



## **Session 3 - Green finance**

# **LAC (and EM) challenges**

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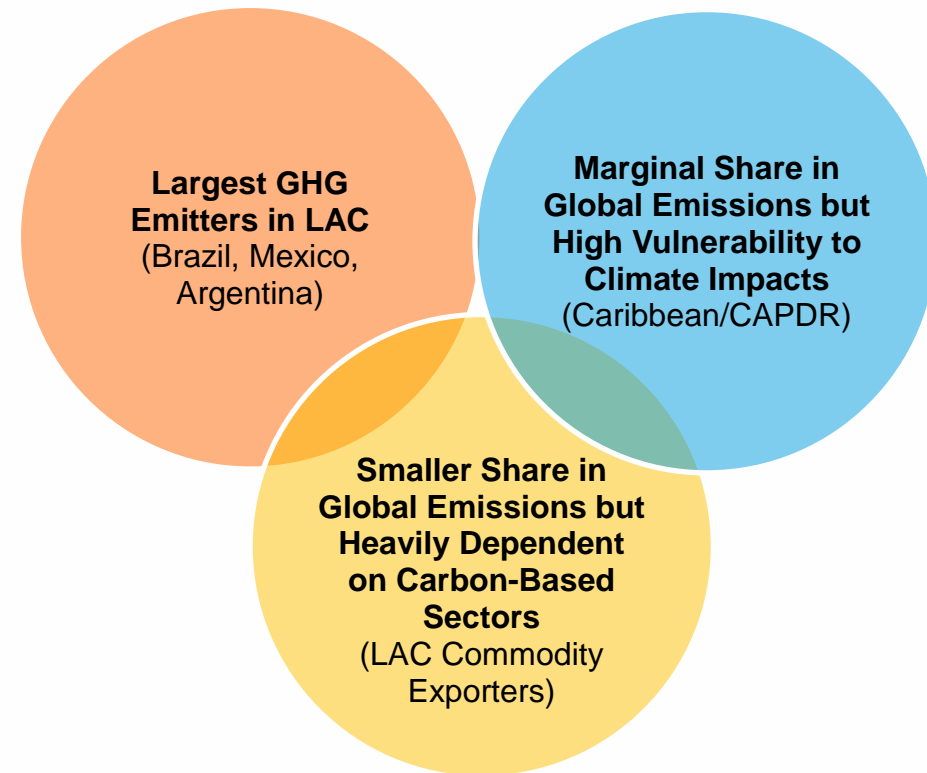
# 4 questions, 4 tentative answers

1. What are climate-related challenges LAC faces?
2. How large are climate mitigation gaps and how to close them?
3. How can climate investments be financed?
4. What are the challenges to scale up climate financing?

# **1. What are climate-related challenges LAC faces?**

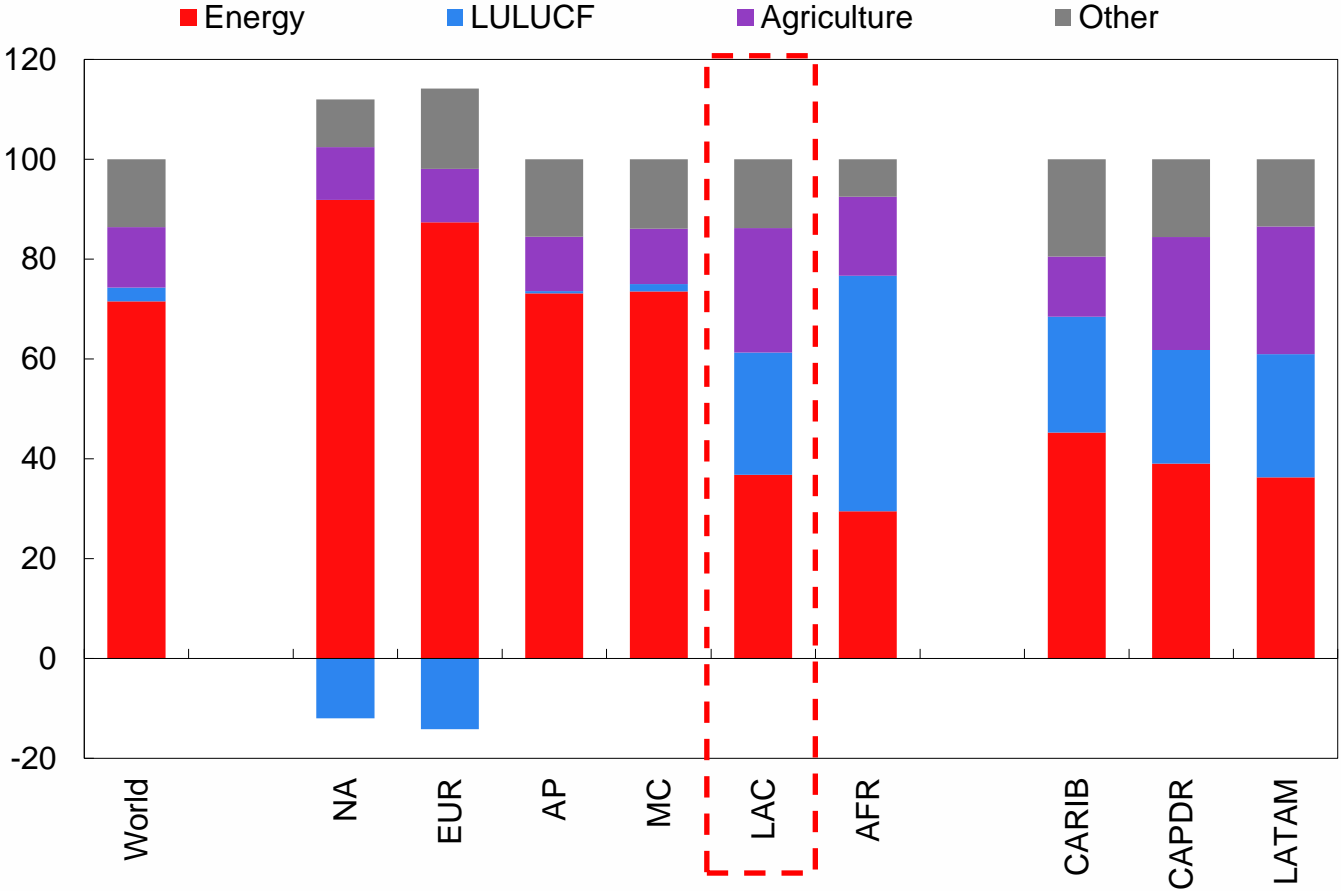
# Latin America and the Caribbean is a diverse region with diverse climate risks and externalities

