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## **3. Collection and Dissemination 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**

With assistance from its 30 member countries, the Asian Disaster Reduction Center (ADRC) has been collecting information on systems, plans, and specific measures of each country's disaster risk reduction as well as the situation of natural disasters. ADRC has also been collecting information from related materials, various countries/organizations and through Visiting Researchers from the ADRC member countries and UNOCHA Office in Kobe.

ADRC will continue collecting and sharing information on the following items mainly:

1) Disaster management systems (legal frameworks, organizations, basic plans, and disaster management manuals), 2) Experiences of disaster response, and 3) Information on natural disasters (descriptions of natural disasters such as earthquakes, floods, cyclones, etc., and resulting damages).

#### **3-1-1. Information Collection from Member Countries**

In fiscal year 2014, as in the previous year, ADRC collected disaster risk reduction-related information on member countries through the following methods.

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

Besides 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 (VR).

##### **3-1-1-2. Collecting Information through Participation in International Conferences**

ADRC collected relevant information regarding progress of Hyogo Framework for Action (HFA), latest DRR activities by participating in international conferences such as the 6th Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR). In addition, ADRC, in collaboration with the Government of Japan (Cabinet Office), held the Asian Conference on Disaster Reduction in Sendai, Japan on 15 March 2015 in order to discuss and share progresses, issues, and challenges in implementing disaster risk reduction policies.

### 3-1-1-3. Utilization of Internet

Taking advantage of internet, ADRC has been collecting disaster 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.

In fiscal year 2013, ADRC continued gathering information on the disaster risk reduction systems of member countries through information requests, 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 in many countries have been actively promoting information dissemination over the internet. Therefore, the ADRC website developed 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, 2014   |
| Bangladesh       | 1998, 1999, 2001, 2003, 2005, 2006, 2010, 2011, 2013 |
| Bhutan           | 2008, 2013, 2014                                     |
| Cambodia         | 1998, 1999, 2002, 2003, 2005, 2006, 2013             |
| China            | 1998, 1999, 2005, 2006, 2012                         |
| India            | 1998, 1999, 2002, 2005, 2006, 2008, 2012             |
| Indonesia        | 1998, 1999, 2002, 2003, 2004, 2005, 2006, 2012       |
| Iran             | 2013   |
| Japan            | 1998, 1999, 2002, 2005, 2006, 2012                   |
| Kazakhstan       | 1998, 1999, 2002, 2005, 2006                         |
| Korea            | 1998, 1999, 2001, 2002, 2005, 2006, 2008             |
| Kyrgyzstan       | 2005, 2006, 2012                                     |
| Laos             | 1998, 1999, 2003, 2005, 2006                         |
| Malaysia         | 1998, 1999, 2003, 2005, 2006, 2008, 2009, 2011       |
| Maldives         | 2013, 2014   |
| Mongolia         | 1998, 1999, 2002, 2005, 2010, 2011, 2013             |
| Myanmar          | 2002, 2005, 2006, 2013                               |
| Nepal            | 1998, 1999, 2005, 2006, 2009, 2010, 2011, 2014       |
| Pakistan         | 2005, 2006, 2009                                     |
| Papua New Guinea | 1998, 1999, 2005, 2006                               |

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|             |  |
|-------------|--|
| Philippines | 1998, 1999, 2002, 2003, 2005, 2006, 2009, 2010, 2011, 2012, 2014 |
| Russia      | 1998, 1999, 2003, 2005, 2006                                     |
| Singapore   | 1998, 1999, 2001, 2002, 2003, 2005, 2006                         |

|            |  |
|------------|--|
| Sri Lanka  | 1998, 1999, 2003, 2005, 2006, 2009, 2010, 2011, 2014       |
| Tajikistan | 1998, 1999, 2003, 2005, 2006                               |
| Thailand   | 1998, 1999, 2003, 2004, 2005, 2006, 2008, 2010, 2011, 2012 |
| Uzbekistan | 1998, 1999, 2005, 2006, 2013                               |
| Vietnam    | 1998, 1999, 2005, 2006                                     |
| Yemen      | 2009, 2012, 2014   |

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

1.2 Recent Major Disasters

(basic data of disasters, damage situation, response and recovery information)

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. Counterparts of ADRC

### 3-1-2. Natural Disaster Data Book

ADRC publishes analyses on disaster impacts based on the data of EM-DAT provided by CRED, Brussels. For instance, 20<sup>th</sup> Century Data Book on Asian Natural Disasters, and its revision released in 2000 and 2002 respectively featured disasters which hit its member countries while annual Natural Disaster Data Book covers disaster characteristics in the world.

