2024 was warmest year

The World Meteorological Organization confirmed that 2024 was the warmest year on record (Note 1). The global mean sea level continued to rise in 2024. Over the Antarctica and Arctic, sea-ice extent remained well below average during the year and the minimum sea-ice extents were respectively the second and seventh lowest in satellite records. In 2024, various extreme weather events affected many parts of the world, including heatwaves in East Asia, Southeast Europe, the Middle East, Southeast Asia, Central America and many parts of Africa; severe droughts in many parts of the Americas and Africa; extreme rainfall that triggered severe flooding in Central Europe, the Sahel of Africa, southern Brazil, Afghanistan and East Africa; blizzards in South Korea; severe damages and heavy casualties inflicted by Super Typhoon Yagi and its remnant in the Philippines, China, Vietnam, Lao PDR, Thailand and Myanmar. A number of major hurricanes also brought severe impacts to the United States and the Caribbean. Rampant wildfires also wreaked havoc in Chile, Canada and the western United States.

The El Niño event of 2023 lasted until April 2024. According to the World Meteorological Organization, this event is one of the five strongest on record. Sea surface temperatures of the central and eastern equatorial Pacific returned to normal in May 2024 and remained normal until the end of the year.

In Hong Kong, with 11 months warmer than usual including the record-breaking monthly mean temperatures in April and October, 2024 was the warmest year on record with the annual mean temperature reaching 24.8 degrees, 1.3 degrees above the 1991-2020 normal (Note 2). The annual mean minimum temperature of 22.8 degrees and annual mean maximum temperature of 27.3 degrees were respectively the highest and second highest since records began in 1884. In particular, the mean temperature for autumn (September to November) reached 26.5 degrees, the highest on record. The highest temperature recorded at the Hong Kong Observatory during the year was 35.7 degrees on September 17, one of the eighth highest on record. There were 52 very hot days (Note 3), 50 hot nights (Note 4) and two extremely hot days (Note 5) in Hong Kong in 2024, respectively ranking one of the third highest, one of the fourth highest and one of the eighth highest on record.

The lowest temperature recorded at the Observatory in the year was 6.3 degrees on January 23. The number of cold days (Note 6) in the year was 11 days, 4.2 days less than the 1991-2020 normal.

The annual total rainfall in 2024 was 2 309.7 millimetres, about 5 per cent below the 1991-2020 normal of 2 431.2 millimetres. Four red rainstorm warnings were issued by the Observatory during the year. The number of days with thunderstorms reported in Hong Kong was 54 days in 2024, about 12 days more than the 1991-2020 normal.

A total of 29 tropical cyclones occurred over the western North Pacific and the South China Sea in 2024, near the long-term (1961-2020) average of

about 30. There were 13 tropical cyclones reaching typhoon intensity (Note 7) or above during the year, slightly less than the long-term average of about 15, and eight of them reached super typhoon intensity (with maximum 10-minute wind speeds of 185 kilometres/hour or above near the centre). In Hong Kong, seven tropical cyclones necessitated the issuance of tropical cyclone warning signals, slightly more than the long-term average of about six in a year. The No. 8 Gale or Storm Signals No. 8 were issued during the passage of Yagi in September and Toraji in November.

A detailed description of the weather for individual months is available on the Monthly Weather Summary webpage: www.weather.gov.hk/en/wxinfo/pastwx/mws/mws.htm.

A detailed version of the year's weather for 2024 with some significant weather events in Hong Kong is available at: www.weather.gov.hk/en/wxinfo/pastwx/ywx.htm.

Note 1: The World Meteorological Organization confirmed that 2024 was the warmest year on record, with the annual average global temperature 1.55 degrees above pre-industrial levels, marking it the first year to exceed the 1.5 degrees level. Although an individual year surpassing the 1.5 degrees level does not mean that the long-term temperature goals of the Paris Agreement are not achievable, it indicates the urgent need for a significant reduction in global carbon emissions to avoid the further worsening of climate change impacts.
Note 2: Climatological normals for the reference period of 1961-1990, 1971-2000, 1981-2010 and 1991-2020 are available at: www.weather.gov.hk/en/cis/normal.htm. Climatological normals of 1991-2020 are referenced in the text unless otherwise stated.
Note 3: "Very hot day" refers to the condition with the daily maximum temperature equal to or higher than 33.0 degrees.
Note 4: "Hot night" refers to the condition with the daily minimum temperature equal to or higher than 28.0 degrees.
Note 5: "Extremely hot day" refers to the condition with the daily maximum temperature equal to or higher than 35.0 degrees.
Note 6: "Cold day" refers to the condition with the daily minimum temperature equal to or lower than 12.0 degrees.
Note 7: Information on the classification of Tropical Cyclones is available at: www.weather.gov.hk/en/informtc/class.htm.