

3. Collection and Distribution of Disaster Information

The ADRC has been disseminating many different types of information related to disaster risk reduction on its website (<http://www.adrc.asia>) aiming at ensuring appropriate disaster response, mitigation, and preparedness activities

3-1. Disaster Risk Reduction Activities of Member Countries

In fiscal year 2012, as in the previous year, ADRC collected disaster risk reduction-related information on member countries through the following methods:

3-1-1. Information Provided from ADRC Member Countries

Other than the voluntary provision from the member countries, ADRC collected the information on systems, plans, and specific measures of each country's disaster reduction as well as situations of ongoing natural disasters through Visiting Researchers.

(1) Collecting Information through Participation in International Conferences

ADRC collected the relevant information by participating in international meetings such as 5th Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR). In addition, ADRC, in collaboration with the Japanese Government (Cabinet Office), held the Asian Conference on Disaster Reduction in Kobe, Japan on 23 January 2013 in order to discuss and share progresses, issues, and challenges in implementing disaster risk reduction policies.

(2) Utilization of Internet

Taking advantage of internet, ADRC has been collecting related information efficiently. Internet will be more important to facilitate technical support and construct disaster information databases. The internet also helps ADRC to collect related information provided by academic research institutions and international organizations.

(3) Disaster Risk Reduction Activities of Member Countries

In fiscal year 2011, ADRC continued gathering information on the disaster risk reduction systems of member countries through requests to them, field surveys, international conferences, and internet. Furthermore, ADRC updated country reports in cooperation with Visiting Researchers.

Table 3-1-1-1 lists the reports provided by counterparts in member countries. All these reports are available on ADRC website. Over recent years, disaster risk management organizations of

many countries have been actively promoting information dissemination over the internet. Therefore, the ADRC website has direct links to these websites which offer access to the latest information.

Table 3-1-1-1 List of reports from ADRC member countries

| Country | Year prepared |
|--------------------|--|
| Armenia | 2001, 2002, 2003, 2005, 2006, 2010, 2012 |
| Azerbaijan | 2011 |
| Bangladesh | 1998, 1999, 2001, 2003, 2005, 2006, 2010, 2011 |
| Bhutan | 2008 |
| Cambodia | 1998, 1999, 2002, 2003, 2005, 2006 |
| China | 1998, 1999, 2005, 2006, 2012 |
| India | 1998, 1999, 2002, 2005, 2006, 2008, 2012 |
| Indonesia | 1998, 1999, 2002, 2003, 2004, 2005, 2006, 2012 |
| Japan | 1998, 1999, 2002, 2005, 2006, 2012 |
| Kazakhstan | 1998, 1999, 2002, 2005, 2006 |
| Republic of Korea | 1998, 1999, 2001, 2002, 2005, 2006, 2008 |
| Kyrgyz Republic | 2005, 2006, 2012 |
| Lao PDR | 1998, 1999, 2003, 2005, 2006 |
| Malaysia | 1998, 1999, 2003, 2005, 2006, 2008, 2009, 2011 |
| Mongolia | 1998, 1999, 2002, 2005, 2010, 2011 |
| Myanmar | 2002, 2005, 2006 |
| Nepal | 1998, 1999, 2005, 2006, 2009, 2010, 2011 |
| Pakistan | 2005, 2006, 2009 |
| Papua New Guinea | 1998, 1999, 2005, 2006 |
| Philippines | 1998, 1999, 2002, 2003, 2005, 2006, 2009, 2010, 2011, 2012 |
| Russian Federation | 1998, 1999, 2003, 2005, 2006 |
| Singapore | 1998, 1999, 2001, 2002, 2003, 2005, 2006 |
| Sri Lanka | 1998, 1999, 2003, 2005, 2006, 2009, 2010, 2011 |
| Tajikistan | 1998, 1999, 2003, 2005, 2006 |
| Thailand | 1998, 1999, 2003, 2004, 2005, 2006, 2008, 2010, 2011, 2012 |
| Uzbekistan | 1998, 1999, 2005, 2006 |
| Viet nam | 1998, 1999, 2005, 2006 |
| Yemen | 2009, 2012 |

Country Reports includes the following topics provided by each member country.

