit providers seeking to guarantee high-quality credits to their customers. However, at the time of writing prior to COP29, the detailed rules and procedures needed to ensure that carbon credits trade under the Paris Agreement were still a work in progress.

Some steps have been taken towards the creation of these rules. In 2024, the Supervisory Body that was created to oversee the operation of these carbon markets established a panel that will accredit auditors to verify and validate carbon credit projects. And a '[M] ethodologies panel will bring in further technical expertise for the development of standards, guidelines, and tools for crediting activities under the mechanism'.[25]

This is an important step towards the creation of an impartial, international body for determining what makes for a high-quality carbon credit, and who is qualified to assess which projects meet these standards. It is all the more important that it is a UN body, whose members are not paid according to the number of carbon credits that opt to use their standards, that is setting the standards – this may help them to be more impartial. But the simple fact of creating these standards at international level may not be enough, as shown by the experience of the United Nations' Clean Development Mechanism, which created international standards and accredited auditors to produce 'UN-certified' carbon offsets for sale under the mechanism. However, there have been criticisms of the quality and additionality of the carbon credits issued under the mechanism.[26] As a result, the approach taken under the Paris Agreement must address the deficiencies of the Clean Development Mechanism.

One way to do this is through the use of new technical regulatory and scientific approaches to assess the quality and additionality of carbon credits.[27] However, there are also governance shortcomings present in the Clean Development Mechanism that could be addressed under Article 6 of the Paris Agreement.

For example, accrediting auditors may not entirely resolve the conflict of interest for the auditors themselves, which may incentivise even accredited auditors to go soft in their assessment of how far the project meets international standards. To do this, international negotiators may need to pursue one of the measures described in **Table 1** below.

Table 1: Options for strengthening the governance

Option number	Description
1	Ensure that the auditor is chosen by an independent body, and neither the issuer nor the purchaser of the carbon credit can reward the auditor for a positive assessment.
2	The work of carbon credit auditors is subject to review (e.g., by an independent, impartial body), with the possibility of suspending or revoking their accreditation if their assessments are found to be biased or otherwise sub-standard.

Similar to option 2 shown above, Portugal's new law on its voluntary carbon market foresees suspending a market participant's right to issue new carbon credits if it fails to comply with regulations.[28] Parties to the Paris Agreement have already agreed that governments must submit regular reports on their use of carbon credits to meet Nationally Determined Contributions under the Agreement.[29] But this review will be confined to a desk or centralised review and will not cover review of the audits of individual projects. Nor does it mention the possibility of any sanctions against auditors that certify sub-standard carbon credits.

The Supervisory Body has also created a procedure for affected communities to launch appeals against carbon credit projects. This is an important step forward, but it could be supplemented by minimum standards on social impacts to apply to carbon credits traded under the Paris Agreement (and for accredited verifiers to have to assess carbon projects against this standard).[30] This is to guard against effects that communities may not be aware of, or against cases where pressure from governments or companies prevents affected communities from speaking out.

Given the challenges and risks of carbon credits, is it worth pursuing them? The answer may be 'if the right conditions are put in place' to address the challenges. As noted above, research has suggested that the challenges with carbon credits can be addressed.[31]

WHAT ARE AFRICA'S INTERESTS IN THIS AREA?

This section discusses Africa's interests for the management of voluntary carbon markets. This applies both to voluntary carbon markets in general, and negotiations under the UNFCCC process on implementation of Article 6 of the Paris Agreement.

Provide certification with integrity

Adoption of internationally recognised standards and independent assessment may help to ensure the integrity of these standards and raise assessment quality. This should also help to avoid the conflict of interest incentive for auditors to provide favourable assessments to organisations paying for their carbon credits to be audited, to ensure the organisation's financial sustainability. Adoption of better carbon credit standards at the UN should also raise the profile and legitimacy of carbon credit standards.[32] This is particularly important given that there are many such standards and it can be difficult for the public to keep track of which ones are reputable (and, thus, hold companies and governments to account over the offsets that they purchase).[33]

The logic of avoiding conflicts of interest in private certification schemes may be what has driven the European Union's decision to create European standards on carbon removals, even though private standards already exist for the offset industry.[34] The United States government's Commodity and Futures Trading Commission has also underlined that it considers it necessary to supervise carbon markets due to the risk of fraud.[35] Also, the United States Congress had considered a similar approach to regulating financial services credit rating agencies, whereby the company being given a credit rating would not select the agency to do the rating, but this would rather be selected by an independent not-for-profit organisation or public–private partnership, with support for this approach in the literature.[36]

The United States and European Union did not follow this approach when tightening the regulation of credit rating agencies following the 2007–2009 global financial crisis. But scholarly research suggests that the approaches they did take were inadequate for resolving the conflict of interest affecting credit rating agencies, which suggests that having an independent party appoint the rating agency could be warranted.[37]

High standards are key to increasing Africa's currently low participation in carbon credit markets. According to some experts, concerns about project integrity are a key reason why Africa's share in global carbon markets remains low.[38]

A key part of certification integrity is ensuring that carbon credit projects remain in place for the long term. This is particularly important since many companies present carbon credit projects to offset the amount of emissions that they are expected to avoid over their entire lifetime. Yet these calculations may not take into account the risk that they will degrade or be removed over time and deliver less 'emissions reduction' than claimed as a result (e.g., forests may be burned down, re-releasing carbon stored into the atmosphere). For example, if trees that are planted with the intention of removing carbon dioxide from the atmosphere are cut down, the carbon removal may be less than expected or may be totally negated. Rules for international carbon markets should ensure that the amount of emissions credited to different projects take this effect into account. There are several ways that they can do this.

Table 2: Advantages and disadvantages of various measures for addressing carbon credit impermanence

Number	Measure description	Advantages	Disadvantages
1	Require carbon credits to have **low risk** that avoided/removed greenhouse gas emissions will be (re-) emitted	Less need to monitor projects if ex ante confidence in permanence is high Can ensure permanent storage for some project types[39]	Could exclude projects that could be effective if impermanence can be addressed in another way For some project types, there is still a small risk that the greenhouse gases will be (re-)emitted
2	Require contributions to '**buffer' accounts** that will be used to restore carbon credits. Vary this by project type and context to ensure it's set at the right level for that specific project	Flexible in allowing carbon credit projects as long as they can make up for the risk of impermanence	Difficulty in setting buffer at the right level There is a risk that the buffer fund will be inadequate to make up for project degradation. As long as the buffer fund is not too low on average across all credits, this can be addressed by immediately using the buffer fund for emissions reduction
3	**Discount** the level of emissions that the carbon credit 'offsets' based on the risk of (re-)emission ('expected emissions removed/avoided'). Determination of the level of discounting should be evidence-based	Flexible in allowing carbon credit projects as long as they can make up for the risk of impermanence	Difficulty of calculating the right level of discounting (For purchases by companies): potential difficulty of ensuring that purchasers only claim 'discounted' levels of emissions avoided/removed
4	Require purchase of **insurance** against/(re-) emission of avoided/ removed emissions[40]	Flexible in allowing carbon credit projects as long as they can make up for the risk of impermanence	Risk that insurance premium will not be paid after credit issued. This can be addressed by requiring a single upfront payment equal to the discounted value of future premiums Risk of insurance company going bankrupt.[41] Can be addressed by providing (and charging for) a public guarantee for the insurance

'Buffer accounts' are when carbon credit purchasers pay into a fund that is used to 'restore' projects that become degraded. The risk of degradation may vary from project to project and geography to geography, and could change over time, so the size of the payment required would have to be specific to the project type (based on the best available evidence) and flexible over time to deal with these issues. This (including varying the contribution into the buffer fund depending on the project characteristics) is the approach taken in California's Low Carbon Fuel Standard.[42] However, buffer-based approaches are becoming 'increasingly contested'.[43]

Another approach mentioned in Table 2 above could be to calculate the expected climate and broader social benefits of the carbon credit over time, taking into account the risks of credits degrading. Carbon credit purchasers

could then be required to purchase credits that carry equivalent social benefits to the expected costs of the emissions that they are offsetting through the credit. Academic research has already provided a framework for calculating these benefits, and suggests that carbon credits would still be attractive for purchasers once these issues are taken into account.[44]

The approach of insuring against stored greenhouse gases being (re-)emitted into the atmosphere is used by the American Carbon Registry (a carbon crediting programme).45

As mentioned in Table 2, governments can consider provide public carbon credit insurance (or reinsurance) for which they would charge a fee, or guaranteeing carbon credit insurance provided by insurers (for which they would charge a fee to the insurer). This is similar to public deposit insurance that governments provided to banks in many countries; carbon credits are another case in which it is not acceptable for private financial markets to fail and governments should provide insurance. In 2024, Portugal passed a law establishing the country's voluntary carbon market that gives companies an option to pay into a Guarantee Fund to address these risks, as an alternative to insurance.46 The UK's Financial Services Compensation Scheme already provides a public guarantee (paid for by charging companies that issue the products) for insurance products. In a similar vein, the World Bank is considering how its Multilateral Guarantee Agency can de-risk carbon markets (though it is unclear whether one of the risks it is looking at is the risk of carbon credit impermanence).47

Since publicly guaranteeing insurance for carbon credits may be relatively new, it may be advisable to support the UN commissioning research into how governments can support insurance for carbon credits to protect against the risk of carbon credits failing and insurers going bankrupt.

In general, to help reduce the risk to climate action of poor-quality carbon credits, owners of carbon credits could be held responsible for underperformance (in addition to impermanence of carbon removal) as discussed above. The measures discussed in Table 2 offer different options for ensuring this. In addition to these measures to ensure that carbon credit purchasers take into account the risk of degradation or impermanence of carbon offsets, the national authorities need to monitor carbon credits to ensure that they are really restored if degradation occurs. Where removal projects outperform targets, they could be allowed to sell off some of the 'excess' removed greenhouse gases in voluntary carbon markets.48

In addition, across all of the options discussed in Table 2 (except some project types under option 1) there remains a risk of (re-)emission of greenhouse gases stored by carbon credits into the atmosphere. Even the use of government-guaranteed insurance does not eliminate this risk entirely, as governments can default on their debts. It is therefore advisable for authorities to oblige carbon credit purchasers and/or sellers to buy/sell credits avoiding/removing more than 100% of the emissions that they wish to offset, with the 'surcharge' set in line with the level of risk that the avoided emissions could be 're-emitted' at a later stage. As discussed elsewhere in this note, there are other reasons to apply a further surcharge (e.g., a tonne of CO2 removed from the atmosphere does not undo the damage of a tonne emitted).

More broadly, even if individual governments were to consider it in their interests to lower standards so that they can sell more carbon credits than others, in the absence of international certification schemes, many countries may do this, eroding the benefits that one country can access by doing so.

Moreover, it is not clear that lowering standards will deliver increased carbon credit sales receipts, even for an individual government that deviates from such standards. This is because carbon credits are primarily purchased for either ethical reasons or reputational benefits. While some purchasers may look for the cheapest carbon credit available to access reputational benefits checking quality, advocacy by civil society organisations on the dangers of these carbon credits may mean that reputational benefits may dry up. As a result, purchasers may move away from low-quality credits over the longer term.

And 'low-quality' cheap credits may fail to deliver the wider economic benefits (beyond sales revenue) that carbon credits could, in theory, have, e.g., positive impacts on the local environment, increased nature-related tourism revenues (for nature preservation projects) and access to lower-cost renewable energy.

Avoid double counting

Double counting of carbon credits refers to multiple purchasers claiming to be responsible for emissions avoidance or removals resulting from the same project. If double counting is not allowed, then the seller would be obliged to undertake more climate action to meet its climate change goals.[49] The Paris Agreement has already established the principle that there should be no double counting among countries of the same carbon credit against two countries' Nationally Determined Contributions, and has provided detailed rules for how carbon credits can be reflected in measuring progress against Nationally Determined Contributions.[50] But no practical system for avoiding double counting has yet been established, though states parties to the Paris Agreement have requested the UN secretariat to develop an international registry and associated database for this purpose, and to publish information contained within them.[51]

Take into account the non-equivalence of offsets and emissions

It can be challenging to calculate the emissions reduction impact of climate projects, inter alia because, for example, reforestation projects may remove greenhouse gas emissions from the atmosphere over a different time horizon from the emissions that they are intended to offset. And complexity of the climate system may mean that, even if emissions are removed, harm may still be done to the climate. For example, although it is counter-intuitive, removing one tonne of carbon dioxide from the atmosphere does not reduce atmospheric carbon dioxide enough to make up for the emission of one tonne into the atmosphere.[52] Carbon market governance could take these factors into account in assessing what kinds of offsetting projects are adequate to assess what kinds of emissions.[53] As noted above, African countries could advocate for carbon credits that are based on greenhouse gas removal to have to remove the amount of greenhouse gases that are scientifically estimated *to undo the damage* of the same level of emissions (not necessarily that they have to remove the same amount of greenhouse gases in carbon dioxide equivalent).

Take into account the social dimension

The Supervisory Body for Article 6.4 of the Paris Agreement has also created a procedure for affected communities to launch appeals against carbon credit projects.[54] This is an important step forward, but African countries should also argue for minimum standards on social impacts to apply to carbon credits traded under the Paris Agreement (and for accredited verifiers to have to assess carbon projects against this standard), as argued above. In addition, the communities affected by carbon credit projects may lack the resources and the capacity to launch appeals. It would therefore be desirable to provide information and support to communities that wish to appeal against carbon credit projects.

Ensure transparency

Part of avoiding a race to the bottom on the social impacts of carbon credits is to ensure transparency on carbon credit sales. This will make it easier for different stakeholders, journalists, researchers and civil society to scrutinise the effects of carbon credits, and determine whether credit originating countries (and the planet) are getting a good deal from them. Suggestions that countries should commit themselves to confidentiality in carbon credit transactions (as occurred during the COP28 negotiations) are unjustified and should not be acceptable in any deal over global carbon markets as part of the UNFCCC process.

Greater transparency about the fees charged by carbon market intermediaries is also in Africa's interests. Intermediaries that buy carbon credits and sell them to other buyers can take a cut of as much as 70% of the value of the credit, eroding benefits to African carbon credit suppliers. Most of these intermediaries are from outside Africa.[55] Yet currently there is little transparency on the fees that such intermediaries charge, which can make it difficult for African countries to assess whether they should attempt to support their carbon market suppliers to get a better deal by marketing carbon credits directly to final purchasers.[56]

Integrate carbon markets into carbon border adjustment mechanisms

African countries risk facing significant negative economic impacts from the Carbon Border Adjustment Mechanism adopted by the EU, with several other countries (such as the UK, Australia and Canada) also planning or considering the adoption of such mechanisms.[57] If (and only if) rules can be agreed that provide for high-integrity carbon credits to be issued, countries that operate Carbon Border Adjustment Mechanisms could exempt companies that have used such credits to fully offset their emissions from paying a carbon price. This could cut the cost of complying with these mechanisms and reduce their negative economic impacts on Africa. Scientific researchers are already arguing for offset projects to be included as a way to create additional credits as part of the EU's Emissions Trading Scheme;[58] this suggests that it is also legitimate to use them to fulfil liabilities under the EU's Carbon Border Adjustment Mechanism, which is designed to ensure that exporters to the EU face the same conditions as European companies subject to the Emissions Trading Scheme. Even though there is a risk that these credits could not represent a full offset of emissions, the same is true for payment of carbon prices, which can also be manipulated, perhaps more easily with emissions trading schemes.[59] Therefore, it is not clear why offsets should not be allowed, if a new system to ensure that they are high quality can be established.

