African Future Policies Hub

Joint informal input paper for the G20 Working Group on Trade and Investment

# Improving Green Competitiveness for Inclusive Transformation

May 2025

## Acknowledgements

This report is jointly prepared by the African Future Policies Hub, the Leadership Group for Industry Transition and the World Resources Institute.

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## 1. Context

The South African G20 Presidency identified an agreement on a "G20 Framework/ Pledge on Green Industrialisation and Investment to Promote Sustainable Development" as one of the priorities of the Working Group on Trade and Investment (WGTI). Through this framework, the G20 Presidency seeks to define "a grand bargain that would promote mutual benefits of the green transition in a manner that fosters predictable trade, advances value addition and industrial development at sources, and ensure shared prosperity" that also supports the integration of developing countries in global green value chains.

Decarbonising existing industries and building new decarbonised industries relies on several factors. While much attention has focused on market access, other levers to promote an inclusive approach to the green transformation would be needed. This includes access to affordable technology, knowledge sharing and skills development, the promotion of innovation systems, and promoting arrangements that facilitate technology diffusion through coordinated policy approaches and financial incentives, among others. A coherent industrial growth strategy would need to encompass a suite of policy instruments that speak to productive capabilities, investments, technology and trade.

Capacity and structural support measures have yet to receive the attention needed in a context where major economies are focusing on their own green industrial policies and bolstering domestic competitiveness. Shared interests in mitigating climate change and avoiding the devastating economic impacts of current trajectories cannot be achieved through a narrow focus on national green competitiveness. To bring coherence between domestic measures and global climate commitments, countries need to commit to inclusive green competitiveness that genuinely supports and advances green industrialisation in all regions.

## 2. Towards Collaborative Green Industrialisation in Technology, Resources and Know-How

Achieving globally inclusive energy transitions and green industrialisation demands shifts in both thinking and policy. A central shift required is the reimagining of global green value chains and adopting a strategy of cooperative green competitiveness. Traditional competitive models that prioritise national industrial interests must evolve towards more collaborative frameworks that leverage comparative advantages and mutual benefits.

Taking the steel industry as a case in point, disaggregating steel production by placing energy-intensive stages in regions with abundant renewable energy could improve cost and energy efficiency. This approach is especially beneficial for developed economies where industrial electrification is expensive and competes with other low-emission electricity demands. At the same time, it creates opportunities for regions with strong renewable resources to adopt cutting-edge green technologies and secure key roles in green value chains. There are several developing countries that fit this profile.1

Similarly, major economies are focused on securing transition minerals supply chains for the energy transition. But to ensure these supply chains are sustainable and equitable, they must deliver meaningful benefits to developing countries and not repeat past patterns of resource exploitation. A common argument is that resource rich developing countries should be supported in developing local capacities for refining and processing, integrating them into high value-added segments of green value chains.

For some countries, this is a valid strategy that supports industrialisation, job creation, and greater value capture. But value addition depends on stable infrastructure, clean and affordable energy, skilled labour, strong institutions, and economies of scale. Without these, a domestic refining strategy may not deliver expected results. G20 cooperation should support country-specific strategies that ensure that mineral wealth drives long-term, inclusive development. For some, that may include refining; for others, it may mean using resource revenues to invest in infrastructure, human capital, or economic diversification.

Shifting beyond traditional narratives of technology transfer toward a more holistic sharing of know-how is also crucial. Initiatives such as the Leadership Group for Industry Transition's (LeadIT) Industrial Transition Partnerships (ITP) between India and Sweden provide a viable template for this approach. Realising this partnership has required strong bilateral governmental commitment and a structured process bringing together key industry stakeholders, policymakers, and researchers. The ITP facilitates dedicated working groups on technology co-development, finance mobilisation, and enabling conditions and specifically aims for the development of flagship decarbonisation projects that reflect the strategic interests of both countries. Other initiatives like the joint Brazil and UK Industrial Decarbonisation Hub, the Climate Club's Global Match Making Platform, and the Mission Possible Partnership's Industrial Transition Accelerator adopt similar approaches and demonstrate the growing momentum behind collaborative, country-led efforts to accelerate industrial decarbonisation.

Embedding a global partnership mindset into national green industrial policy from inception is another vital shift in perspective. For example, policymakers could proactively link national support measures for domestic companies active in green technologies to explicit commitments to technology and knowledge sharing. Given that major economies increasingly mobilise substantial resources for their green transitions, aligning these industrial policies more effectively with global climate goals will help scale solutions internationally. This is essential to avoid unnecessarily steering regions that are or could soon be rapidly industrialising towards carbon intensive development pathways.

