

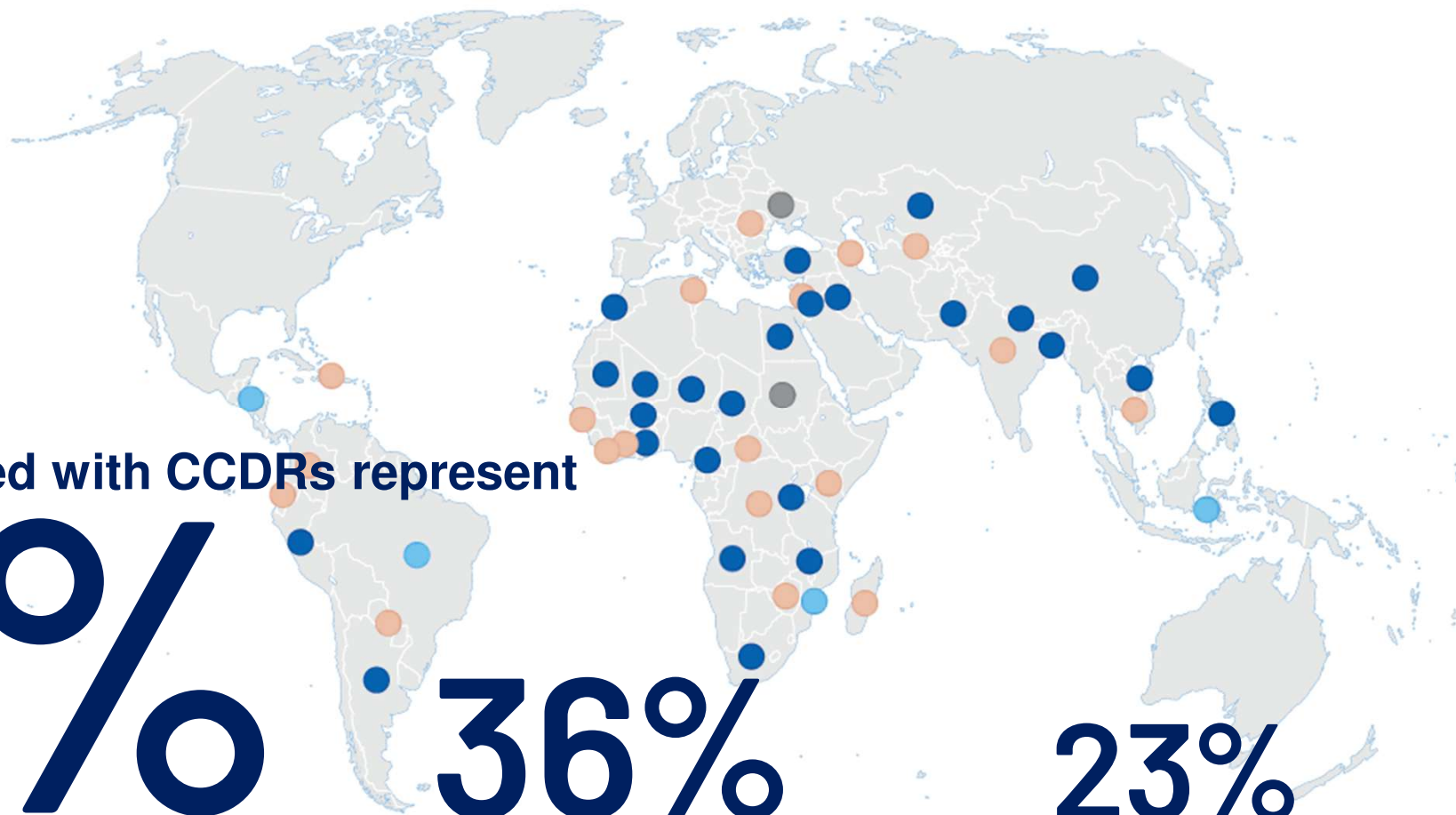


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# COUNTRY CLIMATE AND DEVELOPMENT REPORT

