

Sediment-related Disasters in the World

1. Opening Remarks for New Series

A huge number of natural disasters occur in various parts of the world every year, but currently there is no database that focuses on sediment-related disasters only. It is probably because a sediment-related disaster is not a popular category in the world and it is usually included in other categories such as floods when covered by the media. However, we decided to start the Series “Sediment-related Disasters in the World”, considering it is meaningful to identify the number of sediment-related disasters occurring in the world every year even though the information accuracy is not so high.

2. Data Collection Method

2.1 Sediment-related disasters to be covered

2.1.1 Types of sediment-related disasters

The following types of sediment-related disasters will be covered in this Series.

(1) Debris flows (those commonly called “Debris Flow, Flash Flood, Mudflow, Lahar, etc.”)

(2) Landslides, Collapses (those commonly called “Landslide, Slide, Slope Failure, Collapse, Landfall, Rock Slide, etc.”)

(3) Volcanic Disasters (Pyroclastic Flow, Lava Flow, Cinder, Meltwater-type Volcanic Mudflow)

Disasters of (1) and (2) type triggered by earthquakes are included, but avalanches are not included.

2.1.2 Disaster Scale

Disasters with more than 10 dead and missing will be covered in this Series following the data compilation policy of EM-DAT, the world-recognized disaster database maintained by CRED (Centre for Research on the Epidemiology of Disasters). This criterion (more than 10 deaths) is chosen in terms of a balance among countries, because disasters with fewer casualties are often not reported in English in some countries.

2.2 Data Sources

EM-DAT: <http://www.emdat.be/>

Relief Web: <http://www.reliefweb.int/rw/dbc.nsf/doc100?OpenForm>

Reuters AlertNet: <http://www.alertnet.org/>

AFPBB disaster news: <http://www.afpbb.com/category/disaster-accidents-crime/disaster>

NHK Online: http://www3.nhk.or.jp/news/?from=tp_an00

Others: Japanese newspapers, English news from disaster-stricken countries, technical reports by experts, etc.

2.3 Data Collection Procedure

- (1) Disaster data classified as Flood, Mass Movement (dry/wet), and Volcano in the disaster type category of EM-DAT database (→<http://www.emdat.be/classification>) will be cross-checked by comparing with the data in Relief Web's Natural Disaster database, and only those judged as sediment-related disasters will be collected.
- (2) Articles in the AFPBB Disaster News, NHK Online, etc.

2.4 Accuracy of Collected Data

It is easy to collect data of landslides, slope failures, hillside failures, and volcanic disasters from the database of EM-DAT. However it is not easy to separate the portion of sediment-related disasters, such as debris flows, from flood disasters which are largely caused by river flooding. Although we strive to collect only the data of sediment-related disasters, it is also true that information sources in other countries have some classification ambiguity compared with Japanese classification. Our policy is to omit unconfirmed information. Therefore, users are requested to see the collected data in terms of “at least this number of sediment-related disasters with more than 10 dead and missing has occurred in the world”.