

Doomsday Drawing Near?

By Naomi Francy, Education Support Officer

It is inevitable that some day the world will fail to exist as we know it. When? Who knows! How? We have a few ideas, who will be here to see it? Again we don't have any answers. There are many theories on what will destroy planet Earth, such as nuclear annihilation, global warming or the Sun becoming a red giant. "Theories" is the important word in that sentence as the no one knows for sure!

On 17 January 2007 experts decided to move the Doomsday Clock two minutes closer to midnight, leaving it at five minutes to twelve. For those who are not familiar with the Doomsday Clock, it was created in 1947 after the United States's atomic bombs were dropped on Japan. It was founded by the board of directors of the magazine 'Bulletin of the Atomic Scientists' to draw the public's attention to the nuclear threat, midnight being the time when Doomsday will occur. In 1953 it was moved to two minutes to midnight when the United States and the Soviet Union were both testing thermonuclear devices within nine months of each other. This is the closest it has ever been to midnight. In total it has moved eighteen times since it was first created.

“Climate change is the second biggest threat to Earth”

The difference between this most recent movement and previous time changes is that the Bulletin of Atomic Scientists' board members have considered for the first time climate change in their doomsday estimations. Every previous move was responding to events such as new



11.55 pm The current time on the Doomsday Clock

countries testing nuclear weapons. The board has said that climate change has now become the second biggest threat to the existence of the Earth after global nuclear war. Although carbon dioxide levels in the atmosphere are increasing gradually, this is becoming irreversible and unfortunately some countries are slower to react to this growing concern than others.

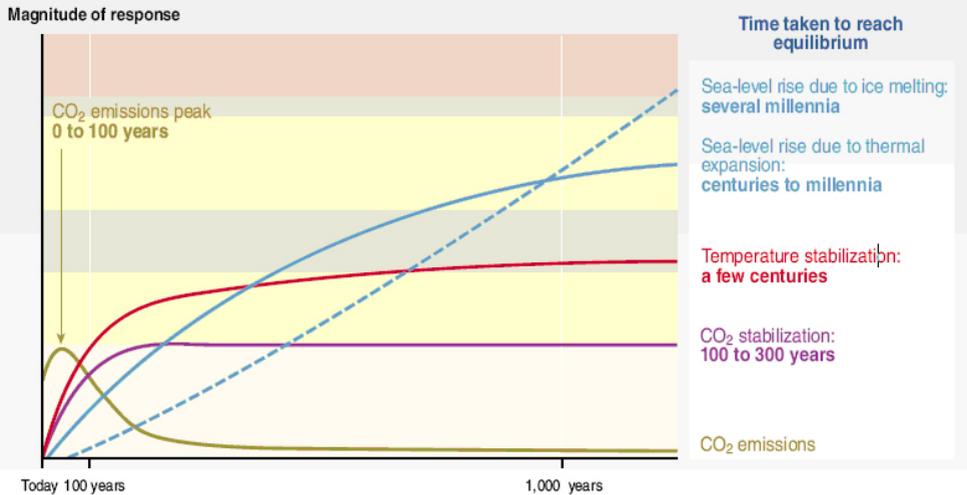
The Intergovernmental Panel on Climate Change (IPCC) is involved in monitoring the change in our Earth's climate investigating various factors. The panel's most recent report was published in 2001 and amongst many graphs was this one which shows that even after we have reduced our CO₂ emissions the thermal expansion of the oceans will continue for nearly a thousand years, causing extensive sea level rise. Temperature and CO₂ emissions will take a few centuries to stabilise, continually contributing to sea level rise.

“thermal expansion of the oceans will cause the seas to rise”

However these estimates may be inaccurate as they are derived from models that do not include estimates of CO₂ release from rainforests, soils and methane from permafrost and beneath

CO₂ concentration, temperature, and sea level continue to rise long after emissions are reduced

Image Credit: Intergovernmental Panel for Climate Change 2001 Synthesis Report



Things to Come? Sea levels will continue to rise no matter what we do.

continental shelves. These additional greenhouse gases could increase the rate of global warming significantly. The IPCC will be publishing their next report this year and a recent conference in Paris suggested that within the next century global temperatures will increase by 3 degrees C. However some believe it could be as great as 6.3 degrees C!

Predictions like these led 'The Bulletin of Atomic

Scientists' to decide that we are changing our climate for the worst and this will be a long term threat to the survival of civilisation. However, they still consider nuclear warfare to be the top risk for a doomsday event. With the threat of nuclear weapons and the increasing concerns about our warming climate, every day doomsday will be drawing nearer. But only time will tell what the future holds for our planet, so now all we can do is wait and recycle!