



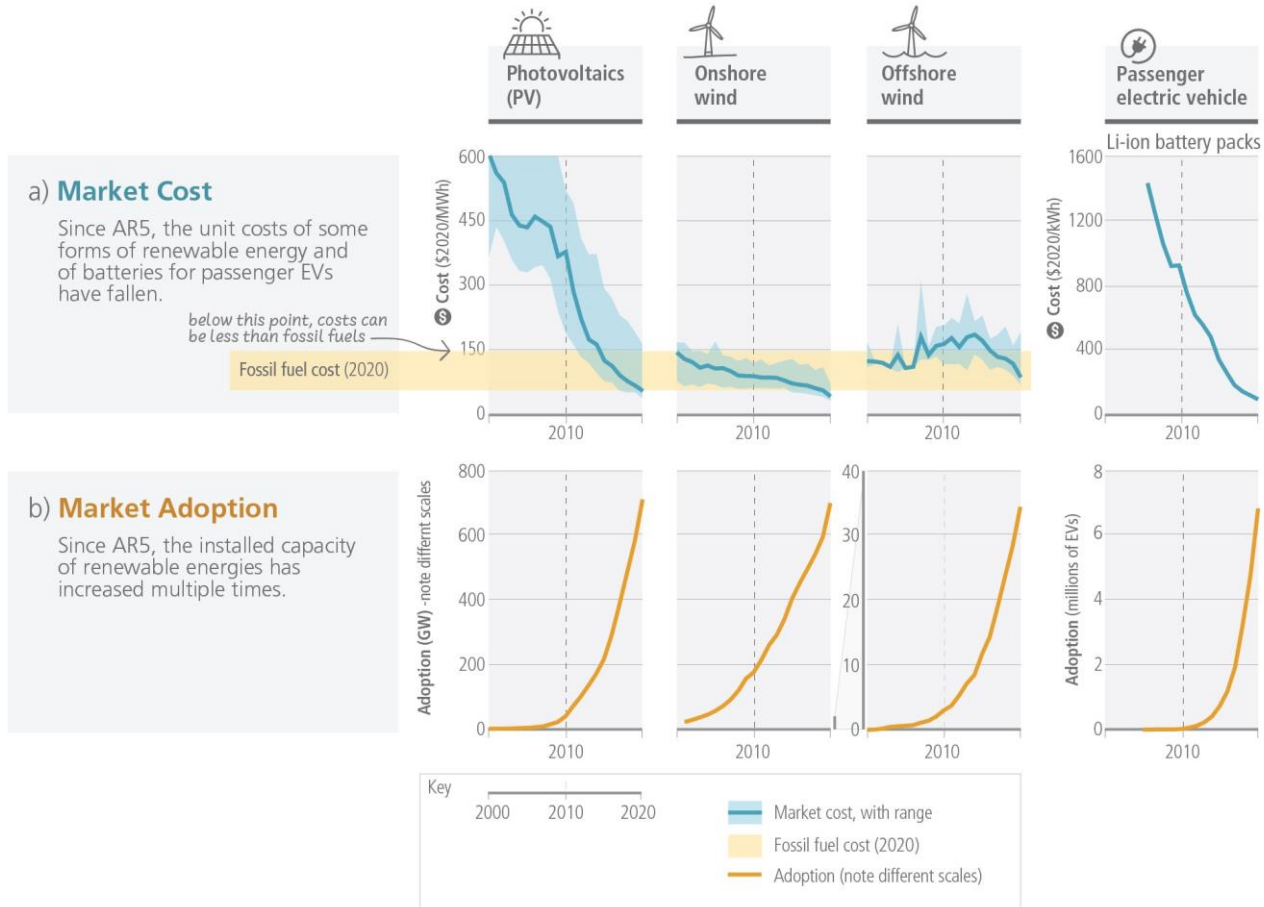
Building the economies of the future in Latin America

Green Transition in Latin America

Harnessing regional integration and industrial policy to build the economies of
the future

