



Session 3: Strategic Foresight Interactive Session

INTERNATIONAL DISASTER RESILIENCE LEADERS FORUM

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A stylized illustration of an iceberg floating in dark blue water against a starry night sky. The visible tip of the iceberg is light blue and jagged, while the much larger submerged portion is dark blue and also jagged, illustrating the concept that reported losses are only the tip of the iceberg.

**Between 2001 and 2020, reported
direct disaster losses more than
doubled to more than \$200 billion
annually.**

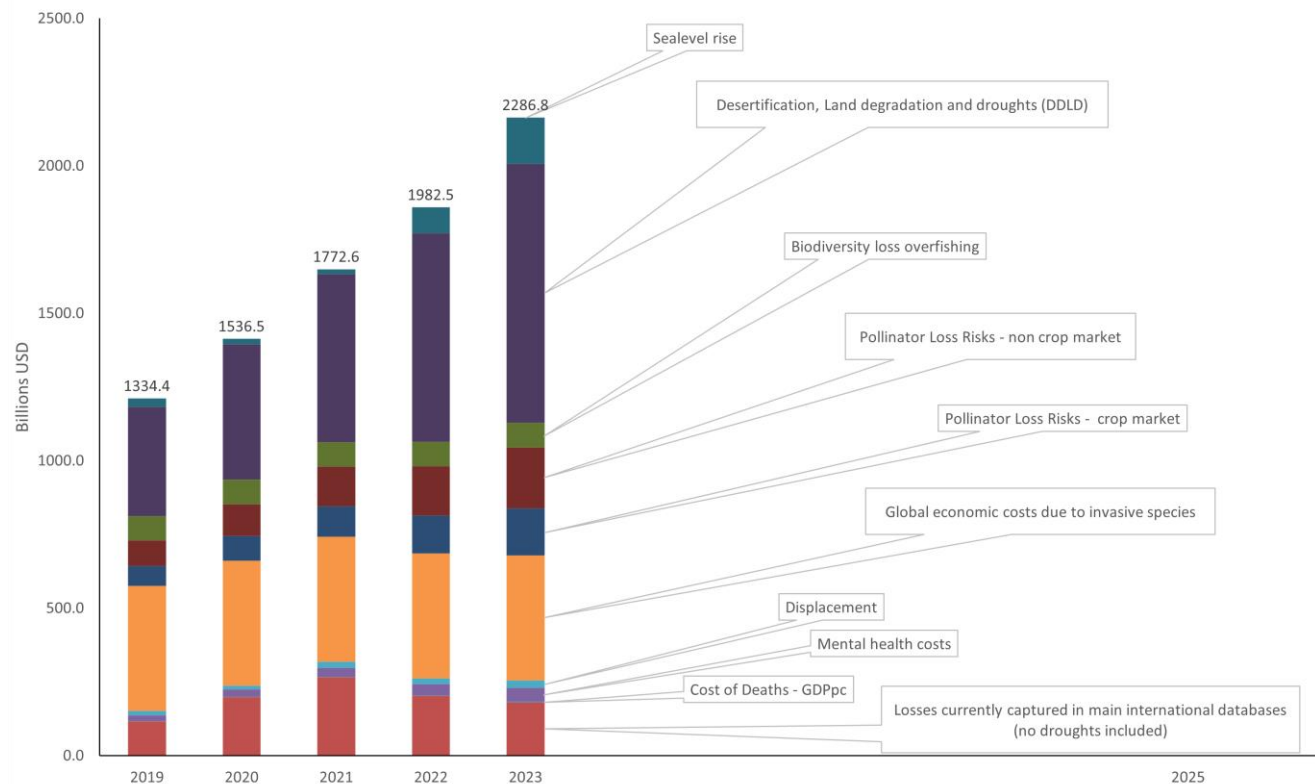
Many of these losses were preventable.

A stylized illustration of an iceberg floating in dark blue water against a starry night sky. The visible tip of the iceberg is light blue and jagged, while the submerged portion is much larger and darker, representing the hidden costs of disasters.

Direct losses are just fraction of the real cost of disasters.

