

A Global Outlook on Disaster Science

Appendix D Keyword Search Criteria

We adopt a keyword-search approach to define the field in partnership with experts, to avoid restrictions to any particular subject areas that may ignore a significant portion of the relevant corpus. We focus our search on those publications that explicitly adopt a Disaster Science perspective, thereby also ensuring consistency across the different corpora. All data are restricted to articles, reviews, and conference proceedings. These publication types are peer-reviewed, so that the corpus is fundamentally scholarly in nature. In addition to Disaster Science as a whole, we also examine Disaster Risk Reduction Cycle stages and Disaster Types as per the UNISDR Suggested List of Hazards for the Purpose of Measuring Global Targets of the Sendai Framework for Disaster Risk Reduction 2015-2030.^{1,2}

Disaster Science results from the combination of criteria for all ten **Disaster Types**.

Each **Disaster Risk Reduction Cycle stage** is defined as the combination of criteria for Disaster Science and inclusion of specific keywords for each stage.

Disaster Prevention

- 1) belongs to Disaster Science AND
- 2) contains at least one of the following keywords

risk*	{accident database}
"assess* vulnerab*"	{accident databases}
"assess* capa*"	{code of practice}
"reduc* vulnerab*"	{codes of practice}
DRR	scenari*
hazard*	standard*
resilien*	guidance
law*	guideline*
legal	{best practice}
legislat*	{best practices}
root*	implement*
caus*	design*
{consequence analysis}	construct*
{consequence analyses}	{accident analyses}
safety	{accident analysis}
protect*	casca*d
{lesson learned}	domino
{lesson learnt}	interdependen*
{land use planning}	fragilit*

Disaster Preparedness

- 1) belongs to Disaster Science AND
- 2) contains at least one of the following keywords

prepar*	{needs assessments}
warn*	{response monitoring}
aware*	{operational capacity}
educat*	{operational capacities}
{evacuation drill}	contingen*
{evacuation drills}	BCP
{evacuation exercise}	{business continuity planning}
{evacuation exercises}	{business continuity plan}
{risk monitoring}	simulat*
coordinat*	map*
manage*	scenari*
{needs assessment}	

¹ http://www.preventionweb.net/files/47137_proposedlistofhazardsforglobaltarge.pdf

² https://www.unisdr.org/files/43291_sendaiframefordrren.pdf

Disaster Response

- 1) belongs to Disaster Science AND
- 2) contains at least one of the following keywords

respons*
respond*
relie*
search*
rescu*
assist*

evacuat*
shelter*
sanita*
{damage assessment}
"assess damage*"
communicat*

Disaster Recovery

- 1) belongs to Disaster Science AND
- 2) contains at least one of the following keywords

recover*
rehabilitat*
reconstruct*
"build* back"
relocat*
{sphere standard}

{sphere standards}
{temporary housing}
{temporary home}
{temporary homes}
{temporary accomodation}
retrofit*

Geophysical Disasters

- 1) contains {geophysical disaster} or {geophysical disasters} OR
- 2) contains disaster* AND at least one of the following keywords

earthquake*
seism*
volcan*
tsunami*
{tidal wave}
{tidal waves}
{soil liquefaction}
{soil liquefactions}
{mass movement}
{mass movements}
{mass wasting}
{mass wastings}
mudslid*
landslid*
avalanch*
{debris flow}
{debris flows}
{earth flow}
{earth flows}

{mud flow}
{mud flows}
rockfall*
{rock fall}
{rock falls}
sturzstrom*
{ground subsidence}
{earth subsidence}
{land subsidence}
{slope stability}
lava
{ash fall}
{ash falls}
{pyroclastic flow}
{pyroclastic flows}
{pyroclastic density current}
{pyroclastic density currents}
tephra*
lahar*

Hydrological Disasters

- 1) contains {hydrological disaster} or {hydrological disasters} OR
- 2) contains disaster* AND at least one of the following keywords

flood*
inundat*
{coastal erosion}
{shoreline change}
{shoreline changes}
{rogue wave}
{rogue waves}
seiche*
sinkhole*
{mass movement}
{mass movements}
{mass wasting}
{mass wastings}
mudslid*
landslid*

avalanch*
{debris flow}
{debris flows}
{earth flow}
{earth flows}
{mud flow}
{mud flows}
rockfall*
{rock fall}
{rock falls}
sturzstrom*
{ground subsidence}
{earth subsidence}
{land subsidence}
{slope stability}

Meteorological Disasters

- 1) contains {meteorological disaster} or {meteorological disasters} OR
- 2) contains disaster* AND at least one of the following keywords

storm	tornado*
rain*	{cold wave}
wind*	{cold waves}
hail*	{cold snap}
snow*	{cold snaps}
ice*	frost*
blizzard*	freez*
lightning*	{heat wave}
sand*	{heat waves}
dust*	{heat burst}
{heat bursts}	fog*
{extreme temperature}	landspout*
{extreme temperatures}	derecho*
cyclon*	typhoo
hurricane*	