RECOMMENDATIONS TO AFRICAN NEGOTIATORS

1. Support certification initiatives capable of developing 'high-quality' carbon markets that reduce emissions as much as they claim to do. 'Low-quality' carbon credits may allow companies to resist public pressure to cut their emissions without doing anything that really offsets them. It is difficult to directly compare the potential financial benefits of selling more carbon credits against the potential impact of 'low-quality' carbon credits on climate change. But the catastrophic consequences of global heating and Africa's vulnerability to these effects means that it is likely not in the continent's interests to promote low-quality carbon credits.[60] Moreover, insisting on 'high-quality' credits may actually mean that Africa benefits more from such credits by preventing a 'race to the bottom' in selling poor-quality credits that fail to deliver the benefits that genuine credits can bring, such as forest preservation, lower-cost renewable energy and a healthier local environment (in addition to the mitigating impact on climate change). And unless they can prove that carbon credits are effective, potential purchasers may not gain the reputational benefits that they desire from such credits and could stop purchasing them. This should include efforts to ensure that risks of credits degrading or avoided/removed greenhouse gases being re-released into the atmosphere are taken into account when calculating the amount of emissions that a carbon credit is offsetting. They could be allowed to mitigate these risks (and thus increase the amount of 'credit' that they are given) by making contributions into a public fund for taking into account the risks, and/or purchasing insurance against the risks. Where they purchase insurance, the insurance product should be publicly guaranteed with public authorities charging an actuarially fair fee to the insurer equal to the financial value of the guarantee provided.

2. It may also be in African countries' interests to argue for international capacity-building initiatives to raise awareness among carbon credit providers (particularly those that are small-scale) of the standards that carbon credits should meet, and how providers can meet them. This will enable carbon credit providers to participate more effectively in the market without diluting carbon credit quality.

3. Certification schemes for carbon markets should be independent and impartial. Where certification is paid for by the issuer or purchaser of the carbon credit, or appointed by governments of companies involved in the transaction, this increases the risk that such certification will not be carried out honestly. Therefore, an international agency, funded by the UN's regular budget (thus reducing dependence on any particular group of governments) should appoint certifying auditors. Relying on regular budget funding is the approach that the International Narcotics Control Board (which oversees the implementation of the international drug control treaties) takes to ensure its independence from undue influence from any individual country. The United Nations' Joint Inspection Unit has underlined the importance for the Board to continue to be funded in this way.[61] This may be similarly important for the UN body overseeing the implementation of voluntary carbon markets under Article 6.4 of the Paris Agreement; otherwise, countries providing extra-budgetary

funds may be able to use these funds as a 'quid pro quo' to gain favourable treatment for their carbon market participants. Avoiding this risk is particularly important for Africa because the continent is not in a position to provide much in the way of extra-budgetary funds to the UN relative to other countries, due to stretched budgets. Yet the UN has called for this body to be funded through extra-budgetary resources, which may jeopardise its independence.

4. To improve competition and achieve high standards auditors should be selected using a competitive procurement process that balances cost and quality of the auditor (based on its competencies and track record). The right balance between financial and quality considerations could be achieved by 'pricing' quality. This could be assessed based on the risk of carbon credits delivering lower emissions reductions in case of low-quality audits (using data on the auditor's track record and/or general data on the expected level of underperformance by carbon credit auditors in general in terms of emissions that would not be avoided or removed as a result). These emissions would then be multiplied by a global marginal abatement cost to calculate the 'financial cost' of lower-quality audits, which would be compared to the financial cost of the auditor's fees.

5. A strong complement to this (or possible alternative) would be for auditors' work to be subject to random or risk-based 'secondary audits' under which a UN auditor will assess the audit, and can recommend suspending or revoking the primary auditor's accreditation if serious deficiencies are found. Suspension could be used in cases where the deficiencies are technical, do not indicate bias, or can be rectified by changing personnel or introducing new procedures in the auditing organisation, and suspension would be lifted once these changes are made. Revocation could be undertaken in cases where a technical fix to procedures or personnel would not be sufficient as the deficiencies indicate that the auditing organisation was biased and/or that personnel or procedural changes would not be sufficient to achieve the required standards.

6. In addition to climate mitigation impacts, certification schemes should assess the economic and social impacts of carbon credits. This will avoid a 'race to the bottom' where local communities' rights are sacrificed to compete for sales in such markets. Existing frameworks such as the UN's Guiding Principles on Business and Human Rights and Principles for Responsible Investment can inform certification of the social impacts of climate credits.

7. International organisations should fund research to better understand how to regulate carbon markets. This could include the potential role for publicly funded insurance to guarantee carbon credits in case they fail to be permanent.

8. Ensure transparency of carbon offset markets. As argued above, African countries should advocate for transparency of carbon offset projects, their locations and social impacts. They should also advocate for financial disclosures, including country-by-country reporting of their accounts, by carbon market intermediaries.

9. If a trusted system that can provide high-quality offsets is established, companies should be allowed to use these in place of paying carbon border adjustment mechanism charges. This will cut the cost of compliance for African and other exporters to markets with carbon border adjustment mechanisms, while being environmentally neutral.

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WHAT THE NEW INDUSTRIAL POLICIES IN TRANSITION MINERAL VALUE CHAINS MEAN FOR AFRICA

William Davis

INTRODUCTION AND DEFINITION OF TRANSITION MINERALS

What are transition minerals?

'Transition minerals' are those that are needed to produce renewable energy technologies.[1] While there are several different lists of such minerals, except where otherwise stated, in this paper we use the International Energy Agency's list of 'critical minerals', which it defines as those linked to clean energy technologies.[2] This list also covers a broader range of minerals than alternatives proposed by, for example, the World Bank or the United States Department of Energy.[3]

Why transition mineral value chains matter for Africa

In the first instance, transition mineral supply chains matter for Africa because they have a key role in speeding the transition to renewable energy, and thus in mitigating climate change. Africa is expected to be disproportionately negatively affected by climate change. To the extent that greater availability of transition minerals will mitigate global heating, it should be good for Africa.[4]

However, Africa unfortunately remains mainly stuck at the lower levels of transition mineral value chains. Although the continent does process some of its transition minerals, and uses them to manufacture some products (e.g., copper wiring), its role in the manufacturing of other clean energy technologies is marginal.[5]

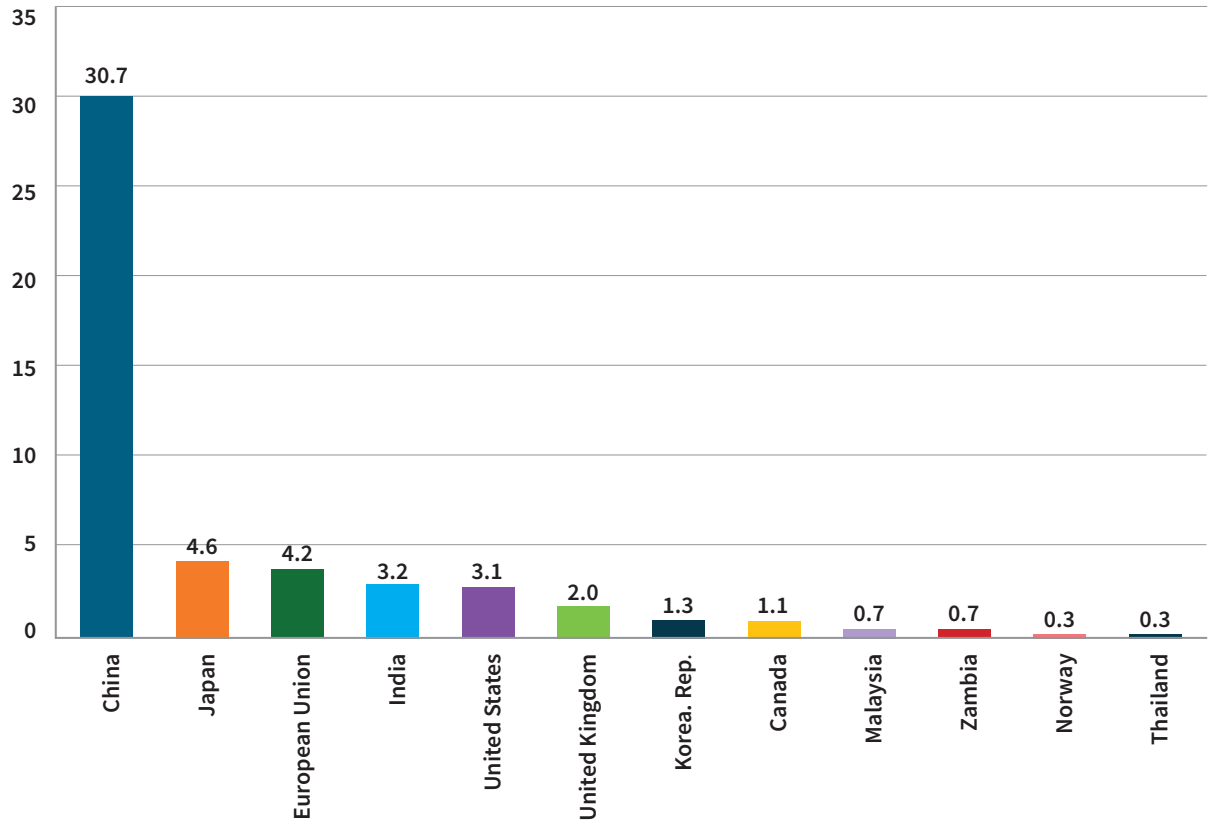
Adding further value to its transition minerals could mobilise investment and create jobs in transition mineral value chains to the benefit of African countries. For example, estimates by Publish What You Pay suggest that African countries could potentially increase annual exports by around $32 billion, adding $24 billion to the continent's GDP and creating around 2.3 million jobs by adding more value to their transition minerals. These numbers are based only on African countries increasing exports of products that they already sell abroad; moving into new economic activities that they do not currently undertake could offer further opportunities.[6]

In this briefing, we therefore examine policies in Africa's trading partners, and how they might affect the continent's ability to produce more transition minerals and add value to them. But which countries are key trading partners for Africa's trade in transition minerals and products derived therefrom? This is shown in Figure 1 and Figure 2 below.

Africa's trade in transition minerals

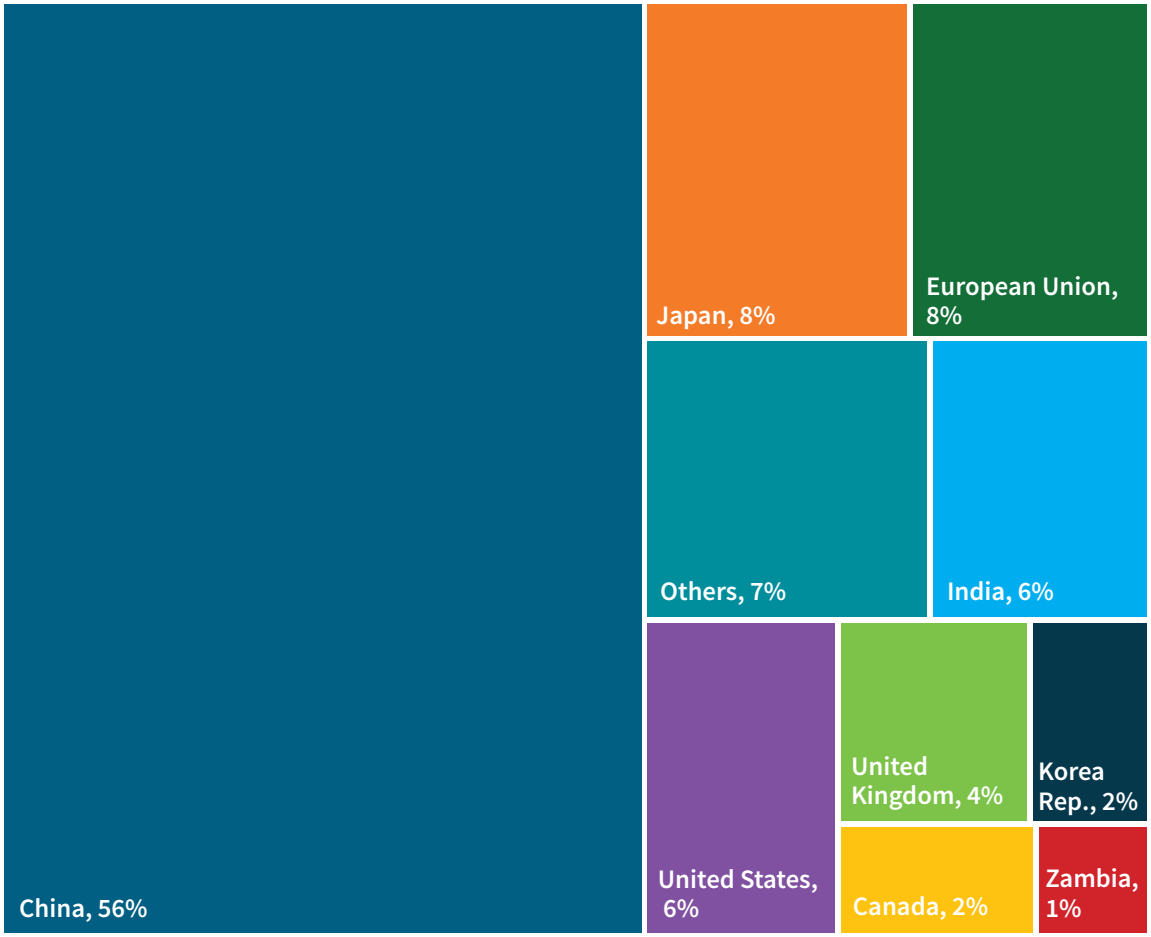
As shown in Figure 1 and Figure 2 below, Africa's transition mineral exports are overwhelmingly destined for China, which accounts for 56 percent of the total.[7] Figures 1 and 2 show trade in raw ores or intermediate products, to highlight the range of exports to which Africa could potentially add more value if conditions were favourable.

Figure 1: Imports of transition minerals and intermediate products derived from them from Africa, 2022 – top 12 importers, US$ bn[8]



Source: Author's analysis of United Nations' UN Comtrade Database

Figure 2: Imports of transition minerals and intermediate products derived from them from Africa, 2022 – share of total[9]



Source: Author's analysis of United Nations' UN Comtrade Database

If Africa could become more involved in transition mineral value chains, it might find itself exporting to a different range of countries. A case in point is the electric vehicle value chain. Most of Africa's exports of minerals used in electric vehicle batteries (such as lithium, cobalt and graphite) are exported to China. But China is the world's leading exporter of electric vehicle cell components and battery packs based on these minerals, and exports many of these to high-income countries in North America, Europe and Asia. Among these, the two leading export destinations are the United States and Germany.[10] To the extent that African countries can 'cut out the middleman' (i.e., China), these high-income countries will also be important export destinations. This may become increasingly important as Western countries seek to reduce their trade dependence on China and may prefer to source these technologies from elsewhere (as the EU and US have recently committed to doing through the Inflation Reduction Act and Critical Raw Materials Act, respectively).

TRADING PARTNERS' GREEN INDUSTRIAL POLICIES AND WHAT THEY WILL MEAN FOR AFRICA

In this section, we discuss some policies that Africa's trading partners have adopted on transition mineral value chains, and the impact they are likely to have on Africa. We focus on industrial and trade policies. A more detailed discussion of individual countries' policies is available in the accompanying working paper (of the same title).

Table 1 below shows industrial policies among selected key markets for Africa's transition minerals.

