

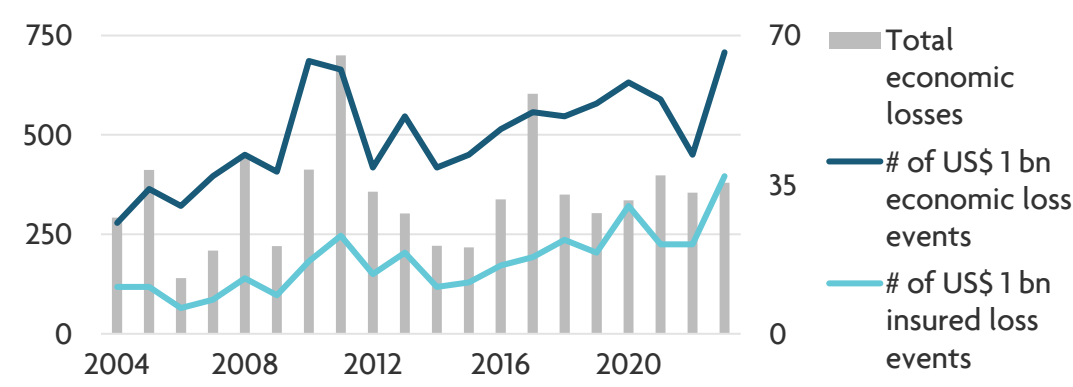
THE URGENCY TO SCALE CLIMATE RESILIENCE



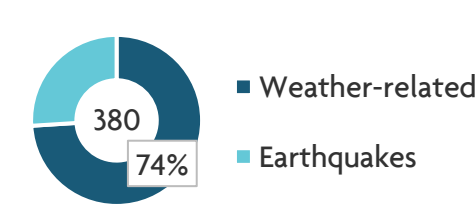
Climate resilience is the ability of social, economic, and environmental systems to maintain or recover their core functions while coping with the adverse impacts of climate change¹. In a world that is already dealing with impacts of catastrophic weather events, understanding the role of adaptation is critical to minimize losses in terms of lives, assets and finance

As the climate landscape worsens, extreme weather events are becoming increasingly frequent and costly

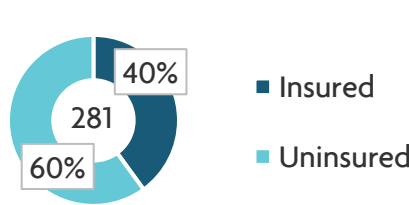
Annual global economic losses from natural disasters²
US\$ bn, # of events