Climatological Disasters

- 1) contains {climatological disaster} or {climatological disasters} OR
- 2) contains disaster* AND at least one of the following keywords

drought*	{solar radiation}
sand*	{solar radiations}
dust*	{glacial lake outburst}
{water shortage}	{glacial lake outbursts}
{water shortages}	GLOF*
{dry season}	fire*
{dry seasons}	{combustible vegetation}
arid	{controlled burning}
{low humidity}	{smoke}
{El Niño}	{haze}
{El Nino}	{thermal radiation}
{crop failure}	{thermal radiations}
{crop failures}	

Extraterrestrial Disasters

- 1) contains least one of the following keywords OR

{extra-terrestrial disaster}	{extra terrestrial disaster}
{extra-terrestrial disasters}	{extra terrestrial disasters}
{extraterrestrial disaster}	{space disaster}
{extraterrestrial disasters}	{space disasters}

- 2) contains disaster* AND at least one of the following keywords

alien	{radio disturbances}
airburst*	shockwave*
{energetic particle}	meteorite*
{energetic particles}	magnetospher*
{geomagnetic storm}	{solar flare}
{geomagnetic storms}	{solar flares}
{radio disturbance}	

Environmental Disasters

- 1) contains {environmental disaster} or {environmental disasters} OR
- 2) contains disaster* AND at least one of the following keywords

erosi*	{wetland degradation*}
erode*	{wetland degradations}
deforest*	{glacier retreat}
salini?ation*	{glacier retreats}
desertif*	{glacier melting}
{Asian dust}	{glacier melt}
{wetland loss}	{glacier melts}
{wetland losses}	

Biological Disasters

1) contains {biological disaster} or {biological disasters} OR

2) contains disaster* AND at least one of the following keywords

epidemi*	ebola
bacter*	tuberculosis
disease*	SARS
plague*	{severe acute respiratory syndrome}
pandemi*	{severe acute respiratory syndromes}
outbreak*	zika
quarantine*	dengue
{human immunodeficiency virus}	malaria
{human immunodeficiency viruses}	epizootic*
AIDS	pest*
{acquired immune deficiency syndrome}	insect*
{acquired immune deficiency syndromes}	animal*
influenza*	pollut*
flu*	

Technological Disasters

1) contains at least one of the following keywords OR

{technological disaster}	{mining accidents}
{technological disasters}	{technological incident}
{industrial disaster}	{technological incidents}
{industrial disasters}	{industrial incident}
{mining disaster}	{industrial incidents}
{mining disasters}	{mining incident}
{technological accident}	{mining incidents}
{technological accidents}	natech
{industrial accident}	{na tech}
{industrial accidents}	na-tech
{mining accident}	

2) contains disaster* AND at least one of the following keywords

{structural collapse}	transboundar*
{structural collapses}	{infrastructure disruption}
{power outage}	{infrastructure disruptions}
{power outages}	{service disruption}
explod*	{service disruptions}
explos*	pollut*

Chemical & Radiological Disasters

1) contains at least one of the following keywords OR

{chemical disaster}	{radiological accident}
{chemical disasters}	{radiological accidents}
{radiological disaster}	{nuclear accident}
{radiological disasters}	{nuclear accidents}
{nuclear disaster}	natech
{nuclear disasters}	{na tech}
{chemical incident}	na-tech
{chemical incidents}	{hazardous materials release}
{radiological incident}	{hazardous substance release}
{radiological incidents}	{pipeline accident}
{nuclear incident}	{pipeline accidents}
{nuclear incidents}	{pipeline spill}
{chemical accident}	{pipeline spills}
{chemical accidents}	

2) contains disaster* AND at least one of the following keywords

oil*	pipeline*
petroleum	{hazardous material}
chemical*	{hazardous materials}
radiation*	{hazardous substance}
spill*	{hazardous substances}

Transportation Disasters

1) contains at least one of the following keywords

{transportation disaster}
{transportation disasters}
{transportation accident}
{transportation accidents}
{transportation incident}
{transportation incidents}
{aviation accident}
{aviation accidents}
{rail accident}
{rail accidents}
{large road accident}
{large road accidents}
{large traffic accident}
{large traffic accidents}
{navigation accident}
{navigation accidents}
{naval accident}
{naval accidents}
{space accident}
{space accidents}
{aviation disaster}
{aviation disasters}
{rail disaster}
{rail disasters}

{road disaster}
{road disasters}
{traffic disaster}
{traffic disasters}
{navigation disaster}
{navigation disasters}
{naval disaster}
{naval disasters}
{space disaster}
{space disasters}
{aviation incident}
{aviation incidents}
{rail incident}
{rail incidents}
{large road incident}
{large road incidents}
{large traffic incident}
{large traffic incidents}
{navigation incident}
{navigation incidents}
{naval incident}
{naval incidents}
{space incident}
{space incidents}