

# Use of Space-based Information to Support Global Frameworks

## Aiming at risk-centred climate sensitive development

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# **The Space-Community perspective and expertise...**

© German Aerospace Center (DLR)





**The perspective of the end-users ...**



Climate and Environment

# Tens of millions of people have been moving into flood zones, satellite imagery shows

A new study finds that the proportion of people living in flood zones has grown dramatically, and could be the 'tip of the iceberg'



Listen to article 5 min



# Points to Consider

- ▶ The need to ensure that we are *de facto* contributing to better decision-making.
- ▶ We need to build upon and contribute to agreed international policies and legal frameworks.
- ▶ Earth observation data is just one piece of the puzzle.
- ▶ Be a part of the solution.

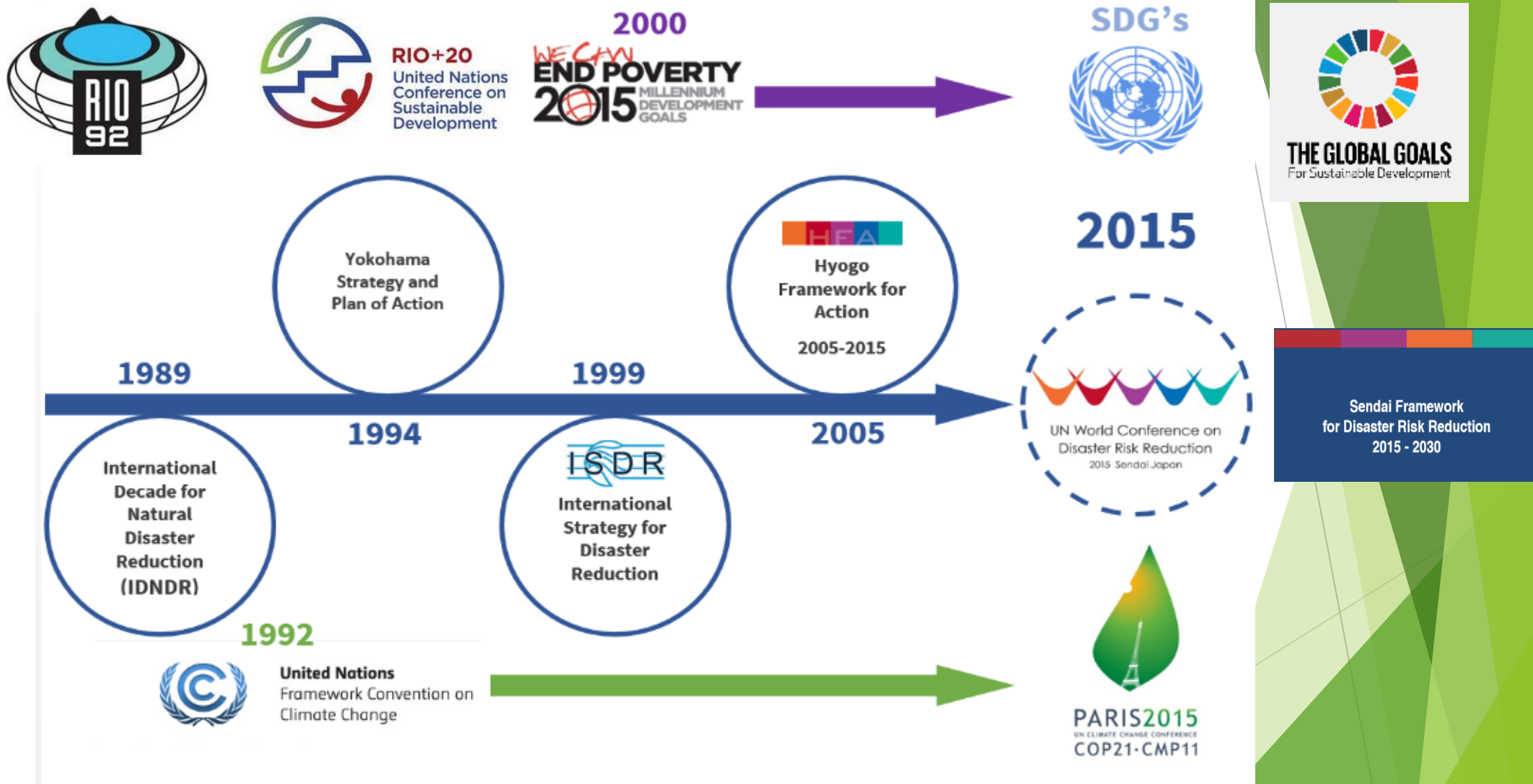


## Contributing to better decision-making

'The world moves into the future as a result of decisions, not as a result of plans'. Kenneth E. Boulding (1974)

