

Centre for Research on the  
Epidemiology of Disasters  
(CRED)

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## EM-DAT Technical Advisory Group Meeting December 8 to 10, 2014, Washington D.C. USA Report

### Scope of the Meeting and Topics Discussion

The EM-DAT Technical Advisory Group meeting aims to invite a core group of advisors and special guests to the main issues that the CRED/EM-DAT team would like to discuss in a particular year. The EM-DAT team briefly presents what has been achieved in the past year and addresses the issues they would like to focus on in the next year or two, within a broad work plan.

Four main topics have been presented during the first two days and discussed in a round table debate the following topics:

Session 1: Overview of EM-DAT progress and short terms plans: How can we do better?

Session 2: Spatial development and products: Reporting on work progress and future plans

Session 3: Developing disaster data collection: Budding efforts in countries and regions

Session 4: Disaster impact indicators for the future: Improving Economic losses measurements and the post Millenium Development Goals

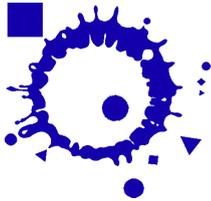
### Minutes of the meeting

**The first session** focuses on the progress made by the EM-DAT team around a group of people representing the users of EM-DAT. The aim was to discuss in a constructive and objective way the need of the users for increasing the visibility of EM-DAT.

Last year, the EM-DAT team has been mainly working on the new EM-DAT data entry interface in order to facilitate the data entry and validation process, have a better control on the system, and an easier integration with other systems. The final aim will be to develop the future services and tools for the users.

### *Outputs of the discussion:*

- In general, feedbacks from EM-DAT users are quite positive regarding the reliability of the data, the ability to query the database, and get access to standard products.



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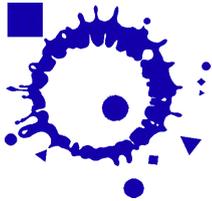


- EM-DAT could be more involved within a community effort by collecting data that can be shared by the community and who could take profit of it on both sides. The future for EM-DAT will be to build an analytical interface and ensure the sustainability of it. There is obviously a need for historical and operational data by the international community.
- Opening and widening the access of data by accessing to the figures given by other sources and not only the validated ones. In other words, it will be an additional value, especially from the country side, to know which source has been used and which figures have been given. As EM-DAT is trying to automatize some process of the data entry (such as the validation), some members of the group emphasize on the fact that experience is more important and has more value than 'automatization'. In that context, it has been proposed to the EM-DAT team to produce 3 or 4 case studies on analyzing data variations from different estimations from one event or one specific country (multiple inputs). This will be part of a 'CRED Crunch' issue which will detail the sources and methodology used.
- One main question raised : instead of saying good or bad data = rather try to range the 'uncertainty'

**The second session** was dedicated to the geo-referencing efforts based on EM-DAT data. During this session, the EM-DAT team presented the progress and results of the EM-DAT geo-referencing work and discussed issues and problems of the applied methodology and how to merge with other products.

#### ***Outputs of the discussion:***

- The group of the Smithsonian Institution Global Volcanism Program is collecting and tracking information on all volcanoes and eruptions and their location. The database is searchable online (<http://www.volcano.si.edu/#>) and may be an additional value to EM-DAT. It has been decided to establish a collaboration with the Smithsonian Institution to improve the start and end date of the volcanoes reported in EM-DAT; by adding the + ID number used in the Smithsonian database and share their impact information.
- The USGS/Pager group highlighted some issues and difficulties to associate the earthquakes reported in EM-DAT with their information (<http://earthquake.usgs.gov/earthquakes/pager>). Some information (such as the exact time, latitude, and longitude) is sometimes missing or incomplete and makes the association between the two data-sets



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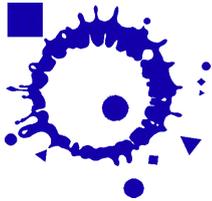


difficult. It has also been suggested to merge Pager shape maps and the geo-referencing of EM-DAT earthquakes data. A collaboration MoU will be established with the USGS group to complete the information on the earthquake starting date, latitude and longitude + ID number used in the USGS database.

- The National Aeronautics and Space Administration (NASA) group also proposed to fill some data gaps of EM-DAT by making some of their products available (SERVIR-[http://www.nasa.gov/mission\\_pages/servir/index.html#.VJLqIMIRwec](http://www.nasa.gov/mission_pages/servir/index.html#.VJLqIMIRwec)); more specifically on drought and flood data. SERVIR is a joint venture between NASA and USAID which provides satellite-based Earth observation data and science applications to help developing nations improve their environmental decision making. More discussion is needed in the future to determine what are the possible collaboration.
- There was a suggestion of establishing two expert groups, a first one to develop methodology and definition and impact variables (kind of code book); and a second one on indicators.

