

Progress and advances in monitoring of Sendai Framework for Disaster Risk Reduction

EM-DAT STAG - 20-21 March 2023

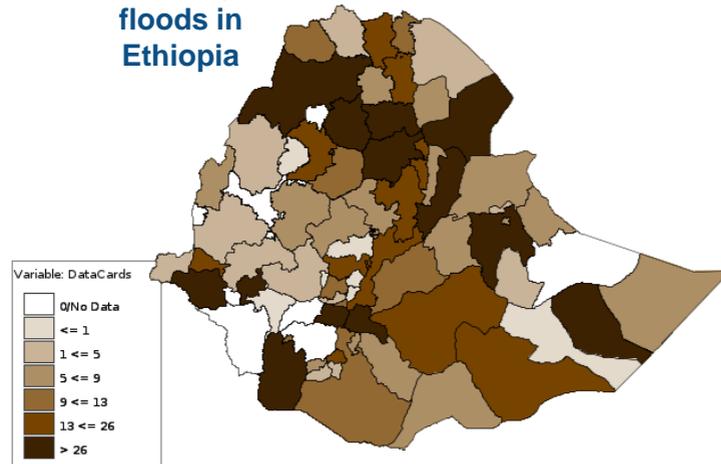
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UNDRR Risk knowledge branch – Bonn office

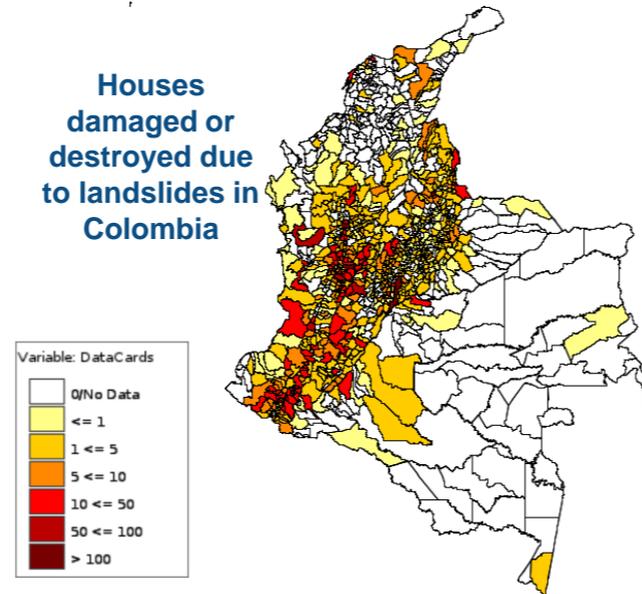
 [@UNDRR](https://twitter.com/UNDRR)
[@animesh00](https://twitter.com/animesh00)

110 countries with subnationally disaggregated disaster losses and damages databases = Over 750,000 events recorded since 1994.

