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Charting Green Industrial Futures: Advancing Global South Cooperation for a Just Transition

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ABSTRACT

Accelerating green industrialisation is essential for Global South countries to align their national climate action with job creation, economic growth and sustainable development. However, they face persistent barriers in access to finance, clean technologies, and policy space needed to implement green industrial policies. This policy brief argues that these constraints can be effectively addressed by developing countries through expanding their international cooperation in climate, trade and industry. Through the analysis of three institutional mechanisms emerging from the Global South - the Africa Green Industrialisation Initiative (AGII), the International Solar Alliance (ISA), and the Integrated Forum on Climate Change and Trade (IFCCT), the brief highlights some ways for developing countries to shape their own green industrial futures and advance a just transition.

KEYWORDS: Green Industrialisation, Just Transition, Africa Green Industrialisation Initiative (AGII), International Solar Alliance (ISA), Integrated Forum on Climate Change and Trade (IFCCT), South-South Cooperation, International Cooperation

L'accélération de l'industrialisation verte est essentielle pour que les pays du Sud puissent concilier leurs actions nationales en faveur du climat avec la création d'emplois, la croissance économique et le développement durable. Cependant, ils se heurtent à des obstacles persistants en matière d'accès au financement, aux technologies propres et à la marge de manœuvre politique nécessaire à la mise en œuvre de politiques industrielles vertes. Ce rapport sur les politiques soutient que les pays en développement peuvent surmonter efficacement ces contraintes en renforçant leur coopération internationale dans les domaines du climat, du commerce et de l'industrie. À travers l'analyse de trois mécanismes institutionnels issus des pays du Sud - l'Initiative pour l'industrialisation verte en Afrique (AGII), l'Alliance solaire internationale (ISA) et le Forum intégré sur le changement climatique et le commerce (IFCCT) -, ce document met en évidence quelques moyens qui permettraient aux pays en développement de façonner leur propre avenir industriel vert tout en favorisant une transition juste.

MOTS-CLÉS: l'industrialisation verte, la transition juste, l'Initiative pour l'industrialisation verte en Afrique (AGII), l'Alliance solaire internationale (ISA), le Forum intégré sur le changement climatique et le commerce (IFCCT), la coopération Sud-Sud, la coopération internationale

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KEY MESSAGES

- Green industrialisation is essential for developing countries to align climate action with job creation, economic resilience, and structural transformation. Active policy action is necessary to avoid reproducing historical inequalities for a just transition.
- Persistent structural barriers in access to finance, clean technology, and policy space constraints require promoting Global South-led international cooperation to build collective agency and advance common interests.
- Institutional mechanisms for international cooperation led by and for developing countries are key to producing relevant and actionable outcomes for sustainable development. Leveraging their complementarities can support effective policy and project implementation to achieve climate, trade and industrial development goals.

Acelerar la industrialización verde es esencial para que los países del Sur Global puedan alinear sus acciones climáticas nacionales con la creación de empleo, el crecimiento económico y el desarrollo sostenible. Sin embargo, estos países enfrentan barreras persistentes relacionadas con el acceso al financiamiento, las tecnologías limpias y el espacio de políticas necesario para implementar estrategias de industrialización verde. Este informe de políticas sostiene que estas limitaciones pueden abordarse eficazmente mediante la ampliación de la cooperación internacional de los países en desarrollo en los ámbitos del clima, el comercio y la industria. A través del análisis de tres mecanismos institucionales surgidos del Sur Global —la Iniciativa Africana para la Industrialización Verde (AGII), la Alianza Solar Internacional (ISA) y el Foro Integrado sobre Cambio Climático y Comercio (IFCCT)—, el informe destaca algunas de las formas en que los países en desarrollo pueden moldear sus propios futuros de industrialización verde y promover una transición justa.

PALABRAS CLAVES: la industrialización verde, la transición justa, la Iniciativa Africana para la Industrialización Verde (AGII), la Alianza Solar Internacional (ISA), el Foro Integrado sobre Cambio Climático y Comercio (IFCCT), la cooperación Sur-Sur, la cooperación internacional

加快绿色工业化进程，对于全球南方国家将国家气候行动与创造就业、经济增长和可持续发展相结合至关重要。然而，这些国家在获取实施绿色工业政策所需的资金、清洁技术和政策空间方面，仍面临着长期存在的障碍。本政策简报认为，发展中国家可以通过扩大在气候、贸易和工业领域的国际合作，有效解决这些制约因素。通过分析源自全球南方的三个制度机制——非洲绿色工业化倡议（AGII）、国际太阳能联盟（ISA）以及气候变化与贸易综合论坛（IFCCT）——本简报重点阐述了发展中国家塑造自身绿色工业未来、推动公正转型的若干途径。

关键词: 绿色工业化、公正转型、非洲绿色工业化倡议（AGII）、国际太阳能联盟（ISA）、气候变化与贸易综合论坛（IFCCT）、南南合作、国际合作

1. Introduction

Promoting industrialisation has been a longstanding priority for developing countries to generate employment and foster economic growth. This is reflected in the United Nations (UN) 2030 Agenda and the Sustainable Development Goals (SDGs) with SDG 9 specifically incorporating inclusive and sustainable industrial development as a basis for promoting economic growth.

Previous national experiences of industrial development were based on promoting manufacturing-led and export-oriented growth models, which raised economic productivity and standards of living. Millions of people moved from low-productivity agriculture to manufacturing and service sectors¹. The development of industries and economic diversification helped absorb large numbers of workers, provided skill development, decent jobs, increased economic prospects and better standards of living².

Industrial development has historically relied on the use of fossil fuels for energy generation and was closely correlated to increases in greenhouse gas (GHG) emissions³. However, this traditional pathway of carbon-intensive industrialisation is no longer viable or fit-for-purpose for most developing countries as they strive to meet the climate goals outlined in their Nationally Determined Contributions (NDCs) under the Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC), and reduce the intensity of their GHG emissions⁴. At the same time, increasing automation has compressed employment in manufacturing sectors, even in comparatively low-wage countries. Rising trade uncertainty and protectionism in advanced economies, instrumentalised through tariff escalations, large industrial subsidies, and carbon border measures, is making export-led industrialisation harder for developing nations⁵. This has prompted a search for a different and more sustainable pathway to industrial development.

The need to mitigate and adapt to climate change impacts, and move towards an environmentally sustainable future is providing an opportunity for developing countries to refocus their industrialisation efforts. With the triple planetary crisis - climate change, pollution and biodiversity loss - already causing significant impacts in Global South nations, policies and resources are increasingly being oriented towards accelerating low-carbon sustainable futures, as reflected in the most recent round of NDCs submitted to the UNFCCC⁶.

