CRED CRUNCH

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Issue No. 39 "Disaster Data: A Balanced Perspective" *June 2015*

Focus on Nepal earthquake and earthquakes in Southern Asia

Nepal witnessed a 7.8 magnitude earthquake on 25th April and a 7.3 quake on 12th May, the worst natural disasters since 1900 in terms of number of dead, population affected and economic losses (A). The earthquakes killed more than 9,000 people and affected at least 8 million[1]. Economic losses are estimated between 3.86 billion US$ and indirect losses and macroeconomic effects to 10 billion US$[2], half of the GDP of the country (19.3 billion US$ in 2013) (*Source : CEDIM*).
The first quake (25th April) was the most devastating, triggering landslides and avalanches in the mountainous areas, and destroying remote villages. The magnitude of the earthquake is similar to the earthquake that shook the country in 1934, 80 years ago.

The natural disaster profile of Nepal is various. The country faces 97 disasters since 1900, including mainly floods (45 events) and landslides (21 events). Only 8 earthquakes stroke the country in one century. But those earthquakes were particularly devastating as it counts for 67% of the mortality due to natural disasters, half of the population affected and 86% of economic damages. Floods account as well in an important share of the mortality and affected population (B).

Nepal is a sensitive country in terms of earthquakes occurrence and Southern Asia region is also one of world's most quake prone due to the convergence of the Indian and Eurasian tectonic plates. Looking at the historical data of EM-DAT, Southern Asia is the second most prone region to earthquakes, after Eastern Asia, with an occurrence of 214 earthquakes since 1900, almost 450,000 casualties and more than 48 billion people affected (C).

Nepal, along with Pakistan, Iran and India has known huge losses during the last century because of earthquakes (D). Occurrence of earthquakes in this region is high as the Himalaya are still seismically active mountains.

The occurrence of disasters is and will remain high in Nepal and in Asia in general, resources to mitigate and minimise the risk exist but efforts are still needed to reduce disaster risks.

One major problem to be dealt with at the moment is the monsoon season that is getting closer in Nepal and will ask for relief operations to be efficient in a short period of time but also to ensure a sustainable reconstruction of the country.

Debarati Guha-Sapir
Director, CRED

1. *Data at the date of the 8th June 2015. Data for both earthquakes (25th April and 12th May).*
2. *May also include data of India*

A) Top 10 natural disasters in Nepal (1900-2015)

By number of people killed

Date	Disaster type	Nb deaths
2015 - April & May	Earthquake	**9,053**
1934 - January	Earthquake	**9,040**[2]
1993 - August	Flash Flood	**1,048**
1996 - July	Flash Flood	**768**
1988 - August	Earthquake	**709**
1981 - September	Flood	**650**
2002 - July & August	Landslide	**472**
1970 - August	Flood	**350**
2014 - August	Flood	**294**
1968 - October	Flood	**276**

By population affected

Date	Disaster type	Nb affected
2015 - April & May	Earthquake	**8,006,833**
1979	Drought	**3,500,000**
1972	Drought	**900,000**
2004 - July	Flood	**800,015**
2007 - July to October	Flood	**640,706**
1993 - August	Flash Flood	**553,268**
1987 - August	Flood	**351,000**
2009	Drought	**303,000**
1988 - August	Earthquake	**301,016**
2002 - July & August	Landslide	**265,865**

By economic losses

Date	Disaster type	Economic losses (million US$2014)
2015 - April & May	Earthquake	**3860**
1980 - July	Earthquake	**698**
1993 - August	Flash Flood	**325**
1987-August	Flood	**197**
1988 - August	Earthquake	**119**
2009 - October	Flood	**66**
1972	Drought	**56**
1998 - July & August	Flood	**32**
1983 - September	Flood	**24**
2014 - August	Landslide	**15**

All figures presented in the CRED CRUNCH come from EM-DAT: The OFDA/CRED International Disaster Database"