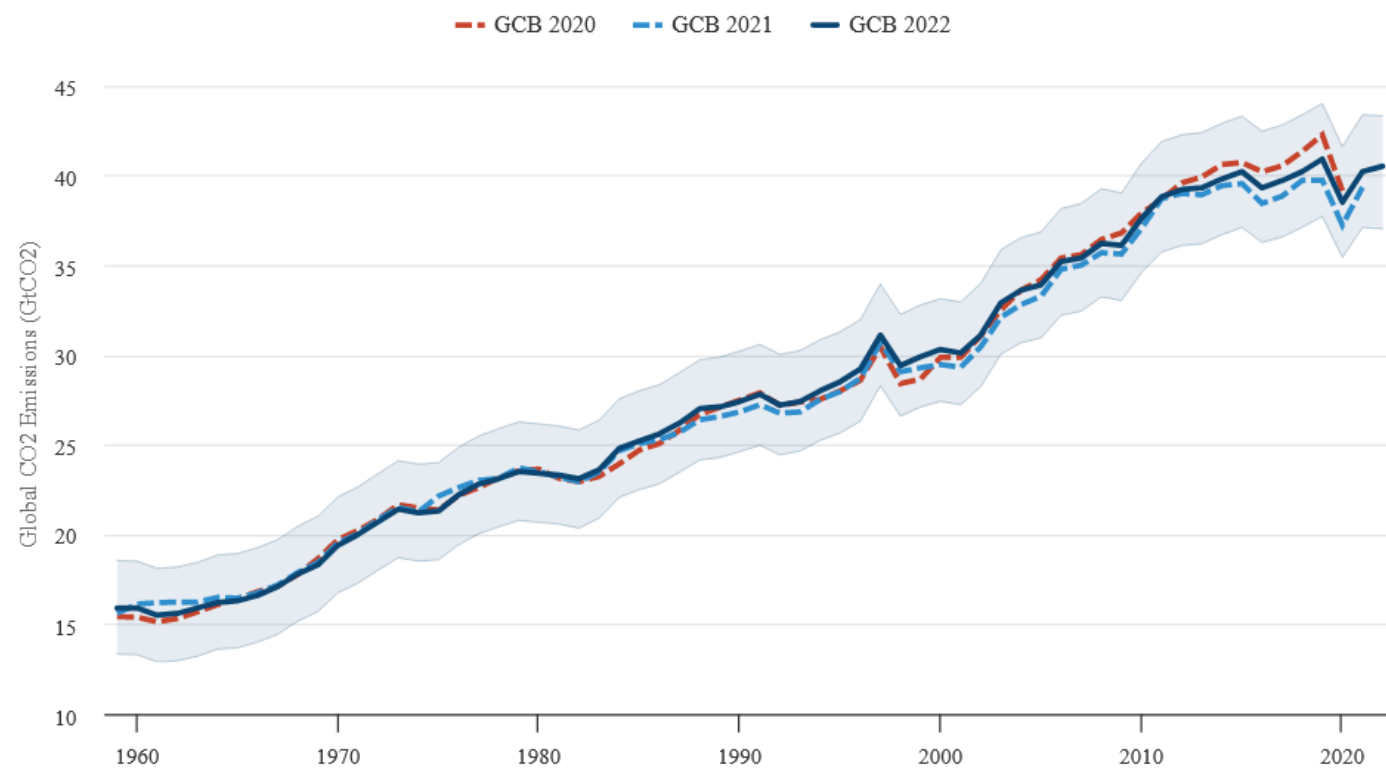
8-9 April 2024, Rio de Janeiro, Brazil

Renewable electricity generation is increasingly price-competitive and some sectors are electrifying



