

CO2 hits historically high levels

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In his book, "Screw Business as Usual", Virgin Group business magnate Richard Branson breaks down the cost each laptop computer not in terms of monetary value, but in terms of natural resources.

"The average laptop weighs about ten pounds, distilled into those ten pounds, your laptop weighs not ten pounds, not a hundred pounds, but a staggering 40,000 pounds," Branson writes.

"It contains minerals extracted from mines, using incredible quantities of fuel, itself the product of drilling and mining."

If a single laptop bears that much environmental burden, much more alarming is the finding made by The Scripps Institution of Oceanography, which showed on Friday that the daily mean concentration of carbon dioxide in the atmosphere of Mauna Loa, Hawaii, surpassed 400 parts per million (ppm) for the first time since scientists began taking measurements in that station 55 years ago.

More troubling, said Adrianna Quintero, advisory board chair for Voces Verdes, is that if nothing is done to reverse global warming—a phenomenon most scientists believe not to be the result of regular climate cycles but man made—we can expect the earth's CO2 levels to reach 450 ppm in the next 25 years. This, Quintero said, would be unprecedented and yield significant economic and environmental consequences.

"To some people this is just a number," said Quintero, referring to the 400 ppm.

The findings come at a time when strong Republican opposition in Capitol Hill has stalled the confirmation of Gina McCarthy to be the next administrator of the Environmental Protection Agency (EPA).

"Once again, some GOP Senators are paralyzing progress playing political games. By blocking Gina McCarthy's nomination, they are again putting polluters' interests before public health, jeopardizing the health and well-being of our children and families," Quintero said.

As chair of Voces Verdes, she and her organization specialize in bringing Latino leaders together to advocate for safer environmental practices.

"We can choose to believe that this is just a number or we can recognize the connection global warming has to real life events such as some of the most serious droughts, hurricanes and rising sea levels that we've seen in years," Quintero told VOXXI.

CO2 discovery, a crucial milestone

The discovery made by The Scripps Institution of Oceanography marks a crucial milestone, since Mauna Loa is the oldest continuous carbon dioxide (CO2) measurement station in the world and the primary global benchmark site—scientists began measuring CO2 there in 1958.

"That increase is not a surprise to scientists," Pieter Tans, senior scientist for the National Oceanic and Atmospheric Administration (NOAA), said in a press release.

"The evidence is conclusive that the strong growth of global CO2 emissions from the burning of coal, oil and natural gas is driving the acceleration."

Prior to the Industrial Revolution, global average CO₂ was about 280 ppm, a press release said. During the last 800,000 years, CO₂ fluctuated between about 180 ppm during ice ages and 280 ppm during interglacial warm periods.

Today's rate of CO₂ increase is more than 100 times faster than the increase that occurred when the last ice age ended.

Quintero told VOXXI that while one cannot say climate change causes more hurricanes, there's clear evidence that shows it makes for more powerful storms and natural disasters.

As an example, Quintero points to the Global Estimates report that reveals 32.4 million people were forced to flee their homes in 2012 by disasters such as floods, storms and earthquakes.

According to The Internal Displacement Monitoring Centre (IDMC), Asia and West and Central Africa bore the brunt of most of these displacements due to natural disasters, while some 1.3 million were displaced in developed countries, with the U.S. particularly affected.

Jeffrey Severinghaus, professor of geoscience at the University of California, San Diego, said that while advanced countries may be able to withstand increasing temperatures in the near future, the results can be problematic and fatal in less-developed nations.

"Drought and scarcity could bring about instability in some countries," Severinghaus told VOXXI. "So while we may find future annoyances with increasing temperature, there are potentially fatal consequences in other less-developed places."

In palpable terms, the U.S. and other countries can be hit with greater vector-borne diseases, decreasing crop yields and far more harmful air pollution in the near future should temperatures continue to rise.

All these are important factors for Hispanics, Quintero said, citing that a large number of them will have a hard time dealing with the health and economic impact. She added that global warming is also an important issue for Latinos, as Latino Decisions revealed 84 percent of Hispanics said they favored greater safeguards to reduce air pollution.

Despite the grim forecast, President Barack Obama and the U.S. can act to drastically reduce a warmer future. Quintero suggests the following as viable solutions to address global warming sooner rather than later:

Direct the EPA to use the Clean Air Act to set limits on the carbon pollution that coal burning power plants emit—2.2 billion tons of CO₂ into the air each year, 40 percent of the U.S. total.

Prioritize energy efficiency setting new standards for appliances and buildings, and upgrading our power grid.

Curb the leakage of methane from oil and gas wells and the pipes that bring natural gas to our doors.

For Severinghaus, not all hope is lost as well. He said things could end on a good note if there's intense focus around solar, wind and clean energy.