The relationship between Global Warming and Extreme Weather Conditions

Scientists agree that rising earth temperatures will lead to longer and hotter heat waves, more frequent droughts, greater rainfall, and stronger hurricanes. For example, in 2015, scientists concluded that due to global warming, the continuous drought in California (the state's worst water shortage in 1,200 years) has increased by 15% to 20%. They also pointed out that the likelihood of a similar drought in the future has roughly doubled in the past century. In 2016, the National Academy of Science, Technology and Medicine announced that we can now safely attribute certain extreme weather events (such as heat waves, droughts, and heavy rains) directly to climate change.

The temperature of the Earth’s oceans is also rising, which means that tropical storms can absorb more energy. In other words, global warming can transform Category 3 storms into heavier Category 4 storms, and since the early 1980s, the frequency of hurricanes in the North Atlantic has increased, and the number of storms reaching Category 4 and 5 has also increased.

The 2020 Atlantic hurricane season includes a record of 30 tropical storms, 6 major hurricanes and a total of 13 hurricanes. As the strength increases, damage and death increase. In 2020, the United States recorded 22 unprecedented weather and climate disasters, causing at least $1 billion in damages. However, 2017 was the most expensive year ever, and also the deadliest year-tropical storms (including Hurricane Harvey Irma) that accumulated during that year. And Maria caused nearly 300 billion U.S. dollars in damage and caused more than 3,300 deaths. The effects of global warming are everywhere. In recent years, extreme heat waves have caused thousands of deaths around the world. A shocking signal for the future: Antarctica has lost nearly 4 trillion tons of ice since the 1990s. Some experts say that if we continue to burn fossil fuels at the current rate, the loss rate may increase, which will lead to an increase in sea ice content. A few meters. In the next 50-150 years, coastal communities around the world will be destroyed.