

# Preface

The Japan Meteorological Agency (JMA) has published annual assessments under the title of *Climate Change Monitoring Report* since 1996 to present 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 2015, the strong El Niño event affected climate conditions globally. From mid-August to early September, Japan experienced unseasonable weather with above-normal precipitation and below-normal sunshine durations. During this period, typhoons Kilo and Etau brought record precipitation to parts of the Kanto and Tohoku regions. Extremely high temperatures were frequently observed in many regions of the world, and Southeast Asia was among numerous places suffering droughts. These conditions caused severe damage to social and economic activities in the areas they influenced. The annual anomaly of the global average surface temperature in 2015 was the highest since records began in 1891, significantly surpassing the previous record set in 2014.

Extreme social and economic impacts from weather conditions are becoming commonplace. The fifth assessment report of the Intergovernmental Panel on Climate Change (IPCC) stated, “Changes in many extreme weather and climate events have been observed since about 1950. Some of these changes have been linked to human influences, including an increase in warm temperature extremes and an increase in the number of heavy precipitation events in a number of regions.” Based on these observations, the Paris Agreement was formulated at the 21st Conference of the Parties of the UNFCCC in Paris in December 2015 to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future. In November 2015, Japan’s government also formulated the National Plan for Adaptation to the Impacts of Climate Change as set by the Cabinet.

This report presents recent JMA scientific data, information and expertise in areas including the recent El Niño event and related effects. It 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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