This section introduces the excerpts from Natural Disaster Data Book 2013, which covers regional and disaster-specific issues of the year and long term.

The following Figures 3-1-2-2 to 3-1-2-7 and Tables 3-1-2-1 and 3-1-2-2 depict the results of analyses of national disaster and impacts in 2012 and in the long term.

According to EM-DAT recorded in 2013, 361 disaster events occurred, 23,538 people were killed, more than 99.9 million people were affected and economic damage reached 119 billion USD.

Similar to 2012, the year 2013 saw Typhoon Haiyan (Typhoon No.30 in Japan) causing largest impacts, killing 7,986 people, affecting more than 16 million people and damaging 1 billion USD. Also flooding in India killed 6,054 people and affected 50 million people with economic damage 1.1 billion USD.

By region, Asia had largest shares in disaster occurrence (44.6 %), killed people (84.6%), affected people (87.1%) and the amount of damages (49.0%) in 2013 as seen in Figure 1-3-2-2 and Table 1-3-2-1.

By disaster type, flood topped in disaster occurrences (41.3%), people killed (41.7%) and economic damage (44.5%). People affected by flood ranked the second (32.1%) after storm. On the other hand, storm shared the second in occurrence, people killed and economic damage (29.1%, 39.1% and 44.0% respectively) (Figure 3-1-2-2, Table3-1-2-1).

Compared with the previous year, in 2013, data shows increase in fatalities and decline in the numbers of disaster occurrences, people affected, and the amount of economic damages.

