

# Disaster Damage and Loss Information System

*Based on DesInventar Sendai*

*Training workshop in Disaster Loss Databases and Sendai  
Framework Monitoring*

*Gandhinagar, Gujarat 13-15<sup>th</sup> November*



**SAARC**  
Disaster Management Centre

# Training workshop objectives

- Raise awareness on the relevance and benefits of collecting and using disaster information
- Share experiences and lessons learned on developing disaster loss databases, including success factors.
- Develop national and institutional capacities for managing disaster loss and risk information systems:
  - Train participants in the concept, methodology and use of the national Disaster Loss Databases using DesInventar software.
  - Promote synergies between institutions for data collection and sharing.

# Disaster Risk information for Disaster Risk Reduction ( DRR) Action

***Session 1. 13rd November afternoon session 14:00 – 15:15***

# Session Outline

- 1) **Introduction:** UNISDR, the United Nations Office for Disaster Risk Reduction.
- 2) **What is Disaster Risk Reduction?** The Sendai Framework for Disaster Risk Reduction.
- 3) **Global DRR targets and indicators:** monitoring and reporting mechanism
- 4) **Overview of OIEWG report and Technical Guidance for Indicators**

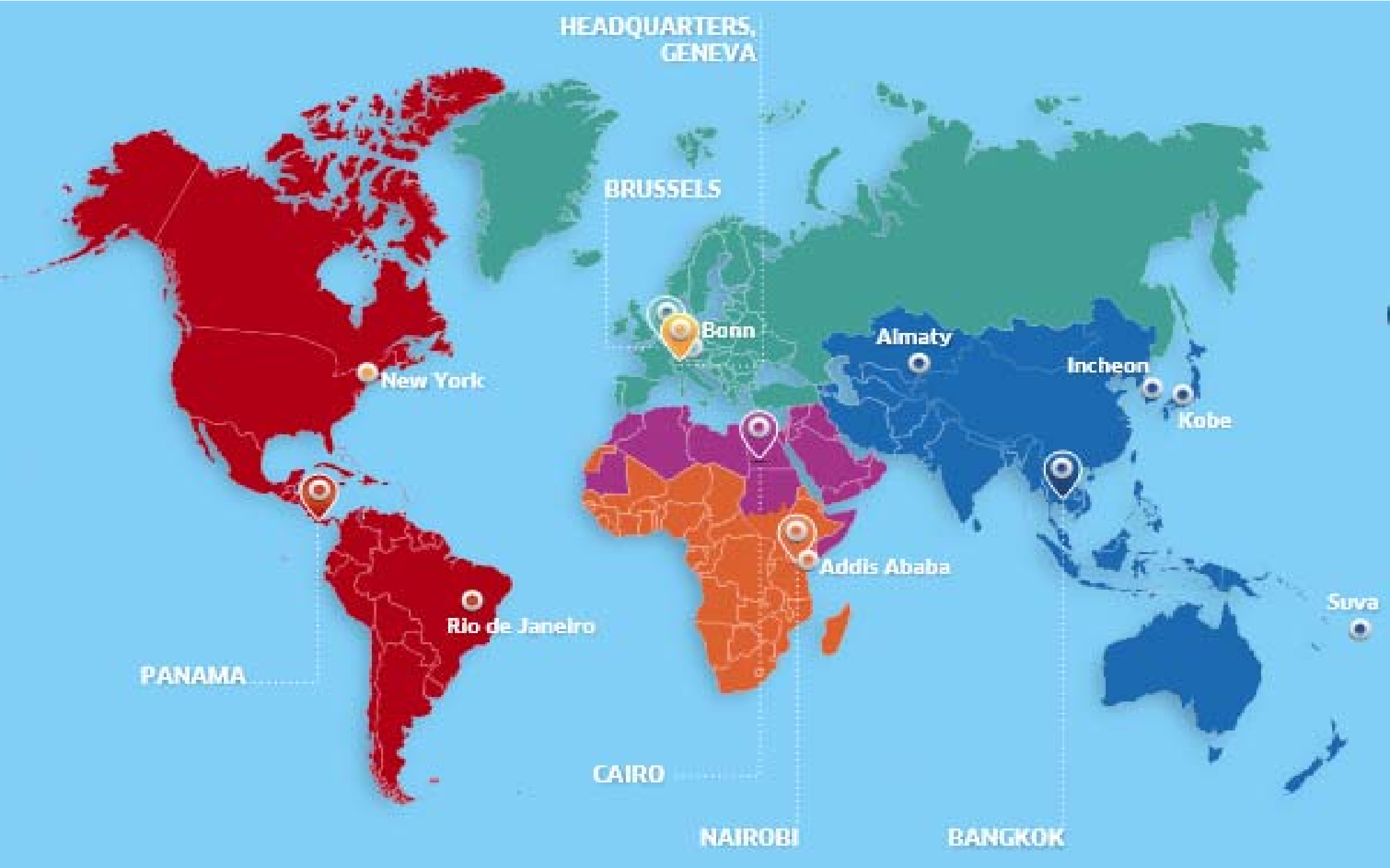


UNISDR's mandate is to serve as the focal point in the United Nations system for the coordination of disaster risk reduction, supporting countries and societies in the implementation, monitoring and review of progress of the Sendai Framework for DRR and ensuring **synergies** among disaster risk reduction activities.

For more information:

- [www.unisdr.org](http://www.unisdr.org)
- [www.preventionweb.net](http://www.preventionweb.net)

Created in December 1999, the secretariat has more than 130 staff in Geneva headquarters and the regional offices over the world.

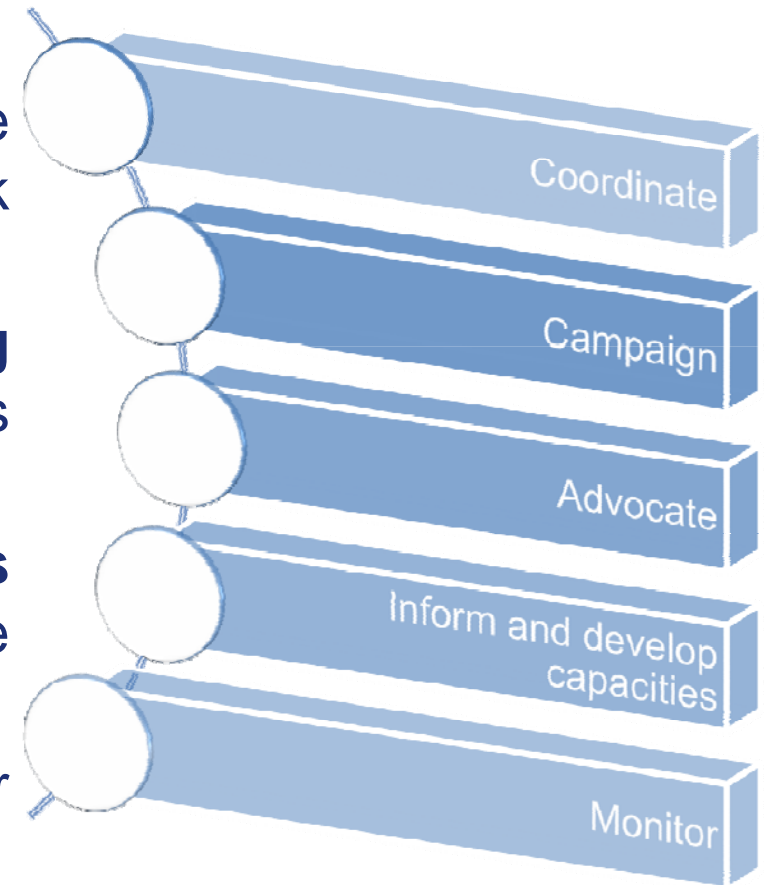




# UNISDR

United Nations Office for Disaster Risk Reduction

- Coordinates the international efforts for disaster risk reduction.
- Monitors the progress in the implementation of the Sendai Framework for Disaster Risk Reduction (2015-2030).
- Works closely with countries **for building capacities** for creating resilient societies with a perspective of risk reduction.
- Provides online **tools and documents** through communications and knowledge platforms
- Organizes regional and global platforms for DRR ( AMCDRR and IAP for Asia Pacific)