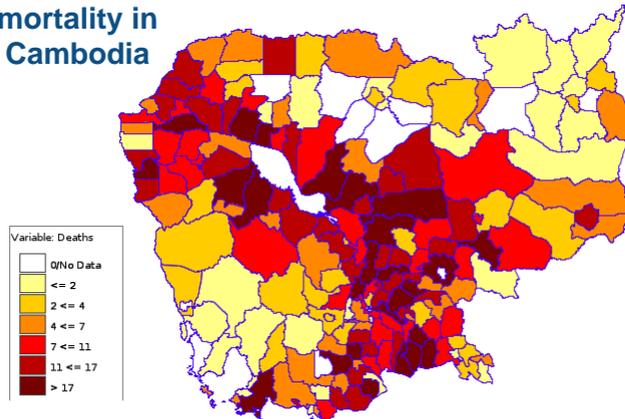
Frequency of floods in Ethiopia



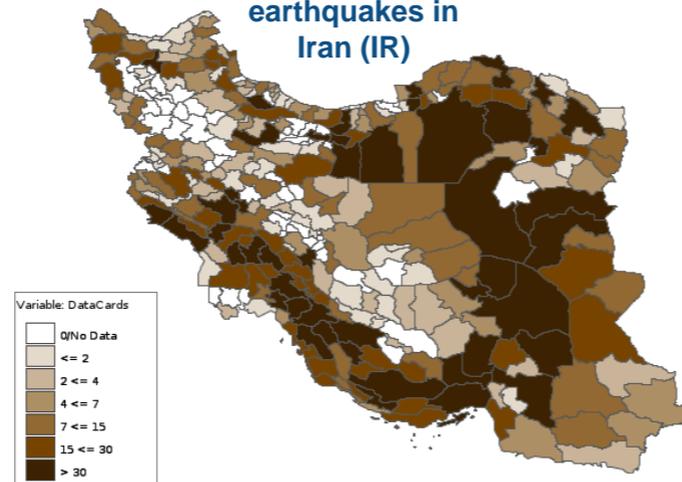
Houses damaged or destroyed due to landslides in Colombia



Disaster-related mortality in Cambodia



Frequency of earthquakes in Iran (IR)



- **Provides a comprehensive** picture of human, economic, and infrastructural losses at subnational levels (up to 3 geographic disaggregation levels)
- **Nationally owned systems:** data on disaster impact collected and validated within the country (no thresholds – use government definitions of disasters)
- **Methodology and system based on collection and analysis** of homogeneous disaster data at all scales (small, medium, and large) and generated from the lowest administrative levels in a country. Customization possible through extension variables.
- **DesInventar Sendai:** Since 2018, enabled closer alignment with relevant targets and indicators of the Sendai Framework, enabling streamlined reporting to the SDGs and the Sendai Framework

E/2019/24-E/CN.3/2019/34



United Nations

Statistical Commission

Report on the fiftieth session
(5–8 March 2019)

Economic and Social Council
Official Records, 2019
Supplement No. 4

DISASTER-RELATED STATISTICS FRAMEWORK (DRSF)

Expert Group on Disaster-related Statistics in Asia and the Pacific



United Nations
ESCAP

Statistical Commission
Fifty-second session
2 - 5 March 2021
Item 4(d) of the provisional agenda*
Items for information: Disaster-related statistics

Report of the Core Group of the Inter-Agency and Expert Group on Disaster-related statistics

Note by the Secretary-General

HAZARD DEFINITION & CLASSIFICATION REVIEW

TECHNICAL REPORT



HAZARD INFORMATION PROFILES

Supplement to :
UNDRR-ISC Hazard Definition
& Classification Review -
Technical Report





United Nations
General Assembly

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A/76/240

Seventy-sixth session
Item 20 (c) of the provisional agenda*
Sustainable development: disaster risk reduction

Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030

Report of the Secretary-General

Summary

The present report has been prepared as requested by the General Assembly in resolution 75/216 on disaster risk reduction. It contains an overview of progress made towards the goal, global targets and priorities for action of the Sendai Framework for Disaster Risk Reduction 2015–2030 and serves to identify good practice that can support countries to overcome challenges to effective implementation. The report also contains an overview of the global response to address the impacts of the El Niño phenomenon, pursuant to Assembly decision 74/537 B; an initial assessment of the application of the Sendai Framework in the response to and recovery from the coronavirus disease (COVID-19); and input for consideration by Member States on the midterm review of the Framework.

* A/76/150.

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Please recycle



**Global Assessment Report
on Disaster Risk Reduction**

United Nations

A/77/293



General Assembly

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Seventy-seventh session
Item 18 (c) of the provisional agenda*
Sustainable development: disaster risk reduction

Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030

Report of the Secretary-General

Summary

The present report has been prepared as requested by the General Assembly in its resolution 76/204 on disaster risk reduction. It contains an overview of progress made towards the goal, global targets and priorities for action of the Sendai Framework for Disaster Risk Reduction 2015–2030. The report provides an update on the midterm review of the implementation of the Framework, including early findings, to inform deliberations of the high-level meeting of the General Assembly