- 1. Mitigation:** Reduce GHG emissions
- 2. Adaptation:** Build resilience to climate change
- 3. Transition:** Phase-out fossil fuels towards renewables and diversify economy



# Carbon Emission: LAC is different

**GHG Emissions by Sector, 2020**  
(Percent of total)

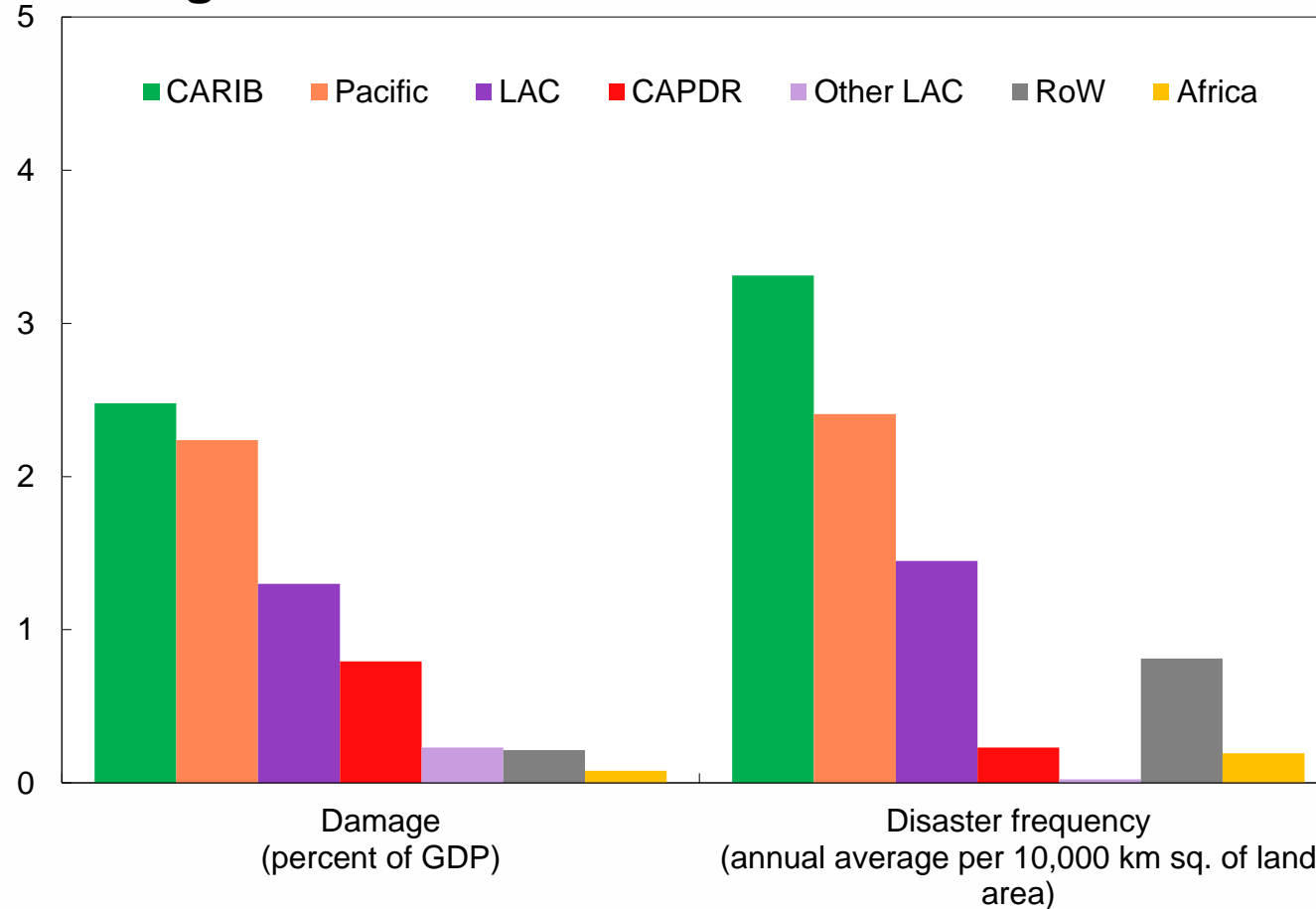


- Smaller share of emissions from energy sector
- Larger share of agriculture and change in land use and forestry

