

## **List of Participants**

### **EM-DAT Technical Advisory Group meeting**

**Centre for Research on the Epidemiology of Disasters (CRED)**

**Geneva, May 6th, 2004**

**United Nations – Palais des Nations - Room H3**

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# Agenda

## Technical Advisory Group (TAG) meeting on

### EM-DAT: OFDA/CRED International Disaster Database

Organised by the Centre for Research on the Epidemiology of Disasters

Hosted by ISDR, Geneva, May 6th, 2004

Palais des Nations, Room H3

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#### Thursday, May 6th, 2004

##### **09:30 a.m. to 10.45 a.m.**

- ⇒ Introduction (*Regina Below, CRED*)
- ⇒ EM-Dat: brief summary of EM-DAT development since the last TAG-meeting (*Regina Below CRED – Aurelia Micko., CIP/NOAA*)
- ⇒ Discussion

##### **Coffee break**

##### **11.00 a.m. to 12.30 p.m.**

- ⇒ Contributions of the Technical Advisory Group members for further development on websites : visibility and inter-activity (*Regina Below, CRED – Aurelia Micko., CIP/NOAA*)
- ⇒ Discussion

##### **Lunch**

##### **13.30 p.m. to 14.30 p.m.**

- ⇒ Drought/famine data in EM-DAT : Introduction to the problematic (*Regina Below, CRED*)
- ⇒ Drought/famine analyse study (*Maxx Dilley and Emily Grover, IRI*)

##### **14.30 p.m. to 04.00 p.m.**

- ⇒ Discussion

***Coffee break***

***04.15 p.m to 05.00 p.m.***

⇒ Recommendations and conclusion

## **Report**

### **Technical Advisory Group (TAG) meeting on**

## **EM-DAT: OFDA/CRED International Disaster Database**

**Organised by the Centre for Research on the Epidemiology of Disasters**

**Hosted by ISDR, Palais des Nations, Geneva, May 6th, 2004**

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The 4<sup>th</sup> Tag-meeting has been preceded by a public launch of the new EM-DAT website on May 5<sup>h</sup> including a complete demo of the database and presentation of its different services.

Since the last Tag-Meeting which was held in New-York in 2002, CRED has achieved the 3 main objectives on EM-DAT with the support of the Climate Information Project (CIP/NOAA) which offered to help CRED develop web-based services to allow for dynamic display (tables, graphs, etc.) of EM-DAT as well as online management of its products.

The 3 main objectives were to:

- Review the current configuration of EMDAT and transform it into a relational database;
- Develop a search engine to facilitate the data extraction;
- Rework the data entry procedures as a function of the relational model and to reduce interval between addition of records and availability on the Internet.

CRED has achieved the technical issue on the new EM-DAT version and its objective now is to concentrate more on the different outputs of the database and to give more visibility to EM-DAT. This 4<sup>th</sup> TAG meeting focussed on two main issues:

- 1) Further development on EM-DAT website and contributions of the Tag-members : visibility and inter-activity
- 2) Drought/famine data problematic: checking historical data and new classification

## **1. EM-DAT Visibility**

One of the main concerns of CRED is to give more visibility to EM-DAT through its different activities but also through its collaboration with members/partners of the TAG (ReliefWeb, ISDR, etc...).

The discussion turn around two main questions:

- How to increase visibility of EM-DAT?
- How do we make EM-DAT a good service for the public?

### **1.1. CRED: Overview of EM-DAT outputs**

The list below shows the different current and future EM-DAT contributions:

- CRED is working on his first official publication on natural disasters over the past 30 years (plan to be published in September)
- CRED plans to produce 2 newsletters per year based on the ongoing year data
- CRED contributes to the statistical chapter of the World Disasters Report published by the IFRC since 1993
- CRED contributes to several other publications (e.g. Living with Risk/ISDR)
- CRED will also improve the online products as well as visualisation options (more tables, figures, new maps available in a dynamic section, etc....)
- CRED will produce trends over different time-periods (20, 30 years)
- CRED contribution to CD-ROM for Kobe conference in collaboration with ISDR: not only statistics but also an analyse of natural disasters over the last decade (1994-2003)
- Links to GLIDE and ReliefWeb

