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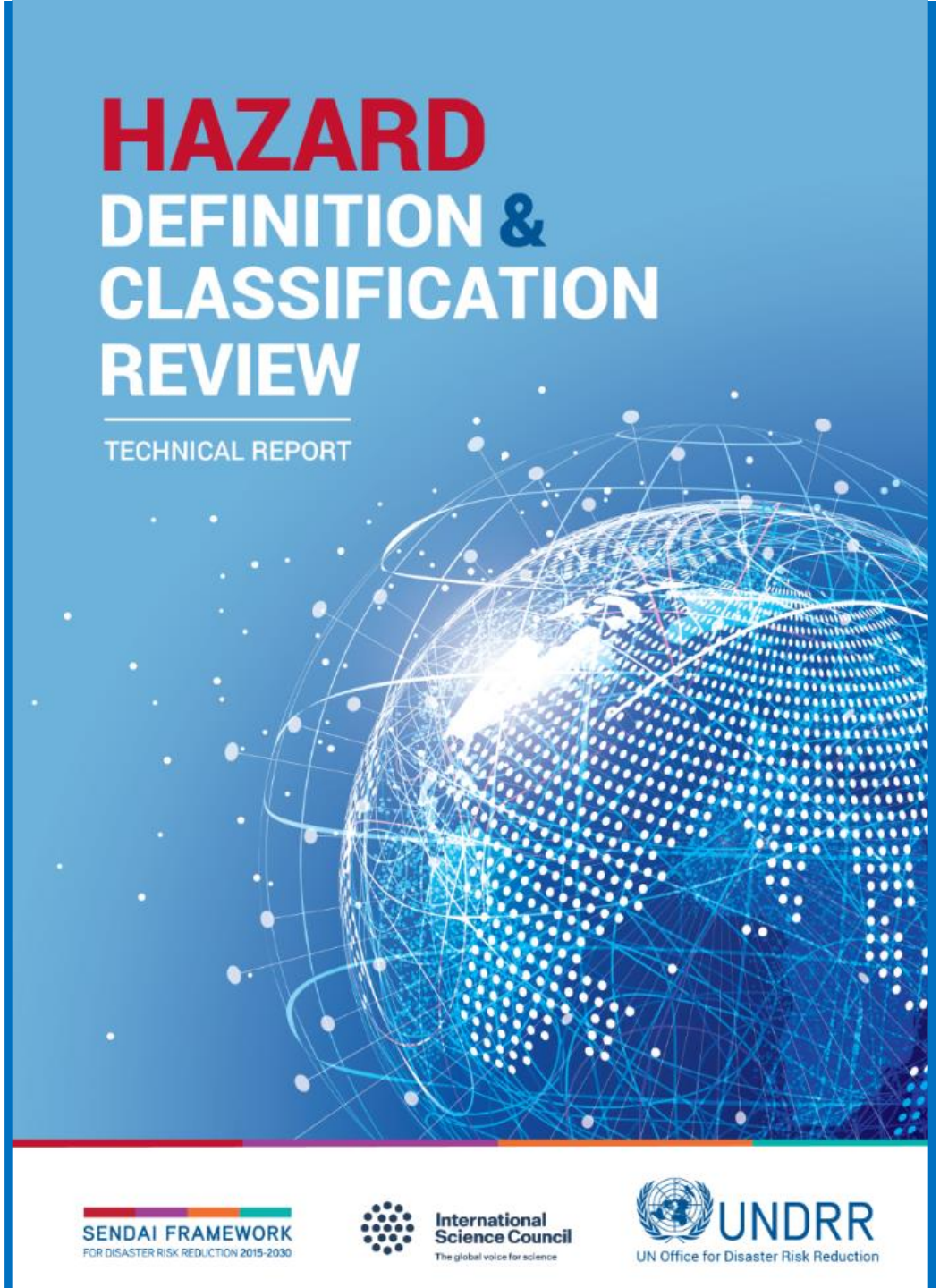
UN Office for Disaster Risk Reduction

International Science Council

IRDR 24th Scientific Committee Meeting
10 November 2020

Update on UNDRR / ISC Sendai Hazard Definition and Classification Review
TECHNICAL REPORT

