

ADVANCING EQUITABLE GREEN INDUSTRIAL PARTNERSHIP STRATEGIES TO POWER RESILIENCE IN CLIMATE VULNERABLE STATES

*A Bold New Era of South-South Renewable Trade Cooperation
is Feasible and Desirable. Translating Shared Leadership
into Shared Prosperity is Key.*

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CONTEXT

The Climate Vulnerable Forum and V20 Finance Ministers (CVF-V20) is a group of 74 climate-vulnerable developing economies with the potential to leapfrog into the global transition towards climate-resilient low-carbon development.

Global temperatures are rushing past 1.5°C with immediate and long-term implications for climate vulnerable countries. Extreme events will become more frequent and severe. The 1.5 Centigrade breach will force a reassessment of the change that is arriving, and that which is yet to come. It underscores the urgent need to improve the affordability of power, which can be realized through renewable energy, grid-transportation-logistics modernization, and a rapid scale up of adaptation, pre-arranged financing, health system resilience, water security and food sovereignty. It is a mistake to choose one set of actions over another: To realize resilience, modernization of the economy is vital. To modernize the economy, achieving resilience is essential.

Despite contributing only 7.3% of global emissions, CVF-V20 nations bear the brunt of climate change's devastating impacts. Many of these countries are situated in regions prone to extreme weather events, such as typhoons, flooding, heat waves, and droughts. The geographic risk is amplified by socio-economic factors such as:

- **Disproportionate Impacts:** Climate-vulnerable nations bear the brunt of climate change, with impacts far outweighing their contributions to global emissions.
- **Economic Strain/Resource Gap:** High cost of capital, unsustainable debt burdens, and limited fiscal space make it nearly impossible to invest in resilience or recovery. Notably, there is both ineligibility and differentiation for some larger developing countries with fiscal space to direct resources toward their own vulnerable populations, yet instead prioritize discretionary ambitions. This highlights a governance and equity challenge, not a resource gap.
- **Technology Access Gap:** Without equitable access to technologies, adaptation and economic transformation remain out of reach.
- **Interrupted Recovery:** Prolonged recovery times are a direct result of repeated climate disasters, creating a cycle of crisis rather than progress.
- **Systemic Barrier:** The current state of access and financing perpetuates inequality, blocking pathways to economic transformation and climate prosperity.
- **Scientific:** Lack of capacity and persistent data gaps on hazards, exposures, and vulnerability.



The Noor III Concentrated Solar Power (CSP) tower, Ouarzazate, Morocco. Uses molten salt storage to supply electricity after sunset, showcasing utility-scale renewable energy in arid, climate-vulnerable regions. (ArcelorMittal, 2018. Source: Noor III – ArcelorMittal Europe News)

The CVF-V20 are developing Climate Prosperity Plans that support the implementation of development plans, sector plans, Nationally Determined Contributions, and Long-Term Strategies, with the explicit aim of mobilizing resources and fostering collective action by encouraging sharing of best practices for implementation and collaborative innovation alongside traditional funding channels. CPPs support climate-vulnerable nations in transforming climate risks into bankable opportunities. More than just a fully costed roadmap for low-carbon and climate-resilient development, a CPP is a multi-phase national investment, technology access and knowledge transfer strategy that focuses on the convergence of development, climate, and nature.

At the heart of implementation is the private sector and the effort to crowd in private finance by building credible, investable pipelines, supported by guarantees and structured de-risking. This includes improving the regulatory environment and enabling blended finance approaches that make participation viable for commercial actors. To unlock infrastructure and development-positive climate investments at scale, special purpose vehicles (SPVs) are needed to focus on project economics and reduce exposure of the public balance sheet.

At the same time, developing domestic capital markets is essential; not just to access long-term local currency financing, but to diversify capital and enable domestic players to be part of growth. Partnership will be based on trust, fit, and shared ambition to drive collaboration. It also means investing in regional value chains and trade strategies while capitalizing on local comparative advantages. Underlying all of this is the need for better data, risk assessment, and adaptation of financial tools. Shortfalls in the Global Financial Safety Net, foreign exchange volatility, perceived risks, limited guarantees, and credit rating methodologies all drive up the cost of capital. Developing new asset classes, ensuring that the Global Emerging Markets Risk Database is made public, improving hedging options, expanding the Global Financial Safety Net, and integrating resilience into debt sustainability analysis can bring down the real and perceived cost of investment.

THE OPPORTUNITY: “CHINA PLUS ONE”

The ultimate objective is not merely to attract more money; it is to make resources work. This means building institutions, enabling markets, reforming rules, and delivering results. It means aligning demographic opportunities aimed at young populations, technology, and climate action to shape a future that is both prosperous and resilient.