A shift in mindset in climate finance can also support a cooperative green competitiveness approach. Directing international climate finance to projects in lower and middle-income countries that can "export" significant global climate benefits is just as important as mobilising finance for national level mitigation and adaptation purposes. Multilateral development banks (MDBs) should create more dedicated financing windows for green industrial production in developing regions that take advantage of such opportunities. Countries should also assess if debt relief measures linked to the creation of fiscal space for impactful mitigation, adaptation, and green industrialisation measures, can play a meaningful role. Furthermore, increasing funding for collaborative research, innovation, training, and piloting programmes should be viewed as strategic investments in building enduring energy transition partnerships.

Measures such as carbon pricing and carbon border trade measures are central to creating the market conditions for energy transition investments. At the same time, they can place uneven burdens on developing countries exporting carbon intensive goods, putting significant pressure on their industries and potentially failing to provide a bridge to the market opportunities carbon pricing generates.

Those jurisdictions imposing such border measures could create co-innovation and green technology diffusion funds, partially financed by carbon trade/pricing mechanisms, so that funds are recycled back into developing economies in ways that catalyse energy transitions and green industrialisation. This could be done in partnership with regional import-export banks (e.g. Afreximbank). Such an approach is an example of the types of measures that can help to build trust between regions in green partnerships.

## 3. Industrial Clusters for Inclusive Transformation

Industry players should not be viewed in silos, but rather as part of an ecosystem, where they cooperate and share best practice, compete and co-evolve to create a system of complementary capabilities around new innovations. In clusters, lead firms, reinforced by their technological and organisational capabilities, as well as their ability to access capital, play a critical role in strengthening the ecosystem of capabilities around them. To create industrial clusters for industrial transformation, supply chains must be brought closer to production processes. For example, locating the hydrogen supply chain close to hydrogen production, or EV value chains to lithium mining sites, are essential steps. To achieve this, policy and regulatory framework improvements are required to expedite regulatory processes and stimulate industry investment in these supply chains. Infrastructure development is critical, with investments in logistics, innovation parks and digital infrastructure. This must be accompanied by capital and investment in the form of funding for local enterprises and investment incentives.

Reducing costs of technological adoption is also critical for industrial transformation. Context-based methods are vital, which may include the use of shared infrastructure to decrease individual firm expenses, collaborative research and development, and the use of open-source technologies. Importantly, ties between cluster members and technology providers should be developed to negotiate lower costs, personalised solutions, and continuous support.

Industrial clusters can also help promote the adoption of renewable energy by aggregating demand from several enterprises and specialised suppliers, making it economically viable for developers. Clusters can also be used to negotiate long-term purchasing contracts while also allowing for joint procurement¾reducing transaction costs and increasing bargaining power for renewable deployment.

Partnerships that are both economically viable and create value are pivotal for harnessing the collaborative potential of industrial clusters. With governments constrained fiscal space, limited institutional capacity and sectoral expertise to undertake sizeable investment programmes, forging partnerships of different shapes and forms becomes essential. Public-private partnerships (PPPs), as well as "climate-smart" PPPs hold potential to bridge technical and financial gaps in critical infrastructure and new industrial sectors. However, PPP models must remain effective and equitable with a fair allocation of cost and risk. PPPs call for innovation in the way projects are structured, and consideration should also be given to harnessing domestic private sector financiers and partners as potential drivers of industrial clusters and new infrastructure deployment. This way, international investments are complementary to locally driven solutions.

Within the framework of PPPs, philanthropy has emerged as a “4th P” to advance innovative and diverse ways of partnering that create long-term benefits and climate resilience.

With flexibility and an appetite for risk, targeted philanthropic dollars (in the form of grants, concessional capital or market rate investments) provides multiple points of entry and an array of financial support options to drive cluster scaling and project development. Large philanthropic organisations are slowly moving in to fill the venture capital gap in clean energy transformation, for example, and this could play a catalytic role in crowding in additional capital pools.

## 4. Leveraging Synergies with Regional Green Industrialisation Efforts

Regional cooperation is key for strengthening green competitiveness for G20 countries. When countries work together across borders, they open up opportunities to advance green industrialisation. The European Union (EU), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), Mercosur and the African Green Industrialisation Initiative (AGII) are just a few examples of existing trade frameworks that already provide a foundation for collaboration. These frameworks do more than just facilitate free trade – they also allow countries to take collective action on issues like environmental standards, technological innovation, and the integration of sustainable practices.

Further, regional institutions like the Asian Infrastructure Investment Bank (AIIB), the European Investment Bank (EIB) and African Development Bank (AfDB) play an important role in financing large green projects, supporting countries overcome capacity challenges while aligning investments with sustainability targets. They also facilitate technology transfer and knowledge sharing – critical for speeding up the green transition.

Through regional green industrial clusters, focused on sectors like renewable energy, clean manufacturing, or electric vehicles, countries could work to create economies of scale. This not only helps to reduce the costs of adopting green technologies, but it also opens up space for more innovation. For emerging economies in the G20, these clusters can be a real game-changer in terms of creation of dignified jobs, diversifying economies, and promoting sustainable development.

Pooling resources, sharing knowledge, and aligning investments will enable countries to collectively address climate challenges, boost regional competitiveness, and ensure the green economy is inclusive and sustainable for all.

