

What is happening to our weather?

What is 'extreme' weather? Why are people talking about it these days? 'Extreme' weather is very unusual rain, heat, storms etc. For example, in 2010, 33 centimetres of rain fell in two days on Nashville, USA. According to weather experts, that was a 'once in 1000 years' event. But these days, extreme weather events are more frequent. Also in 2010, 28 centimetres of rain fell on Rio de Janeiro in 24 hours, and there was record rainfall in Pakistan.

The effects of this kind of rain are dramatic. In Rio de Janeiro, landslides followed the rain. Hundreds of people died. In Pakistan, it caused floods that affected 20 million people. The opposite situation is drought, when no rain falls. Australia, Russia and East Africa have suffered major droughts in the last ten years. Another example of extreme weather is a heat wave, such as in the summer of 2003. In Europe, 35,000 people died from heat-related problems.

So, what is happening? Are these extreme events part of a natural cycle? Are they happening because human activity affects the Earth's climate? The answer, Peter Miller says, is: probably a mixture of both of these things. On the one hand, the most important influences on weather events are natural cycles in the climate. Two of the most famous cycles are called El Niño and La Niña. They start in the Pacific Ocean, but they affect weather all around the world. On the other hand, the Earth's oceans are changing: their temperatures are increasing. And this is a result of human activity. The greenhouse gases we produce mean the atmosphere warms up. Warmer oceans produce more water vapour – think about what happens when you heat a pan of water in your kitchen. Information from satellites tells us that there is four percent more water vapour in the atmosphere than 25 years ago. This warm, wet air turns into rain, storms, hurricanes and typhoons.

Michael Oppenheimer, a climate scientist, says that we need to accept reality. Our weather is changing and we need to act to save lives and money.