
WORLD SCIENCE FORUM
Budapest 2024
The science and policy interface at the time of global transformations
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BUDAPEST

UNDRR/ISC Hazard Information Profiles: standardizing hazard information for Policymakers

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UNDRR
UN Office for Disaster Risk Reduction

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Introduction:
What are the HIPs?
How were they developed?

Virginia MURRAY, Chair of the Steering Group

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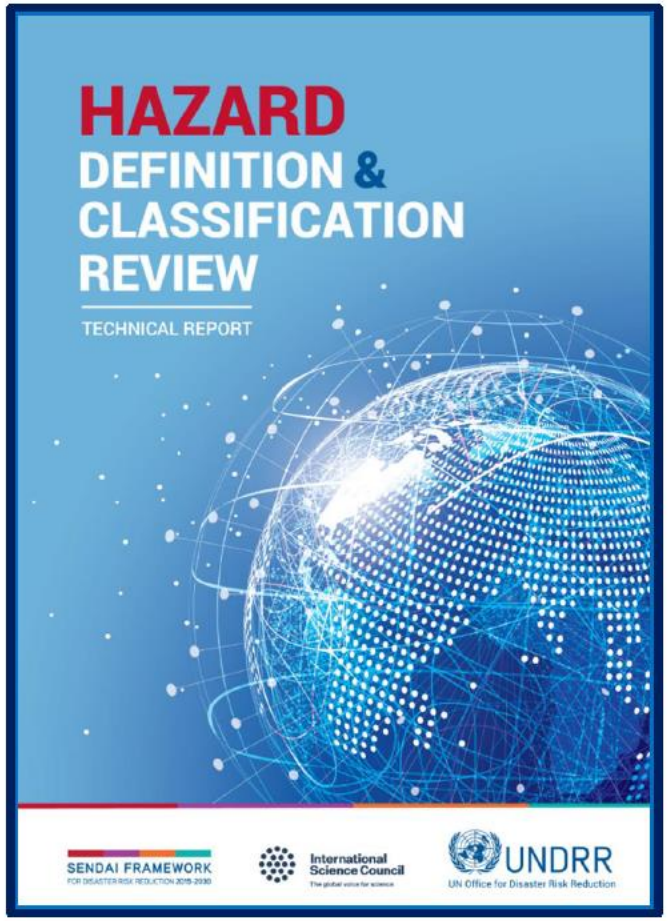
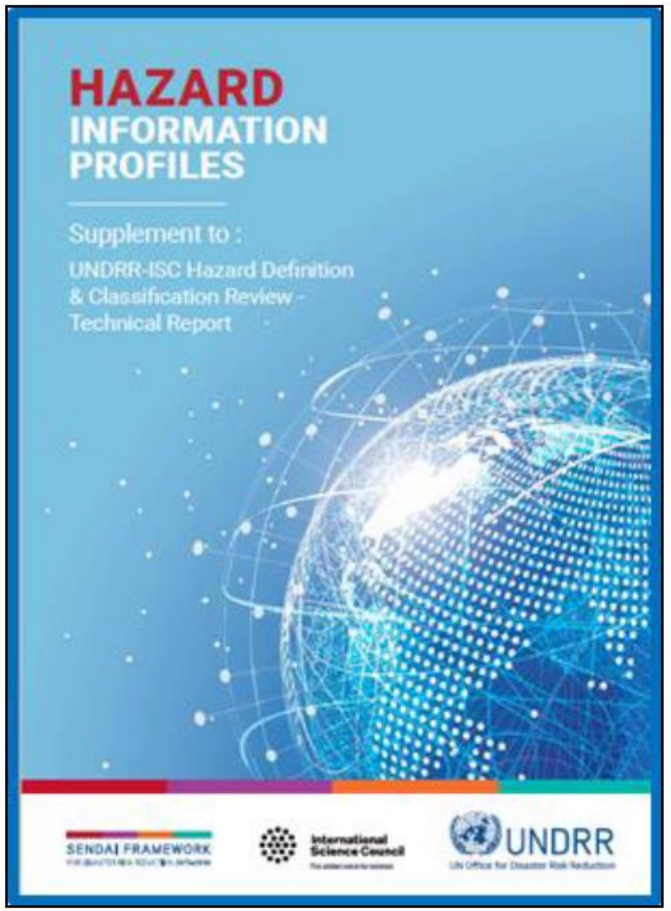
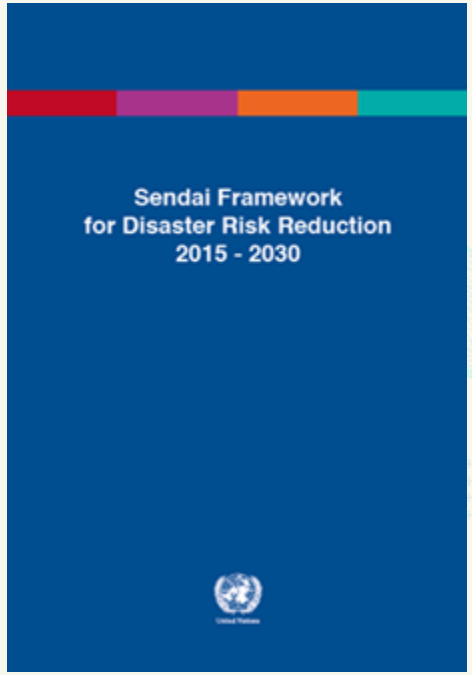


UNDRR / ISC Hazard Definition and Classification Review
Technical Report
July 2020



UNDRR / ISC Hazard Information Profiles Supplement to UNDRR / ISC Hazard Definition and Classification Review
October 2021

The Sendai Framework for Disaster Risk Reduction 2025-2030



7 GLOBAL TARGETS

Reduce

Mortality/
global population
2020-2030 Average << 2005-2015 Average

Affected people/
global population
2020-2030 Average << 2005-2015 Average

Economic loss/
global GDP
2030 Ratio << 2015 Ratio

Damage to critical infrastructure & disruption of basic services
2030 Values << 2015 Values

Increase

Countries with national & local DRR strategies
2020 Value >> 2015 Value

International cooperation
to developing countries
2030 Value >> 2015 Value

Availability and access to multi-hazard early warning systems & disaster risk information and assessments
2030 Values >> 2015 Values

Sendai Framework for Disaster Risk Reduction
Priorities for Action

1. Understanding disaster risk
Encouraging Parties to identify potentially hazardous activities to be able to target preventive measures, preparedness and response.

2. Strengthening disaster risk governance to manage disaster risk
Providing a governance mechanism for regional cooperation to address transboundary disaster risk reduction.

3. Investing in disaster risk reduction for resilience
Promoting investments in preventive measures, which cost less than remedying the consequences of disasters.

4. Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction
Ensuring preparation, review and periodical update of disaster preparedness and contingency policies, plans and programmes.

The Sendai Framework

“To strengthen technical and scientific capacity to capitalize on and consolidate existing knowledge and to develop and apply methodologies and models **to assess disaster risks, vulnerabilities and exposure to all hazards”**;

(paragraph 24 j)

Development of UNDRR/ISC HIPs

- To address this need, scientists decided to review the existing lists of hazards to check they met the needs of users.
- This effort, supported by UNDRR and ISC bringing together hundreds of experts

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The Hazard Review and Classification project: the process

Expanded scope of hazards of the Sendai Framework

UNGA definition of hazard as a process, phenomenom, or human activity that may cause harm or damage

The data sources:

- Scientific hazard glossaries
- IRDR Peril Classification
- UN glossaries
- Sendai Monitor hazard list
- Survey of scientists on hazards relevant for Sendai
- Consultations of expert communities within the UN and scientific community

Inclusion criteria:

1. The hazard has the potential to impact on a community
2. Proactive and reactive measures are available
3. The hazard has measurable spatial and temporal components

Hazard list:

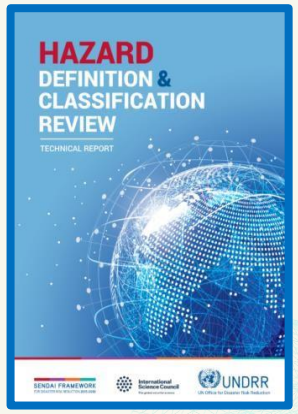
302 hazards across these hazard types: hydromet, extraterrestrial, geological, environmental, biological, chemical, technological and societal.

