GREEN INDUSTRIAL DEVELOPMENT EXPERT PANEL (GIDEP) POSITION PAPER

PATHWAYS TO GREEN AFRICAN INDUSTRIALISATION

THE NELSON MANDELA SCHOOL of Public Governance

UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

AFRICAN CLIMATE FOUNDATION

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About the Green Industrial Development Expert Panel (GIDEP)

The Green Industrial Development Expert Panel (GIDEP) was launched in February 2025 by the Nelson Mandela School of Public Governance (Nelson Mandela School) at the University of Cape Town and the African Climate Foundation (ACF). It convened its first meeting in March 2025.

The GIDEP brings together leading African thinkers on greening industrialisation and draws more broadly on experts from the global South. It supports the formulation of African-led framing and policy positions on green industrial development. The aim is to bolster Africa's capacity to effectively represent the continent's interests in key international fora and negotiation processes; develop strategies for African countries to advance their ambitions of climate-compatible industrialisation; and initiate implementable green industrialisation plans at the national and regional level.

GIDEP Panel Participants

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The GIDEP Position Paper *Pathways to Green African Industrialisation* was authored by Chema Triki based on inputs by GIDEP expert panel members.

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Executive Summary

1. **African economic development has been characterised by uneven progress and persistent challenges.** Despite recent social and economic progress, Africa remains the least industrialised continent, facing persistent poverty, limited development of productive sectors, and over-reliance on a limited range of low-value-added natural resource-based exports.

2. **African countries should focus on achieving structural transformation**, shifting from raw material exports and subsistence agriculture to more productive and diversified sectors in manufacturing, modern agriculture, value-addition to its minerals, and high-value services.

3. **Appropriate industrial policies are necessary to achieve this structural transformation, and are central** to eradicating poverty and taking advantage of a growing youthful population, largely through the creation of higher value and better-quality jobs.

4. **African countries should prioritise growth and structural transformation through industrial policies, while maximising the opportunities of the green transition as far as possible.** This recommendation recognises that African countries have contributed far less than more developed countries to greenhouse gas (GHG) emissions and, in addition, have an urgent need to transform their economies and create jobs at scale to support their rapidly growing populations. **Neither "degrowth" nor "grow now, clean up later" strategies are appropriate**. The former risks perpetuating poverty, at best ameliorated at the margins. The latter risks path-dependent lock-in to dead-end fossil fuel industries. However, **African countries need flexibility on their path to net-zero**, such as using natural gas as a transitional energy source.

5. **African green industrialisation is set to be pursued in a rapidly changing geo-political environment.** This environment is characterised by a **proliferation of unilateralism, widespread departure from the principle of a rules-based multilateral order**, increasing abandonment of climate goals, and ongoing reductions in concessional finance as advanced economies pivot from "energy transition" to "energy security".

6. As a result, **the policy space is wider**, and African countries should seize this moment to adopt a "possibilist" approach and implement ambitious industrial policies. The return of industrial policy, the rise of regional value chains, and the erosion of old trade disciplines open **a window for African countries to align the African Countries Free Trade Area (AfCFTA) with a renewed, green industrial agenda**.

7. Limited sectoral diversification during the commodity "supercycle" and borrowing to address Covid-19 has contributed to the **external debt constraints** many African countries currently face. The **global financial architecture has not proven fit for purpose**, as it is unable to meet either sustainable development targets or climate finance goals, and is in urgent need of reform.

8. Africa has numerous opportunities for **green industrialisation**. It has abundant **renewable energy resources**, including solar, wind, hydro and geothermal, which can both power green industrialisation and service the demand of the estimated 600 million Africans who currently lack access to electricity. It holds over 60% of the world's uncultivated arable land, meaning that there are enormous opportunities for **agricultural modernisation**. This could include narrowing the agricultural productivity gap in field crops and taking advantage

of a massive and growing international demand for fresh fruit and other high-value agricultural products through the "industrialisation of freshness". It is well placed for greener production of a range of **labour-intensive and medium-technology manufactured** products, including clothing and textiles, food and beverages, and various consumer goods and industrial inputs. **Green industrial parks and special economic zones** can serve as hubs for manufacturing based on green and circular economy principles. Collectively, African countries hold a significant yet unevenly distributed share of **minerals critical for the green and digital transitions**. These present opportunities for **value capture and addition** through further processing of these minerals prior to export.

9. To realise this opportunity, **the AfCFTA should be leveraged as a powerful platform from which to assert Africa's right to industrialise, doing so with a unified voice**. This is especially so in light of the continent's minimal contribution to global greenhouse gas emissions. Its message to the world should encompass common continental positions on key areas of green industrialisation, advocacy for the use of the full range of policy tools necessary to drive structural transformation and establish globally competitive green industries, and a rejection of inappropriate externally formulated paradigms such as degrowth.

10. The green transition highlights the critical role of research and development (R&D) and science, technology, engineering and mathematics (STEM) skills. **African countries should increase their investment in applied R&D, with a strong emphasis on the commercialisation of innovation** and research embedded within a strong industry–academia–public ecosystem. There is a strong need for all African countries to urgently **address the shortage of engineers and scientists** by investing in talent retention, diaspora engagement, and hands-on industrial partnerships.

11. African countries need a step-change increase in the **mobilisation of finance for green industrialisation, and an increasing share of domestic finance**. African countries should continue to motivate reforms to the global financial architecture and for wealthy economies to meet their climate finance obligations, in line with their disproportionate contribution to climate change. While it would be perilous to wait for a fairer global financial architecture and climate finance commitments from advanced economies to materialise, African countries should pay attention to a loosening of constraints and pivots within international financial institutions. The shifting climate finance landscape yields opportunities for Africa to source and direct concessional finance towards productivity-enhancing investments on the continent. **African development banks are critical institutions** in this regard, and should be leveraged to mobilise finance for green industrialisation and to support the technical skills needed for sector and project development and "de-risking".

12. **The success of Africa's green industrialisation agenda hinges on strong state capabilities.** Governments should be able to set strategic direction; shape markets through active engagement and problem-solving with the private sector; adapt as technologies and market needs evolve; and negotiate or enter into mutually beneficial rather than one-sided international partnerships. Without robust and responsive institutions, even the best-designed strategies will remain mere ink on paper, with limited green structural transformation.

1. Structural Transformation Remains the Driving Rationale for Green Growth

Over the past decade, African countries have witnessed some significant albeit uneven development progress. Some countries, such as Ethiopia and Rwanda, have recorded two of the world's highest economic growth rates, despite starting from a low base. Important social development indicators have also improved across Africa, with life expectancy overall rising, fertility rates declining and notable gains made in education – particularly for girls – as well as expanded access to drinkable and safe water and electricity.[1]

Yet Africa's economic reality remains one of persistent poverty, limited structural transformation and extremely low living standards. The continent remains the least industrialised globally, with a current average GDP per capita approximately five times lower than the global average. Productive sectors such as manufacturing, high-value agriculture and tradable services contribute a relatively small share of GDP. Subsistence agriculture dominates employment and contribution to GDP, employing more than half the workforce on the continent. While Africa's exports have grown in volume, they remain overly concentrated in fossil fuels and the extractive industries, with manufactured goods and complex products accounting for only a small share (Figure 1).

