

## **Can we trust databases measuring disaster impacts?**

Measuring the impact of a disaster allows to plan for future risks and to be more prepared. Nevertheless, current reporting methods present several flaws.

This study is a comparison of the two most used disaster loss accounting databases, EM-DAT and DesInventar. After a disaster (ex. flood, earthquake, forest fire etc.), they collect information on how many people died, are injured, affected and much more. All these data are extremely important to plan and be more prepared for future events, conduct research and establish where projects and investments should be directed. These data are the base on which decisions will be taken, but what if they are not as reliable as expected?

After hand matching common disasters across two databases, it emerged that they often report different information for the same event. For example, in 1998 Hurricane Mitch devastated Nicaragua. According to EM-DAT 3332 people have died, but DesInventar only reports 45 deaths. Why is that the case? And if analyses are only based on data coming from these two databases, how do we know which one to trust?

There is no direct answer, these big reporting differences are due to a combination of factors. First of all, EM-DAT and DesInventar have very high number of missing data, they make little or no use of disaster identification numbers, do not have a common terminology, and in general collecting data during and after a disaster is rarely prioritized.

Nevertheless, current limitations should not be considered as an incentive to stop using the databases, but as an encouragement to improve them and use them at their full potential. Several strategies such as, establishing shared disaster and indicator's definitions, having common and transparent data collection procedures and monitoring over time performance are a first step in having more reliable disaster loss accounting databases.