So many of the problems we observe today in are the result of decisions made (or not made) in the past, the same way the near future will bring additional critical problems which will be the end results of the decisions being made (or not made) today.

# DRR and International Frameworks





# Sendai Framework for Disaster Risk Reduction: 2015-2030

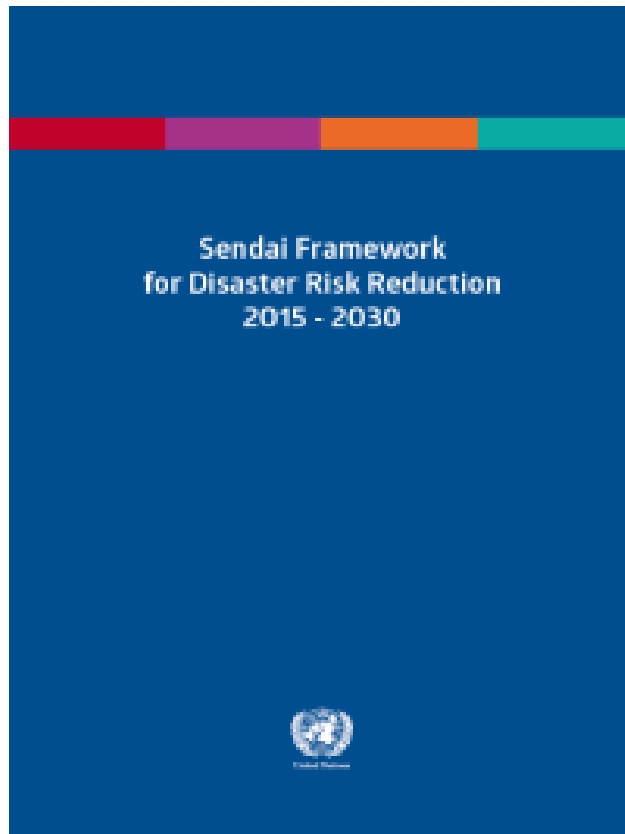




# The Sendai Framework for Disaster Risk Reduction 2015-2030

## Intended outcome:

*The substantial **reduction of disaster risk and losses** in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.*



**Adopted at the Third UN World Conference on Disaster Risk Reduction** on March 18, 2015

**Endorsed by the UN General Assembly** on May 15, 2015.

**15-year**, voluntary, non-binding agreement with **4 Priorities for Action** and **7 Global Targets**

Recognizes that the **State has the primary role** to reduce disaster risk but that responsibilities are to be **shared with other stakeholders including local government and the private sector.**

# Sendai Framework Monitoring at a glance: 7 Global Targets

## Global Target A:

Substantially reduce global disaster mortality by 2030

## Global Target B:

Substantially reduce the number of affected people globally by 2030

## Global Target C:

Reduce direct disaster economic loss in relation to global GDP

## Global Target D:

Substantially reduce disaster damage to critical infrastructure and disruption of basic services

## Global Target E:

Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020

## Global Target F:

Substantially enhance international cooperation to developing countries

## Global Target G:

Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.