**Session 3** was dedicated on how to bud efforts in countries and regions in order to develop disaster data collection. The session started by the presentation of two national database initiatives, sharing their experiences and challenges: The Turkey Disaster Database (AFAD) and the Spatial Hazard Events and Losses Database for the United States (Sheldus)

- (1) Turkey Disaster Database (<https://tuaatest.afad.gov.tr/map.jsp>)  
The database is based on DesInventar and the portal is accessible for everybody (students, government, ...) through a login system (ability to track the users). All data files are accessible and the information of human fatalities is quite detailed (causes of fatalities, severity of injuries, etc. ...). In addition, the quality control of primary data (versus other database such as EM-DAT which is using secondary sources) is difficult (as there are human errors in the reporting).
- (2) Sheldus database (<http://hvri.geog.sc.edu/SHELDUS/>)  
The database is maintained within the Hazards & Vulnerability Research Institute of the Department of Geography of the University of South Carolina. The database is accessible online with a fee to download raw data. One of the main sources used is the National Climatic Data Center (NCDC) but the information is more focused on the physical information of the events rather than the impact. One of the main weaknesses is the figure of fatalities (conservative approach of having the correct figures rather than providing information on the causes and names).



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Despite the fact that EM-DAT and Sheldus databases have a common understanding, common problems, and a common approach to disaster loss databases, the comparison stays difficult. The data is recorded at a county level which makes the comparison difficult with EM-DAT where the records are registered at a country level. Aggregation of data should be possible by adding the EM-DAT unique ID number for the reported events in the US.

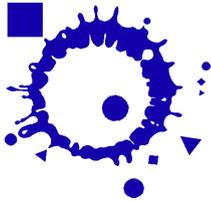
***Outputs of the discussion:***

- The main issue raised is why is EM-DAT not using country database? The EM-DAT team has already highlighted at several times the difficulties to re-aggregate the figures given at a sub-national level.

The second part of the session was dedicated to see how EM-DAT can be compatible with other national initiatives and how CRED can bud the efforts in countries and regions.

***Outputs of the discussion:***

- From the United Nations Economic and Social Commission for Asia and the Pacific's (ESCAP) point of view, if the quality of data at a country level can be improved, it will also improve the quality of global databases such EM-DAT. The role of EM-DAT could be a model for database at a country-level, encouraging the countries and supporting them to build and collect disaster data defining standards and a methodology. Regional standards will be decided in 2016.
- The United Nations International Strategy for Disaster Reduction (UN-ISDR), created an exercise to see how the national datasets can meet with the global one and what collaboration areas will be possible (<http://www.desInventar.net/DesInventar/results.jsp>)
- The data are not comparable and therefore, having a regional hub is a realistic option. This is the reason why the community relies on EM-DAT regional analysis. DesInventar brings a lot of services to the country but there are also adverse effects (no comparison possible from one country to another). The issue of comparability is still important and the country has progressed in collecting data, building databases but it still highlights the need to have standards and identify definitions with which people can live?
- UN-ISDR provides to the EM-DAT team geo-referenced data for some countries. The data will be analyzed and compared with the EM-DAT georeferenced data to see if a combination is possible between both



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databases and so reduce the charge of work in the geo-referencing process"

- Through this exercise, UN-ISDR was trying to reply to several questions:
  - How can we do it better with economic losses data? How can we improve them?
  - How can we do better in the geo-coding? How can we improve the geo-coding?
  - How the national database will feed into the global?

**Session 4** summarizes the standards and definitions process initiated by CRED, taken over by IRDR (The Integrated Research on Disaster Risk) DATA group on the disaster classification and human impact indicators and gives an input on the lessons learned from the Post Disaster Need Assessment studies (PDNA) from the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) methodology. R. Zapata (ECLAC) highlighted that there are some limitations in using the studies based on ECLAC: no regular set of data, coverage is very low with sporadic studies on some major disasters (+/- 10 PDNA studies per year). The discussion was followed up by the Organization for Economic Co-operation and Development (OECD) and by the UN Department of Economic and Social Affairs, which gave their input in terms of indicators and the Post Millennium Development Goals and targets.

***Outputs of the discussion:***

- CRED underlines the need to focus on what needs to be improved and puts all the resources to focus only on the needs which have been identified.

**Wrap up and conclusion**

The meeting ended with positive and rich discussions giving clear directions to be taken. The main goal would be to look at the next level of collaboration, EM-DAT is a project running since 25 years, and it is the time now to start setting up strong collaborations with people and organizations having participated to the TAG-Meeting and to share our resources.