Table 1: Key transition mineral supply chain policies with implications for Africa among leading export markets for the continent[11]

	Policy measure					
	Policies with more negative impacts on Africa			Policies with more positive impacts on Africa		
Partner	Financial support for domestic industry (e.g., subsidies)	Reshoring/ friendshoring	Securing raw minerals	Non-financial domestic support (including infrastructure)	Partnerships	Research funding
China	Yes, including subsidies		Yes			Yes
European Union	Yes	Yes – mining and processing	Yes	Yes, e.g., regulatory reform and infrastructure	Yes	Yes
Japan	Yes, including subsidies		Yes		Yes	Yes
United Kingdom	Yes			Yes, e.g., regulatory reform and infrastructure	Yes	Yes
United States	Yes (e.g., tax credits)	Yes (Morocco is the only African country that currently benefits)			Yes	
Others	E.g., Australia, Canada				E.g., India	

As shown in Table 1 above, Africa's trading partners are attempting to reshape transition mineral value chains to boost their domestic industry. Some are also attempting to source these minerals from friendly countries (in the case of the United States). This threatens to make it harder for Africa to add value to its transition minerals. For example, China subsidises its domestic solar panel and wind turbine industries.[12] Lower-cost competition from China is one of the main reasons why African producers would struggle to be competitive in entering the solar panel value chain and why China remains dominant in wind turbine value chains.[13]

Box 1: The US Inflation Reduction Act's Transition Mineral Sourcing Measures

Under the US Inflation Reduction Act, US electric vehicle manufacturers, their suppliers and upstream firms in their value chains will be discouraged from sourcing transition minerals from countries without a free trade agreement with the US. The US legislation in question does not define what counts as a 'free trade agreement' for the purposes of the tax credit. To provide clarity, the US Treasury issued guidance in March 2023 that 'free trade agreements' could include newly negotiated critical mineral agreements that 'reduce or eliminate trade barriers on a preferential basis, commit the parties to refrain from imposing new trade barriers, establish high-standard disciplines in key areas affecting trade, and reduce or eliminate restrictions on exports or commit the parties to refrain from imposing such restrictions on exports, including for trade in the critical minerals contained in electric vehicle batteries'. Although currently the US Treasury considers that only Morocco meets this criterion,[14] African negotiators could advocate for the US to consider other agreements that facilitate trade in transition minerals, such as the Memorandum of Understanding on the Lobito Corridor that involves Angola, DRC and Zambia along with the EU and the US.[15] But for now, African countries except Morocco would be disadvantaged by this requirement as car manufacturers will prefer to source transition minerals from inside the US or countries with a free trade agreement with it, as this will allow their vehicles to qualify for the tax credit.[16]

Moreover, at the same time as using subsidies and 'friendshoring' policies that could disadvantage Africa, some trading partners (e.g., China, Japan and the EU) are trying to secure raw minerals from producing countries, which makes it harder for those producers to add value to their transition minerals. China and Japan are doing this through investments in overseas mines.[17] The EU and US are subsidising investments in African mines that will send raw transition minerals to them.[18] This focus on sourcing raw materials makes it harder for African countries to add more value to their transition minerals. At the same time, the EU is also trying to discourage the use of active industrial policies that resource-rich countries use to add more value to their minerals (including through its Free Trade Agreements).[19]

Such measures focused on 'unfair trade practices' could create economic opportunities for Africa by discouraging the use of trade distortive practices that reduce global economic welfare if used indiscriminately. However, the EU's plans in this area also threaten the ability of African and other countries to judiciously use active industrial policies to encourage domestic processing of transition minerals (although none are currently being used against African countries). We discuss in more detail why this could be harmful to Africa's (and the world's) interests in the next section.

Yet some of the policies covered in Table 1 show how Africa's partners could promote access to transition minerals in a more inclusive way that is better for the global economy as it would avoid distorting transition mineral supply chains. For example, some of Africa's trading partners are funding or planning to fund scientific research into new technologies in transition mineral value chains.[20] This approach to supporting the green transition may be one of the most favourable to the continent, as improved technologies may boost global growth and cut emissions, without distorting the global economy in favour of certain countries (except in terms of where the research itself is carried out).

Further, some partners (the EU, India and the UK, for example) also plan to pursue non-subsidy industrial policies to support their domestic energy transition mineral value chains, such as supportive regulations, planning and permitting reform, and developing supporting infrastructure. While these approaches may increase competition for African battery producers and make it more difficult for a thriving battery industry to develop in Africa, they may be at least more efficient than efforts to develop domestic industries that are reliant on subsidies, and thus more supportive of global growth, which is more likely to create opportunities for African economies.[21]

One example is the UK's plans to build on London's role as an international centre for trading in transition minerals to promote 'well-functioning markets and responsible, traceable supply chains, to help de-risk investments and development of new projects'.[22] To the extent that this can support additional investment in transition mineral value chains, this could be a positive development for African countries, and also speed the global transition to renewable energy.

Although it may increase competition for African financial centres that aspire to trade in critical minerals, no African country currently has a comparable role to London in international mineral and metal trade. As a result it is unlikely that Africa could compete to host international transition minerals trading, with or without this policy, so there is little risk of a negative impact on Africa.

However, as part of this initiative the UK has worked with the International Organization for Standardisation on developing standards for transition minerals such as rare earths and lithium with the intention of simplifying international trade.[23] These steps could be positive for African producers of transition minerals, and could speed the energy transition. But artisanal miners, who are widespread in Africa, may struggle to ensure that their output meets these standards. African countries may therefore wish to argue that a push towards greater standardisation in transition minerals should be accompanied by support for artisanal producers to meet these standards, possibly by organising themselves into co-operatives. This approach has worked well in African agriculture.[24]

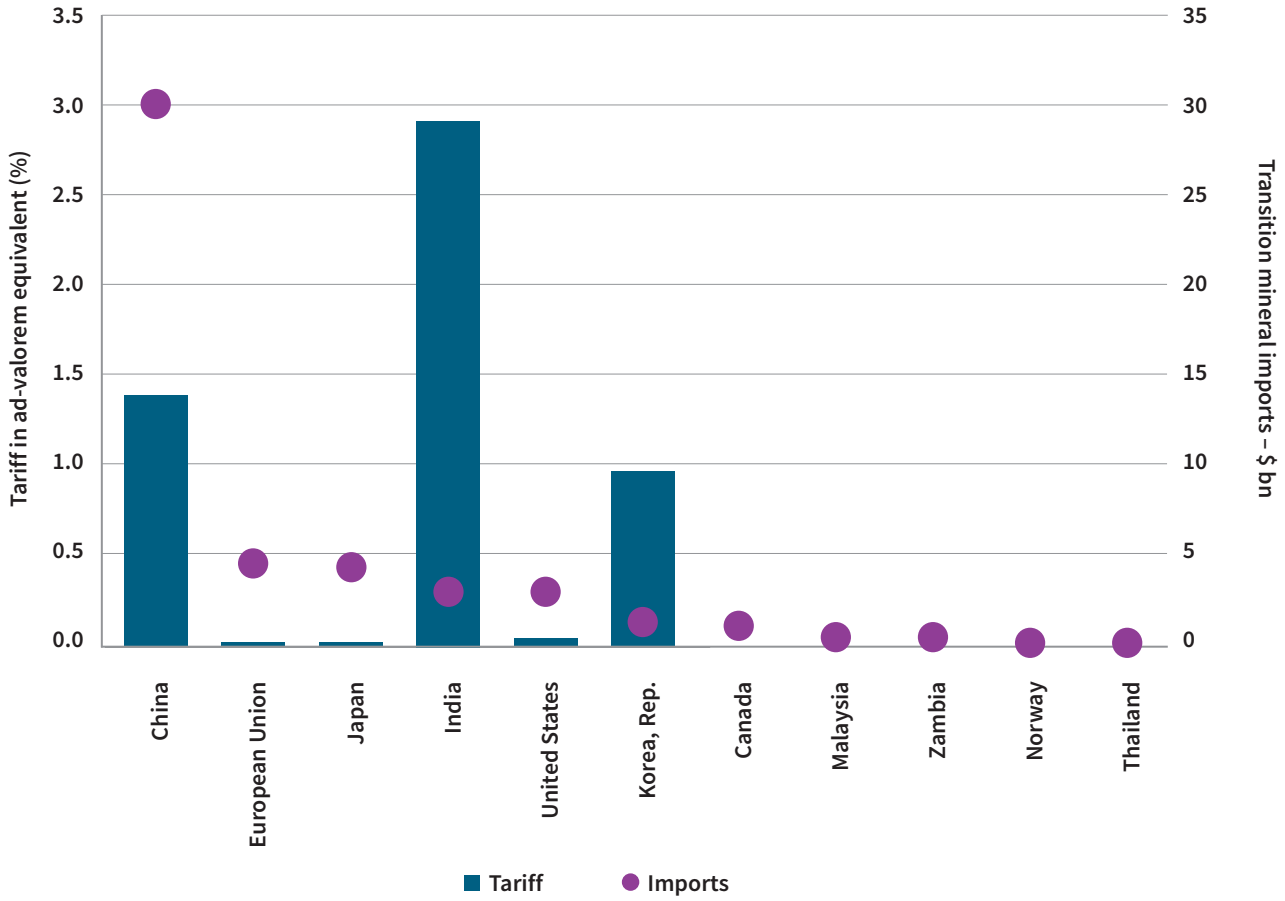
In addition, several of Africa's trading partners are pursuing partnerships with transition mineral producers to influence the geography and sustainability of transition mineral supply chains. Although they have promised to support transition mineral producers, including in Africa, to add more value to their transition minerals, their commitments to do so remain largely vague and provide little reassurance to Africa for now. The most concrete actions focus on improving infrastructure (e.g., the Lobito corridor backed by the EU and US) or state-backed investments in mines. But some of the state-backed investments in mines may prevent the domestic processing of transition minerals.[25] Where such partnerships include investments in transport infrastructure from mining regions to ports, it may be preferable for them to also pass through regions where mineral processing facilities or other stages of transition mineral value chains could be located.

Africa's trading partners are pursuing a number of other policies aside from those summarised in Table 1. These include:

- Restrictions on export of raw transition minerals. These may make it more difficult for African countries to become involved in processing imported transition minerals.[26] Moreover, export bans have a poor track record of increasing domestic processing (except in cases where the country possesses a great deal of market power in the mineral in question). They may raise costs for mining companies, discouraging investment in transition minerals, thus potentially slowing the energy transition and global economic growth.[27] This may increase the impacts of climate change and also reduce opportunities for Africa to trade with the rest of the world (given slower growth elsewhere). However, in cases where restrictions on unprocessed raw materials can help the country that applies them to establish a comparative advantage in downstream processing, this could support global economic growth and be positive for African countries by facilitating access to lower-cost energy transition technology. As a result, export bans should only be used when, on balance, evidence suggests that the country in question can acquire a comparative advantage in these activities.
- Diversifying sourcing of transition minerals. This is slightly different from domestication or 'friendshoring' of transition mineral supply chains; these policies do not favour one country or another in particular, but rather seek to avoid high dependence on one supplier country for imports. It is unclear what impact overall such policies would have on Africa.
- Recycling. Several of Africa's trading partners have plans to promote the recycling of transition minerals to reduce their demand for such minerals.[28] While this will potentially reduce demand for Africa's transition minerals, it also has the positive effect of reducing overall consumption, which may be necessary to keep global warming at less than 2 °C above pre-industrial levels.[29] In addition, recycling and reusing minerals could also create economic opportunities for Africa to the extent that recycling can be carried out in African countries.[30] It is therefore unclear what the overall effect on Africa of these policies will be.
- Africa's trading partners' efforts to encourage the uptake of renewable energy will also likely increase demand for energy transition minerals. This could create additional export opportunities for African countries. However, as noted above, this focus on greening existing energy demand may be insufficient to keep global warming at less than 2 °C above pre-industrial levels.[31]

Finally, although they are generally low, import tariffs are a further barrier to Africa's exports of transition mineral products to some countries.

Figure 3: Average applied tariffs facing Africa's exports of transition mineral products (%) and imports of these products ($bn), 2022, selected importers[32]



Source: Author's analysis of UNCTAD TRAINS Database

NB African countries face an average applied tariff of almost zero (0.05–0.06%) on exports of these products to the US, whether or not they benefit from the U.S. African Growth and Opportunity Act.[33]

WHY IS THIS UNFAIR?

It is unfair for Africa's trading partners, especially those that are richer than the continent, to reshape transition mineral supply chains in their favour and undermine Africa's own aspirations to add more value to transition minerals.[34] Indeed, all of Africa's external trading partners assessed in this paper (except India) are substantially wealthier than the continent. This development also threatens to undermine global efforts to mitigate climate change. In this section, we explore in more detail why this is the case.

Why this is unfair to Africa

Some aspects will reduce economic welfare and distort the global economy in favour of the rich

Africa's trading partners are providing public financial support to their industries (or those of selected other countries) to support the production of technologies such as renewable energy and electric vehicles. While this will reduce emissions by cutting the cost of low-emission technologies,[35] and even possibly boost global growth, some aspects of policies will have significant negative effects.

In particular, the 'local content' requirements applied to domestic financial support that restrict where goods are sourced from and favour domestic industries and those from selected countries threaten to distort green

technology supply chains so that inputs are sourced not from where it is most efficient to do so, but from those countries benefitting from local content requirements.[36] This threatens to slow global economic growth, lower economic welfare and reduce Africa's opportunities for trade with the rest of the world.[37] This aspect of the US Inflation Reduction Act, for example, has caused significant concern from economists outside the US about the negative impacts of the policy.[38] By excluding Africa from benefitting from these subsidies, these policies risk worsening global income inequality, as the continent has the highest rate of extreme poverty of any in the world.[39] The IMF estimates that global economic fragmentation (beyond only transition mineral value chains) could cost Sub-Saharan Africa 4% of its GDP.[40]

In some cases these policies break WTO rules, providing 'special and differential treatment for the rich'

In particular, the local content provisions in the US Inflation Reduction Act likely violate WTO rules.[41] The US is facing labour shortages in manufacturing green goods, again suggesting the importance of broadening the scope of eligible facilities (or facilitating inward migration of workers).[42]

A broader range of green industrial policies adopted by Africa's trading partners is likely to go against the spirit of open and non-discriminatory trade underpinning the WTO, even if they comply with the rules. As noted above, public financial support for domestic production of energy transition technologies threatens to distort world trade at the expense of poorer countries that cannot afford to provide similar support. And attempts by the EU to prevent its trading partners, including developing countries such as Indonesia, from using active industrial policies to promote domestic value addition to their transition minerals, threatens to create a two-tier system in global green energy value chains, where richer countries monopolise these value chains by using subsidies and local content requirements, while poorer countries that cannot afford to subsidise are prevented through diplomatic means from using the alternative industrial policies available to them. Such a two-tier system could be referred to as 'special and differential treatment for the rich', after the WTO's system of special and differential treatment that is supposed to benefit developing countries.

The use of subsidies restricted to domestic firms and local content/friendshoring requirements is particularly egregious given that there are other ways to promote the green transition that do not distort the world economy in favour of rich countries. These include trade agreements, and non-subsidy industrial policies such as those focused on flexible regulation, research or infrastructure. As shown in section 2 above, some of Africa's trading partners are already pursuing these approaches (often alongside financial support for domestic industry).

The West's policies undermine its commitment to helping Africa add value to its transition minerals

As alluded to above, the EU and US have committed to help African countries add value to their transition minerals, through agreements such as the Lobito corridor, the US Memorandum of Understanding with DRC and Zambia, and EU MoUs with Namibia and Rwanda.[43]

Yet policies mentioned above such as local content requirements in the US Inflation Reduction Act, financial support for domestic transition mineral processing and the EU CBAM all threaten to make it hard to realise this commitment by disadvantaging African countries in some of the world's most important markets for value-added transition mineral products (see section above). Unless the EU and US can make good on their promises, the fact that they have promised to support Africa to climb transition mineral value chains while adopting policies that undermine this objective suggests that they have made an unfair breach of trust.