Informing Sustainable Development

The Sustainable Development Goals Report 2019



Sustainable Development Goals Report 2020

United Nations



Sustainable Development Goals Report 2021

United Nations



Sustainable Development Goals Report 2022

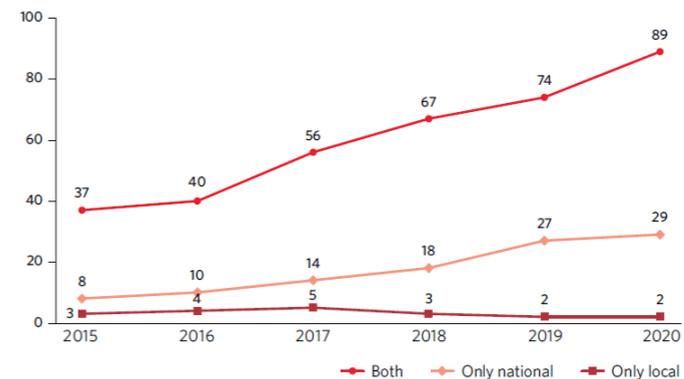


CLIMATE-RELATED AND GEOPHYSICAL DISASTERS CLAIMED AN ESTIMATED 1.3 MILLION LIVES BETWEEN 1998 AND 2017



\$23.6 BILLION
DIRECT ECONOMIC LOSSES
(FROM 63 COUNTRIES IN 2018)

Number of countries with national and/or local disaster risk reduction strategies, 2015–2020



NUMBER OF COUNTRIES WITH LOCAL DISASTER RISK REDUCTION STRATEGIES

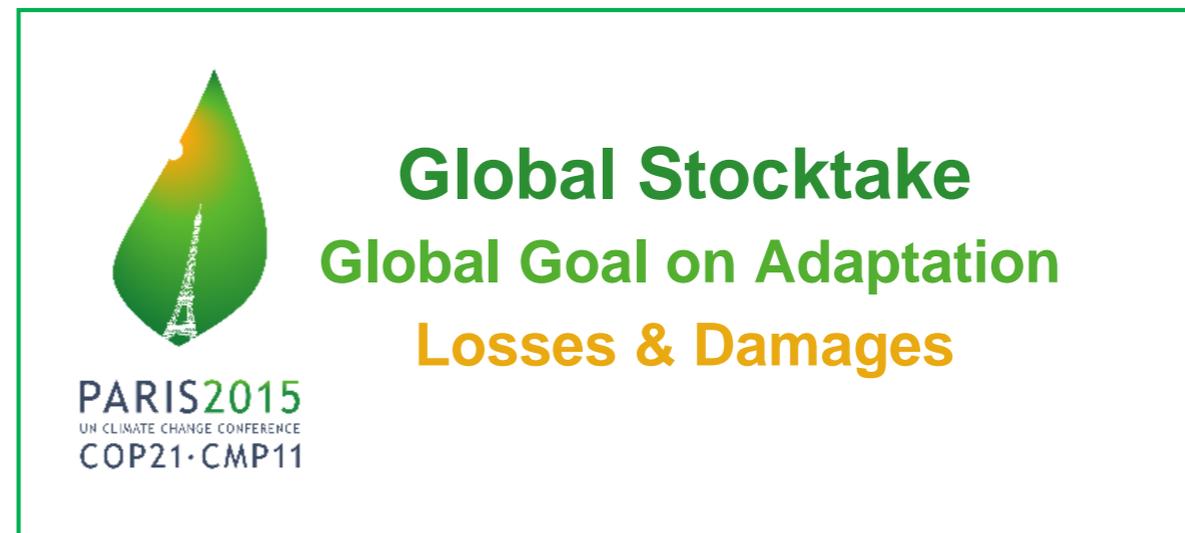
NEARLY DOUBLED

BETWEEN 2015 AND 2021
(51 TO 98 COUNTRIES)

Benefiting Intergovernmental Processes



5th United Nations Conference on the Least Developed Countries (LDC5) - Doha, 23-27 January 2022



