UN Office for the Coordination of Humanitarian Affairs
(UN-OCHA)

Report of the

Meeting of the EM-DAT Technical Advisory Group

Centre for Research on the Epidemiology of Disasters (CRED)

Hosted by

UN Office for the Coordination of Humanitarian Affairs
(UN-OCHA)

New-York, March 25-26-27, 2002

CRED

UCL

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1. DATA PROBLEMS IN EM-DAT

4 areas present some specific problematic in EM-DAT and need to be improved:

(1) Famine/drought/conflicts data management
(2) Disasters in developed countries (especially in Europe)
(3) Economic damage
(4) Transport accidents

1.1. Famine and conflict data management

1.1.1. Problems/questions underlined

- ⇨ Difficulties to fit famine into EM-DAT's structure (by country and by year).
- ⇨ Gaps in famine data (killed/affected) : *e.g.* North Korea 54,000 killed but no idea of how many affected.
- ⇨ Famine didn't appear to be a disaster itself but more a consequence of another disaster situation; so this disaster type may have to be replaced by another one and defined more precisely with disaster sub-types (drought, food shortage, crop failure, conflict).
- ⇨ Have the conflict data to be integrated in the EM-DAT database or in a separate database?
- ⇨ Is a special methodology required for entering conflict data?

1.1.2. Recommendations

- ⇨ Create a new complex emergency (CE) disaster type;
- ⇨ Re-classify famine/conflict as complex emergencies and create specific disaster subsets (more than one);
- ⇨ Create a second level for data entry in EM-DAT: one presenting the event (which can be a multi-year and/or multi-country entry), and a second level which will give more detailed information about the different years and/or countries that have been affected, and/or the different disaster subsets;
- ⇨ Allow a start and end date to be entered for long term disasters, such as CE and drought; specific year entries will also be possible.

1.2. European data

1.2.1. Problems/questions underlined

A lack of information about the human impact in terms of affected people as been pointed out for disaster occurring in industrialised countries, especially in Europe.

1.2.2. Recommendations

- ⇨ ISDR will help by sending a disaster list sheet to their focal point data in Europe (40 states).

⇨ CRED could also get improved European data from Reinsurance Company. World Bank could also help in re-engaging this process (cf. Data comparison paper[1]).

1.3. Economic damage

1.3.1. Problems/questions underlined

Economic damage still remains a gap in EM-DAT database and need to be improved. Only about 20% of natural disaster events have data on economic damage.

1.3.2. Recommendations

CRED has identified economic loss data as a key area in need of strengthening to improve global disaster impacts analyse.

⇨ The World Bank described a collaborative effort between the World Bank, ECLAC and ADPC through the ProVention Consortium to promote adoption of rigorous and standardised methods for assessing the economic impacts of disasters.

⇨ Reinsurance company have good economic data, but CRED, with the World Bank, have to re-engage the process with them.

1.4. Transport accidents

1.4.1. Problems/questions underlined

Over the last 10 years, CRED has observed that technological accidents represent 41% of the total of records in EM-DAT, from which 68% are transport accident. And 50% of those data are related to road accidents. The main question is the necessity to keep this data in the EM-DAT database. If yes, how can this information be used?

1.4.2. Recommendations

⇨ It was decided to not discard technological disasters and see what partnerships can be built up at national level.

⇨ ISDR pointed out that those data could be of use for national authorities, which could improved it.

2. GEOREFERENCING DATA AND PROCESS

At the time the collaboration started between the CRED and the GIEWS\Asia Food Insecurity and Vulnerability Information and Mapping System (FIVIMS) Project, no standard administrative unit codes were available for all countries in Asia. In order to facilitate the process, the GIEWS derived its own codes from the existing sub-national level digital maps maintained in the GIEWS Workstation database.

[1] Guha-Sapir D., Below R. – Quality and accuracy of disaster data: A comparative analysis of 3 global data sets – CRED Working Paper, prepared for the Disaster Management Facility - World Bank, February 2002.

