

# Letter to Editor: A Critique of the Information Resources of Disaster Databases in the World



Sadegh Ahmadi Mazhin<sup>1,2</sup>, Mehrdad Farrokhi<sup>1</sup>, Mehdi Noroozi<sup>3</sup>, Juliet Roudini<sup>1</sup>, Seyed Ali Hosseini<sup>4</sup>, Mohammad Esmail Motlagh<sup>5</sup>, Pirhossein Kolivand<sup>6</sup>, Hamidreza Khankeh<sup>1,7\*</sup>

1. Health in Emergency and Disaster Research Center, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.
2. Department of Public Health, School of Health, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.
3. Social Determinants of Health Research Center, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.
4. Department of Occupational Therapy, Social Determinants of Health Research Centre, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.
5. Department of Pediatrics, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.
6. Shefa Neuroscience Research Center, Khatamolanbia Hospital, Tehran, Iran.
7. Department of Clinical Science and Education, Karolinska Institute, Stockholm, Sweden.



**Citation** Ahmadi Mazhin S, Farrokhi M, Noroozi M, Roudini J, Hosseini SA, Motlagh ME, et al. A Critique of the Information Resources of Disaster Databases in the World. Health in Emergencies and Disasters Quarterly. 2021; 7(1):3-4. <http://dx.doi.org/10.32598/hdq.7.1.385.1>

**doi** <http://dx.doi.org/10.32598/hdq.7.1.385.1>

## Letter to the Editor

Today, disaster databases have become valuable tools for disaster risk management. They are used for various purposes, from risk assessment in the insurance business and socioeconomic analysis to policymaking to reduce disaster risk [1].

Accurate information sources and data mining are the main principles of these databases. Some databases with years of experience have well-established data collection methods. Their knowledge is of high quality and value and can be used to create and improve a disaster database at other levels [2, 3].

Disaster databases collect their data from various sources, such as official reports and announcements, the Internet search, reports of humanitarian action by NGOs, data compiled by academic institutions, media reports, etc. In the meantime, the arguments are in favor of including newspaper reports as one of the main sources of information in the disaster database because a) newspapers cover events on a local scale more than other sources, b) a similar incident or event is often reported in differ-

ent newspapers, so it is possible to compare and screen the facts, c) newspapers are usually better at maintaining and accessing their archives, d) newspaper information is better than other media sources, such as television and the Internet and covers a longer time [4].

Among the authoritative global and international databases, EM-DAT, Sigma, and NatCat-SERVICE have experts evaluating data set quality control, while DesInventar data quality is government-controlled [5, 6]. Despite the standard definitions of disasters and human impacts in each database, a wide heterogeneity exists between databases in terms of the type of data collected, the volume of data, and the data availability depending on the focus and methods of collecting each data [7].

In the context of the unequal and discontinuous increase in the risk of disasters and their effects, the need to collect and share disaster impact data is crucial to protect people and reduce economic damage [7].

\* Corresponding Author:

Hamidreza Khankeh, PhD.

Address: Health in Emergency and Disaster Research Center, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.

E-mail: [ha.khankeh@uswr.ac.ir](mailto:ha.khankeh@uswr.ac.ir)

## Ethical Considerations

### Compliance with ethical guidelines

There were no ethical considerations to be considered in this research.

### Funding

This research did not receive any grant from funding agencies in the public, commercial, or non-profit sectors.

### Authors' contributions

All authors equally contributed to preparing this article.

### Conflict of interest

The authors declared no conflict of interest.

## References

- [1] Moriyama K, Sasaki D, Ono Y. Comparison of global databases for disaster loss and damage data. *Journal of Disaster Research*. 2018; 13(6):1007-14. [DOI:10.20965/jdr.2018.p1007]
- [2] Grasso VF, Dilley M. A comparative review of country-level and regional disaster loss and damage databases [Internet]. 2013. Available from: <http://www.undp.org/content/undp/en/home/librarypage/crisis-prevention-and-recov>
- [3] Mohleji S. Gaining from losses: Using disaster loss data as a tool for appraising natural disaster policy by shalini mohleji [PhD. dissertation]. Colorado: University of Colorado; 2011. [https://scholar.colorado.edu/concern/graduate\\_thesis\\_or\\_dissertations/4x51hj03c](https://scholar.colorado.edu/concern/graduate_thesis_or_dissertations/4x51hj03c)
- [4] dos Santos PP, Tavares AO, Zêzere JL. Risk analysis for local management from hydro-geomorphologic disaster databases. *Environmental Science & Policy*. 2014; 40:85-100. [DOI:10.1016/j.envsci.2013.12.007]
- [5] El Hadri H, Mirza D, Rabaud I. Natural disasters and countries' exports: New insights from a new (and an old) database. *The World Economy*. 2019; 42(9):2668-83. [DOI:10.1111/twec.12833]
- [6] Wirtz A, Kron W, Löw P, Steuer M. The need for data: Natural disasters and the challenges of database management. *Natural Hazards*. 2014; 70(1):135-57. [DOI:10.1007/s11069-012-0312-4]
- [7] Vos F. Working paper work package 3 review of disaster databases collecting human impact data in Europe; 2012 [Internet]. Available from: [https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&q=WORKING+PAPER+W](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=WORKING+PAPER+W)