**Global Experience with CCDRs**

- Published
- Forthcoming
- Initiated
- On hold



25 countries covered with CCDRs represent

**34%**

of global population

**36%**

of global emissions

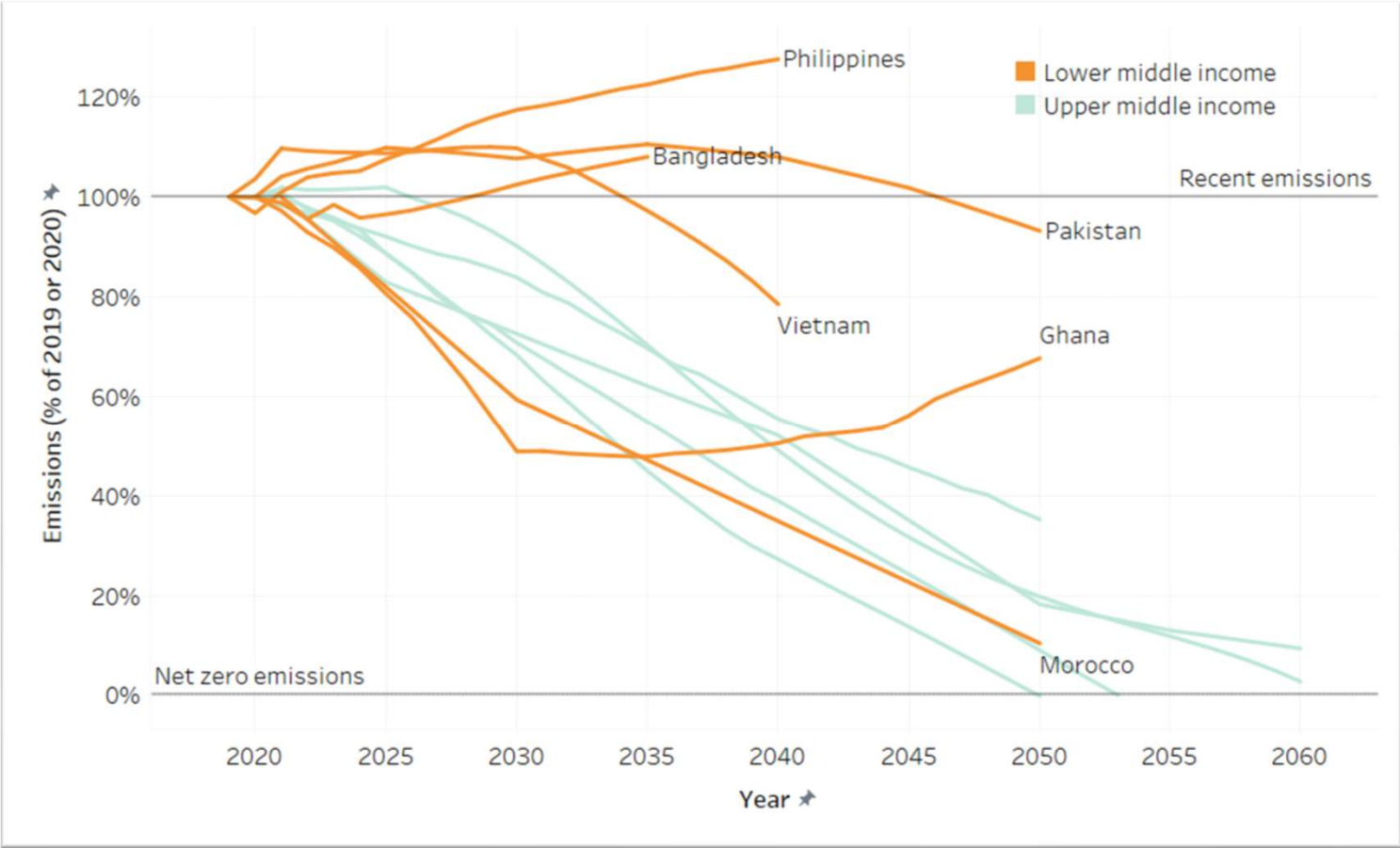
**23%**

of global GDP

# CCDR low-emissions scenarios have more modest reductions in emissions for lower-middle-income countries

# 70%

emissions reduction  
across the first batch  
of 25 countries



# Good news: we know how to get to zero emissions



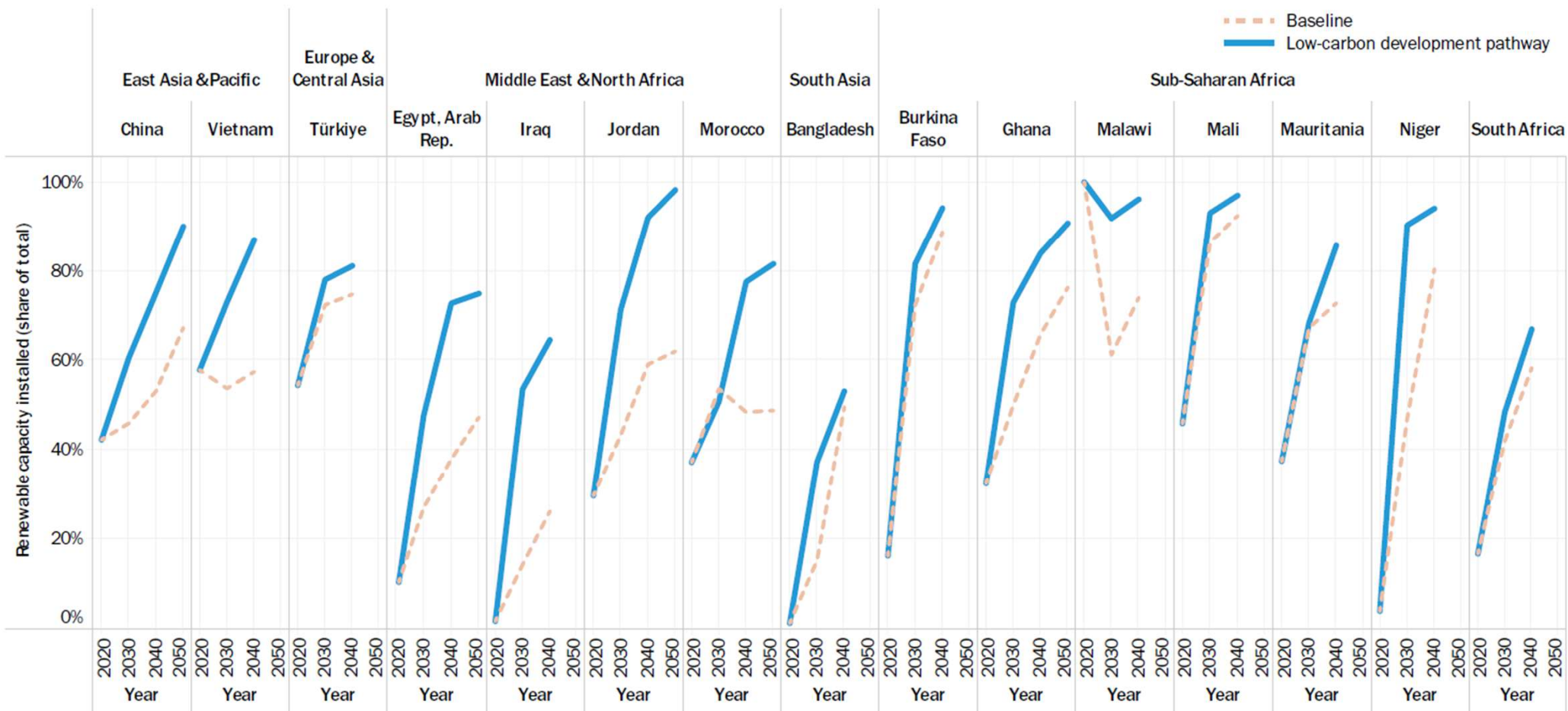
Decarbonization  
of electricity  
generation, i.e.  
renewable and/or  
Carbon Capture  
and Sequestration

Fuel shifting  
(especially to  
electricity) in  
transport,  
heating, and  
industries