Meeting even the currently stated ambition require a paradigm shift away from previous models of carbon-intensive industrialisation towards more climate-friendly models that are inclusive and equitable. The global *just transition*⁷ requires the provisioning of

1 United Nations, Department of Economic and Social Affairs (DESA), "Chapter II. Rural development for inclusive growth and a balanced settlement of the population", in *World Social Report 2021: Reconsidering Rural Development* (New York, 2021). Available from <https://digitallibrary.un.org/record/3926941>.

2 See: Patrizio Bianchi, Sandrine Labory and Philip Tomlinson, eds., *Handbook of Industrial Development* (Cheltenham, United Kingdom, Edward Elgar Publishing, 2023). Available from <https://doi.org/10.4337/9781800379091>.

3 Juan Infante-Amate, Emiliano Travieso and Eduardo Aguilera, "The history of a + 3 °C future: global and regional drivers of greenhouse gas emissions (1820–2050)", *Global Environmental Change*, vol. 92 (2025). Available from <https://doi.org/10.1016/j.gloenvcha.2025.103009>.

4 United Nations Industrial Development Organization (UNIDO), *Clean Energy and Climate Action in Industry: Pathways to 2050* (Vienna, 2026). Available from <https://www.unido.org/sites/default/files/unido-publications/2026-04/Clean%20Energy%20and%20Climate%20Action%20in%20Industry%20-%20Pathways%20to%202050.pdf>.

5 See: Anushka Wijesinha and Senith Abeyanayake, "Trade policy uncertainty and impacts on developing countries' exporters: the case of Sri Lanka", *SouthViews* No. 304 (Geneva, South Centre, 21 January 2026). Available from <https://www.southcentre.int/southviews-no-304-21-january-2026/>.

6 United Nations Framework Convention on Climate Change (UNFCCC), "Nationally determined contributions under the Paris Agreement: synthesis report by the secretariat", FCCC/PA/CMA/2025/8, 28 October 2025. Available from <https://unfccc.int/documents/650664>.

7 The term 'just transition' is broadly understood as addressing the multidimensional challenges of a shift towards low-carbon economies and societies without leaving any-

goods, services and investments which will enable countries to move away from existing carbon-intensive modes of production. Accelerating green industrialisation in developing and least developed countries thus provides a *modus operandi* for aligning climate action with inclusive economic growth and sustainable development, while maintaining the cardinal principles of Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC). The UNFCCC Just Transition Work Programme (JTWP) similarly emphasises, “the multisectoral, multidimensional and cross-cutting nature of just transitions, to which there is no one-size-fits-all approach and for which whole-of-society and whole-of-economy approaches are required,”⁸ which further underscores the need for longer timeframes for just transition in developing nations.

While green industrialisation has been identified as a key priority by countries, it has no common definition. However, two important facets of green industrial development for developing countries are the building of new *green* sectors, like renewable energy; and shifting *existing* industries onto low-carbon pathways, and how these can be realised through national efforts, complemented by international assistance and cooperation. This brief considers the convergence between industrialisation, trade and climate change, and how complementary actions in these different domains are necessary for a global just transition.

As Oqubay has noted⁹, for developing countries the greatest potential lies in green growth and carbon-neutral industrial development that addresses their burgeoning demographic and urbanisation challenges. Moving to these pathways requires developing countries to utilise all available resources at the domestic and international level to meet their current and future energy needs, and support climate action.

However, if green industrialisation follows historical patterns of industrialisation, it risks consolidating global inequality and economic dependency - with green technologies concentrated in a few nations, value chains controlled by incumbents, and developing countries relegated to sites for extraction of raw materials and commodities’ production. The challenge is to break these patterns and envision a different reality that enables developing countries to shape their own green industrial futures.

This brief thus first addresses the imperatives of green industrialisation for developing countries, and the barriers commonly faced in this endeavour. It then looks at three institutional mechanisms that have been set up for leveraging international cooperation to promote green industrialisation, international trade and climate action. The brief concludes with some final remarks and recommendations.

2. Why Green Industrialisation?

The 2030 Agenda held out the ambitious vision of a world in which every country enjoys sustained, inclusive and sustainable economic growth and decent work for all¹⁰. While achieving that vision remains considerably off-track, green industrialisation offers countries an opportunity to accelerate progress towards its realisation, particularly on SDGs 1, 7, 8, 9, 10, 13 and 17, by promoting a just transition that is fully aligned with their climate goals and sustainable development objectives.

While different standards are used for designating green industries, some common elements can be identified. For instance, the United Nations Industrial Development Organization (UNIDO) considers that all industries, regardless of sector, size or location can reduce their environmental impacts through *inter alia* using resources more efficiently and substituting fossil fuels with renewable energy sources.¹¹ It also emphasises the creation of industries which provide environmental goods, services and technologies that reduce negative environmental impacts or address the consequences of various forms of pollution.¹²

2.1. Green industrialisation imperatives

Fostering and scaling up green industries requires both political will and active implementation by the State and relevant stakeholders, especially from the industry.

At the national level, several policy imperatives have emerged in recent years that have set green industrial development as a priority for developing countries. First, there is the need to mitigate and adapt to the multidimensional impacts of climate change. Developing and least developed countries are more vulnerable to climate change, including the increasingly severe impacts of natural disasters. They also have fewer resources than developed countries to address these impacts and build resilience against future climate shocks. Fostering green industries can help them in fostering a more climate-resilient economy and lower GHG emissions in line with their NDCs. For instance, adopting green agricultural policies for ‘climate-smart agriculture’ and building local agro-processing industries

one behind. See: J. Mijin Cha, *A Just Transition for All: Workers and Communities for a Carbon-Free Future* (Cambridge, Massachusetts, MIT Press, 2024). Available from <https://doi.org/10.7551/mitpress/15174.001.0001>.

⁸ UNFCCC, “United Arab Emirates Just Transition Work Programme”. Available from <https://unfccc.int/topics/just-transition/united-arab-emirates-just-transition-work-programme>.

⁹ Arkebe Oqubay, “Green Industrial Policy and Industrialization in Africa”, SARChI Industrial Development Working Paper Series, WP 2024-02, February 2024. Available from <https://www.uj.ac.za/wp-content/uploads/2021/10/sarchi-wp2024-02-oqubay-green-industrial-policy-final.pdf>.

¹⁰ United Nations General Assembly, “Transforming our world: the 2030 Agenda for Sustainable Development”, A/RES/70/1, 21 October 2015, para. 9.

¹¹ UNIDO, *Green Industry: Policies for supporting green industry* (Vienna, May 2011).