If they miss out on value-addition opportunities, African mineral-rich countries risk not benefitting from their mineral resources

Mining often carries high local environmental and social costs, and transition mineral mining is no different.[44] In particular, cobalt and lithium mining can cause particularly severe harm to the local environment (the former because many sources of cobalt are located in forests, the latter because of effects on the groundwater).[45] As a result, unless African countries achieve economic benefits from their transition minerals, the continent may be made worse off (at least in the short term) by their extraction (setting aside the minerals' role contribution to tackling climate change). Yet many African countries fail to benefit from their mineral resources, even

in economic terms, in large part because they have been unable to diversify their economies and achieve sustained economic growth outside periods of resource booms. For example, following the end of the last commodity boom (from 2004–2014), several resource-rich African countries saw slower economic growth than those without resources, suggesting that mineral-based economies had not provided for long-term development.[46] But adding more value to mineral resources helps to reduce the volatility of export prices, providing for greater economic stability and laying the groundwork for diversification and growth.[47]

Moreover, some climate mitigation efforts pursued by Africa's trading partners are expected to have negative impacts on Africa, such as the EU CBAM and the EU Deforestation Regulation.[48] By using economic coercion to oblige African and other countries to comply with extra-territorial climate regulations, they arguably contradict the principle enshrined in the UN climate negotiations that each country determines its own national contribution to tackling climate change, and that countries will contribute to doing so according to their 'common but differentiated responsibilities and respective capabilities'.[49] If in addition to pursuing these measures, Africa's trading partners also 'kick away the ladder' on transition mineral value chains, which are a key opportunity for the continent to make up for the negative effects of these policies, they could be responsible for substantial negative impacts on African economies. This may hit even harder for African states that depend on oil and gas exports given the expected impact of the fall in demand for fossil fuels on their government revenues.[50]

Why it could undermine efforts to mitigate climate change

Processing in-country can cut emissions from transition mineral supply chains

Some of Africa's leading exporters of transition minerals currently process them (such as China) or would like to (such as the US). This may be because of the important role of hydropower in Africa's energy production. This suggests that processing these minerals in-country could reduce the emissions associated with doing so. Moreover, in-country processing of transition minerals would avoid emissions associated with shipping them to China and then re-shipping them to their final destination, which is a common trajectory for many transition mineral products (see section 1.3 above). This picture extends beyond Africa – Chile, a leading producer of copper and lithium, also has a lower emissions intensity of electricity than the US and China.[51] In line with this, a 2021 study found that processing battery minerals where they are mined in the DRC could substantially cut emissions associated with the process compared to doing so in China, Poland or the US.[52]

Cutting emissions associated with transition mineral production is particularly important because, as noted above, research suggests that if emissions from metallic transition mineral production stay at current levels, the world cannot limit global warming to 2 °C above industrial levels, and thus avoid the worst effects of climate change.[53]

In addition, in some cases, increased processing of transition minerals in countries where they are mined could substantially cut the cost of energy transition minerals, encouraging greater adoption and speeding the transition away from fossil fuels. For example, the aforementioned study on emissions associated with the production of electric vehicle batteries in the DRC found that it could also be substantially cheaper if produced there instead of in China or Poland.[54]

Transition mineral-producing countries' limited participation in associated value chains could undermine the global energy transition

Moreover, if transition mineral-producing countries' participation in transition mineral value chains remains limited, this may undermine the supply of transition minerals from the continent to fuel the energy transition. As argued above, developing greater value chain participation is one of the main ways that resource-rich countries can benefit from their mineral resources. Without this, local opposition to mining may justifiably increase, preventing projects from going ahead due to both government policy and popular protests. Indeed, mining's perceived contribution to economic development is one of the main factors that determine whether people in resource-rich countries support the mining industry (the 'social licence to operate').[55] Mining companies have stated that they consider the social licence to operate to be their leading challenge.[56] If this slows down the energy transition, the whole planet may suffer as a result.

Restrictions on exports of unprocessed transition minerals could raise costs and slow the green transition

On the other hand, transition mineral-producing countries that have placed export restrictions on raw transition minerals may add to the cost of green energy technology by preventing processing from occurring where it can occur most efficiently.[57] Although these countries may be able to acquire comparative advantage in transition mineral processing over time, as noted in section 3 above, export restrictions are normally not very effective in doing so except for countries with a high degree of market power in the supply of the mineral in question.[58] Therefore, even in the long term, the use of mineral export restrictions could slow the transition to renewable energy, except in some countries.

WHAT TO DO ABOUT IT

In this section, we propose changes to the green industrial policies that Africa's trading partners are pursuing that would result in better outcomes for Africa and the environment.

What African countries should push for

Africa's trading partners should rethink their green industrial policies regarding transition mineral value chains

As noted above, many of the green industrial policies we have reviewed risk distorting the global economy to concentrate transition mineral value chains in relatively richer countries. This is inefficient, unfair and bad for the environment.

Africa's trading partners should therefore modify these policies to retain the positive aspects (speeding the transition away from fossil fuels) while eliminating the negatives (inefficiently distorting these value chains away from lower-income countries). In particular, changes to these policies should include:

- Where public financial support is given, it should be used in ways that do not disadvantage foreign industry, for example, applying subsidies or tax breaks for the consumption of green energy technologies, not their production in a particular location; investing in infrastructure that supports the use of green technologies such as electric vehicle charging points and grid upgrades to accommodate more renewable energy; and investing in research to improve available technologies.[59]
- Failing this, at a minimum, subsidies and tax breaks for domestic production of green energy technologies should be focused on improving productivity, not distorting trade (in other words, on development, not mercantilism).[60] To achieve this, they should apply incentives linked to targets, and be time-bound.[61]
- If local content requirements for public financial support (such as those in the US Inflation Reduction Act) cannot be removed, they should at least be broadened to cover more countries, including those in Africa.
- The international community should not oppose the use of active industrial policies by transition mineral-producing countries to help them capture more value from transition mineral value chains, as long as these policies are based on principles of effective industrial policy and have the prospect of the country acquiring comparative advantage in the activities that it seeks to develop.[62] This could be decided through multilateral negotiations on what could count on permitted subsidies, with a view to designing a list of permitted exceptions. WTO member states used a similar approach to design permitted subsidies for developing countries as part of the 'Development Box' under the Agreement on Agriculture.[63]

Partners should provide support for transition mineral producers to add more value to their transition minerals domestically

As noted above, in-country processing can cut emissions associated with transition mineral supply chains. Since Africa holds many of the world's transition minerals, such an approach is likely to benefit African countries.[64] Africa can therefore argue for global support for transition mineral producers to add more value to their transition minerals, through processing or increased local content in mining (i.e., participation of local firms in supplying mining companies). However, this should focus on cases where these activities can be commercially

viable in the long term and where the country in question can acquire comparative advantage in these activities. International support for this can include the following elements:

- As discussed above, Africa's trading partners, particularly rich countries, should modify their green industrial policies so that they do not unnecessarily harm transition mineral producers' aspirations to add more value to their transition minerals, especially where doing so would reduce emissions from transition mineral supply chains.
- The international community should consider providing financial and technical support for transition mineral projects and supporting infrastructure in transition mineral-producing countries.
- The international community should consider supporting technology transfer to transition mineral producers to support industrial development in this sector.
- Countries should insist on high environmental, social and governance standards in transition mineral value chains. This should include countries regulating the overseas operations of firms that are subject to their jurisdiction. This can strengthen the social licence to operate, avoid disputes that slow down investments and help mineral-producing countries to attract more investment.[65] It can be useful for mining companies' parent companies to put pressure on them to respect these standards, especially since environmental impact assessments in mining countries are often ineffective.[66]

Where

Multilaterally

At UN climate negotiations

As discussed in section 3 above, supporting transition mineral producers to add more value to their transition minerals could be good for the climate. It is also relevant for climate negotiations because it is tied to questions about the pace of a fossil fuel phase-out as transition mineral processing may help some fossil fuel producers fill the gap in their economies left by declining exports of fossil fuels. For example, DRC, Nigeria, South Africa and United Republic of Tanzania, which all produce fossil fuels (or are seeking to develop them), also have among the most valuable reserves of transition minerals on the continent.[67] More broadly, discussing where transition mineral value chains are located is part of ensuring that costs and benefits from the transition to renewable energy are fairly shared.

At the World Trade Organization (WTO)

African countries can pursue dispute settlement claims at the WTO over these policies, for example joining China's complaint over the US Inflation Reduction Act as third parties.[68] In addition, they could pursue cases against subsidies adopted by other countries if they can demonstrate that they distort trade.[69] Although there are problems with the dispute settlement process, it is not as ineffective as sometimes thought, and members have continued to bring a steady stream of disputes.[70] While it may not deter Africa's trading partners from measures they have pursued, it may give African countries political and (WTO) legal cover to pursue their own active industrial policies in response, as the WTO allows countervailing measures in cases where judgements are reached against members.

In addition, African countries could support negotiations at the WTO to revise subsidies disciplines on production subsidies, to ensure that they are in line with best practices in industrial policies for increasing productivity, and that they provide the maximum benefits in terms of the green transition while resulting in minimal distortions to international trade and/or redistribution towards richer countries.[71] The African Group of countries at the WTO has already made a proposal in this regard.[72]

Bilaterally

Bilateral negotiations may also help to achieve these aims. As noted above, many countries seek access to Africa's transition minerals. This puts African countries in a strong position to demand a better deal, including support for greater value addition. For many countries, a desire to reduce dependence on China for energy transition technologies may encourage them to support Africa to add more value to its transition minerals if this can 'cut out the middleman' and allow them to source transition mineral products from Africa directly, without passing through China.

For example, the US may be open to making good on its promises to support African countries to develop transition mineral value chains within the continent. For instance, the US has already expanded the list of countries that can supply inputs for electric vehicles to include countries with which it has signed 'Critical Minerals Agreements' and is negotiating agreements to do so with other partners.[73] So, it should be possible for the US to expand access in this way for African countries.

However, there is strong political support in the US for reducing dependence on China, and as a result, attempting to challenge the local content/friendshoring requirements in a blanket sense may fail, unless it is focused only on granting an exemption for least-developed countries. Engaging the US bilaterally on including African countries in the Inflation Reduction Act, for example, as part of the renewal of the US's Africa Growth and Opportunity Act (AGOA), may be more likely to be successful.[74]

China may also be open to bilateral diplomacy on supporting Africa to add more value to its transition minerals. For example, in other parts of the mineral processing sector and other energy-intensive industries, China has previously wanted to reduce capacity, perhaps due to the energy-intensive nature of this industry, which can be highly polluting given China's reliance on coal.[75] An opinion article in Chinese state-controlled newspaper *China Daily*, authored by an academic from the publicly funded Chinese Academy of Social Sciences, called on the country to support resource-rich countries' ambitions to process more of their minerals domestically.[76] The mineral processing sector in China is largely dominated by state-owned enterprises, giving the government more control over the actions of firms in this sector and decisions about whether to process minerals abroad or in China.[77]

However, there might be a limit to the level of value addition that the Chinese authorities would be willing to accommodate overseas if this competes with industries that they themselves want to develop.

Regionally

To develop competitive transition mineral value chains in Africa, deepening regional integration will be a key ingredient. This could include:

- Implementing African Continental Free Trade Area (AfCFTA) provisions and facilitating trade in transition minerals and products based on them, as well as other inputs used in transition mineral value chains.
- Reconsidering the bans some African countries have placed on the export of transition minerals, at least vis-à-vis other African countries (and given that they are often ineffective). African countries could also consider agreeing on broader limitations on export restrictions as part of the AfCFTA or other sub-regional negotiations.[78]
- Supporting regional infrastructure projects, particularly to ease Africa's electricity shortages, which are a key impediment to competitive manufacturing industries, and intra-African transport projects to cut the cost of trading between African countries.[79]

It is worth noting that, even if transition mineral processing occurs in a limited number of regional hubs, this can still help other African countries by providing them with opportunities to supply inputs to those hubs.[80]

CONCLUSION

In conclusion, some of Africa's key trading partners are adopting green industrial policies that threaten to distort transition mineral value chains in their favour. Some aspects of these policies could speed up the adoption of green technologies by reducing the cost of production. But other elements, such as the focus on supporting their domestic industries, threaten to harm African countries by impeding their ability to derive greater value from these minerals, with implications for global economic growth, which threatens to worsen global inequality and undermine the fight against climate change. This is unfair to Africa and bad for the climate.

Yet African countries are in a strong position to demand a better deal on transition minerals, as the world needs the continent's reserves of this key resource for the energy transition. Africa should leverage this position to secure support for its aspirations to keep more transition mineral value chains on the continent. It should also pressure its trading partners, particularly upper-middle and high-income countries, to take a different approach to green industrial policy that is more focused on speeding the green transition than on trying to distort transition mineral supply chains in their favour.

ENDNOTES

1 Many countries have their own lists of 'critical minerals' that represent minerals that they view as being of strategic importance and the supply of which is geographically concentrated. We consider that, for most African countries, the primary interest from minerals comes from the economic opportunities associated with mining and processing them, and using them to manufacture various products. This is why we focus on minerals for which there is likely to be high demand linked to clean energy, rather than those for which supply is concentrated

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GREENING TRADE AND THE WTO: AFRICA'S OFFENSIVE AND DEFENSIVE INTERESTS

Colette van der Ven, Sunayana Sasmal and Sanvid Tuljapurkar

INTRODUCTION

Over the past few years, aligning trade and the environment has received increased attention. This reflects an increased awareness of the urgency of environmental challenges, and the important role trade can play in addressing these challenges. Indeed, according to the World Trade Organization's (WTO) Director General Ngozi Okonjo-Iweala, 'trade and the WTO are part of the solution to climate change and environmental degradation'.[1] Recent initiatives that seek to put environmental consideration at the heart of trade discussions, including the Trade and Environmental Sustainability Structured Discussions (TESSD), the Informal Dialogue on Plastics Pollution and Sustainable Plastics Trade (IDP) and the Fossil Fuel Subsidy Reform (FFSR). The Fisheries Subsidies Agreement (FSA), which aims to curb harmful fishery subsidies, is another important component of the WTO's sustainable trade initiatives.

Another important dimension of green trade discussions at the WTO concerns green subsidies increasingly adopted by governments, including to advance climate change solutions. The increasing popularity of these policy instruments has sparked discussions at the WTO about reforming the rules on subsidies, set out in the Agreement on Subsidies and Countervailing Measures (ASCM), which present prohibit a subsidy only based on its trade-distortive effects, irrespective of its sustainability impact. Similarly, in the context of agricultural subsidies, the rules predominantly centre on trade distortedness.

This paper seeks to better understand the implications of these different trade and environment angles and related discussions at the WTO for Africa. It does so by focusing on three different elements: (i) the plurilateral trade and environment initiatives; (ii) discussions about industrial policy and the reform of the ASCM and Trade-Related Investment Measures (TRIMs) Agreement; and (iii) discussions about better reflecting sustainability in subsidy disciplines set out in the Agreement on Agriculture. For each of these issues, this paper identifies the key issues and reform proposals, followed by an analysis of the opportunities and challenges for Africa. Unsurprisingly, the paper finds that, in areas where African countries have an offensive interest, such as industrial policy, African countries have been at the forefront of proposing reforms. In contrast, in other areas, where African countries seem to have mostly defensive interest, their participation rate is very low.

TRADE AND ENVIRONMENT AT THE WTO

Overview

Since the establishment of the WTO, Members have sought to balance trade liberalisation with the imperative of environmental protection.[2] Indeed, the Marrakesh Agreement, which established the WTO, highlights the importance of an 'optimal use of the world's resources in accordance with the objective of sustainable development and seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development'.[3] The importance of trade as a lever to advance sustainable development and the environment was recognised not only by the WTO, but also in other international forums, including the 1992 Rio Summit, the 2002 Johannesburg Summit, the 2005 UN World Summit, and the UN 2030 Agenda for Sustainable Development.[4]

With the objective of advancing environmental objectives through trade, the 1994 Ministerial Decision on Trade and Environment established the Committee on Trade and Environment (CTE). The CTE serves as the primary forum for discussions on trade and environmental issues within the WTO.[5] It mandates identifying the relationship between trade measures and environmental measures and making recommendations on whether modifications to the multilateral trading system are necessary, ensuring that these align with the system's open, equitable and non-discriminatory principles.[6] In addition, following the 2001 Doha Ministerial Conference, a Committee on Trade and Environment Special Session (CTE-SS) was created as a forum to lead negotiations on three key trade and environment themes: (i) the relationship between the WTO rules and multilateral environmental agreements (MEAs); (ii) the collaboration between the WTO and MEA secretariats; and (iii) the elimination of tariffs and non-tariff barriers on environmental goods and services.[7]

Moreover, the CTE was to give special attention to the effect of environmental measures on market access and the win–win–win situations; the relevant provisions of the TRIPS Agreement; and labelling requirements for environmental purposes.[8] Finally, both the CTE and the Committee on Trade and Development were tasked to debate the environmental and developmental aspects of the negotiations.[9]

However, progress with regard to the three areas in which the CTE has been mandated to lead trade and environment negotiations has been slow and marked by setbacks. One example is the stalled talks on environmental goods, which began in 2001. Having failed to agree on the definition of environmental goods and services and how to liberalise them, a group of 46 WTO members launched negotiations on the Environmental Goods Agreement (EGA) in 2014.[10] These negotiations also failed to reach a consensus and have been inactive since December 2016. The challenges in making headway on trade and environmental issues are also clearly visible in MC13, as has been further explored in an earlier policy brief. Indeed, the Abu Dhabi Declaration did not address climate issues or include a dedicated section on trade and the environment.[11] Members also failed to revitalise the CTE or launch an industrial policy dialogue.[12]

Nevertheless, various important developments are taking place at the WTO that are relevant to trade and the environment. This includes negotiations on the Agreement on Fisheries Subsidies (AFS), various plurilateral initiatives, as well as research relevant to decarbonisation and other environmental issues. These initiatives are briefly discussed below.