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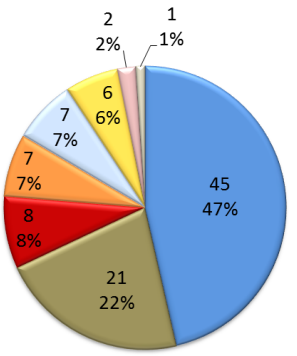
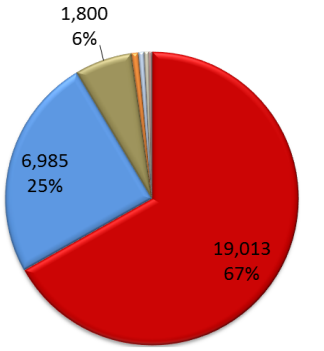
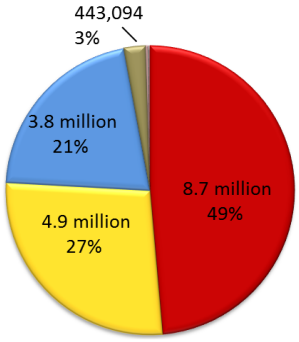
B) Occurrence by disaster type for Nepal (1900-2015) (Absolute value and %)



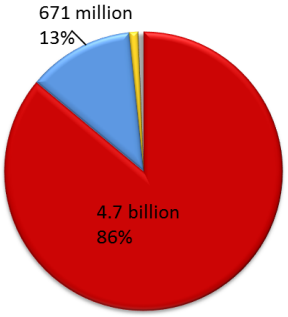
Mortality



Population affected

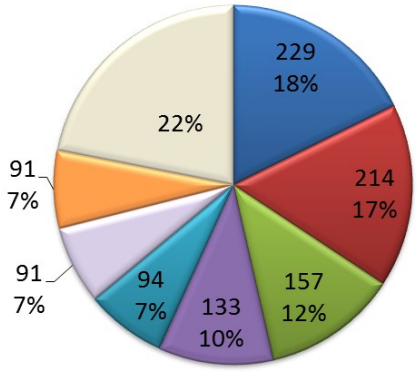


Economic losses (US$2014 value)



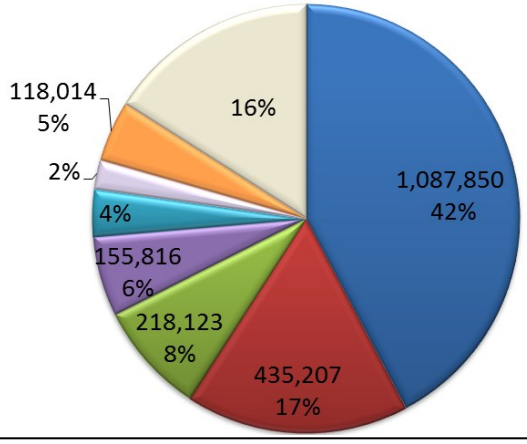
Flood | Landslide | Earthquake | Extreme temperature | Storm | Drought | Wildfire | Mass movement (dry)

C) Occurrence of earthquakes by region(1900-2015)



Eastern Asia | Southern Asia | South-Eastern Asia | South America | Western Asia | Central America | Southern Europe | Other regions (less than 50 events)

Mortality



D) Top15 earthquakes in Southern Asia in terms of number of deaths

Country	Year	Magnitude (Richter scale)	Nb deaths	Nb affected
Pakistan	2005	7.6	73,338	5,128,309
Pakistan	1935	7.5	60,000	-
Iran	1990	7.3	40,000	710,000
Sri Lanka (Tsunami)	2004	9.1	35,399	1,019,306
Iran	2003	6.6	26,796	267,628
Iran	1978	7.8	25,000	40,000
India	2001	7.7	20,005	6,321,812
India	1905	8.6	20,000	-
India (Tsunami)	2004	9.1	16,389	654,512
Iran	1962	7.3	12,000	103,000
Iran	1968	7.3	10,000	79,050
India	1993	6.4	9,748	30,000
Nepal	2015	7.8 & 7.3	9,053	8,006,833
Nepal	1934	8.1	9,040[2]	-
India	1934	8.4	6,000	-

CRED News

- CRED is delighted to present the 2015 Summer Course on Assessing Public Health in Emergency Situations (APHES). This course will take place on July 6-17, 2015 in Brussels, Belgium. More information at www.aphes.be.
- CRED is pleased to announce the publication of « The Human Cost of Natural Disasters: A global perspective ».
- New tool on www.emdat.be to create dynamic disaster trends.

Please note that disaster data are subject to change as validation and cross-referencing of the sources is undertaken and as new information becomes available. For any enquiries please contact contact@emdat.be or visit www.emdat.be