Where we stand

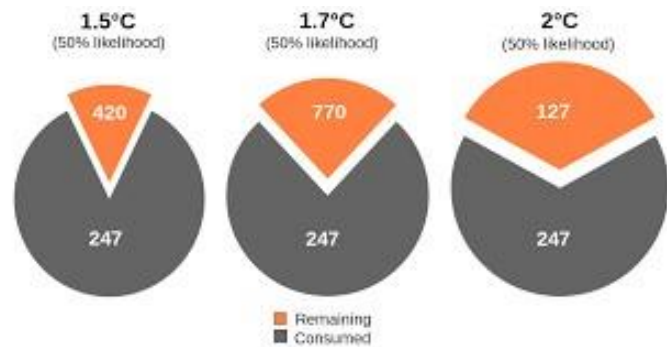
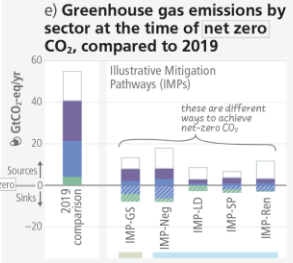
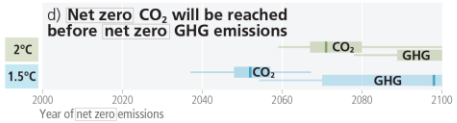
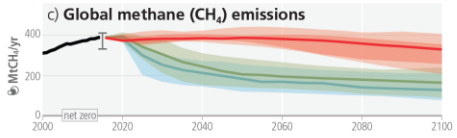
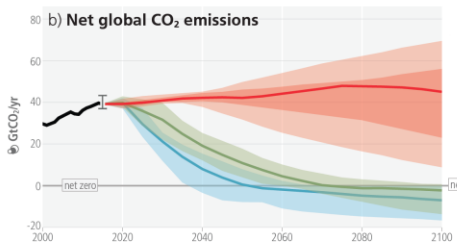
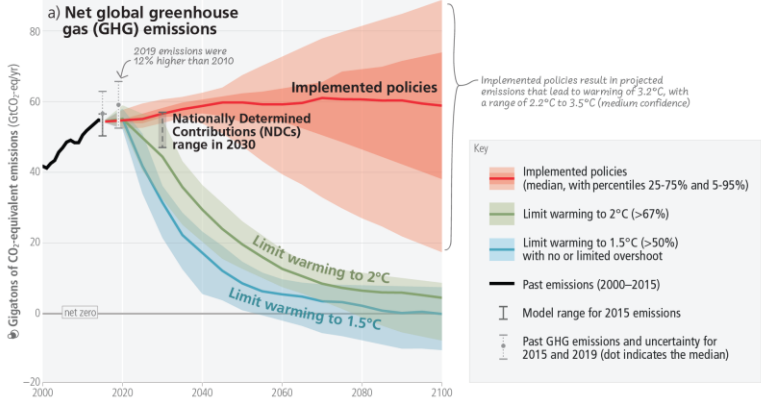
Global CO₂ emissions (fossil and land use) from the past three Global Carbon Budgets



How much space we have left?

Limiting warming to 1.5°C and 2°C involves rapid, deep and in most cases immediate greenhouse gas emission reductions

Net zero CO₂ and net zero GHG emissions can be achieved through strong reductions across all sectors



Not even close to the target!

Why are we not making enough progress?

- **Technology:** functions in the economy, like producing **critical materials** required to embody our inventions, that do not depend on electricity and for which we still do not have a viable green alternative. Aluminum, ammonia, cement and steel: under BAU we'll need more, extremely difficult to replace and carbon intensive.
- **Market:** relative prices not enough, anticipated returns are not yet comparable to those of fossil fuels (price volatility related to unbundling of electricity mkts)
- **Structural:** changing the sources of energy production from fossil fuels to wind and solar will impact trade, industry, government finance, and the labor force (e.g. India, Indonesia...)...need to build new economies...
- **Political economy:** early retirement of capital stock (200 gigawatts of fossil fuel-based electricity-generating) and distribution of resources (e.g. Mpumalanga, Alberta, Yasuni...)



What we need to do

We need to think about energy transition less in terms of carbon mitigation and more in terms of overcoming hurdles to economic transformation.

Need (broader) policy solutions. Greening our economies it's not simply about carbon taxes or mkt incentives, the real issue is economic development...jobs and food matter...to achieve transformation process must be 'socially desirable'.

A **Green Industrial Policy** incorporates “any government measure aimed to accelerate the structural transformation towards a low-carbon, resource-efficient economy in ways that also enable productivity enhancements”.

