

Table. 3-2 indicates each disaster damages of each member country.

Armenia is located on Alpen-Himalayan and Balkan-Carpathian seismic zone that becomes a plate-boundary, and therefore hit by earthquakes frequently. Especially the Spitak earthquake in 1988 caused a devastating damage to the country, claiming 25,000 lives.

Bangladesh is a path of cyclones spawned at Bay of Bengal and it makes Bangladesh the most affected country by windstorms. The figure in P.64 shows the devastating damage by cyclones to this country in terms of the number of disasters and the damages. Bangladesh is located in flat land with less than 20 meters above sea-level except the North and the steep range of hills in the southeast, and accordingly monsoon floods cause damage.

China owns a vast land and large number of population, and also has been hit by various natural disasters. Above all, floods cause the most massive impact on the country (P.78), and then followed by droughts and earthquakes. The numbers of people killed and affected people caused by natural disasters are the largest in the world. As in the figure of P.75, the number of natural disasters has been increasing, but then the number of people killed has been positively decreasing.

Earthquakes affect Indonesia because there are seismic belts running through the country, and moreover there are 129 active volcanoes and accordingly volcanic eruptions often happen in the country (P.104) Floods tend to occur in rainy season and drought in dry season.

India is geographically located in a natural disaster-prone area, affected by windstorms such as cyclones spawned at Bay of Bengal and Arabian Sea, earthquakes caused by active crustal activity of Himalayan Mountains, floods brought by monsoon and drought happening in arid/semiarid areas, etc. Historically drought damages are the largest in the country (P.122)

Japan is located not only in typhoon prone area, but also on Pacific earthquake belt and the volcanic zone that are on very active plate boundaries. Accordingly, Japan is attacked by various natural disasters such as earthquakes, typhoons, heavy rains, heavy snowfalls, debris flow, landslides, volcanic eruptions and etc. every year and the economic damage is the largest in the world. The number of people killed by earthquake disasters are vast (P.142). Moreover, it is significant that the number of natural disasters occurred has been increasing; on the other hand, the number of people killed has been decreasing (P.139)

Kazakhstan is a new country, and therefore there are not enough disaster data before the independence. As its characteristics, it is located at the foot of Tian Shan and Altai Mountains and often has an impact of earthquakes caused by crustal deformation and natural disasters such as debris flow and floods.

The land of Kyrgyz is covered with 94 % of mountain range that is over 1,000 meters above sea level and the 40 % of the range is alpine area with over 3,000 meters high. They inherit distinctive natural disasters of mountainous range such as earthquakes accompanied with active crustal deformation, floods caused by meltwater of snow and landslides.

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Cambodia used to also have a period of political anarchy and accordingly there are not enough disaster data left. But we can say that Cambodia is one of disaster-prone countries. Natural disasters are seen such as floods of the Mekong River caused by monsoon, landslides and paddy field damage by drought.

Korea's natural disasters are characterized by floods in rainy season and landslides caused by rainfall such as typhoons. Especially damages caused by floods and typhoons are outstanding (P.168).

Laos is covered 85 % of the land with mountains and it is shown that it owns environmentally much sound natural forest compared to the other areas of Asian region. 35 % of the Mekong River runs through this country, hence floods and drought in dry season becomes major disasters for them.

Sri Lanka's major disasters are cyclones rising out of Bay of Bengal, floods in monsoon season, landslides causing from rainfall. In addition to these, drought in dry season becomes concern in the country. The damages caused by cyclones and floods are the heaviest (P.184) and especially cyclones cause massive number of people killed per a disaster occurred.

Myanmar is hit by cyclones spawned at Bay of Bengal, floods in monsoon season and landslides triggered by rainfall. Especially cyclones have great impact on the country in terms of the numbers of disasters occurred and people killed.(P.194)

In Mongolia, major disasters are Zud, heavy snowfalls, sandstorms, floods and so on. Especially they are characterized by livestock damages caused by snow related disasters. Scales of disasters don't look very big because of low population density and small economic scale of the country. However, natural disasters have enormous impact on the national economy as shown in the Fig.1-22(P15).

Malaysia is geographically located out of the Pacific Rim of Fire and therefore there are not much damage by earthquakes, typhoons and volcanic eruptions. Floods and landslides caused by rainfall during monsoon season, and rainstorms triggered by tropical low pressure often hit the nation.

In the Himalayan area of Nepal, there is Indian plate getting under Tibetan plate and in accordance with the crustal deformation, earthquakes happen frequently.

Moreover, natural disaster characteristics are shown as floods, landslides and debris flow in mountain areas, and also floods triggered by bank collapses of glacier lakes and drought. Damages don't look so much since the economic scale is small, but it stands in the way of development. Moreover, both of the numbers of natural disasters occurred and people killed have been increasing as seen in P.210, and therefore it is requisite to reinforce disaster reduction countermeasures.

Philippines is located on the Pacific Rim of Fire and it makes vulnerable to natural disasters such as earthquakes, tsunami, volcano eruptions, typhoons and floods. Above all, typhoon damage is the most noticeable (P.226).

Papua New Guinea is also vulnerable to many kinds of natural disasters like earthquakes, tsunami, volcanic eruptions, floods and drought. The tsunami disaster in 1998 that caused more than 2,000 people

killed, is still fresh in our memory. Earthquakes, Volcanic eruptions and tsunami are the most affecting natural disasters in PNG (P.242). Furthermore, both of the numbers of disaster occurred and people killed have been increasing (P.240), and accordingly reinforcement of the disaster reduction countermeasures are indispensable.

Russia owns a vast land and damages caused by natural disasters especially such as earthquakes and floods are increasing.

Singapore is luckily located in the less disaster-prone area. There is almost no natural disaster damages recorded with CRED.

Thailand is prone to natural disasters because of the location and terrain. The northeastern area tends to be affected by floods and drought and the South is by floods, tropical rainstorms, landslides and wildfires. Particularly floods and rainstorms cause significant damages (P.270)

Tajikistan is covered 93 % of the land with mountains and hit by earthquakes coming along with active crustal activity and floods/landslides triggered by rainfall.

In Uzbekistan, its characteristic of natural disasters is seen as earthquakes, floods, landslides and floods caused by bank collapses of glacier lakes.

Viet Nam is located in Southeast Asia monsoon climate area and 80 % of the total rainfall (2,000mm) in a year concentrates in the rainy season of May-October. Hence there are many people killed by floods and landslides every year. Furthermore, there are 4-6 numbers of typhoons coming in a year and leaves devastating damages on the country. The number of disasters occurred and people killed have been increasing, therefore it is essential to strengthen disaster reduction measures.

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