# A SFDRR Perspective



- Focus on Risk (current & future)
- Risk Assessments and Risk Reduction Strategies
- Establishing a Risk Governance
- Strengthen institutional capacity & coordination mechanisms
- Policy coherence
- Global, National, Regional and Local Monitoring
- Disaster Loss Databases

# Target E

“Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020”

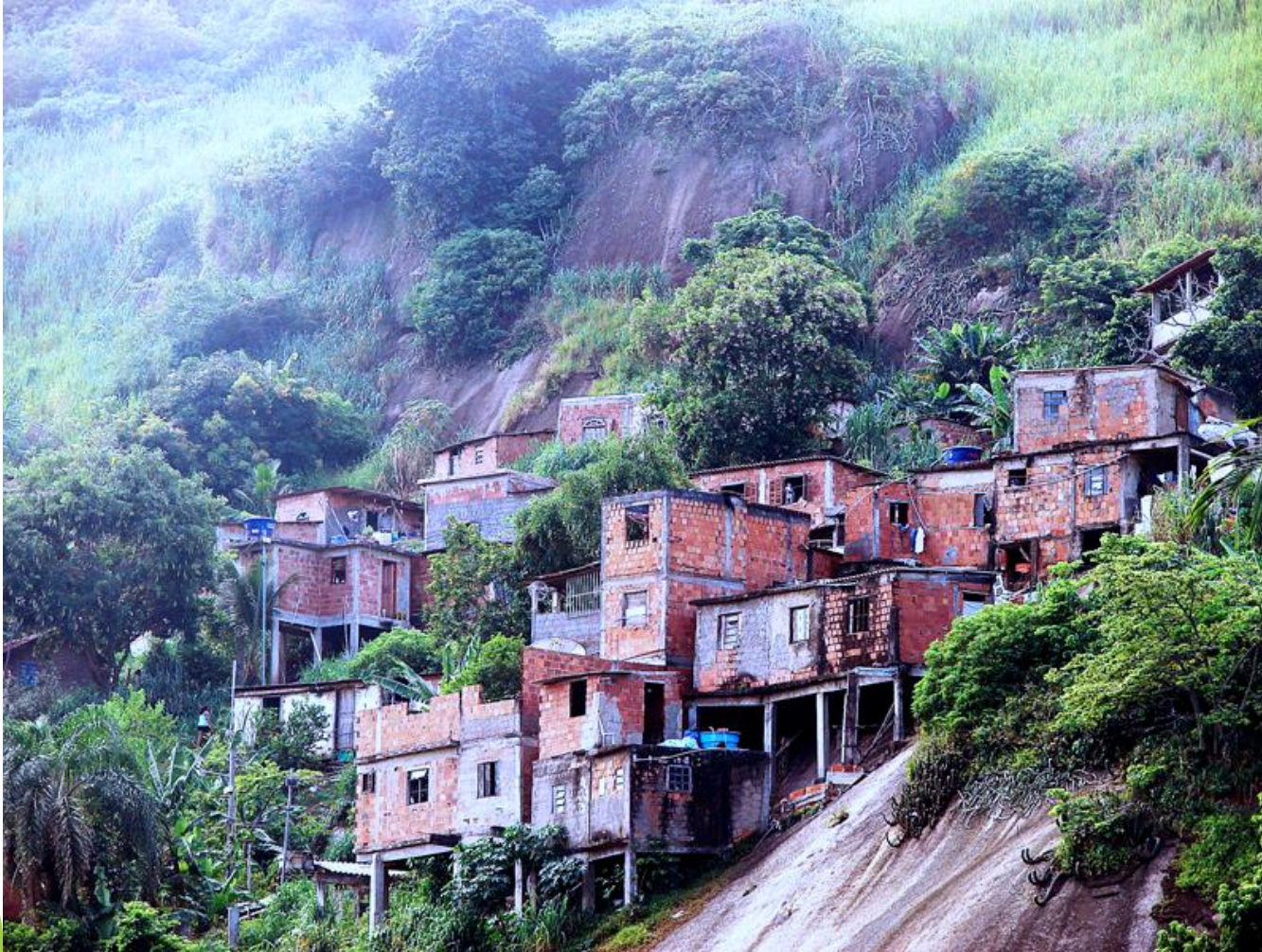


No.	Indicators for measurement at the global level
E-1	Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.
E-2	<p>Percentage of local governments that adopt and implement local disaster risk reduction strategies in line with national strategies.</p> <p><i>Information should be provided on the appropriate levels of government below the national level with responsibility for disaster risk reduction.</i></p>



# Disasters are not “natural” ...

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**As a society  
we accept  
living with  
unacceptable  
risk as  
business as  
usual**



# Focus on Risk

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What is an acceptable risk?