Sources: IMF, Carbon Pricing Assessment Tool; International Energy Agency; Organization for Economic Co-operation and Development; World Resources Institute - CAIT Climate Data Explorer; IMF staff calculations. Note: Negative values of LULUCF for Chile, Costa Rica, St. Lucia, and Uruguay reflect reductions in GHG emissions from LULUCF in these countries. All shares reflect emissions by sector relative to total net GHG emissions. The category "Others" include emissions from industrial processes and product use, waste, and other emissions that are not categorized. Data labels use International Organization for Standardization (ISO) country codes. CAPDR (Central America, Panama, and the Dominican Republic) = Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Panama; CARIB (Caribbean) = Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago; LAC = Latin America and the Caribbean; LATAM (Latin America) = South America, Mexico; NA (North America) = Canada, United States; AFR = Africa; AP = Asia and Pacific; EUR = Europe; MC = Middle East and Central Asia. LULUCF = land use, land-use change, and forestry. Category Other refers to Industrial Processes and Waste.

# Adaptation is key as LAC countries are highly vulnerable

## Average Annual Effects of Weather-Related Natural



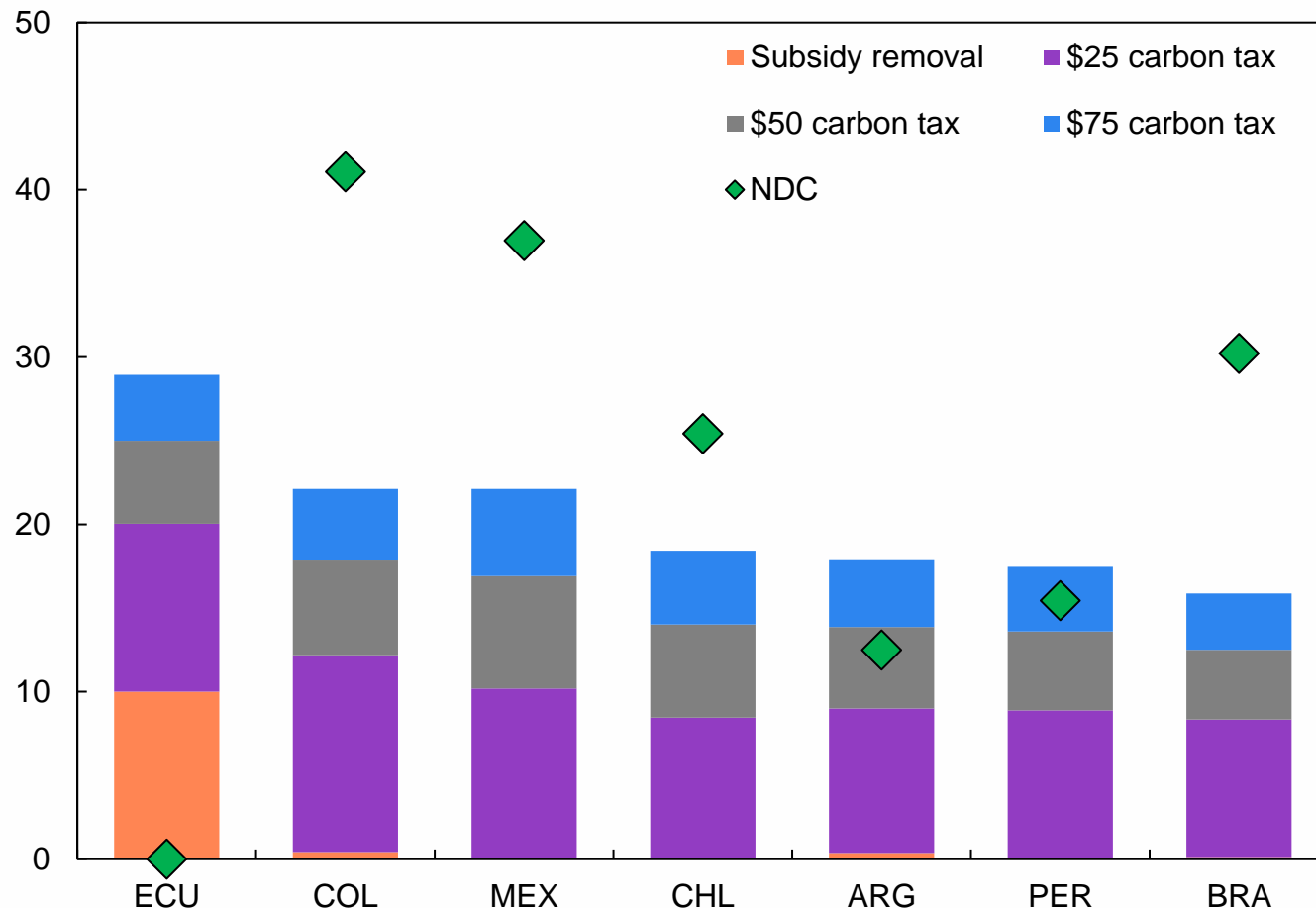
Source: EM-DAT database; IMF, World Economic Outlook database; and IMF staff calculations. Note: CAPDR (Central America, Panama, and the Dominican Republic) = Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Panama; CARIB (Caribbean) = Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and Grenadines, Suriname, Trinidad and Tobago; LAC = Latin America and the Caribbean; RoW = rest of the world; Pacific = Fiji, Marshal Island, Micronesia, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu. Weather-related natural disasters include climatological (includes drought, wildfire), hydrological (includes flood, landslide), and meteorological (storm, extreme temperature). The whole sample covers countries that report at least one weather-related natural disaster incurring positive damage (countries that report the occurrence but with zero damage are excluded). Groups of WHD, Pacific and rest of the world are exclusive. A simple average is taken across country and year, after damage is scaled by GDP annually and disaster frequency is scaled by 2018 land area annually, for each group.

