

350 – the Most Important Number on the planet

EARTH FIRST

By Nick King

Many of the world's prominent scientists and climate experts regard the safe upper limit of carbon dioxide (CO₂) in the Earth's atmosphere as 350 parts per million. Thus, the number 350 is vital to us all.

Atmospheric CO₂ is measured in parts per million – a unit for measuring the concentration of gases, and equates to the number of carbon dioxide molecules per million of all other molecules in the atmosphere.

Until about 200 years ago, the Earth's atmosphere contained about 275 parts per million of CO₂. Beginning in the 18th century, humans began to burn coal, gas and oil to produce energy – releasing carbon into the atmosphere, and CO₂ levels increased sharply.

As we rely on conventional energy sources and burn fossil fuels to meet our daily energy needs, we are inadvertently releasing millions of years of carbon safely stored beneath the Earth's surface into the atmosphere.

Our current atmospheric CO₂ levels are unsafe for humanity, and have reached 387 parts per million. This number represents the highest concentration of carbon dioxide ever recorded on the planet.

In recent years we have seen a sharp increase in the number and severity of disasters all over the world such as floods, fire and drought. Scientists believe these are linked to increased CO₂ concentrations. Glaciers are melting and disappearing fast. They are the source of drinking water for millions of people. Mosquitoes, which like warm climates, are spreading into lots of new places, bringing malaria and dengue fever with them. Drought is becoming much more common, threatening world food security. Sea levels are rising, threatening to inundate coastal and island settlements world wide. And our Oceans are becoming more acidic, threatening coral reefs and marine ecosystems.

Critical limit

Our planet is an enormous system, with the capacity to suffer serious consequences from adverse actions such as the release of carbon into our atmosphere. Like a person with lifestyle-related health problems, we have to make lifestyle changes for our planet's health to be restored. Alarm-bells are ringing for our climate and we need to take immediate action to prevent further increases in atmospheric CO₂ levels.

How can we reduce levels back to 350?

In December, 2009 the UN hosts a conference of world leaders in Copenhagen, Denmark, to finalise a new global climate agreement. This is our best chance to

make united global decisions about effective action to reduce the concentration of carbon dioxide in the atmosphere to a level at or below 350.

What can you do?

As grass roots individuals, we can express our concern by contacting our government representatives and decision-makers, urging them to give priority to the demands of science. Also, being energy efficient at home and around the workplace is the quickest and most beneficial way each of us can help. If you reduce, conserve, and recycle, you will also save lots of money. The future of our healthy planet is at stake.

This article acknowledges information and images obtained from the 350 website. See <http://www.350.org/>

Future environmental events

National Recycling Week: November 9-15

Walk against Warming: Saturday December 12.