

Issue Overview: Confronting coal

By Bloomberg, adapted by Newsela staff on 09.19.16

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TOP: Heavy vehicles move newly blasted coal following a timed detonation at the Buckskin Coal Mine in Gillette, Wyoming, June 13, 2006. Photo by Robert Nickelsberg. BOTTOM: Graphics by the International Energy Agency.

We can't live with it, and we can't live without it. Coal is a major contributor to global warming, and the heating up of the Earth. It is also cheap and plentiful. The power and warmth it generates have helped to lift millions out of poverty in China, India and other nations.

Coal is easier to find than other energy sources and simpler to transport and store. There's more to it than just money; in Eastern Europe, there is much coal. People see it an alternative to Russian oil and gas. Efforts to limit coal use have spread. According to oil

company BP, the world used 1.8 percent less coal in 2015, the largest drop since the company began keeping records in the mid-1960s. Nevertheless, coal makes up nearly one-third of the world's energy.

The Situation

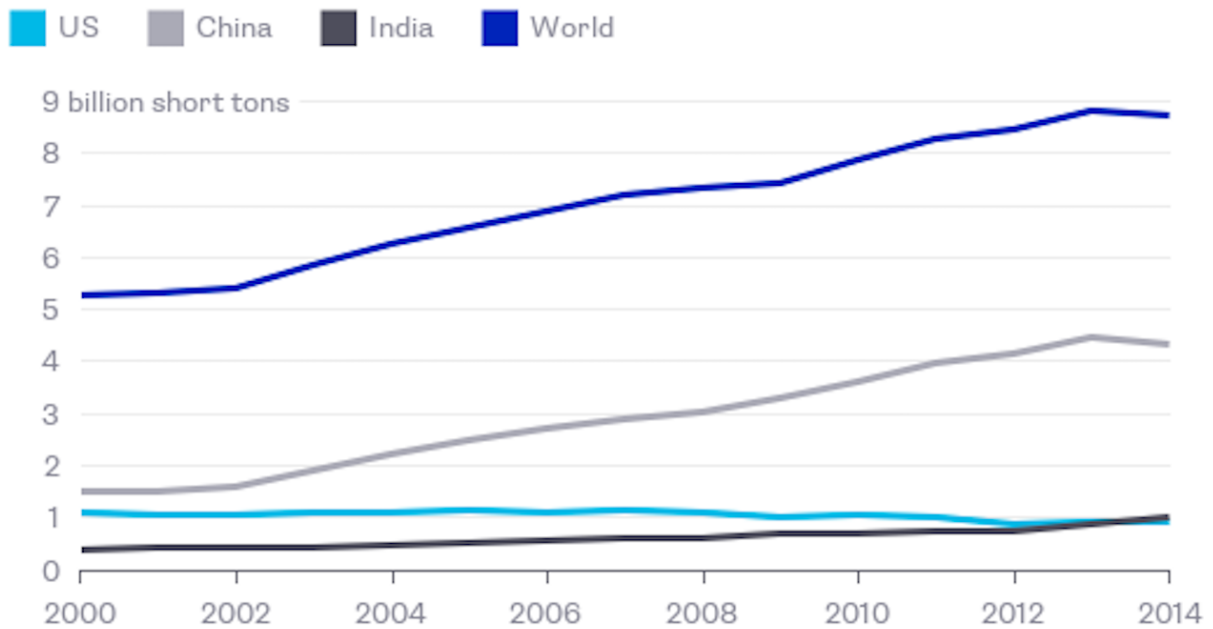
Only oil is used more than coal as a source of energy. If we take coal out of the Earth at the same rate as we did in 2012, there is enough to last for about 132 years. China uses the most coal. The power it generates from coal fuels its growth, although its smoke chokes its cities. China, Japan and India are the largest importers; Indonesia, Australia, Russia and the United States are the biggest exporters.

Germany's experience is a good example of the challenge of quitting using coal. In 2011, it began to burn more after shutting eight of its nuclear power stations following the Fukushima nuclear meltdown in Japan. Germany started two new coal-powered electricity plants in 2015. Burning coal emits almost twice as much carbon dioxide as natural gas and about one-quarter more pollution than heating oil. Carbon dioxide is a greenhouse gas that traps heat in the Earth's atmosphere and causes global warming.

That's why the United States has forced many of its coal-burning plants to close or undergo expensive upgrades to reduce pollution. Stricter laws have meant that coal-mining companies are not making a profit in many places. Peabody Energy is America's biggest coal miner and in April, it told a judge that it could not pay its bills. At least eight other U.S. coal producers in 2015 did the same thing.

Coal use in 2015 decreased in the United States and China. One group of researchers argued that China will continue to use less coal. However, places such as Indonesia and India began using more of it. India pulled ahead of the United States as the world's second-biggest coal user in 2014.

Coal Consumption



The Background

People have always argued about coal. In 1306, England's King Edward I banned its use in London because of heavy smoke from its fires. Centuries later, coal powered the Industrial Revolution in the 1800s. Its smoke covered London in fogs that were common until the mid-20th century. The word "smog," in fact, was invented by a Londoner in 1905. In the United States, coal was first found near Richmond, Virginia, in 1791. Baltimore became the first American city to use it for street lights, starting in 1816.

The fuel powered the U.S. railroad system and enabled the country to expand westward. By the early 1900s, coal made the United Mine Workers the largest union representing workers in the United States. Its battles with mining companies over the pay and working conditions of coal miners were among the nation's bloodiest.

The Argument

There is no serious dispute about coal's contribution to climate change. There is much debate over what to do about it. In December 2015, almost 200 countries signed a plan in Paris to limit global warming. The European Union has used a system of permits to help curb carbon dioxide emissions, as have California and nine states in the northeastern United States. The impact has been modest.

Power plants in the United States have installed equipment to reduce sulfur dioxide emissions, another source of pollution, from burning coal. Technology has also made coal plants more efficient. The coal industry is claiming that they could remove as much as nine-tenths of the carbon that comes from burning coal. Coal mining companies are calling this "clean coal."

There are two problems, though. There is no proof that the technology works, and it's expensive. So there is plenty of opposition to clean coal from the other side, which argues that coal is best left in the ground. Some people are refusing to invest money in coal-related companies. The anti-coal movement is gaining ground. If coal use decreases, it is not clear what would replace it, or at what cost.