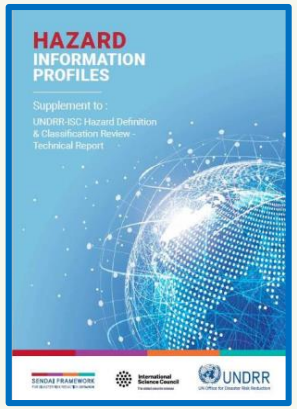
Recommendations:

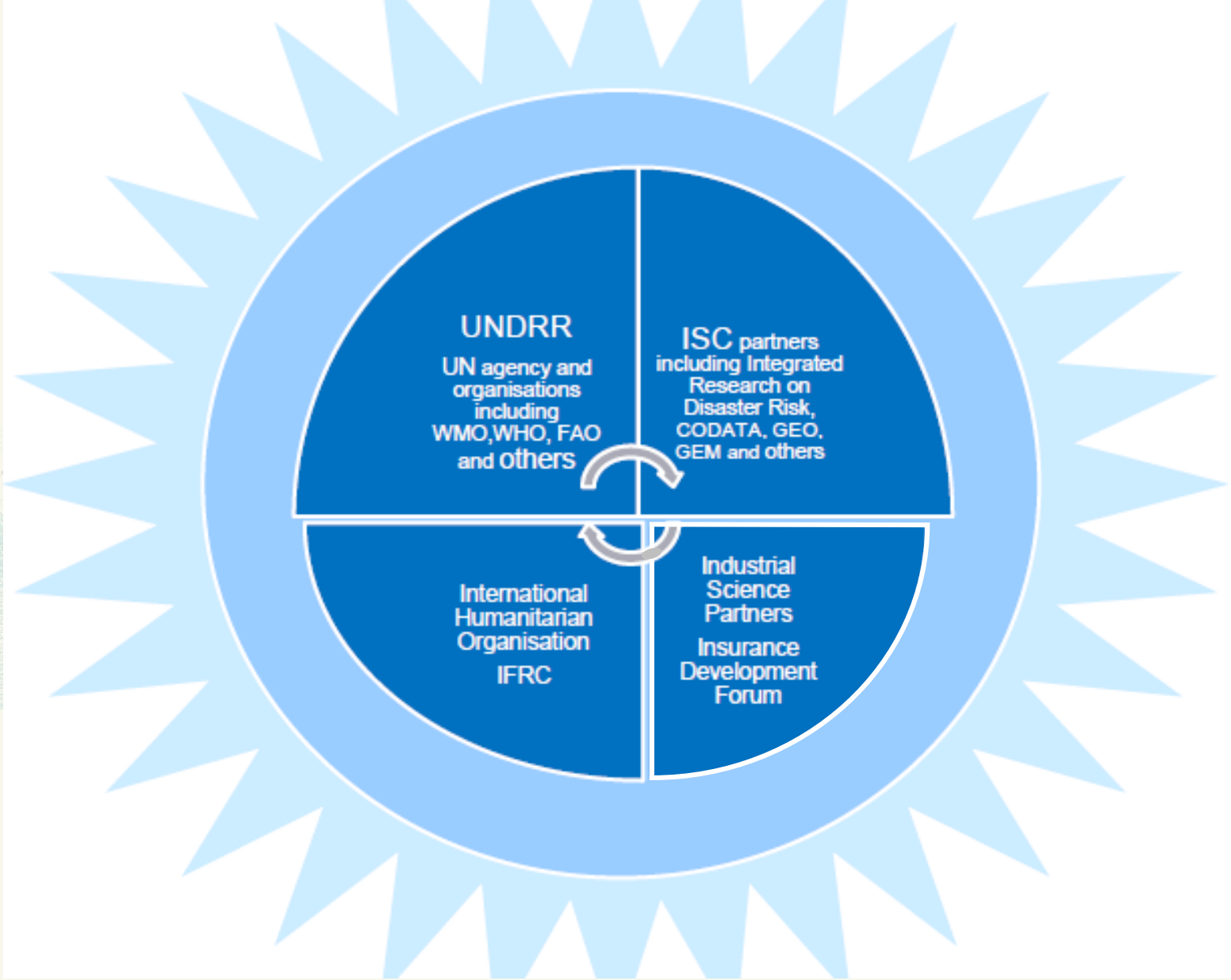
1. Regular review and update
2. Facilitate the development of a multi-hazard information system
3. Standardise definitions across users and sectors
4. Engage policy-makers and scientists in evidence-based national risk assessment processes, disaster risk reduction and risk-informed sustainable development
5. Conduct further work to operationalise parameters for exposure, vulnerability and capacity, building on the UNGA definitions
6. Address cascading and complex hazards and risks

Dialogue towards a more holistic and consistent approach to hazards identification and definition

The Partnership







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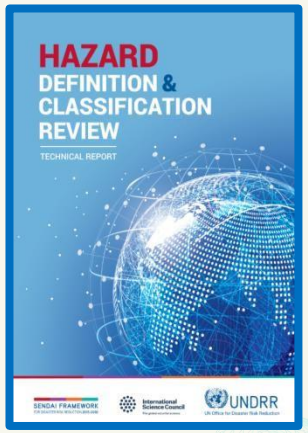
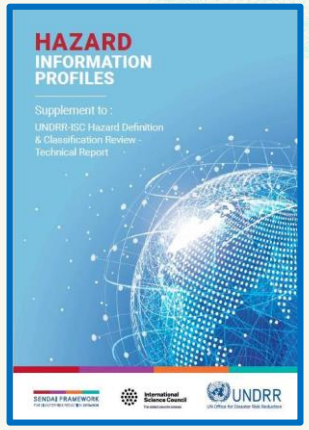
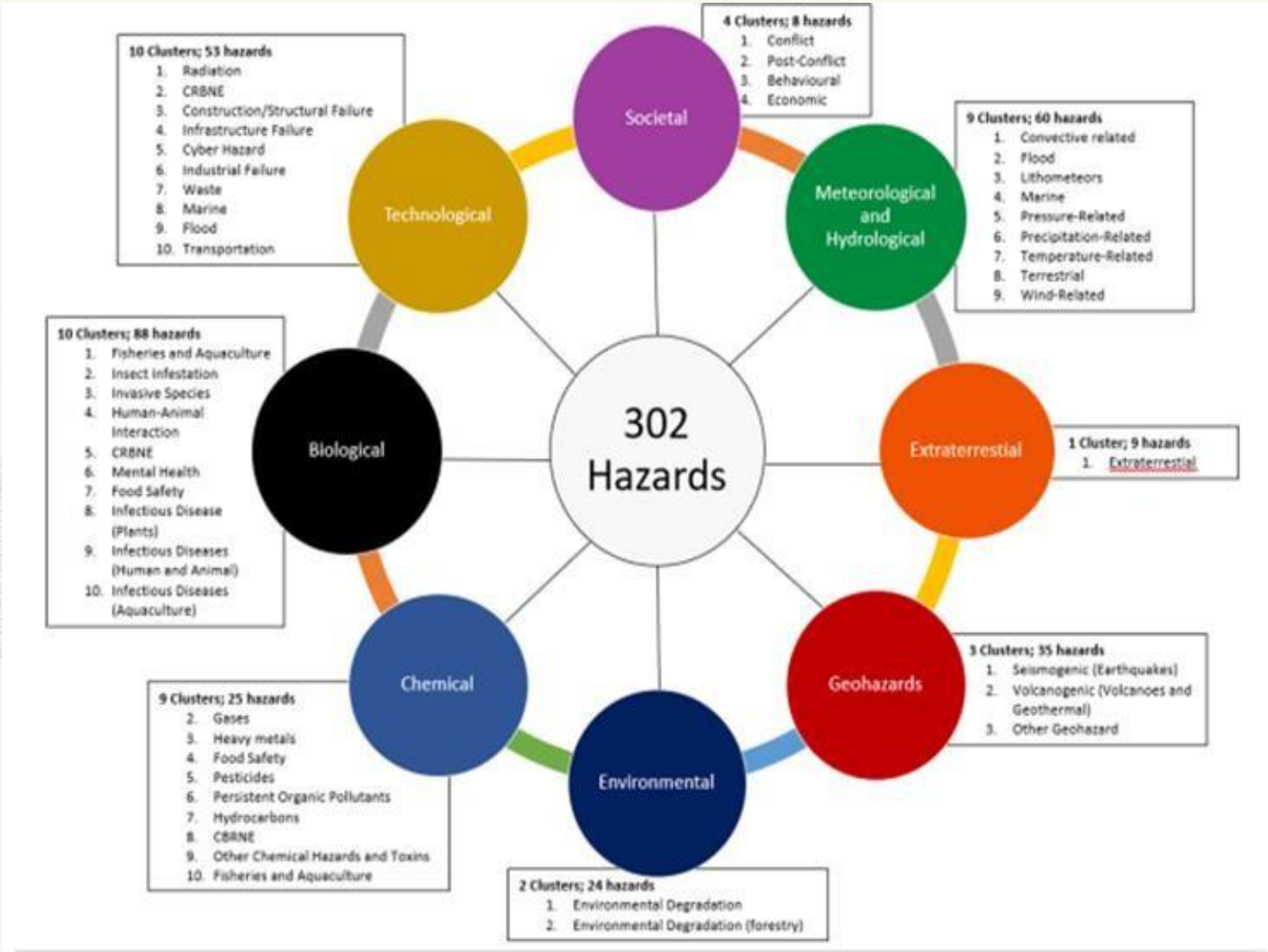
Hazard Classification







MH0004 / METEOR

Coastal

Definition

Coastal flood high winds c the raising of configuration up of water is and retarding

Reference

WMO, 2011. Manu Organization (WM WMO%201072_en

Annotations

Synonyms

Storm Surge, Coastal

Additional scientific

Major deltas such as t sensitive area is the s takes place near the m flooding over and near occasionally severe co

Coastal flooding is lar flooding (Dawson et al the land increasing the

Seawater can flood th

- *Direct flooding*: the s a dune system.
- *Overtopping of a bar* during storm or high water flows over the significant amounts
- *Breaching of a barrie* coasts exposed to la extend inland and fl

Metrics and numeric

The extent and magnit the topography of the (Bell et al., 2017).

ET0003 / EXTRATE

UV Radi

Definition

UV radiation between X-r radiation ca different wa

Reference

Government of C health-risks-safe

Annotations

Synonyms

None identified.