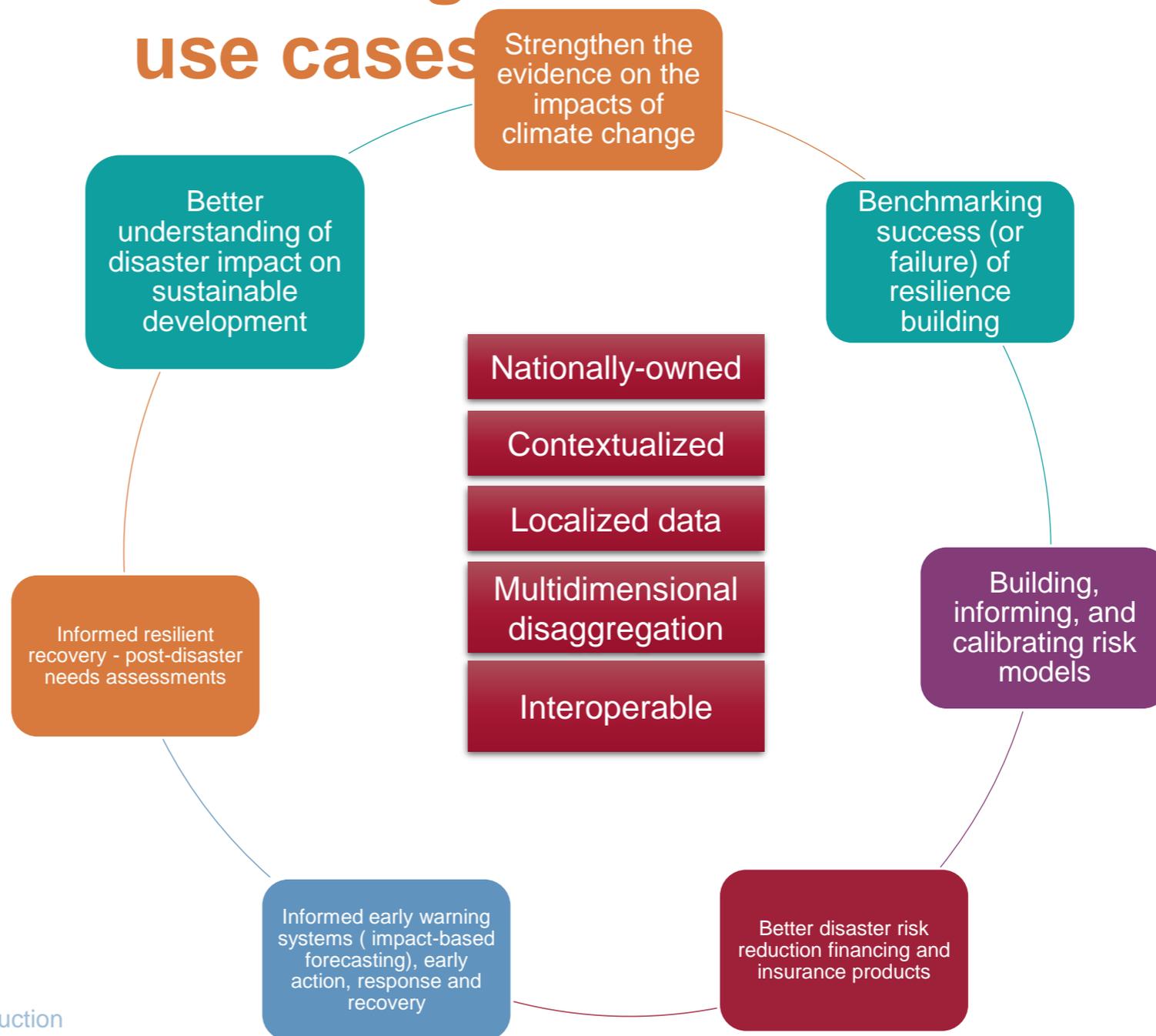


Advancing tracking
of disaster impacts /
losses and damages

Why tracking losses and damages? – old and new data

use cases

- National Governments
- Local Governments
- Development Partners
- Regional organizations
- Humanitarian Actors
- Financing sector
- Insurance sector
- S&T networks
- UN System