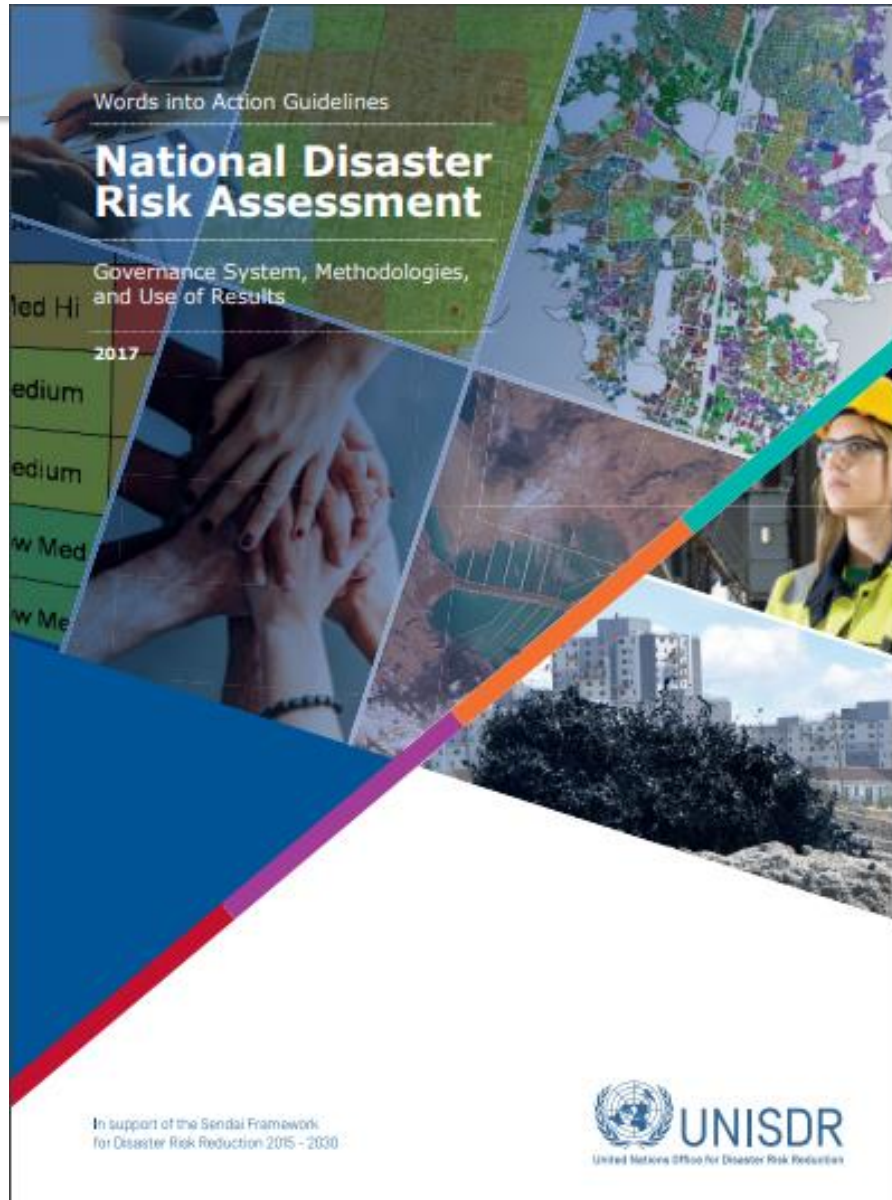


[HOME](#) > [EXECUTIVE LIFESTYLE](#)

# Miami could be underwater within 80 years, but rich people keep buying luxury waterfront homes — and local experts says there's a simple explanation for it

Katie Warren Mar 10, 2019, 2:15 PM





# Risk Strategy

- Reduce Risk
- Retain Risk
- Transfer Risk
- Residual Risk



# Risk Strategies

## 1 Risk reduction

Corrective: Building retrofitting, mitigation strategies.