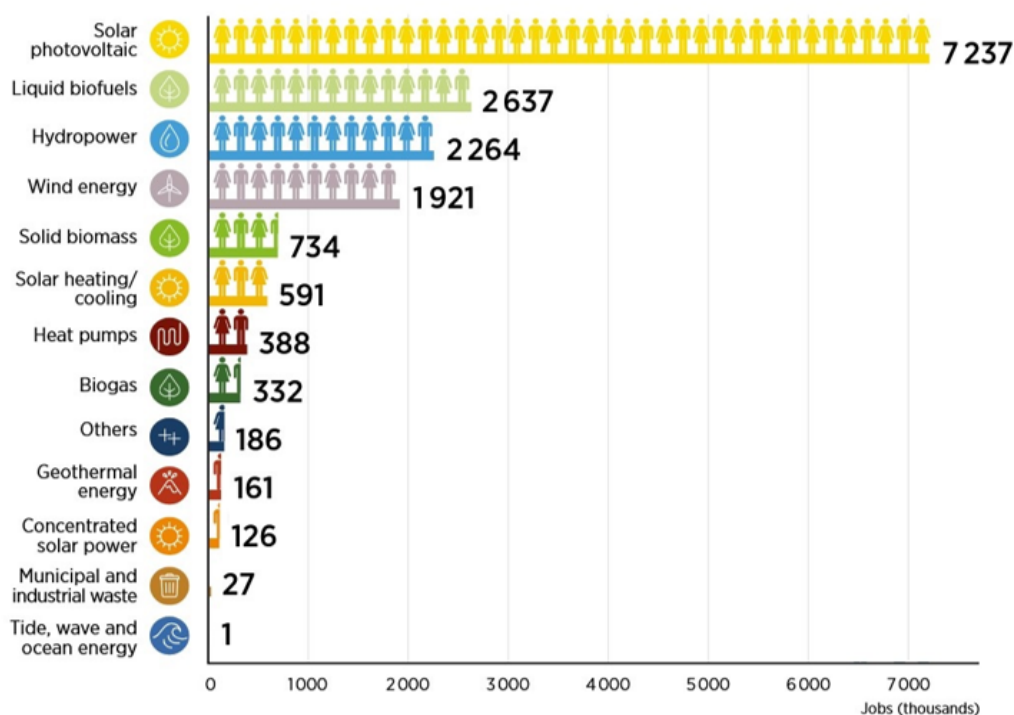
¹² *Ibid.*

can help developing countries to protect their farmers, build resilience against climate-shocks to food systems, provide backward and forward linkages to green industrialisation, and enhance food security¹³.

Second, the increased global uncertainty and trade tensions due to unilateral trade measures and trade-distorting industrial subsidies have added momentum to the need to build domestic manufacturing and industrial capacities that support just transitions. Firms are increasing their reliance on regional trade integration, while also investing in resilient supply chains, securing access to critical energy and commodity resources, and promoting near- and friend-shoring¹⁴. Increasing use of renewable energy in the national energy mix can also reduce dependence on the import of fossil fuels whose supply can be readily disrupted due to geopolitical shocks or natural disasters. For instance, in the face of a fuel embargo and consequent electricity crisis, Cuba has accelerated the installation of solar parks and photovoltaic systems in the country¹⁵.

Third, there is the urgency to create decent jobs in developing countries with large youth populations and growing urbanisation. A report by the International Energy Agency (IEA) notes that low-emissions technologies now support nearly three times as many jobs as unabated coal, gas, and oil-based generation combined. Solar photovoltaics (PV) alone added 310,000 jobs globally, compared to 220,000 jobs added across all fossil fuel supply sectors combined. While the different renewable energy sectors are expanding rapidly and generating employment for millions of people (see Figure 1), they will not be able to meet the job demand by themselves. A study has suggested that under the right conditions, greening of existing production processes and creating new green industries can provide greater economic prosperity and environmental sustainability to developing countries¹⁶. For the majority of Global South nations, capturing their demographic dividend by orienting it towards the development of green and sustainable industries is key, as over a billion people in the Global South are expected to enter the job market in the next decade.

Figure 1 – Global Renewable Energy Employment, by technology, 2024



Source: IRENA and ILO (2026)¹⁷

Addressing these priorities requires considerable effort from States and relevant stakeholders to mobilise investment, support skill development and leverage international trade opportunities for green growth and development. An International Labour Organisation (ILO) report has highlighted the just transition's potential to generate millions of jobs, but warns that these are conditional on the

13 United Nations Trade and Development (UNCTAD), *Trade and Development Report 2021, Part II - From Recovery to Resilience: The Development Dimension* (Geneva, 2021), pp. 118-119. Available from https://unctad.org/system/files/official-document/tdr2021_part2_en.pdf.

14 See: Danish, "Foreign Investment Flows in a Shifting Geoeconomic Landscape", South Centre Research Paper 185 (Geneva, South Centre, 13 October 2023). Available from <https://www.southcentre.int/research-paper-185-13-october-2023/>.

15 Jean-Michel Hauteville, "Cuba's small businesses turn to solar energy to offset fuel shortages", *Le Monde*, 15 May 2026. Available from https://www.lemonde.fr/en/international/article/2026/05/15/cuba-s-small-businesses-turn-to-solar-energy-to-offset-fuel-shortages_6753491_4.html.

16 Queen Esther Oye, "The economic and environmental effects of greening industrialization in Africa: A dynamic stochastic general equilibrium approach", *Journal of Cleaner Production*, Volume 513, 2025. Available from <https://doi.org/10.1016/j.jclepro.2025.145656>.

17 International Renewable Energy Agency (IRENA) and International Labour Organization (ILO), *Renewable energy and jobs: Annual review 2025* (Abu Dhabi and Geneva, 2026). Available from https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2026/Jan/IRENA_SOC_RE_and_jobs_2026.pdf.

“availability of relevant skills and training”¹⁸. Without active job creation and skill development supported by green industrialisation, the demographic dividend risks becoming a liability instead. Investing in green industries can offer a job-intensive, low-carbon growth pathway for developing countries. For instance, one report found that “\$1 million in green investments generally creates more jobs than the same amount in unsustainable investments in the near term, and in some cases multiple times as many”¹⁹.

Increasing investment in green industries can provide an additional impetus to national industrialisation efforts. Developing countries’ continuing dependence on imported manufactured goods and energy exacerbates their structural risks, including that of premature deindustrialisation. Instead, deepening industrialisation improves the necessary absorptive capacity for new green technologies, as without such capacity in place, developing countries would not be able to effectively implement just transition policies. A strong industrial base also contributes to increasing rates of innovation, which may play a key role in facilitating a faster, cheaper and more efficient industrialisation process.