The reliance on low-productivity sectors results in a poverty trap, with approximately 440 million Africans living below the international extreme poverty line of $2.15 per day, coupled with very low access to basic needs, including electricity. Currently, about 600 million people in Africa lack access to electricity.[2]

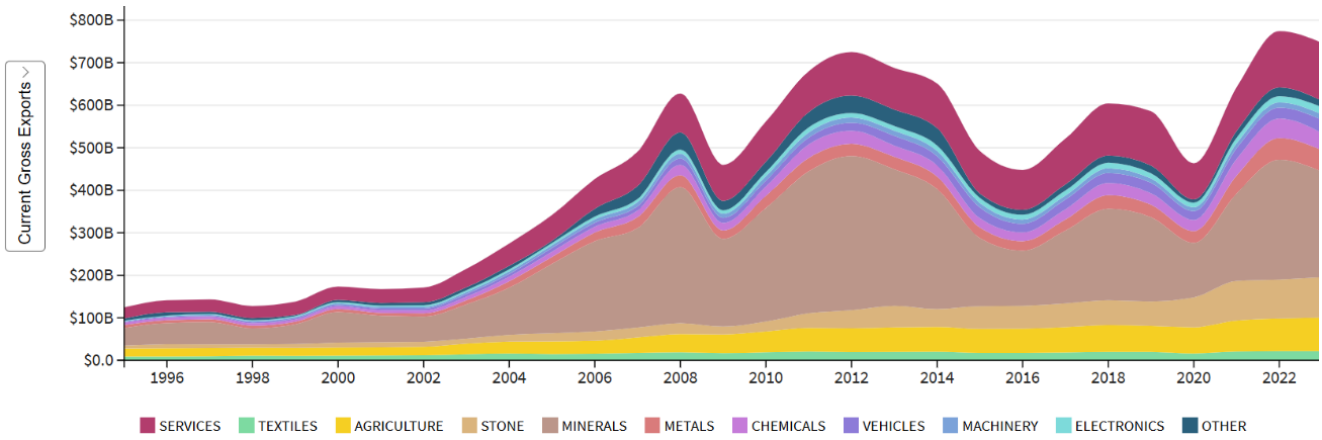

Figure 1: The evolution of African exports between 1995 and 2023, US$ billions

Source: Atlas of Economic Complexity

1 Cramer, C., Sender, J., & Oqubay, A. 2019. African economic development: Evidence, theory, policy; Lopes, C., & Te Velde, D. W. 2021. Structural transformation, economic development, and industrialisation in Africa post-Covid-19.

2 World Development Indicators.

The continent is undergoing a significant demographic boom, with a population growth rate of approximately 2.6% per year, higher than any other continent. It is estimated that by the end of this century, half of the children born worldwide will be African. This demographic boom may be an opportunity if transformed into a demographic dividend, underscoring the pressing need for the continent to industrialise and create jobs at scale. Currently, it is estimated that Africa needs to create between 12 and 14 million jobs annually to absorb its growing workforce; currently, it generates only 3 million formal jobs each year. [3]

Yet this continental picture conceals important cross-country differences. Structural transformation has not followed a uniform path across the continent, with some countries having made notable progress, such as Morocco, with the rapid growth of its automotive and renewable energy sectors. Morocco's phosphate-based fertiliser sector has also grown rapidly, and it has attracted investment in the processing of phosphates and other minerals critical for lithium-ion batteries. Ethiopia has achieved significant growth in the apparel market through its export-oriented industrial strategy anchored in a network of green industrial parks. More recently, Benin and Togo have developed industrial parks for their export-oriented textiles and apparel industry. Country-level analyses challenge the narrative of widespread de-industrialisation, showing that several African economies have in fact increased their share of manufacturing employment in recent years.[4][5]

Structural transformation has been integral to achieving economic prosperity in high-income and rapidly growing developing countries, as it has shifted labour and other productive factors from low-value-added sectors to higher-value-added sectors. Historically, structural transformation has been driven chiefly by manufacturing, with export-oriented manufacturing strategies, when successful, stimulating rapid growth.

This paper proposes three related modifications to the traditional manufacturing-centred model of structural transformation. First, industrial policy needs to take climate and other greening considerations seriously. Second, Africa should exploit a broader range of sectoral opportunities to pursue green industrialisation than may be encapsulated in the traditional model; and third, for these steps to bear fruit, there needs to be effective state intervention and capability. The state should not be a mere regulator, but an active and strategic driver of structural change.

However, historically, manufacturing has been powered by fossil fuels and driven by demand for fossil fuel-intensive products. The industrialisation path of rich economies and large newly industrialising developing countries has resulted in substantial greenhouse gas (GHG) emissions and pollution, contributing significantly to the current climate crisis. High-income countries bear the greatest responsibility for GHG emissions and their consequences, having benefited from low-cost and abundant fossil fuel energy to develop their industries and economies. Africa's limited industrialisation means that its countries account for only a marginal share of cumulative global emissions. There is a striking anomaly in the fact that the continent has contributed less than 3% of cumulative global carbon emissions, despite hosting 16.7% of the global population, and is projected to be

3 https://www.worldbank.org/en/region/afr/overview.

4 Lopes, C., & Te Velde, D. W. 2021, January 14. Structural transformation, economic development, and industrialization in Africa post-COVID-19.

5 While Rodrik (2016) contends that growth in manufacturing employment without a corresponding increase in value added per worker signals a failure of structural transformation, it can also be seen as an opportunity. The expansion of manufacturing jobs and the accumulation of industrial capabilities could lay the foundation for future productivity gains and more robust industrial development.

the continent most adversely affected by climate change.[6]

Limited structural transformation and diversification have also contributed to current macroeconomic weaknesses and the debt-service burden of a number of African countries. The global commodity "supercycle" spanning roughly the period 2000 to 2014 bolstered African growth rates but led to limited diversification of non-traditional exports. The aftershocks of the 2007–2009 global financial crisis and the Covid-19 crisis weakened demand for commodities and hence tax revenues and foreign exchange earnings. Increased fiscal expenditure on Covid-19 responses led to increased foreign borrowing, while currency depreciation raised interest payment obligations. The shift towards more commercial, market-based borrowing, particularly from private bondholders, has further increased the cost of debt servicing. Meanwhile advanced economies have not met their climate finance commitments, and reforms to the global financial architecture to render it fit for development purposes have progressed only marginally.

Africa's development path needs to be firmly grounded in both industrialisation and broader forms of structural transformation. African governments should focus on structurally transforming their economies so that its people may escape widespread poverty and prosper. However, African countries will have to locate their structural transformation strategies within the realities of the climate crisis and the shift toward the dual goals of greener global value chains – that is, both economic transformation and green transformation. While these two goals have sometimes been seen as competing, in the African context, they must be pursued in tandem, with their alignment actively maximised. This will require consistent vigilance and focus, a deep understanding of global value chains, and a high level of coordination and skill.