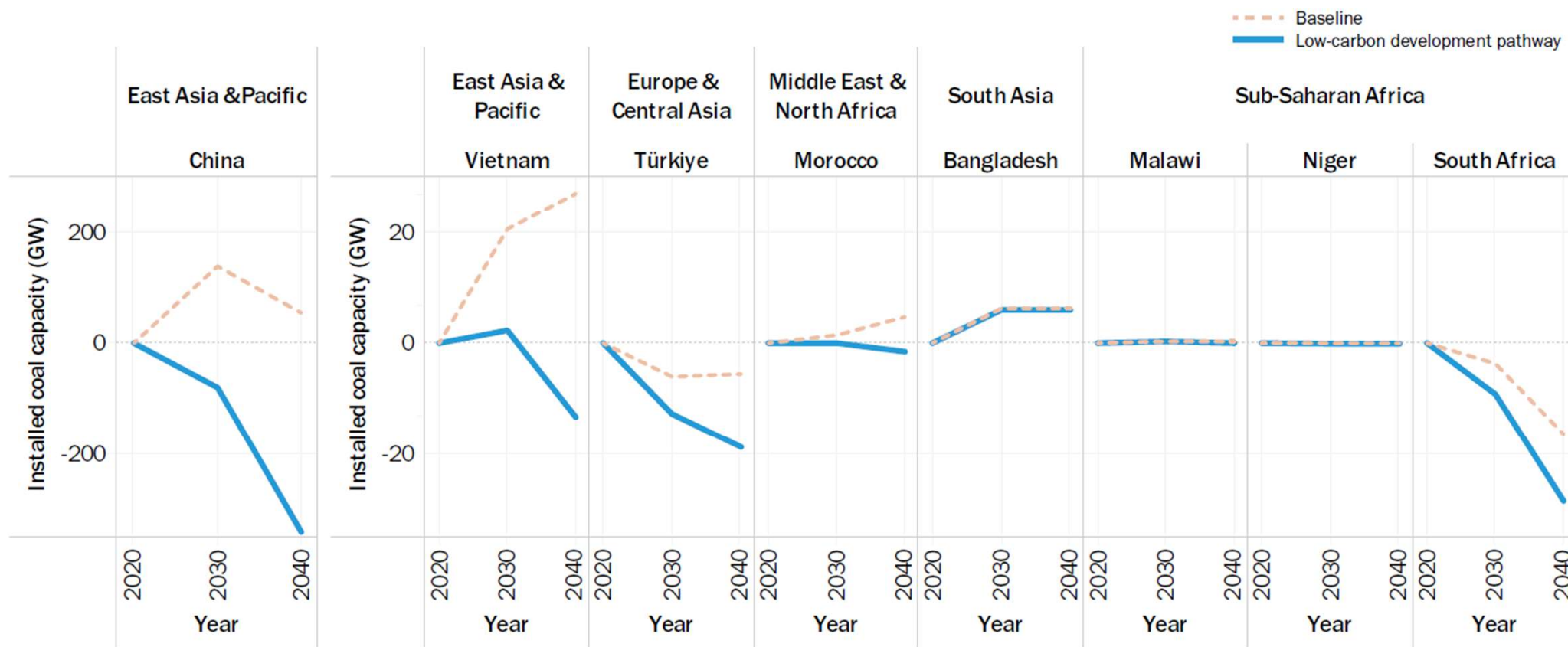
Efficiency in all  
sectors, including  
building,  
transport, and  
agriculture

Preservation and  
increase of  
natural carbon  
sinks

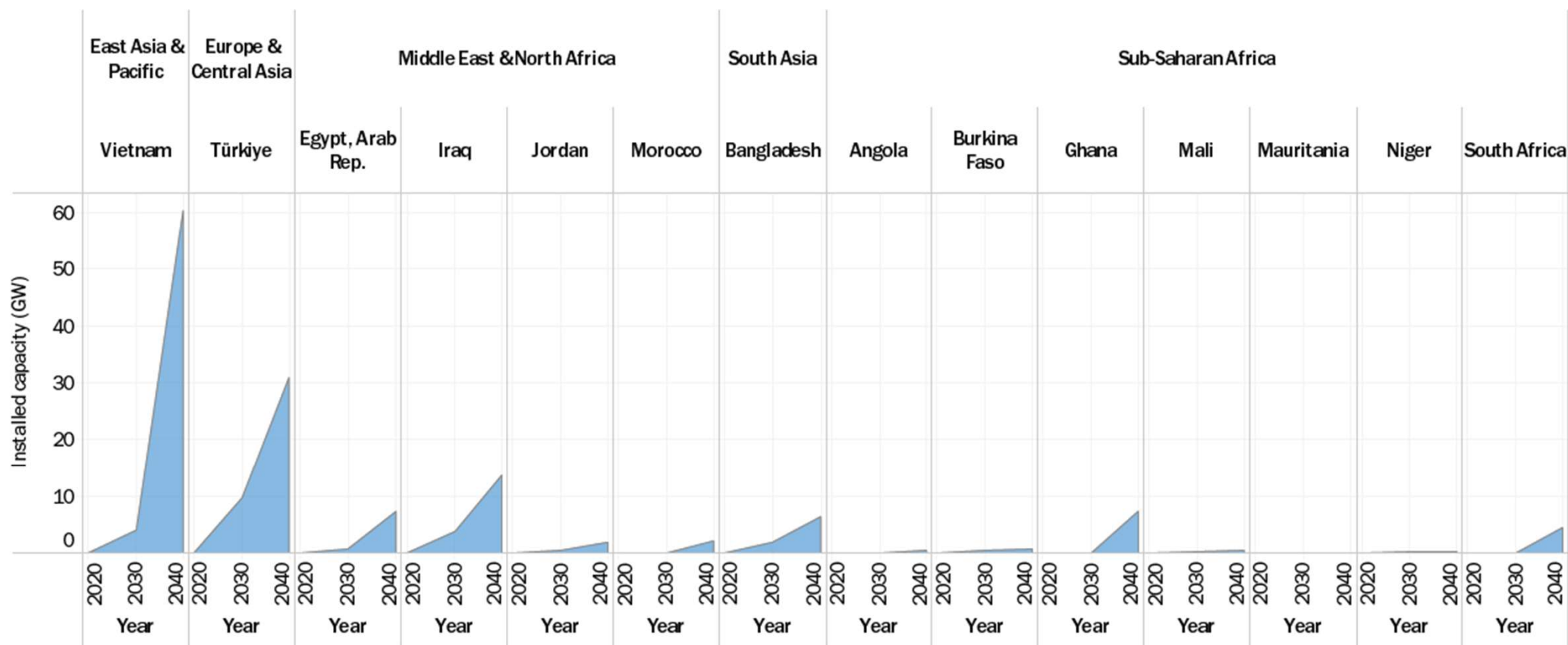
# Both the baselines and the resilient low-carbon development pathways rely on a rapid growth in renewable energy