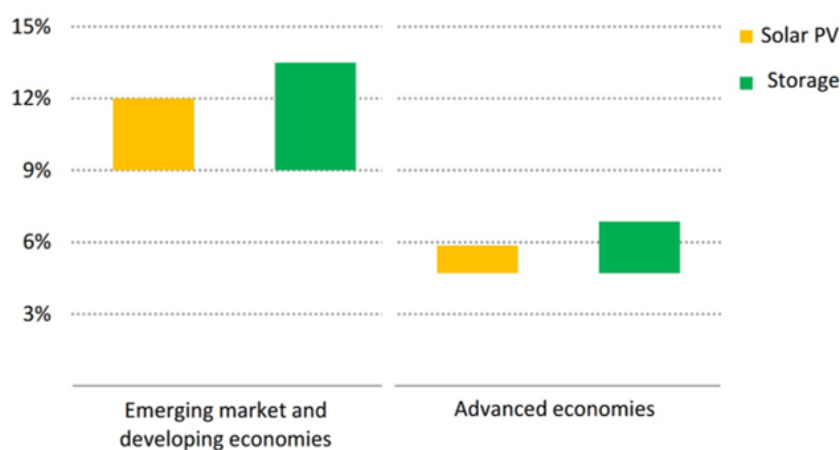
Trade in green goods and services has expanded in the past decades, but remains uneven, with the majority of exports of environmental goods attributed to high-income countries²⁰. Developing countries require effective policies to leverage their trade in green environmentally friendly goods and services, while seeking to integrate into the value chains, adding greater value locally and reducing GHG emissions²¹. For instance, by developing national capacities to manufacture solar panels and wind turbines, countries could create jobs, deploy them for local needs and export them for furthering renewable energy generation in other countries²², thereby contributing to climate action. Policies on climate action, trade, and decent jobs creation thus converge towards the common goal of promoting green industrialisation in developing countries.

2.2. Green industrialisation challenges

There are considerable and persistent challenges facing most developing countries when it comes to fostering domestic green industries.

First is access to finance. Cheap, long-term financing for investing in green industrial development in most developing countries is scarce. The largest share of capital for green industrial projects is flowing to advanced economies and a handful of developing nations, which shows that it is difficult for the rest to access capital at reasonable costs. Attracting investment in green industrial projects remains challenging for developing nations which face a high cost of capital (see Figure 2 for an example), adverse risk perceptions, weak project pipelines, and regulatory and institutional gaps.

Figure 2 – Cost of capital ranges for solar photovoltaics (PV) and storage projects taking final investment decisions in 2022



IEA. CC BY 4.0.

Source: IEA²³

18 ILO, *Skills for a greener future: a global view*, 2019. Available from <https://www.ilo.org/publications/skills-greener-future-global-view>.

19 J. Jaeger et al., *The Green Jobs Advantage: How Climate-friendly Investments Are Better Job Creators*, World Resources Institute (WRI), International Trade Union Confederation and New Climate Economy, October 2021. Available from <https://doi.org/10.46830/wriwp.20.00142>.

20 World Trade Organization (WTO), “Leveraging Trade in Environmental Goods and Services to Tackle Climate Change”, Policy Brief, 2022. Available from https://www.wto.org/english/tratop_e/envir_e/policy_brief_environmental_goods_e.pdf.

21 Vahini Naidu, “Promoting a Symbiotic Relationship Between Trade Policy and Climate Action”, SouthViews No. 300 (Geneva, South Centre, 21 November 2025). Available from <https://www.southcentre.int/southviews-no-300-21-november-2025/>.

22 REN21, *Renewables 2024 - Global Status Report - Economic and Social Value Creation*, p. 27. Available from https://www.ren21.net/wp-content/uploads/2019/05/gsr2024_ESVC_Report.pdf.

23 International Energy Agency (IEA), *Reducing the Cost of Capital* (Paris, 2024). Available from <https://www.iea.org/reports/reducing-the-cost-of-capital>. Licence: CC BY 4.0.

Second, access to green technologies is limited. Many technologies used for green industrial development are covered with intellectual property (IP) protections which makes them difficult to access and deploy²⁴. This includes elements such as the technical know-how, standards, access to data and knowledge ecosystems that determine whether countries can build, deploy, and maintain clean energy and green industrial systems. African countries have thus called for increasing “access to and transfer of environmentally sound technologies, including technologies that consist of processes and innovation methods to support Africa’s green industrialisation and transition”²⁵. Developing countries have also promoted initiatives at the World Trade Organization (WTO) for enabling the transfer of relevant and advanced technologies, particularly Environmentally Sound Technologies (ESTs), to bridge prevailing technological gaps²⁶.

However, access alone is insufficient. Prof. Nayyar has noted “instances where import of technologies was followed by stagnation rather than adaptation, diffusion, and innovation at home (...) where indigenous technological development did not lead to widespread diffusion let alone up-gradation”²⁷. Countries need to have the domestic capacities to deploy and absorb imported technologies and eventually develop indigenous technologies to substitute them. In many emerging economies, the ancillary industrial ecosystems required for this upgrading are often fragmented and underdeveloped²⁸. Addressing this requires wide ranging efforts for start-up and scale-up of industrial firms, increasing predictability of demand, and fostering national institutional mechanisms that support an economy-wide structural transformation.

Finally, countries will also have to deal with their existing policy space constraints. Current trade rules have long constrained developing countries’ ability to implement industrial policies in various sectors, not least agriculture and industrial development. Efforts to require value addition to raw materials at source have led to disputes at the WTO²⁹, or claims under investor-State dispute settlement (ISDS) mechanisms³⁰. The imperatives of green industrialisation outlined above require countries to effectively use their regulatory powers for achieving their policy goals. Advanced economies are currently exploiting their policy space to promote national industrial policies, with a report highlighting that “high-income countries implement about five times as many industrial policies, on average, as low- to middle-income economies”³¹ (see Figure 3). Complementary action at the multilateral level that preserves their right to regulate in the public interest to advance green industrialisation must be advanced in parallel.

Effective green industrialisation thus requires increasing access to green technologies, goods and services, complemented by expanding access to markets and low-cost credit lines, and policy space to implement industrial policies. Addressing these imperatives and overcoming these constraints require intensifying collaboration among developing countries, including through South-South and Triangular cooperation, to make it responsive to their priorities, and designed to deliver tangible outcomes. The private sector, civil society, academia and other stakeholders have an important role in this context as they bring in important elements and practical experiences which governments alone may not have³². Global South institutions can play an important role for facilitating such cooperation as they bring together different stakeholders, provide financial and technical resources, and support on ground implementation of green industrial projects.

The following section examines three such mechanisms: a regional initiative anchored in Africa’s continental institutions; a sectoral alliance focused on solar energy development; and a cross-domain forum addressing policies at the intersection of trade and climate. Together, they illustrate different models of how developing countries can collaboratively overcome barriers and take ownership of the global green industrialisation agenda.

24 See: Esteves *et al.*, “Intellectual Property Regimes and Green Industrialisation: Discussion Paper”, Equal International. Available from <https://www.equalinternational.org/pathways-to-green-technologies>.

25 The African Leaders Nairobi Declaration on Climate Change and Call to Action (Nairobi Declaration), adopted 6 September 2023. Available from <https://au.int/en/decisions/african-leaders-nairobi-declaration-climate-change-and-call-action-preamble>.