African countries must reject both "degrowth" and "grow now, clean up later" development models as inappropriate for the continent's needs. The "degrowth" approach advocates reducing economic production and consumption to mitigate negative environmental impacts and slow the depletion of natural resources. This narrative has emerged in and reflects a rich-countries-centric perspective that ignores the lived realities of poverty and the development needs of a large share of humanity, particularly in Africa. Applying a degrowth lens to the continent would indefinitely kick away the development ladder. It would lock the continent in a permanent poverty trap**,** reinforcing its peripheral role in the global economy and exacerbating global inequality.

Simultaneously, a "grow now, clean up later" model that prioritises a fossil-fuel

6 Our World in Data.

based economic development path is no longer viable in the current global context for at least two reasons. First, the green transition is currently at the centre of technological innovation and industrial development. Countries lacking the capabilities to adapt to this shift risk exclusion from tomorrow's global value chains. This, in effect, means that the application of frontier technologies and innovation must be at the heart of Africa's green industrial strategy, as sectors with rapid productivity growth and rising global demand are typically those driven by R&D and cutting-edge technologies. Second, the window of opportunity for fossil-fuel-based growth is closing.[7] For instance, most of the new coal projects announced in Africa are being abandoned owing to a lack of funding.[8] At the same time, economic and regulatory constraints on carbon-intensive industries are tightening, with the EU's Carbon Border Adjustment Mechanism (CBAM) being a leading example. While the US turn against climate-related measures may slow the implementation of mechanisms such as the CBAM, they will not stop them in the medium to long term.

Thus, African policymakers should focus on achieving green growth, using smart industrial policies that place growth at the centre while maximising green considerations. Growth driven by structural transformation through the development of manufacturing, modernised agriculture, and adding and capturing value from strategic minerals and high-value-added services remains the most viable strategy for reducing poverty and achieving prosperity. The green shift presents an opportunity for the continent to transform its position as a latecomer in industrial development into an advantage by building future-proof industrial capabilities and playing a bigger role in greening production methods and value chains.

This green opportunity may be seized by following two main and often overlapping pathways, both underpinned by a massive scale-up of renewable energy, the continent's excellent renewable resources, and the rapidly falling costs of renewables. First, Africa can produce existing manufactured and agricultural products in a greener way. This represents the largest immediate opportunity. Second, the continent can strategically enter and capture value from rapidly emerging green value chains, such as critical minerals for the green transition, primarily used in technologies for electricity and transport, with a focus on products aligned with the continent's mobility patterns (e.g., electric two- and three-wheelers and e-buses). By pursuing both strategically and actively, Africa can position itself at the forefront of the global green transformation.

7 Oqubay, A. 2024. Green industrial policy and industrialisation in Africa.

8 African Coal Death Watch by Energy for Growth. https://energyforgrowth.org/project/african-coal-death-watch/

2. Current International Context and Increased Policy Space

The global economic order is undergoing a profound transformation. Once presented as the immutable foundations of the global economy, long-standing trade rules are now being abandoned by their own architects. Countries in the Global North, notably the United States and the European Union, are increasingly taking unilateral actions with little regard for the multilateral disciplines they previously imposed on others.

Nowhere is this more evident than in the resurgence of industrial policy across the most advanced economies and a proliferation of unilateral trade and regulatory measures. The US Inflation Reduction Act (IRA), adopted under the Biden administration, injected nearly $400 billion in subsidies into clean energy and domestic manufacturing, explicitly tying benefits to local production.[9] Similarly, the EU imposes a carbon levy on imports from countries that lack equivalent climate regulations, effectively reshaping trade terms outside of World Trade Organisation (WTO) negotiation channels.[10] At the same time, the WTO's Appellate Body has been rendered inoperative by the US's refusal to agree to appointments to it, further eroding the enforcement of multilateral rules. The more recent and accelerated US-led trade war might become the final blow to an already weakened global trade system. Moreover, since the second Trump administration, the US has catalysed a broader global pivot among some advanced economies in Europe, Asia, and the Middle East, in which "energy transition" is subordinated to "energy security" as the defining policy lens, with energy security prioritising resilience, self-sufficiency, and reliability over decarbonisation.[11] While the EU has remained broadly aligned with its climate targets and green objectives, some of its member countries are pursuing policies that align or mirror the US fossil-fuel-centred strategy.[12] These include reopening coal plants, signing on new gas offtake contracts, and scaling back their contributions to international climate finance funds.

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9 https://www.iea.org/policies/16156-inflation-reduction-act-of-2022

10 https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en

11 Usman, Z. 2025. How African countries can harness the global policy reframe from energy transition to energy security. Carnegie Endowment for International Peace https://carnegieendowment.org/research/2025/05/africa-energy-security-transition?lang=en

12 Ibid.

the world's green transition. As this global climate policy reframe continues apace with several advanced economies privileging energy security over energy transition, African countries are at a crossroads: an energy transition they never fully bought into but have reluctantly begun to implement is now being reframed even as these countries face tremendous uncertainty on how to pursue their own energy policy and development objectives.[13] This pivot could hinder aspects of Africa's industrialisation, owing to declining flows of climate and other kinds of concessional finance. At the same time, this global policy reframe opens up the constrained international policy debate to solutions that are pragmatic, feasible, and contextually appropriate for low and middle-income countries, especially those in Africa. After all, the continent holds an estimated third of minerals critical for current and emerging green technologies. These include over 90% of the world's platinum group metals,[14] more than half of global cobalt reserves, and significant shares of lithium, graphite, manganese, and rare earth elements, among others. Furthermore, many of these resources are concentrated in a few countries, potentially increasing the market and negotiating power of the continent. These are geopolitical assets that the continent should leverage effectively.

Several emerging case studies could provide lessons for African policymakers, such as the case of nickel in Indonesia. Despite WTO challenges, Indonesia introduced bold restrictions on raw nickel exports and a requirement for in-country processing. These measures have successfully catalysed domestic investment in nickel processing. Within a few years, Indonesia has become the world's largest producer of nickel (accounting for more than 50% of global production) and increased its share of processed nickel from nearly zero in 2017 to approximately 26% of its nickel production today, with further investment in processing capacity expected.[15] Several factors have contributed to this outcome, including the country's significant endowment of around 42% of global nickel reserves, strategic alignment with South–South partners, and industrial infrastructure that attracts and absorbs investment in downstream activities. The lesson is clear: policy space is not given – it needs to be seized and exploited within a strategic and coherent policy framework.

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More broadly, these shifts reflect a macrotrend: industrial policy is back, and with it, the political space to rewrite global trade rules and shape a different and more prominent role for Africa. The transition towards green technologies – particularly those dependent on minerals abundant in Africa – provides green windows of opportunities in several value chains. The growing role of emerging economies in green technologies, infrastructure investment, critical minerals and the steady expansion of South–South cooperation all converge towards a new space for strategic partnerships.