These codes were used to develop a relational database model within the EM-DAT database as well as to georeference each disaster event, recorded in the database since 1975, at the first administrative, or provincial level. A total of 2,300 disaster events were processed, resulting in 3,900 georeferenced administrative units. Due to the nature of the EM-DAT data, it was deemed appropriate to work at the first administrative level than a more precise level (i.e., 2nd and 3rd administrative units). The geo-referenced data have been used as an input to food insecurity and vulnerability assessments in selected Asian countries and will be included in a web-based FIVIMS data management and dissemination system that is currently under development by FAO.

Upon completion of the system, the CRED web site could be linked to the Asia FIVIMS web pages to allow users to create interactive maps on disaster occurrence by province as well as by disaster types. Also the users will be able to download the geo-referenced data in both tabular and map formats from either the CRED/EM-DAT or the Asia FIVIMS web site, and to create their own maps based on the EM-DAT georeferenced data.

The meeting inquired about the possibility to undertake the georeferencing of the Latin America and Africa data. It was evaluated that at least three men-month are required per continent. As disasters are recorded at the community level, DesInventar database (LaRed) could be of help to locate Latin America events as precisely as possible. ADRC could also ask its country members to send a more precise information on event location, if available, to facilitate the process.

3. GLIDE PROJECT

3.1. Introduction and background to GLIDE initiative

The initiative of the implementation and use of a unique identifier number for disasters start during the GDIN conference in Canberra in March 2001. In August 2001, CRED organised in Brussels a two days meeting on the institution of a Global Identifier number (GLIDE) which has brought together different organisations which has worked with CRED in the past (ADRC, UN-OCHA, OFDA/USAID, FAO and the World Bank).

GLIDE is a unique index, which will link all disaster information through the web.

The GLIDE number is made of 4 components:

- 2 characters to identify the disaster type
- 4 digit for the year
- 4 digit which constitute the disaster number (sequence number)
- 3 characters to identify the country (ISO Code).

e.g. The GLIDE number for 'Hurricane Mitch' will be 'ST-1998-0345' and for each country, the ISO country code will be added, so Hurricane Mitch in Honduras will be 'ST-1998-0345-HON'.

At the present meeting, the group has exposed the first conclusions of these initiative and next steps to be undertaken.

3.2. What has been achieved by CRED?

At this stage, CRED has generated GLIDE number for the disasters posted on Relief-Web for the years 2000 and 2001.

Since January 2002, a weekly disaster list for new events is generated by CRED and posted on its web-site and sent through an e-mail list server to all partners.

3.3. What has been achieved by UN-OCHA/ReliefWeb?

At this stage, the following actions has been achieved:

- GLIDE numbers entered from 2000 to present
- The GLIDE number appears on each ReliefWeb page

Relief-Web is more a data/information provider, and they use the GLIDE number as a mechanism to help users to access the information. In addition, ReliefWeb provide a technical assistance in order to help partners working together and appears also as a channel to promote GLIDE number.

For now, the GLIDE number does not appear on each document but it is something that ReliefWeb want to implement in the future and to promote also to their sources.

3.4. Discussion points

3.4.1. Multiple Glide numbers

Because EM-DAT reports all events individually by country (and not by event) and by year (and not overall the period), there can be multiple GLIDE numbers for one OCHA emergency.

e.g.: Zambia: Floods and drought - Mar 2001, will have two different GLIDE numbers: 'FL-2001-0091-ZMB' and 'DR-2001-0122-ZMB'.

3.4.2. Empty ISO codes

There are emergencies with no Country field (without ISO country codes).

e.g. : Caribbean: Tropical storm Jerry - Oct 2001: 'ST-2001-0737'.

3.4.3. Changes in GLIDE numbers

Even if changes (deletion, modification, …) in EM-DAT are rare, it happens. The need of a mechanism to ensure the communication of any changes between partners has been underlined (could be done via the weekly e-mail list). A master index of all GLIDE number should be also implemented to ensure a better control.