I. Natural Hazards in the Country

1.1 Natural Hazards Likely to Affect the Country village

1.2 Recent Major Disasters

(basic data of disasters, damage situation, response & recovery info)

II. Disaster Management System

2.1 Administration System

2.2 Legal System and Framework

2.3 Structure of Disaster Management

2.4 Priorities on Disaster Risk Management

III. Disaster Management Strategy, Policy and Plan

IV. Budget Size on National Level

V. Progress of the Implementation of Hyogo Framework for Action (HFA)

VI. Recent Major Projects on Disaster Risk Reduction

VII. ADRC Counterpart

The followings are excerpts from the Country Reports of Armenia (Fig. 3-1-1-1).

Fig. 3-1-1-2 Country Report of Armenia (excerpt)

Since the day of its foundation the Armenian NSSP made close links with international organizations well known in the field of seismic hazard and seismic risk assessment and reduction, giving importance to the experience of these organizations and aiming to adjust it to local conditions.

Scientific and technical relations of the Armenian NSSP:

| Institution/Organization | |
|---|---|
|  | US Geological Survey |
|  | European-Mediterranean Seismological Centre, France |
|  | International Institute of Seismology and Earthquake Engineering, Iran |
|  | GeoforschungsZentrum-Postdam, Germany |
|  | Geophysical Survey of the Russian Academy of Sciences |
|  | Japan Meteorological Agency |
|  | Institute for the Physics of the Earth RAS |
|  | Massachusetts Institute of Technology |
|  | Seismic Monitoring Center of Georgia |
|  | Asian Risk Reduction Center |
|  | Kandilli Observatory and Earthquake Research Institute, Istanbul, Turkey |
|  | University of Athens, Greece |
|  | Japan International Cooperation Agency |
|  | Republican Center of Seismological Survey at the National Academy of Sciences of Azerbaijan |
|  | National Institute of Geophysics, Rome, Italy |
|  | Kazakhstan National Data Center, Institute of Geophysical Research |

and other institutions working in the field of seismic risk assessment and seismic risk reduction.

4. Disaster Management Strategy, Policy, and Plan

Natural and technological hazards threatening Armenia urge the need of development and strengthening of DRR system in Armenia. This process implies involvement of all the potential of the country, which can be achieved through elaboration of Disaster Risk Reduction National Platform (DRR NP). DRR system is a framework of functions and processes with the aim to reduce population's vulnerability to disaster risks. It is aimed at prevention or reduction of negative impacts of hazards and contributes to sustainable development of the society. Fund for DRR NP was

3-1-2. Natural Disaster Data Book

Records of past natural disaster are important data to design, review, survey and analyze disaster prevention planning. ADRC has analyzed on disaster impacts based on the data of EM-DAT provided by CRED, Brussels, after the agreement of data utilization were confirmed between two.

For instance, “20th Century Data Book on Asian Natural Disasters”, and its revision released in July 2000 and August 2002 respectively featured disasters which hit its member countries. As from 2002, as a summary of disaster data for one year, “Data Book on Asian Natural Disaster for this year” has been released on a yearly basis to provide multi players such as policy decision makers, researchers, DRR NGO officials useful information.

This section introduces the excerpts from Natural Disaster Data Book 2011, which covers disaster trend per year / type.

According to EM-DAT, 196 natural disasters occurred in 2011 worldwide, killing about 28,800 people and affecting over 85 million people. The estimated amount of economic damage came close to US\$290 billion. In 2011, there were two large-scale disasters in Asia; the Great East Japan Earthquake and subsequent tsunami in Japan and flood in Thailand, which constituted 70.5% and 2.8% of the world fatalities while 72.5% and 13.8 % of the world economic damage respectively.

As a result, Asia made up of 44.4% of the number of disaster occurrence, 82.0% of the number of the killed, 94.0% of the number of the affected and 88.7% of economic damage (Figure 3-1-2-1, Table 3-1-2 -2).

According to data by disaster type, in flood and storm cases, nos. of occurrence and people affected was noticeable. Meanwhile as long as the number of people killed and economic damage are concerned, percentage of earthquake was more than 70% respectively.

Looking at the long-term trend of natural disaster, in 2011, number of disaster occurrence and the number of the killed/affected was declined, while economic damage hit highest ever. This is because large economic impacts from mega disasters in Japan and Thailand were huge, and, damage from storm and flood is less severe than the average year. .