### **1.2. ISDR Contribution**

Haris S. (ISDR) gave a brief overview of ISDR collaboration with CRED. ISDR used EM-DAT to profile a chapter in "Living with Risk". ISDR help also CRED to distribute country profiles to individual countries to know whether or not these countries collect disaster data. The result of this exercise will be set up in the next few months. ISDR can also play a role in dissemination of EM-DAT data. ISDR has now a new section on its web-site called "Country profiles" which will contain different information on countries, but will also display relevant documents for disaster reduction. There will be some geographical representation of disasters to encourage people to look at their country profiles. ISDR would also like to collaborate in the visualisation and improvement of economic data losses.

### **1.3. Relief-Web**

ReliefWeb thinks that the country profiles are a good way to increase the visibility for EM-DAT, by linking them to other country profiles and pages. CRED has to widen its links (use of Googlebot: if 30 sites link to CRED - CRED will rank 1st in searches).

One of the suggestions is also to link on your site to studies/research based on EM-DAT data. This will promote EM-DAT and also send back the visitors on EM-DAT website.

### **1.4. Access to data: another way to visibility**

Actually, users are able to download the country profiles, but not the entire dataset. Within the OFDA mandate, EM-DAT database is a public database and CRED promotes to give a friendly and easy access to its data. Meanwhile, CRED would like also to have a better tracing on who is using the EM-DAT data and what for.

Taking in account that it is an internal CRED decision to re-examine the way giving access to the data, some suggestions has been made in order to widen and make the access more efficient according the different uses and users of the database. In this respect, some has suggested that CRED should organise a workshop on the use and users of EM-DAT.

- 1) The current form (giving the access to download a data set/entire database) does not help all websites users. Some of them (e.g. ReliefWeb, IRI) use EM-DAT in a “heavy” and regular way and need to have access to the most updated version, for specific and sophisticated analysis. The first question was: how to give access to the entire database in the most efficient way? Two propositions has been made on this issue:
  - Give access to the complete database with a protected password which will allow all users to download a set of data or the entire database after having completed a one-time registration form, by using XML web services.
  - Give access to specific users to the latest updated version of EM-DAT on Internet and implement an e-mail system where those current users will receive a message when new records are validated and made public. The tracing of users will then also be more visible. This access will be only for specific users which will make a special request to CRED
- 2) The second point is to reduce the interval of making new data available to the public. Currently, the data are made public every 3 months. The new system allow now to release new validated entries immediately when they are made public and release them by using automated e-mail (e.g.



weekly). Craig D. (ReliefWeb) suggests that even if one record is released/validated, it is important to make it public (at least for ReliefWeb!). So, it means there will be no delay between addition of new records, validation and making the data public. There is an important concern to get the last validated data.

- 3) There is also the concern of having access not only to the final figure but also the figures given by the different sources (summary sheet table); in other terms, it means making the validation screen public so users can see how the final figures have been selected. This will give more transparency to the methodology used by CRED to validate its data.
- 4) Another way to give more visibility to EM-DAT is to add data/figures to the current section of "Disaster of the week" (e.g. Earthquake in Bam: xxxx killed and xxx affected). As EM-DAT is not a real-time database, this issue has to be re-examined. Also, an alert mechanism must then be implemented for releasing of new data (automatically release to correct numbers and figures).
- 5) Craig D. (ReliefWeb) suggests also the use of GLIDE, which will give more visibility to EM-DAT. This means including a new field in EM-DAT in order to add the GLIDE number (currently different of the disaster number), but also linking the GLIDE to all summary sheet tables (see point 3).
- 6) Craig D. (ReliefWeb) recommends also to review the mechanism that improves usability of the site (e.g. Some users may not know what a cross tabulation is). Again, the workshop on EM-DAT users has been suggested in order to have the comments, advise and target the needs of the users. There is a continuing need to test the usability of the news search engine and web-site.
- 7) Developing a search engine that allows extended downloading (tables, graphs, database, etc....)