Total economic losses²
US\$ bn, 2023

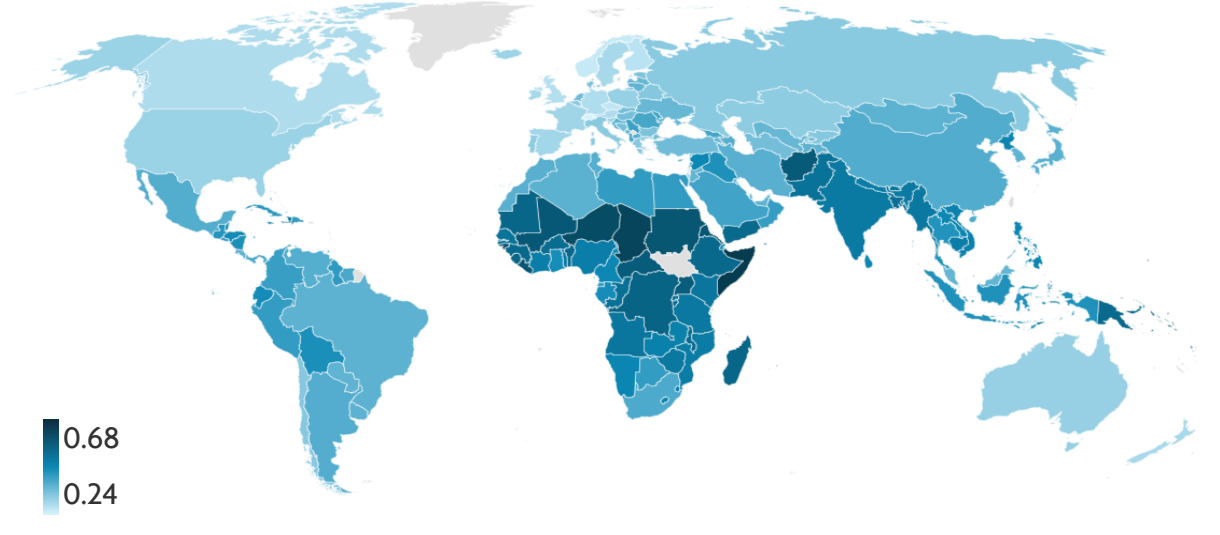


Weather-related economic losses²
US\$ bn, 2023



Meanwhile, climate impacts are felt differently across regions, disproportionately affecting developing countries

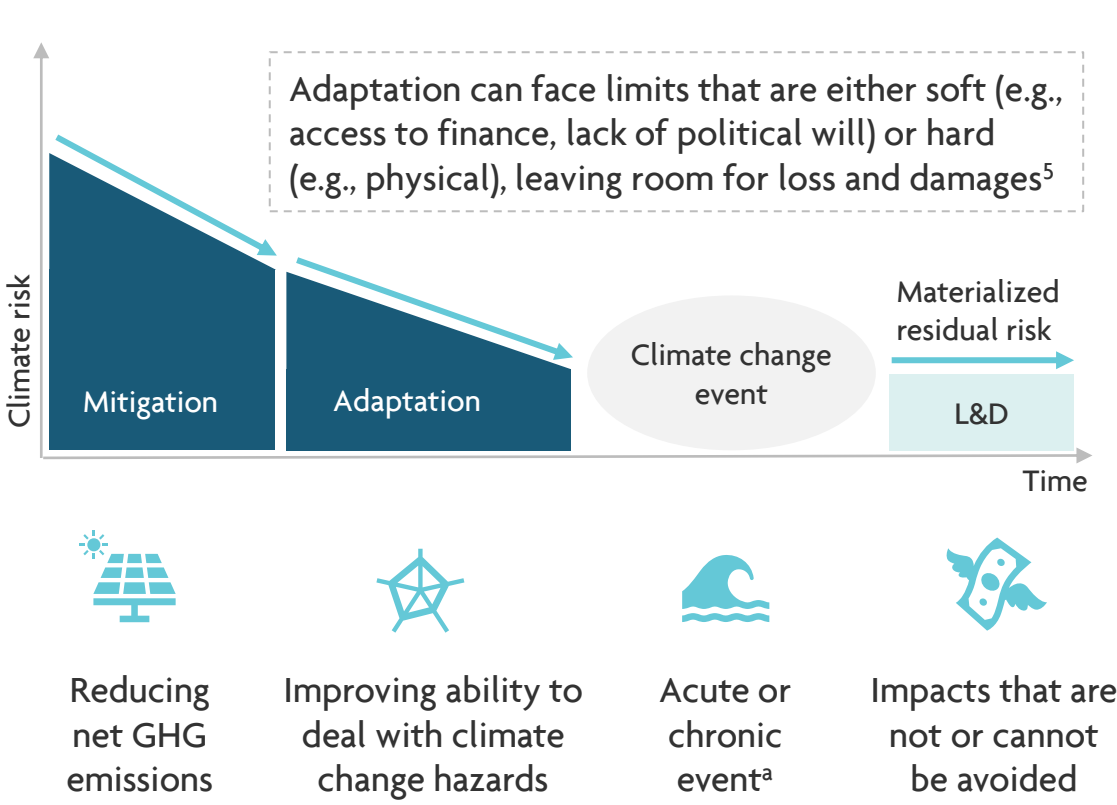
Climate vulnerability index³
2021



- Vulnerability measures a country's exposure, sensitivity (e.g., settlement and economic activities), and capacity to adapt to climate events
- Over 3.3 bn people (40% of humankind) live in highly vulnerable areas¹

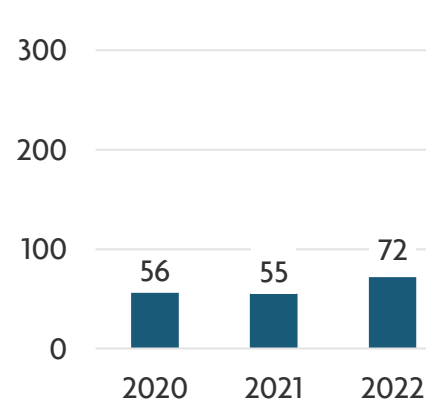
In this context, climate adaptation is critical to minimize disruption and losses...

