

ECONEWS

Issue #195

Promoting the Vision of a Sustainable Vancouver Island

OCTOBER 2009

350 - THE MOST IMPORTANT NUMBER

There are times when we simply have to open our brains and learn new science about the critical things that affect our life on Earth.

In the early 20th century, we had to learn about electromagnetism, relativity, and quantum physics.

Today we have to learn about carbon, the carbon cycle, and the atmosphere - and then act on what we have learnt. If we succeed, we live. If we fail, we die.

So let's learn.

Living on Earth, we are protected from the dire cold of outer space by the atmosphere, which traps just the right amount of heat for our civilization and ecosystems to flourish.

The main gases that trap the heat are water vapour, carbon dioxide and methane, and ever since we started the industrial revolution, 250 years ago, we have been pouring carbon dioxide into the atmosphere at an ever-increasing rate by burning ancient fossil fuels.

We have also been pouring a great excess of methane into the atmosphere because it escapes whenever we dig and drill for coal, oil and gas; because our 3.5 billion cattle burp methane 24 hours a day; and because the garbage from our consumer indulgence produces methane as it rots in the landfill.

Since the start of the industrial age, the amount of carbon dioxide (CO₂) in the atmosphere has increased by 42%. It was 280 ppm; it's now 387 and rising. The methane has increased by 148% - and over its short eight-year life in the atmosphere, each molecule traps 100 times more heat than a molecule of CO₂.

Some people try to believe otherwise, but you can't take carbon that accumulated as biomass over 200 million years and release it all at once without having an effect. Life just doesn't work that way.

So what's this "most important number"? It's 350 - the level of CO₂ that scientists think "safe" for our civilization

and ecosystems. Lock it into your brain. Understand what it means. Explain it to your children.



The thing we have to understand is that as we continue to burn the coal, oil and gas, the CO₂ is *increasing* every year by 2ppm. It's going up, not down.

In December's global climate talks in Copenhagen, there is talk of adopting 450 ppm as a goal in the hope that this will prevent the Earth's temperature from rising by more than 2°C.

The trouble is, the closer we get to a 2°C increase, the greater is the risk that we're on a slippery slope we can't get off, since so many tipping points get added to the wrong end of the carbon-balance see-saw.

The Amazon rainforest burns up, releasing its store of carbon. The permafrost melts in the Arctic, releasing methane. It is *already* doing so. You can plunge a pick into a frozen lake in Siberia, put a match to it and watch the air burst into flames as the escaping methane catches fire. Right now.

This number - 350 - is not just a piece of science. It is a critical survival factor for our existence on Earth. This means that unless every politician and opinion leader on the Earth understands it, they're going to continue drifting with the lovely, comfortable, business as usual, bailing out the banks, giving tax breaks to the tar sands, and putting their feet up at the weekends while our children's future goes up in flames.

This is why **Saturday October 24th** is the most important day of the year -

because that is the **International Day of Climate Action** when 1384 groups in 104 countries (at the time of writing) will communicate the urgency of situation to the world's leaders, and the importance of writing this number -350 - into the new global climate treaty.

In Victoria, the event's called FutureFest, in Centennial Square at 12 noon. In Vancouver, it's Bridge to a Cool future, on the Cambie Street Bridge at 11am. On the Gulf Islands, it's an all-day gathering in Ganges. (See Diary)

If you can't get to one of these events, you can create your own. Register yourself as a group at www.350.org, find a way to say "350", and send them a photo. Then send the photo with a message to your MP and to Prime Minister Harper in Ottawa, urging him or her stop primping to the tar sand and *do* something. Tell them what you are doing yourself, to reduce your own carbon footprint.

350 means that it's not enough to eliminate our emissions down to zero. If we want to ensure a safe future for our children, and avoid their fury at us for pissing their future away because we were too lazy to get off our butts and *do* something to reduce our enormous carbon footprints, we also have to suck much of the surplus carbon back out of the atmosphere.

This means changing the way we farm, forest, and manage the land - since organic farming, ecosystem-based forestry and holistic methods of grasslands and pasture management suck in much more carbon than conventional methods.

How many times do we need to say "URGENT!", before it really sinks in?

How many months will our children stay quiet, before they begin to explode?

The answer, my friends, is sitting in our hands, the answer is sitting in our hands.

Guy Dauncey