3.4.4. GLIDE historic data

Does a GLIDE number have to be generated for all disaster since 1900? Are information/documents available on those historical events on the Web?
CRED could follow the same procedure as for 2000 and 2001 events and generates GLIDE number for the old events posted on Relief-Web (+/- 1980).

3.4.5. GLIDE for non-natural disasters

It has been decided that the generating process for technological disaster will be maintained but will be distinguished from natural disaster on the weekly list sent by CRED.

3.4.6. ReliebWeb disasters outside CRED criteria

CRED generates number for events posted on ReliefWeb even if it didn't fill its criteria. A box mentioning "Doesn't fulfil EM-DAT criteria" can be added in the EM-DAT data entry mask and in the criteria list. It will allow generating number for disaster which do not meet EM-DAT criteria and avoid skewing data for global analysis.

At some points, other institutions could also need additional GLIDE numbers beyond what EM-DAT covers.

3.4.7. Automatic creation of GLIDE number

At this stage, the GLIDE number is semi-automatic and always required that a person generates the number. One of the concerns was that waiting one week to generate a GLIDE number can be too long (especially for promotion) and the group was wondering if Relief-Web could also have the right to assign a GLIDE number. All agreed that CRED should do it but have to ensure in the next future that somebody will always be available to generate a GLIDE number.

3.4. 8. CE type implementation

A test for generating GLIDE number for Complex Emergencies has to be implemented. The start/or declaration date and end date of the event has to be determined.

We have also to define exactly what is a Complex Emergency and the criteria for this event to be entered in the EM-DAT database. The different categories of conflicts have also to be revised. Famine events have to be re-defined because they will be reclassified into new categories.

3.4.9. Promotion of GLIDE

- ⇨ CRED: will produce a half page on GLIDE, which will be distributed to our partners for approval. This text will also be included within the 2002 WDR and other journals, such as Disasters, Humanitarian Affair Journal, ISDR report, OCHA Annual Report, etc.
- ⇨ CRED will put on his Web-site the GLIDE list for 2000 and 2001 and include the GLIDE URL in its weekly e-mail.
- ⇨ Reliefweb: will highlight GLIDE on their homepage; they will include the text on the symposium website; appropriate GLIDE numbers will be mentioned in OCHA bulletins, and a GLIDE description will be included in the newsletter; GLIDE numbers will also appear on maps.
- ⇨ USAID/OFDA: will inform the office and then promote the concept to make their documents "GLIDE-able"; quarter reports, as well as annual report, will have GLIDE number.
- ⇨ ISDR: will include GLIDE in their report "Global Review of Natural Disaster Reduction Initiatives" and promote the project in the task force.
- ⇨ NOAA: will mention GLIDE numbers in their newsletters.
- ⇨ ADRC: will present GLIDE number project with a poster at the GDIN conference, in Rome in June.

3.4.10. Dissemination of GLIDE

How can we get sources to use the GLIDE number?

The first step is to make the GLIDE visible by posting the number on each document and also publishing it in bulletins. Real promotion can be made through academic research community.

3.5. ADRC contribution

3.5. 1. ADRC – GLIDENUMBER.NET conceptualisation

ADRC has proposed an initiative related to the GLobal IDEntification number (GLIDE) concept: creation of a GLIDE web-site (www.glidenumber.net).

The aim of this web-site is to encourage further adoption of the GLIDE number in order to share information among the disaster related organisations in the world.

The ADRC project will allow:

- ⇨ automatic generating process of a GLIDE number via a webserver that integrates information from all partners using GLIDE number and;
- ⇨ use of a search engine based on key-words that would search all GLIDE partners online information systems and links to partners GLIDE specific information.

The idea is also to provide E-mail search function that retrieves partner information back via e-mail to meet needs of users with limited connectivity.