Professor Virginia Murray
IRDR Science Committee member
Chair of UNDRR/ISC Technical Working Group
Head of Global Disaster Risk Reduction, Public Health England, UK



https://council.science/publications/hazards/
https://www.undrr.org/publications

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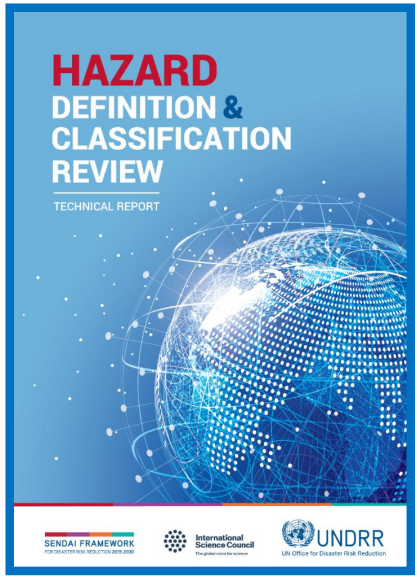

Expanded scope of hazards of the Sendai Framework

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

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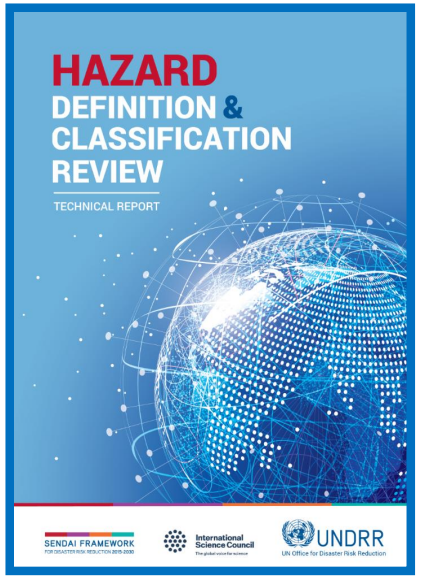
Recommendations

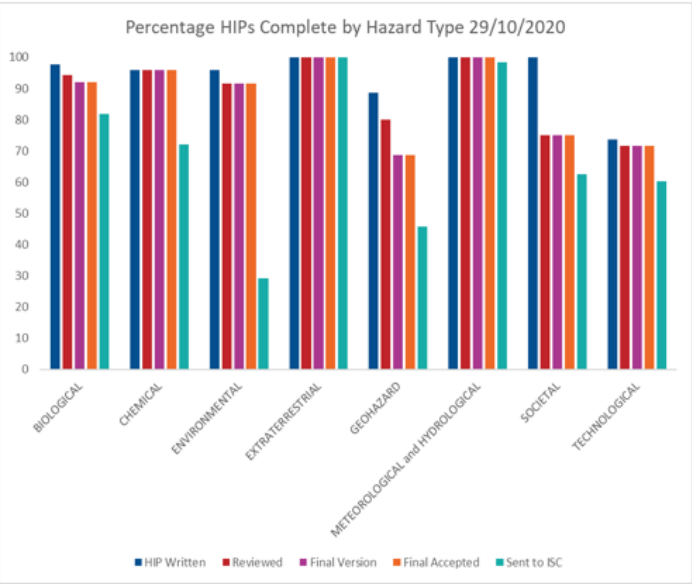
1. Regular review and update
2. Facilitate the development of a multi-hazard information system
3. Engaging with users and sectors for greater alignment and consistency of hazard definitions
4. Use this hazard list to actively engage policymakers and scientists in evidence-based national risk assessment processes, disaster risk reduction and risk-informed sustainable development, and other actions aimed at managing risks of emergencies and disasters
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



10/11/2020

Hazard Information Profiles - Progress Monitoring Dashboard

	HIP Written	Reviewed	Final Version	Final Accepted	Sent to ISC
Complete	301	299	299	299	171
In Progress	1	2	0	0	124
Very Brief	0	0	0	0	0
Possible	0	0	0	0	0
Not Started	0	1	3	3	7
Unknown	0	0	0	0	0
Total	302	302	302	302	302



BIOLOGICAL

	HIP Written	Reviewed	Final Version	Final Accepted	Sent to ISC
Complete	88	88	88	88	43
In Progress	0	0	0	0	44
Very Brief	0	0	0	0	0
Possible	0	0	0	0	0
Not Started	0	0	0	0	1
Unknown	0	0	0	0	0
Total	88	88	88	88	88

CHEMICAL

	HIP Written	Reviewed	Final Version	Final Accepted	Sent to ISC
Complete	25	25	25	25	14
In Progress	0	0	0	0	8
Very Brief	0	0	0	0	0
Possible	0	0	0	0	0
Not Started	0	0	0	0	3
Unknown	0	0	0	0	0
Total	25	25	25	25	25