## **2. How large are climate mitigation gaps and how to close them?**

# Not on track

- Large global ambitions and policy implementation gaps
- Targets not enough to contain global warming to 1.5 or 2°C.
- Subsidies removal and carbon tax not enough to meet targets (NDCs)

Reduction of Gross GHG Emissions (excluding LULUCF) from Illustrative Scenario of Subsidy Removal and Carbon Tax  
(Percent of 2030 BAU emissions)



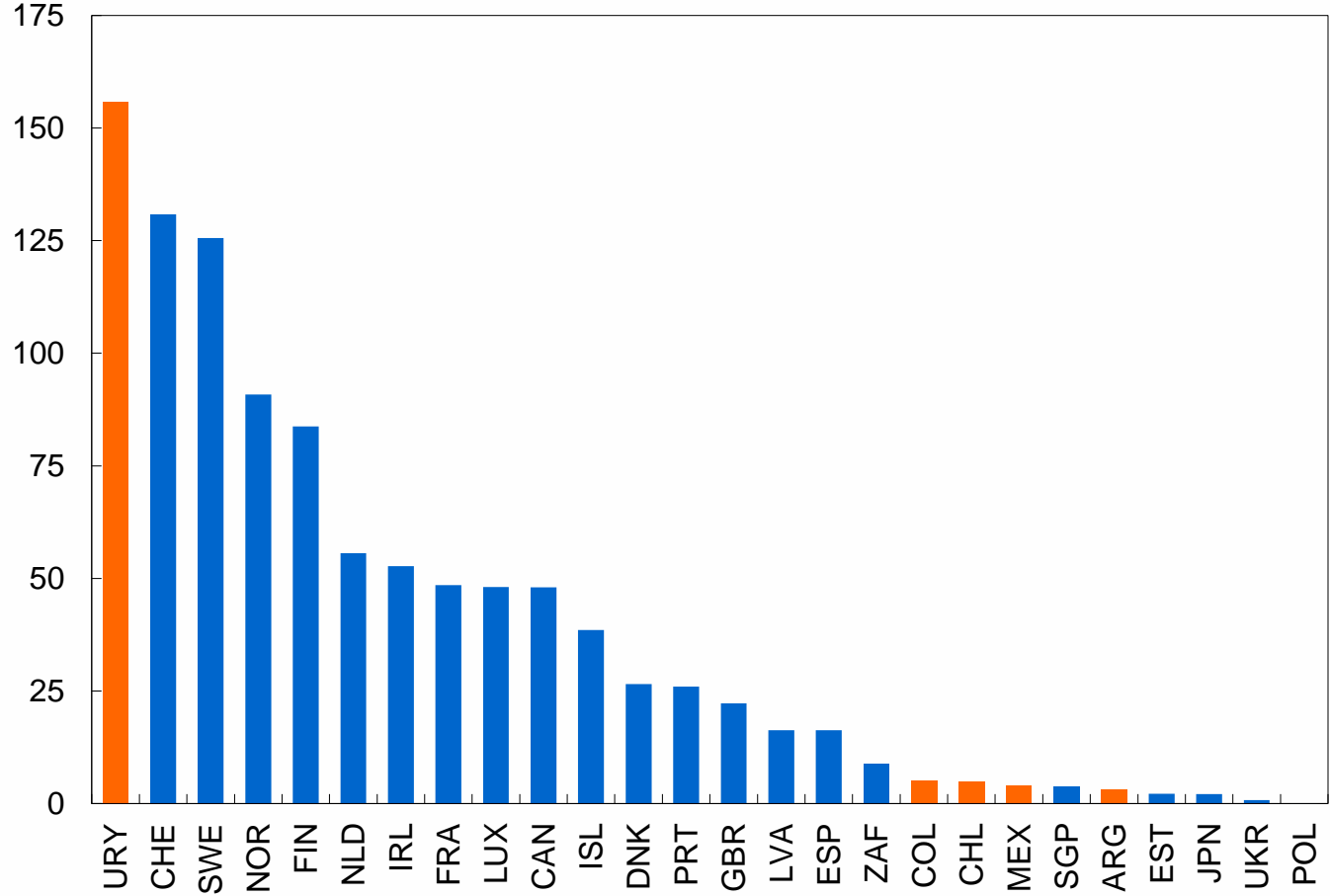
Sources: IMF, Carbon Pricing Assessment Tool; and IMF staff calculations.