# Low-carbon development pathways accelerate the scale down of coal, with different timings across countries

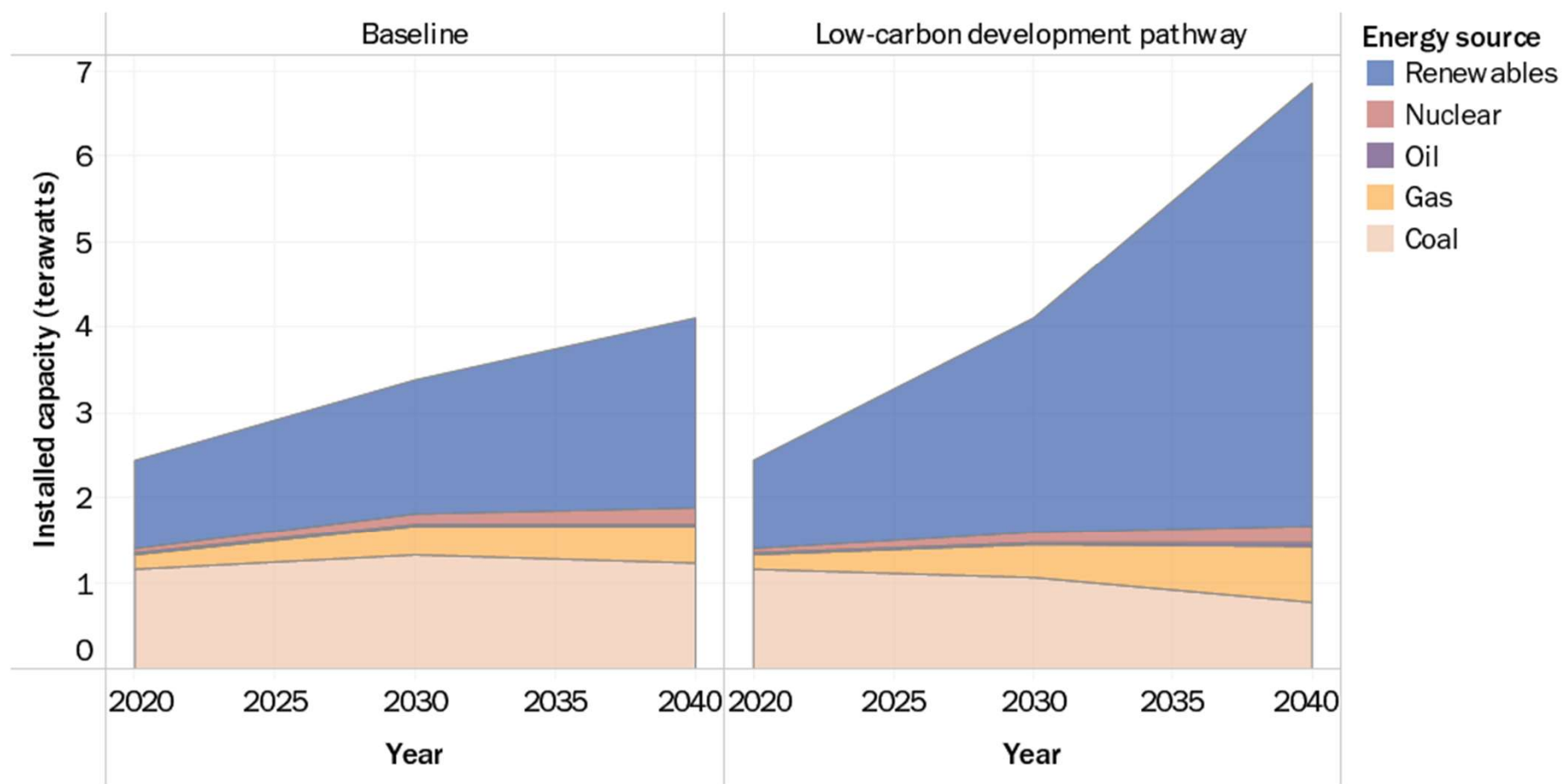


## This transition will require large investment in transmission and distribution, as well as electricity storage



Note: The figure shows battery storage results from the World Bank's Energy Planning Model.

**Electrification in transportation, building, and industries (and declines in capacity factor) leads to a rapid increase in generation capacity, even with large investments in energy efficiency**





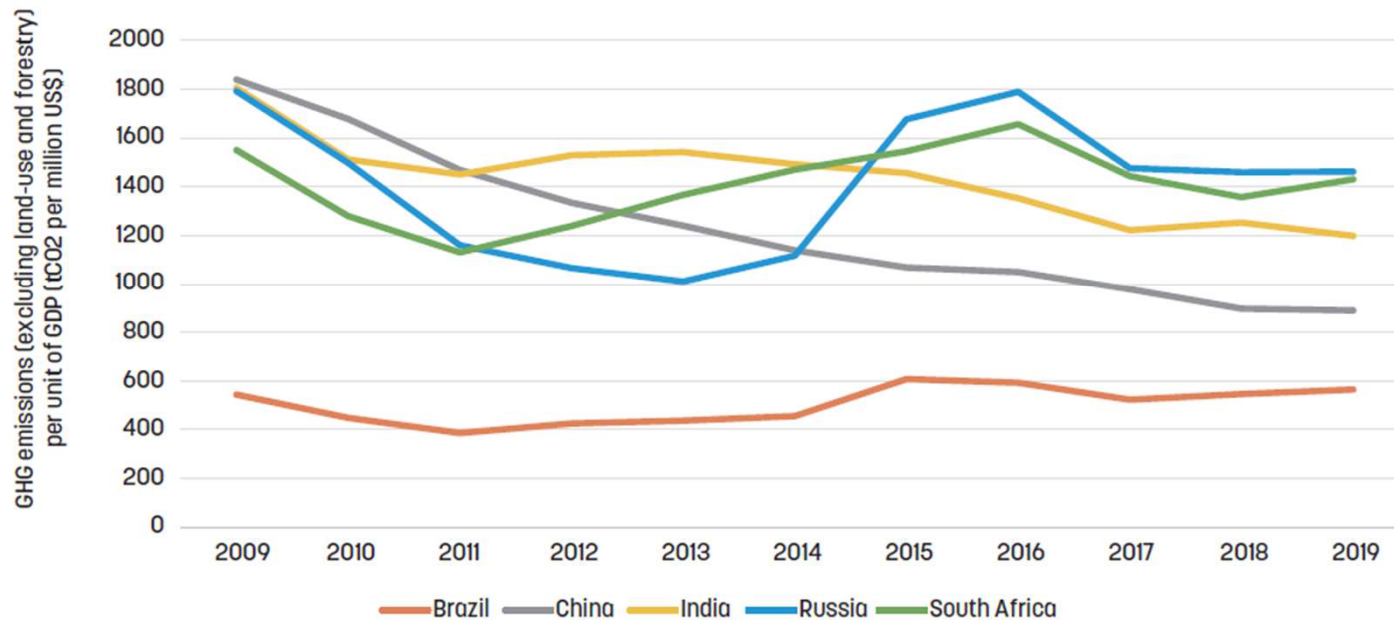
## A real uncertainty on technologies needed for the last tons

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- Where available: **hydropower with pumped storage**
- **Green hydrogen** (also needed for fertilizers, cement, and steel)
- **Carbon capture and storage** (also needed for process emissions, for instance in cement)
- **Nuclear energy**
- **Fossil fuel plants** used for system stability only (with residual emissions that would have to be compensated)
- In our countries, these uncertainties does not affect the short-term priorities.