Environmental initiatives at the WTO[13]

An overview

An important multilateral environmental development has been the conclusion of the Agreement on Fisheries Subsidies (AFS), the first WTO agreement with a sustainability-related objective, which targets illegal, unreported and unregulated (IUU) fishing and subsidies to fishing overfished stock and fishing on the unregulated high seas. It also includes transparency provisions and provides certain flexibilities for developing countries. While the conclusion of the AFS has been historic, given its focus on the environment, it is only a partial agreement, as it does not discipline subsidies contributing to overcapacity and overfishing. However, Members have not been able to conclude negotiations for these subsidies. Moreover, the AFS has yet to enter into force, given that insufficient WTO Members have ratified it.

Difficulties in significant progress at the multilateral level have resulted in like-minded countries initiating plurilateral discussions. Specifically, three plurilateral initiatives relevant to the environment are being developed: the Trade and Environmental Sustainability Structured Discussions (TESSD), the Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade (DPP), and the Fossil Fuel Subsidy Reform (FFSR).[14] Each of these initiatives is briefly discussed below:

- The TESSD, with 77 members from all levels of development representing over 85% of global trade, aims to complement the work of the CTE. TESSD focuses on four key areas through informal working groups: (i) trade-related climate measures (TrCMs); (ii) environmental goods and services (EGS); (iii) circular economy; and (iv) subsidies. Only four African countries participate in this initiative.[15]
- The Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade (DPP), with 82 members representing over 85% of global plastics trade, focuses on how the WTO can help reduce plastic pollution and promote sustainable plastics trade. Nine African countries participate in this effort. [16]
- The Fossil Fuel Subsidy Reform (FFSR), comprising 48 members, aims to phase out inefficient fossil fuel subsidies that encourage wasteful consumption.[17] The initiative focuses on transparency, crisis support measures and identifying harmful fossil fuel subsidies. No African countries are part of this initiative.[18]

Trade and environment discussions are also advancing on platforms beyond the WTO. Notably, the Coalition of Trade Ministers for Climate, launched in January 2023, is the first Ministerial-level global forum focused on the role of trade policy in addressing climate change with 62 members, including several African countries.[19] Additionally, the first Trade Day was held at the 28th United Nations Climate Change Conference (COP28) in December 2023,[20] and at the 16th Conference of the Parties of the Convention on Biological Diversity (CBD) in November 2024.[21]

Opportunities and challenges for African countries[22]

African countries' participation in different environment-related initiatives at the WTO has been low. For example, in the plurilateral initiatives mentioned above, only four African countries are participating in the TESSD discussions;[23] eight African countries are participating in the DPP; and no African countries are supporting the FFSR Initiative.[24] As of 4 June 2024, only 9 African countries (out of 44 African WTO Members[25]) have ratified the AFS.[26]

Part of these low levels of participation reflects a distrust of the environmental agenda at the WTO, which is predominantly pushed by advanced economies. In particular, the African Group has expressed criticism with regard to the unilateral trade measures adopted by many developed economies. For instance, a recent submission on trade and the environment by the African Group and other developing countries calls on members to refrain from imposing unilateral trade-related environmental measures, given that they create market access barriers and fail to reflect the principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC).[27] The African Group's focus on the negative aspects of green trade approaches can, in part, explain low levels of participation.

Moreover, the low levels of participation of African countries in plurilateral trade and environment discussions at the WTO relate to the fact that some of these initiatives are considered to disproportionately benefit developed countries. Indeed, the African Group notes that 'developing countries should be cautious about premature tariff liberalisation on environmental goods and services associated with the green transition before building their own requisite capacities and capabilities in areas of revealed and latent comparative and competitive advantages'.[28] Indeed, most African countries do not have a comparative advantage in producing the goods that were proposed to be included under the earlier EGA negotiations.[29] This reflects the fact that the list was put together predominantly by developed countries.

In this sense, it would be important to ensure that development issues are more prominently reflected in trade and environment discussions at the WTO. Indeed, the African Group has highlighted, in a July 2023 document, the 'need to shift the narrative regarding the trade-environment nexus, with more emphasis on how to address the harmful impacts of trade and trade agreements on the environment, while recognising the need of developing countries'.[30] To ensure that African countries' considerations in trade and environment discussions and negotiations at the WTO are adequately represented, it is important to create a space where trade, the environment and development considerations are simultaneously addressed. This can be achieved through the creation of joint CTE/CTD committee meetings within the WTO. Doing so would facilitate assessing both positive and negative development implications of the green trade initiatives, thereby highlighting African countries' concerns. Another key issue of concern for African countries, in the context of environmental issues, is green subsidies. This will be further explored below.

GREEN INDUSTRIAL POLICY

Another important angle of green trade measures concerns green industrial policy, i.e., industrial policy instruments that focus on addressing the failure of markets to reflect the social costs of environmentally harmful production.[31] Industrial policy measures are typically introduced in economically strategic sectors in pursuit of industrialisation to achieve economic competitiveness, support infant industries, create economies of scale, create employment, correct market failures, internalise externalities, and absorb and foster innovation, amongst others. Relatedly, green industrial policy involves the use of industrial policy to foster green industries and attain energy transition goals.[32]

Recently, there has been a resurgence in the use of industrial policy generally, and specifically green industrial policy. In particular, several developed countries are increasingly adopting so-called green subsidies to advance the uptake of climate-friendly technologies, such as solar cells or electric vehicles. The increasing popularity of green subsidies has initiated discussions about whether the rules set out in the Agreement on Subsidies and Countervailing Measures (ASCM), which prohibit a subsidy predominantly based on their trade-distortive effect, are still fit for purpose. Indeed, several academics have proposed to reform the ASCM to allow for green subsidies at the WTO, such that support schemes for renewable energy that take the shape of price support, fiscal measures, and other financial grants would become permissible under WTO law. One proposal suggests reinstating non-actionable subsidies under ASCM Article 8,[33] while others have focused more broadly on the adoption of a waiver to allow WTO members to provide green subsidies that achieve a reduction in emissions.[34]

In contrast to the trade and environment discussions set out in Section 2 above, the African Group has been at the forefront of discussions about policy space to achieve industrial policy objectives, including green industrial policy. The interests of the African Group are both defensive and offensive. Africa's offensive interests lie in ensuring that green industrial policy tools leveraged by developed countries reduce trade-distorting effects, whereas Africa's defensive interests focus on increasing the policy space available under existing WTO rules to accommodate green industrialisation priorities. The latter are considered very important, in particular in the context of creating value addition with regard to critical raw materials (CRM) extraction.

Specifically, as set out in Table 1 below, over the past two years, the African Group has tabled four communications to initiate discussions on reforming WTO rules, focusing on the ASCM and the Trade-related Investment Measures (TRIMs) Agreement. The details of these communications are provided in Table 1 below. This section discusses the recent proposals by the African Group to reform the ASCM and rebalance the TRIMs Agreement.

Table 1: Overview of recent communications from the African Group related to industrial policy

Communication	Agreement	Amendments proposed
1. Policy Space for Industrial Development – A Case for Rebalancing Trade Rules to Promote Industrialisation and to Address Emerging Challenges such as Climate Change, Concentration of Production and Digital Industrialisation (WT/GC/W/868); (May 2023).	ASCM/TRIMS/TRIPS	• Initiates discussion on the need to rebalance trade rules to address obstacles to pursuing industrial policy. • Sets out the need to initiate discussions to elaborate on what is meant by growing calls for greater policy space. • Identifies the TRIMS/TRIPS and ASCM Agreements as key agreements for the area of discussion.
2. A Case for Rebalancing the Agreement on Subsidies and Countervailing Measures (ASCM) – Policy Space to Promote Industrialisation in Developing Countries – Communication from the African Group (WT/GC/W/880).	ASCM/TRIMS	• Revise the conditions to claim exemption from export subsidy prohibition. » Revise the threshold of GNP per capita of $1 000 per annum and ensure the re-inclusion of a Member when its GNP per capita falls back below the agreed threshold. » Incorporate additional criteria, such as level of export diversification, global share of exports, etc, that can help determine the country's export competitiveness. » Consideration of regional integration. • Multilaterally negotiate a threshold below which developing countries and LDCs will be permitted to use local content subsidies. • Revise rules on countervailing duties to make them development-friendly. • Reinstate Article 8 of the ASCM to enable developing countries to grant subsidies, including through complementary localisation initiatives, for industrial development and structural transformation, including technology research and development funding, production diversification and development and to allow measures to promote green industrialisation to confront climate change and freight rebates to mitigate high transport costs. • Revise special and differential treatment under the ASCM.

Communication	Agreement	Amendments proposed
3. The Role of Transfer of Technology in Resilience Building: Reinvigorating the Discussions in the WTO on Trade and Transfer of Technology – Communication from the African Group (WT/GC/W/883, WT/GC/W/884, WT/GC/W/885, WT/GC/W/886, WT/GC/W/887, WT/GC/W/888).	TRIPS	• Proposes modalities to reinvigorate discussions centre around the issue of trade and technology transfer to develop recommendations for MC13. • Modalities of discussion proposed include analysing the relationship between the transfer of technology and economic development, assessing the use of information and communications technology to promote technology transfer, assessing the role of flexibilities contained in the TRIPs agreement to promote technology transfer in areas relevant to climate change mitigation, decarbonisation or green industrialisation technologies.
4. A Case for Rebalancing the Agreement on Trade-Related Investment Measures (TRIMs) – Policy Space to Promote Industrialisation and Structural Transformation in Developing Countries – Communication from the African Group (WT/GC/W/896).	TRIMS	• Provide flexibility under the TRIMs Agreement to allow developing countries policy space and tools in support of their developmental policies. • Implement measures to ameliorate their foreign exchange challenges. • Provide exemption from TRIMs and the ASCM, including local content requirements and similar TRIMs undertaken to address specific objectives aligned with the climate response, the 'nationally determined contributions' under the Paris Agreement, and averting balance of payment crisis. • Allow Members to impose up to [x]% of local content requirements to boost domestic production. • Consider flexibilities for crises such as climatic and natural disasters, financial and economic crises, health emergencies, food-security-related crises, and similar crises. • Exemptions from TRIMs and ASCM for LDCs.

Green industrial policies and the ASCM

Policy space under the ASCM Agreement

The ASCM regulates the effects of subsidies on international trade by allowing affected WTO members to initiate disputes to challenge trade distortions or to undertake unilateral action in the form of countervailing duties to address externalities caused by distorting subsidisation.

The ASCM defines a subsidy as a financial contribution (in the form of direct fund transfers, foregoing of revenue, provisions of goods or services, payments to a funding mechanism, income or price support) by a government or a public body within the territory of a member, which confers a benefit. Further, for any subsidy to be covered under the disciplines of the ASCM, it must be a "specific subsidy", such that they are provided in a particular enterprise, an industry, or a region.

Under the ASCM, all subsidies can be challenged at the very least (called 'actionable subsidies'), with some being outlawed from the outset (called 'prohibited subsidies'). The former comprises any subsidy that causes adverse effects – injures the domestic industry or seriously prejudices the interests of another country, or nullifies and impairs the benefits of the GATT, while the latter comprises export subsidies and domestic content subsidies. Until 1999, the ASCM permitted certain subsidies that were used for the development of backward areas for research and development or for environmental purposes.[35] After 2000, such subsidies are treated similarly to actionable subsidies and can attract challenges or countervailing measures, if they meet certain conditions that establish their distorting effects.

Of relevance here are the two kinds of prohibited subsidies per the ASCM: export subsidies and subsidies contingent upon local content requirements. Countries can be exempt from the export subsidy prohibition if they are either a least-developed country (LDC) or if GNP per capita is below $1 000.[36] Subsidies involving domestic content requirements have been associated with incentives in the renewable energy sector, such as in cases involving feed-in tariffs (FIT). Yet, the promise of local content policies is unmissable. Despite the clear censure of domestic content requirements in enacting green incentive policies, the United States recently enacted its most significant climate legislation, the Inflation Reduction Act, which includes controversial industrial policy measures with domestic content requirements.[37]

Proposal by the African Group

The African Group's Communication on reforming the ASCM Agreement (see Table 1, item 2), notes that the ASCM disciplines on local content requirements and public procurement need to be better aligned with the Paris Agreement. Specifically, the African Group expresses concern about: (i) the constraints placed by the ASCM on public sector support for research and development (R&D); (ii) the expiry of Article 8 of the ASCM, which allowed for the provision of subsidies for climate action and R&D; and (iii) the prohibitions on local content subsidies for developing countries.

To address these concerns, the African Group proposes various amendments to the ASCM (see Table 1, Communication 2 for details), including revising conditions that establish exemptions from the export subsidy prohibition; multilaterally negotiating a threshold below which developing countries and LDCs will be permitted to use local content subsidies; and reinstating and amending Article 8 to enable developing countries to grant subsidies, including through complementary localisation initiatives, for industrial development and structural transformation, including technology research and development funding, production diversification and development, and allowing measures to promote green industrialisation to confront climate change and freight rebates to mitigate high transport costs.

While other scholars and academics have also sought to re-institute Article 8, the African Group seeks to do so only for developing countries – in line with both its defensive and offensive interests. The proposals to revise exemptions for export restrictions and to permit the use of local content subsidies seek to broaden Africa's policy space, including its green policy space. While these suggested reforms would increase Africa's policy space on paper, it must be noted that fiscal constraints of many African countries, as well as a lack of alignment between industrial policy objectives on the one hand, and international economic laws on the other hand, might be a more realistic explanation for the limited green subsidies African governments are currently providing.[38]

Concerns and reform proposals under the TRIMs Agreement

Policy space under the TRIMS Agreement

TRIMs are policy tools that have been crucial in efforts to advance industrial development and the creation of backward and forward linkages, enhancing technology transfer and local research and development, contributing to increasing local employment and addressing balance-of-payments concerns.[39] However, due to their trade implications, they are disciplined under WTO law.

The TRIMs Agreement is a clarification of the GATT disciplines, with stronger notification and transparency obligations.[40] Specifically, the TRIMs Agreement disciplines discrimination, in accordance with Article III of the

GATT, and quantitative restrictions in accordance with Article XI of the GATT. It includes an illustrative and non-exhaustive list of TRIMs that are inconsistent with these GATT obligations. Inconsistent measures include those that:

- Require the purchase of domestically produced products
- Restrict the use of imported products to a percentage of the value or volume of its exports of local products
- Restrict imports by restricting access to foreign exchange
- Restrict exports by value, volume, or based on local production.

The TRIMS Agreement further builds in an exemption for developing countries from discrimination violations, provided the measure meets the conditions of Article XVIII of the GATT (on economic development of developing countries) and for other balance of payment purposes. TRIMS also incorporates the exceptions set out in GATT Article XX.