13 Ibid.

14 However, the expansion of platinum group metals (PGMs) for green uses (fuel cells, green hydrogen electrolysers) has yet to take off amid indications that commercial viability may take a decade or more.

15 Institute for Energy Economics and Financial Analysis (IEEFA). 2024. Indonesia's nickel companies: The need for renewable energy amid increasing production.

The shifting geopolitical and economic terrain is likely to lead to a restructuring of global value chains, presenting both challenges and opportunities for African countries. African governments need to enhance capabilities to identify and pursue these opportunities. Currently, slightly more than half of global trade is conducted among developing countries; in the coming years, South–South trade and investment relations are expected to gain increased importance, as will potential for the emergence of regional value chains under the AfCFTA. Overall, it will be crucial for African countries to avoid over-dependence on any single techno-economic superpower. Given the ongoing fragmentation of the global economy, with major powers like the United States and China increasingly decoupling their financial and technological systems, African countries should carefully weigh the costs and benefits of excessive reliance on any one region. This highlights the importance of diversifying partnerships. Middle powers such as South Korea, India, Türkiye, and Brazil can be valuable in advancing this goal of diversifying partnerships focused on joint R&D, skills exchange, and the harmonisation of emerging standards, as they also host important science and technology clusters.

African countries should take a "possibilist" approach in policymaking, navigating constraints creatively to expand development options and assert greater agency in shaping green industrial trajectories.[16] Windows of opportunity for deeper and greener industrialisation need to be exploited through strong agency and commitment from African states and leaders. The erosion of old rules does not guarantee greater opportunity and development, but it does open up opportunities for those willing to act quickly, strategically, and thoughtfully. If African countries move decisively, individually and collectively, they can use this moment to reclaim industrial policy tools.

The shifting geopolitical and economic terrain is likely to lead to a restructuring of global value chains, presenting both challenges and opportunities for African countries. African governments need to enhance capabilities to identify and pursue green industrialisation opportunities.

16 Cramer, C., Sender, J., and Oqubay, A. 2020. African economic development: Evidence, theory, policy.

3. Key Sectoral Opportunities and Issues for African Green Industrialisation

Green industrialisation presents a dual opportunity: first, to green existing or traditional value chains, such as agriculture, agri-business, and manufacturing; and second, to enter and compete in new green value chains, including those related to renewable energy, electric mobility, and critical minerals. With greater policy space and shifting global dynamics, the focus should turn to where green industrialisation can take root, and ways to make it work. This section explores both fronts of green industrialisation, highlighting the opportunities, constraints, and strategic choices that will shape Africa's ability to compete and thrive in the emerging green economy.

3.1 Agricultural modernisation

In agriculture, the current dominant focus on mitigation rather than adaptation is developed countries-centric, far from Africa's agricultural realities. Mitigation efforts primarily target emissions from Agriculture, Forestry, and Other Land Use (AFOLU), through measures such as reforestation, reduced deforestation, and climate-smart agriculture. While important, this focus overshadows the vital need for investment in adaptation. Global funding and discourse often prioritises emissions reduction, while the more immediate challenge for African countries remains agricultural modernisation and transformation, while coping with erratic rainfall, drought, and degraded soils.

Africa holds about 65% of the world's uncultivated arable land, positioning the continent as a key player in future global agricultural expansion.[17] About 16% of arable land in Africa is farmed. Up to 40% of Africa's land area is classified as agricultural, but high portions remain underused, highlighting both a challenge and a strategic opportunity for green and climate-resilient agricultural transformation.

Moreover, cultivated land often produces very low yields. For instance, cereal yields in Africa average about 1.65 kg per hectare, less than half the global average of around 4.2 kg per hectare.[18] This lags far behind other developing countries; average yields in Africa are roughly half of those in India and Thailand and a third of those in Vietnam. Between 2008 and 2019, the crop productivity of smallholder farmers did not show any significant improvement.[19] Narrowing this gap, particularly in cereals yields, presents an enormous opportunity for raising productivity.

One of the main reasons for persistently low agricultural productivity is the limited use of fertilisers on the continent, even as the Global North is calling for reduced fertiliser consumption for environmental reasons. The continent applies roughly

17 Roberts, S. 2025. Presentation to GIDEP Group.

18 Source: World Development Indicators

19 Wollburg, P., Bentze, T., Lu, Y., Udry, C., and Gollin, D. 2023. Agricultural productivity growth in Africa: New evidence from microdata. World Bank.

20–30 kg/ha, compared to the global average of 135 kg/ha, severely limiting agricultural productivity. A key root cause is that many African countries depend on imported fertilisers. These imports often come at prices far above global averages because of high transport and logistics costs, as well as the highly concentrated market power of a handful of firms.[20] The example of fertilisers highlights the importance of competition policy in reining in the costs of industrial inputs and consumer goods. Shifting the narrative from emission reductions and mitigation to productivity enhancement and adaptation is a strategic imperative. Adaptation involves investing in technologies and capabilities, such as drought-resistant seeds, precision irrigation systems, and climate information systems. It will also mean regulating highly concentrated markets, building domestic capabilities to produce and distribute key inputs, and leveraging investment and strategic coordination to unlock new export opportunities. A modernised and more productive agricultural sector can help build resilience to climate shocks and will also reduce the need to expand cultivated land at the expense of Africa's forests. Adaptation and mitigation can be mutually reinforcing, forming part of Africa's steps to build a modern and productive agricultural system.

The "industrialisation of freshness", particularly of fresh fruit and other horticultural products, offers enormous opportunities for high-value agricultural exports. Substantial industrial and cold chain capabilities are required to deliver fresh fruit to demanding high-income consumers in export markets, often far exceeding the capabilities needed to process low-value fruit into fruit juice.[21] However, they add a

20 Roberts, S. 2025. Presentation to GIDEP Group.

21 Cramer, C. and S. Chisoro-Dube. 2021. The industrialization of freshness and structural transformation in South African fruit exports. In Structural transformation in South Africa, 120–42. Oxford University Press.

great deal of value to the product. With the growing demand for fresh produce in markets such as the Gulf, Europe, and Asia, Africa is well positioned to become a major supplier, particularly given its year-round production potential and proximity to several key consumer regions. Other agricultural opportunities include the soy, animal feed, aquaculture, and poultry sectors, which are poised to support both Africa's food security and the global protein transition.

3.2 Greening manufacturing

Light and medium-technology manufacturing sectors offer the most immediate potential for green industrialisation in Africa. Conditions for African electrification based on renewables are extremely favourable owing to the confluence of excellent renewable resources and the falling costs of renewables. Renewables-based electrification offers an opportunity to move straight into low-carbon manufacturing sectors such as clothing, textiles, footwear and leather products; metal and plastic fabrication; packaging; wood products and furniture; other consumer goods; and various intermediate industrial inputs.