ENVIRONMENTAL

	HIP Written	Reviewed	Final Version	Final Accepted	Sent to ISC
Complete	24	24	24	24	6
In Progress	0	0	0	0	18
Very Brief	0	0	0	0	0
Possible	0	0	0	0	0
Not Started	0	0	0	0	0
Unknown	0	0	0	0	0
Total	24	24	24	24	24

EXTRATERRESTRIAL

	HIP Written	Reviewed	Final Version	Final Accepted	Sent to ISC
Complete	9	9	9	9	9
In Progress	0	0	0	0	0
Very Brief	0	0	0	0	0
Possible	0	0	0	0	0
Not Started	0	0	0	0	0
Unknown	0	0	0	0	0
Total	9	9	9	9	9

GEOHAZARD

	HIP Written	Reviewed	Final Version	Final Accepted	Sent to ISC
Complete	35	35	35	35	14
In Progress	0	0	0	0	21
Very Brief	0	0	0	0	0
Possible	0	0	0	0	0
Not Started	0	0	0	0	0
Unknown	0	0	0	0	0
Total	35	35	35	35	35

METEOROLOGICAL and HYDROLOGICAL

	HIP Written	Reviewed	Final Version	Final Accepted	Sent to ISC
Complete	60	60	60	60	50
In Progress	0	0	0	0	10
Very Brief	0	0	0	0	0
Possible	0	0	0	0	0
Not Started	0	0	0	0	0
Unknown	0	0	0	0	0
Total	60	60	60	60	60

SOCIETAL

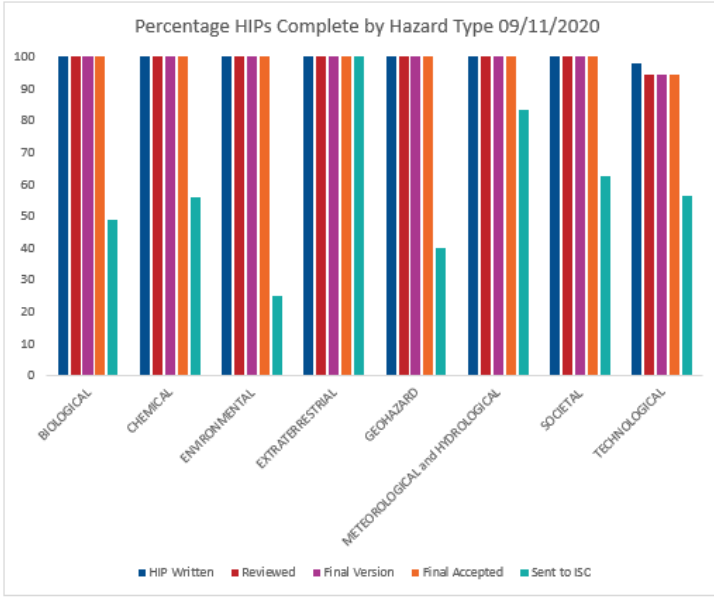
	HIP Written	Reviewed	Final Version	Final Accepted	Sent to ISC
Complete	8	8	8	8	5
In Progress	0	0	0	0	3
Very Brief	0	0	0	0	0
Possible	0	0	0	0	0
Not Started	0	0	0	0	0
Unknown	0	0	0	0	0
Total	8	8	8	8	8

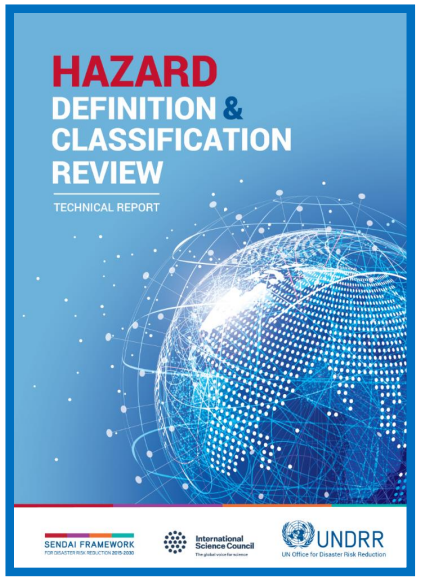
TECHNOLOGICAL

	HIP Written	Reviewed	Final Version	Final Accepted	Sent to ISC
Complete	52	50	50	50	30
In Progress	1	2	0	0	20
Very Brief	0	0	0	0	0
Possible	0	0	0	0	0
Not Started	0	1	3	3	3
Unknown	0	0	0	0	0
Total	53	53	53	53	53

