

### **KEY MESSAGES**

Climate Vulnerability Monitor, 3rd Edition (2022)

#### **Economic and Financial Impacts**

#### Decreased GDP Per Capita

Lower income levels across all countries, up to 30% decrease in growth potential for some (e.g. Central Asia). On average, across all continents, the additional 0.5°C of warming rising from 1.5°C to 2.0°C would lead to more than a doubling in the negative consequeurnces of climate change on incomes.

#### Accelerating Inflation Up to 66% higher at 2°C than 1.5°C

#### Higher Interest Rates

Median interest rates could climb above 0.65% in Asia and Europe.

#### Reduction in Annual GDP Growth Per Capita

Economic losses from climate change to exceed 10% reductions to annual GDP per capita growth for entire regions (Asia, Europe) by end-of-century in a no climate action scenario. For example, Europe consistently sees the largest relative estimated losses to GDP per capita growth, with spillover effects globally.

#### Loss of Labor Hours

Highest loss projected in the warmest latitudes (Central Africa, West Africa, South Asia, and Southeast Asia)

#### Near-term Losses

Economic losses from climate change expand by 1-2% in the near-term (2021-2040)

#### Food Security at Risk

#### Extreme Surface Temperatures °

Temperatures are higher than they have ever been in the last 125 000 years

#### Droughts

Drought events per 20 years to increase 4-8 fold at 1.5°C, 8-12 fold below 2.0°C, and 12-14 fold for the no climate action scenario

Extreme Precipitation of Extreme precipitation projected to increase by 4%-8% at 1.5°C, 3%-8% below 2.0°C, and 4%-22% for the no climate action scenario

Food Supply and Income

600 million farmers globally will be affected, 90% of which are small-holder and subsistence farmers

#### Severe Food Insecurity

Will increase by 12.8% globally if no climate action is taken, which is 10.9% higher than the scenario under 2.0°C.

#### **Drought Events in All Regions of the World**

are between 5-11 times more frequent in occurrence by 2050 in a below 2°C scenario compared with the recent past. But they would be 8-13 times more frequent by the end of century in a no climate action scenario.

#### Heavier Rainfall for Tropical Cyclones

At the same time, a 4°C warming world will see 20% heavier rainfall for all tropical cyclones, making less intense storms much more destructive than now.

#### **Decreases in Crop Yield**

1.5°C of warming results, for instance, in 5-10% decreases in crop yields, compared to 20% decreases in a below 2°C scenario, and over 40% decreases in a high warming scenario



Supporting Climate Vulnerable Nations to Play a Pivotal Role in Averting Climate Chaos via an Enhanced Transition in this Critical Decade

- The latest IPCC report estimates that 1.5oC of warming will be reached by 2030
- The period until 2025 thus represents an extraordinary window of opportunity to secure the future of the planet and its inhabitants
- The V20 face wealth destruction of over half a trillion US dollars in the last decade.

# Climate Impacts





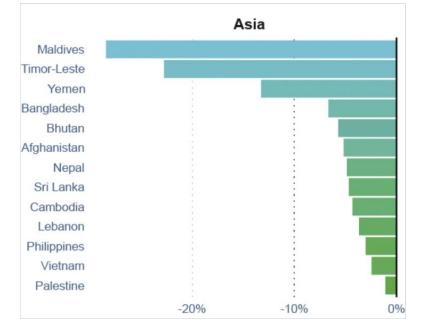
### 55 climate vulnerable economies have lost 20% of wealth: US\$ 525 Billion

In aggregate dollar terms because of climate change impacts (2000-2019) The most at risk countries would be twice as wealthy today were it not for climate change.

Economic losses exceeded half (51%) of growth since 2000 for most at-risk countries

# Climate vulnerable countries are contending with severe loss and damage.

Attributable Climate Change Economic Losses in V20 Countries



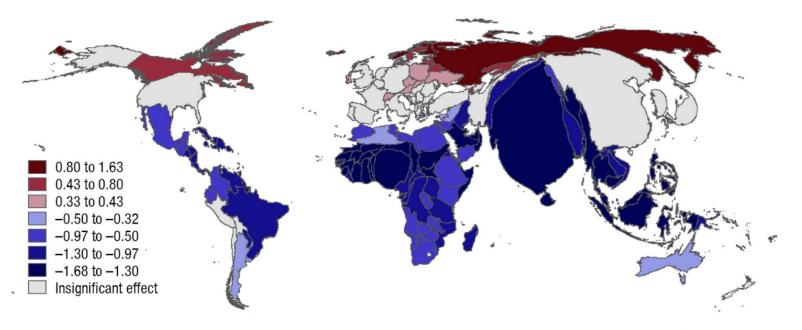
# \$525 billion

Total losses to V20 economies over the last two decades due to climate change

Source: Baarsch, Awal and Schaeffer 2022.