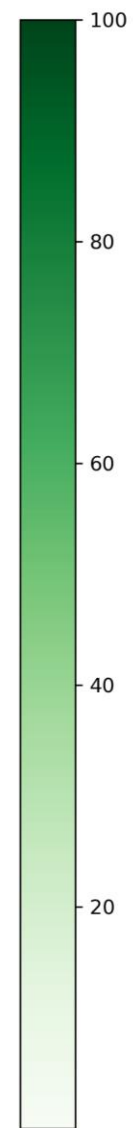
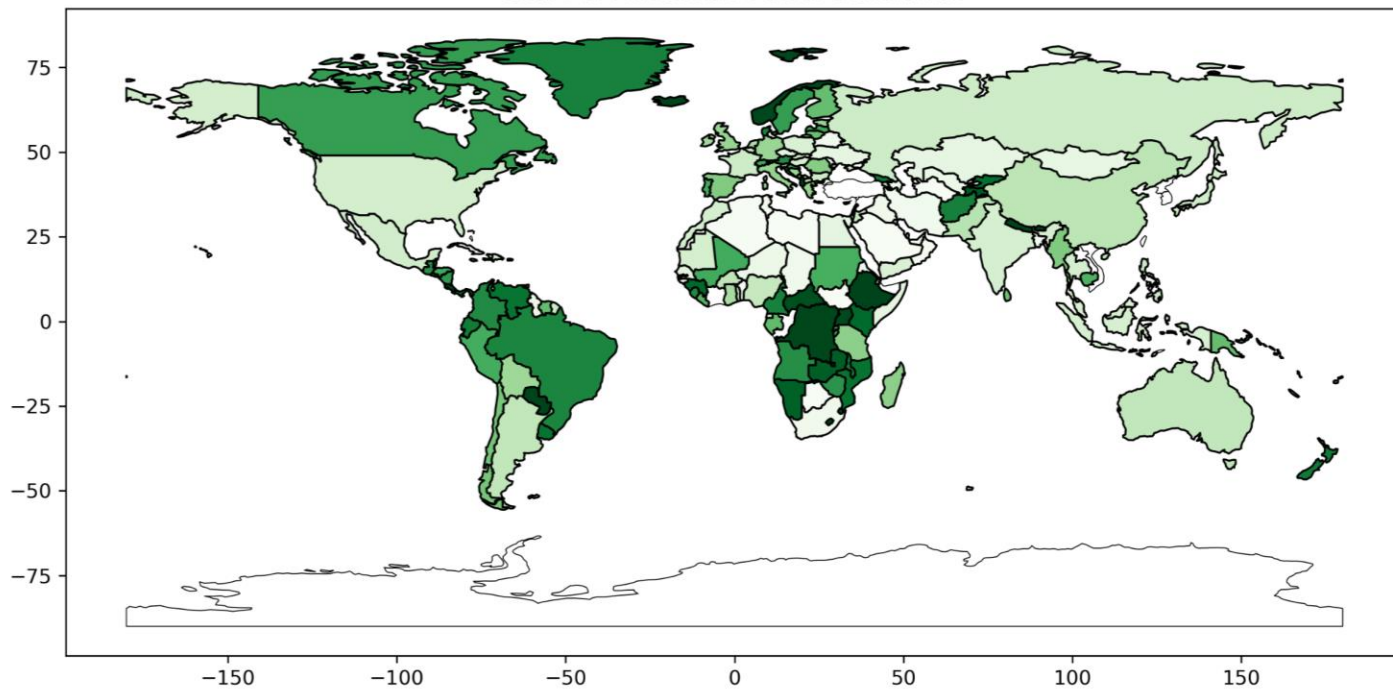