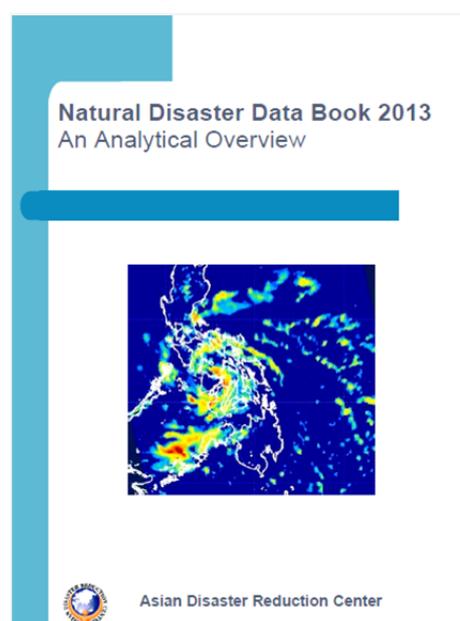


Fig3-1-2-1 Natural Disaster Data Book 2013

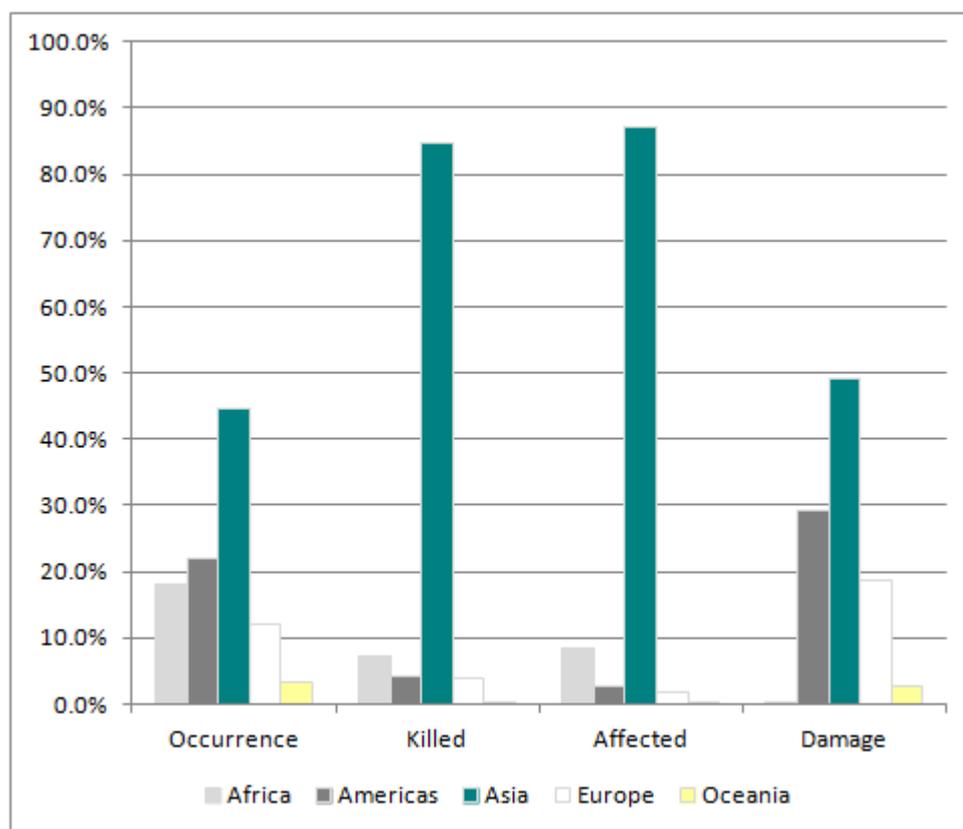


Fig. 3-1-2-2 Impacts of Natural Disasters by Region 2013

Table 3-1-2-1 Impacts of Natural Disasters by Region 2013

| Region   | Impact                     |                        |                          |                                       |
|----------|----------------------------|------------------------|--------------------------|---------------------------------------|
|          | Occurrence<br>(share in %) | Killed<br>(share in %) | Affected<br>(share in %) | Damage (US\$ million)<br>(share in %) |
| Africa   | 65 (18.0%)                 | 1,685 (7.2%)           | 8,281,798 (8.3%)         | 241 (0.2%)                            |
| Americas | 79 (21.9%)                 | 1,026 (4.4%)           | 2,752,169 (2.8%)         | 35,060 (29.4%)                        |
| Asia     | 161 (44.6%)                | 19,910 (84.6%)         | 87,045,468 (87.1%)       | 58,521 (49.0%)                        |
| Europe   | 44 (12.2%)                 | 895 (3.8%)             | 1,749,143 (1.8%)         | 22,289 (18.7%)                        |
| Oceania  | 12 (3.3%)                  | 22 (0.1%)              | 79,690 (0.1%)            | 3,259 (2.7%)                          |
| Total    | 361 (100.0%)               | 23,538 (100.0%)        | 99,908,268 (100.0%)      | 119,369 (100.0%)                      |

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

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.

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, [glidnumber.net](http://glidnumber.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 3-1-3-1 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.

### **3-1-3-2. Second meeting of the Expert Group on Disaster-related Statistics in Asia and the Pacific**

During the 3<sup>rd</sup> WCDRR in Sendai, Japan, the second meeting of the expert group on Disaster-related Statistics in Asia and the Pacific was held on 17 March 2015 (9:00-17:00) at Tohoku University as one of public forum of WCDRR.

Discussion points are as follows;

- The Post-2015 framework for disaster risk reduction, the sustainable development goals and the work of the Expert Group.
- Towards a basic range of disaster statistics in Asia Pacific
- Development of regional guidelines for disaster related statistics
- Way forward and work plan

Expert Group agrees on its work plan from April 2015 to March 2016

ADRC introduced GLIDE and the Disaster Data Book as ADRC activities. Supporting ADRC member countries' development of disaster-related statistics, along with the post-2015 frameworks will be continued by ADRC.



Photo 3-1-3-2 Expert Group Meeting