GLIDE numbers are expected to be instrumental in linking global and national databases. ADRC proposes to invite member countries that have already developed disaster information databases -- such as Korea, India, Vietnam and the Philippines -- to join the GLIDE project in the near future.

3.5.2. Discussion points

One of the main concerns which has been pointed out during the meeting is that, in this project, everybody will be able to generate a GLIDE number and all the network can become "uncontrollable". If more than one machine is generating a glide number, the risk of mixing or duplicating disaster will increase (two accidents can occurred the same day in the same country and sometimes even in the same region). The fact that, at this present stage, GLIDE has a human referee ensure a control of consistency.

One of the priorities of this TAG-Advisory meeting is that the group has to think of what can be achieved within the next 12 months. The GLIDENUMBER.NET initiative appears more to be a long-term project. First, CRED has to solve some basic data entry problem and modification of his data entry sheet (see part 5.1) before trying to link other database to EM-DAT.

Although the project of ADRC is a thoughtful presentation of ideas that will contribute to the maturation of GLIDE concept and allow a better access and integration of information, this matter has to be discussed in the next Tag meeting foreseen in 2003.

Meanwhile, ADRC, on his site, could implement a pilot project in Asia with 3 or 4 countries. At another side, LaRed could do the same with its Desinventar database.

In conclusion, some benefits could be taken out of this proposal:

- ⇨ Automatic creation of GLIDE numbers (need of a control mechanism)
- ⇨ Provide a search engine
- ⇨ Integrate GLIDE specific from partners systems
- ⇨ Acts as a portal

4. CONTRIBUTIONS OF PARTNERS (OFDA/ADRC/NOAA/WB/ISDR/OCHA/FAO)

4.1. CRED

4.1. 1. Technical changes within EM-DAT Access format

The main objective is to facilitate data entry and make the work easier. So, data entry should reflect the nature of the disaster. The data entry sheet will be modified according to what was decided for long-term disasters and for GLIDE number. Data will be entered in EM-DAT at two different levels:

- ⇨ an "event" level: at this level, it will be possible to enter several years and/or several countries; it will also be possible to specify the start/end dates and the different disaster subsets that were registered during this event; aggregated data will be available at this level (To allow several disaster subsets might be a problem because each disaster subset is linked with a disaster scale and value);
- ⇨ the second level is the "disaster" level: data will be, when possible, available by year and/or by country. We will more or less find at this level EM-DAT database as it is now (except changes regarding famines and conflicts).

Search will be possible either by country or by year, and if it is a multi-country or multi-year event, all disasters included in the particular event will appear in the search. If data are aggregated by year, then the search engine will either give the total number of people killed/affected by the event, or the annual average number of people killed/affected.

4.1.2. Data distribution

In the future, all documents produced by CRED partners will all be based on the same EM-DAT data file because an automatic updating system will spread this information. But now, when CRED will have an updated database for its partners, it will put it on a specific URL. CRED will then inform its partners of this URL (*i.e.* It will not be visible from the website/public).

4.1.3. Other

- ⇨ Make proactive promotion of EM-DAT: publicity of EM-DAT through journals, search engine; promote links and partners sites: ask the organisation to put a link (PAHO, etc…).
- ⇨ CRED will send an e-mail to EM-DAT users to assess how EM-DAT data are used and to already give first information on the GLIDE number. We will also ask users to send to the Centre document they have produced based on EM-DAT data. CRED will link each GLIDE number to the related page available on ReliefWeb, by using the appropriate URL.

- ⇨ CRED will also upload georeferenced data and appropriate shapefiles onto its website, and inform users that they can now produced Asian disaster maps at the first administrative level.
- ⇨ CRED will try to find out from EM-DAT users how they have successfully used EM-DAT data in prevention and preparedness programs. This could be done with a survey or questionnaire asking how users use the data and what are the needs (ReliefWeb could also assist CRED to develop and create an automatic survey online).
- ⇨ CRED should also complete the work of data verification with the data sent by ADRC on five country members.