The greening of the Belt and Road Initiative presents an opportunity to leverage China’s manufacturing capacity and its development strategies to advance the energy security and energy affordability in climate-vulnerable developing countries. South-South Cooperation pushes to the forefront the need to accelerate the China Plus One Strategy, a supply chain diversification policy to expand industry with current trade partners and enable effective technology transfer through the private sector. For V20 members, particularly those with high debt servicing costs and limited access to concessional capital, defined as cost of funds below a country’s medium-term GDP growth rate, this presents an opportunity to crowd in non-debt creating investments through joint ventures, special purpose vehicles, among others, ultimately grounded in and driven by South-South cooperation.



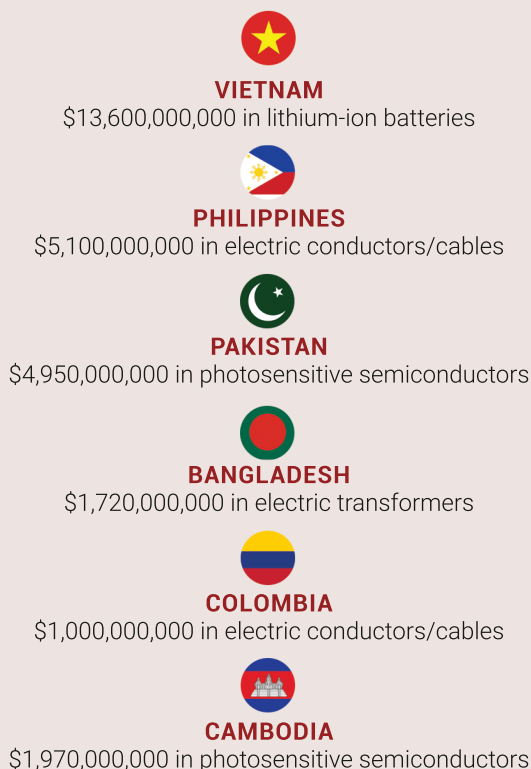
The Gansu Wind Farm Project, Jiuquan, China. A mega-cluster with over 10 GW of installed wind capacity, showcasing renewable grid integration at scale. (Renovables Verdes, 2022. Source: Largest Wind Farms in the World)

CURRENT TRADE CONTEXT: TRADE IS GROWING BUT UNEVEN AND CONCENTRATED

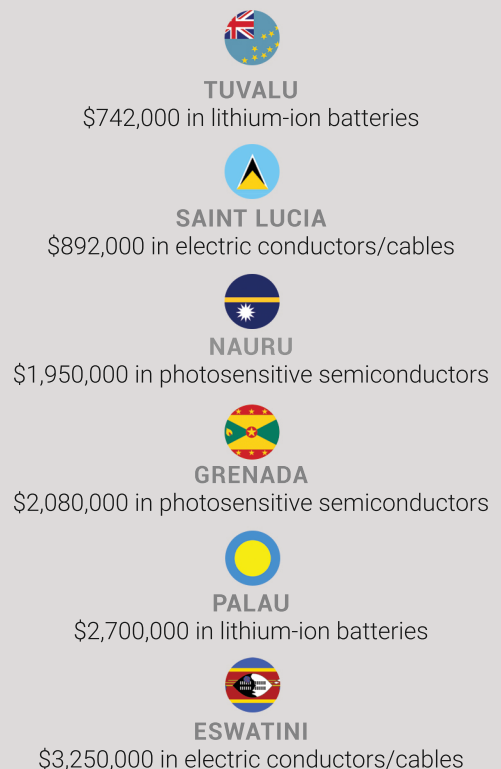
The CVF-V20 member country's cumulative trade volume with China would make the group within its top 5 largest trade partner. In other words, trade with the CVF-V20 member countries is equivalent to South Korea, China's fourth largest trade partner. From 2015 to 2023, renewable energy products accounted for 5.38% of total trade between China and the 74 CVF-V20 economies. This tracks with global trends where 90.3% of the record-breaking levels of new installed renewable power capacity of 585 gigawatts (GW) added in 2024 were in the G20 countries. This disparity highlights that despite global progress, geographic disparities exist, amplified by socio-economic factors mentioned above.

Below is a snapshot of China's highest and lowest renewable energy trading partners from 2015 to 2023.

HIGHEST RENEWABLE ENERGY TRADING PARTNERS (2015–2023):



LOWEST RENEWABLE ENERGY TRADING PARTNERS (2015–2023):



Sub-Saharan Africa alone represents at least half of the CVF-V20 membership. Yet even when combined with Latin America, the Caribbean, and the Pacific, these regions together account for less than a quarter of China's renewable energy trade with CVF-V20 countries. In contrast, South Asia and Southeast Asia dominate this trade, though their engagement with China on renewable energy still has substantial room to expand, highlighting both regional imbalances and, more importantly, the untapped potential for growth across the entire CVF-V20 as well as greater cooperative ties with China in the long term.