Climate action timeline: from mitigation to loss and damages (L&D)⁴

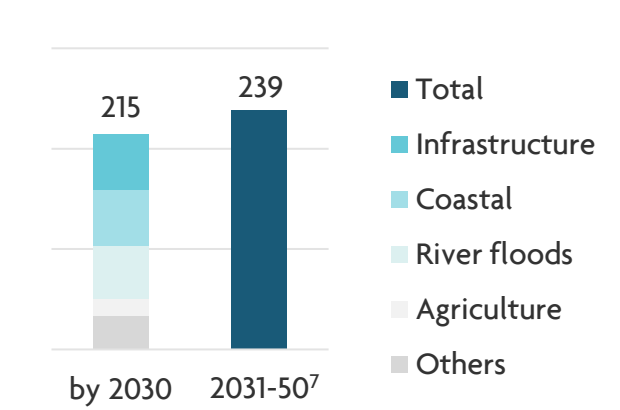


...but climate finance flows mostly to mitigation, while investment in adaptation falls far short of what is needed

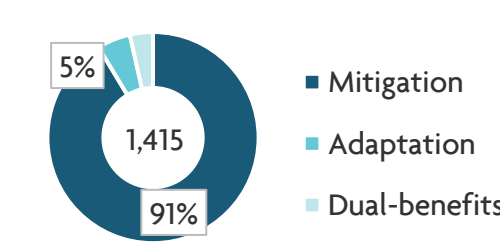
Global adaptation finance⁶
US\$ bn per year



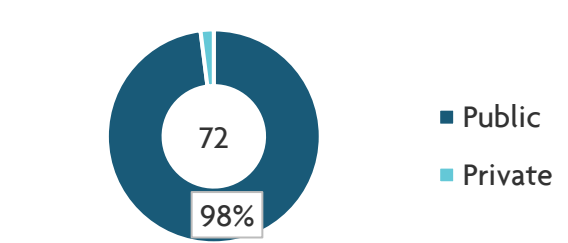
Projected costs in developing countries⁷
US\$ bn per year



Global climate finance⁶
US\$ bn, 2022



Global adaptation finance by source⁶
US\$ bn, 2022



Therefore, companies must effectively adapt to physical climate risks, going beyond business-as-usual

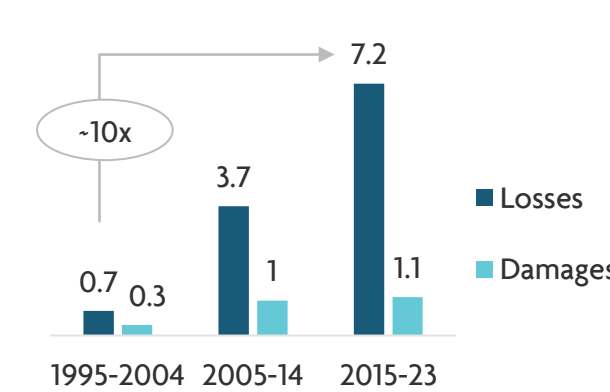
Power generation ⁸	Industry ⁹	Infrastructure and transport ¹⁰
75% of existing hydropower dams and 83% of projected dams are located in areas of medium-very high risk of flooding	Around 50% of the world's manufacturing facilities are highly exposed to water and heat stress, 25% to wildfires and 20% to floods	27% of all global road and railway assets are exposed to at least one natural hazard, and about 7.5% are exposed to a 100-year flood event