Additional scientifi

All radiation is a form radiation and is mea

UV radiation is invisil has a shorter wavele and artificial sources

The shorter the wave penetrate the skin (E

UV radiation is divide (Government of Cana

UVA is long-range UV skin (dermis). This ca cancers. UVA is not r

UVB is short-wave UV responsible for delay 5% reaches the Earth

UVC, with wavelengtl exposures). However bacteria.

Metrics and numer

The UV Index develo

The Electromagnetic

Key relevant UN co

The Montreal Protoc

GH0001 / GEOHAZA

Earthqua

Definition

Earthquake is the resulting slip, or by volc in the Earth (U

Reference

USGS, no date. Ea usgs.gov/learn/glo

Annotations

Synonyms

Earth tremor.

Additional scientific

Earthquake hazards are are those phenomena t surface rupture (and fis hazards, and include ts

Metrics and numeric

Earthquake magnitude Kanamori, 1979) scalin and unlike other scales of 1 magnitude unit (i.e measurements, and a f

Earthquakes of magnit primary and secondary cause damage to vulne earthquake of a given m with local soil condition

There are many differe measures, like the Mod Medvedev-Sponheuer-K severity of an earthqua Modified Mercalli inten at VI, although this vari XI and XII are no longer clear that many of the p other factors that woul

Some of the other quan hazard and risk produc for measuring the effec Geological Survey (USG

EN0002 / ENVIRON

Air Pollu

Definition

A point sour fixed facility made or nat Dunne et al.

References

Dunne, A., L. Mit H. Harrison, G. H Public Health Sc https://oxfordm Accessed 3 Nov

Kibble, A. and R

Annotations

Synonyms

Point source emissi

Additional scientif

Point source air poll significant amount c fire. Examples of poi mills, refineries and naturally occurring s and transported in th

Many people, particu such as industrial sit association with dis disease clusters ten logical methods to e disease of interest in tion exposure data a

In many cases, the k other sources (back of these differences health information s

Metrics and numer

World Health Organi (WHO, 2006).

CH0014 / CHEMICA

Micropla

Definition

Microplastic which can b originate fro degrades int and NOAA, r

References

UNEP, 2016. Mar and guide policy org/handle/20.5

NOAA, no date. V (NOAA). https://

Annotations

Synonyms

Nanoparticles, Marin

Additional scientifi

Microplastics are rou microplastics are inte 'microbeads' used in by the weathering an ultraviolet (UV) irradi the ocean. Plastics m

Nanoparticles are a f dimensions of 1 to 10

A large proportion of are of concern. These cosmetics and (ii) fro wastewater, and thro

Recent scientific rese pear to reduce primar which is widely used dioxide are exposed t which are the basis o research is required (

About half the global the amount of plastic made to waste mana

BI0033 / BIOLOGICA

COVID-19

Definition

COVID-19 is a (SARS CoC2) Transmission either by dire singing, coug Virus-contair as airborne. membranes from faeces means of tra of transmissi transmission humans are i physically dis

Reference

WHO, 2020. Coron emergencies/dise disease-covid-19

Annotations

Synonyms

Coronavirus, SARS-Co

Additional scientific

The majority of infecti headache, anosmia, a symptoms with increa risk of serious illness chronic obstructive pu

The clinical course for infected develop lastin phenomenon is genera

Metrics and numeric

As of the end of April 2020c).

TL0009 / TECHN

Dam Fa

Definition

Dam failure foundation, results in a people or p

Reference

ICOLD, 2015. D icold-cigb.org/

Annotations

Synonyms

Dam break, Dam b

Additional scienti

Dams are common typically constructe even a small dam ment leading to a b of water involved. damage to propert

Two summary exar

- *Brumadinho dam* leading to at leas than 250 people Shaw, 2019; Thoe period and is cor at Brumadinho a predisposing the management co the failure of the
- *Ajka Red Sludge* Kolontar, Hungar The waste mater significant ecolo not been perform

A review of failure United States has b fied by date, locatio

SO0004 / SOCIETAL / Post-Conflict

Explosive Remnants of War

Definition

Explosive remnants of war are unexploded ordnance and abandoned explosive ordnance that are left by a party to an armed conflict following the cessation of warfare. Explosive ordnance is defined as conventional munitions containing explosives (United Nations, 2004:2).

Reference

United Nations, 2004. Protocol on Explosive Remnants of War to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which may be deemed to be Excessively Injurious or to have Indiscriminate Effects (Protocol V). https://treaties.un.org/doc/Treaties/2003/11/20031128%2001-19%20AM/Ch_XXVI_02_dp.pdf Accessed 13 October 2020.

Annotations

Synonyms

Unexploded ordnance, Abandoned explosive ordnance.

Additional scientific description

The United Nations (2004) definition provided above is from Protocol V of the Convention on Certain Conventional Weapons but does not include any reference to explosive remnants of war (ERW) in the form of improvised explosive devices.

'Explosive remnants of war' is a catchall term for any explosive ordnance that remains unexploded and abandoned following the cessation of conflict. An explosive ordnance may be considered 'unexploded' or 'abandoned' if it has been "primed, fused, armed, or otherwise prepared for use [..] in an armed conflict" prior to being "left behind or dumped by a party to an armed conflict" (United Nations, 2004:2).

Cluster munitions are an example of ERW and have a long history of conventional use by state actors during warfare (UNODA, 2020a). They are "designed to cover an area with explosive force" and have been used in warfare since the Second World War (Bolton and Nash, 2010:175). A cluster munition produces damage by exploding a single projectile, which fragments into a number of smaller explosive ordnance, which then detonate over a large area (Bolton and Nash, 2010:175). Cluster munitions are of particular concern when discussing the impact of ERW, as the impact of unexploded cluster munitions when detonated is significantly higher than other conventional munitions. A study of the comparative impact on civilian populations found that "ten unitary projectiles with a 10 per cent failure rate will leave one unexploded item whereas ten cluster munitions with 100 submunitions each and a 10 per cent failure rate will leave 100 unexploded items – ten times as many" casualties or fatalities (Bolton and Nash, 2010:175). The clearance of cluster munitions has proved extremely challenging in many contexts – for example in Kosovo, where civilians who went in search of provisions such as firewood accidentally detonated the munitions, causing many casualties and fatalities (ICRC, 2001:18).

Explosive remnants of war frequently have adverse effects on populations owing to the shedding of chemicals or chemically active compounds into areas where they are abandoned. This can have long-term effects when a population is exposed to the chemicals through contamination of water, soil, food sources, and general living environment. One such example is the presence of depleted uranium, which has had significant impacts on the health of conflict affected populations and their environment since it was introduced into conventional warfare (UNODA, 2020b). Depleted uranium has a high density, which makes it a useful component of kinetic energy weapons such as anti-tank weaponry (Murray et al., 2002). In areas with high radioactive contamination, there is a risk of wildfires burning terrain leading to an uncontrolled re-distribution of radioactive

MH0007 / METEOROLOGICAL AND HYDROLOGICAL / Flood

Fluvial (Riverine) Flood

Definition

A fluvial flood is a rise, usually brief, in the water level of a stream or water body to a peak from which the water level recedes at a slower rate (WMO, 2012).

Reference

WMO, 2012. Definition number 543. International Glossary of Hydrology. WMO-No. 385. World Meteorological Organization (WMO). www.wmo.int/pages/prog/hwrp/publications/international_glossary/385_IGH_2012.pdf Accessed 16 April 2020.

Annotations

Synonyms

Flood, Flooding.

Additional scientific description

Fluvial flooding occurs over a wide range of river and catchment systems. Floods in river valleys occur mostly on flood plains or wash lands as a result of flow exceeding the capacity of the stream channels and spilling over the natural banks or artificial embankments (Fernandez, 2015).

Metrics and numeric limits

Not identified.

Key relevant UN convention / multilateral treaty

Not identified.

Examples of drivers, outcomes and risk management

Drivers of fluvial flood: Fluvial (riverine) flooding primarily results from an extended precipitation event that occurs at, or upstream from, the affected area. It can also occur when traditional flood-control structures, such as levees and dikes, are overtopped (NOAA, no date).

Outcomes and impacts of fluvial flood: Flooding of areas used for socio-economic activities produces a variety of negative impacts. The magnitude of adverse impacts depends on the vulnerability of the activities and population and the frequency, intensity and extent of flooding. Some of these factors include loss of lives and property, loss of livelihoods, decreased purchasing power and production power, mass migration, psychosocial effects, hindering of economic growth and development, and political implications (APFM, no date).

Control and monitoring measures of fluvial flood: Floods are important components of the natural hydrological regime. They are a major source of water; they flush pollutants and sediment from river networks. It is also natural for rivers to overtop their banks with greater or lesser frequency and occupy their flood plains. As a result, floods can cause property damage and bring death and injury to many communities. While there is no evidence as yet that the frequency or magnitude of flooding has increased world-wide, flood-prone areas are becoming increasingly densely populated and thus more vulnerable. Consequently, a series of major flood disasters has occurred in recent years, with death and destruction being caused by such events on every continent (GWP, 2013).

There is a need for an approach to flood management that improves the functioning of the river basin as a whole, recognising that floods have beneficial impacts and can never be fully controlled. Such an approach seeks to maximize the net benefits from the use of floodplains and to minimise loss of life, subordinating flood loss reduction to the overall goal of maximising the efficient use of the floodplain (APFM, 2020).

