



ADRC Highlights

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➤ New Year's Greetings from the Asian Disaster Reduction Center

Executive Director, Dr. Yujiro Ogawa



ADRC International Meeting (December 5-7, 2000)

As the New Year starts, I wish all of you happiness and prosperity.

I am glad to send the first "ADRC Highlights" of the 21st century, to all of you who have been dedicated to disaster reduction all around the world.

In the 20th century, various natural disasters occurred and we had been suffering heavy damage from them. However, we have devoted ourselves to fight against these disasters. Especially in the last decade of the 20th century, the international society had been cooperating and making an effort to mitigate the damage of natural disasters.

However, there might be a possibility to face more serious natural disasters in the 21st century such as earthquakes, tsunamis, and volcanic eruptions in the Asian region. In addition to these disasters, floods, typhoons and cyclones might occur in larger scale due to the climate change of the earth.

The ADRC, since its establishment in July 1998, has been making every effort to mitigate the damage from natural disasters, as an information center for disaster reduction.

In December of the last year, the 3rd ADRC International Meeting was held in Japan. In this conference, the member countries of the ADRC agreed to actively provide information related to disaster management and to promote the disaster information sharing.

The ADRC will continue to make every effort in the 21st century to support the prompt disaster correspondence of each country in Asia. For instance, we will accumulate more information on disaster management of the Asian countries and promote further sharing this kind of information. Also we will make necessary information into databases. These databases will provide information concerning the organizations and resources that are available at the time of large-scale disaster such as international emergency assistance organizations. I hope that you will continue your support to the ADRC in the new century.

➤ Major Disasters in the 20th Century

ADRC published the "Data Book on Asian Natural Disasters in the 20th Century" in July 2000(ref. ADRC Highlights Vol. 7. available at http://www.adrc.or.jp/databook/Index_eng.htm). This Data Book includes major natural disasters occurred in Asia in the 20th century which is registered in EM-DAT of CRED, Louvain Catholic University in Belgium.

Using these statistic data in this book and additional population data, we picked up top 20 major natural disasters in the 20th Century in 23 ADRC Member Countries in different ways.

Attached **Table 1** shows top 20 disasters according to the number of people killed. **Table 2** shows top 20 disasters with regard to the ratio (1/100%) of number of people killed to population (latest population from the World Factbook 2000, CIA) to briefly measure the impact of the disasters to the country.

From **Table 1**, we can find quite large-scale disasters whose number of people killed were more than 100,000. These are covered mainly by China (flood, drought) and India (drought), and partially by Bangladesh (cyclone) and Japan (earthquake).

However, from **Table 2**, we found that the largest disaster in these 100 years in ADRC member countries was Spitak Earthquake in 1988 in Armenia according to the ratio of "killed/population". Tajikistan earthquake and landslide in 1949 was also one of the largest disasters. PNG has three events in top 20 including the tsunami in 1998. Also earthquakes in Mongolia and Uzbekistan are found.

Table 1 Top 20 Disaster (the number of people killed)

No	Country	DisType	Year	Killed
1	China, P Rep	Flood	1931	3,700,000
2	China, P Rep	Drought	1928	3,000,000
3	China, P Rep	Flood	1959	2,000,000
4	India	Drought	1942	1,500,000
5	India	Drought	1900	1,250,000
6	China, P Rep	Drought	1920	500,000
6	China, P Rep	Flood	1938	500,000
6	China, P Rep	Flood	1939	500,000
6	India	Drought	1965	500,000
6	India	Drought	1966	500,000
6	India	Drought	1967	500,000
12	Bangladesh	Cyclone	1970	300,000
13	China, P Rep	Earthquake	1976	242,000
14	China, P Rep	Earthquake	1927	200,000
15	China, P Rep	Earthquake	1920	180,000
16	Japan	Earthquake	1923	143,000
17	China, P Rep	Flood	1935	142,000
18	Bangladesh	Cyclone	1991	138,866
19	China, P Rep	Flood	1908	100,000
19	China, P Rep	Flood	1911	100,000
19	China, P Rep	Typhoon	1922	100,000

Table 2 Top 20 Disaster (the ratio of the number of people)

No	Country	DisType	Year	Killed	Population (latest)	K/P (1/100%)
1	Soviet U.(Armenia)	Earthquake	1988	25,000	3,344,336	74.8
2	China, P Rep	Flood	1931	3,700,000	1,268,948,784	29.2
3	China, P Rep	Drought	1928	3,000,000	1,268,948,784	23.6
4	Bangladesh	Cyclone	1970	300,000	129,194,224	23.2
5	Soviet U.(Tajikistan)	Landslide	1949	12,000	6,440,732	18.6
6	China, P Rep	Flood	1959	2,000,000	1,268,948,784	15.8
7	India	Drought	1942	1,500,000	1,014,003,817	14.8
8	India	Drought	1900	1,250,000	1,014,003,817	12.3
9	Japan	Earthquake	1923	143,000	126,549,976	11.3
10	Bangladesh	Cyclone	1991	138,866	129,194,224	10.7
11	Papua New Guinea	Earthquake	1951	3,000	4,926,984	6.1
12	Papua New Guinea	Volcano	1951	3,000	4,926,984	6.1
13	Soviet U.(Tajikistan)	Earthquake	1949	3,500	6,440,732	5.4
14	India	Drought	1965	500,000	1,014,003,817	4.9
15	India	Drought	1966	500,000	1,014,003,817	4.9
16	India	Drought	1967	500,000	1,014,003,817	4.9
17	Soviet U (Uzbekistan)	Earthquake	1949	12,000	24,755,519	4.9
18	Bangladesh	Cyclone	1942	61,000	129,194,224	4.7
19	Mongolia	Earthquake	1957	1,200	2,650,952	4.5
20	Papua New Guinea	Tsunami	1998	2,182	4,926,984	4.4

Total Number registered = 2,738 <in ADRC Member countries from 1900-1999, from EM-DAT: The OFDA/CRED International Disaster Database, Universite Catholique de Louvain- Brussels-Belgium>

ADRC made top 100 listing and also similar analysis introducing the factor in relation to amount of damage caused by the disaster and its' ratio to the GDP.