Note: Data labels use International Organization for Standardization (ISO) country codes. BAU = business as usual.



# Carbon tax sparsely used mainly at low rates

LAC: Carbon and Environmental Taxes  
Carbon Tax Rate, March 2023  
(US dollar per ton of CO2 emissions)

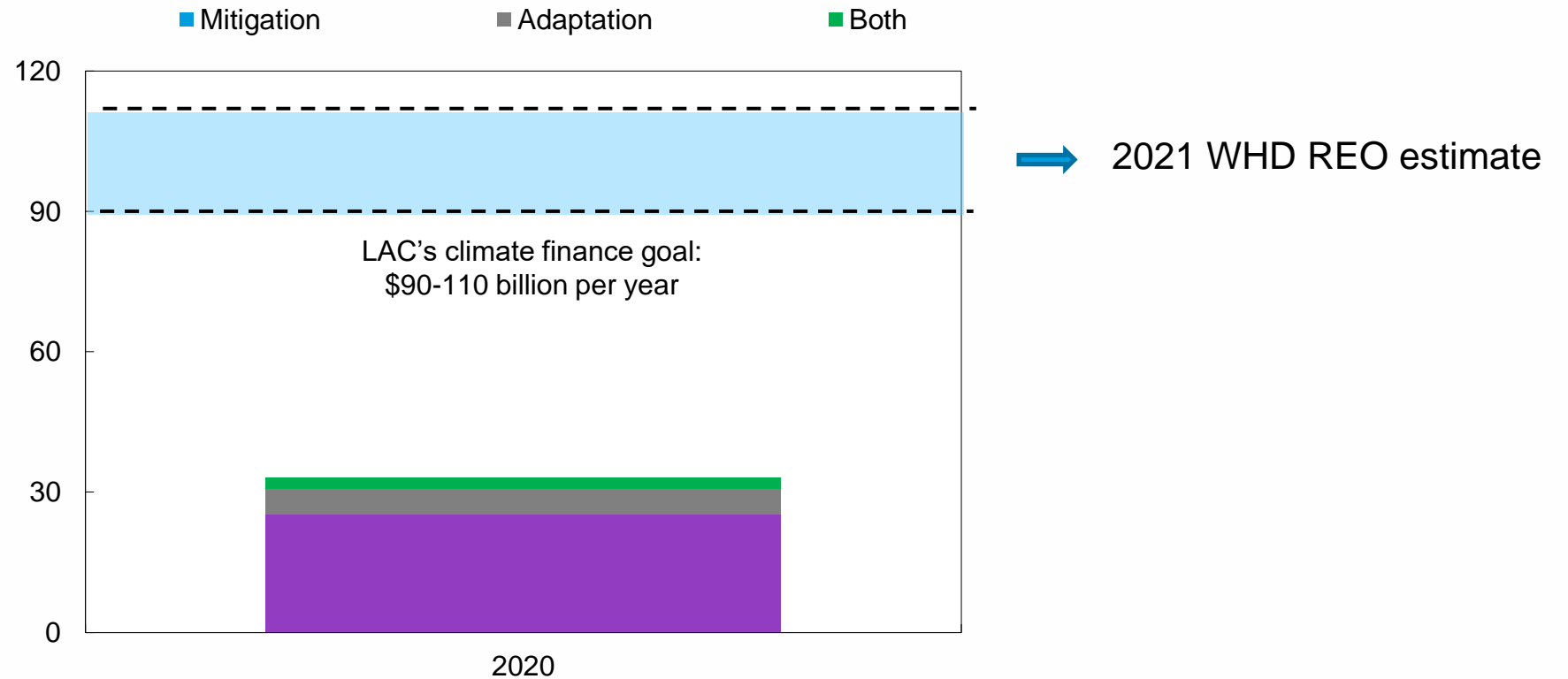


Sources: World Bank, Carbon Pricing Dashboard (March 2023), and IMF staff calculations.  
Note: Data labels use International Organization for Standardization (ISO) country codes. LAC = Latin America and the Caribbean.  
<sup>1</sup>Other local factors” comprise road congestion, damage, and accidents. Fossil fuel subsidies include the following products: gasoline, diesel, kerosine, LPG, natural gas, coal, electricity.