Proposal by the African Group

The African Group circulated the Communication titled 'A Case for Rebalancing the Agreement on Trade-Related Investment Measures (TRIMs) – Policy Space to Promote Industrialisation and Structural Transformation in Developing Countries' in July 2023.[41] Through this Communication, it proposes how the TRIMS rules can be adopted 'in order to address the current and future challenges that developing countries and LDCs face in the context of the poly-crisis and the needed transformation to build resilience and to address developmental, industrialisation, digital transformation and climate challenges'.[42]

The African Group, in its Communication, highlights the significance of using TRIMS to support and bolster the industrialisation process. For instance, it notes the importance of TRIMs in attracting foreign direct investment (FDI), encouraging local entrepreneurship, creating technology transfer and knowledge spillovers, building industrial infrastructure, and enhancing job creation and economic growth. It further notes that, to avoid an adverse effect on the balance of payments, such countries need to be able to raise domestic content to incentivise domestic production. Especially for resource-rich countries, reforming TRIPS is important to foster backward and inward linkages domestically through foreign investments. It further highlights the untapped capacity of Africa in renewable energy. While Africa possesses the world's largest potential capacity for renewable energy production – estimated to reach 310 GW by 2030 – its share in the world's renewable energy production capacity in 2022 remained only 2%.[43]

To enhance policy space to adopt TRIMs, the African Group has proposed various reforms (see Table 1 for more detail), most of which focus on creating flexibility and exemptions for developing countries and LDCs, respectively. Interestingly, the African Group has also proposed a specific exemption from TRIMs and the ASCM, when a measure is undertaken to address 'specific objectives aligned with the climate response, the "nationally determined contributions" under the Paris Agreement, and averting balance of payment crisis'. This proposal would create a rebuttable presumption of compliance with Article XX of the GATT if a measure seeks to attain compliance with a Multilateral Environment Agreement. Another proposal seeks to create a threshold that can be applied to local content requirements to facilitate industrialisation and structural transformation. Again, while these proposals would, on paper, enhance the policy space of African countries, doing so would not be a panacea to address Africa's industrialisation challenges, which are connected to many other factors.

Opportunities and challenges for Africa

As has been discussed in this section, African countries are prioritising WTO participation on issues related to the 'green' industrial policy space over topics that are discussed in various environmental initiatives, such as trade in plastics, fossil fuel subsidies, and various environmental topics that are being discussed in the context of TESSD. Given the high levels of distrust between different WTO Members concerning proposals on trade and the environment, it is likely that attaining consensus on the African Group's proposals will be an uphill battle.

Indeed, the TRIMS and ASCM proposals from the African Group, when being discussed at the July 2023 General Council meeting,[44] were well received by WTO members from the developing world, including Brazil, Argentina,

India, Colombia, China, the Organisation of Eastern Caribbean States, the EU and South Africa. However, developed countries were more critical. For the United States, the key consideration remains that any flexibilities for industrial policy would not be applicable carte blanche to all self-declared developing countries. Singapore highlighted the trade-distorting nature of local content subsidies and the preference for the already existing special and differential treatment provisions, asking the African Group to clarify the failures of the existing rules and exemptions. Korea relayed a preference for strengthening existing WTO rules instead of reforming them. Nevertheless, the African Group's active participation in reforming the ASCM and TRIMs Agreement in light of environmental challenges is undoubtedly having an impact on the ongoing discussions.

SUSTAINABLE AGRICULTURE AND THE WTO

Context

Agriculture is another important area in the discussions on trade and the environment.

Agriculture significantly impacts the environment, being a major contributor to climate change through practices that drive greenhouse gas (GHG) emissions. Agriculture through unsustainable farming methods also contributes to biodiversity loss, water pollution and soil degradation. Many of these practices are enabled through agricultural subsidies: a joint FAO–UNDP–UNEP report estimates that 87% of global producer support is price-distorting and harmful to the environment and health.[45]

Accordingly, the need to tackle harmful environmental subsidies has become a priority in discussions centred on the preservation of biodiversity. Specifically, Target 18 of the Kunming-Montreal Biodiversity Framework, adopted in 2022, urges governments to reduce environmentally harmful subsidies by at least $500 a year by 2030.

From an international trade perspective, agricultural subsidies are predominantly approached from a trade-distortive angle – similar to the ASCM. Specifically, the Agreement on Agriculture (AoA), which addresses agricultural practices, including subsidies, focuses predominantly on reducing the most trade-distorting effects of agricultural subsidies. Together with other developing countries, the African Group has sought reform of the domestic support disciplines in the AoA, noting their role in exacerbating structural asymmetries in agricultural subsidies between developing and developed countries.[46] However, discussions to reform the subsidy disciplines of the AoA are not currently focused on the sustainability impact of agricultural subsidies.[47]

This section starts with an overview of existing agricultural subsidy disciplines, followed by an overview of possible options to enhance AoA disciplines on sustainable agricultural subsidies, and an analysis of the implications for Africa.

Towards sustainable agricultural subsidies at the WTO

Increasing awareness regarding the impact of agriculture on the environment, commitments made under multilateral environmental agreements and domestic policy priorities are driving sustainability-related trade in agriculture discussions.[48] Domestic support, one of the most significant and longstanding points of divergence among members, is at the centre of the sustainability-related trade in agriculture discussions. Therefore, some WTO members are advocating for the repurposing of agricultural subsidies towards addressing environmental concerns.[49] This would mean diverting funds from environmentally harmful agricultural subsidies to agricultural activities that promote environmental outcomes.

There are different ways in which this can be done. One option would be to allow for domestic support as long as it does not have any harmful effects on agriculture. Another option would be to prohibit a set of practices relevant to agriculture subsidisation, which cannot benefit from domestic support. Irrespective of the option chosen, it would be important to define, ex ante, a list of circumstances and possible thresholds that are presumed to have harmful environmental impacts and should, thus, not be subject to domestic support.[50]

Adopting such an approach would be similar to the Fisheries Subsidies Agreement (FSA), which outlaws certain fishing practices and conditions where fishing activities should not be subsidised.[51]

For the African continent, a key challenge is that repurposing agriculture subsidies could result in a trade-off between food security and environmental concerns for African countries. Indeed, research has shown that subsidies coupled to specific commodities increase agricultural production.[52] This means that repurposing these subsidies to achieve better environmental outcomes is likely to reduce the volume of food produced globally, which will have implications for food availability.[53] Moreover, if the reform would result in allowing sustainable agricultural subsidies, including those that are trade-distortive, then this could create a situation in which WTO Members could provide unlimited domestic support to environmentally sustainable agriculture, which risks deepening existing asymmetries between Members.[54] Indeed, as also highlighted earlier in this paper, many African countries lack the fiscal space to provide agricultural subsidies, including subsidies for sustainable agriculture.

Given the complex interplay between reforming the agricultural subsidies regime and the African Continent, it will be critical for the African Group to participate in any relevant discussions if and when they take place.

CONCLUSION

This paper has provided an overview of key trade and environment developments within the context of the WTO – through dialogues, initiatives, or proposals to reform the text of existing agreements (ASCM, TRIMS, AoA). With regard to trade and environment instruments such as TESSD, African countries have participated only minimally. This can be explained, in part, by the fact that African countries predominantly adopt a defensive approach vis-à-vis these issues. At the same time, however, African countries have been at the forefront of calling for reform of the ASCM and TRIMs rules, to carve out additional policy space issues for industrial policy, including green industrial policy. This reflects the fact that African countries have both defensive and offensive interests: they seek to curb developed countries' ability to obtain a carte blanche to adopt green subsidies, while at the same time ensuring African countries and other developing countries and LDCs have sufficient policy space to adopt the necessary green trade instruments. The latter is considered especially important in the context of CRMs. Finally, with regard to agricultural subsidies, these discussions are currently mostly taking place outside the WTO. Here, the interests of the African countries will also be predominantly defensive, as they will likely oppose any additional domestic support allowance that would be created as a result of any reforms that seek to better reflect the sustainability dimension of agricultural subsidies.

It is important to contextualise these discussions. Indeed, given the current geopolitical climate and the WTO consensus rules, it is very unlikely that the WTO membership will reach a consensus on reforming the ASCM, TRIMs and AoA rules. While it is important for the African Group to continue to engage on these issues, it might also be important to think about what approach to green industrial policy to adopt outside the context of the WTO rules. Indeed, the issues surrounding WTO policy space will not be the panacea that will unlock Africa's industrial potential in areas related to sustainable development. The absence of green industrialisation measures in the African continent is connected to a lack of fiscal space, a lack of harmonised trade, environmental and industrial policies, and a lack of finance and skills. Accordingly, it is important for the African continent to adopt a holistic approach to issues related to green industrialisation.

ENDNOTES

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3 **https://www.wto.org/english/docs_e/legal_e/04-wto_e.htm**

4 **https://www.wto.org/english/tratop_e/envir_e/envt_intro_e.htm**

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6 **https://www.wto.org/english/tratop_e/envir_e/envir_wto2004_e.pdf**

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10 **https://www.wto.org/english/tratop_e/envir_e/ega_e.htm**

11 'Abu Dhabi Ministerial Declaration', WTO, WT/MIN(24)/DEC, 4 March 2024

12 Asit Ranjan Misra, 'WTO MC13: India blocks EU proposal to link trade with industrial policy', Business Standard, 4 March 2024, accessed at **https://www.business-standard.com/economy/news/india-blocks-eu-proposal-to-link-trade-with-industrial-policy-at-wto-mc13-124030400933_1.html**

13 Please refer to 'Sustainability outcomes of the 13th WTO Ministerial: Implications for Africa' for a more detailed description of these initiatives and the most recent outcomes

14 It is important to clarify that these are discussions, not formal negotiations

15 The four African countries participating in TESSD are Cabo Verde, Chad, The Gambia and Senegal

16 African countries participating in DPP are Angola, Cabo Verde, Cameroon, Central African Republic, Chad, The Gambia, Mauritius, Morocco and Mozambique

17 **https://www.wto.org/english/tratop_e/envir_e/fossil_fuel_e.htm**

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19 African Member countries include Angola, Cabo Verde, Cameroon, The Gambia, Morocco, Mozambique, Rwanda and Zambia

20 **https://www.wto.org/english/tratop_e/envir_e/wto_cop28_e.htm**

21 **https://unctad.org/meeting/trade-day-convention-biological-diversity-cop16**

22 This section is, in part, based on Colette van der Ven, 'Emerging Trade Opportunities for LDCs from the Green Transition', LDC Trade Priorities – Looking Forward, June 2024

23 The four African countries participating in TESSD are Cabo Verde, Chad, The Gambia and Senegal

24 African countries participating in DPP are Angola, Cabo Verde, Cameroon, Central African Republic, Chad, The Gambia, Mauritius and Morocco

25 'Members Submitting Acceptance of the Agreement on Fisheries Subsidies', WTO, accessed at **https://www.wto.org/english/tratop_e/rulesneg_e/fish_e/fish_acceptances_e.htm**

26 Many of the existing trade and environment initiatives have implications for Africa, as has been further detailed earlier, in 'Sustainability outcomes of the 13th WTO Ministerial: Implications for Africa'. The implications and importance of African countries' participation in these plurilateral initiatives will not be further elaborated upon here

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36 ASCM Agreement, Annex VII

37 Building A Clean Energy Economy: A Guidebook To The Inflation Reduction Act's Investments In Clean Energy And Climate Action. White House, December2022, **https://case.house.gov/uploadedfiles/inflation-reduction-act-guidebook.pdf**

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40 Petros C. Mavroidis, *The Regulation of International Trade Volume 2: The WTO Agreements on Trade in Goods*, MIT Press, 2016, p. 527

41 WT/GC/W/896

42 Ibid

43 UNCTAD (2023), 'Technology and Innovation Report 2023: Opening green windows – technological opportunities for a low-carbon world'. Cited in WT/GC/W/896

44 WT/GC/M/205

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49 World Trade Organization, 'DDG Paugam urges ministers to harness WTO potential for advancing agricultural innovation', 9 May 2023, **https://www.wto.org/english/news_e/news23_e/ddgjp_09may23_e.htm**; Facundo Calvo, 'World Trade Organization. Talks on Agricultural Subsidies Should Consider Trade-Offs Among Trade, Food Security, and the Environment', IISD, 26 September 2022, **https://www.iisd.org/articles/policy-analysis/wto-agricultural-subsidies-trade-offs**

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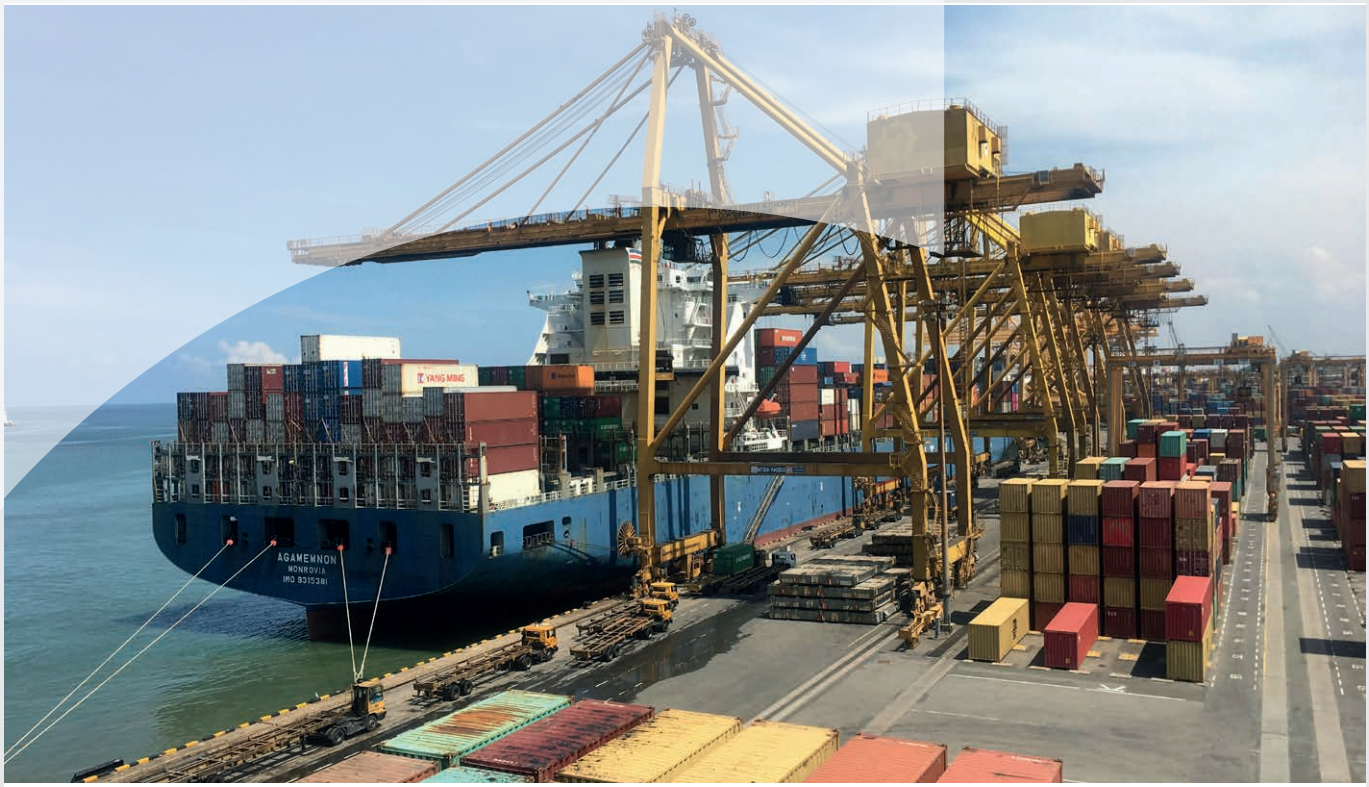

BRIEFING NOTE ON SUBMISSION TO THE UK GOVERNMENT CONSULTATION ON THE INTRODUCTION OF A CARBON BORDER ADJUSTMENT MECHANISM[1]

Africa Trade Policy Programme

INTRODUCTION: STRENGTHENING THE DEVELOPMENT PROVISIONS OF THE UK CBAM

The UK Government has sought views on its proposals for the design and administration of a carbon border adjustment mechanism (CBAM) from 1 January 2027. This submission by the Africa Trade Policy Programme at the LSE Firoz Lalji Institute for Africa is a contribution to the consultation. Our main theme is the need to strengthen the development provisions of the CBAM.