# Zero-emission power is the foundation of a whole-of-economy transformation – the case of Brazil

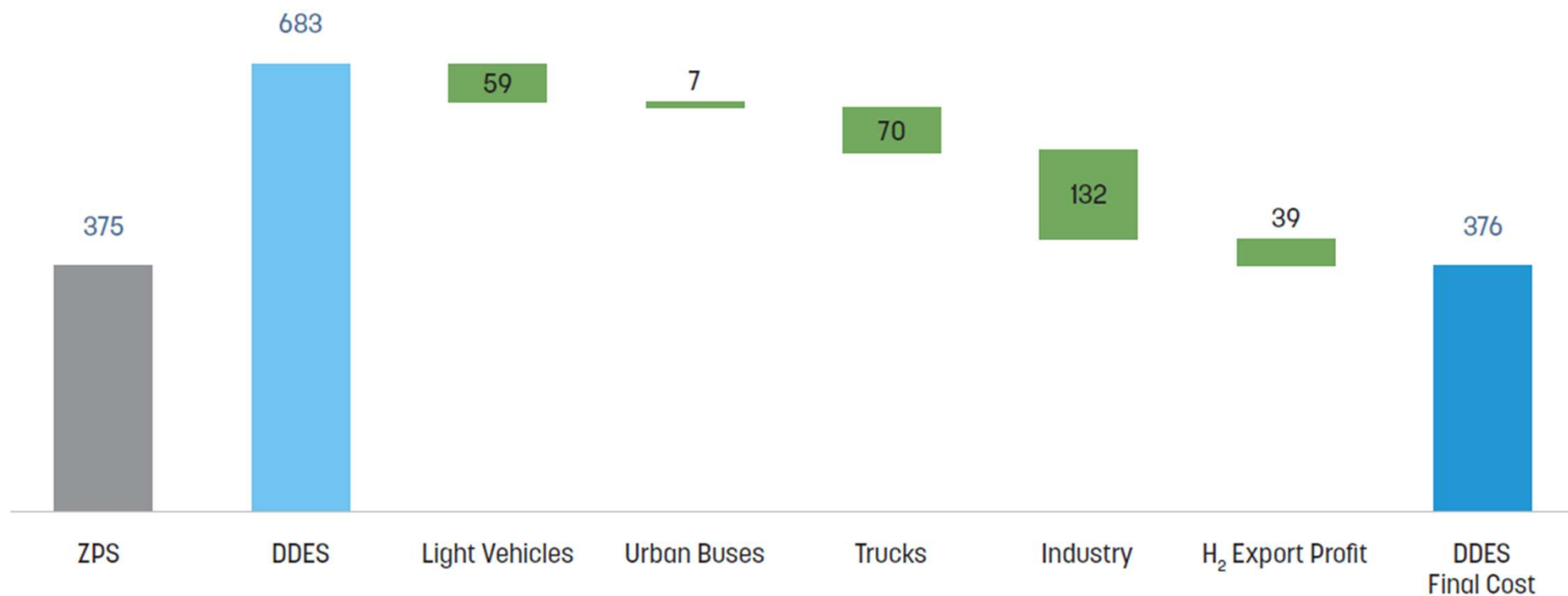
FIGURE 4. Carbon intensity of Brazilian economy (excluding land-use and forestry emissions)



A zero-carbon manufacturing and service sector is a key comparative advantage, and increasingly so.