What we need to do: 3 dimensions

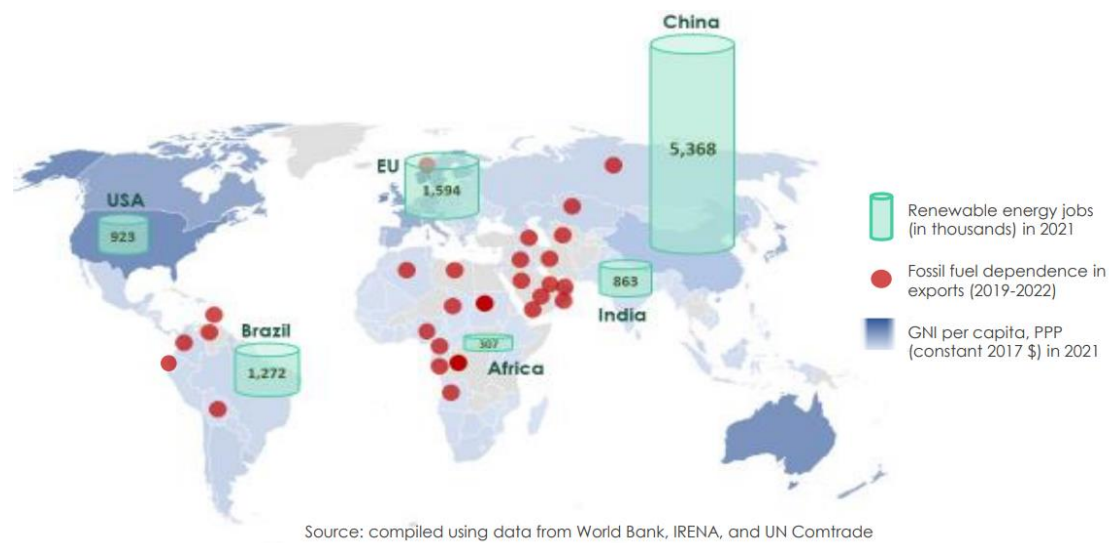
- **National:** Strategic approach with targeted measures beyond market-based approach to internalize externalities (e.g., FITs and TGCs)
- **Global:** reform trade system (ToT, subsidies, unilateralism) and financial resources to compensate the population for the lost opportunities and finance the cost of energy transformation (e.g., Yasuni-ITT initiative)
- **Regional:** More integration to **reduce risk** related with critical minerals volatility (LR, SR), **diversify** the energy matrix (renewables) and increasing **bargaining power** (OPEC)



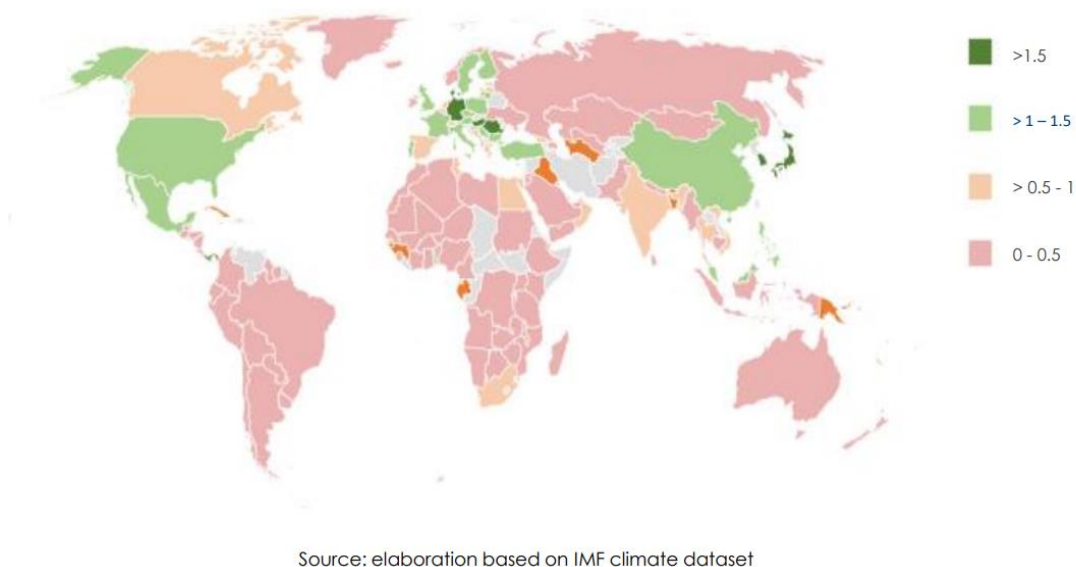
Share of Renewable Power Generation



Industrial benefits of low carbon transitions (Lebdioui, 2023)