## 5. Role of actors

Sustainable, competitive, and inclusive development demands investments, and the transition to climate resilient development or green technologies, has to be led by investments in support infrastructure, machinery, innovation, and skills development. Governments have a central role to play in creating a conducive policy and regulatory environment but also tapping into existing regional trade frameworks (like the EU, AGII, etc.) to align green industrial policies, pool resources, and co-invest. Creating policies that make green technologies accessible and affordable, and which foster knowledge sharing and innovation will be at the centre for driving green transformation. Governments can lead with establishing financial mechanisms, such as green finance funds, to break down investment barriers and ensure that investments align with environmental sustainability goals.

The public sector's role in developing regional green industrial clusters (as referred to) to drive economies of scale, reduce costs of adopting green technologies, and foster innovation will be key in sectors like renewable energy and clean manufacturing, and could lead to both local and global benefits. The externalities and uncertainties associated with new green technologies mean that support for shared investments and coordinated decisions (vertically and horizontally) are important. Institutional linkages built both within and around supply chains are essential for driving structural change.

Partnerships with support institutions such as project specific training centres, risk-sharing R&D facilities and universities equipped with specialist skills, are instrumental for facilitating production and technological learning. Platforms of engagement between business coalitions and government are also vital for informing policies, particularly around issues affecting industrial competitiveness.

Most investments in green industrial development have lengthy gestation periods and can be inherently "risky". Financial institutions, including international financial institutions (IFIs), MDBs and development finance institutions (DFIs), are uniquely placed to influence the path of structural transformation. As a mechanism of national and regional development strategies, MDBs, in particular, have several comparative advantages for fostering green economic transformation efforts. Their proactive public policy orientation, provision of long-term concessional capital, and willingness to undertake risk mean resources channelled through them can be the basis for addressing system level constraints to green industrialisation. MDBs can also play a crucial role in expanding local currency financing capacity and addressing the currency mismatch that exposes borrower countries to foreign exchange risks, debt vulnerabilities and high debt servicing costs.

As pioneers in developing a pipeline of and/or investing in early-stage projects that demonstrate the commercial viability of new technologies and sectors, the catalytic role of MDB financing and agility of DFI investments are paramount for enabling and shaping the creation of infant industry production and markets of innovation, particularly in the context of shifting global technological production patterns. Efforts like the CIF Industry Decarbonization Program and EBRD's High Impact Partnership on Climate Action are examples of how IFIs can begin addressing systemic decarbonisation challenges in a more targeted manner.

However, the scale of support remains limited, and greater visibility, coordination, and technical assistance are needed to unlock broader market transformation.

Despite the important role of development banks, these institutions are constrained by several factors including a limited capital base, fragmentation and the inadequacy of existing instruments. Enhanced cooperation and alignment within the financing ecosystem, focused on strategic co-investments and leveraging resources from other official finance providers and specialised climate funds, could unlock further resources and improve efficiency and effectiveness of scarce public sources of capital. Prioritising reforms of the international public finance system, its structure and processes provide impetus to unlock new opportunities, while aligning and scaling funding to meet dual climate and development needs. One way forward is to embed coordination platforms between IFIs and national actors, building on promising models like the Türkiye Industrial Decarbonisation Investment Platform spearheaded by EBRD. This platform aims to deploy $5 billion in investments by 2030, and to achieve this scale EBRD is partnering with World Bank Group and International Finance Corporation. This approach can help align support to country needs and co-create low carbon strategies that are inclusive and context specific.

## Conclusion

Green industrialisation presents a transformative opportunity—not only as an environmental imperative, but also as a pathway to global competitiveness and long-term prosperity. The African continent is uniquely positioned to lead this growth. However, green industrialisation is a complex undertaking, as its meaning varies across different contexts and it encompasses multiple dimensions essential for driving a new green growth paradigm. This complexity makes enhanced collaboration among stakeholders, activities, and resources—within a broader production ecosystem—crucial for enabling access to knowledge, skills, demand, finance, and value creation.

Renewable energy and transition mineral value chains, if effectively leveraged, can serve as a foundation for new industrial models. Realising these benefits will require market shifts, coordinated policy efforts, and global partnerships grounded in mutuality. The untapped potential of green industrialisation can be widened through regional integration, the creation of larger markets, and the development of localised industrial agglomeration. Inclusive green initiatives must be strategically targeted and embedded within strategic value chains that have the potential to expand industrial capacity. Existing regional initiatives can be harnessed to design pilot projects that are scalable.

The scale and nature of financing mechanisms and investments play a crucial role in targeting and shaping green transformation pathways. Coordinated access to sufficient, highly concessional, and patient capital is essential for any green industrialisation strategy—especially amid rising debt levels and climate-related vulnerabilities across nations. Investments in green technologies and sustainable infrastructure should promote inclusive growth and serve as a catalyst for creating productive and decent green jobs.

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