26 See: World Trade Organization, Draft Ministerial Declaration on Enabling the Transfer of Relevant and Advanced Technology for Trade – Communication from India, WT/MIN(26)/W/2, WT/WGTTT/W/42/Rev.1, WT/COMTD/W/305/Rev.1, IP/C/W/729/Rev.1, 2 March 2026. Available from <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=Q%3A%2FIP%2FC%2FW729R1.pdf&Open=True>.

27 Deepak Nayyar, *Catch Up: Developing Countries in the World Economy* (Oxford University Press, 2013), p. 147.

28 See: UNCTAD, *Technology and Innovation Report 2023 - Opening Green Windows: Technological Opportunities for a Low-Carbon World* (Geneva, 2023). Available from <https://unctad.org/publication/technology-and-innovation-report-2023>.

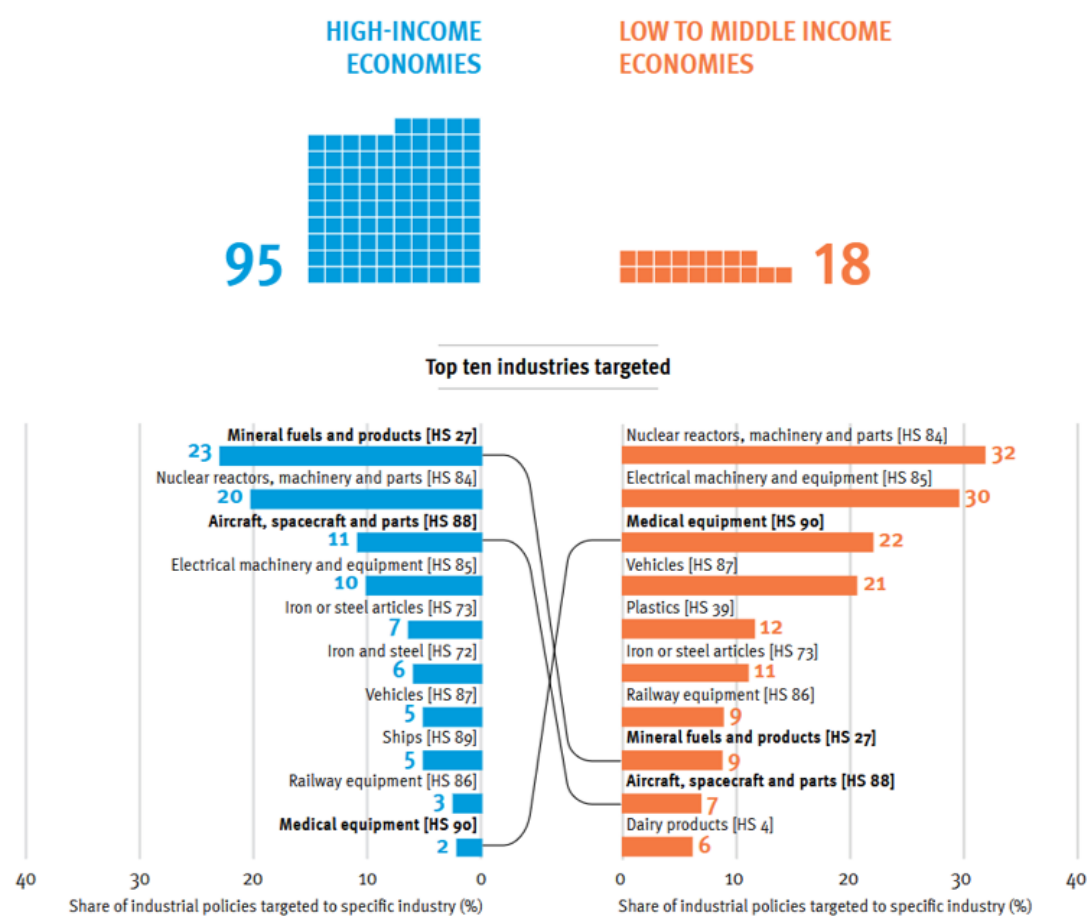
29 For instance, see: WTO Dispute DS592: Indonesia – Measures Relating to Raw Materials. Available from https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds592_e.htm.

30 For instance, see: *Nusa Tenggara Partnership B.V. and PT Newmont Nusa Tenggara v. Republic of Indonesia* (ICSID Case No. ARB/14/15).

31 R. Juhász, N. Lane, E. Oehlsen and V. C. Pérez, “Global Industrial Policy: Measurement and Results”, Insights On Industrial Development (IID) Policy Brief 1, United Nations Industrial Development Organization (UNIDO), 2023. Available from <https://www.unido.org/sites/default/files/unido-publications/2023-04/IID%20Policy%20Brief%201%20-%20Global%20Industrial%20Policy%20-%20Measurement%20and%20Results%20-%20FINAL%2029-03.pdf>.

32 See: Danish, “Seven Decades After Bandung: The evolving landscape for South-South and Triangular Cooperation”, South Centre Research Paper 225, 12 September 2025. Available from <https://www.southcentre.int/research-paper-225-12-september-2025/>.

Figure 3 – Average number of industrial policies implemented between 2009 and 2019



Source: UNIDO (2023)³³

3. Using international cooperation for accelerating green industrialisation

Most Global South nations are starting from a low base for their green industries, but have used international cooperation to expand rapidly. For instance, several large developing countries, particularly among the BRICS members, have developed significant green industrial capabilities³⁴. These have been shared through South-South Cooperation (SSC) modalities with other developing countries to address their own green industrial and climate needs³⁵. These initiatives are also accompanied by capacity-building that enables the recipient countries to maintain and build their own homegrown solutions rather than leaving them dependent on external expertise and resources. The sharing of knowledge, experiences, resources and good practices among developing countries could promote collective and more coordinated action for green industrialisation.

Recognising the potential of leveraging institutionalised international cooperation to achieve their climate goals and the SDGs, developing countries have developed innovative mechanisms which bring together varied stakeholders for promoting green industrialisation. These mechanisms, established both as new institutions and embedded within existing institutions, are described below.

3.1. Africa Green Industrialisation Initiative (AGII)

The Africa Green Industrialisation Initiative emerged out of the first Africa Climate Summit held in Nairobi, Kenya in September 2023. The Summit's outcome document, the 'African Leaders Nairobi Declaration on Climate Change'³⁶, emphasised the need to "advance green industrialisation across the Continent by prioritizing energy-intensive industries to trigger a virtuous cycle of renewable energy deployment and economic activity, with a special emphasis on adding value to Africa's natural endowments". The AGII was formally

³³ Juhász, Lane, Oehlsen and Pérez, "Global Industrial Policy: Measurement and Results", p. 4.

³⁴ Transnational Institute, "Green Industrial Policy and the Global South - Challenges and Opportunities in the BRICS Countries", Workshop report, 1 May 2026. Available from <https://www.tni.org/en/article/green-industrial-policy-and-the-global-south-challenges-and-opportunities-in-the-brics>.