4.2. USAID/OFDA

- ⇨ OFDA is interested in more trend analysis. A collaboration based on the sitreps could be established.
- ⇨ OFDA will provide CRED with quarterly report (disasters to which OFDA has responded)
- ⇨ OFDA needs "success stories" on how databases have been used to help. (see CRED).

4.3. ADRC

- ⇨ ADRC, which had distributed EM-DAT data for validation, has encouraged CRED to check its data according to the corrected disaster list (1900-1999) provide by Japan, Armenia, Viet Nam, Uzbekistan ands Australia – next countries?
- ⇨ It is recommended that TAG members provide comments to ADRC on the GLIDENUMBER.NET concept within 1 month in order to make appropriate modification and prepare a second draft of the concept.
- ⇨ GLIDENUMBER.NET could be a pilot project. ADRC will try to get national governments to use GLIDE (see also with DesInventar Database/LaRed)

4.4. NOAA

- ⇨ NOAA has recently produced summary data webpages based on EM-DAT data, which give an overview on disaster trends. They have notably produced charts that give monthly data report. These webpages are linked to Disaster profiles on CRED/EM-DAT website.
- ⇨ NOAA will use more actively GLIDE numbers, notably in their brief reports grouping several disasters that have occurred in the past few years.
- ⇨ If CRED gives all the data to NOAA, it seems that they will have be able to produce graphs that would be made available onto CRED website.
- ⇨ NOAA also propose to help in creating new products, based on interactive maps and materials, at the first administrative level. They offer to participate in the creation of a mapping search engine.
- ⇨ Disaster profiles CRED/EM-DAT webpages and NOAA webpages will be linked all together to offer users the more accurate and divers information that our group can produce.
- ⇨ The dynamic countries profiles as developed by NOAA could be a model for other TAG members. Both ReliefWeb and CRED have interest in this technology.

4.5. ISDR Working Group III (Assessment of vulnerability, risk and impacts)

- ⇨ The WG III deals with data improvement quality. Many activities have been undertaken and discussed. UNDP wants to fund the development of DesInventar database, implemented in several Latin American countries. DesInventar includes more disasters than EM-DAT, because they have no criteria for data inclusion. Total losses of small events should not be neglected because they represent two-third of the total losses of the DesInventar recorded losses. Countries themselves are using the data for their own preparedness. A project of comparison between DesInventar and EM-DAT has been proposed, and could be funded by UNDP.
- ⇨ Economic data needs a particularly strong improvement. UNDP will also fund a project to enhance this specific category of disaster data, by using ECLAC methodology. In the future, people who will need to assess the economic impact of a disaster will just have to specify the number of destroyed houses, loss livestock... Next steps of the WG III are to make concrete recommendations for economic data management, and CRED will be included in this discussion.
- ⇨ Suggest that CRED is invited as member of WG3, which includes Impact Assessment (and participation in the Inter-Agency Task Force meetings)

4.6. ISDR

- ⇨ CRED could work with the ISDR secretariat to send out country files with the historical data to all ISDR focal points (platforms and other national contacts) for their information and also to request them to review the data. They should be invited to complement or correct the data if needed. Thanks to these national questionnaires, detailed information on the impact of disasters will be provided. The secretariat will then make that available to CRED/EM-DAT staff for comparative review.
- ⇨ Explore future promotion for national ownership of the EM-DAT database, which would contribute to more accurate data collection and input, and also serve the purpose of disseminating of the information for use at national or local policy level

These last two activities would contribute to ISDR facilitating and supporting role of national platforms/focal points (formal or informal), by providing a tool that in the long run could be useful at local and national level- and at the same time feed into a global referential impact database.