Green industrial hubs, such as Special Economic Zones (SEZs) and industrial parks, as piloted inter alia in Ethiopia, integrate renewable energy, resource-efficient infrastructure, and sustainable waste management, and can act as important catalysts for green industrialisation.

Beyond these foundational interventions, green manufacturing capabilities can be extended. These include green production processes and inputs, such as bio-based fibres and biodegradable packaging. Deepening circular economy capabilities include extending product lifespans, reusing materials, and scaling up recycling. This is especially relevant in sectors like apparel, electronics, construction, and packaging, many of which are already prioritised by the African Circular Economy Alliance.

Heavy manufacturing sectors, such as steel, cement, and aluminium, present both a significant challenge and an opportunity in the green transition. These industries are crucial for economic transformation, with consumption typically rising in tandem with GDP per capita, peaking at a high stage of development, and then gradually declining. Currently, African countries account for less than 3% of global consumption of these products.[22] Increasing consumption of these products will be essential to meet the continent's industrialisation needs.

These hard-to-abate products have a high carbon footprint because of the energy-intensive chemical and physical reactions required for their production, beyond their electricity consumption. These are referred to as process emissions and are estimated to account for approximately one-quarter of all industrial emissions.[23] Unlike electricity-related emissions, process emissions cannot be addressed by using renewable energy, and require new technologies and innovations to be tackled. It remains unclear how extensive the role of green hydrogen will be in these hard-to-abate sectors. Applications like fertilisers and green steel appear most advanced but have yet to be fully commercialised, even in advanced economies.

3.3 Renewable energy

The transition to renewable energy is a central challenge – and opportunity – in Africa's pursuit of green industrialisation. With 600 million Africans, nearly half of the continent's population, estimated to be still lacking access to electricity, the priority must be to expand energy access, both for households and for powering industrialisation. Africa holds nearly 40% of global solar potential, along with significant hydro, wind, and geothermal

22 Triki, C. and Said. J. 2021. Maximising the green path to industrialisation in Africa.

23 Triki, C. and Said. J. 2021. Maximising the green path to industrialisation in Africa.

reserves.[24] Solar PV is already the lowest cost of all energy sources, while battery storage costs continue to fall. Therefore, prioritising the expansion of these diverse renewable sources offers strong industrial and economic spillovers and should be central to the continent's development strategy. In addition, as part of the continent's glide path to net zero, tapping into Africa's existing resources, particularly natural gas, the least carbon-intensive fossil fuel, will remain relevant for some time to come.

Despite its resource advantages, Africa faces some of the highest capital costs for renewable energy projects – often exceeding those for fossil fuels. In 2021, Sub-Saharan Africa mobilised less than $1 per capita in renewable energy finance, compared to more than $100 per capita in major economies like the US, China, and the EU.[25] This stark investment gap is shaped by excessive perceptions of risk, institutional weaknesses, and deep structural financing barriers. As a result, African renewable projects remain underfunded.

These financing challenges and the resulting underfunding of renewable energy projects reinforces the case for a balanced energy transition, where the role of fossil fuels, particularly natural gas, is phased down gradually rather than abruptly closed off. With intermittent renewable supply and limited grid infrastructure, fossil fuels will continue to play a role in the medium term. Managed wisely, natural gas can serve as a transitional energy source and tax revenue. Global demand for gas has grown, particularly since the Ukraine war, and new production capabilities, notably in liquefied natural gas, are emerging, especially in the US and Qatar.[26, 27]

24 Lebdioui, A. 2024. Survival of the greenest.

25 Lebdioui, A. 2024. Survival of the greenest.

26 IEA. 2024. World Energy Outlook.

27 For instance, recent developments around Mozambique's LNG project – including the approval of funding by the US Export–Import Bank, are encouraging (https://www.exim.gov/news/exim-board-directors-votes-proceed-47-billion-lng-equipment-and-services-transaction-after).

Overall, several interrelated factors currently offer Africa a more level playing field for development than has been the case in the past. These include the current fragmentation of the global order, the weakening of previously rigid trade and climate rules, and a likely impending loosening of restrictions on the use of concessional finance by the multilateral development banks towards a variety of energy projects in Africa, including natural gas, nuclear energy and hydropower. Together, these shifts create space for African countries to negotiate better terms and assert greater control over their energy strategies and the pace of their transition to renewable energy sources.[28]

In addition, greater regional collaboration in building integrated power markets and developing cross-border infrastructure would accelerate a clean energy transition, especially for smaller countries. It would allow African countries to pool resources, manage variability in renewable sources, and scale investment more effectively. A coordinated approach to grid development, energy planning, and technology deployment could turn Africa's energy challenge into a shared industrial opportunity, anchoring green growth while expanding access across the continent.

3.4 Critical minerals

Another major opportunity for green industrialisation is the "critical minerals" sector. While the definition of criticality is mostly driven by high-income country interests, these minerals hold strategic importance as essential inputs for green energy and transportation, as well as for digital technologies. Africa has significant reserves of several of these minerals. The continent is home to over half the world's cobalt reserves, a third of its manganese, and substantial shares of lithium, graphite, and rare earths. These minerals have the potential for high-value addition in value chains at the frontier of global innovation and technologies.[29] This potentially positions African countries as important players in the global green transition.

Yet African countries run the risk of repeating historic policy weaknesses. These include not having fully taken advantage of periods of commodity demand to raise production and exports, and of exporting low-value-added raw materials where domestic value-addition would have been feasible. Critical minerals provide a green window of opportunity that might be narrow for at least two reasons. First, battery technologies are evolving rapidly, and the minerals that matter most today may not remain dominant tomorrow, particularly considering the geopolitical implications of these technologies. Second, the supply of these critical minerals currently appears to be growing at a faster pace than their demand, with lower-than-anticipated demand from consumer markets in the short-medium term. This is reflected in the prices of several commodities, including lithium, cobalt, nickel, and graphite, which have witnessed a sharp decline since 2022.

African countries should therefore act decisively to define a strategic approach. To make the most of this window of opportunity, it is necessary to focus on two key pathways. The first entails deciding how best to leverage the resources generated from natural commodities and productively invest them in the economy. This would include taxing windfall rents on critical minerals (and other resources) and redirecting these taxes towards green industrialisation in unrelated sectors that offer the highest developmental returns. Natural resource taxes could be an important source for raising the capitalisation of African development banks, enabling them to increase their lending capacity

28 Usman, Z. 2025. How African countries can harness the global policy reframe from energy transition to energy security. Carnegie Endowment for International Peace https://carnegieendowment.org/research/2025/05/africa-energy-security-transition?lang=en

29 UNIDO. 2024. Market assessment on critical minerals innovation in developing countries.

in domestic currency terms. Many African resource-rich countries have struggled to translate the wealth generated from natural resources into broad-based economic development. This phenomenon, often referred to as the "resource curse", can lead to governance challenges and missed opportunities for economic transformation if not managed effectively. African countries with critical minerals need to learn from past failures and carefully design the right governance structures for these resources, taking all necessary measures to ensure that these resources are directed towards the long-term objective of green economic transformation.