A major omission in the UK CBAM proposal is a focus on how to support least developed countries (LDCs) and other vulnerable developing countries within Africa and beyond. Specifically, there are no carve-outs for LDCs and vulnerable developing countries. Yet, like the EU CBAM, the UK CBAM can have significant trade implications for LDCs/other vulnerable developing countries.[2] The UK CBAM could cause a decline in imports to the UK from some African countries like South Africa, given that its exports that fall within the UK CBAM product scope are relatively more carbon intensive.[3]

The limited development-related provisions set out in the draft UK CBAM proposal do not adequately alleviate challenges faced by African countries, LDCs and other vulnerable developing countries. This must be addressed as the UK CBAM is finalised. Doing so not only aligns with the longstanding UK–Africa policy for unlocking inclusive economic growth in Africa and planetary sustainability[4] but will also provide the UK with an opportunity

to exercise leadership to better integrate development considerations in green trade measures. Our submission focuses on ways in which development considerations could be better reflected in the UK CBAM, in particular by (i) incorporating exemptions; (ii) by adding provisions focused on targeted technical and financial support; (iii) recognising that emission intensity varies between countries in calculating emissions default values; (iv) adjusting for carbon prices in partner countries and; (v) incentivising local processing of critical minerals.

ALLEVIATION OPTIONS FOR LCDS

Incorporate exemptions into CBAM

As the EU CBAM was being developed, various scholars and practitioners proposed to integrate developing country exemptions.[5] As set out in more detail below, doing so would alleviate the compliance burden for low-income countries, while not undermining the objective of the CBAM. Similarly, including exemptions in the context of the UK CBAM would be an important way to address LDC concerns.

There are different ways to design CBAM exemptions. One option would be to exempt LDCs; another option is to develop exemptions based on a country's volume of exports in covered commodities. The exemption could be permanent or reflect a longer phase-in period for a subset of developing countries. Each of the options is further developed below.

Option 1 – exemption for LDCs: The UK could opt to put in place an exemption for LDCs. Such an exemption was considered in the case of the EU CBAM but not adopted.[6] Including an exemption for LDCs in the UK CBAM would ensure that countries with minimal carbon emissions[7] would not be subject to the compliance costs associated with the UK CBAM. An LDCs exemption would not undermine the objective of the UK CBAM, given that LDCs account for only 0.03% of total value of CBAM sector imports into the UK.[8] This would remove a major accounting and reporting burden for these countries. Notwithstanding some legal ambiguity, there are various ways in which exempting LDCs from the UK CBAM can be designed, consistent with international trade law.[9]

An LDC exemption could take the form of a blanket exemption, which would be applicable if a country is categorised as an LDC, or a temporary LDC exemption. The latter would be like an extended phase-in period for LDCs. The benefit of the former approach is the certainty for LDCs that they will not be included in the scheme if they remain LDCs; the benefit of temporary LDC exemption is that it would incentivise LDCs to start decarbonising the covered products, which would avoid industries in LDCs falling behind in technological developments and ultimately becoming less competitive. Moreover, the temporary approach would likely be easier to defend under WTO/GATT as an LDC concession rather than as an exemption.[10]

Option 2 – commodity value-based exemptions: Another approach would be to design the exemption based on a *de minimis* quantitative threshold.[11] Under this approach, imports of the CBAM-covered products would be exempt so long as the average value of imports of a specific product from the trading partner remains below a specific threshold.[12] This is the approach adopted in the EU and UK General System of Preferences (GSP), to identify when specific products covered under the scheme are sufficiently competitive and should graduate from the scheme.[13] Thresholds could be calculated as a percentage of the total value of UK CBAM-covered imports for a specific commodity covered. The advantage of this approach is that it would not be limited to LDCs, but would also include other low-income and vulnerable developing countries that export very small amounts of CBAM-covered products to the UK. Moreover, this approach has the added benefit of being commodity-tailored, thereby ensuring that LDCs with relatively large volumes of exports in a certain commodity but not in others are not fully exempt from the UK CBAM. Legally, this could be designed in a WTO-consistent manner.[14]

Incorporate provisions for targeted technical and financial support

The UK CBAM must also strengthen its technical and financial assistance provisions, which are currently absent. It can do so either as part of the regulation itself, or as part of an implementing regulation. To do so, it must (i) commit to using part of UK CBAM revenues as financial assistance for low-income countries; and (ii) ensure that both financial and technical assistance commitments are included and are tailored to the specific needs of the UK trading partners. However, the use of CBAM revenues should represent 'new' money and not be counted against the UK's international aid commitments such as the target to spend 0.7% of GNI on ODA or to contribute, alongside other developed countries, to providing $100 billion per year to developing countries.

Option 1 – redirect CBAM revenues to LDCs: The UK CBAM proposal should include provisions that redistribute these funds to LDCs for their decarbonisation.[15] Integrating such a provision in the UK CBAM has benefits such as (i) it can strengthen international acceptance of the mechanism and increase its legitimacy;[16] and (ii) it can shift the perception of CBAM as a punitive trade policy instrument, towards seeing CBAM as a cooperative tool to advance climate change mitigation. This is also consistent with the chapeau of Article XX of the GATT which requires trade policy measures to serve environmental purposes and not constitute a disguised restriction on trade.[17]

Option 2 – adopt a tailored approach to technical and financial assistance: The UK CBAM could include provisions that technical and financial assistance will be tailored to the exposure and vulnerability levels of UK trading partners to the CBAM.[18] This, in turn depends on factors such as a country's export volume in covered commodities, adaptive capacity, the importance of CBAM-covered sectors in their economies, and the carbon intensity of their production methods.[19] Under the targeted approach, low-income countries with high exposure and high vulnerability should be priority recipients of technical and financial assistance. Technical assistance for them should focus on the decarbonisation of energy-intensive industries.[20] Assistance should also facilitate developing capacity to measure direct carbon emissions, and administrative processes to engage in certification requirements.

A targeted approach will optimise resource utilisation and amplify the impact of the support that the UK currently extends to developing country partners for climate mitigation including addressing carbon leakage, and establishing carbon pricing mechanisms and emissions trading schemes.[21]

Default valuation should recognise that emission intensity varies between countries

The UK's approach to default emissions valuation may be more favourable to African countries than the EU's approach.[22] While the UK proposes default emissions values equal to the global average embodied emissions weighted by production volumes of key UK trading partners, this approach will avoid penalising companies and countries that lack national data. The EU by contrast uses default values acquired through existing literature with a mark-up to discourage non-reporting. Where information for the sector concerned is not available, the average of the most polluting EU installations in the same sector will be used.

However, emissions intensities vary significantly across countries and the UK's approach would fail to take this into account. It also risks some high-emitting producers choosing not to report. We therefore suggest that for the UK to protect the environmental integrity of the CBAM and reduce incentives for high emitters to not report, the UK should use jurisdiction-specific default values for those jurisdictions where information is available. For example, the UK could use the research published on this subject by the Joint Research Centre of the European Commission.[23]

The impact on African economies of this approach would be mixed. For some products covered under the CBAM, African producers have lower emissions intensities than others.[24] In general, African countries (except South Africa) may have relatively low emissions intensities as the continent's power sector has low dependence on fossil fuels; they may therefore get credit (and face lower CBAM charges) for this lower emissions intensity. [25]

Crucially, the UK should avoid the EU's mark-up approach. A percentage-based mark-up is arbitrary and bears little relation to the likely emissions intensity or the costs of non-reporting. Though this mark-up provides an

incentive to report, it might not be proportionate to the associated benefits and it might push installations to undertake expensive assessments in cases where the costs might outweigh the benefits. The mark-up would also seemingly fail to incentivise an economically efficient choice of where to source CBAM-covered products because it does not reflect the actual level of emissions. As a result, instead of applying an arbitrary percentage-based markup, we submit that the UK should work with other countries to improve knowledge about the emissions intensity of different types of installations for producing products covered under the CBAM, and how this relates to the emissions intensity of the power sector in the country where the installation is located, to provide more accurate information for detailed values. Based on this knowledge, the UK could then apply default values based on the product, type of installation, reliance on the grid or other power source and country in which it is located for installations where it lacks information on emissions intensities.

Over the longer term, the UK and other jurisdictions operating CBAMs could sponsor research to fill gaps in knowledge of default values. The UK and other CBAM-applying jurisdictions could also analyse for which installations covered by their CBAMs the economic and environmental benefits of an independent assessment of emissions intensity would outweigh the cost (this is likely to be larger installations). They could then require these installations to commission independent assessments of their emissions intensities or face an appropriate penalty.

Adjusting for carbon prices in partner countries

The UK CBAM will deduct only explicit carbon prices 'placed directly on greenhouse gas emissions' from the level of CBAM levies to be paid on covered exports to the UK. But this could miss out on an important share of carbon prices. Many countries levy taxes on fuels based on the emissions that they are *expected* to generate once burned, rather than measuring actual emissions. Currently, according to the World Bank, 25 jurisdictions apply such 'upstream' carbon prices.[26] Moreover, as they increasingly implement their own carbon prices, developing countries are likely to adopt this approach to carbon pricing. This is because the *UN Handbook on Carbon Taxation for Developing Countries* identifies this approach as advantageous for developing countries due to its relative administrative simplicity.[27] It is not clear that the UK CBAM would include these instruments based on its definition of an 'explicit carbon price' provided in the consultation document. We recommend that the UK broaden the scope to include, at minimum, prices that are placed on the level of emissions (or are proportional to the expected level of emissions) from a given process, or from the consumption of a given product.[28]

In addition, other taxes (that are not explicit carbon taxes) penalise companies for their carbon emissions, most significantly taxes on the use of fossil fuels such as fuel excise, which are the main source of greenhouse gas emissions. The UK could consider these taxes on the use of fossil fuels in the calculation of carbon prices already paid by non-UK producers and consider such taxes in the UK to determine the effective carbon price faced by UK producers. The OECD has developed a methodology for calculating the carbon price faced considering fuel excise taxes, which is included in its publication *Effective Carbon Rates.*[29]

Incentivising local processing of critical minerals

The consultation document notes that the scope of the UK CBAM will be kept under review, with a focus on the sectors covered under the UK ETS. This could include mineral processing. The UK is supporting the development of further in-country mineral processing by mineral-producing countries, particularly South Africa.[30] However, if the CBAM is extended to cover mineral processing, this may make it difficult for countries to process minerals in-country, particularly in South Africa given its high emissions intensity. The UK may therefore wish to consider alternative measures to encourage in-country processing, for example, (i) inclusion of emissions from transport to give producers or regional hubs an advantage in terms of the level of CBAM levy paid;[31] (ii) increasing/accelerating support to mineral processing countries to 'green' their mineral processing sectors; and (iii) cutting tariffs on processed minerals under the UK's Developing Countries Trading Scheme (although South Africa itself is not eligible for this scheme).

CONCLUSION: INCLUSION AND COOPERATION

The UK CBAM consultation document alludes to the policy objective of 'incentivising other states to increase decarbonisation efforts'. In other words, the UK is trying to change other countries' climate policies through rationing access to its market. This would seem to go against the collaborative principle of international climate action under the UN Framework Convention on Climate Change, in which countries make nationally determined contributions. Given that the current proposals do not apply exemptions to countries of different categories, they also ignore the principle of common but differentiated responsibilities among different countries. Several developing countries have already made objections to this kind of feature of the EU CBAM.[32] The risk is that international climate cooperation could increasingly be seen as something that some countries are trying to impose on others, which could undermine the collaborative spirit in negotiations, resulting in less ambitious outcomes.[33]

While a CBAM holds the potential to mitigate carbon leakage risks, it alone may not serve as a primary catalyst for global industrial decarbonisation. To maximise its impact, the UK should leverage CBAM for a broader discussion at the multilateral level on decarbonising the hard-to-abate sectors and better aligning trade and climate policy.[34] Engagement with developing country and LDC trading partners can be carried out through partnerships and cooperation mechanisms such as structured dialogues, administrative arrangements and existing agreements as well as joint roadmaps.[35] Such engagement can foster continuous dialogue to holistically understand the challenges and opportunities associated with CBAM implementation while developing the implementing regulations.

ANNEX

UK imports of proposed CBAM products from Africa, 2023

Commodity	HS code	Value of UK imports from Africa ($m)
Aluminium and articles thereof	76	83
Cement, concrete or artificial stone; articles thereof	6 810	2
Ceramic products	69	38
Fertilisers	31	248
Glass and glassware	70	16
Iron and steel	72	189
Portland cement, aluminous cement (Ciment Fondu), slag cement, super sulphate cement, similar hydraulic cements, whether coloured or in the form of clinkers	2 523	5

Source: UN Comtrade. Values are as reported by the UK and include cost of insurance and freight. HS codes are as reported.

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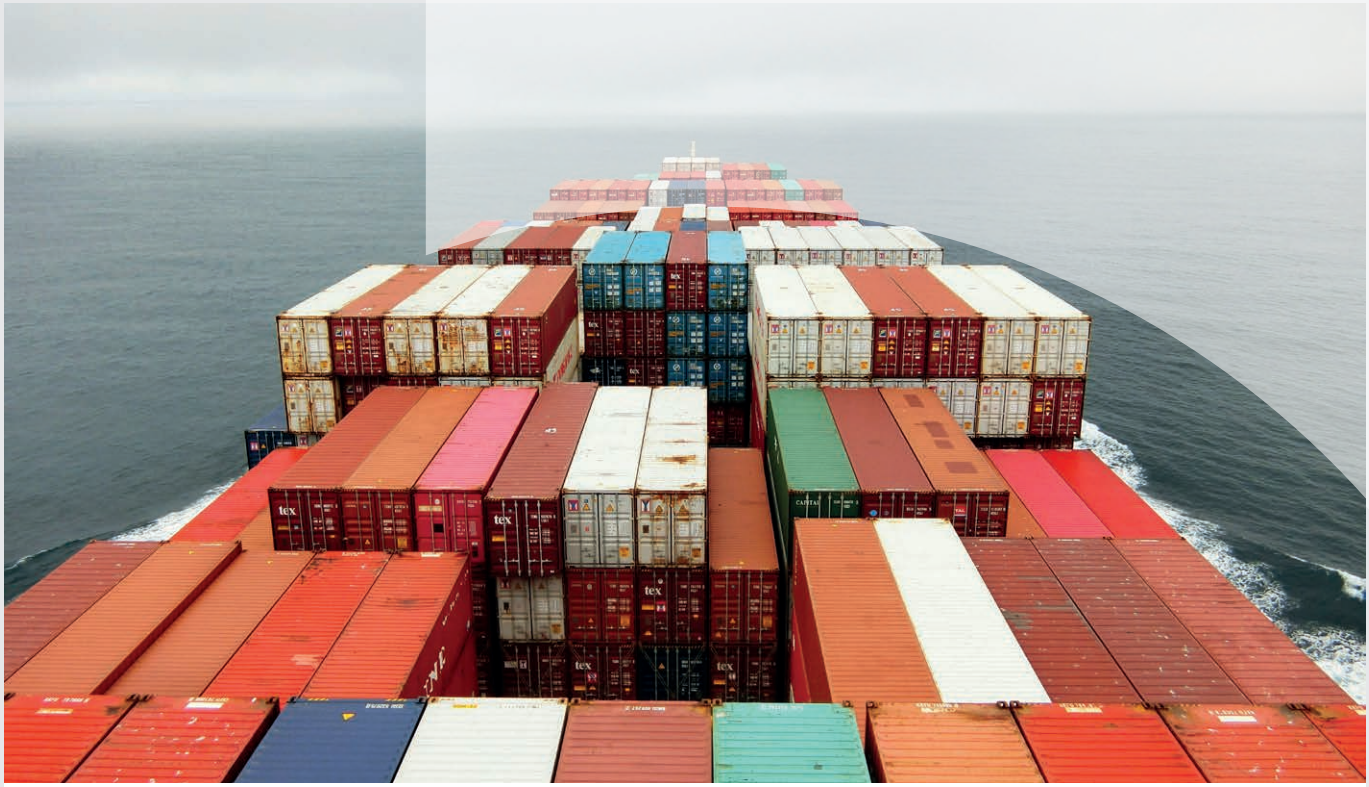

SUSTAINABILITY OUTCOMES OF THE 13TH WTO MINISTERIAL CONFERENCE: IMPLICATIONS FOR AFRICA

Colette van der Ven

INTRODUCTION

This briefing document provides an overview of environmental sustainability outcomes that were achieved during the 13th World Trade Organization Ministerial Conference (MC13), as well as outcomes that were not achieved. Moreover, it highlights relevant sustainability initiatives that took place at the margins of MC13. The briefing document finishes with an overview of the potential implications of the MC13 sustainability outcomes for Africa.