³⁵ Báo Tin Tức, "Vietnam and China promote cooperation in green industries, aiming for sustainable development", *Vietnam.vn*, 18 May 2026. Available from <https://www.vietnam.vn/en/viet-nam-trung-quoc-thuc-day-hop-tac-cong-nghiep-xanh-huong-toi-phat-trien-ben-vung>.

³⁶ Nairobi Declaration.

launched at the 18th Session of the Conference of the Parties of the United Nations Framework Convention on Climate Change (COP 28) in December 2023³⁷, with the aim of advancing pan-African structural transformation through green industrialisation.

A persistent challenge for African countries has been the absence of robust pipelines for bankable green industrialisation projects. The AGII targets this gap by providing support for project preparation, mobilising finance, and strengthening stakeholder coordination to ensure successful project operationalisation. By bringing together different actors, including development finance institutions and commercial banks, on a common platform, the AGII aims at promoting market uptake of projects on green industrialisation and beneficiation of critical minerals, among others.

The AGII also focuses on the sectors and industries where African countries have financially viable 'climate competitiveness'³⁸ and can tap into their natural resource base. Sectors that have been identified for early support by the AGII include renewable energy generation; green hydrogen production (including green ammonia for fertiliser); sustainable synthetic fuels; and value addition to raw minerals.

In 2024, the Terms of Reference for the AGII and its Action Plan for Implementation were adopted, emphasising its focus on identifying and developing green industrial clusters; mobilizing investment; promoting cross-cluster knowledge exchange; and increasing alignment with regional, continental, and global programmes.

At the 38th African Union Summit in February 2025, African leaders took note of the launch of the AGII, and requested the African Continental Free Trade Area (AfCFTA) Secretariat to support its implementation³⁹. At the second Africa Climate Summit in September 2025, the Cooperation Framework to operationalise the AGII was signed. The AGII further secured investment commitments of \$100 billion from African financial institutions, including Afreximbank, Ecobank, Stanbic Bank Kenya, among others, which would be directed towards green industrial development and infrastructure, as well as green trade on the African continent⁴⁰.

The AGII has set several priority actions, which includes mobilising capital at scale; establishing renewables-driven industrial clusters to anchor new green value chains; fostering cross-border alignment to boost trade flows under the AfCFTA and cut barriers to industrial integration; and promoting knowledge transfer and skills development for Africa's workforce⁴¹. Under the AGII, a US\$ 313 million 'flagship project' for the construction of two electricity transmission lines in Kenya has been announced with the aim to "unlock green industrialization via improved access to renewable electricity. (...) It is expected to facilitate green industrialization by enabling the evacuation and distribution of renewable energy across Kenya's grid, especially from geothermal and wind sources. It will also create jobs locally, and skills development through capacity building"⁴².

This effort is being complemented by the Accelerated Partnership for Renewables in Africa (APRA)⁴³, which is an international alliance led by African countries aimed at accelerating their just transition and promoting green industrialisation. The APRA focuses on renewables-based economic growth, industrial development, job creation, and improved lives and livelihoods. Also launched at COP 28, the APRA targets reaching 37 GW in renewable energy capacity by 2030, and thereby aims to demonstrate the impact of accelerated renewables-based transitions, prioritising short to medium-term actions aligned with NDCs⁴⁴.

The AGII is an ambitious initiative at the continent level for leveraging the abundant natural advantages of African countries in green sectors to propel their industrialisation efforts. By fostering cooperation among African stakeholders, it seeks to reduce dependency on external actors for access to finance and technology, targets the building of bankable projects and pushes for industrial development that is aligned with climate action. While African institutions have been tapped to fill the financial gaps, persistent dependence on external actors for access to green technologies also needs to be addressed.

By collectively identifying their competitive advantages in the global green economy and setting up the AGII to increase and capture the industrial value from their resources, African countries are demonstrating how regional integration and cooperation can be used to move away from dependence on exports of raw materials towards building green industries and sustainable economic growth.

37 Tony Malesi, "COP28: Can Africa Green Industrialization Initiative be the Continent's Holy Grail?", Down To Earth, 3 December 2023. Available from <https://www.downtoearth.org.in/africa/cop28-can-africa-green-industrialisation-initiative-be-the-continent-s-holy-grail--93142>.

38 Office of the President of the Republic of Kenya, "Green Growth is the Answer to Climate Change", 2 December 2023. Available from <https://www.president.go.ke/green-growth-is-the-answer-to-climate-change/>.

39 African Union, 38th Ordinary Session of the Assembly of the Union, 15-16 February 2025, Addis Ababa, Ethiopia, Assembly/AU/Dec.926(XXXVIII), pp. 34-35. Available from https://au.int/sites/default/files/decisions/45112-Assembly_AU_Dec_903_-_941_XXXVIII_E.pdf.

40 Office of the President of the Republic of Kenya, "Africa Secures \$100 Billion Push for Green Industrialisation", 8 September 2025. Available from <https://www.president.go.ke/africa-secures-100-billion-push-for-green-industrialisation/>.

41 Africa50, "Africa Launches Landmark Green Industrialisation Framework With \$100 Billion In New Commitments", 8 September 2025. Available from <https://www.africa50.com/media/news/article/africa-launches-landmark-green-industrialisation-framework-with-100-billion-in-new-commitments/>.

42 *Ibid.*

43 Accelerated Partnership for Renewables in Africa (APRA), About. Available from <https://www.aprafrica.org/About>.

44 IRENA, Accelerated Partnership for Renewables in Africa. Available from <https://www.irena.org/Energy-Transition/Partnerships/APRA>.