The second pathway involves considering both the opportunities for value addition and value capture offered by critical minerals and their downstream value chains. Value addition involves transforming raw materials into higher-value products and beneficiation. For battery value chains, this includes processing minerals such as lithium, cobalt, nickel, and manganese into high-purity battery-grade concentrates, which requires coherent policies such as those followed by Indonesia, described above. Indonesia continues to add value to its nickel reserves, ensuring that its restrictions on unprocessed nickel exports are accompanied by supporting investment in plants capable of processing nickel to battery grade. However, resource-based industrialisation is not a straightforward path. Downstream activities beyond extraction require different capabilities, specialised know-how and in many cases significant economies of scale. Success in developing downstream activities requires careful attention to market realities and the deliberate development of both core and supportive industrial capabilities and know-how.

Value capture, on the other hand, seeks to retain the economic benefits of global value chains within the local economy at different steps of the value chain. This requires a strategic and deep understanding of these value chains and their development requirements and constraints. Considering that local firms often struggle to capture significant value owing to asymmetric power dynamics in global value chains, where global buyers and incumbent firms dominate,[30] it is crucial to promote technology transfer mechanisms such as joint ventures with proprietary technology holders and licensing patents.

In sum, African policymakers must think and act strategically and creatively if they want to secure a different place in the next global economy. African countries should act rapidly to take advantage of these value capture opportunities and build industrial capabilities. This is because technological efforts are ongoing to economise as much as possible on scarce critical minerals in green and digital applications and ultimately to create substitutes that do not rely on minerals that are either scarce or subject to high concentration risks. Commodity price volatility will also have to be navigated, with periods of both market tightness and periodic oversupply.

Several announcements have been made across the continent on value addition to critical minerals, including in Morocco, South Africa and Zambia/DRC, with the latter two joining forces to develop a regional battery precursor Special Economic Zone (SEZ). Morocco appears to be amongst the frontrunners on the continent, having attracted significant investments in battery mineral processing from Chinese and South Korean firms. Conversely, tangible progress in the Zambian/Congolese SEZ appears limited.[31]

The current global geopolitical context provides an opportunity to do things differently. If African countries act strategically,

30 Whitfield, L., Therkildsen, O., Buur, L., and Kjær, A. M. 2015. The politics of African industrial policy: A comparative perspective.

31 Zalk, N. 2024. Africa's development agenda for its critical raw materials: Prospects for development and integration of African battery value chains. Berlin: Africa Policy Research Institute.

coherently and quickly, they can leverage their critical mineral reserves to negotiate investment in value-adding activities across green value chains. This will involve negotiating strategic partnerships with technology holders and addressing market barriers that constrain their development. For Africa to attract and develop strategic industrial capabilities, it is essential that African policymakers capacitate themselves to engage with technology holders and off-takers rather than negotiating primarily with miners. African countries must build the industrial capabilities needed to participate in green value chains, such as chemical and electronics capabilities for EV batteries. Developing coordinated ecosystems around these capabilities will determine whether Africa becomes a green growth hub or remains a raw material supplier. The AfCFTA may also offer a platform for building green transportation and battery value chains on the continent from the demand side, by assembling electrical vehicles (such as two- and three-wheelers), and battery packs for stationary storage applications.

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4. Financing Green Structural Transformation in Africa

Africa faces a formidable challenge in mobilising the resources required to achieve its Sustainable Development Goals (SDGs) and climate ambitions set out in Nationally Determined Contributions (NDCs). A $1.4–$1.6 trillion funding requirement for the 2020–2030 period has been estimated but is far from met, implying an annual SDG financing gap of $200 billion. Approximately $25 billion annually is required to ensure universal energy access. These estimates only partially reflect the capital requirement for concurrent investments in climate-compatible industrialisation and agricultural modernisation.

Structural weaknesses in Africa's economies have exacerbated debt distress, liquidity constraints, and exposure to external shocks. The legacy of limited industrialisation and diversification leaves many nations dependent on volatile commodity price cycles, vulnerable to interest rate increases set by developed economies and increased foreign debt service obligations when currencies depreciate. Thus many African countries spend more on debt service obligations than education and health.

In 2020, Africa attracted only 3% of total global climate finance – just $19 billion of $632 billion – with the overwhelming share directed towards mitigation rather than adaptation. The cost of capital remains prohibitively high, with government bond rates ranging from 5% to 16%, undermining infrastructure investment even as Africa maintains the lowest utility-scale renewable energy project default rates globally.

Efforts to marshal global climate finance remain slow, with initiatives such as the Green Climate Fund and the Loss and Damage Fund attracting limited pledges and lacking implementation mechanisms. Recently, there has been a shift toward "country platforms" like the Just Energy Transition Partnerships (JETPs) launched in South Africa, Indonesia, Vietnam, and Senegal. While these platforms promise significant funding, issues of concessionality, foreign currency risk, and allocation persist. Against this backdrop, Africa's transformation will depend on bold domestic actions and collective agency to prevent the continent from being left behind as the world pivots to a greener economic order.

A robust, two-pronged response is critical. The first prong is to persistently push for reforms to the global financial architecture, to ensure that climate and development finance becomes more accessible, affordable, and equitable. This should also entail directing such climate and development finance towards investments in productivity-enhancing sectors that ultimately advance Africa's industrialisation objectives, rather than the socio-political causes that the aid industry typically favours.[32] The second prong is to dramatically raise the mobilisation of domestic and regional capital. African development banks (ADBs) have a critical role to play in resource mobilisation. They can catalyse long-term, patient finance denominated in local currency, tackle critical project development and execution gaps, and play a

32 Usman, Z. 2025. The end of the global aid industry. Foreign Affairs. https://www.foreignaffairs.com/guest-pass/redeem/JBQWFyGSp7Q

policy-shaping role in environments where institutional capacities remain weak.[33]

Africa's development banking footprint is significant but uneven. The continent is home to nearly 20% of the world's public development banks, yet these ADBs command less than 1% of global development banking assets. Continental multilateral banks, such as the African Development Bank (AfDB) and Afreximbank, stand alongside well-established national development banks, particularly in North and Southern Africa. However, the majority remain small and undercapitalised.

Various mechanisms may be deployed to raise the capitalisation of ADBs, and hence their ability to extend longer-term, more affordable capital in domestic currency. Options to do so include drawing on guarantees by multilateral development banks, opening up to shareholding by aligned Southern (and developed country) development banks, combating illicit financial flows, taxing and redeploying natural resource rents, and harnessing pools of capital held by pension and insurance funds.

Important lessons may be gleaned from the experience of other Southern development banks, such as China's policy banks and the Brazilian development bank, BNDES. They have established a range of financing instruments for investment in strategic sectors, the development of national champions, and the support of strategic outward investment. Important lessons may be learned from the Brazilian experience and the experiences of Asian and African recipients of policy bank financing. Most important is the need for ADBs to strengthen technical and negotiation capacity to make the most of international partnerships while navigating potential pitfalls.[34] These priorities echo the July 2025 Financing for Development Conference *Compromiso de Sevilla* recommendations, which emphasised reforms to national, regional, and multilateral development banks to support domestic resource mobilisation in developing countries.