## 2 Risk retention

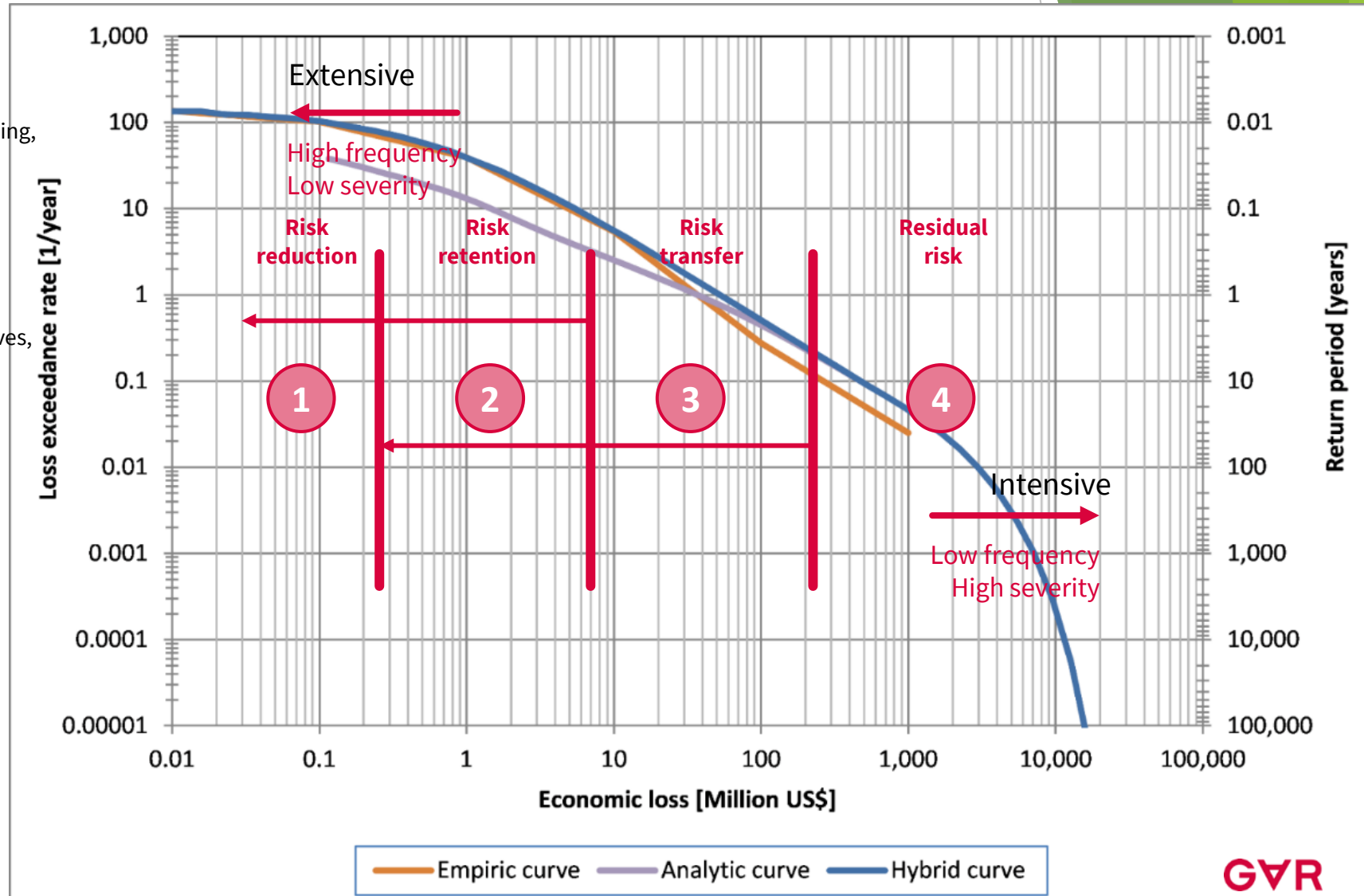
Prospective: Financial reserves, public investment, laws and regulations.