Effect on GDP per capita (in % of GDP in counterfactual)

# Effect of 1°C Increase in Temperature on Real per Capita Output at the Country Level, with Countries Rescaled in Proportion to their Population



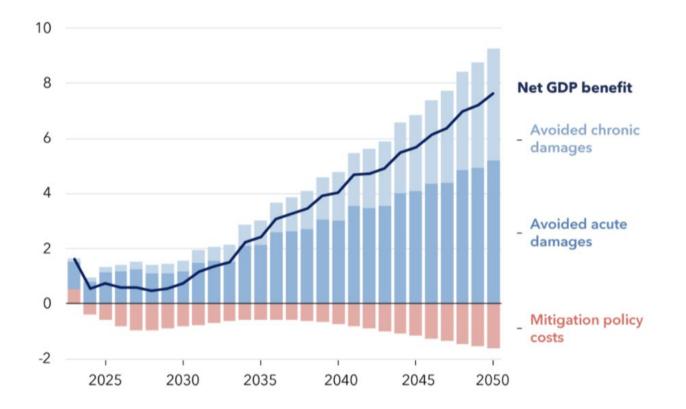
Data Source: IMF, 2017



# Avoid tradeoffs between development and climate stability

World potential GDP benefit under net zero carbon emissions by 2050

(percent deviation from reference scenario)



Sources: NGFS (2023), Scenarios Portal; IIASA (2023), NGFS Phase 4 Scenario Explorer; and IMF staff calculations. Note: NiGEM model with REMIND-MAgPIE inputs. The reference scenario is the Current Policies scenario with no transition but physical risk.



# **Key Outcomes of COP 28**



	Successes	Challenges	
Loss and Damage Funding Arrangements	Agreement on the operationalization of the Loss and Damage arrangements was historic and the first pledges by Germany and European Union sent a strong signal.	Losses and Damages, <b>raised funds are not enough</b>	
Adaptation Finance	Global Goal on Adaptation	<b>Large gaps in adaptation finance remain</b> , UNEP Adaptation Gap Report (2023) found the gap between developing countries' needs and available resources to be US\$194-366 billion per year	
Mitigation and Fossil Fuel Phase Out	Historic <b>agreement on transitioning away from</b> fossil fuels	<b>Loopholes and weak language</b> in the outcome documents are putting the mitigation goals at risk to protect 1.5C limit Global Stocktake revealed weak country NDCs, inconsistent national legislation and policy-making	
Global Shield against Climate RIsks	<ul> <li>Additional contributions by Luxembourg and France</li> <li>Joint event with Minister Svenja Schulze in Ghana Pavilion</li> </ul>	Diversifying donor base and support to all financing vehicles	
Green Climate Fund	- USD 12.8 billion raised from 31 countries	Raised funds are not enough	

## Investment/spending needs for climate action per year by 2030



Categories of inv	estment		Needs by 2030	
Transforming the energy system	Power system	Zero carbon generation	\$300-400bn	Total investment need per year by 2030: \$2–2.8trillion
		Transmission and distribution	\$200–250bn	
		Storage and back-up capacity	\$50–75bn	
		Early phase-out of coal	\$40-50bn	
	Transport system	Low emission transport infrastructure	\$400-500bn	
		Fleet electrification/hydrogen	\$100–150bn	
	Industry	Energy efficiency	\$10–20bn	
		Industrial processes	\$10–20bn	
	Buildings	Electrification	\$20-40bn Tot	
		Energy efficiency and GHG abatement	\$70-80bn pe	
	Green hydrogen	Production	\$20-30bn \$2-	
		Transport and storage	\$20–30bn	
	Just transition	Targeted programmes and safety nets	\$50–100bn	
Coping with loss and damage			\$200-400bn	
Investing in adaptation and resilience			\$200–250bn	
Investing in natural capital		Sustainable agriculture	\$100–150bn	
		Afforestation and conservation	\$100–150bn	
		Biodiversity	\$75–100bn	
Mitigating methane emissions from fossil fuels and waste			\$40-60bn	

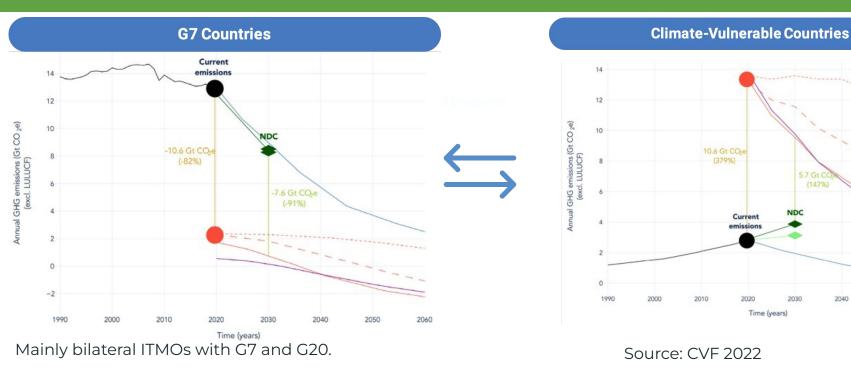
Source: Finance for climate action Scaling up investment for climate and development, Report of the Independent High-Level Expert Group on Climate Finance, November 2022

#### **Economic Cooperation and Trade Partnerships - Carbon Exchanges**



Current emission

Time (years)



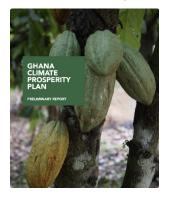
Private sector element: Given that the 1.5C limit of the Paris Agreement to be breached by 2030, the G7 agree for private actors in GFANZ/SMI be able to undertake Special Drawing for Net Zero through off-balance-sheet investments in exchange for returns on investment and ITMOs on a per annum basis which can be transferred to G7 countries.



Catalytic deals that unlock new long-term sources of capital or be crucial to changing market economics - limit risks, enable price discovery, and can support future system design.







- 1. Strategic investment plans to drive new investments in <u>development-positive climate action\*</u>
- 2. Macro model that illustrates development-positive climate action
- 3. Drive critical cooperation and partnerships including with G7, G20, private sector and other organizations towards a <u>fit-for-climate</u> international financial system.

Bangladesh: USD 90 billion through to 2030

Ghana: USD 76 billion through to 2030

Sri Lanka: USD 26 billion through to 2030