The Japan Meteorological Agency (JMA) has published annual assessments under the title of *Climate Change Monitoring Report* since 1996 to highlight the outcomes of its activities (including monitoring and analysis of atmospheric, oceanic and global environmental conditions) and provide up-to-date information on climate change in Japan and around the world.

In 2018, extreme meteorological phenomena such as heavy rainfall, droughts and heat waves occurred worldwide. Japan experienced particularly significant rainfall from its western part to the Tokai region during the Heavy Rain Event of July 2018, when overall precipitation nationwide was the highest since 1982, and extremely high temperatures subsequently persisted throughout the whole country other than the Okinawa/Amami region. Both the monthly mean temperature for July and the seasonal mean temperature for summer in eastern Japan were the highest since 1946.

The increasing frequency and scale of such extreme weather events are considered to stem from global warming. JMA, in consultation with the Advisory Panel on Extreme Climatic Events, has concluded that the Heavy Rain Event of July 2018 and the subsequent heatwave may have been linked to global warming.

As global warming continues, the frequency and scale of extreme events are expected to increase. The Paris Agreement will be implemented in 2020, forming a new international framework with which to combat climate change and support adaptation to its effects. With Japan’s introduction of the Climate Change Adaptation Act in December 2018, national and local governments are currently stepping up their efforts in this regard.

This report is intended to provide a scientific basis for better implementation of measures relating to climate change and to raise awareness of global environmental issues.

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