The private sector needs to plan for more resilient systems

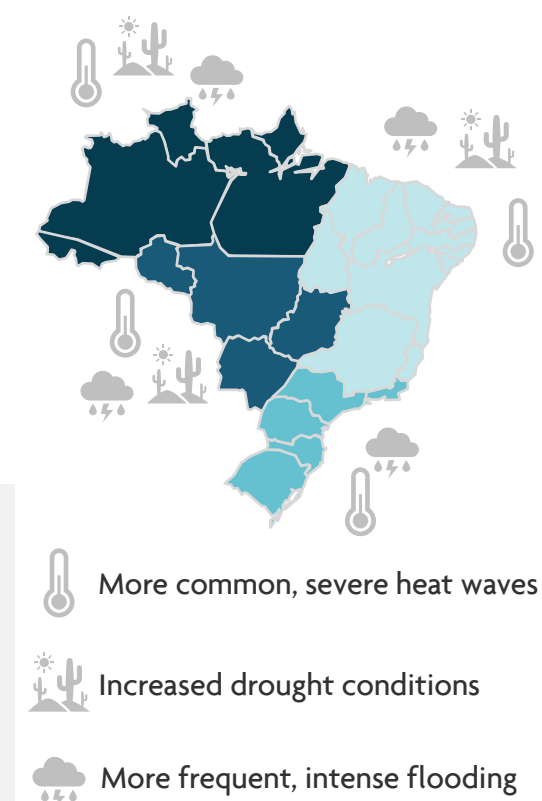
- Key actions include the mapping of physical risks in vulnerable assets and neighboring areas, monitoring of infrastructure integrity and allocating resources for adaptation measures
- Estimates show that for every US\$ 1 invested in climate-resilient infrastructure, US\$ 6 can be saved¹⁰

Brazil is not immune – costs are increasing, and impacts are expected to grow in every region, affecting key economic activities

Annual average losses and damages^b
from natural disasters¹²
US\$ bn^c, 1995-2023



Future climate impact-drivers^d in Brazil¹⁴



Hydropower reliance

A 2021 drought led to a 17% drop in the country's electricity supply and an average 6.7% rise in consumer tariffs that year¹³



Looking ahead, moving towards a more climate-resilient future is essential, even though the path to achieving it is not yet clear. Therefore, a multistakeholder approach is needed to jointly define the roles and responsibilities of governments, regulators, civil society, and the private sector. Adapting to climate change requires improving disaster risk management to protect vulnerable cities and communities, upgrading infrastructure and better incorporating climate risk into policymaking and investment decisions

¹ Acute events are intense and short in duration (e.g., heat waves, droughts, floods), while chronic events develop gradually over longer periods and have persistent impacts (e.g., sea level rise, desertification); ² Losses refers to the economic losses caused by the disaster (e.g.: products not delivered due to road closures) while damages refers to the monetary value of material-damages in physical assets (e.g.: infrastructure, homes); ³ December 2022 values; ⁴ Under a 2 °C warming scenario, geographical division approximated by state, based on the IPCC Atlas

¹ / IPCC. Climate Change 2022: Impacts, Adaptation, Vulnerability. 2022; ² / AON. Climate and Catastrophe Insight. 2024; ³ / University of Notre-Dame. ND-Gain Index. 2021; ⁴ / UNEP. Adaptation Gap Report. 2023; ⁵ / CPI. Beyond Adaptation: Coming to terms with Loss & Damage. 2023; ⁶ / CPI. Global Landscape of Climate Finance. 2023; ⁷ / UNEP. Adaptation Finance Gap Update. 2023; ⁸ / UNEP. Climate Risks in the Power Generation Sector. 2024; ⁹ / UNEP. Climate Risks in the Industrial Sector. 2023; ¹⁰ / World Bank. Lifelines: The Resilient Infrastructure Opportunity. 2019; ¹¹ / MIDR. Atlas Digital de Desastres no Brasil; ¹² / CNI. Impacto econômico do aumento no preço da energia elétrica. 2021; ¹³ / 2023 EPE. Mudanças Climáticas: Resiliência e Adaptação do Setor Elétrico Brasileiro. 2024