7. Natural Disaster Databook 2020

Annually, ADRC publishes the *Natural Disaster Data Book* to provide statistical perspectives in figures and tables of natural disaster data. ADRC obtains data from EM-DAT and analyses it to show the occurrence, death tolls, people affected, and economic impact of disasters (See Annex 2: Notes on the Sources of Data). For this year's (FY2020) issue, two sets of data for statistical perspectives are added: data relating to climate-related disasters and data relating to COVID-19 situation. The approach of presenting the data is as follow:

- Natural disaster data of 2020 is compared with the annual average of disaster data of the past three decades (i.e.,1990-2019) at the global level and at the Asian level
- Climate-related disasters of 2020 is compared with the annual average of the past three decades (i.e., 1990-2019) at the global level and at the Asian level
- COVID-19 situation (i.e., using cumulative data of confirmed cases and deaths) is presented at global level as well as in the ADRC member countries

While many observations could be made after looking at the infographics, the following could be highlighted. Firstly, flood and storm have been the most frequent causes of disasters in 2020 as well as during the last 30 years. These two disaster types also account for the highest number of people affected and the highest economic losses in 2020 and in the last 30 years. This observation indicates that disaster risk reduction and management actions for flood and storm need further improvements. Secondly, flood and storm (unlike earthquake) are climate-related disaster types that show the tendency of frequently occurring, as observed in 2020 and during the last 30 years. This observation is notable not only globally, but also, in Asia. Thirdly, the number of confirmed cases and deaths from COVID-19 has peaked in several occasions since the World Health Organization (WHO) declared the pandemic on 11 March 2020. The highest peak so far was on 26 April 2021, recording a total of 5,695,585 COVID-19 confirmed cases globally on that day. Although some western countries started to roll out vaccines that time, there emerged some COVID-19 variants (e.g., delta variant) that might have contributed to the increasing number of confirmed cases. In ADRC member countries, cumulative data shows that COVID-19 situation is so varied, reflecting the differences in policies as well as socioeconomic conditions of Asian countries.

7.1. Global Disaster Data

This section presents the global disaster data pertaining to the occurrence, death tolls, people affected, and economic losses in 2020 as compared to the last 30 years (1990-2019). The source of all data, as used in this section, is from *EM-DAT/CRED, UC Louvain, Brussels, Belgium, www.emdat.be (D. Guha-Sapir), 26 May 2021.*

7.1.1. Occurrence

The total number of disaster occurrence in 2020 is 398. This number is higher compared to the annual average of 374 disaster occurrence in the past three decades (1990-2019). Flood and storm show the highest number of occurrences in 2020 as well as during the last 30 years (Figure 7.1).
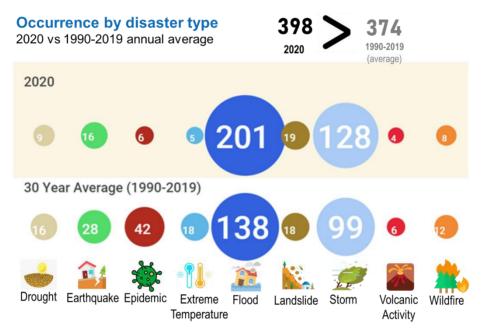

Figure 7.1 Occurrence of Disaster 2020 vs 1990-2019
(EM-DAT/CRED, 2021)

Of the total recorded disasters in 2020, forty one percent (163) occurred in Asia, indicating that Asian region remains the most disaster-prone region in the world (Figure 7.2).
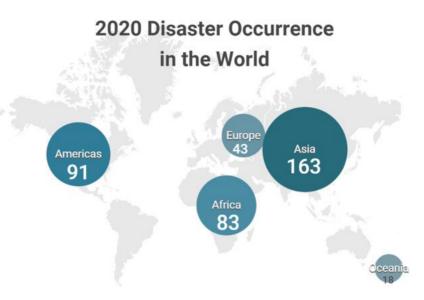
Figure 7.2 Disaster Occurrence by Region
(EM-DAT/CRED, 2021)