HIP Completion (%)

	HIP Written	Reviewed	Final Version	Final Accepted	Sent to ISC
BIOLOGICAL	100	100	100	100	49
CHEMICAL	100	100	100	100	56
ENVIRONMENTAL	100	100	100	100	25
EXTRATERRESTRIAL	100	100	100	100	100
GEOHAZARD	100	100	100	100	40
METEOROLOGICAL and HYDROLOGICAL	100	100	100	100	83
SOCIETAL	100	100	100	100	63
TECHNOLOGICAL	98	94	94	94	57




HAZARD
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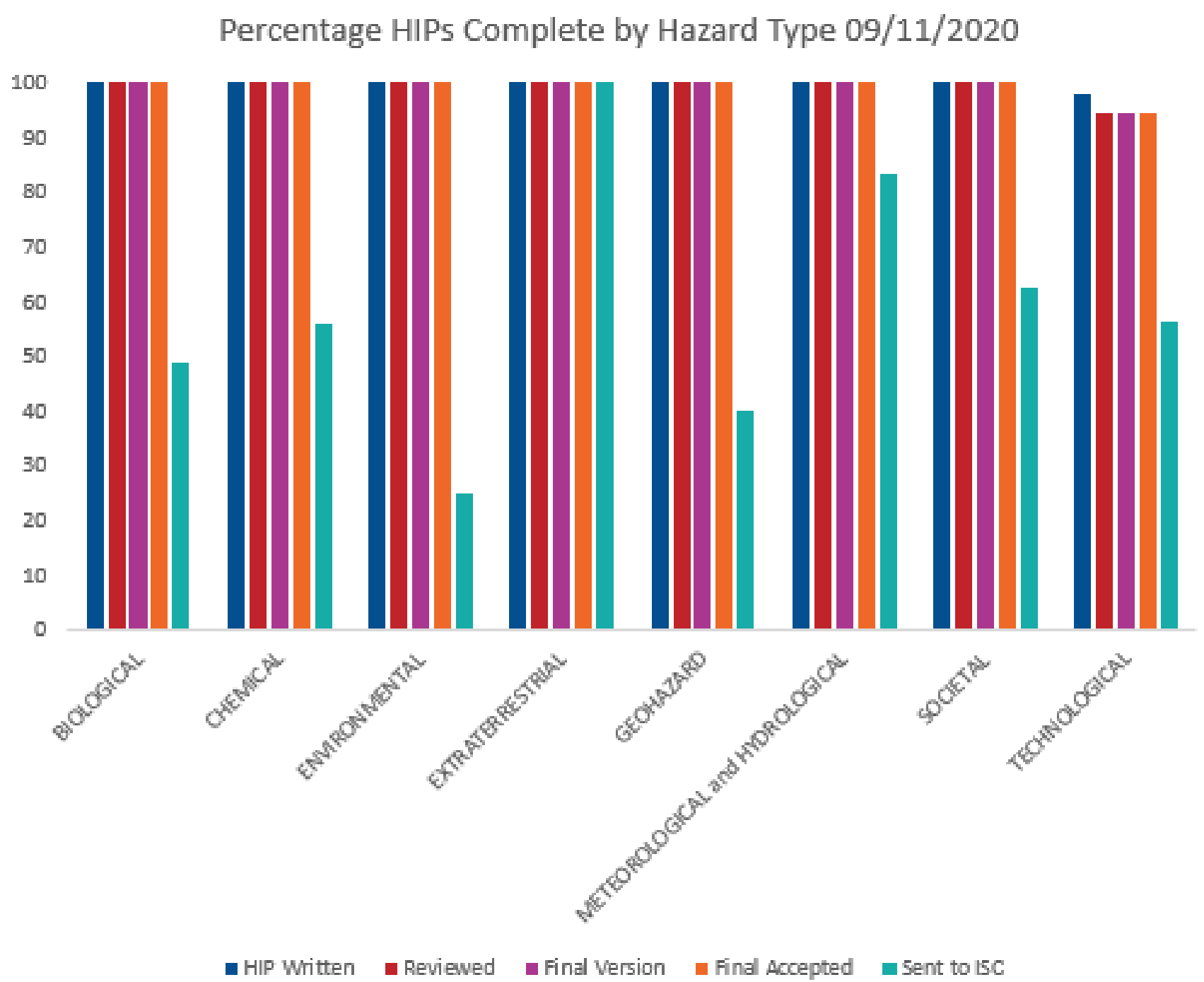
Percentage HIPs Complete by Hazard Type 09/11/2020
100
90
80
70
60
50
40
30
20
10
0
BIOLOGICAL
CHEMICAL
ENVIRONMENTAL
EXTRATERRESTRIAL
GEOHAZARD
METEOROLOGICAL and HYDROLOGICAL
SOCIETAL
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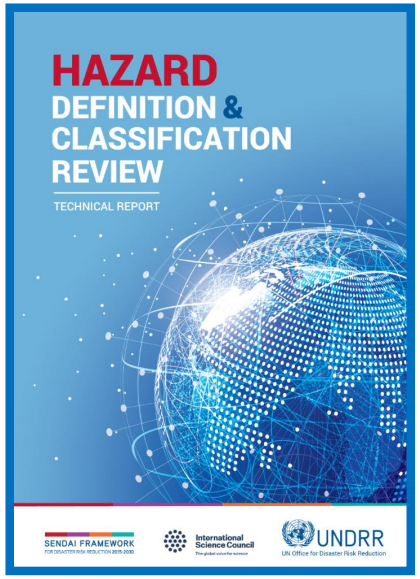