4.7. World Bank

- ⇨ The World Bank is using economic data to promote disasters prevention. As they mostly use economic EM-DAT data, this part of the database is very important for them. Most of the time, estimated losses are provided by the government and money spent is given by contributors. As they have all the grants and loans for disaster recover, from 1980, the World Bank offer to provide relief estimated data, based on relief needs (consolidated appeals) and contributions (financial tracking).
- ⇨ CRED will first have to give the WB a prototype of economic data already included within EM-DAT, based on the last 2 or 3-year data, to assess how much this data cold be used. Part of this information could be easy to find through ReliefWeb data.

4.8. UN-OCHA

OCHA wants CRED to carry on with the georeferencing process, and they propose to produce some static maps based on these georeferenced data. Dynamic maps could be partly produced by Reliefweb/OCHA, who suggest to proceed with the georeferencing process for LAME and AFRO.

4.9. FAO

- ⇨ FAO has famine data, and they could provide us with electronic famine data.
- ⇨ FAO will establish links between its website and CRED ones to allow users to create their own dynamic maps

6. NEXT STEPS

A technical programmers meeting will be organised in Brussels in July 2002 with all the partners (NOAA/OFDA/CRED/RELIEFWEB/ADRC).

The next TAG meeting will be hosted by ISDR/WG III/UNDP in Geneva in February/March 2003.

Annex 1 - Agenda

Third Technical Advisory Group meeting on EM-DAT: the OFDA/CRED International Disaster Database

Co-organised by the Centre for Research on the Epidemiology of Disasters and UN-OCHA-Reliefweb
Hosted by UN-OCHA – 25-26-27th of March 2002

DAY 1: Monday, 25th of March

AFTERNOON (3.00PM TO 5.30PM)

- ⇨ Discussion Group: Methods for coding famine and conflict data , drawing a methodology

Objective: Establishment of general method for coding famine/drought/ conflict/long-term disaster data in EM-DAT. Will be used by EMDAT for all future entries and posted on web. Results reported to TAG

Discussion lead by Mr Maxx Dilley
Participants: Regina Below, Caroline Michellier, Darren Shaw, Kelly Sponberg, Anne Ralte, Naoki Minamiguchi, Nate Smith, Harry Proctor

DAY 2: Tuesday, 26th of March

MORNING (8.30AM TO 12.30PM)

- ⇨ Introduction
  (D. Guha-Sapir et A. Haggarty)
- ⇨ Review of progress made in EM-DAT:
  - Review of progress since the TAG 2 *(C. Michellier)*
  - Unresolved problems related to daily data entry *(R. Below)*

10.30am: Coffee break

- ⇨ Coding of conflict and famine: Report from discussion group and advice from TAG
  (D. Shaw)
- ⇨ Georeferencing data: What are the potential uses? Users?
  (N. Minamiguchi)

AFTERNOON (2.00PM TO 6.00 PM - 4.00PM: COFFEE BREAK)

- ⇨ Partnerships in the EMDAT project: What specific activities, data contributions can we plan for 2002-2003 (OFDA/FAO/WB/ADRC/OCHA/NOAA)
  (D. Guha-Sapir et A. Haggarty)
- ⇨ Interest and collaboration of NOAA
  (K. Sponberg)

DAY 3: Wednesday, 27th of March

MORNING (8.30AM TO 12.30PM - 10.30AM: COFFEE BREAK)

- ⇨ Introduction *(A. Haggarty)*
- ⇨ GLIDE : global presentation *(R. Below)*
- ⇨ GLIDE project: test conclusion and next steps
  (C. Duncan and R.Below)

AFTERNOON (2.00PM TO 5.00PM - 3.00PM: COFFEE BREAK)

- ⇨ Expansion of resources and improved accessibility to CRED/EM-DAT website: data entry sheet modifications in MS Access EM-DAT database and the data search engine for the website
  (D. Guha-Sapir, D. Shaw).
- ⇨ Production of disaster report.:
  Disasters and conflicts in the world: retrospectives and perspectives
  (A. Haggarty)

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