3.2. International Solar Alliance (ISA)

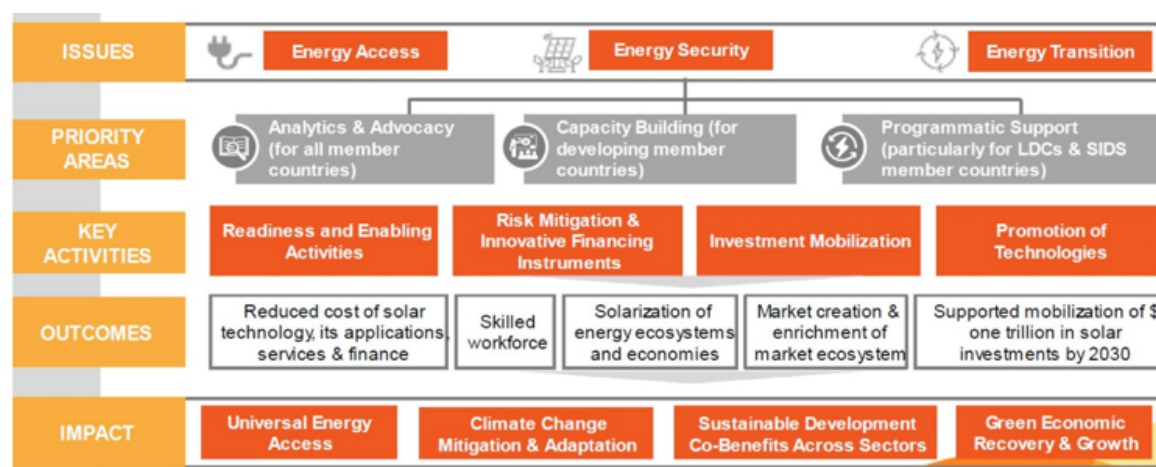
The International Solar Alliance is an intergovernmental organization that was established to accelerate the uptake of solar energy projects globally. It was launched at COP 21 in Paris with a “vision to establish it as a unique international platform that seeks to mobilise resources and channelize efforts for deployment of solar energy systems globally, with a strong focus on developing countries”⁴⁵. The Declaration on the launch of the ISA emphasised the goal of bringing ‘clean, affordable and renewable energy within the reach of all’. It also set the ISA’s mission to mobilise \$1 trillion in investment in the solar industry and to build additional solar capacity of 1000 GW by 2030⁴⁶.

The ISA seeks to address an important gap in global solar energy production and manufacturing, which is disproportionately concentrated in a few countries. The value chains in the solar industry are especially over-concentrated, as over 80 percent of the manufacturing process is located in just one country⁴⁷. Analysis also suggests that the top 10 markets globally account for more than 95 per cent of installed solar capacity⁴⁸. These are indicators of the significant barrier to spreading solar energy manufacturing and installation in smaller markets, with such overconcentration leading to limited industrialisation opportunities for Global South countries in this sector.

Furthermore, few developing countries have previous experience of executing large solar power projects, which reinforces their dependence on foreign expertise and imported equipment. The ISA was therefore set up on the initiative of India and France as an institutionalised cooperation mechanism for promoting the solar industry in ISA member countries. Since its inception, the ISA has contributed to more than triple the solar energy capacity in its member countries from 63.8 GW in 2015 to 196.7 GW by 2023⁴⁹.

The ISA promotes international cooperation to lower the cost of solar energy and facilitate the massive and needs-based deployment of solar energy through innovative modalities. It supports countries in securing energy access, security and transition (see Figure 4). The ISA’s strategic interventions are particularly aimed at reducing the cost of solar technology and financing, and at facilitating investment into the solar sector⁵⁰.

Figure 4 – ISA Institutional Activities



Source: A. Mathur (2022)

Under its Framework Agreement, the ISA’s guiding principles recognise the value of coordinated actions aimed at better harmonizing and aggregating demand for, *inter alia*, finance, access to solar technologies, innovation, research and development, and capacity building⁵¹.

The ISA has a collaborative approach, working with governments and local institutions to create regulatory structures, build technical capacity, and train human resources. It has established several Solar Technology and Applications Resource (STAR) centres in

45 Ajay Mathur, “International Solar Alliance’s journey towards 1000”, *Solar Compass*, Volume 1, 2022. Available from <https://doi.org/10.1016/j.solcom.2022.100015>.

46 ISA Declaration, 2015.

47 Amitabh Sinha, “Explained: Taking stock of the International Solar Alliance”, *Indian Express*, 8 November 2024. Available from <https://indianexpress.com/article/explained/explained-climate/explained-taking-stock-of-the-international-solar-alliance-9658928/>.

48 Ibid.

49 ISA, “Our Impact”. Available from <https://isa.int/Our-Impact>.

50 Letter from a group of countries to the UN Secretary-General, 29 July 2021, Annex 1. Available from <https://docs.un.org/en/A/76/192>.

51 Framework Agreement on the establishment of the International Solar Alliance (ISA), Marrakesh, 15 November 2016. Available from <https://treaties.un.org/doc/Publication/UNTS/No%20Volume/54949/Part/I-54949-08000002804ed824.pdf>.

partnership with local institutions, for fostering local expertise and capacity building in the solar industry.

The ISA's efforts also address identified needs in developing countries. For instance, the ISA provided assistance to Comoros, Fiji, Madagascar, and Seychelles with financial support from India. The countries identified energy issues related to the perishability of agriculture products, unreliable electricity supply in health centres, and irrigation purposes in remote areas where grid power supply or solar mini grids are not yet available. Solar projects in these countries under the ISA therefore focus on increasing cold storage, solarization of health care facilities, and solar water pumping systems for enhancing energy access, employment generation, and provisioning of reliable and quality power supply⁵².

The ISA has thus successfully leveraged SSC to create a platform that supports developing countries by pooling demand, building local capacities, and accelerating the deployment of solar energy. Its model can be replicated for boosting cooperation in other green industrial sectors and delivering for countries that are unable to attract private investment on commercial terms alone. While it has already shown viability in deployment, the ISA should play a stronger role in pushing for diversifying manufacturing and value chain participation of developing countries in the global solar industry.

3.3. Integrated Forum on Climate Change and Trade (IFCCT)

The IFCCT was launched at COP 30 in Belém in November 2025, under the Brazilian COP Presidency⁵³. The Forum's genesis traces back to the increasing use of unilateral national policies to address climate change which have cross-domain implications such as on international trade and foreign investment flows. This is particularly visible in the recent uptake of 'climate-related unilateral trade measures' by developed countries, like the European Union (EU)'s Carbon Border Adjustment Mechanism (CBAM). These measures are a manifestation of trade protectionism in the guise of climate action, as they directly impact the market competitiveness of developing countries' exports in the European common market⁵⁴.

With unilateral trade measures like CBAM adversely affecting developing countries, violating the objectives and principles of the UNFCCC, especially that of equity and common but differentiated responsibilities and respective capabilities (CBDR-RC), and seriously undermining multilateral cooperation and the ability of developing countries to combat climate change, a need was felt to address the issue within the framework of the COP. While the issue was integrated into the Just Transition Work Programme at COP 30, recognising the cross-domain implications and strident positions on the issue, the Brazilian Presidency also saw the need to create a new, informal space that would facilitate dialogue on these measures among the different stakeholders.

At the 62nd sessions of the UNFCCC Subsidiary Bodies in 2025, developing countries had expressed their view that such unilateral measures were impediments to their international trade, economic growth and development. They strongly opposed the use of such measures as they constitute disguised protectionism, and hamper the pursuit of just transitions. However, developed countries disputed such characterisation. Some even suggested that these measures should be considered solely as a trade issue, the assessment of which would require expertise on trade restrictions, thereby making the WTO the appropriate forum⁵⁵. This was eventually addressed at COP 30, with its *Global Mutirao* outcome reaffirming that "...measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade"⁵⁶. Further work has been planned to address this issue under the JTWP until 2028. In addition, while not being a solely trade issue, the EU's CBAM has already been challenged at the WTO for not being compliant with existing multilateral trade rules⁵⁷.