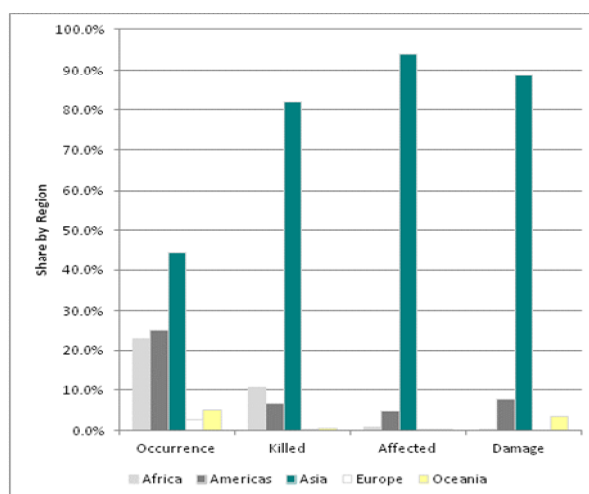


Fig. 3-1-2-1 Impacts of Natural Disasters by Region, 2011

Table 3-1-2-1 Impacts of Natural Disasters by Region, 2011

| Region | Impact | | | |
|----------|----------------------------|------------------------|--------------------------|------------------------|
| | Occurrence (share in %) | Killed (share in %) | Affected (share in %) | Damage (share in %) |
| Africa | 45 (23.0%) | 3,104 (10.8%) | 740,708 (0.9%) | 803 (0.3%) |
| Americas | 49 (25.0%) | 1,883 (6.5%) | 4,031,124 (4.7%) | 22,000 (7.6%) |
| Asia | 87 (44.4%) | 23,646 (82.0%) | 80,195,914 (94.0%) | 256,882 (88.7%) |
| Europe | 5 (2.6%) | 22 (0.1%) | 25,019 (0.0%) | 0 (0.0%) |
| Oceania | 10 (5.1%) | 181 (0.6%) | 309,362 (0.4%) | 10,003 (3.5%) |
| Total | 196 (100.0%) | 28,836 (100.0%) | 85,302,127 (100.0%) | 289,688 (100.0%) |