# UNISDR

United Nations Office for Disaster Risk Reduction

**Virtuous cycle** of knowledge and evidence generation and application for improved policy and practice



# UNISDR

United Nations Office for Disaster Risk Reduction

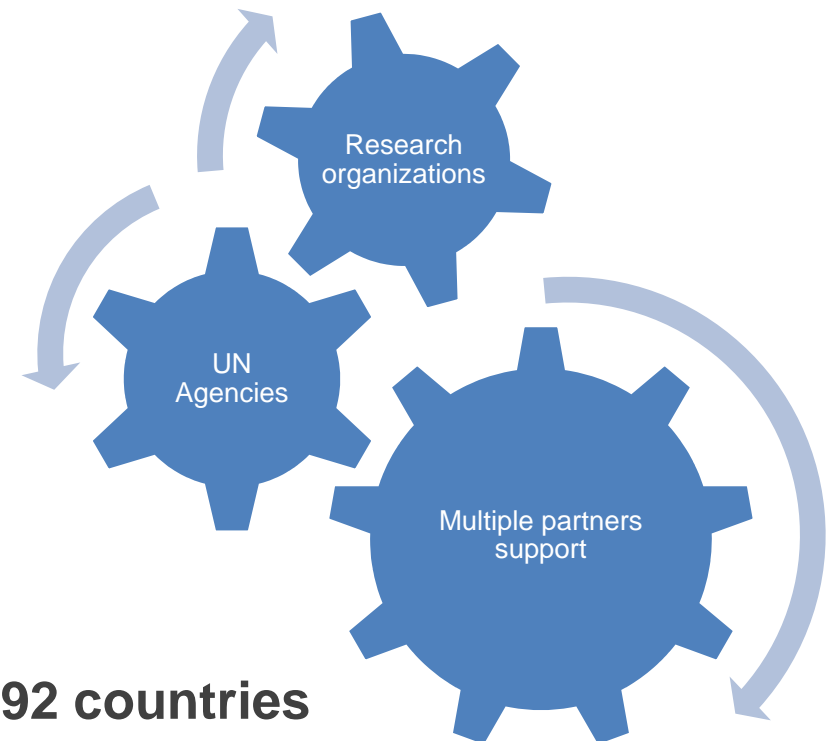
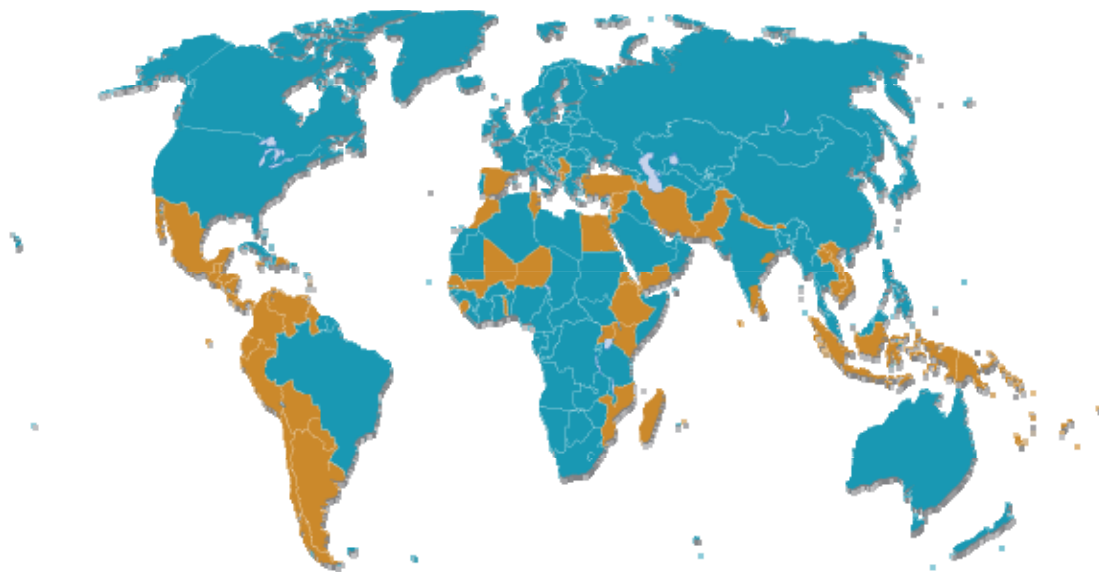




# UNISDR

United Nations Office for Disaster Risk Reduction

- Supports **disaster loss accounting** through the implementation of national disaster loss databases using the DesInventar software and methodology.