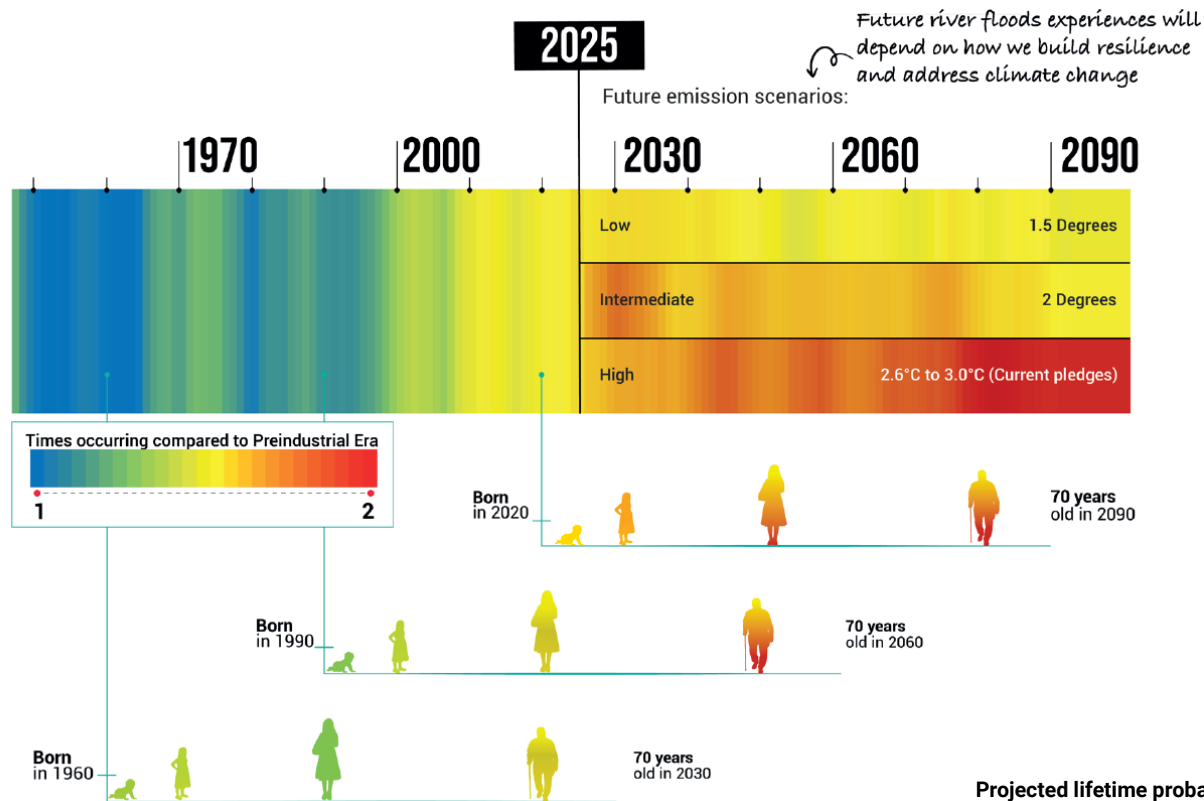
Costs exceed USD 2.3 trillion annually when indirect and ecosystem costs are considered.

Cascading and compounding costs are growing



Source: UNDRR using data from CRED / UCLouvain, 2025; Desinventar, 2025; World Bank, 2025; WHO, 2024a; WHO2024b; IDMC, 2025; IPBES, 2024; FAO, 2023; IPBES, 2016; World Bank, 2016; UNCCD, 2024; UNEP, 2014.

The world we were born into no longer exists



Children born in 2020 are over 20% more likely to experience a catastrophic flood than those born in 1990

Projected lifetime probability of experiencing a 1-in-100-year flood event, by year of birth.

Source: UNDRR adaptation of data from Thiery et al. (2021)

Foresight Exercise

- Reducing disaster risk is about much more than just managing disasters.
- If a country doesn't invest in disaster risk reduction, this could result in political instability, a fiscal crisis, and serious impacts on wellbeing, development gains and economic growth.
- Disaster risk reduction is about building the broader resilience of a country to external or internal shocks.



Foresight Exercise

Let us imagine that a country experiences a **balance of payment crisis** and **economic growth has decreased from 8 – 3 %** per year. It has an **unstable political environment**, which investors are becoming reluctant to invest in the main production plant of green automobiles, which were driving economic growth. If **this country is affected by major floods, because no flood protection measures were implemented, this will result in a major impact on the economy.**

This means that it is not just about reducing flood risk but increasing the broader resilience of a country to external or internal shocks.





Foresight Scenario 1: Vulneras

Scenario archetype: High disaster risk and constrained Governance Capacity

UNDRR alignment: Status quo/no-change pathway

Future Context (2035)

By 2035, Vulneras is experiencing a compounding disaster risk crisis. Floods and droughts are more frequent and severe, urbanisation is accelerating without risk-sensitive planning, and poverty remains widespread.

Early warning systems are limited and uneven. Disaster response is reactive, heavily reliant on international support, and recovery is slow — particularly for poorer households. Repeated shocks are eroding trust in institutions and deepening inequality.

The country is not doing nothing, but it is falling further behind the pace of risk.

Foresight Scenario 1: Vulneras



Over the past decade:

- Disaster-related mortality and displacement have increased, particularly among poorer and rural populations.
- Floods and droughts have become more frequent and severe, with cumulative impacts on livelihoods and food security.
- Infrastructure losses have grown steadily, straining public finances and recovery capacity.
- Early warning systems exist but remain fragmented, underfunded, and unevenly trusted.
- Recovery times have lengthened, reinforcing cycles of vulnerability and inequality.



Foresight Scenario 1: Vulneras

The Strategic Challenge

Following another major flood that displaced thousands, the government faces an urgent choice:

How to stabilise the situation before the next disaster season — with limited resources, weak institutions, and growing public frustration.

You are part of a crisis leadership team making decisions under pressure.