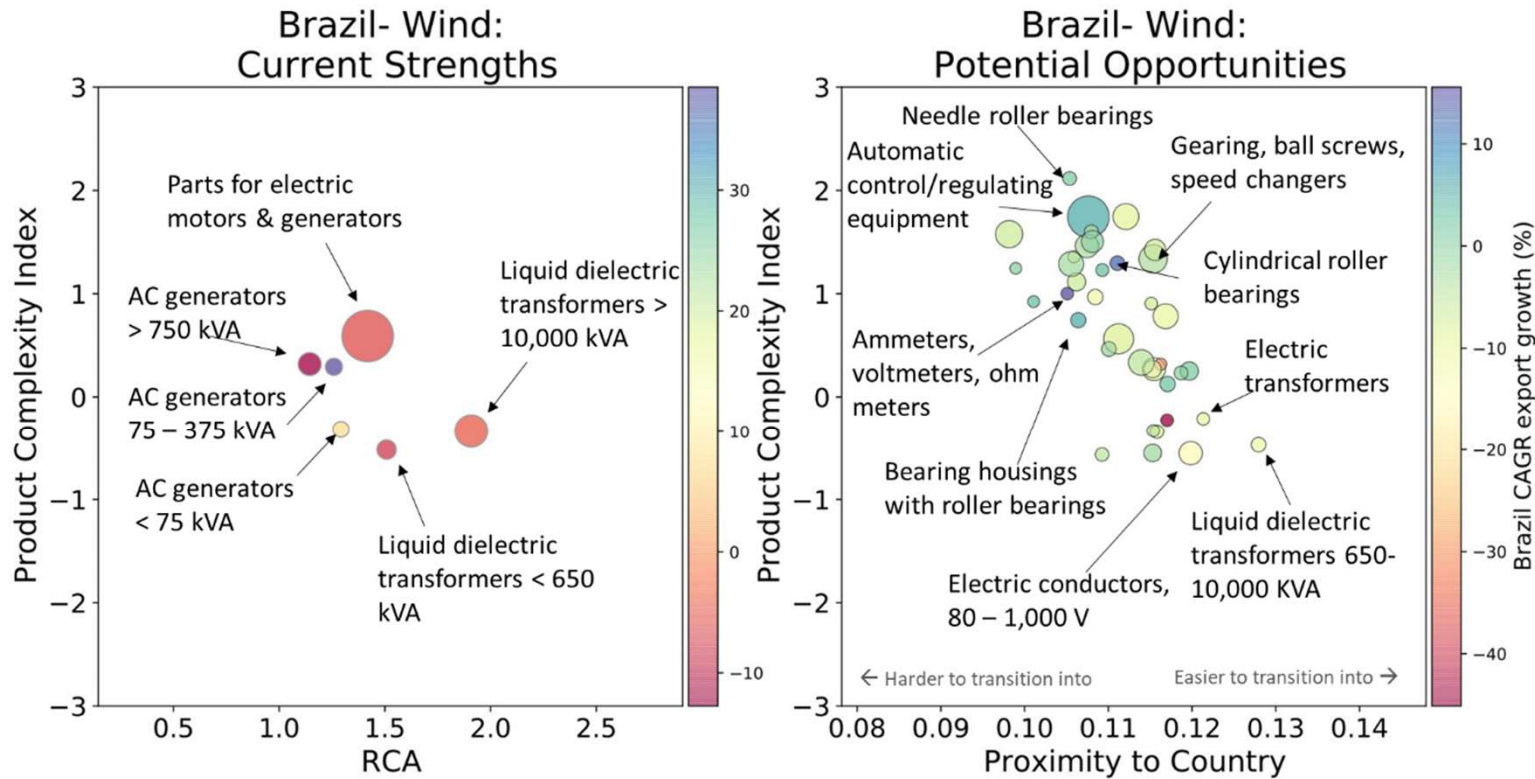
Source: ClimateWatch

# Zero-emission power is the foundation of a whole-of-economy transformation – the case of Brazil



Source: PSR analysis for the World Bank

# Brazil has strengths in the major green value chains – we should not look at the final product only.



● Bubbles are sized by Brazil's current export value and colored by Brazil's export growth (CAGR)

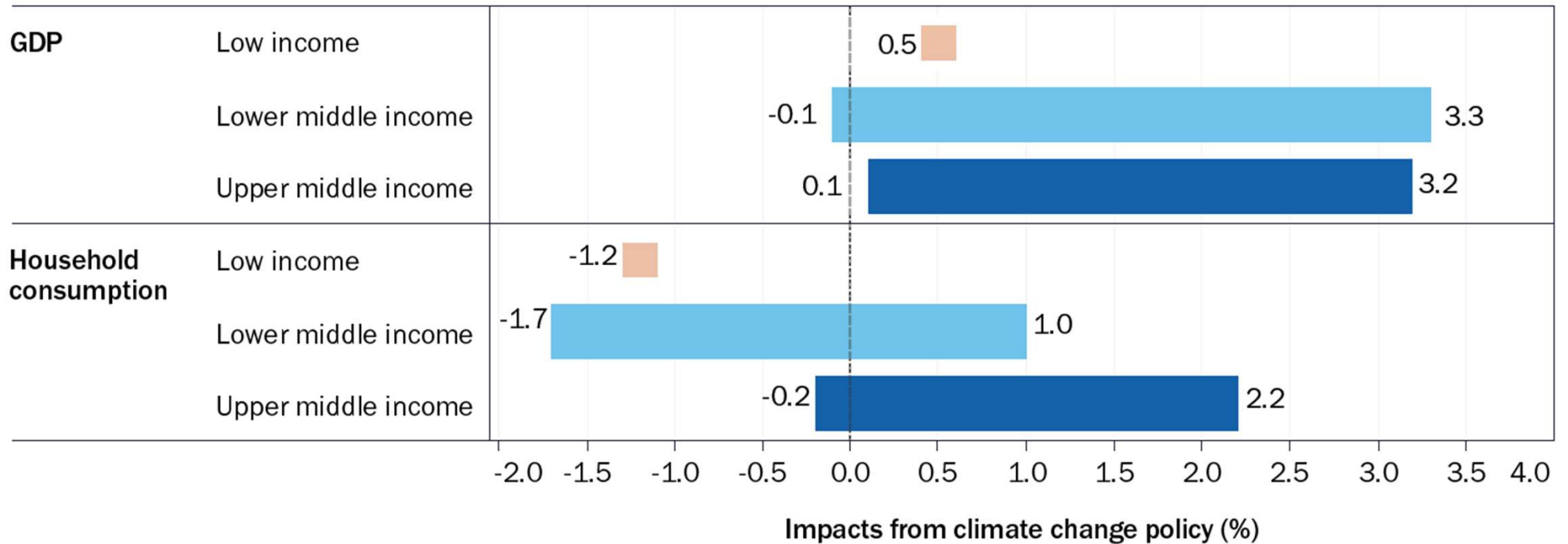
Brazil levies relatively high taxes on imports of intermediate goods for industrial use and capital goods.

The average tariff on processed industrial inputs is 12.1 percent in Brazil, compared with 6.8 percent in China and 4.5 percent in Turkey.