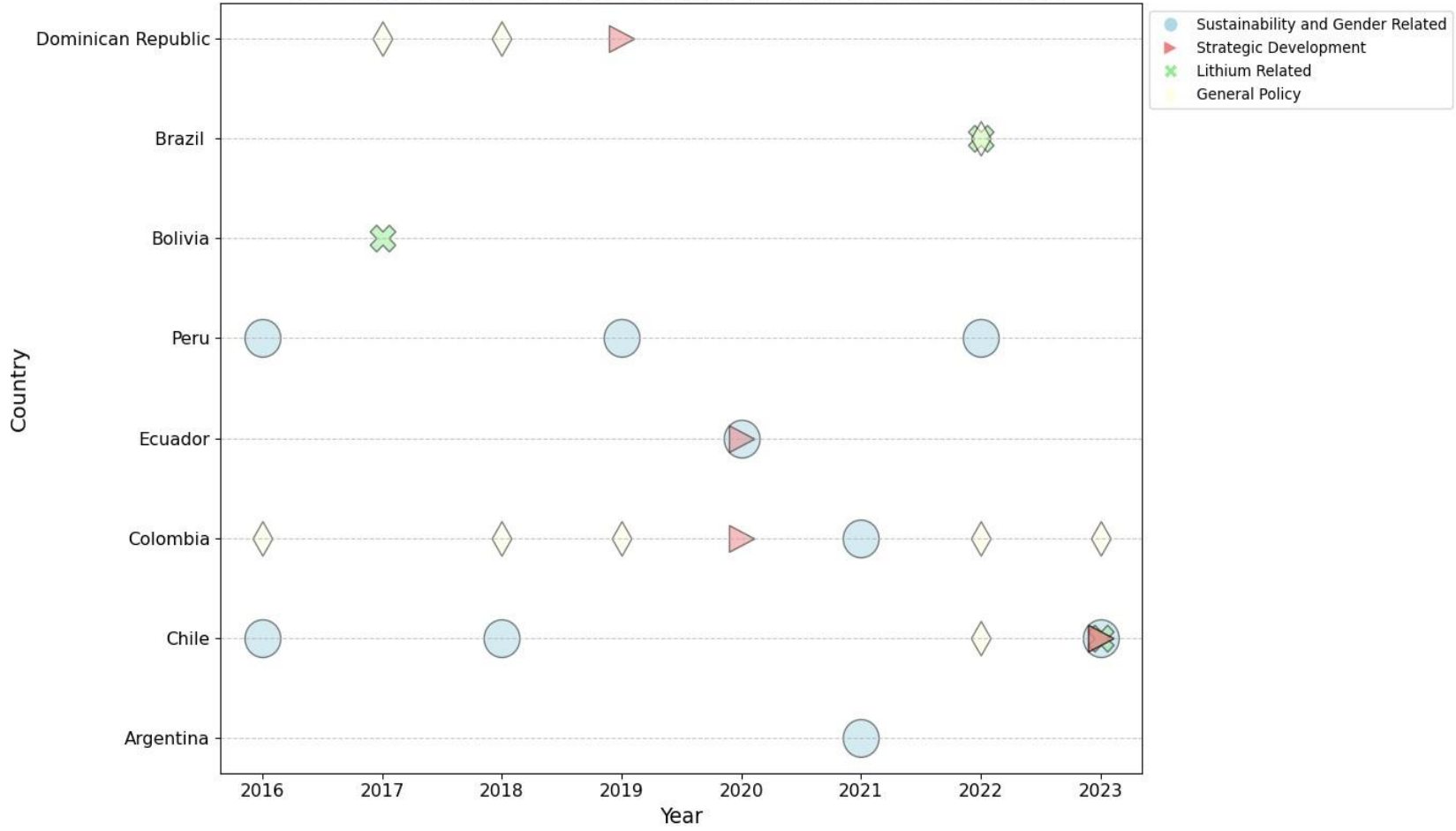
Renewable energy jobs



RCA in low carbon tech/environmental products



Thematic Timeline of Policies Adopted by Latin American Countries



A regional approach to green transition in LAC

- **Coordination of GIP to reach economies of scale and exploit complementarities to build a regional industrial ecosystem around low carbon technologies:**
 - Critical minerals abundance (e.g., Chile, Peru, Cuba)
 - Manufacturing capacity (e.g., Brazil, Costa Rica, Uruguay)
 - Low-cost renewable energy potential (e.g., Chile, Colombia, Mexico)
 - proximity to important trade routes (e.g., Panama, Honduras)
- **How to make it happen?** Leveraging critical minerals RVCs, subregional grids and transmission systems for greater energy supply stability, cross-border emissions trading systems and regional industrial strategies (H2 green steel)