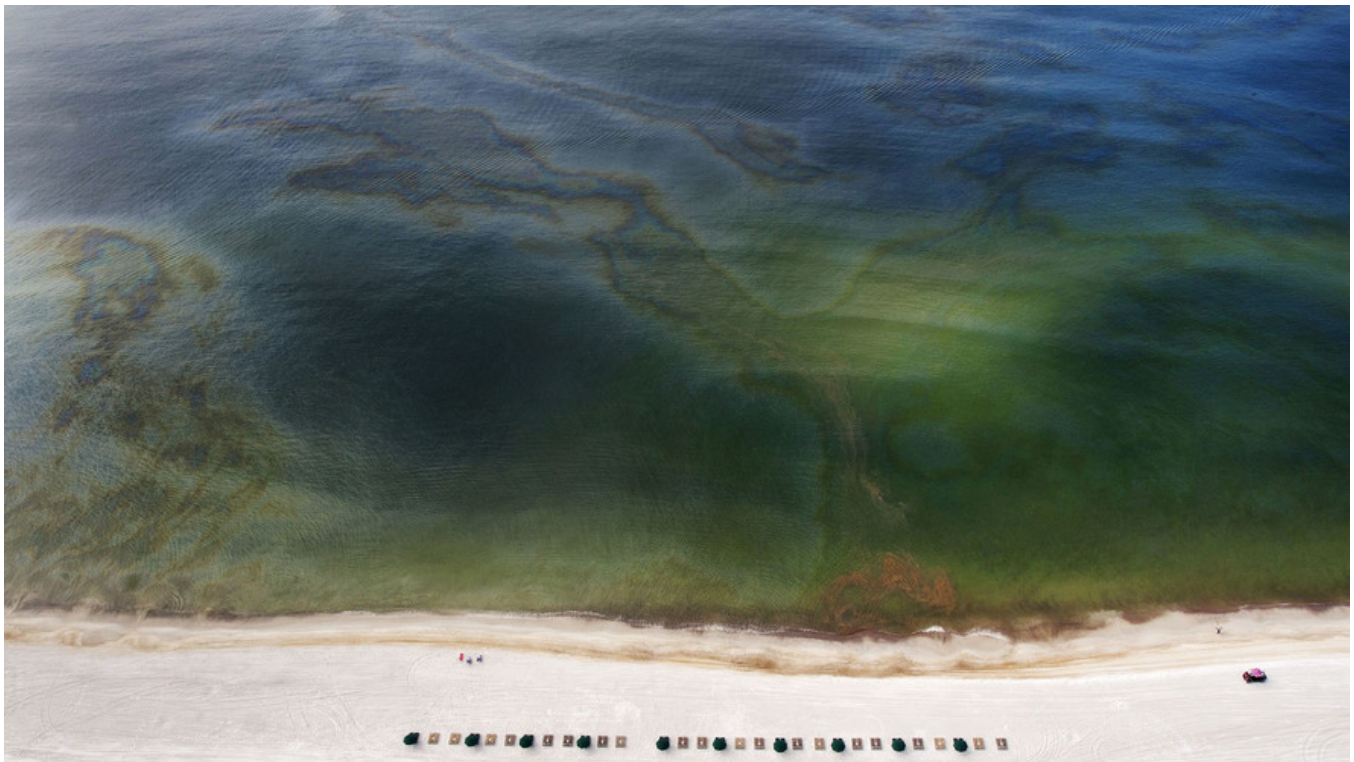


# Top United Nations scientists issue strong warning on climate change

By Washington Post, adapted by Newsela staff on 10.22.18

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Empty beach chairs rest on the sand as oil washes ashore in Alabama after the Deepwater Horizon Disaster in June 2010.  
Photo by: Kari Goodnough/Bloomberg

Global warming is a serious issue. Top experts on climate change released a report to show global warming is getting worse.

Climate change, or global warming, is the gradual warming of the temperatures on Earth. As temperatures rise, sea levels are also rising. Different parts of the world will experience the effects of climate change in different ways.

Global emissions show few signs of slowing. This year the United States rolled back measures to reduce the country's carbon footprint. These were rules introduced under President Barack Obama. The United States is the world's second largest emitter of carbon dioxide.

The industrial revolution began in the 1800s. It led to an increase in the use of fossil fuels spreading all over the globe.