It is increasingly clear that trade and trade policy can and must play an important role in advancing environmental objectives. In particular, as a multilateral body, the World Trade Organization (WTO) must play a critical role in addressing the global fragmentation of environmental policies adopted, which many countries and stakeholders have highlighted as a key concern as this risks creating trade barriers.

During the 12th Ministerial Conference (MC12), which took place in Geneva in 2022, WTO Members recognised the urgency of addressing environmental challenges like climate change, biodiversity loss and pollution in the outcome document, and noted the importance of the contribution of the multilateral trading system to promote the UN 2030 Agenda.[1] Members also reaffirmed the importance of providing relevant support to developing members and least developed country (LDC) members to achieve sustainable development and highlighted the role of the WTO Committee on Trade and Environment (CTE) at MC12.[2] MC12 also included the successful negotiation of the first part of the Fisheries Subsidies Agreement (FSA).

Moreover, recognising the importance of trade in addressing climate change, the first Trade Day was organised at the 28th Conference of the Parties to the UN Framework Convention on Climate Change (COP28) which took place in Dubai.[3]

Yet the momentum that was built during MC12 and COP28 to strengthen the linkages between trade and the environment did not continue during the 13th Ministerial Conference (MC13), which took place in February 2024 in Abu Dhabi – despite an urgent need for ministers to build on the MC12 outcomes. While preparatory work for MC13 included proposals developed by WTO members to address trade and environmental challenges, with a focus on new-era industrial policies, the link between environmental measures and development, and enhancing the integration of developing countries into sustainable supply chains, none of these materialised into concrete MC13 outcomes. That said, a handful of promising trade and environment developments took place on the sidelines of MC13.

MC13 SUSTAINABILITY OUTCOMES

MC13 was a disappointment for those who had expected a series of outcomes on sustainable trade issues.[4] The Abu Dhabi Ministerial Declaration reasserted the importance of sustainable development as an overarching objective of the WTO and recognises the short-term challenges faced by WTO Members, in particular developing members.[5] However, it does not mention climate considerations and lacks a dedicated paragraph addressing trade and the environment.[6] Other expected outcomes, such as the revitalisation of the CTE and the initiation of a deliberative process on industrial policy, did not come to fruition.[7] Members failed to agree on the negotiation of the sequel to the AFS and did not have the ratification numbers necessary for the AFS to enter into force. For member-led initiatives, such as DPP, TESSD and FFSR, additional working plans were agreed upon but were very general in nature.

Table 1: Overview of potential and actual MC13 outcomes relevant to trade and environmental sustainability

Options to strengthen trade and environment at the WTO	MC13 outcome
Official ministerial process	
Finalise fishery negotiations (include disciplines on overfishing and overcapacity)	No outcome
Ensure outcome declaration reasserting importance of sustainable development as overarching WTO objective; recognition of importance of enhanced, inclusive cooperation on trade and development (build and expand upon MC12 recognition of global environmental challenges)	Only achieved the first part.
Sustain and build political support and momentum for three member-led initiatives: DPP, TESSD, FFSR	Additional working plans agreed, but these plans are very general
Revitalisation of the CTE	No outcome
Initiation of a deliberative process on industrial policy	No outcome
Margins of MC13	
Coalition of Trade Ministers on Climate announce core priorities to promote international cooperation and collective action to pursue climate action at the WTO	Adopted a Communique and a Menu of Voluntary Action, but no concrete outcomes
Ministerial Declaration on the Contribution of the Multilateral Trading System to Tackle Environmental Challenges (co-sponsored by the African Group)	

At the same time, MC13 also included a handful of notable developments relevant to environmental sustainability and trade. Specifically, for the first time it included two roundtables, one on sustainable development (including trade and industrial policy, and policy space for industrial development), and another on trade and inclusion. However, the inclusion of these roundtables was mostly symbolic, with no outcomes attached to them.[8]

Progress on sustainable trade issues was limited, in part, because of different approaches adopted by WTO Members with regard to the role of sustainability within the WTO. Specifically, India had repeatedly expressed strong opposition to a multilateral work programme on trade and environmental issues, highlighting at MC13 that trade and the environment are separate issues.[9] India's position is not representative of developing country WTO Members, however. Indeed, 15 developing country Members, including some from the African Group, co-sponsored a Ministerial Declaration of the Multilateral Trading System to Tackle Environmental Challenges, highlighting the various roles that the WTO can play in addressing trade and environmental sustainability issues.[10]

Disciplining fishery subsidies

At MC12, WTO Members concluded an Agreement on Fisheries Subsidies (AFS), the first WTO agreement with a sustainability-related objective. The AFS prohibits illegal, unreported and unregulated (IUU) fishing and subsidies to fishing overfished stock and fishing on the unregulated high seas. It also includes transparency provisions and provides certain flexibilities for developing countries.

After MC12, the AFS was to proceed on two tracks. First, for the AFS to enter into force, it requires two-thirds of Members to deposit their 'instruments of acceptance' with the WTO. AFS did not enter into force by the end of MC13, as only 71 out of a minimum of 110 WTO Members had ratified the AFS by then.[11] Second, the AFS was only a partial agreement, as it does not discipline subsidies contributing to overcapacity and overfishing. To address this, the rules negotiation group was tasked to continue negotiations to include provisions on overfishing and overcapacity. While negotiations intensified in the months leading up to MC13, and WTO Members were able to significantly narrow gaps, they did not manage to conclude a comprehensive agreement to curb harmful fisheries.[12]

Plurilateral agreements

Modest progress was made with regard to three member-led initiatives on the environment and the WTO: the Trade and Environmental Sustainability Structured Discussions (TESSD), the Fossil Fuel Subsidy Reform (FFSR) Initiative, and the Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade (DPP).

Trade and Environment Sustainability Structured Discussions (TESSD)

TESSD, which brings together 77 WTO Members representing more than 85% of global trade, has provided a space to exchange views, build shared understanding and raise the profile of sustainability issues at the WTO. In doing so, it aims to complement the work of the Committee on Trade and Environment.[13] During MC13, TESSD co-sponsors issued a statement, an updated work plan and a series of outcome documents summarising the work conducted by the four working groups, set out in more detail in Box 1 below.

Box 1: Four TESSD Informal Working Groups

1. ***Trade-related Climate Measures (TrCMs):*** Focuses on reviewing carbon measurement standards and decarbonisation measures in sectors such as iron and steel, aluminium, fertilisers and hydrogen. It also prioritises exchange of views on the development and implementation process of TrCMs.

2. ***Environmental Goods and Services (EGS):*** Discusses how trade in EGS can support climate adaptation and mitigation, with a particular focus on the renewable energy.

3. ***Circular Economy:*** Analyses specific trade issues along the full life cycle of products through a sectoral approach, covering batteries, solar and wind energy equipment, electronics and textiles.

4. ***Subsidies:*** Discusses positive and negative environmental and trade effects of subsidies with a focus on agricultural subsidies and subsidies related to the transition to a low-carbon economy.

At MC13, TESSD deliverables have been in the form of best practices, analytical summaries of discussions, mapping exercises and compilation of experiences.[14] The co-convenors also issued a statement and an updated work plan, and emphasised the goal of delivering concrete results by MC14.[15] Mostly, however, this reflected modest ambition, promising only to 'guide work towards identifying possible concrete actions or recommendations by the next ministerial conference'.[16]

Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade

The Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade (DPP), launched in November 2020, and currently co-sponsored by 80 Members representing more than 85% of global plastics trade, explores how the WTO can contribute to reducing plastics pollution and promoting environmentally sustainable plastics trade.

At MC13, DPP members agreed on a joint Ministerial Statement reflecting the work conducted, while identifying areas for international cooperation on the trade dimensions of plastic pollution, including through voluntary individual and collective actions.[17] Specifically, the Ministerial Statement highlights the importance that trade is part of the solution to the growing plastics problem, which includes increasing transparency in plastics trade flows; reducing plastics that are harmful to the environment or human health, or unnecessary single-use plastics and plastics packaging; promoting non-plastic substitutes, alternatives, services, and technologies; and improving the developing countries' capacity to use trade to tackle plastic pollution.[18]

Fossil Fuel Subsidy Reform

The Fossil Fuel Subsidy Reform (FFSR) initiative, comprising 48 members, seeks to rationalise and phase out inefficient fossil fuel subsidies that encourage wasteful consumption.[19] The FFSR initiative's work has been organised around three main pillars: enhancing the transparency of fossil fuel subsidies and fossil fuel subsidy reform, including through the use of existing WTO mechanisms; ensuring that support measures adopted in response to the global energy crisis remain targeted, transparent and temporary; and identifying and considering mechanisms to address the types of fossil fuel subsidies most problematic from a trade and environment perspective.[20] At MC13, the members of the FFSR initiative agreed on a joint MC13 Ministerial Statement reflecting the work that had been done to date and identifying areas for voluntary individual and collective actions on trade and plastic pollution.[21]

Relevant sustainable trade developments at the margins of MC13

As highlighted, a number of developments that took place at the margins of MC13 are also relevant to get an overview of trade and sustainability approaches, perspectives and opportunities. Most notably, this includes a meeting held by the Coalition of Trade Ministers for Climate, and a Ministerial Declaration of the Multilateral Trading System to Tackle Environmental Challenges.

The Coalition of Trade Ministers for Climate (the Coalition), the first Ministerial-level global forum dedicated to trade-climate-development was launched in January 2023 to identify the ways for trade policy to contribute to addressing climate change.[22] This initiative, co-led by the Trade Ministers of Ecuador, EU, Kenya and New Zealand, includes 61 members, including several African countries.[23]

The Coalition convened for the second time on the margins of MC13 and called for stronger engagement by WTO Members on trade, climate and sustainable development.[24] The Coalition released a Communiqué, highlighting past efforts and stressing the importance of cooperation at the WTO regarding trade, climate and sustainable development and calling for the inclusion of strong MC13 outcomes on trade and the environment. In addition, the Coalition adopted a Menu of Voluntary Actions that members can adopt, either collectively or individually,[25] including breaking silos, actively engaging in the WTO, supporting developing countries, encouraging cooperation on trade-related climate action, and engaging on good regulatory practices and international standards setting.[26] Most of these are high-level, but insufficiently specific to lead to strong outcomes.

IMPLICATIONS FOR AFRICA

To understand the implications for Africa of the lack of progress made on trade and environment issues during MC13, it is imperative to identify Africa's stance on the green trade agenda. The African Group has expressed criticism of the unilateral approach adopted to greening trade by many developed countries.[27] In a document circulated in July 2023, the African Group highlighted the 'need to shift the narrative regarding the trade-environment nexus, with more emphasis on how to address the harmful impacts of trade and trade agreements on the environment, while recognizing the need of developing countries'.[28]

The African Group does provide support for the WTO to address trade-related environmental measures. The Ministerial Declaration on the Contribution of the Multilateral Trading System to Tackle Environmental Challenges, supported by the African Group and circulated during MC13, highlights various priority action items relevant to the trade–environment–development nexus, with a focus on addressing unilateral measures; enhancing transparency; intensifying the work of the Committee on Trade and the Environment; collaborating to foster dialogue on promoting to promote sustainable development and a just transition; and enhancing dialogue on a variety of relevant topics.[29]

At the same time, the participation of African countries in different environment-related initiatives at the WTO has been low. For example, in the plurilateral initiatives mentioned above, only four African countries are participating in the TESSD discussions;[30] eight African countries are participating in the PPD, and no African countries are supporting the FFSR Initiative.[31] As of January 2025, only 14 African countries (out of 44 African WTO Members) had ratified the AFS.[32] Many existing trade and environment discussions have implications for Africa. For instance, IUU fishing and overfishing caused by subsidised foreign fleets in Africa suggests that the entry into force of the AFS and the successful completion of the second wave of negotiations could be highly beneficial to African food security, livelihoods as well as sustainability.[33] Indeed, curtailing capacity-enhancing subsidies could reduce over-capacity and the ability of foreign fleets to exploit Africa's fishery resources.[34] Such additional disciplines would also be aligned with the African Union's Agenda 2063, which recognises the importance of sustainable fisheries and ocean conservation in achieving the continent's socio-economic aspirations.[35] Concerns that the AFS can limit policy space to support small-scale artisanal fishing and develop domestic fishery sectors could be emphasised by the African Group during the negotiations of the second part of the AFS.

TESSD provides a framework that African countries can leverage to identify opportunities and concerns with regard to greening trade. Indeed, the work of the four Informal Working Groups will have implications for Africa. For example, the TrCMs Informal Working Group, which focuses on measures countries are adopting to achieve net zero, including decarbonisation, can be leveraged by African countries to highlight concerns related to unilateral green trade measures increasing the cost of trade and operating as non-tariff barriers. Participation will also allow African countries to identify their technology transfer, technical assistance and capacity building needs to comply with the TrCMs. Discussions on environmental goods and services taking place within the TESSD framework seek to revitalise negotiations that reduce tariff and non-tariff barriers to trade in environmental goods and services. By participating in TESSD, African countries could ensure that the adopted approach includes goods in which they have a comparative advantage, including eco-friendly agricultural products, green hydrogen and other renewable energy sources, and eco-tourism.[36]

Similarly, with regards to the Informal Working Group on Trade and the Circular Economy, African countries could ensure that discussions focus not only on increasing trade in circular goods and services, in which mostly industrialised countries have a comparative advantage, but also address challenges with regards to trade and the circular economy, such as increased trade in second-hand textiles and other types of waste – much of which ends up in landfills in the African continent. On subsidies, African participation could address the negative industrial policy implications of greenlighting sustainable subsidies.

The DPP, including the MC13 Declaration, could help African countries address their plastic waste problem – predominantly linked to the volumes of plastics going into those countries.[37] Moving away from trade in single-use plastics could further unleash opportunities in the production of effective non-plastic substitutes for imported plastics, including through the export of such non-plastic substitutes.[38]

Regarding the FFSR, which seeks to rationalise and phase out inefficient fossil fuel subsidies that encourage wasteful consumption,[39] the benefits of fossil fuel subsidy reform will be unevenly distributed across countries, particularly in the short term.[40] It could lead to higher prices for consumers, especially in African countries with high levels of poverty. To address these challenges, African countries can demand gradual fossil fuel subsidy reforms conditioned on receiving financial support for renewable energy production and promotion and investments in African countries' renewable energy markets.[41] This is particularly important because, while African countries possess abundant natural resources for renewable energy, renewable energy is still in its early stages in many of these countries.

In sum, the disappointing MC13 outcome on trade and environment could hinder the benefits that African countries could derive from a more ambitious trade and climate agenda. Indeed, the African Group has submitted declarations calling for the WTO to play a more prominent role in advancing the trade and climate agenda – addressing both challenges and opportunities relevant to making green trade work for development. Despite the low participation of African countries in trade and environment initiatives at the WTO, it would be important to continue to push for the WTO to take on a more proactive role on trade and environmental sustainability, and for African countries to participate, where they consider it relevant, in WTO discussions and initiatives related to the trade–environment–development nexus.

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