

THE PROBLEM OF CLIMATE CHANGE AND OTHER GLOBAL ENVIRONMENTAL CRISES

Our modern lifestyles and economic and social systems have been established on the foundation of a stable, rich environment. However, the expansion of human activities has placed a great burden on the global environment and has led to global environmental crises in a variety of forms, such as the problem of climate change, marine plastic pollution, and loss of biodiversity.

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CLIMATE CHANGE AND EXTREME PHENOMENA

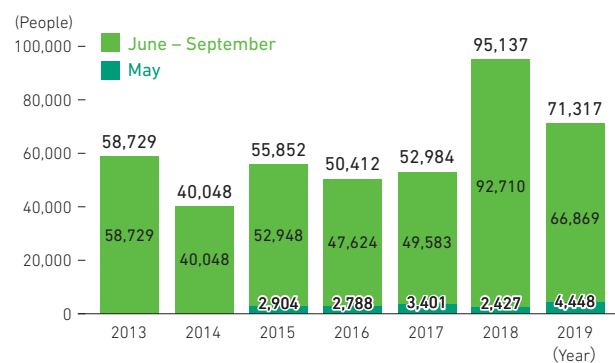
In recent years, disasters and extreme weather phenomena such as heat waves and heavy rainfall have been occurring all over the world.

Japan also has suffered such calamities as Typhoon Faxai in September 2019 and Typhoon Hagibis in October 2019, causing widespread damage due to major power outages and flooding throughout the country. Also, in the summer of 2018, Japan experienced record high temperatures throughout the country, and from May through September the total number of people requiring ambulance transportation due to heat illness reached 95,137, the highest number ever recorded, and the number of deaths reached 1,581, the second highest on record.

Although the degree to which global warming contributes to individual events is not absolutely clear, the risk of extreme phenomena is predicted to increase in the future as global warming progresses. Because of the impact that global

warming could have on various areas such as agriculture, forestry, fisheries, natural ecosystems, aquatic environments, health, and economy, climate change is also referred to as the “climate crisis” that could shake the very foundations of survival for all life.

Number of people requiring ambulance transportation due to heat illness by year



Note: Survey period for 2013 and 2014 was June to September.
Source: Fire and Disaster Management Agency

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MARINE PLASTIC POLLUTION AND LOSS OF BIODIVERSITY

In the area of resource circulation, marine plastic litter has become a global issue. Globally, approximately 8 million metric tons of plastic litter is flowing into the ocean every year, and a report indicates that, if we continue as we are now, plastic litter in the ocean will outweigh fish by 2050.

According to the monitoring survey of marine debris washed ashore in Japan, conducted by the Ministry of the Environment in 2017, plastic bottles bearing Japanese labels made up a considerable portion of debris, showing that Japan’s coasts are littered not just with debris from other countries, but also with garbage that we ourselves have produced.

In the area of biodiversity, an estimated 1 million species already face extinction, and the extinction of species is now dozens of times higher than the

average for the past 10 million years. In other words, the rate of extinction is now several hundred times faster.

Moreover, in Japan, the biodiversity crisis due to reduced or discontinued human engagement activities in nature has become a dire problem. The depopulation of hilly or mountainous rural areas, the decrease in people pursuing careers in agriculture and forestry, and the aging of Japan’s population has led to problems such as the increase in abandoned agricultural land and the decrease and aging of hunters. These factors have contributed to a significant increase in the number of Sika deer and boars and the expansion of their distribution, which has resulted in severe damage to agriculture and forestry and serious impact on ecosystems.