Integrated Flood Management (IFM) is a process that promotes an integrated, rather than fragmented, approach to flood management. It integrates land and water resources development in a river basin, within the context of Integrated Resources Management, with a view to maximising the efficient use of floodplains and to minimising loss of life and property. IFM, like Integrated Water Resources Management, should encourage the participation of users, planners and policymakers at all levels. The approach should be open, transparent, inclusive and communicative; should require the decentralisation of decision- making; and should include public consultation and the involvement of stakeholders in planning and implementation. IFM calls for a paradigm shift from the traditional fragmented approach and encourages the efficient use of the resources of the river basin, employing strategies to maintain or augment the productivity of floodplains, while at the same time providing protective measures against losses due to flooding (APFM, no date).

Health impacts of floods including fluvial (riverine) floods: Floods are one of the most common hazards. The effects of flooding on health are extensive and significant, ranging from mortality and injuries resulting from trauma and drowning, to infectious diseases and mental health problems (acute and long-term). While some of these outcomes are relatively easy to track, ascertaining the human impact of floods is still weak. For example, it has been reported that two-thirds of deaths associated with flooding are from drowning, with the other third from physical trauma, heart attacks, electrocution, carbon monoxide poisoning and fire. Often, only immediate traumatic deaths from flooding are recorded (WHO, 2013).

Morbidity associated with floods is usually due to injuries, infections, chemical hazards and mental health effects (acute as well as delayed) (WHO, 2013). Hypothermia may also be a problem, particularly in children, if trapped in floodwaters for lengthy periods (WHO, no date). There may also be an increased risk of respiratory tract infections due to exposure (loss of shelter, exposure to flood waters and rain). Power cuts related to floods may disrupt water treatment and supply plants thereby increasing the risk of water-borne diseases, as well as affecting proper functioning of health facilities, including cold chain (WHO, no date). Floods can potentially increase the transmission of the following communicable diseases: water-borne diseases (such as typhoid fever, cholera, leptospirosis and hepatitis A) and vector-borne diseases (such as malaria, dengue and dengue haemorrhagic fever, yellow fever, and West Nile Fever) (WHO, no date).

The longer-term health effects associated with a flood are less easily identified. They include effects due to displacement, destruction of homes, delayed recovery and water shortages (WHO, 2013).

References

APFM, no date. Website. Associated Programme on Flood Management (APFM). www.floodmanagement.info Accessed 17 April 2020.

APFM, 2020. APFM Concept. Associated Programme on Flood Management (APFM). www.floodmanagement.info/apfm-concept Accessed 23 March 2021.

Fernandez, J., 2015. Deliverable 3: Design of a model EWS and SOPs that can be tested in four sub-districts within the DARDC region. https://procurement-notices.undp.org/view_file.cfm?doc_id=77501 Accessed 23 March 2021.

GWP, 2013. Monthly Report May 2013. Global Water Partnership (GWP). 04-gwp-report-may-2013.pdf Accessed 23 March 2021.

NOAA, no date. Understanding Stormwater Inundation. National Oceanic and Atmospheric Administration (NOAA). https://coast.noaa.gov/stormwater-floods/understand Accessed 17 April 2020.

WHO, no date. Flooding and communicable diseases fact sheet. World Health Organization (WHO). www.who.int/hac/techguidance/ems/flood_cds/en Accessed 4 October 2020.

WHO, 2013. Floods in the WHO European Region: Health effects and their prevention. World Health Organization (WHO), Regional Office for Europe. https://apps.who.int/iris/handle/10665/108625 Accessed 2 October 2020.

Coordinating agency or organisation

World Meteorological Organization (WMO).

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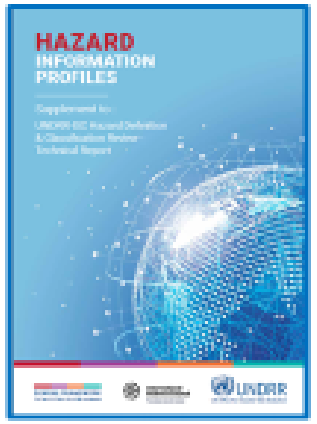
Recommendations



- **Use this hazard list to actively engage policymakers and scientists in evidence-based national risk assessment processes**, disaster risk reduction and risk-informed sustainable development, and other actions aimed at managing risks of emergencies and disasters
- **Address cascading and complex hazards and risks**

UNDRR
UN Office for Disaster Risk Reduction

International Science Council

The UNDRR/ISC Hazard Definition and Classification Review Technical Report and Hazard Information Profiles support

Sendai Framework for Disaster Risk Reduction 2015-2030,

Sustainable Development Goals of Agenda 2030 and

Paris Agreement on Climate Change

by providing a

common set of hazard definitions

for monitoring and reviewing implementation

SUSTAINABLE DEVELOPMENT GOALS

PARIS2015
COP21·CMP11

UNDRR

PreventionWeb

Home | Understanding disaster risk | Knowledge Base | Community | Sendai Framework

Home > The disaster risk reduction (DRR) glossary

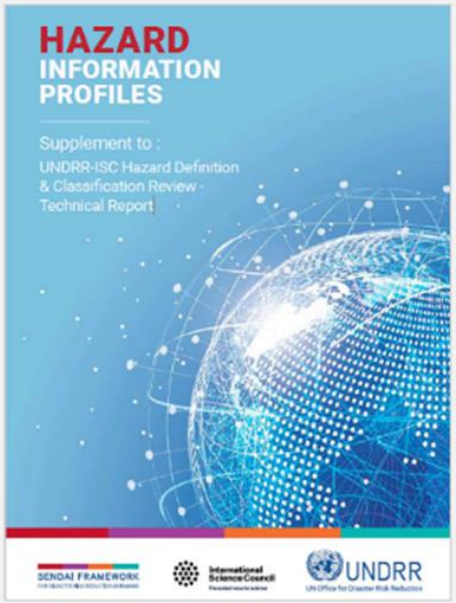
Hazard Information Profiles (HIPs) | PreventionWeb

Hazard Information Profiles (HIPs) online reference

A description of each of the 302 hazard information profiles (HIPs), developed using a consultative process by scientists and experts across the globe.

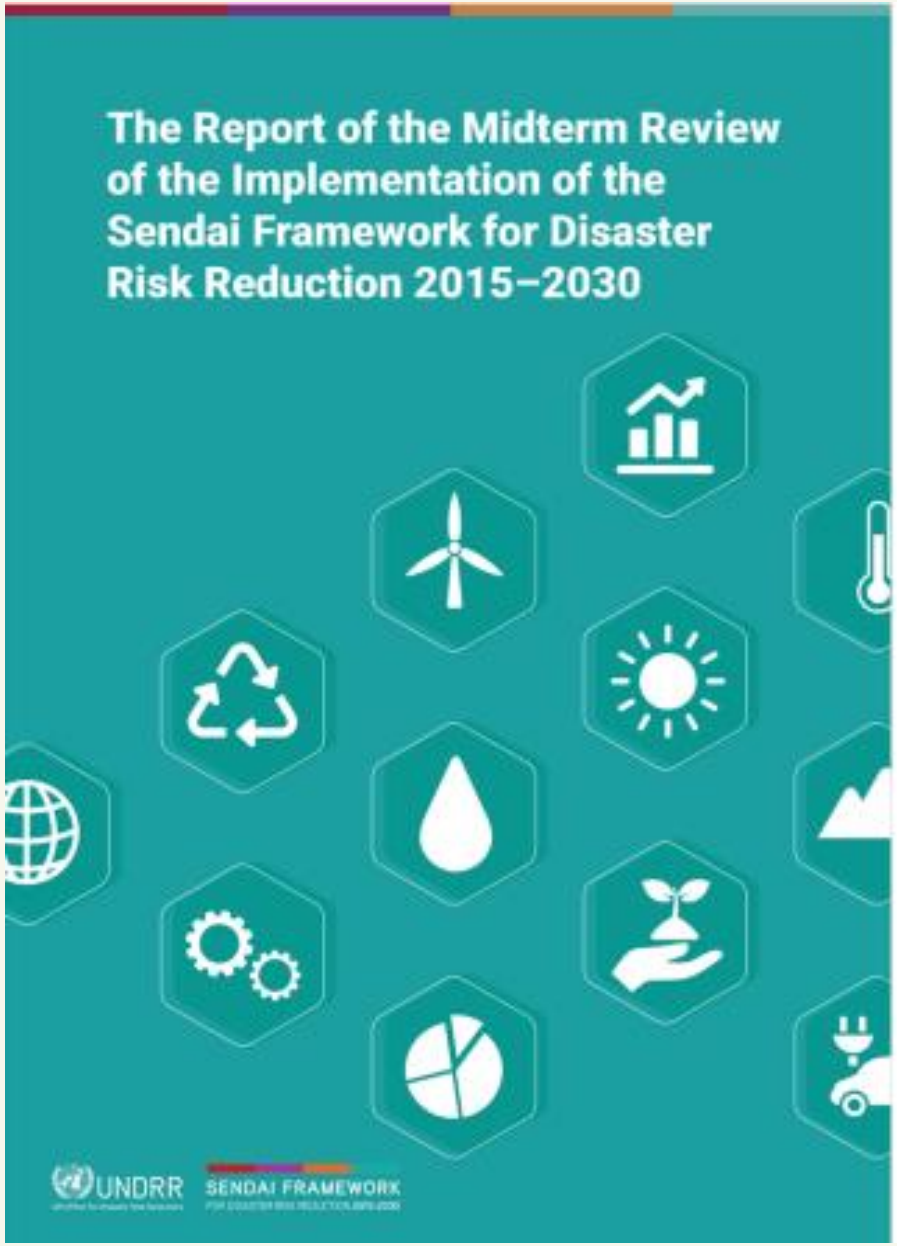
Responding to increasing calls for 'a data revolution, rigorous accountability mechanisms and renewed global partnerships', the Hazards Information Profiles and the Technical report provide an important resource to support the implementation of disaster risk reduction and risk-informed investment, aligned with the Sendai Framework for Disaster Risk Reduction 2015–2030, but also the Sustainable Development Goals of Agenda 2030, the Paris Agreement on Climate Change and the Addis Ababa Action Agenda on Sustainable Financing. It provides a common set of hazard definitions to Governments and stakeholders to inform their strategies and actions on risk reduction and management.

