

Earth Day at 40

—by Steve Almasy

On April 22, 1970, the dean's office at Williams College, Mass., rang William Moomaw, a young assistant professor, to ask if a junior dean could come to his environmental class to observe. The administration wanted to make sure the first Earth Day was a day of peaceful rallies, lectures, and debates.

After Moomaw's 75 students finished class, which dealt with the dangers of pesticides, they joined other students at a rally on the Williamstown campus. About half the 2,000 students at the small private school participated in the rally. Thousands of other colleges, high schools, and elementary schools across the United States also took part. "People were pretty upbeat [that day]. Finally we were tackling another unaddressed issue," Moomaw said. "There was a real can-do attitude and a real sense that individual and public engagement could change things."

The year 1970 was one of the most tumultuous in U.S. history, with many Americans growing progressively angrier at the government. The United States was involved in a controversial war in southeast Asia, and the invasion of Cambodia set off more student protests and strikes.

People were also increasingly distrustful of big corporations, which they saw as lovers of profit and not the land. Pollution and conservation issues had been gaining the attention of the public.

The focus on planet Earth started with Rachel Carson's

popular 1962 book on the dangers of pesticides, "*Silent Spring*," and it sharpened in 1968 with a photo of the Earth taken from Apollo 8. The "Earthrise" photo showed Americans the beauty of Earth from a new perspective.



One U.S. lawmaker aimed to bring his favorite issue into the spotlight for one day. Earth Day was the idea of the late Gaylord Nelson, a U.S. senator from Wisconsin who in a speech in September 1969 proposed a day for an environmental teach-in.

Nelson had been an environmental activist for years and in 1963, shortly after he took office in the Senate, he persuaded President Kennedy to go on a five-state conservation tour.

The media and the country hardly noticed the tour, so Nelson pondered for some time on how to raise consciousness about the problem. After a visit to an oil spill in 1969, he came up with the idea of involving students in a nationwide grassroots day of environmental awareness.

He suggested April 22, a Wednesday, as an ideal day to

hold the teach-in, as a week-day event would mean more students would be involved, according to nelsonearthday.net, a website run by the Nelson Institute for Environmental Studies.

On that first Earth Day, Nelson, 53, spoke to a larger than expected crowd in Denver, Colorado. He told those gathered that the environmental movement was more than eliminating acid rain, cleaning rivers, or saving the whales. Nelson's vision was "an environment of decency, quality, and mutual respect."



About 20 million Americans participated in the first Earth Day, organizers said, though that number is most likely inflated. A CBS News special hosted by Walter Cronkite that night called it a "mixed success," with many people participating, but with most "predominantly young, and predominantly anti-[Nixon] government."

Still, it was a remarkable day in a watershed year that began the modern environmental move-

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Looking for natural gas

—USGS

An estimated 122 trillion cubic feet (tcf) of undiscovered, technically recoverable, natural gas are in the Levant Basin Province in the Eastern Mediterranean region, according to the U.S. Geological Survey.

Technically recoverable resources are those producible using currently available technology and industry practices.

This is the first U.S. Geological Survey assessment of this basin to identify potentially extractable resources.

“The Levant Basin Province is comparable to some of the other large provinces around the world and its gas resources are bigger than anything we have assessed in the United States,” said USGS Energy Resources Program Coordinator Brenda Pierce. “This assessment furthers our understanding of the world’s energy potential, helping inform policy and decision makers in making decisions about future energy supplies.”

Natural gas is used for a variety of purposes, primarily for electricity generation in the industrial, residential, and commercial sectors.

Worldwide consumption and production of natural gas was 110 tcf in 2008, according to the Energy Information Administration. The three largest consuming countries were the United States with 23 tcf, Russia with 17 tcf, and Iran with 4 tcf of natural gas per year in 2008.

Russia’s West Siberian Basin is another large natural gas province with an estimated 643 tcf. The Middle East and North Africa region also has several large provinces, which include the Rub Al Khali Basin with 426 tcf, the Greater Ghawar Uplift with 227 tcf, and the Zagros Fold Belt with 212 tcf.

Some natural gas accumulations in the United States include the Southwestern Wyoming Province with an estimated 85 tcf, the National Petroleum Reserve Alaska Province with 73 tcf, the Appalachian Basin Province of the eastern United States and the Western Gulf Basin Province of Texas and Louisiana, each with 70 tcf.

All of these estimates are mean estimates of undiscovered, technically recoverable gas resources.

The Levant Basin Province also holds an estimated 1.7 billion barrels of undiscovered, technically recoverable oil. Worldwide consumption of petroleum was about 31 billion barrels in 2008.

The USGS conducted this assessment as part of a program directed at estimating the undiscovered, technically recoverable oil and gas resources of priority petroleum basins around the world. To learn more about this assessment, visit Fact Sheet 2010 - 3014 and the Energy Resources Program Web site.

ment. Later in 1970, the government passed an expanded Clean Air Act and created the Environmental Protection Agency.

The public’s attitude toward Earth has changed over the past 40 years, and people have become more environmentally aware. “The need for environmental quality has permeated the American consciousness. It’s something citizens expect, and not just those in the environmental movement,” said Frances Beinecke, president of the Natural Resources Defense Council.

Moomaw, now a professor of International Environmental Policy at Tufts University’s Fletcher School, agrees. “In many ways, the environment is a lot better than 40 years ago. Take for instance the air in Los Angeles, California, which was horrendous then. In 1970, the ozone level in the area was almost five times greater than the national standard, according to the California EPA. In 2000, the level had dropped by nearly 70 percent.

“We changed laws, practices, and products, and it’s got better,” said Moomaw. “In the beginning there was this belief that the public would sort of whip the government into shape and they would do the right thing and the world would be saved. I think we all discovered the hard way that it’s more complicated than that.”

More people are “connecting the dots’ and understand that what they do in their lives has an impact on others. Also, many companies are making a real difference. Not only are they willingly complying with environmental laws but a number of them are going beyond the requirements.

The big change compared with the first Earth Day is how “we now frame the solution to the world’s problems,” said Beinecke. “Governments, businesses, and individuals all can play a role in eliminating the factors of negative environmental change, but solutions need to be practical and not too expensive.”

“The shift that’s taken place is taking us beyond just protecting the environment,” said Moomaw. “We need to provide goods and services in an environmentally friendly way without negatively affecting the economy and social structure. That’s sustainable development we can all aspire to.”

Forty years later, Earth Day continues to be relevant; not just as a college-based event, but as an opportunity to continue to enhance our awareness of Earth which we have gained over the past four decades.