33 Zalk, N. 2025. Presentation to GIDEP Group.

34 Chen, M. 2025. Presentation to GIDEP Group.

5. Collective Strategies and Policy Instruments for Green Industrialisation in Africa

Climate-compatible African structural transformation will be best served through a common perspective on green industrialisation. The AfCFTA Secretariat and Council of Ministers are well-positioned to take the lead in articulating a common position among the 54 signatories to the AfCFTA and in relation to major international climate and development fora. With the AfCFTA as a strong framework, African countries can draw lessons from the EU's approach by crafting common positions on key areas associated with green industrialisation objectives, particularly as these relate to energy, providing a framework for individual countries in their international diplomacy.[35]

For instance, the African Union's (AU) 2022 common position, affirming the use of natural gas, hydrogen, and nuclear energy in expanding electricity access on the continent, was a positive step on this front. Other joint statements on other areas critical to green industrialisation should be developed, on issues such as incorporating technical exchanges and partnerships into foreign direct investments, promoting local content, procurement, and skills-building, etc.[36]

The AfCFTA offers a powerful platform for setting a continental vision, strengthening South–South trade and investment, and promoting the acquisition of technological capabilities.

The return of industrial policy, combined with a weakening multilateral order and shifting trade rules, has created both new risks and space for African countries. Left uncoordinated, the continent risks being locked into the role of a raw material supplier in the green transition while not benefiting from a new wave of industrialisation and technological innovation. While the erosion of multilateralism may open space for greater regionalism and a reform of global trade rules, it also raises concerns about the loss of a rule-based system that can protect smaller economies from unilateral actions by larger powers. African countries should seize this opportunity to reclaim industrial policy, build productive capabilities, and shape green and prosperous economies.

We identify nine strategic levers at the national and continental level that African governments can use to advance a green industrialisation agenda.

35 Usman, Z. 2025. How African countries can harness the global policy reframe from energy transition to energy security. Carnegie Endowment for International Peace https://carnegieendowment.org/research/2025/05/africa-energy-security-transition?lang=en

36 Ibid.

5.1 Use the AfCFTA as a strategic platform to advance green growth regionally and assert Africa's right to industrialise

The current global realignment underscores the AfCFTA's strategic importance as a driver of green growth. African countries should fully leverage the AfCFTA's potential as a single market, expanding scale and creating new markets for green technologies and industries. The AfCFTA offers a powerful platform for setting a continental vision, strengthening South–South trade and investment, and promoting the acquisition of technological capabilities. By acting in concert, Africa can greatly enhance its negotiating clout in global fora – including the G20, the WTO and COP meetings – shifting perceptions of the continent as a supplier of low-value raw materials to a key producer of a widening range of green goods and services. The AfCFTA may be used to assert Africa's right to industrialise with a distinct and united voice, forcefully pushing for access to the full suite of policy tools needed for structural transformation, while rejecting externally imposed, non-African paradigms such as degrowth.

5.2 Adopt smart industrial policies responsive to new realities

The global resurgence of industrial policy and shifting trade rules have expanded the policy space for Africa. African governments must move beyond the conventional roles of seeking to address market failures and begin to act as proactive market shapers. This includes setting strategic direction, coordinating investment, targeting high-growth sectors, and engaging dynamically with the private sector, with the ultimate objective of cultivating a dynamic private sector capable of green innovation, technological upgrading, and productivity growth. The policy toolkit should be expanded to include local content requirements, green public procurement, and performance-based incentives. Technology transfer, especially through strategic partnerships with Global South leaders in green technology, should be emphasised to accelerate learning and foster innovation.

The global resurgence of industrial policy and shifting trade rules have expanded the policy space for Africa. African governments must move beyond the conventional roles of seeking to address market failures and begin to act as proactive market shapers.

5.3 Harness Africa's renewable energy endowments for a balanced green transition

Africa's abundant renewable energy resources – solar, wind, hydro, and geothermal – offer a major advantage for green industrialisation. To unlock this potential, Africa should pursue a balanced and pragmatic transition, ensuring that the shift to renewables does not compromise affordable energy access or the competitiveness of its industries. In the interim, natural gas will remain an essential transition fuel, given current infrastructure challenges and energy access deficits.

5.4 Build green capabilities in agriculture and manufacturing

Transforming agriculture should be at the heart of Africa's green industrialisation, focused primarily on agricultural productivity and the high value opportunities embodied in the "industrialisation of freshness". Investments are needed in water and irrigation infrastructure and research and development, aimed at higher yield and more climate-resilient seeds. The benefits of higher agricultural productivity should not be dissipated through an abuse of market dominance in the provision of critical inputs like fertilisers. Hence the importance of competition policy.

Africa's abundant renewable energy resources can be harnessed to develop a green manufacturing base. In the first instance, this involves low-carbon production of a range of light and medium technology consumer goods and intermediate industrial inputs, and incrementally developing capabilities to implement deeper circular economy processes. Over the medium to long term, Africa's excellent renewables endowments ideally place it to shift more aggressively into heavy manufacturing sectors, such as steel, cement, and aluminium, consumption of which typically rises with GDP per capita. Emissions from these hard-to-abate industries contribute about a quarter of all industrial emissions but require innovative technologies that are not yet commercially viable, even in advanced economies, such as green hydrogen.

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5.5 Critical minerals: Maximising value addition and capture

Africa's substantial reserves of critical minerals should be leveraged for value-addition beyond low-value extraction, as well as broader value capture in emerging green and digital global value chains. This requires strategic and coherent policies that combine demand-side measures such as limitations on unprocessed exports with supply-side interventions to attract investment in technological capabilities and supporting infrastructure. Critical minerals could also be leveraged to negotiate strategic investments in infrastructure and other key industries with significant economic linkages, such as chemicals, electronics, and machinery.

African countries should also tax windfall rents on critical minerals (and other resources) and redirect these taxes towards green industrialisation in unrelated sectors with the highest developmental returns, including via African development banks.

5.6 Invest heavily in green infrastructure and industrial hubs

Reliable access to diversified renewable electricity, efficient industrial ports, and robust digital connectivity are foundational enablers. Governments should also develop green industrial hubs – industrial parks and clusters that promote low-emission production, resource efficiency, and dynamic firm linkages. Hubs such as

Africa's substantial reserves of critical minerals should be leveraged for value-addition beyond low-value extraction, as well as broader value capture in emerging green and digital global value chains.

Ethiopia's Hawassa Industrial Park and Morocco's Tangier-Med complex illustrate the catalytic potential of such investments to generate knowledge spillovers, market efficiencies, and greater competitiveness.