As countries' green industrialisation initiatives gain pace, they require policy space within relevant multilateral frameworks governing trade, climate change, and industrial policies to implement them effectively. The IFCCT is expected to play a key role in fostering dialogue among stakeholders to enable technology transfer, employment generation and increase industrial manufacturing and production capacities for green and sustainable goods in developing countries. This could promote both global trade and climate action by diversifying supply chains, increasing uptake of clean technologies, reducing GHG emissions and curbing dependence on fossil fuels, among others.

The Forum will also foster the development of mutually empowering, progressive solutions on how trade and climate policy can better intersect across different domains, including green industrial development. The IFCCT fills an existing gap by creating an interdisciplinary space for exploratory, solution-oriented dialogue. Its efforts particularly target the areas where economic and climate

52 Press Trust of India, "India, ISA sign agreement for solar projects in four Indo-Pacific countries", *Business Standard*, 27 November 2024. Available from https://www.business-standard.com/external-affairs-defence-security/news/india-isa-sign-agreement-for-solar-projects-in-four-indo-pacific-countries-124112700042_1.html.

53 IFCCT official website. Available from <https://ifcct.org/>.

54 See: Peter Lunenburg and Vahini Naidu, "How the EU's Carbon Border Adjustment Mechanism discriminates against foreign producers", South Centre Policy Brief 124, 5 February 2024. Available from <https://www.southcentre.int/policy-brief-124-5-february-2024/>.

55 See: S. Hui and Radhika Chatterjee, "Fractious climate talks set stage for COP 30 wrangles in Brazil", TWN Bonn Climate News Update No. 9, Third World Network, 30 June 2025. Available from <https://twn.my/title2/climate/info.service/2025/cc250610.htm>.

56 *Global Mutirao*: Uniting humanity in a global mobilization against climate change, FCCC/PA/CMA/2025/L.24, 22 November 2025, para. 56. Available from https://unfccc.int/sites/default/files/resource/cma2025_L24E.pdf.

57 WTO Dispute DS639: *European Union and its Member States – Carbon Border Adjustment Mechanism*. Available from https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds639_e.htm.

objectives intertwine and where practical collaboration may unlock new gains at the international, national, and community level⁵⁸.

The IFCCT is institutionally independent of both the WTO and the UNFCCC, but will support them to identify common ground and build trust and mutual understanding. By bringing together government officials from different domains, such as climate change, trade, industrialisation, intellectual property and others in informal settings, the IFCCT takes a holistic approach that complements and supports cross-cutting work without having to navigate potential mandate and expertise gaps. At IFCCT's inaugural meeting, scheduled to be held in Bonn on 14 June 2026, two initial priority areas of focus will be settled for the Forum, and the implementation roadmap, including work modalities will be discussed⁵⁹.

Other outcomes from COP 30, such as the Belém Declaration on Global Green Industrialisation⁶⁰ complement the work of the IFCCT as it creates a mechanism to align initiatives, track progress, and coordinate priority actions across different domains. Brazil's efforts also position developing countries at the forefront of building green industries and leading the global just transition. By pooling in global expertise on the intersections of trade and climate change, the IFCCT provides a *via media* for dialogue that builds trust and enables collaboration for mutually beneficial outcomes for all countries.

The IFCCT is an important and necessary innovative mechanism for global governance as it positions mutual dialogue, international cooperation and sharing of views among stakeholders for resolving mutual concerns. By enabling political dialogue on design and development impacts, its deliberations and outcomes could play an important role in managing the trade-climate tensions for developing countries. Furthermore, by feeding back into connected multilateral processes on trade and climate, relying on best available scientific assessment and playing a bridging role, it can shape how policy measures with cross-domain impacts are designed and implemented so that they do not constitute protectionism or a disguised restriction on international trade.

4. Final Remarks and Recommendations

There is now a clear understanding that long-term human survival depends on rapidly lowering the GHG emissions being generated due to anthropogenic factors. This requires a global, collaborative effort for shifting societies, economies and industries onto climate-friendly pathways. Green industrialisation is a key element for addressing the multidimensional impacts of climate change on people and economies, as their build out will generate employment, trade and economic growth.

For developing countries, the focus must remain on green industrial projects that are aligned with their climate ambitions and accelerate economic growth. The following policy recommendations can be used to enhance their initiatives:

- Harnessing international cooperation offers countries a way to support just transition by adopting green industrial technologies and practices in accordance with their national strategic considerations. **Leveraging SSC for this effort also builds the collective agency of Global South nations**, which in turn enables them to better engage with the multilateral system. For it to succeed, cooperation in green industrialisation should be linked to building human resources capacities through skill development and vocational training that is tailored to the demands of green industries.
- The lessons learned from the different institutional mechanisms show that **international cooperation led by and for developing countries can produce more relevant and actionable outcomes**. The different mechanisms highlighted show how different elements of green industrialisation can be effectively addressed, for instance with the AGII helping mobilise finance, the ISA supporting local capacity-building, and the IFCCT in bridging policy and institutional gaps to resolve tensions between different countries and stakeholders.
- There is no dearth of project ideas for accelerating green industrialisation, but the gap for most countries lies in implementation, from securing financing at reasonable cost, navigating regulatory gaps, building resilient supply chains, skilling workforces, and maintaining political commitment till full project operationalisation. **Comprehensive support for project preparation** and development of robust bankable project pipelines is important. International cooperation should be used for addressing the different stages for effective implementation.
- **Access to and advancements in green technologies** must be democratised and not concentrated in the hands of a few powerful countries and few firms. Scaling up South-South technology sharing and capacity building can foster resilience and reduce external dependencies. At the same time, preserving policy space remains equally important, and advancing multilateral efforts for this, such as through a **moratorium on WTO disputes** against green industrial policies in developing and least developed countries, should be advanced.

⁵⁸ WTO Committee on Trade and Environment (CTE), Update on the Integrated Forum on Climate Change and Trade (IFCCT), Update by Brazil and Australia, RD/CTE/311, 26 February 2026.

⁵⁹ IFCCT, "The IFCCT Roadmap: From Concept to Solution Building", 25 March 2026. Available from <https://ifcct.org/>.

⁶⁰ Edson Carvalho and Bianca Leão, "COP30 launches Belém Declaration and strengthens the global green industrialization agenda", COP 30, 14 November 2025. Available from <https://cop30.br/en/news-about-cop30/cop30-launches-belem-declaration-and-strengthens-the-global-green-industrialization-agenda>.

- Finally, policymakers and stakeholders should consider that the measure of success in this effort will be whether **developing countries are able to capture value, build capabilities, utilise their competitive advantages and exercise sovereignty over their green industrial futures** for ensuring a just transition and sustainable development for all.

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