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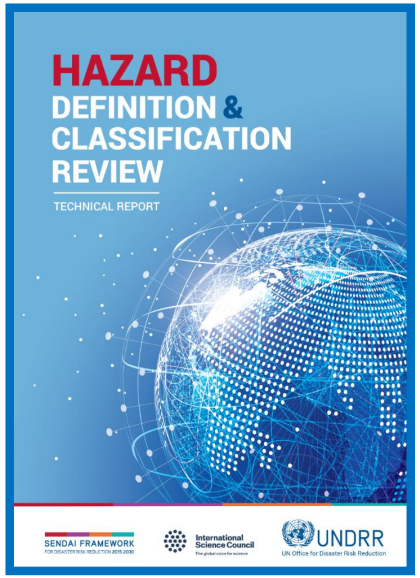

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Thanks to Advisory Group Over 400 colleagues volunteered to join the UNDRR/ISC Sendai Hazard Definition and Classification Review Advisory Group and have been very engaged, committed and supportive of the work – we thank them for their support.

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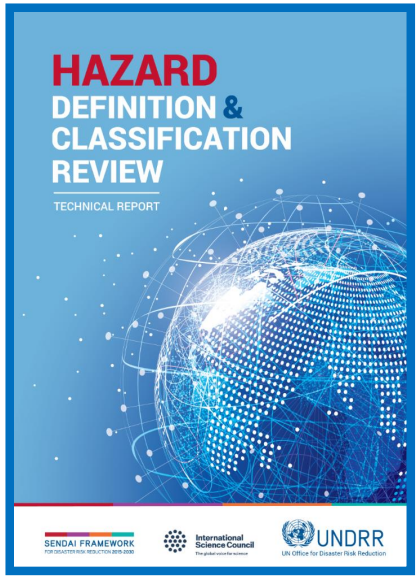

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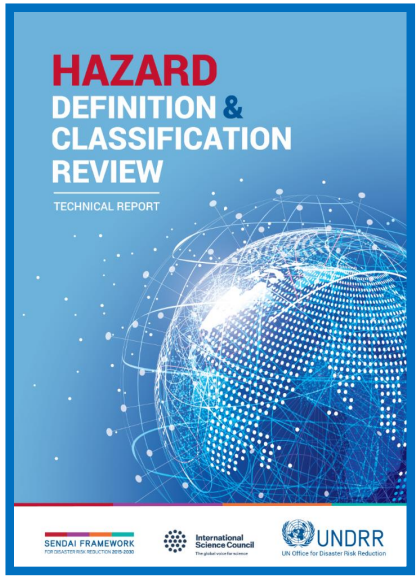