5.7 Dramatically scale up African development finance

Green industrialisation will require substantial new investment. African development finance institutions (DFIs) have a pivotal role to play, yet remain undercapitalised relative to needs. Despite a recent global tripling of climate finance targets, Africa continues to receive a disproportionately small share, with adaptation funding still lagging. Mobilising domestic resources and expanding the scale of African DFIs, particularly the AfDB, are crucial to securing greater agency, ownership, and alignment of financial capacity with Africa's development aspirations. A strategic goal should be to grow African DFIs' assets to match the continent's share of global GDP, giving substance and leverage to green structural transformation.

5.8 Prioritise R&D and human capital for green innovation

Investment in business-oriented R&D, especially in strategic green sectors, is vital. Research should be embedded within partnerships connecting industry, universities, technical institutions, and public procurement, with a focus on commercial outcomes. Simultaneously addressing the shortage of engineers and scientists is imperative, through talent retention, diaspora engagement, and exposure to real-world industrial environments, particularly in dynamic Asian economies.

5.9 Strengthen the capacity of national-level state institutions to ensure the effective design and implementation of green industrial policies.

State capabilities are crucial to ensuring the success of this agenda. The state needs to have the required capabilities to set strategic direction, help shape markets by engaging in iterative problem-solving with the private sector, and adapt as technologies and market needs shift. Without strong and responsive institutions, even the best strategies risk failing at the implementation stage.

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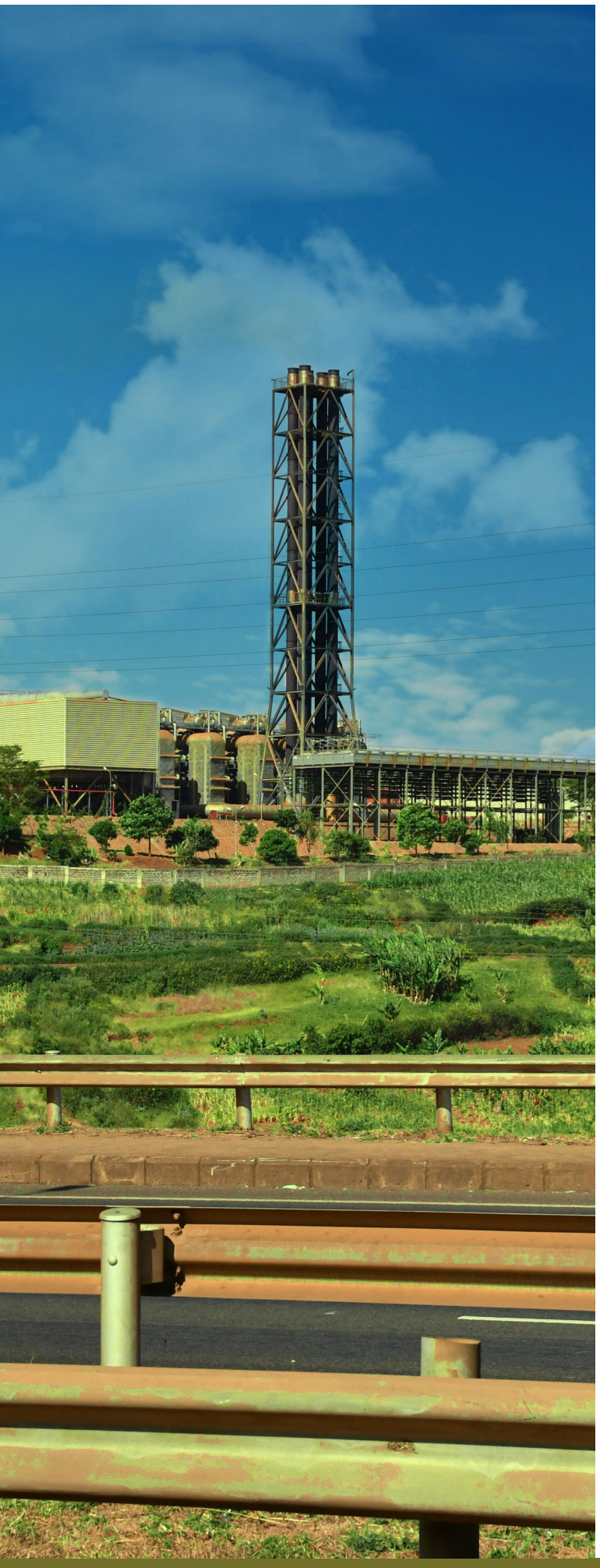

6. Conclusion

Africa's foremost priority is lifting its people out of poverty, and green industrialisation must be anchored in that development imperative. The priority is not solely decarbonisation, but structural transformation that maximises the green transition and reshapes the continent's role in increasingly de-carbonised global value chains. With the current global reordering of trade, investment, and climate politics, there is a narrow yet real window of opportunity to act while policy space and leverage still exist. To seize this moment, Africa must go green by growing with greater agency, urgency, and a clear focus on its own development priorities.

The continent should focus on industrialisation that raises productivity in agriculture, accelerates manufacturing, and enables value-addition in high-value mineral service sectors. This foundational transformation is essential for creating the millions of quality jobs needed to absorb Africa's rapidly growing workforce.

The priority is not solely decarbonisation, but structural transformation that maximises the green transition and reshapes the continent's role in increasingly de-carbonised global value chains.

Africa cannot afford to pursue a "degrowth" model, nor a "grow now, clean up later" path. Both present risks of perpetuating poverty or locking economies into unsustainable trajectories. Instead, African countries must align structural transformation and climate objectives, fostering green growth that is contextualised to Africa's unique developmental, resource, and demographic realities.

Africa cannot afford to pursue a "degrowth" model, nor a "grow now, clean up later" path.

The shifting global order offers both risks and opportunities. The rise of trade unilateralism and renewed industrial policy in the Global North – evident in major subsidies and new regulatory barriers – signal that Africa should be bold in leveraging policy tools, asserting its interests, and building resilient and competitive local value chains. There is an historic window for coordinated African strategies, especially through instruments like the AfCFTA, to claim a stronger role in emerging green global value chains.

Africa has an abundance of renewable energy resources and critical minerals essential for the global green transition. Harnessing these advantages requires not just exporting raw materials, but moving decisively into value-added processing, green manufacturing, and regional trade. Investments in skills, infrastructure, and green industrial hubs will be necessary to unlock this potential sustainably.

Transformative green industrial policies will need significant and sustained investment. While African countries should continue to advocate global finance reforms and climate justice, they must not delay action. They should direct current climate and development finance towards investments in productivity-enhancing sectors that support the continent's industrialisation objectives rather than socio-political causes. Scaling up domestic development banks and fostering South–South alliances are critical for building the capital and expertise required. The effectiveness of these efforts depends fundamentally on strong, adaptive, and capable states that can engage proactively with the private sector and drive implementation beyond strategy design.

Green industrialisation for Africa is thus not an option but a necessity. Its success will depend on the continent's ability to act urgently, with unity and clear focus on its development priorities. By leveraging new policy space, building industrial capability, investing in people and infrastructure, and insisting on a voice in global climate and trade debates, Africa can reshape its role in the world economy and chart a path toward sustainable prosperity and climate resilience.


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