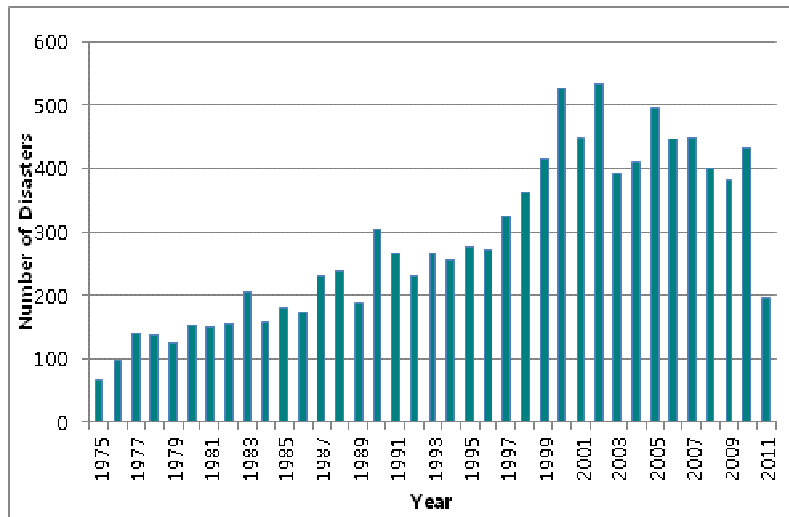


Fig. 3-1-2-2 Disaster Occurrence, 1975-2011

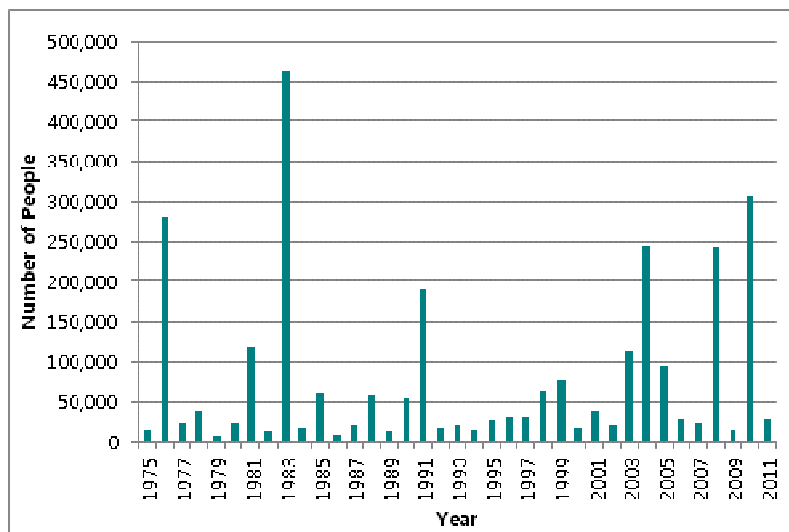


Fig. 3-1-2-3 Number of People Killed, 1975-2011

3-1-3. Current Status of “GLIDE”

GLIDE is the acronym for the GLobal unique disaster IDentifier system, in which commonly formatted but unique numbers are assigned to disasters all over the world. The GLIDE system was first proposed by ADRC and has been adopted and used by more than 20 international organizations and research institutes.

3-1-3-1. Disaster Information Sharing Using GLIDE Numbers

There are many organizations around the world that design and develop their own disaster databases that are freely accessible online. When a disaster occurs, information is distributed over the Internet not only by organizations in the affected countries but also by organizations and the mass media in other countries. Whenever a disaster occurs in any part of the world, ADRC collects information from websites of relevant organizations and worldwide news agencies, or by sending e-mails to contact persons in the affected area. Over the course of its experience, ADRC has come up against several problems in collecting disaster information using these conventional methods, including the following.

- (1) Considerable manpower is needed to search the Internet for websites of relevant individual organizations every time a disaster occurs.
- (2) There is no standardized naming protocol for disasters. As many different names are given to a certain single disaster by various organizations, even search engines such as Google or Yahoo sometimes return no results.
- (3) Website links may be lost when the structure of particular organization's database or website is modified.

The GLIDE system offers a solution to these problems. It will significantly improve the efficiency with which information on historical and ongoing disasters can be retrieved from databases and websites.

At the Global Disaster Information Network (GDIN) Conference held in Canberra, Australia in March 2001, ADRC proposed the development of a standardized coding system for managing information on disasters around the world. This proposal was accepted for implementation as a pilot project by the GDIN. In 2004, glidenum.net was jointly developed by the ADRC and OCHA ReliefWeb, with technical assistance provided by LaRED. It is designed to issue new GLIDE numbers to disasters immediately after they occur. Moreover, ADRC, the CRED, IRI/Columbia University, the USAID/OFDA, the WMO, IFRC, UNDP, and ISDR Secretariat have agreed to use the GLIDE number format as the standard for assigning disaster identification numbers.

The GLIDE number format was revised in 2004 as follows:

AA-BBBB-CCCCC-DDD-EEE

AA: Disaster classification →→→→→→→→

BBBB: Year of occurrence
(4-digit numeric figure)

CCCCC: Serial number by year

DDD: Country code
(ISO code. e.g., JPN for Japan)

EEE: Region code
(e.g., 013 for Tokyo)

| | |
|-----------------------|----|
| Drought | DR |
| Heat Wave | HW |
| Cold Wave | CW |
| Tropical Cyclone | TC |
| Extratropical Cyclone | EC |
| Tornado | TO |
| Violent Wind | VW |
| Severe Local Storm | ST |
| Flood | FL |
| Flash Flood | FF |
| Land Slide | LS |
| Snow Avalanche | AV |
| Mud Slide | MS |
| Volcano | VO |
| Earthquake | EQ |
| Fire | FR |
| Tsunami | TS |
| Storm Surge | SS |
| Epidemic | EP |
| Insect Infestation | IN |
| Wild Fire | WF |
| Others | OT |
| Complex Emergency | CE |
| Technological | AC |

Fig 3-3-3-1 Structure of GLIDE

The local code at the end can be added for the convenience of user countries in organizing their national databases. This format is still in use among GLIDE-issuing organizations.

Databases that incorporate GLIDE numbers will have the following advantages:

- (1) A parameterized search function allows user organizations to easily connect pieces of disaster information archived by various organizations.
- (2) A search engine, developed to focus on particularly important information for user organizations, allows a one-stop search and display of all the necessary data, eliminating the need to conduct additional searches for data independently archived by individual organizations.