### **3. How can climate investments be financed?**

# Large gap between climate financing goals and financing mobilized

**LAC: Actual Climate Financing vs. Goals**  
(Billions of US dollars, annual)



# Mobilizing climate finance will need coordination

## 1. Public:

- Mobilize domestic resources, incl. carbon taxes
- Implement structural reforms to attract concessional finance
- Help identify projects

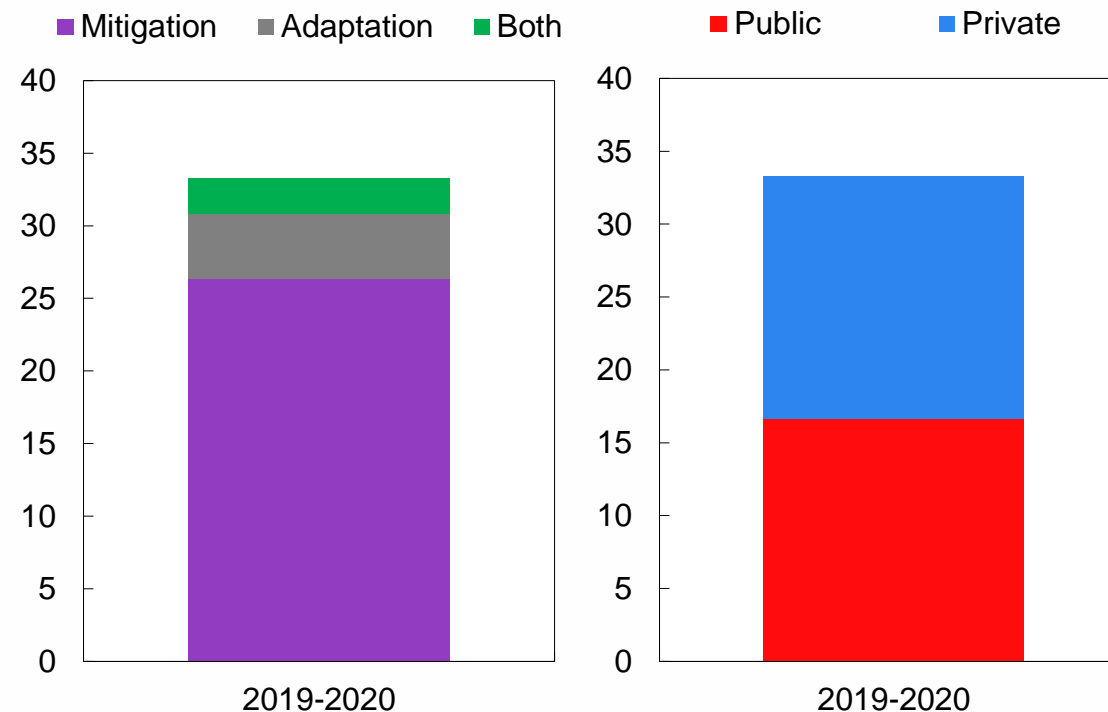
## 2. Private

- Sustainability linked debt
- State-contingent instruments

## 3. Bilateral/Multilateral

- AE to deliver on USD 100 billion annually
- Loss and Damage Fund in COP28
- Quantify via improved climate information
- DMBs: Public-private risk sharing, blended finance

