

23 Occurrence of extremes of temperatures and precipitation

Indicator type **Core indicator**

Published

Versioning

First publication Latest update

Area and sub-area

Area and sub-area

Presentation

Tier

Indicator definition and description

Unit of measure

Coverage

Spatial aggregation

Reference period

Update frequency

Base period

Disaggregation (operational indicators)

Disaggregation (operational indicators)	Comments
Spatial	
Temporal (by month, by season)	
Hazardous event	Extremes of temperatures; Extremes of precipitation; Seasonal and territorial breakdowns

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

ID	Subindicator	Type
16	Mean temperature anomaly (compared to climate normal 1961 - 1990)	Core indicator
17	Percentage of land area suffering from unusually wet or dry conditions (Standard Precipitation Index)	Core indicator
22	Number of deaths and missing persons attributed to hydro-meteorological disasters, per 100,000 population	Core indicator
24	Direct economic loss attributed to hydro-meteorological disasters in relation to GDP	Core indicator
28	Direct agricultural loss attributed to hydro-meteorological disasters	Core indicator
62	Temperature change compared to pre-industrial levels	Contextual indicator
63	Temperature change (compared to base period 1951 - 1980)	Contextual indicator
65	Total precipitation	Contextual indicator

Relevance

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Policy context and rationale	Related to Sendai Framework, Sustainable Development Goals, Paris Agreement Related to SDG 13
Related SDG indicator (SDG I.)	13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population
Relation w SDG-I.	Similar but not identical
Related Sendai Framework I.	Not applicable

Policy references

Document title	Link
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	The indicator is calculated as number of days per year when an extreme weather event occurred. An extreme weather event occurs if observed temperature or precipitation is below or above 10th or 90th percentile value.
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Methodology references

Document title	Link
WMO Guidelines on the Calculation of Climate Normals (World Meteorological Organization, 2017)	https://library.wmo.int/index.php?lvl=notice_display&id=20130-.XWOTUigzaUk
WMO Guidelines on Generating a Defined Set of National Climate Monitoring Products (World Meteorological Organization, 2017)	https://library.wmo.int/index.php?lvl=notice_display&id=20166-.XWOTHsGzaUk

Classification syst.

Data sources

Main source	Official statistics: other than accounts
Explanation	National Hydrometeorological Institutes, European Severe Weather Database (https://www.eswd.eu/)

SEEA Accounts that can serve as data sources

UN-FDES 4.1.1: Occurrence of natural extreme events and disasters

International databases containing this indicator

Comments

Comments	The aim is to flag the exceptional events, that is, events that often have extreme impacts. The indicator cannot characterize or define the full range of very extreme events that affect countries and people around the region, which include tropical storms, tornadoes, hail, lightning, flooding, duststorms, windstorms, wind gusts or heat stress. The choice was made to focus on extremes of temperature and precipitation, as these are widely measured.
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