**92 countries  
9 territories, 4 states  
and 2 cities**



**UNISDR**

United Nations Office for Disaster Risk Reduction

# Disaster Risk Reduction (DRR)

- Disasters often follow natural hazards. A disaster's severity depends on how much *impact* a hazard has on society and the environment.
- Disaster Risk Reduction (**DRR**) aims to reduce the damage and losses caused by natural or man-made hazards through an ethic of prevention.

"There is no such thing as a 'natural' disaster, only natural hazards."



Source: Humanitarian Practice Network

# Disaster Risk Reduction (DRR)

Natural hazard, nothing exposed = no disaster



“There is no such thing as a 'natural' disaster, only natural hazards.”

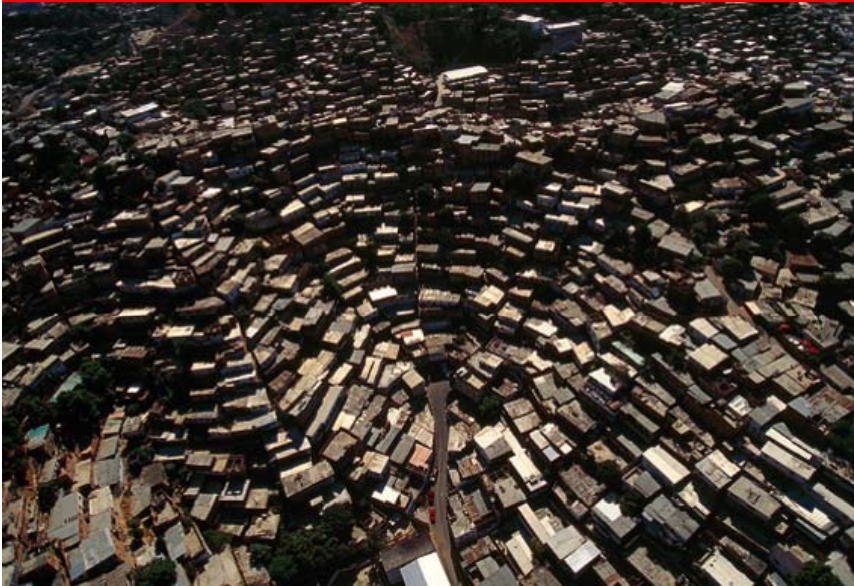
Disaster risk is the combination of **hazard**, **exposure** and **vulnerability**





# Disaster risk and Disaster

(Disaster) Risk = potential losses



Disaster = realized losses  
Unmanaged Risk



# Disaster Risk is...



The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity.

# Exercise 1: Visualization of risk dimensions

*Associate each image with one of the dimensions of the Disaster Risk function presented earlier. Each image should be classed as been an example of:*