**LAC: Climate Financing**  
(Billions of US dollars, annual average)

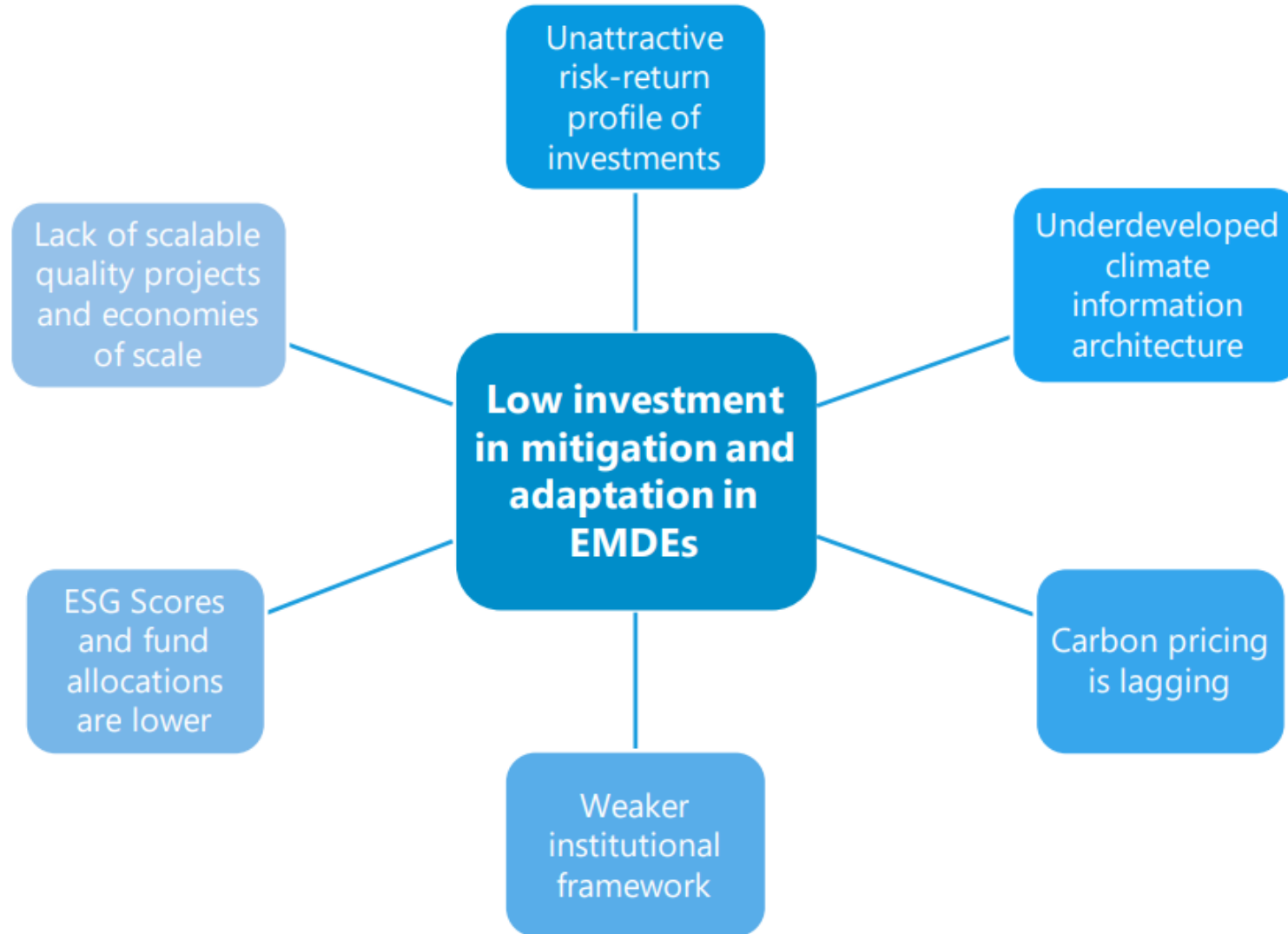


Source: Climate Policy Initiative, Updated View on the Global Landscape of Climate Finance 2019; and IMF staff calculations.

Note: LAC = Latin America and the Caribbean; SOE = state-owned enterprises.

# **What are the challenges to scale up climate financing?**

# Challenges to scale up climate financing



# The IMF's Resilience and Sustainability Facility (RSF)

## Highly concessional

- 20-year maturity
- 10 ½ year grace period
- SDR interest rate

## Catalytic

- Access: max. 150 percent of quota or SDR1 bn.
- Adaptation and mitigation plan with list of projects to attract investment

## Requires UCT quality program

- Internalization of macroeconomic costs and returns
- Identification of external and fiscal financing requirements

# Barbados as an example



## US\$189 RSF and US\$ 113 EFF. Conditionality and reforms:

1. Strengthen macroeconomic stability, fiscal sustainability and unlock growth potential
2. Build resilience to climate change and green the economy:
  - Identify and implement climate policies consistent with lower emission targets
  - Collect and disseminate climate risk and vulnerability data
  - Support the transition to a renewable energy-based economy
  - Establish effective institutional arrangements for climate policy planning and implementation

## Mobilization of climate finance:

- World Bank **US\$100 million DPL** to support low carbon development and resilience
- IDB credit **US\$100 million**
- Debt for nature swap (IDB and The Nature Conservancy guarantees) **US\$50 million** for marine conservation
- Blue Green Bank, supported by development partners. Gov. injected **US\$10 million** as initial capital (RSF)



**Thank You!**

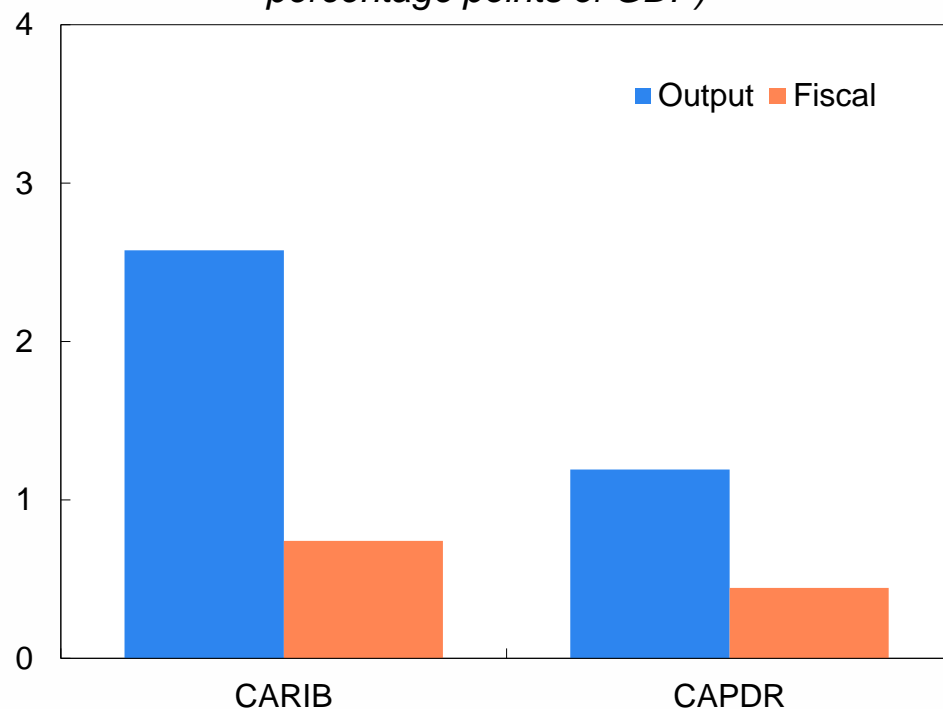
# Reserve slides

# Climate Adaptation: underinvested and uninsured

## Structural Resilience

### Output and Fiscal Gains from Resilient Investment in the Long Run

(Change relative to no resilience; Output: percent; Fiscal: percentage points of GDP)