## 3 Risk transfer

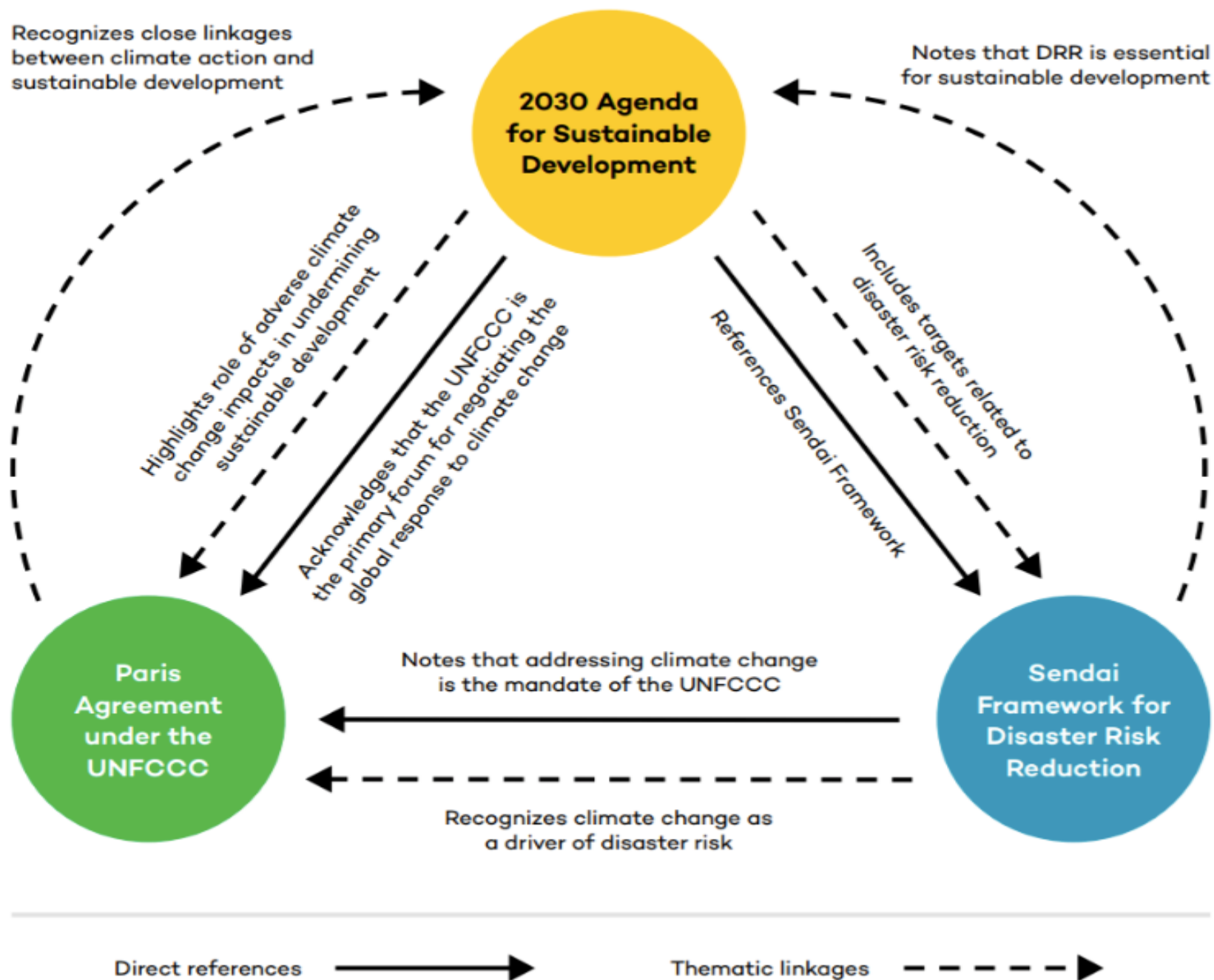
Compensatory: Insurance, contingency funds.

## 4 Residual risk

The risk we will have “to live with...”



# DRR In Global Agendas (NAP Global Network)







# SUSTAINABLE DEVELOPMENT GOALS

**1** NO POVERTY



**2** ZERO HUNGER



**3** GOOD HEALTH AND WELL-BEING



**4** QUALITY EDUCATION



**5** GENDER EQUALITY



**6** CLEAN WATER AND SANITATION



**7** AFFORDABLE AND CLEAN ENERGY



**8** DECENT WORK AND ECONOMIC GROWTH



**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE



**10** REDUCED INEQUALITIES



**11** SUSTAINABLE CITIES AND COMMUNITIES



**12** RESPONSIBLE CONSUMPTION AND PRODUCTION



**13** CLIMATE ACTION



**14** LIFE BELOW WATER



**15** LIFE ON LAND



**16** PEACE, JUSTICE AND STRONG INSTITUTIONS



**17** PARTNERSHIPS FOR THE GOALS



# Climate Change as a driver of risk ...

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# KEY ELEMENTS OF THE PARIS AGREEMENT

Parties pledged their best efforts in nationally determined contributions and agreed to report on progress regularly, as well as increased ambition overtime. A global stocktake every five years, beginning in 2023, will assess collective progress.



