# 24 Direct economic loss attributed to hydro-meteorological disasters in relation to GDP

Indicator type Core indicator

**Published** 

Versioning					
First publication	1/26/2017	Latest update	8/27/2021		
Area and sub-area					
Area and sub-area	Impacts	National total	1		
Presentation					
Tier	2				
Indicator definition and description	Monetary value of total or partial destruction of physical assets existing in the affected area of a hydro-meteorological disaster in relation to the GDP (in current prices, assuming that the numerator is also expressed in current prices)				
Unit of measure	%				
Coverage	All physical assets within a country				
Spatial aggregation	National territory				
Reference period	Calendar year				
Update frequency	Annual				
Base period	2015				
Disaggregation (ope	rational indicators)				
Disaggregation (ope	erational indicators)		Comments		
Economic sector (IS	SIC) and households	;			
Spatial					

Other related -indicators (e.g.contextual, proxy, other core indicators)

Type of damage (agricultural, other productive assets, critical infras

ID	Subindicator	Туре
22	Number of deaths and missing persons attributed to hydro-meteorological disasters, per 100,000 population	Core indicator
23	Occurrence of extremes of temperatures and precipitation	Core indicator
25	Number of people whose destroyed dwellings were attributed to hydrometeorological disasters	Core indicator
28	Direct agricultural loss attributed to hydro-meteorological disasters	Core indicator

### Relevance

Policy context and rationale

Temporal (by month, by season)

Type of hazard

Climate change leads to more and stronger hydro-meteorological hazards, thus all economic assets may be at higher risk. The indicators contributes to measuring climate change policies, sustainable development and disaster-risk reduction.

in case of large disasters: by individual

hazardous event

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SDG Target 1.5: By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

SDG Target 11.5: By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable ituations.

SDG Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

This indicator is conceptually identical with SDG indicator 11.5.2, but it measures only the impacts caused by hydro-meteorological hazards ((hydrological, meteorological and climatological hazards according to IRDR peril classification).

Related SDG indicator (SDG I.)

11.5.2 Direct economic loss in relation to global GDP, damage to critical infrastructure and number of disruptions to basic services, attributed to disasters

Relation w SDG-I.

A disaggregation of the SDG indicator

Related Sendai Framework I. C-1 (compound) - Direct economic loss attributed to disasters in relation to global gross domestic product.

Policy references

Document title	Link
Paris Agreement (United Nations, 2015)	https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
Transforming our world: the 2030 Agenda for Sustainable Development (General Assembly of the United Nations, 2015)	https://sustainabledevelopment.un.org/post2015/transformingourworld
Sendai Framework for Disaster Risk Reduction 2015-2030 (United Nations Office for Disaster Risk Reduction (UNDRR), 2015)	https://www.undrr.org/implementing-sendai-framework/what-sendai-framework

### Methodology

Methodology for indicator calculation

General formula for Sendai Indicator C1: C1 = (C2+C3+C4+C5+C6)/GDP

Where:

C2: Direct agricultural loss attributed to disasters

C3: Direct economic loss to all other damaged or destroyed productive assets attributed to disasters

C4: Direct economic loss in the housing sector attributed to disasters

C5: Direct economic loss resulting from damaged or destroyed critical infrastructure attributed to disasters

C6: Direct economic loss to cultural heritage damaged or destroyed attributed to disasters

Direct economic loss is nearly equivalent to physical damage. It is the sum of direct agricultural loss, direct economic loss to all other damaged or destroyed productive assets, direct economic loss in the housing sector, direct economic loss resulting from damaged or destroyed critical infrastructure and direct economic loss to cultural heritage damaged or destroyed attributed to hydro-meteorological disasters. The total direct economic loss of a country within a calendar year is then divided by the GDP.

For more details, see Technical Guidance for Sendai Framework Indicators.

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NOTE: The CC-related indicator only refers to HYDRO-METEOROLOGICAL disasters, that is disasters caused by hydro-meteorological hazards ((hydrological, meteorological and climatological hazards according to IRDR peril classification).

Denominator: GDP in current prices (assuming that the numerator is also expressed in current prices)

### Methodology references

Document title	Link
Technical Guidance for Monitoring and Reporting on Progress in Achieving the Global Targets of the Sendai Framework for Disaster Risk Reduction (United Nations Office for Disaster Risk Reduction (UNDRR), 2017)	https://www.unisdr.org/files/54970_techguidancefdigitalhr.pdf

Classification syst. IRDR Peril Classification

### **Data sources**

Main source Official statistics: other than accounts

Explanation National Statistical Offices, Disaster Risk Management Agencies

SEEA Accounts that can serve as data sources

UN-FDES 4.1.2: Impact of natural extreme events and disasters

#### International databases containing this indicator

Sendai Framework Monitor	https://sendaimonitor.unisdr.org/
SDG indicators database	https://unstats.un.org/sdgs/indicators/database/

#### Comments

Comments