Nearly all scientists agree that global warming is caused by the release of greenhouse gases into the atmosphere. People burn fossil fuels such as coal and oil to heat homes. When we burn these fuels, carbon dioxide is released into the air. Carbon dioxide is a greenhouse gas. These gases remain in the atmosphere and trap heat. Over time, that has made average temperatures go up worldwide.

## Countries Agreed To Global Warming Limits

Countries around the world agreed to the Paris Climate Agreement in 2015. Countries said they would do their part in keeping global temperatures from rising. The goal was to limit the rise in global temperature to less than 2 degrees Celsius. This is a rise of 3.6 degrees Fahrenheit. This would be 3.6 degrees above temperatures before using more fuel impacted global temperatures.

The agreement also sets a dream goal of limiting the rise in temperature to 1.5 degrees Celsius. This would be a rise of 2.7 degrees Fahrenheit.

The United Nations Intergovernmental Panel on Climate Change did the report. The group is called IPCC for short. The report was part of the 2015 Paris agreement. It was released on October 14.

The report raises questions.

## Major Changes Needed To Reach Goals

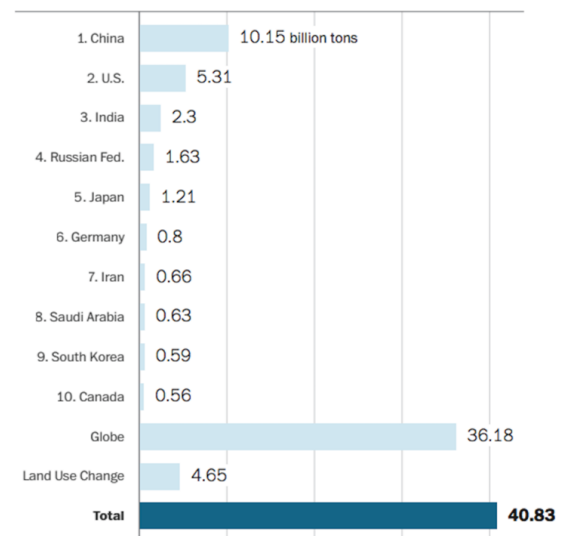
The report says the world's yearly carbon dioxide emissions would have to drop by 2030 to hold below 2.7 degrees Fahrenheit. Currently, the emissions are more than 40 billion tons a year.

Emissions would need to drop by 1 billion tons a year. By 2050, we would have to stop or almost stop burning coal.

Erik Solheim works for the United Nations Environment Programme. He said to meet these goals "means net zero must be the new global mantra." This means creating zero carbon emissions.

### The world's 2016 carbon dioxide emissions

The top 10 emitting countries for emissions from fossil fuels and cement, and the global picture.



Emissions for individual countries listed above do not include emissions from land use change, which includes deforestation and other ways that humans alter the Earth's surface.

Sources: Global Carbon Project, UNFCCC (June 2017), CDIAC

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More land would have to go to the environment. The world will have more than 2 billion more people by 2050. The people will need land for food and living.

## **Nearly 100 Scientists Worked On Report**

The report was the work of nearly 100 scientists. The report was agreed on by scientists and government officials.

The report says the world will need to develop programs to remove carbon dioxide. The technologies exist but have not become popular.

IPCC did not say whether or not it believed these goals could be met.

"If you're expecting IPCC to jump up and down and wave red flags, you're going to be disappointed," said Phil Duffy. He is the president of Woods Hole Research Center.

Some researchers, including Duffy, are unsure if it is possible to meet these goals.

Glen Peters works for the Center for International Climate Research. He said that all parts of society and technology need to agree and be ready to make changes.

The report says that a warming of 2.7 F would be damaging. A 3.6-degree rise could be unbearable.

## **Risks Rise As Temperatures Do**

Risks of extreme heat and weather events also rise as temperatures do.

To avoid that, electricity from solar and wind would have to jump to 50 or 60 percent. Coal and gas plants would need to bury carbon dioxide. By 2050, most coal plants would have to shut down.

Most cars would need to run on electricity. Right now only 4 percent of cars on the road are electric.

The World Coal Association challenged the report's statements.

The group thinks we need to "focus on emissions rather than fuel."

Under President Donald Trump, the Environmental Protection Agency (EPA) has rolled back rules for coal companies.

The EPA's acting administrator is Andrew Wheeler. He said the United States will "continue to remain engaged in the U.N.'s effort." Trump has said the United States will leave the Paris climate agreement.

Wheeler said the agency would allow the coal companies "to continue to innovate on clean coal technologies, and those technologies will be exported to other countries."