## **2. Drought/famine data problematic**

The aim of the meeting was to expose the drought/famine (long-term disasters) problematic and propose an (or some) appropriate solution to ensure the quality and reliability of drought and famine data in EM-DAT.

### **2.1. Drought and Famine data problematic in EM-DAT**

The EM-DAT database contains 800 entries on drought and 76 on famines.

The problematic on drought and famine data are due to different factors:

- (1) Long-term disasters (multi-year) affecting more than 1 country (multi-countries)
- (2) Definition of the event (how to define the start and end date of a drought?)
- (3) Gaps in data (killed/affected)
- (4) Reliability of the data
- (5) No existing database on drought/famine
- (6) Lack of clear methodology in EM-DAT

### **2.2. Presentation of IRI study on “Drought and disaster” (E. Grover – M. Dilley – J.del Corral, and B. Blumenthaln)**

E. Grover (IRI) has presented a study made on “Drought and Disaster”, the main objective was to characterise a drought hazard event.

The first step of this study was to establish and understand the relationship between meteorological drought and drought disaster events recorded in EM-DAT. An then, at a second step, create a “Drought Analysis Tool”, which facilitates:

- Visual inspection of relationship between meteorological drought and drought disasters
- Quantitative analysis of this relationship

This study lead also to several questions which underline the need of a clear methodology adapted to drought and/or long-term disasters:

- Does the date in EM-DAT refer to the date of the hazard event or of the losses?
- What is the process by which dates for droughts are included in EM-DAT entries?
- Why do some events not have months reported?
- Why do more recent events have a month reported more frequently than earlier events?

- How should meteorological drought events be characterised in EM-DAT to capture their duration, magnitude, timing and location?

### **2.3. Tentative solution**

The new structure of EM-DAT is based on 3-entry level (Event, country and sources). The first one being the event level, CRED plans to review these 876 records during the course of converting them into the new relational database format.

The first step is to define the “event” (there is no existing “drought/famine” database to identify the event). The second step is related to the quality of the data in order to get the more reliable figures on the human impacts and the last one will be to clarify and set up an appropriate methodology and rework all past drought records.

CRED and IRI plan to co-operate on a review of drought and disaster classification. CRED would like to develop a consistent way of recording drought disasters and improve the data on drought-related losses. The IRI would like to provide a characterisation of drought hazard events -- including magnitude, duration, location and timing – and an evaluation of destructive potential of hydro-meteorological drought events based on actual losses during drought disasters, similarly to how other natural hazard events such as tropical storms and earthquakes are characterised. Points of co-operation include:

- IRI will facilitate access by CRED to hydro-meteorological drought event data in the IRI's on-line Data Library
- CRED will review the 800 drought disaster entries in EM-DAT against drought hazard events documented by the IRI and standardise the method by which losses are recorded
- IRI will evaluate a variety of drought indices from which drought hazard events could be characterised and linked to drought disasters in EM-DAT and other databases using the GLIDE.

### **2.4. Famine problematic**

Currently 76 events are classified as famines in EM-DAT. This solution is unsatisfying because famines are not hazards but rather a particular kind of disaster outcome (consequence of different natural and non-natural factors). On the other hand, it can be difficult to identify the predominate causal factors that lead to famines and there may be little connection to natural hazard events. As it is clearly difficult to fit famines in the current EM-DAT structure, CRED plans to review the 76 famine cases and potentially re-classify them as complex emergencies, identifying natural hazards and other causal factors to the extent possible, according to a flexible/evolutive classification.

## **2.5. Recommendations**

Even if no final solution came out from all the discussions some points/questions has been underlined:

- need to define/determine the event
- clarify methodology for drought/famine/multi-country and multi-year entries
- use drought index (presented/will be improved with additional proxies) to delineate discrete events
- revisit drought entries to make sure impact (not event) date noted for start dates
- revisit data quality issues - how to get reliable data (deaths/affected), find other reliable sources of information
- set up separate datasheet to enter data by year for multi-year events
- how to code the causal hazards for famine
- how to handle multi year events therefore the number or people killed would be cumulative for all years