## Temperature goal

Limit the global rise to as close as possible to 1.5°C.



## Pre-2020 action and support

Encourage action between now and 2020 by all actors, including non-party stakeholders.



## Transparency and the global stocktake

Robust transparency and accounting supported by international review and global stocktakes.



## Finance, technology, and capacity building

International cooperation to support a low-carbon and climate-resilient future.



## Mitigation and voluntary cooperation

All parties must prepare nationally determined contributions (NDCs) and work to achieve them, reporting on progress, and regularly enhancing ambition.



## Adaptation and loss and damage

Strengthen national adaptation efforts and support vulnerable countries to cope with climate change effects.

# Ensuring

## Key Elements

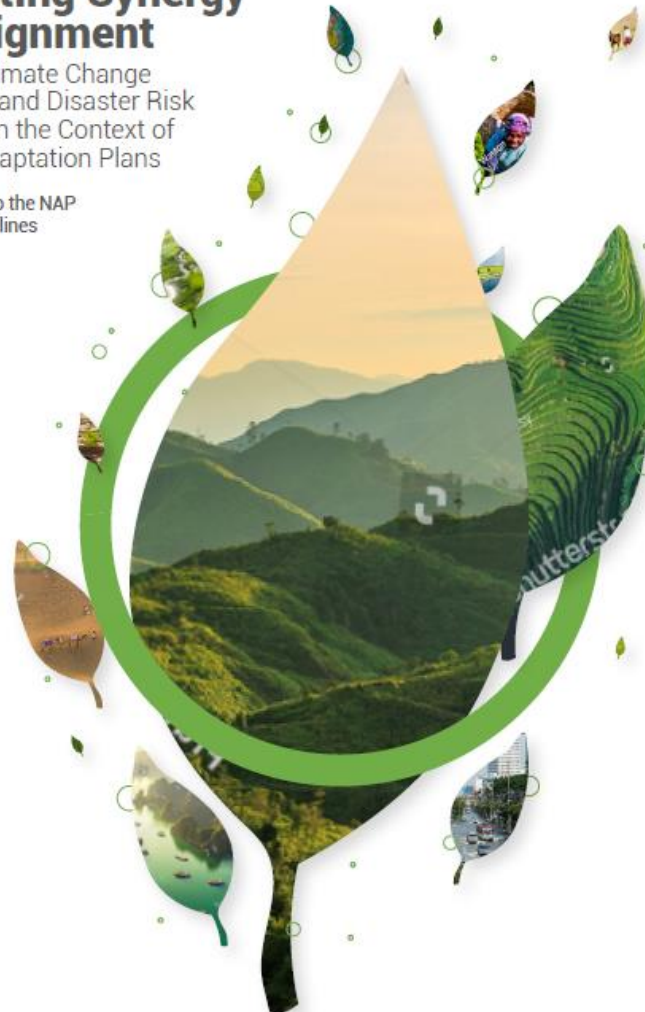
- More effective policies in development plans
- More efficient use of resources
- Advancing technical managing risks, building sustainability of knowledge
- Enhanced disaster preparedness

- Both DRR and CC
- Risk and uncertainty
- Risk components understood in order
- Complementarity the full spectrum
- Risk governance

## Promoting Synergy and Alignment

Between Climate Change Adaptation and Disaster Risk Reduction in the Context of National Adaptation Plans

A Supplement to the NAP Technical Guidelines



# and DRR

## Policy

Integration of the two

Understanding, reducing and managing effectiveness and

Development Goals  
(in CCA and DDR  
(risk drivers) should be  
measures to deal with





# Thank-you



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**SUSTAINABLE  
DEVELOPMENT GOALS**

**SEDAI FRAMEWORK**  
FOR DISASTER RISK REDUCTION 2015-2030