RENEWABLE ENERGY TRADE FOR ECONOMIC RECOVERY: EQUITABLE GREEN INDUSTRIAL COOPERATION

Over the past 15 years, China has emerged as a global leader in green industrial development, dominating key segments of the global supply chain in solar, wind, and battery storage. Under the Green Belt and Road Initiative (GBRI), China is expanding its overseas green footprint, driven by domestic market saturation and supported by competitive business models. The integrated EPC (Engineering, Procurement, and Construction) plus financing approach is backed by institutions like China Exim Bank and Sinosure and allows Chinese firms to offer complete infrastructure packages, unlike other western partners that operate within fragmented green value chains. However, concerns over environmental and social safeguards, transparency, and debt sustainability have led many developing countries to prefer investment over loans, and are prompting calls for greater accountability and shared ownership.

To transform such dynamics into a more inclusive, self-propelled, and sustainable partnership, the CVF-V20 and China engagement process must likewise be inclusive, and it must be both data-driven and forward-looking. The following policy pathways can guide Equitable Green Industrial Cooperation:

1. Identify and Match Technology Needs with Supply and Value Chains.

A starting point is to map the analytics and evidence base to: (i) support an export-oriented focus to boost trade competitiveness and unlock co-benefits between both CVF-V20 and China through import substitution by competitive green exports; (ii) co-design robust policy frameworks to attract both foreign and domestic investment; and (iii) map supply and value chain expansion, enabling the implementation of green industrial policy and access to targeted investment and financing. This can include solar, wind, storage, transition and distribution, bi-directional smart meters, heat pumps, electric business, electric vehicles, e-bikes, water treatment, water desalinization, nature-based solutions, among others. The matching and partnerships can be supported by Green Economic Zones (GEZs), which are ringfenced areas adopting the

aims of the Three Zeroes - net zero carbon, zero poverty, and zero food insecurity. This aims to transform industrial growth by leveraging local resources for high-value production, reducing import dependency, and aligning with the Sustainable Development Goals. By fostering net-zero, resource-efficient, and export-oriented industries, GEZs can enhance domestic manufacturing capacity, attract large-scale private investment, and generate green jobs. Positioned as hubs of sustainable and climate-resilient growth, GEZs can play a catalytic role in CVF-V20 countries' transition to a low-carbon and climate-resilient economy while also enabling peripheral development for national prosperity.

- 2. Expand China's Zero-Tariff Policy Across all CVF-V20 Regions.** China's zero-tariff policy for 53 African countries can be expanded to include CVF-V20 members in Latin America, the Pacific, Caribbean, West Asia, South Asia and Southeast Asia. Such measures can be linked to technical support and technology transfer for customs enforcement, streamlined procedures for LDCs and small island developing states (SIDS) to improve participation, and transparent monitoring to ensure tariff exemptions translate into actual trade flows and green jobs.
- 3. Pool Demand and Coordinate Procurement.** Smaller sized CVF-V20 economies often struggle to meet order sizes that achieve economies of scale benefits for green technologies. A pooled procurement platform across CVF-V20 countries could enable bulk purchases of solar panels, inverters, and grid components facilitating lower unit prices and reduced logistics costs. These collective arrangements would benefit from concessional support or blended finance from China's institutions.
- 4. Technology and Skills Transfers.** China's evolving approach, including growing support for vocational training (e.g., Luban Workshops¹) and youth empowerment under Forum on China-Africa Cooperation (FOCAC), and a shift toward joint ventures and special purpose vehicles, offers new opportunities for cooperation. At the same time, alignment with principles outlined in the Compromiso de Sevilla, such as transparency, ownership, and solidarity, can help reimagine South-South cooperation as a vehicle for shared prosperity rather than dependency.

¹Luban Workshops are China-supported vocational training centers established abroad to build technical and professional skills, particularly in developing countries. Since 2016, China has launched 17 Luban Workshops across Africa and 10 in Asia and Europe, as part of its foreign aid strategy under the Ministry of Commerce. Increasingly, these workshops are being aligned with green development priorities, helping to train technicians for renewable energy installation, solar panel maintenance, battery assembly, and other sectors critical to the green transition.



Solar PV training with young women, Northwest Nigeria. Investing in youth and renewable skills in climate-vulnerable states illustrates how demographic potential, technology, and climate action can converge to drive green industrialization and position the CVF-V20 as leaders of an equitable global energy transition. (UNDP Nigeria, 2024. Source: Empowering Youth with Green Skills While Promoting Clean Energy in Northwest Nigeria)

CONCLUSION

Green industrialization presents an opportunity to harness the potential of young populations, leverage technological innovations, and drive climate action to shape a future that is both prosperous and resilient. By shaping an inclusive, well-governed renewable trade with China, anchored in local needs, equitable terms, and regional coordination, the CVF-V20 can mobilize vital technologies and investments while advancing their own climate prosperity agendas. Rather than being passive recipients, climate-vulnerable economies can position themselves as proactive architects of a new and equitable green economy.