Hazard

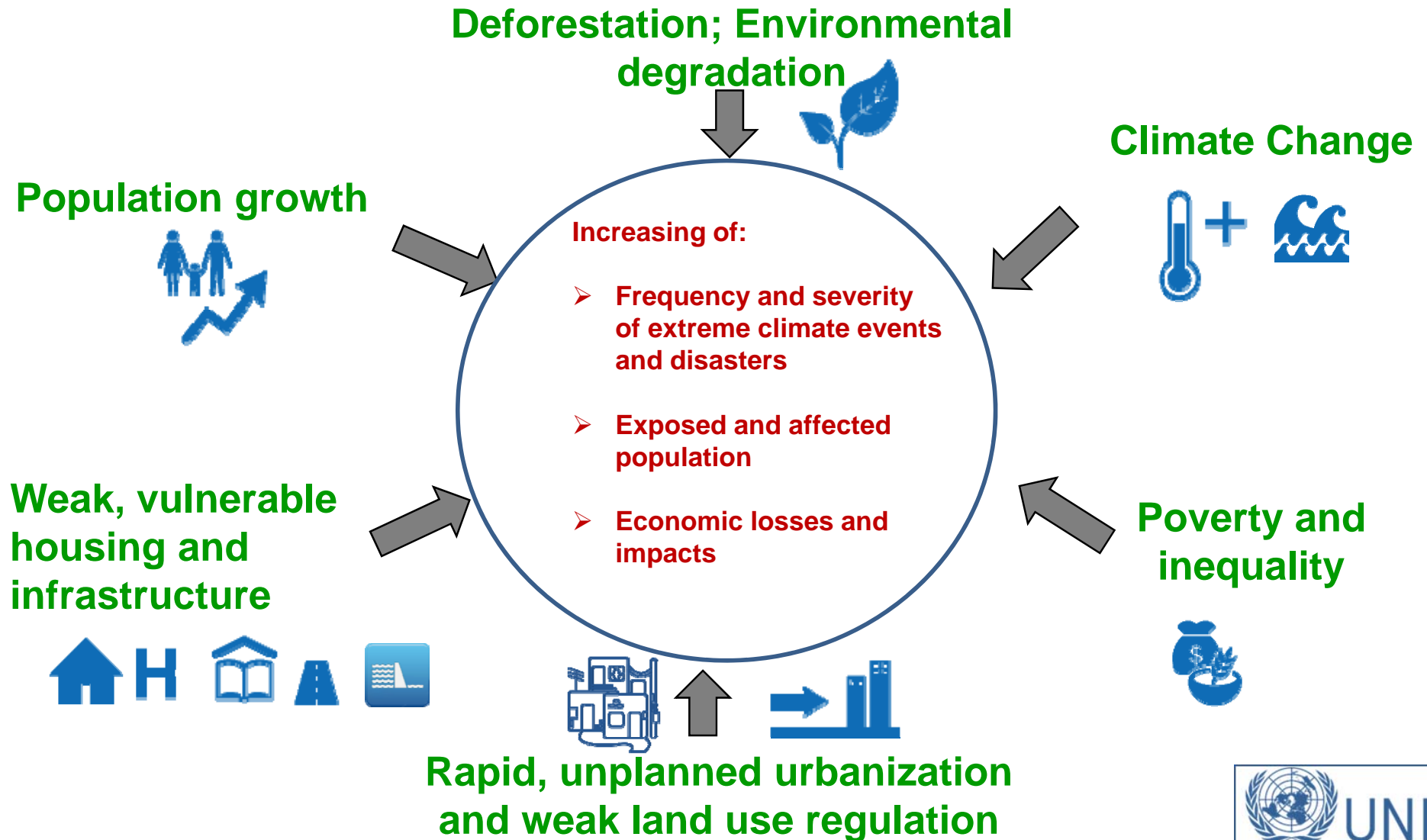
Exposure

Vulnerability

Capacity

# Risk drivers

Which are the main factors having an influence on the increasing frequency and impact of disasters? The importance of the underlying Risk Drivers.



# Disaster risk a development issue

The scale of the impact of a disaster, in turn, depends on different factors that are linked to **human activities and development decisions like:**

- Urbanization patterns and Enforcement of land use regulations,
- Development and effective implementation of building codes
- Environmental degradation ( deforestation, land reclamation, etc.)
- Institutional organization, legal and policy frameworks.
- Education, knowledge development and functional capacities.
- Public awareness and functioning early warning.
- Finance and contingency planning.

→ ***Each decision and action makes us more vulnerable - or more resilient to disasters.***

→ ***Development decisions can either create new risks or prevent their creation.***



# The Sendai Framework for Disaster Risk Reduction 2015-2030

**Expected 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*

The logo consists of a dark blue rectangle with the text "Sendai Framework for Disaster Risk Reduction 2015 - 2030" in white. Above the rectangle is a horizontal bar divided into four colored segments: red, purple, orange, and teal.

Sendai Framework  
for Disaster Risk Reduction  
2015 - 2030

**Read the Sendai Framework here:**

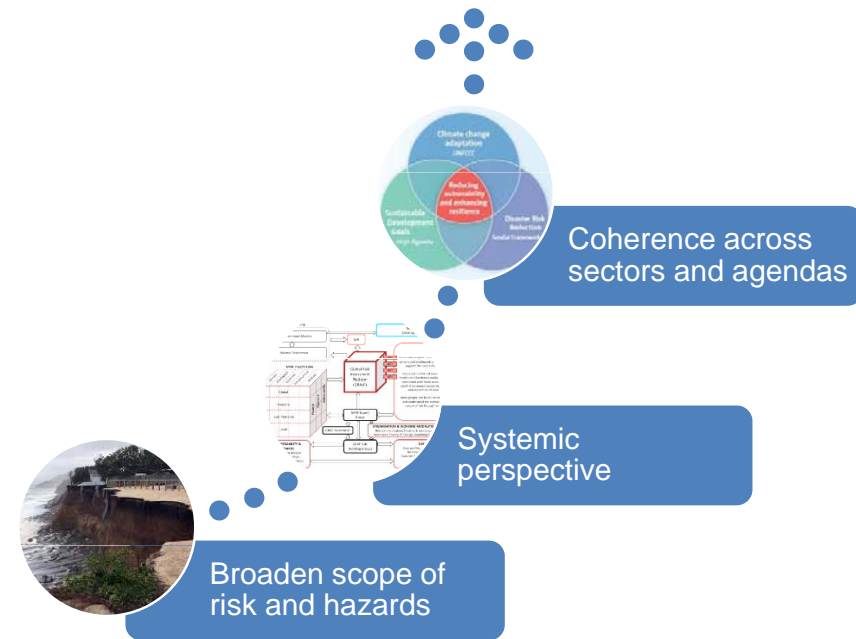
[http://www.preventionweb.net/files/43291\\_sendaiframeworkfordrren.pdf](http://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf)  
[http://www.preventionweb.net/files/46694\\_readingsendaiframeworkfordisaster.pdf](http://www.preventionweb.net/files/46694_readingsendaiframeworkfordisaster.pdf)