7.1.2. Deaths

In 2020, the total number of deaths from disasters (excluding deaths from COVID-19) is 15,286. This number is lesser compared to the annual average of 62,361 deaths from disasters in the last three decades (Figure 7.3).
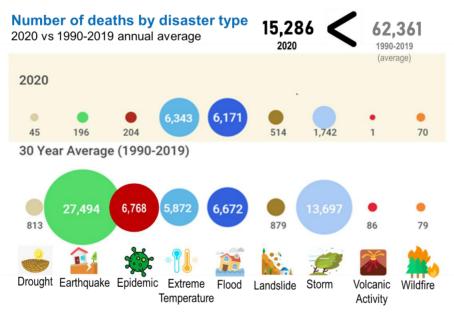

Figure 7.3 Deaths by Disaster Type 2020 vs 1990-2019
(EM-DAT/CRED, 2021)

The occurrence of high mass casualty events, such as the 2004 Indian Ocean Tsunami, the 2010 Haiti Earthquake, and the 2011 Great East Japan Earthquake, explains why the

annual average number of deaths during the last 30 years is much higher compared with the deaths from disaster in 2020.

7.1.3. People Affected

People affected by disaster in 2020 is about 99.1 million. This number is lesser compared to the annual average of 202.1 million people affected by disasters in the past three decades (Figure 7.4).
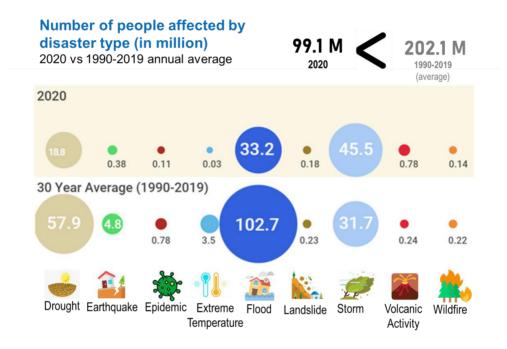

Figure 7.4 People Affected by Disaster 2020 vs 1990-2019
(EM-DAT/CRED, 2021)

Compared to the last 30 years, there were less occurrences of high-impact events (e.g., the 2015/2016 drought in India) in 2020. This could be one of the reasons why the number of affected people in 2020 is lesser compared to the annual average of the last three decades.

7.1.4. Economic Losses

Economic losses due to disasters in 2020 is recorded at US$ 173.1 billion. This figure is higher compared to the annual average of US$ 108.5 billion disaster economic losses in the past three decades. Notably, much of the economic losses were caused by storms and floods (Figure 7.5).
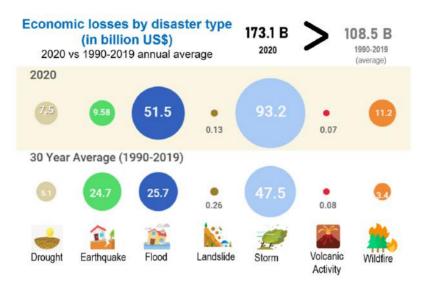
Figure 7.5 Economic Losses 2020 vs 1990-2019
(EM-DAT/CRED, 2021)

7.2. Asian Disaster Data

This section presents the Asian disaster data pertaining to the occurrence, death tolls, people affected, and economic losses in 2020 as compared to the last 30 years (1990-2019). The source of all data, as used in this section, is from *EM-DAT/CRED, UC Louvain, Brussels, Belgium, www.emdat.be (D. Guha-Sapir), 26 May 2021.*

7.2.1. Occurrence

Asian region recorded a total number of 163 disaster occurrence in 2020. This number is higher compared to the annual average of 146 disaster occurrence in the past three decades (1990-2019) as shown in Figure 7.6.
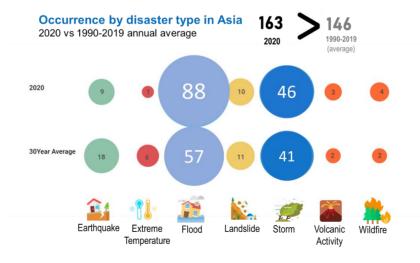

Figure 7.6 Occurrence Disasters in Asia 2020 vs 1990-2019
(EM-DAT/CRED, 2021)