Specifically, both publications (the profiles and the technical report) could support the development and updating of national and local disaster risk reduction strategies and loss databases, as well as integrating disaster risk reduction into national statistics, legal, accounting and regulatory frameworks and public and private policy, financing and investment decisions.



Read the original publication

On this page | Meteorological and Hydrological | Extraterrestrial | Geohazards | Environmental | Chemical | Biological | Technological | Societal



5.3.1. Terminologies

In developing standard DRR terminology, OIEWG has supported Sendai Framework implementation as well as the implementation and monitoring of progress of other agendas, agreements and intergovernmental processes.

Work undertaken with the International Science Council (ISC) and the engagement of more than 800 partners from scientific institutions, including national scientific advisers, the research funding community and numerous international organizations, led to the groundbreaking **Sendai Hazard Definition and Classification Review Technical Report**. The report, which contains 302 **hazard information profiles**, is a key tool for building common definitions for developing comparable data sets for monitoring and review. It provides a common set of hazard definitions to governments and stakeholders to inform approaches, policies and investments, whether integrated in sectoral interventions or DRR strategies and actions.

The Report of the Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 | UNDRR

The Current Review Process

Helene Jacot Des Combes, Project Manager

International Science Council

UNDRR
UN Office for Disaster Risk Reduction

The ‘light-touch’ review process

- The HIPs are being updated through a ‘light touch’ process.
- Some HIPs may be added, and others removed
- The format will be kept but
    - New scientific information will be added where relevant
    - Outcomes will be replaced by impacts in the ‘examples of drivers, outcomes, and risk management’ section
    - More information on the multi-hazard context will be added
    - References will be updated
    - All sections will be reviewed and revised if needed

The ‘light-touch’ review process

- A Steering Group is tasked to lead the process.
- Eight (8) Technical Teams made of experts are established, one for each type of hazards (Hydrological & Meteorological, Extraterrestrial, Environmental, Geological, Chemical, Biological, Technological, Societal).
- Experts from UN agencies, academia, NGOs, Sector, from different regions of the world are members of these technical teams.
- Once revised HIPs are prepared, a review by experts AND by users will be organized. The review process will be transparent, and all submitted comments will be answered.
- The final version will be launched at the Global Platform for DRR in June 2025.

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Number	HAZARD

Primary definition

Brief Definition of hazard: no more than 3 lines/2 sentences.
Sourced from the highest possible authority and be applicable to all parties and preferably a simple UN definition but also recognised as the highest level that UN member states can use and apply.
REFERENCE/ hyperlink/Web site

Annotations

Synonyms

Additional Scientific Description

Expanded scientific description that is preferably measurable, modellable and statistically relevant
REFERENCE/ hyperlink/Web site

Metrics and numerical limits

Any globally agreed metrics, numerical limits or guidelines defined - should be globally agreed as a recognised standard, if it is only at a regional level than state this as a reference.
REFERENCE/ hyperlink/Web site

Key relevant UN Conventions and multilateral treaties

REFERENCE/ hyperlink/Web site

Examples of drivers, impacts (outcomes) and risk management

REFERENCE/ hyperlink/Web site

Multi Hazard Context

Early Warning

References

Coordinating Agency or Organisation(s)

UN or Scientific Agency or Organisation who leads for the Primary Definition

Adding the Multi-Hazard Context

Urbano Fra Paleo, Member of the Steering Group

International Science Council

UNDRR
UN Office for Disaster Risk Reduction

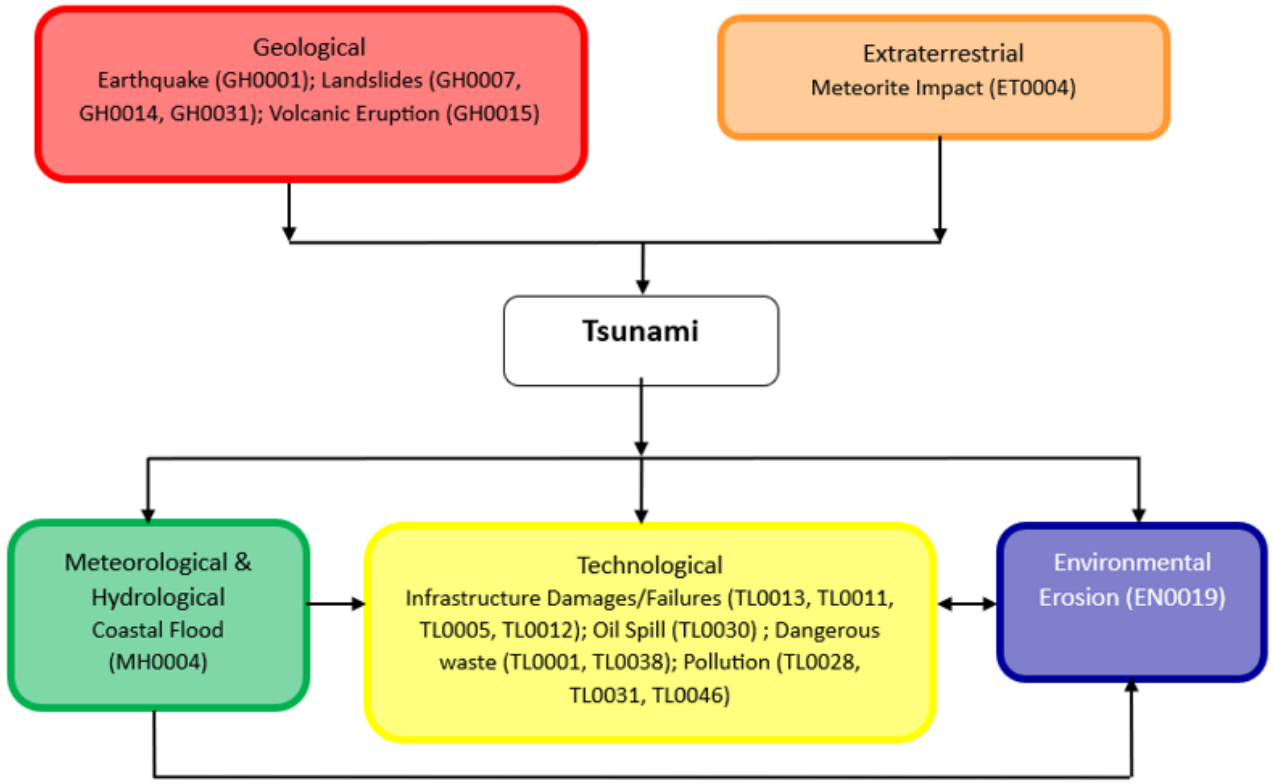
Addition of a Multi-hazard Context Section

- The Sendai Framework mentions that Disaster Risk reduction must follow a multi-Hazards approach.
- This reflects that hazards rarely occur alone, but with other hazards.
- Interrelationships between hazards are varied: triggering, causing cascading hazards, amplifying, and compound.
- These interrelationships occur on different spatial and temporal scales; making the multi-hazard context very complicated to represent.
- However, this information is necessary to make the HIPs useful for policymakers