These outputs are available at "[ADRC Events & Publications](#)" in ADRC Website. The analysis included data of all Asian countries will also published soon.

(Masahiko Murata, Senior Researcher)

➤ Report from the ADRC Visiting Researcher from Sri Lanka

Following to the Vol.9, Mr. W.A. Chulananda Perera, who is currently working as a Visiting Researcher from Sri Lanka reports about the 3rd ADRC International Meeting

□ The 3rd ADRC International Meeting

I participated in the 3rd ADRC Meeting in December 2000 as one of the representatives of Sri Lankan government.

I must mention that it was clearly emphasized in the meeting about the necessity of keeping under constant review the current mechanisms for disaster management at the country level and initiate methods of upgrading such processes and mechanisms. The reason for this is recent studies have shown that there are serious gaps in addressing the issues of disaster mitigation in planning processes in countries of our own region. While such gaps are suitably addressed and bridged, the ADRC made its effort to share valuable experience of countries within our region and advisory countries in what they have already achieved, what are the future plans, what are the lessons learnt from various disasters, etc.

Likewise, the meeting benefited the member countries to understand the urgency and the modern methods of disaster management field today. (The minutes is available at ADRC HP)

(W.A. Chulananda Perera, ADRC Visiting Researcher/ Deputy Director, National Disaster Management Centre, Ministry of Social Services, Sri Lanka)

➤ Recent Natural Disaster

□ Dzud in Mongolia

In 1999/2000 Mongolian herders experienced their worst winter for 30 years. This disaster, called *Dzud* in Mongolian, was the result of the unusually dry weather in summer 1999 compounded by the particularly harsh weather experienced since the beginning of the winter.

According to the State Emergency Commission, 4 persons died during the 1999/2000 *dzud* and the number of dead animals in the affected provinces reached approximately 2.4 million. 1.1 million people live in the 13 affected provinces, that are 45% of the population of Mongolia. The *dzud* calamity caused damage estimated at approx. USD 78.3 million. 2,369 herding families have lost their entire livestock.

Substantial assistance was provided bilaterally or by other int'l organizations, such as the IFRC. In total, int'l contributions worth USD 17.1million were reported to OCHA (as of 11 Jan).

During the summer and autumn 2000, more than 60% of the Mongolian countryside suffered drought or semi-drought conditions. As there was no rain until August and therefore very little pasture growth, large numbers of livestock have gained insufficient body weight to endure the coming winter. In addition, the pastureland and crop areas in many central and western provinces have been seriously damaged by mice, grasshoppers and other insects resulting in malnutrition of animals and shortage of hay and fodder required for the winter.

The Ministry of Foreign Affairs reported that large parts of the provinces of Bayankhongor, Gobi-Altai, etc. have already been affected by heavy snowfall. Average temperatures in these areas range from minus 25 to minus 30 degrees centigrade. Latest news reports indicate that the early snowstorms have killed already almost 500,000 head of livestock and more losses are expected in the near future.

The Government has requested additional support from the UN with respect to disaster assessment and possibly program development. As an immediate measure, OCHA dispatched its Regional Disaster Response Advisor in Asia to Mongolia to assist the UN-DMT in December. OCHA has also dispatched an UNDAC team for relief needs-assessment and preparation an appeal for int'l assistance from January 8.

On January 14, due to the crash of the helicopter, 9 people including Ms. Sabine Metzner-Strack (who joined the 2nd ADRC Meeting) and other 3 UN team member have been killed. We express our sincere condolences on the victims' death.

(18 Dec. OCHA Situation Report, 10.Jan. AFP etc.)

□ A Large Earthquake Hit Central America

On January 13, at 11:33 (17:33GMT), an earthquake of magnitude of 7.6 on the Richter Scale, occurred off the coast of El Salvador. At least 609 people have died across the country and as many as 2,412 are missing around the worst-hit area of the capital. Two major hospital facilities have suffered serious damage and several major highways have been damaged.

(13 - 16 Jan. OCHA Situation Report)

□ Tropical Cyclone in Sri Lanka

On 25 and 26 December 2000, a cyclone crossed the northern part of Sri Lanka. According to the media report five persons were killed by the disaster and an overall number of 75,000 families have been affected. This tropical cyclone impacted several districts, destroying houses, paddy fields and livestock, infrastructure, such as telephone and electricity lines, as well as fishing boats.

(29 Dec. OCHA Situation Report)

If you have comments or needs for this Newsletter, please write to ADRC in the right box.

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3rd Floor, IHD Bld. 1-5-1, WAKIHAMAKAIGAN-DORI, CHUO-KU, KOBE

651-0073, JAPAN E-mail: editor@adrc.or.jp Phone:+81-78-230-0346