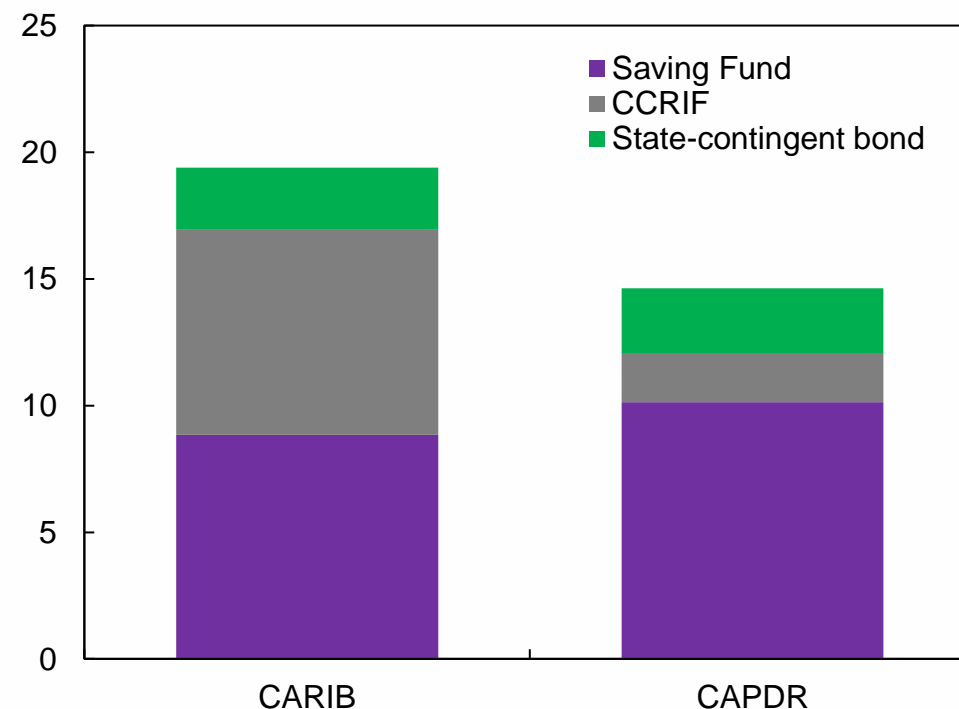


Sources: Caribbean Catastrophe Risk Insurance Facility; EM-DAT; and IMF staff calculations. Note: Aggregates are simple averages. Data labels use International Organization for Standardization (ISO) country codes. CARIB = Caribbean (BHS, DMA, GRD, JAM, VCT); CAPDR = Central America, Panama, and the Dominican Republic (CRI, DOM, HND, NIC, PAN).

## Financial Resilience

### Financial Resilience Simulations: Disaster Insurance Coverage and Layering

(Percent of GDP)



Sources: National authorities; and IMF staff calculations. Note: Authorities' data and disaster loss function estimates from CCRIF. Calibrated to achieve coverage of 99 percent of disaster loss. Includes risk of tropical cyclones and earthquakes. Data labels use International Organization for Standardization (ISO) country codes. CCRIF = Caribbean Catastrophe Risk Insurance Facility.

# Climate mitigation and adaptation create opportunities

- **Mitigation efforts:** environmental and health benefits
- **Investment in green technologies and infrastructure:** growth and jobs
- **Sustainable farming:** food security, lower transition risks
- **The shift to green technologies:** “green” metals endowment
- **Investment in resilient infrastructure:** growth and fiscal benefits

**Reserves of “Green” Commodities**  
(Countries with a share higher than 5 percent)

Reserves of	Country	Percent of total reserves
<b>Lithium (Li)</b>	Chile	43.7
	Argentina	9.0
<b>Copper (Cu)</b>	Chile	23.0
	Peru	10.6
	Mexico	6.1
<b>Silver (Ag)</b>	Peru	18.1
	Mexico	7.4
	Chile	5.2
<b>Molybdenum (Mo)</b>	Peru	15.6
	Chile	7.8
<b>Nickel</b>	Brazil	17.0
	Cuba	5.9
<b>Graphite (natural)</b>	Brazil	21.6
<b>Manganese (Mn)</b>	Brazil	20.3
<b>Zinc (Zn)</b>	Mexico	8.7
	Peru	7.9
<b>Lead (Pb)</b>	Peru	6.8
	Mexico	6.4
<b>Cobalt</b>	Cuba	7.0