## Macroeconomic impacts of climate policies would be low or positive

# -0.1% to 3.3%

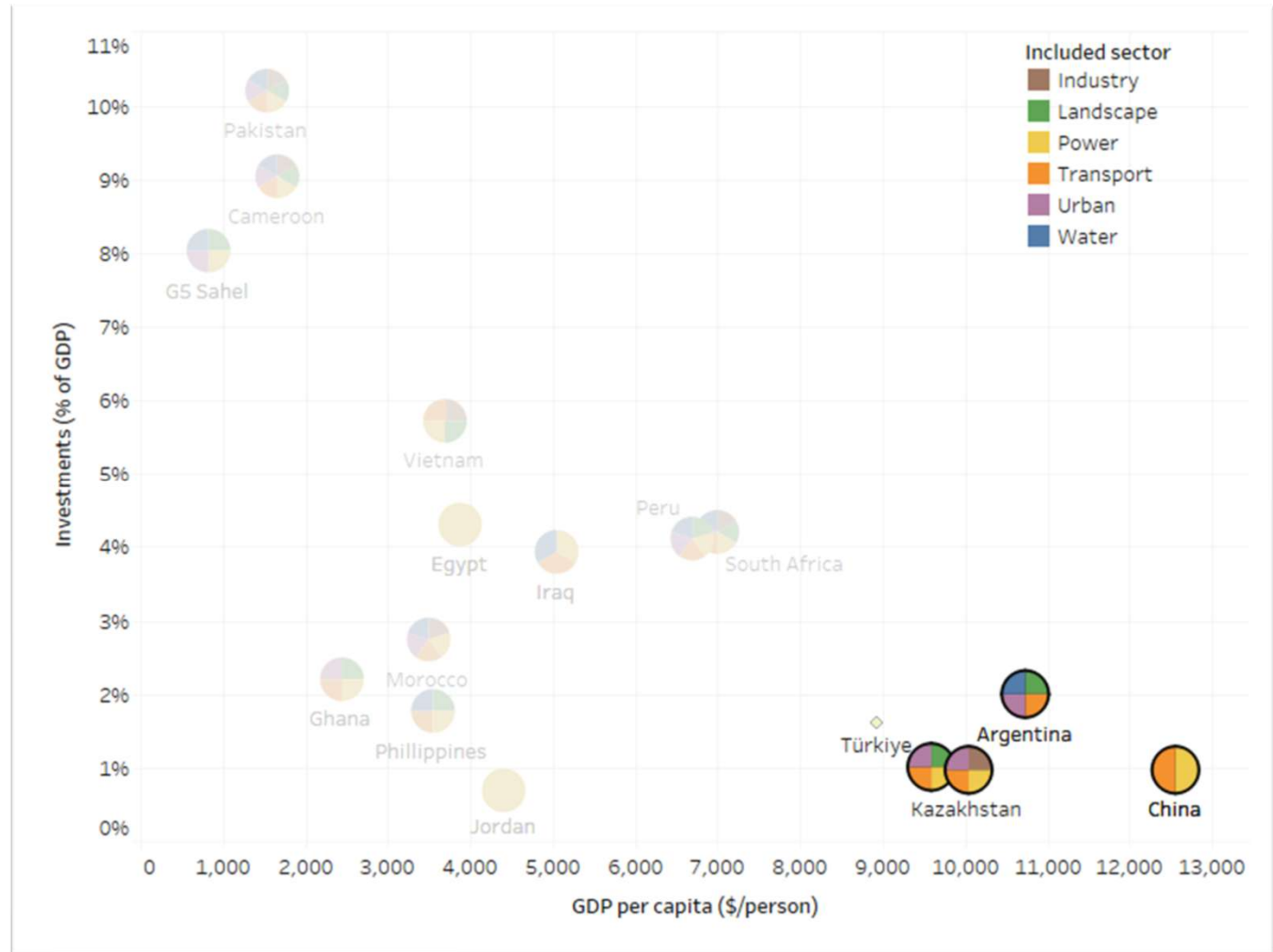
### GDP impacts of climate action



# Climate policies will require additional investments

# 1-2%

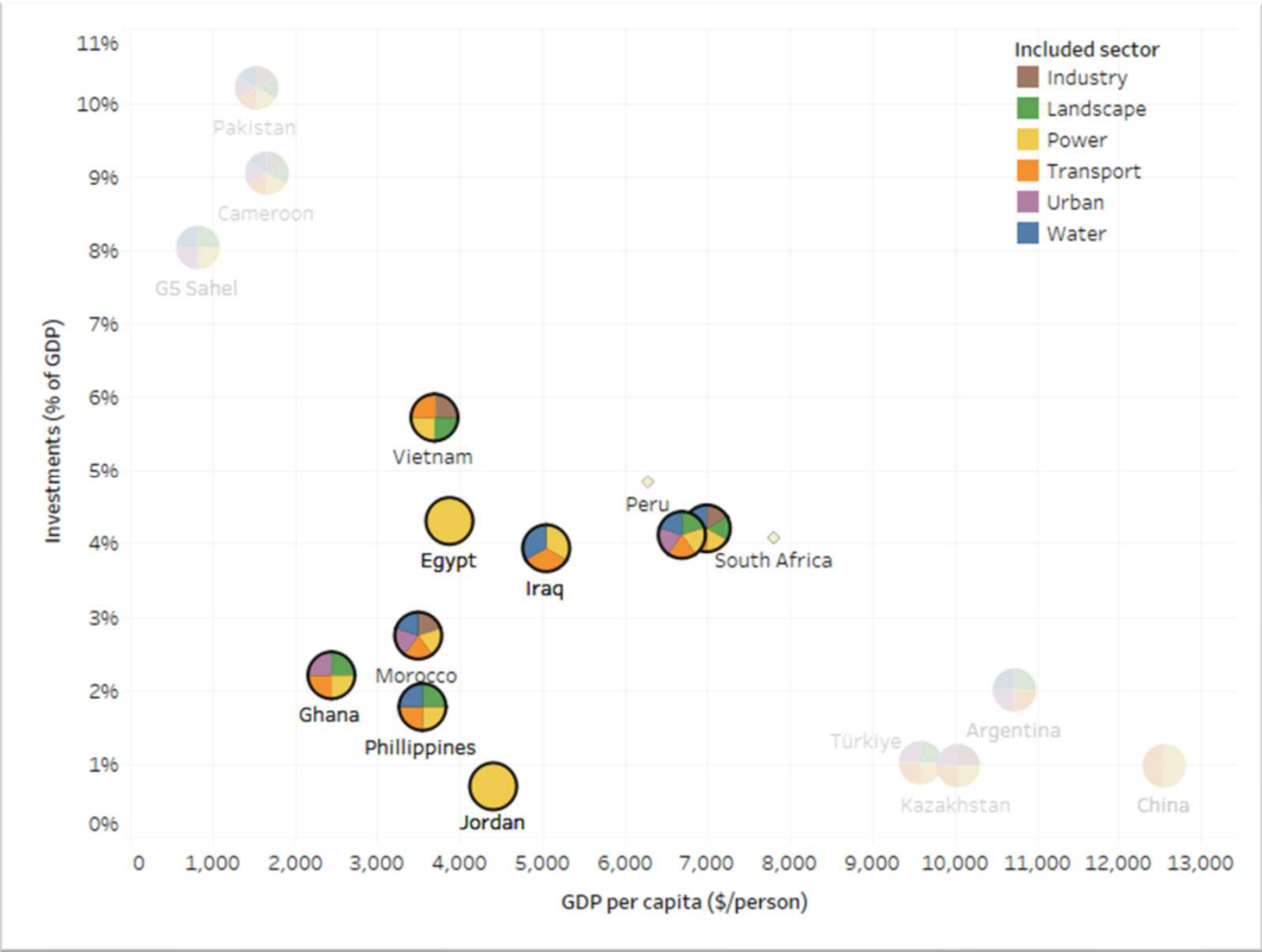
of GDP per year needed for climate investments For CCDR countries at the upper end of per capita income spectrum



