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### **[BOB DOPPELT: Tackle climate issue now or pay the piper](http://www.registerguard.com/csp/cms/sites/web/opinion/25743608-47/climate-carbon-degrees-3.6-anderson.csp)** **(<http://www.registerguard.com/csp/cms/sites/web/opinion/25743608-47/climate-carbon-degrees-3.6-anderson.csp>)**

**BY BOB DOPPELT**

*For The Register-Guard*

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The United Nations climate summit held in Cancun in December generated agreement on a few issues, but not the most important one: how to slash carbon emissions.

Meanwhile, climate weirdness — a good way to describe the effects of global warming — keeps growing. Last year tied for the hottest on record. Severe heat waves, rainstorms, flooding and snowstorms are increasing worldwide.

As extreme weather increases, so do the number of extreme proposals to address the problem. Perhaps it's time to consider why and examine what they entail.

A paper released in Cancun by Kevin Anderson, director of the Tyndall Centre for Climate Change Research in the United Kingdom, says that Western nations should halt economic growth for 20 years to prevent runaway climate change.

Anderson's solution obviously faces huge political hurdles, but his angst should be taken seriously. The Potsdam Institute for Climate Impact Research in Germany published a study in the journal *Nature* in 2009 that concluded we have just 13 years before it will be too late to prevent calamitous climate change.

Let me explain.

Following the advice of the world's top scientists, the United Nations, the European Union and other governments have adopted 3.6 degrees Fahrenheit as the maximum that global temperatures will be allowed to rise due to human-generated carbon emissions. Serious consequences to society will occur below that level, but the effects possibly could be horrific and irreversible at or beyond an increase of 3.6 degrees.

Just as the insulation in your home keeps it warm, the carbon dioxide and other greenhouse gases that surround the Earth trap heat and keep it warm enough to support life. The more gases we add, the warmer the Earth gets.

The sum of the greenhouse gases concentrated in the atmosphere gives us a carbon “budget” — the total amount of additional carbon we can emit over time if we want to keep temperatures from rising above 3.6 degrees with any level of confidence.

The Potsdam Institute study concluded that no more than 890 billion tons of carbon dioxide emissions could be released into the atmosphere between 2000 and 2050 if we want to reduce the risk of exceeding 3.6 degrees to around 20 percent. The study found that under a business-as-usual emission path — which we are following despite the recession — that budget would be used up by 2024.

This means if we keep emitting CO<sub>2</sub> at anything close to our current pace, in just 13 years there will be enough CO<sub>2</sub> accumulated in the atmosphere to push surface temperatures above 3.6 degrees.

No wonder Anderson is worried.

Based on its findings, the Potsdam Institute concluded this: Assuming society will not allow global temperatures to rise beyond 3.6 degrees, more than 75 percent of the world’s proven, economically recoverable fossil fuel reserves would not be burned. Potentially, they would become economically worthless.

Suddenly halting all use of fossil fuels in 2024, however, would bring economic collapse. That suggests that responses will happen before that time and involve dramatic action to regulate and manage a phase down of fossil fuel use.

Anderson proposed a World War II-style rationing system to limit fossil fuel use, with the goal of allowing poor regions to grow, while rich nations such as the United States tread water for a few decades to allow low-carbon alternatives to emerge. He contends it would not necessarily cause a recession. It just means making lifestyle adjustments that would bring emissions back to the levels of 20 and 30 years ago, when “we got by OK.”

Many Americans might disagree with Anderson’s conclusions. But about a year before he floated his proposal, Jorgen Randers — a professor at the Norwegian School of Management in Oslo, and a co-author — released another strategy to respond to the climate crisis. In their One Degree War Plan, these authors argue that governments will address climate change, but only late in the game. Because the reaction will occur after less draconian alternatives are no longer viable, a mass mobilization will be needed similar to what occurred during and after World War II.

In the first five years of the plan, Randers and his colleagues propose actions such as cutting deforestation by 50 percent worldwide, closing 1,000 of the world’s dirtiest coal-fired power plants, grounding half the world’s aircraft, rationing electricity and the use of gas-powered vehicles and launching “shop less, live more” campaigns to cut carbon intensive consumption.

Through these and other actions Randers said modeling studies show that the increase in global temperatures can be limited to no more than a 1.8 degrees. Anything higher will produce too much damage.

Although these proposals probably seem preposterous today, they offer a glimpse of what could lie ahead if individually and collectively we fail to rapidly cut emissions.

We can avoid these types of scenarios by getting serious now.

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