Foresight Scenario 1: Vulneras

The Trade-Offs you face: Please rank and prioritize the actions proposed, from the below options:

Option A – Emergency Response Capacity

Strengthen evacuation, shelters, and basic services.

Option B – Basic Infrastructure Protection

Invest in flood defences and resilient transport links.

Option C – Governance and Institutional Reform

Improve coordination, accountability, and local capacity.

Option D – Community-Led Resilience

Support local preparedness, housing upgrades, and livelihoods.

Foresight Scenario 2: Modera



Scenario archetype: Moderate-High Risk, Constrained but Capable Governance

UNDRR alignment: Optimal/pragmatic resilience under constraints

Future Context (2035)

By 2035, Modera has made steady progress in disaster risk reduction, but remains highly exposed to tropical cyclones, storm surges, and flooding. As a small island state with limited fiscal space and high debt levels, every resilience decision involves trade-offs.

Early warning systems function reasonably well, and key infrastructure has been upgraded selectively. However, recovery strains public finances, and governance capacity is stretched during major events. Internal migration toward coastal areas and sea-level rise continue to increase exposure.

Modera is not failing, but it is constantly balancing what is necessary against what is affordable.



Foresight Scenario 2: Modera

Over the Past Decade (2025–2035)

- Disaster-related deaths have declined modestly, but the number of people affected by disasters has continued to rise.
- Infrastructure losses from tropical cyclones and storm surges remain high in extreme years.
- Early warning systems have improved, but coverage and effectiveness vary by location and income group.
- Public debt has increased following successive disaster recovery efforts.
- Progress on resilience has been uneven, with clear gains in some sectors and stagnation in others.

Foresight Scenario 2: Modera



Strategic Challenge

After several damaging cyclone seasons, the government faces mounting pressure:

- Public debt remains high
- Climate impacts are increasing
- Investment needs exceed available resources

You are part of the leadership team deciding where limited funds can deliver the greatest reduction in risk over the next decade.

Foresight Scenario 2: Modera



Trade offs you face: Please rank and prioritize the actions proposed, from the below options:

Option A – Targeted Infrastructure Protection

Focus on critical assets such as ports, power, and hospitals.

Option B – Community and Housing Resilience

Upgrade homes, preparedness, and recovery support in high-risk areas.

Option C – Early Warning and Digital Systems

Expand forecasting, communication, and regional data sharing.

Option D – Economic and Fiscal Diversification

Reduce dependence on climate-sensitive sectors and build contingency funds.

Foresight Scenario 3: Resiliana



Scenario archetype: High Risk, Strong Governance and DRR Capacity

UNDRR alignment: Gold standard/best-practice resilience pathway

Future Context (2035)

By 2035, Resiliana has embedded disaster risk reduction across all levels of governance and society. While the country remains highly exposed to floods, storm surges, earthquakes, and tropical cyclones, disaster impacts are largely anticipated, absorbed, and rapidly recovered from.

Rapid urbanisation and population growth continue to place pressure on infrastructure, particularly in the capital city located in multi-hazard zones. However, decades of risk-informed planning, resilient infrastructure investment, and universal early warning coverage mean that disasters rarely escalate into national crises.

Foresight Scenario 3: Resiliana



Scenario archetype: High Risk, Strong Governance and DRR Capacity

UNDRR alignment: Gold standard/best-practice resilience pathway

Future Context (2035)

Power systems are decentralised and flood-resilient, early warning messages reach nearly the entire population, and communities are well trained to respond. Recovery is fast and relatively equitable, even for lower-income households.

Climate change is intensifying hazards, but Resiliana is ahead of the risk curve, not chasing it.

Foresight Scenario 3: Resiliana



Over the Past Decade (2025–2035)

- Disaster-related mortality has declined to very low levels, even as hazard intensity has increased.
- Annual average infrastructure losses have stabilised despite growing exposure and urban density.
- Early warning coverage has expanded to near-universal reach, with high public trust and compliance.
- Resilience investments have become increasingly sophisticated and capital-intensive.
- Recovery times have shortened across income groups, though marginal gains are now harder to achieve.

Foresight Scenario 3: Resiliana



Strategic Challenge

After years of success, the government now faces a new strategic dilemma:

How far should Resiliana continue to invest in resilience when basic disaster losses are already low, and competing demands on public finance are rising?

Public expectations are extremely high: citizens expect near-zero disruption from disasters. Meanwhile, climate extremes are beginning to test the design limits of existing systems.

You are part of the national leadership team tasked with setting the next 10-year resilience strategy.

Foresight Scenario 3: Resiliana



The Trade Offs You Face: Please rank and prioritize the actions proposed, from the below options:

Option A – Next Generation Infrastructure

Upgrade flood defences, power grids, and transport to withstand worst-case climate scenarios.

Option B – Social and Community Resilience

Deepen preparedness, housing safety, and inclusive recovery mechanisms.

Option C – Advanced Technology and Innovation

Invest in AI-enabled forecasting, smart infrastructure, and integrated risk platforms.

Option D – Fiscal and Financial Resilience

Expand insurance schemes, contingency funds, and regional risk pooling.