Review of the HIPs

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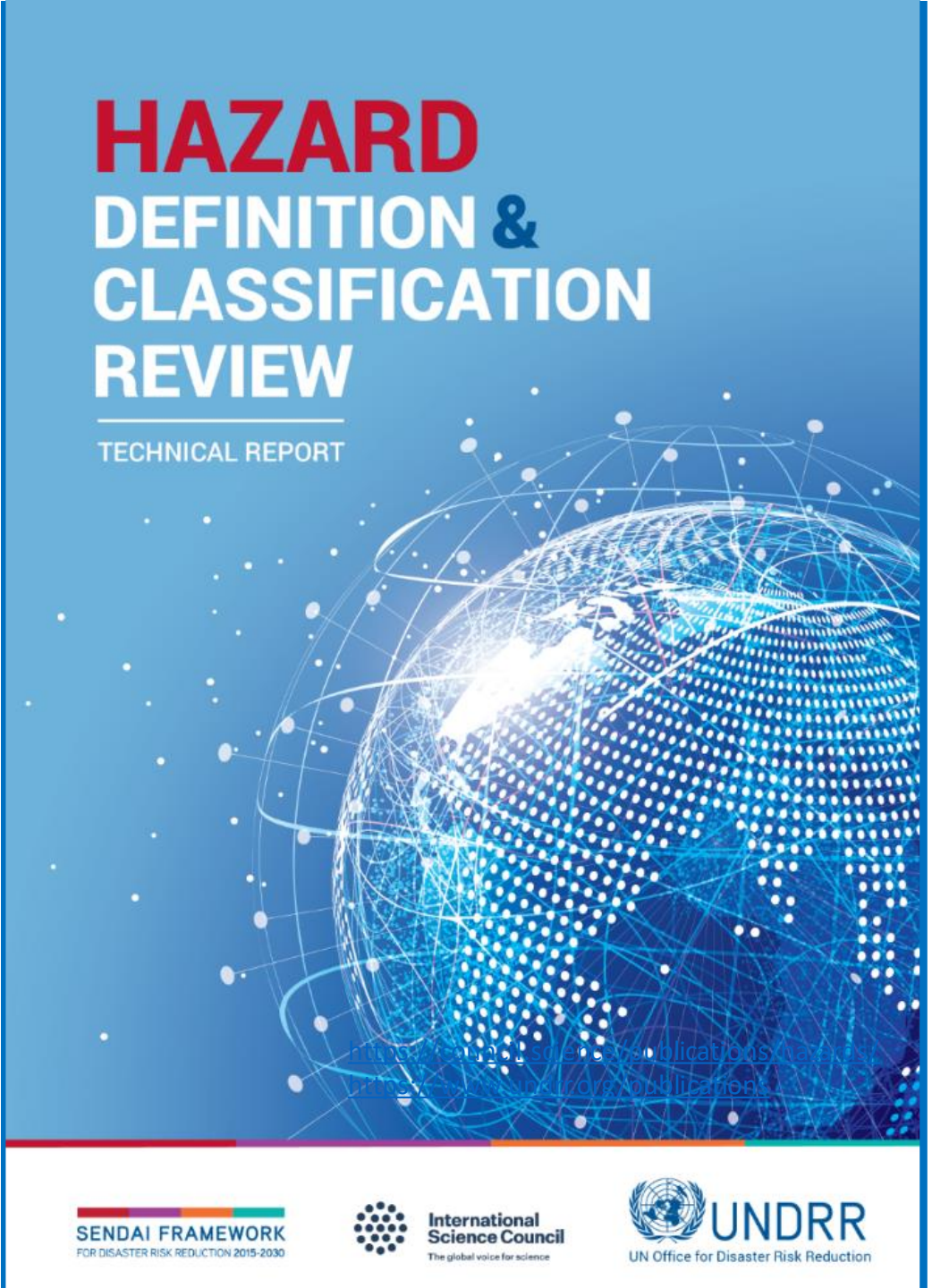
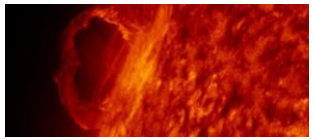
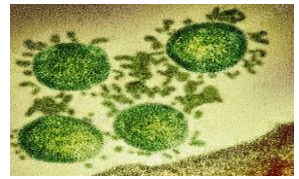


In 2015 the United Nations adopted three landmark agreements: Sendai Framework for Disaster Risk Reduction 2015–2030; the Sustainable Development Goals of Agenda 2030 and the Paris Agreement on Climate Change.

The UNDRR/ISC Sendai Hazard Definition and Classification Review Technical Report supports all three by providing a common set of hazard definitions for monitoring and reviewing implementation which calls for

“a data revolution, rigorous accountability mechanisms and renewed global partnerships”.