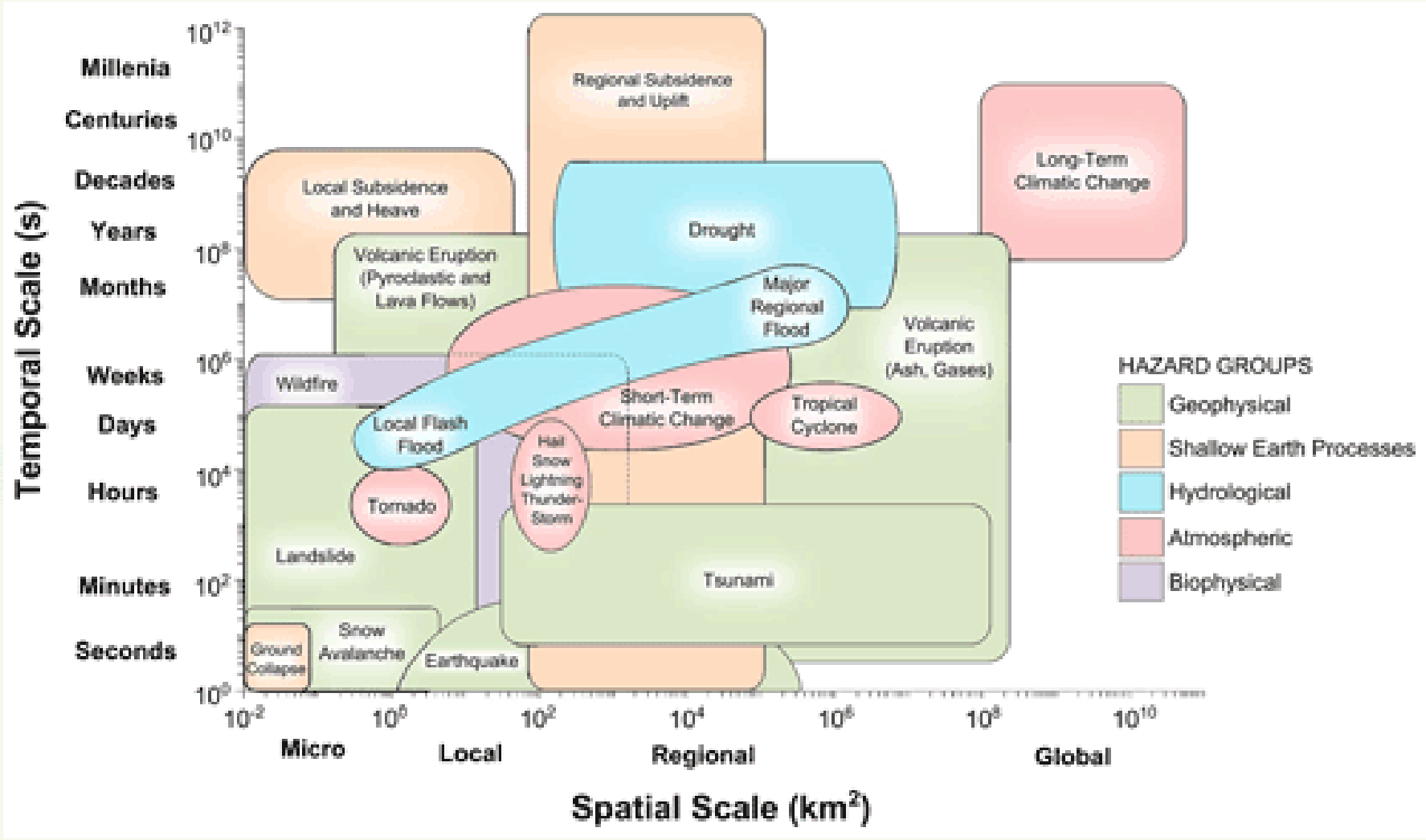
Addition of a Multi-hazard Context Section

Multi-hazard Context

This hazard may be in a cascade of hazards, but also may happen at the same time and location as other hazards but independently from one another, exacerbating impacts. Some of the scientifically evidenced interactions between tsunamis and other hazards are summarized in the figure below. This is not an exhaustive list and should not be used alone for Disaster Risk Management planning. Specific examples of multi-hazard Context can be found in the 'Drivers' and 'Impacts' sections above.



Addition of a Multi-hazard Context Section



Addition of a Monitoring/Early Warning Section

- A section is also added to provide information on monitoring and early warning system
- The monitoring/early warning section is aligned with the Early Warnings for All initiative led by different UN Agencies for hydrological and meteorological hazards
- It focuses only on Pillar 1 Disaster risk knowledge and management and Pillar 2 Detection, observation, monitoring, analysis, and forecasting of this initiative
- There may not be information on early warning available for all 300 hazards in the HIPs, but information on the monitoring of hazards may be available more broadly

Addition of a Monitoring/Early Warning Section

Monitoring / Early Warning Systems

This section provides information on monitoring and early warning for tsunami only. However early warning systems are evolving towards multi-hazard approach. Monitoring and forecasting hazards is one step of early warning systems. How and when the information is shared to the public to prepare for a disaster follows procedures that vary between countries and hazards. As such, this information is not presented in the table below.

1. Which type of institution(s) could produce Disaster Risk Data/Information for this hazard?	
2.a. How could this Hazard Monitored/Observed/Forecast?	
2.b. What is the lead time for a warning for this hazard to be issued to the public (including time to trigger a warning and for people to react)?	

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Early Warning systems must protect everyone within five years

Tags: WMO Disaster risk reduction Climate change Observations Forecast Disasters

23 Published 23 March 2022

Press Release Number: 23032022

UN unveils ambitious target to adapt to climate change and more extreme weather

Within the next five years, everyone on Earth should be protected by early warning systems against increasingly extreme weather and climate change, according to an ambitious new United Nations target announced today.

Latest WMO News

"Science for Climate Action" pavilion by WMO, IPCC and MERI Foundation at

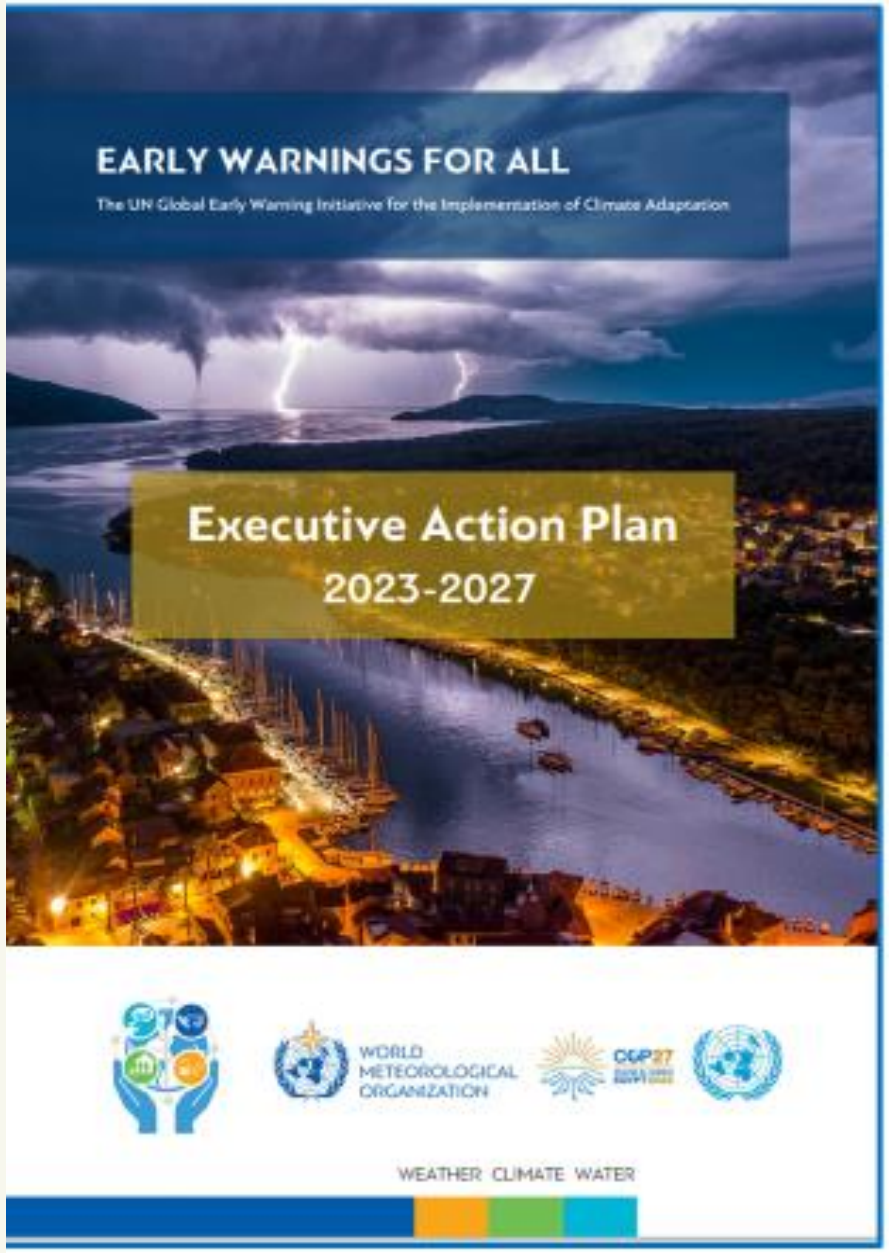


Figure 2: Graphical presentation of a Multi-Hazard Early Warning System (MHEWS)