# Climate policies will require additional investments

# 2-6%

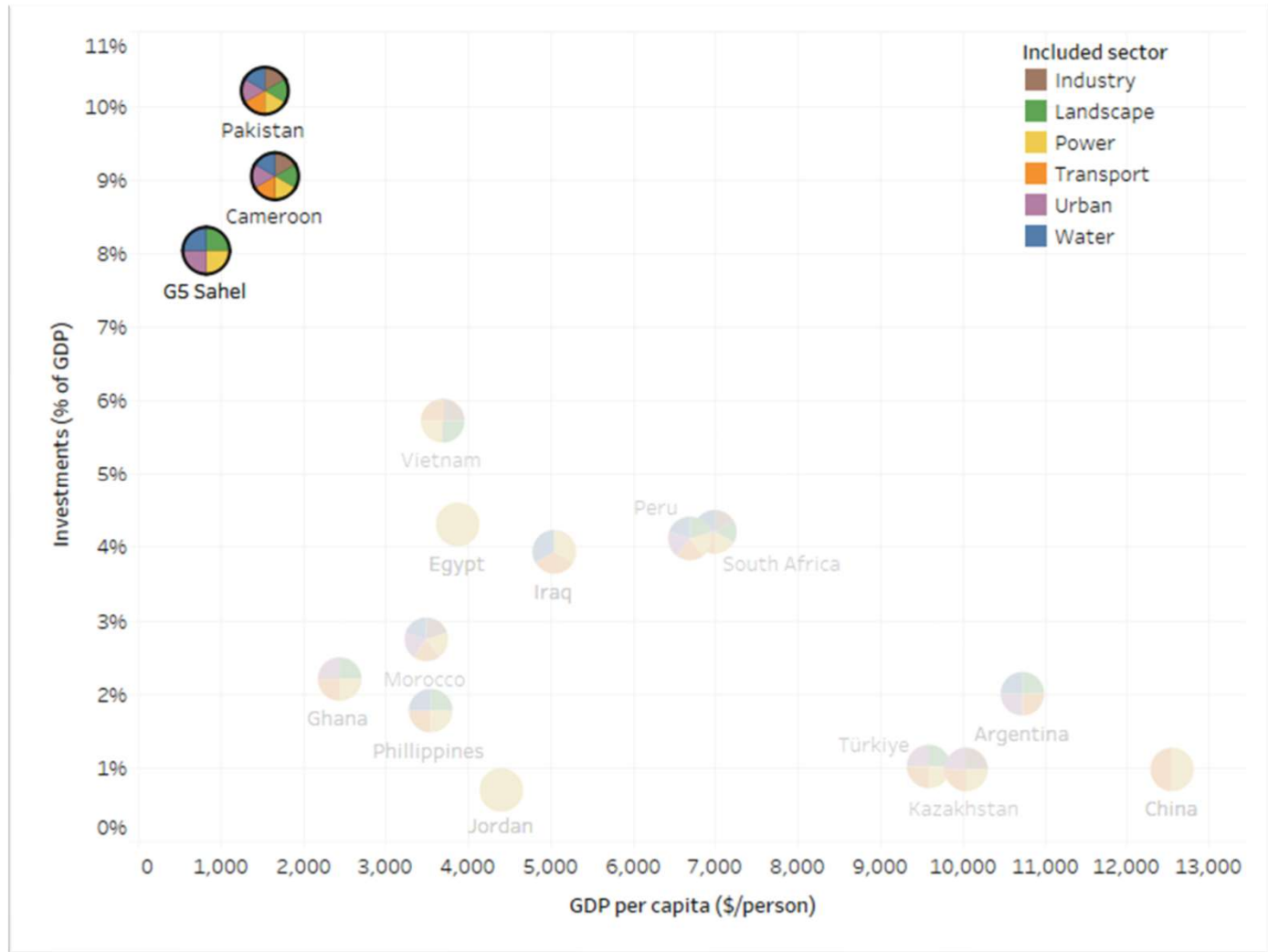
of GDP per year needed for climate investments For CCDR countries in the middle range of per capita income spectrum



# Climate policies will require additional investments

# 8-10%

of GDP per year needed for climate investments for CCDR countries at the lower end of per capita income spectrum (mostly adaptation and resilience)







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THANK  
YOU

# CCDRs launched to date (by Region)

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<b>AFR</b>	<b>Angola</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )
	<b>Cameroon</b> ( <a href="#">Report</a>   <a href="#">Press Release</a>   <a href="#">Feature Story</a>   <a href="#">Video</a> )
	<b>Malawi</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )
	<b>Rwanda</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )
	<b>South Africa</b> ( <a href="#">Report</a>   <a href="#">Press Release</a>   <a href="#">Infographic</a> )
	<b>Ghana</b> ( <a href="#">Report</a>   <a href="#">Press Release</a>   <a href="#">Video</a> )
	<b>The Sahel</b> (Burkina Faso, Chad, Mali, Mauritania, Niger) ( <a href="#">Report</a>   <a href="#">Press Release</a>   <a href="#">Statement</a>   <a href="#">Infographic</a> )
<b>EAP</b>	<b>China</b> ( <a href="#">Report</a>   <a href="#">Press Release</a>   <a href="#">Highlights Page</a>   <a href="#">Infographic</a>   <a href="#">Video</a>   <a href="#">Event</a> )
	<b>Philippines</b> ( <a href="#">Report</a>   <a href="#">Press Release</a>   <a href="#">Highlights Page</a>   <a href="#">Video</a> )
	<b>Vietnam</b> ( <a href="#">Report</a>   <a href="#">Press Release</a>   <a href="#">Highlights Page</a>   <a href="#">Infographic</a> )
<b>ECA</b>	<b>Kazakhstan</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )
	<b>Türkiye</b> ( <a href="#">Report</a>   <a href="#">Press Release</a>   <a href="#">Op-Ed</a>   <a href="#">Blog</a>   <a href="#">Highlights Page</a>   <a href="#">Infographic 1</a>   <a href="#">Infographic 2</a> )
<b>LCR</b>	<b>Argentina</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )
	<b>Peru</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )
<b>MNA</b>	<b>Egypt</b> ( <a href="#">Report</a>   <a href="#">Press Release</a>   <a href="#">Brief</a>   <a href="#">Infographic</a>   <a href="#">Video</a> )
	<b>Iraq</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )
	<b>Jordan</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )
	<b>Morocco</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )
<b>SAR</b>	<b>Bangladesh</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )
	<b>Nepal</b> ( <a href="#">Report</a>   <a href="#">Press Release</a>   <a href="#">Highlights Page</a> )
	<b>Pakistan</b> ( <a href="#">Report</a>   <a href="#">Press Release</a> )