**Adopted by 168 UN member States in  
March 2015**



# At the international arena: From Hyogo to Sendai

*“...The present Framework will apply to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters caused by natural or man-made hazards, as well as related environmental, technological and biological hazards and risks. It aims to guide the multi-hazard **management of disaster risk** in development at all levels as well as within and across all sectors.”*



Manage  
Disasters

Manage  
Disaster  
Risk

Hyogo Framework  
for Action 2005-2015:  
Building the Resilience of Nations  
and Communities to Disasters

Prevent the  
creation of  
new risks

Sendai Framework  
for Disaster Risk Reduction  
2015 - 2030

# Managing disaster risk

## **Prospective disaster risk management:**

Prevent and avoid new risk

**Corrective disaster risk management:**  
Reduce existing risk



**Compensatory disaster risk management:**

Strengthen social and economic resilience

## 4 PRIORITIES FOR ACTION

### Priority 1 Understanding disaster risk

*Policies and practices for DRR should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment.*

### Priority 2 Strengthening disaster risk governance to manage disaster risk

*Disaster risk governance at the national, regional and global levels is of great importance for an effective and efficient management of disaster risk.*

### Priority 3 Investing in disaster risk reduction for resilience

*Public and private investment in DRR are essential to enhance the economic, social, health & cultural resilience of persons, communities, countries, their assets, as well as environment*

### Priority 4 Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction

*Strengthened disaster preparedness for response, recovery, rehabilitation and reconstruction are critical to build back better*

National and local dimensions

Regional and global dimensions

# Chart of the Sendai Framework for Disaster Risk Reduction 2015-2030

## Scope and purpose

The present framework will apply to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters, caused by natural or manmade hazards as well as related environmental, technological and biological hazards and risks. It aims to guide the multi-hazard management of disaster risk in development at all levels as well as within and across all sectors.

## Expected 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

## Goal

Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience

## Targets

Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared to 2005-2015

Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared to 2005-2015

Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030

Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030

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

Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030

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

## Priorities for Action

There is a need for focused action within and across sectors by States at local, national, regional and global levels in the following four priority areas.

### Priority 1

Understanding disaster risk

### Priority 2

Strengthening disaster risk governance to manage disaster risk

### Priority 3

Investing in disaster risk reduction for resilience

### Priority 4

Enhancing disaster preparedness for effective response, and to «Build Back Better» in



## 7 Global targets

- (a) Substantially reduce global **disaster mortality** by 2030, aiming to lower average per 100,000 global mortality rate in the decade 2020-2030 compared to the period 2005-2015.
- (b) Substantially reduce the number of **affected people** globally by 2030, aiming to lower average global figure per 100,000 in the decade 2020-2030 compared to the period 2005-2015.
- (c) Reduce direct **disaster economic loss** in relation to global gross domestic product (GDP) by 2030.
- (d) Substantially reduce **disaster damage to critical infrastructure and disruption of basic services**, among them health and educational facilities, including through developing their resilience by 2030.

## 7 Global targets (cont.)

(e) Substantially increase the number of countries with **national and local disaster risk reduction strategies** by 2020.

(f) Substantially enhance **international cooperation** to developing countries through adequate and sustainable support to complement their national actions for implementation of this Framework by 2030.