Questions

Helene Jacot Des Combes, Project Manager

International Science Council

UNDRR
UN Office for Disaster Risk Reduction

The Involvement of Users

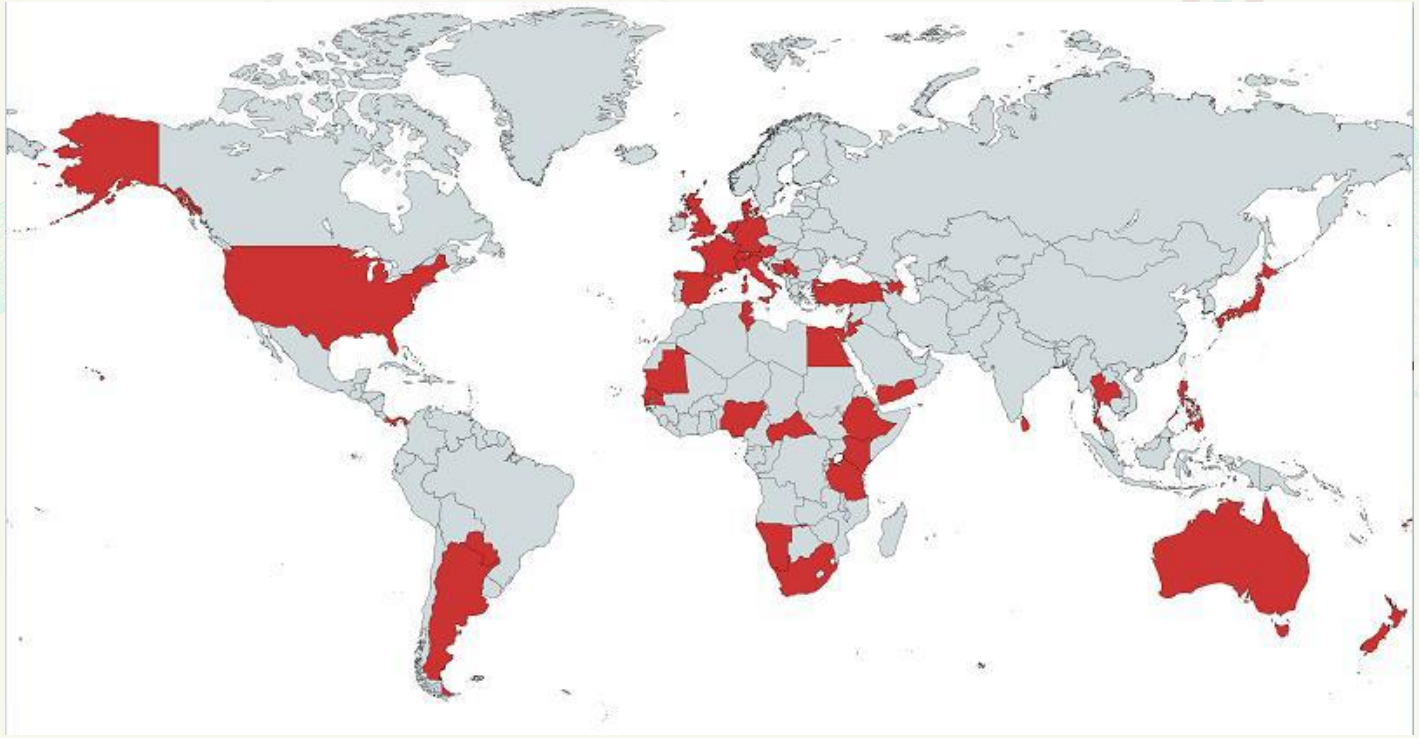
Teresa Oliveira, Member of the User Group

International Science Council

UNDRR
UN Office for Disaster Risk Reduction

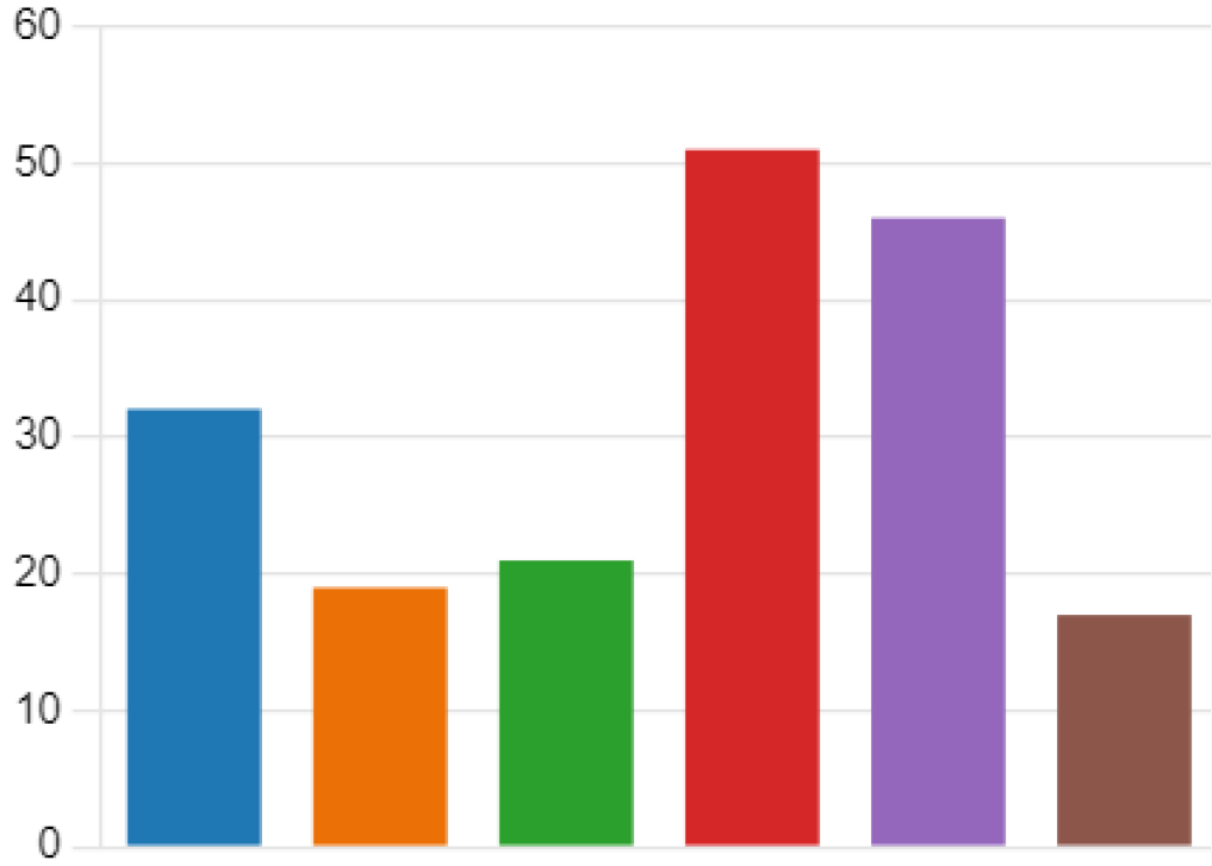
User Survey

- A User Survey was conducted in January-February 2024
- 95 people answered from 62 countries answered.



User Survey

Disaster risk reduction planning	32
Disaster response planning	19
Disaster risk monitoring	21
Research	51
Training/education	46
Other	17



User Survey

A few quotes

- It's encyclopaedic. The key thing is that the profiles are succinct and sufficiently annotated.
- They are good, HOWEVER, they are of uneven standard across 302 hazards
- Clear definitions and also I appreciate that alternative definitions are also listed.
- Provides basic information for non-experts. A good resource to be shared
- On a global level, the ability to standardize core ideas, definitions formats aids in the ability to streamline a coordinated planning approach in the most useful way possible for the country level
- Cyber Hazard - Mis-information/dis-information

User Survey

"HIPs are valuable resources that contribute to effective DRR. The profiles offer detailed insights into various hazards, aiding risk assessment, preparedness planning, and resource allocation.

"By enhancing community awareness, supporting policy formulation and serve as crucial tools for informed decision-making. They play a vital role in my work and engaging communities, guiding policymakers, and assisting emergency responders during disaster events.

"Additionally, hazard information profiles contribute to monitoring and evaluating the effectiveness of risk reduction measures, fostering a proactive and resilient approach to managing the impacts of natural hazards at local, national, and international levels."

Quote from a respondent based in a National Disaster Management Office in the Pacific

User Group

- The HIPs are at the interface between science and policy. As such, it is essential to get feedback from a user's perspective.
- A User Group is established with members coming from different world regions and different sectors and background.
- The user group provides feedback on the format and the content of the HIPs.
- Their feedback is shared with the other groups leading the revision of the HIPs and will be involved in the final review of the revised version.

The Use of the HIPS to Standardize Hazard Information

Virginia Murray, Chair of the Steering Group

International Science Council

UNDRR
UN Office for Disaster Risk Reduction

Example of the use of the HIPs

https://fsu-my.sharepoint.com/:v:/g/personal/csv23_fsu_edu/EYGrzFrWzuROqqLlfmMijtcBrOFJEjuTvAi-gQzQguDYnQ

International Science Council

Background on the HIPs

Hazard information when combined with exposure, vulnerability and capacity is fundamental to all aspects of disaster risk management, from multi-hazard risk assessments for prevention dn mitigation to warnings and alerts, to disaster response and recovery, long-term planning and public awareness.

In 2019 the United Nations Office for Disaster Risk Reduction (UNDRR) and the International Sceince Council (ISC) jointly established a technical working group to identify the full scope of hazards relevant to the Sendai Framework as a basis for countries to review and strengthen their risk reduction policies and operational risk management practicies.

The Hazard Information Profiles (HIPs) are the result of this international collaborative effort and aim to fill gap by providing a systematic approach and standardised characterisation of hazards. The HIPs aim to contribute to a coherent view of hazards, which can support countries:

- Report effectively on loss and damage;
- Implement a comprehensive and inclusive approach to the development of disaster risk reduction strategies;
- Develop and use multi-hazard early warning systems effectively and forecast events in the future.