Responding to new challenges - Building off DesInventar

- **Tracking, accounting and needs as well as technologies** for data collection, analysis dissemination and visualization have changed significantly over the last 25 years since the first inception of DesInventar.
- Present-day **challenges** originate from different factors including technical and governance issues, limited institutionalization, capacities for disaggregated data collection, horizontal and vertical coordination, loss estimation, data management and analytics.
- Strong need to further understand the **triggering factors and causes** of each recorded event, to be able to link the impact of events with weather-related and other hazardous events – Linkages with the WMO Cataloguing Hazardous Events (CHE) methodology – Connecting the databases through Universal Unique Identifiers.
- Further need to **understand the cascading impact of events**.
- Application of **data standards** related to common terminologies, hazard classification, etc.
- **Utilizing methodological approaches from PDNAs** (post disaster need assessments) for sector disaggregation on damages and losses (including disruptions, changes in economic flows) to enrich the data model and enable further analysis of disaster impacts.

Progress in developing a new generation system for tracking damages and losses

- **Discovery and Needs Analysis** has been completed in 2020
 - Consultations; surveys (112 respondents); 31 countries (governments and stakeholders)
- **Vision and Roadmap** drafted in 2021
 - Transform DesInventar –
 - Advance information governance
 - Connect and innovate loss and risk data
 - System-wide approach
- **Data and Digital Maturity** analyzed
 - System development and technical assistance to be contextualized to the maturity level of a country
- **Technical Forum convened**
- **New prototype development and user testing**
 - Consultations – needs, good practices, requirements; User testing.
 - **Prototype feedback workshop 3-4th May Bonn**



A new model and system to enhance losses and damages data value chain



Use cases-
inform collection, analysis and product development

Data collection, access or aggregation
as per common standards and classifications

Technological solutions and capacity to transform data,
integrate, import and export

Functionalities and technical support for analysis and statistics

Enhanced visualization
with interactive options (e.g., dashboards, charts, etc.).

Capacity development and technical support to interpret, insights and implications

Decision making support tools for better policies and programs at all levels.

The new model of losses and damages tracking

Recording of Hazardous Events
[National Hydro-Met Services –

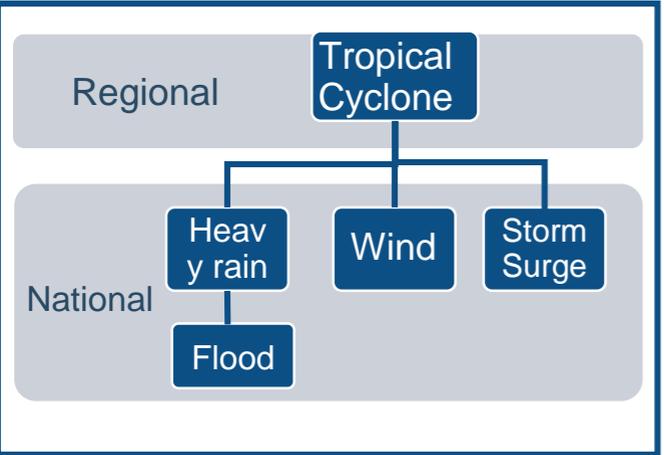
Recording of Event (Impact)
[Disaster Management Organizations]

Connecting with Baseline information – Enhanced analytics
[Statistics offices – Sector

Event Identifier

Geospatial data + sector and asset classifications

Hazardous event and chains
(e.g. Tropical Cyclone)



- Originator
- Record creation
- Event start
- Event end
- Event type
- Spatial area
- Hazard specification
- Event Description
- Event linkage
- Status

Effects: Losses and damages

Impacts- direct and indirect Sectors and Cross cutting

Causes
Hazard + visualizing relationship with exposure + vulnerabilities

Location – extent

Needs (humanitarian and recovery) + Responses (programs - investments)

Time - Duration

Interoperability

- Official statistics, geospatial data and metadata
- National classifications (e.g., industry; administrative boundaries
- Exposure – e.g., location of infrastructure
- Multi-dimensional vulnerabilities
 - Socio-economic (e.g., poverty)
 - Physical
 - Ecosystem/environmental

NMHS/ Geological Surveys, etc.

NDMO

NSO – Sectors - Environment

Data Standards – e.g., hazard classification, CHE

Data Architecture

Data Ecosystem

Data Governance

Thank you for your attention

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