(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

## 4 Reduction-oriented targets, 3 increase-oriented targets

7 GLOBAL TARGETS	Reduce	Increase
	<b>Mortality/ global population</b> 2020-2030 Average << 2005-2015 Average	Countries with national & local DRR strategies <b>2020</b> Value >> 2015 Value
	<b>Affected people/ global population</b> 2020-2030 Average << 2005-2015 Average	<b>International cooperation</b> to developing countries 2030 Value >> 2015 Value
	<b>Economic loss/ global GDP</b> 2030 Ratio << 2015 Ratio	<b>Availability and access to multi-hazard early warning systems &amp; disaster risk information and assessments</b> 2030 Values >> 2015 Values
	<b>Damage to critical infrastructure &amp; disruption of basic services</b> 2030 Values << 2015 Values	



# Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction ( OIEWG)

- *Approved by UN General Assembly resolution A/RES/71/276 of 2 February 2017*
- Terminology and indicators developed by an intergovernmental panel of experts

# Global targets and indicators



# Recommendations on terminology



# Disaster OIEWG definition:

*A **serious disruption** of the **functioning** of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, **leading to** one or more of the following: human, material, economic and environmental **losses and impacts**.*

***Annotations:** The effect of the disaster can be **immediate and localized**, but is often **widespread and could last for** a long period of time. The effect may test or exceed the capacity of a community or society to cope using its own resources, and therefore may require assistance from external sources, which could include neighboring jurisdictions, or those at the national or international levels*

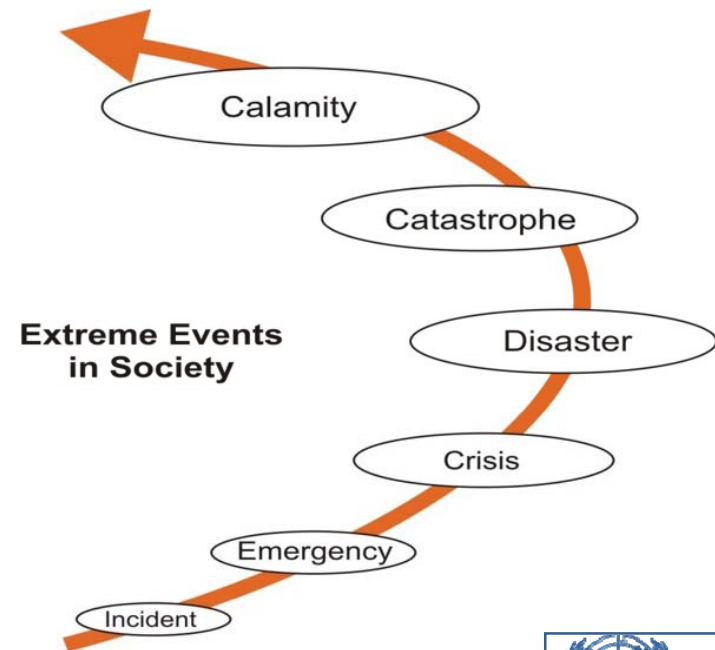
# EM-DAT definition of Disaster

*Situation or event, which overwhelms local capacity, necessitating a request to national or international level for external assistance (definition considered in EM-DAT);*

*An unforeseen and often sudden event that causes great damage, destruction and human suffering. Though often caused by nature (Natural Hazard-Induced Disaster), disasters can have human origins.*

## Exercise 2: What is your country definition of Disaster?

- Do you have an official definition? Where it is reflected?
- Do different actors and government departments or administrative levels use different definitions of disasters?
- Have you established any threshold for an event to be considered a disaster?
- Which are those thresholds?



# When accounting disaster losses...



Thresholds for registering data



Cut-off time



Attribution to disaster

Important: Document the decisions in the metadata and ensure consistency

# Technical Guidance Notes: For each Target and Indicator provide:

Minimum data set required

Recommended optimal dataset (including disaggregation)

Challenges, temporal considerations, etc.

Computation methodology (minimal to recommended datasets)

Metadata: contents, methodology and other topics (coverage, representativeness, quality)

<http://www.preventionweb.net/publications/view/54970>

# Disaster risk reduction indicators in measuring the 2030 Agenda

## TARGETS

Sendai Framework  
for Disaster Risk Reduction  
2015-2030

SUSTAINABLE DEVELOPMENT GOALS



# Reminder on the Sustainable Development Goals





# Thank you for your attention!