Related resources

Background on the HIPs

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UNDRR United Nations Office for Disaster Risk Reduction

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Disaster Losses and Damages tracking system

Disaster losses and damages tracking

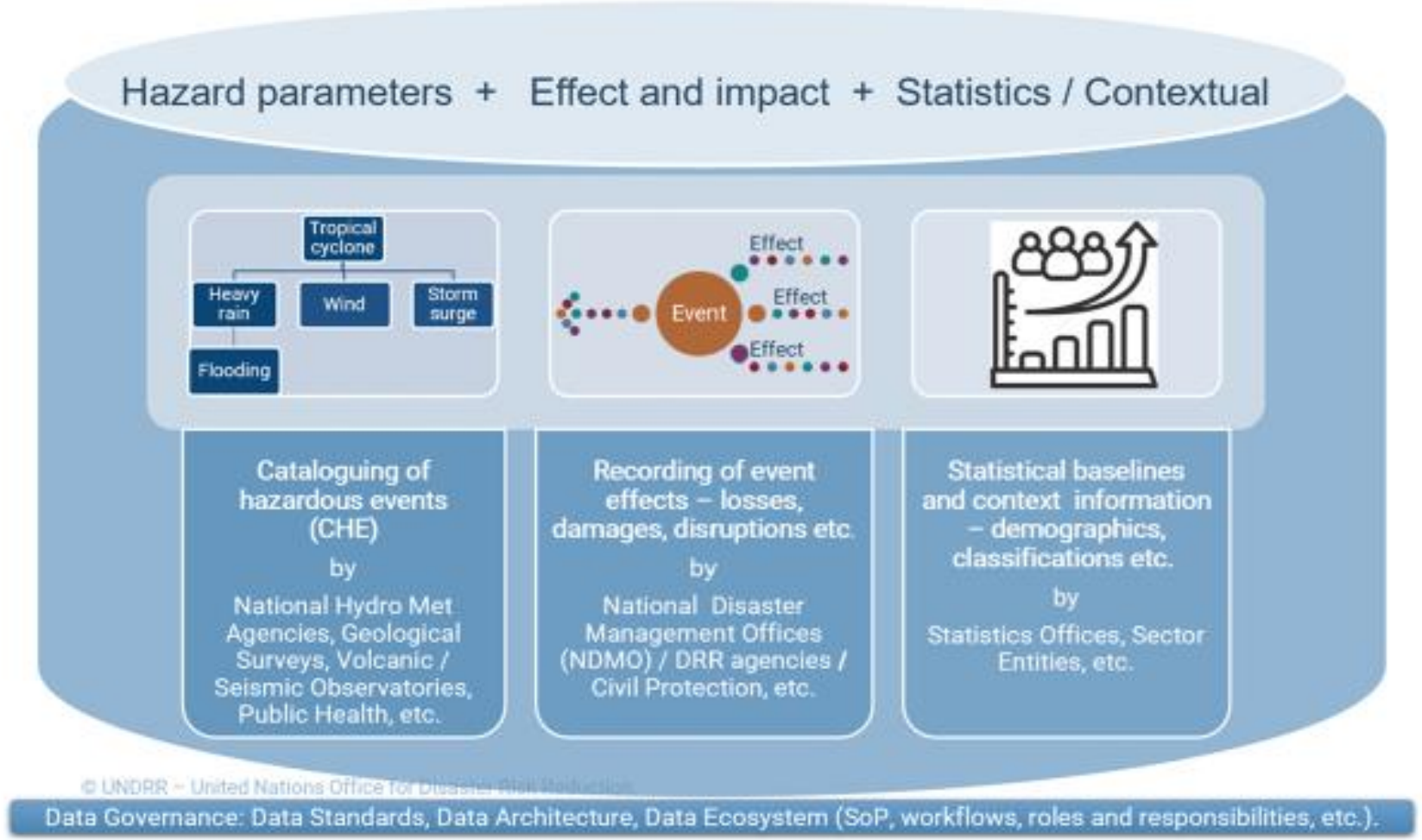
UNDRR and partner organisations support countries in monitoring their progress in reducing losses and damages at national and sub-national levels through publicly-accessible disaster information management systems.

DLDT: A new disaster losses and damages tracking system

Aware of the emerging user needs and the existence of modern solutions, UNDRR, UNDP and WMO are collaborating to develop a new hazardous event and disaster losses and damages tracking system.

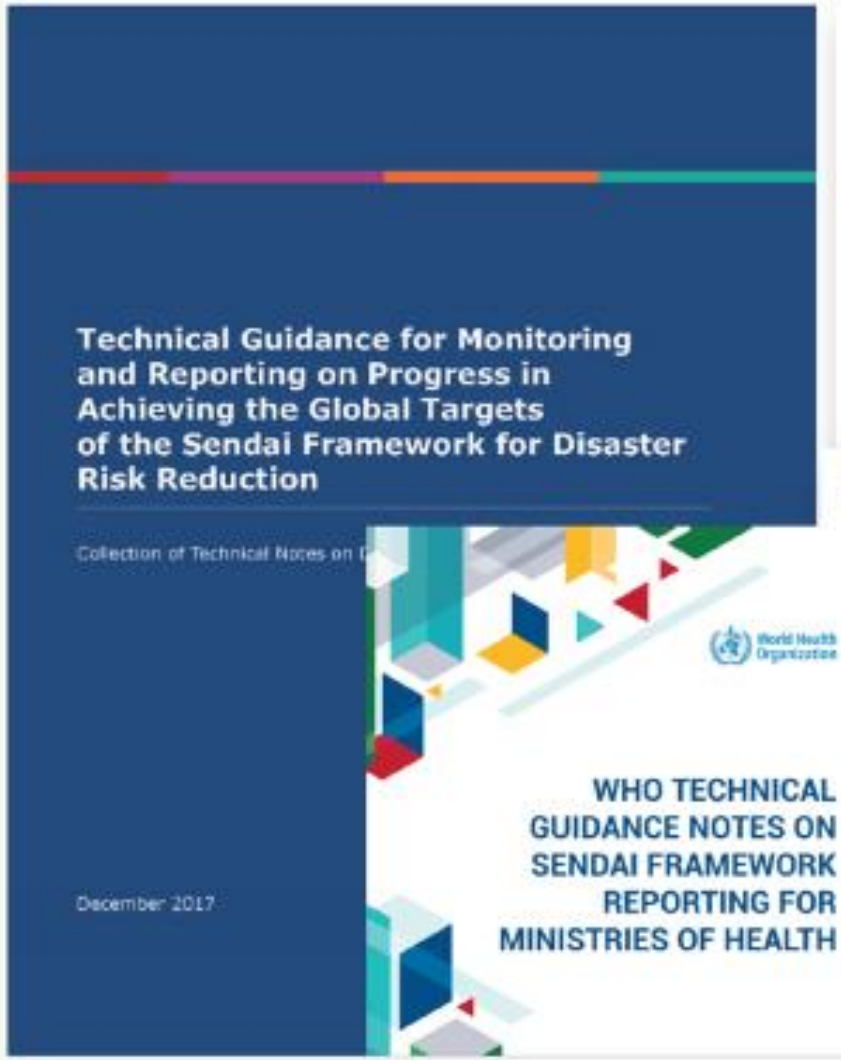
The new system will replace the existing DesInventar with a more comprehensive and interoperable tracking system that will cover both hazardous events, as well as disaggregated losses and damages at localized scales.

Key elements and foundation for a new system



Disaster Losses and Damages tracking system

Ensuring Data Standards



Sendai Framework Terminologies

[Endorsed by the UN General Assembly]

undrr.org/terminology

Example of the use of the HIPs

https://drive.google.com/file/d/1Czn9cov5uTS39PvMUkFbgXVMmgKNuSOQ/view?usp=drivesdk

Questions

Helene Jacot Des Combes, Project Manager

International Science Council

UNDRR
UN Office for Disaster Risk Reduction

Next Steps

Helene Jacot Des Combes, Project Manager

Next Steps

Call for reviewers of updated UNDRR-ISC Hazard Information Profiles. Deadline: 15 December

Please register as a reviewer by completing the online form below by 15 December.

Following the recommendation from the **UNDRR-ISC technical report on Hazard Definition & Classification**, the **UNDRR-ISC Hazard Information Profiles (HIPs)** are undergoing their first revision by the **dedicated steering group** and the updated version will soon be ready for review. The reviewed version will be launched at the **Global Platform for Disaster Risk Reduction in Geneva** (2 – 6 June 2025).

Next Steps

- The draft updated HIPs will be available soon
- A review process will then start with call for reviewers shared last week (Call for reviewers of updated UNDRR-ISC Hazard Information Profiles | deadline: 15 December - International Science Council)
- We would like to request you to answer this call and participate in the review of the updated HIPs.
- It can be both as expert reviewer for the hazards in your area of expertise or as user reviewer for the hazards you are not an expert of but are of concern for you and colleagues.

International Science Council

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Disaster risk reduction: UNDRR and ISC to review Hazard Information Profiles ahead of 2025 Global Platform - International Science Council

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BLOGS

Disaster risk reduction: UNDRR and ISC to review Hazard Information Profiles ahead of 2025 Global Platform

The UNDRR and ISC are undertaking a review of the Hazard Information Profiles (HIPs) to enhance their relevance and usability in disaster risk reduction efforts, particularly in multi-hazard contexts.

WORLD SCIENCE FORUM BUDAPEST

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UN Office for Disaster Risk Reduction

Thank You for your Attention

For more information, or if you have questions
Contact us:
helene.jacotdescombes@council.science
virginia.murray@ukhsa.gov.uk

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