

WG3 - Impact data-bases

One of the central aims of WG3 was to provide a metadata base of impact data to support the quantitative assessments access the entire COST-Action. This database shall provide an entry point to find information on the full impact chain from compound events to societal and environmental impacts.

The starting point was scouting for available impact data bases. This work was performed as community-effort based on a widely distributed questionnaire which still continues to be active: <https://tinyurl.com/ImpactDataBases>

So far 17 databases (see Table 1) were suggested by the community and we aim to further enhance this search, given that much information may be contained in data bases of regional scope. Current work consists in understanding to what degree these databases can be used in the context of compound event research. On the one hand, it is important that automated queries can be deployed that allow for ingesting these data in automated workflows. However, this is challenging given the heterogeneity of potential data types, different coverages and obstacles such as non-public access limitations. On the other hand, the team needs to investigate the quality of such impact data. What of the suggested links are actually providing highly standardized data that can be faithfully be considered in scientific analyses. The answer to the latter is hard and can probably not be generalized, but needs to be discussed further to decide on the design of the meta-data base. DAMOCLES at the end will be best served if analysis readiness of the impact data is guaranteed including information on timing and spatiotemporal extent of the event before practical interlinkages with e.g. climate data become thinkable.

Suggested Name	Link	Type of impact or indicator
NAGIS (NATÉR)	http://nater.mbfisz.gov.hu/en	Climate change adaptation
Sigma	http://www.sigma-explorer.com/	Victims, insured losses, total losses
FAO Aquastat	http://www.fao.org/nr/water/aquastat/main/index.stm	Pressure on water resources
DISASTER	https://link.springer.com/article/10.1007%2Fs11069-013-1018-y	Casualties, missing, evacuated or homeless people
NatCatSERVICE	https://www.munichre.com/en/reinsurance/business/non-life/natcatservice/index.html	Monetary loss, Fatalities

EM-DAT	https://www.emdat.be/	Monetary loss, casualties
ESWDB	http://www.eswd.eu/	Only hazards are recorded
EFFIS - forest fires burn areas	http://effis.jrc.ec.europa.eu/applications/data-and-services/	forest fire hazards indicated
DMRKC risk data hub	https://drmkc.jrc.ec.europa.eu/risk-data-hub	human, economy
ITRDB	https://www.ncdc.noaa.gov/data-access/paleoclimatology-data/datasets/tree-ring	Forest growth anomalies
UNEM Environmental Data Explorer	http://geodata.grid.unep.ch/results.php	All kind of disaster metadata (links to other data resources)
The Canadian Disaster Database	https://www.publicsafety.gc.ca/cnt/rsrscs/cndn-dsstr-dtbs/index-en.aspx	Humanitarian
WDC for Renewable Resources and Environment	http://eng.wdc.cn/	Humanitarian
DesInventar Sendai	https://www.desinventar.net/	Humanitarian
FAOSTAT	http://www.fao.org/faostat/en/#data/QC	Pressure on Crop productivity
FLASH	https://blog.nssl.noaa.gov/flash/database/	casualties
Economic losses from damages caused by natural hazards in Croatia	http://www.mfin.hr/hr/prijavljene-s-tete-od-elementarnih-nepogodapo-vrstama-i-vremenu-nastanka	monetary loss