

Unexpected Consequences

An experimental project that appears to contradict logic suggests that one way to reduce greenhouse gases would be to produce more oil. The project involved injecting carbon dioxide into Canadian oil fields in a process that removed five million tons of greenhouse gas while increasing the recovery of oil. According to the US Dept. of Energy (DOE) if the methodology could be applied worldwide, "from one-third to one-half of the carbon dioxide emissions that go into the atmosphere could be eliminated over the next century and billions of barrels of additional oil could be recovered."

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The project is a joint effort by DOE and the Canadian government as well as private industry. The carbon dioxide is piped from North Dakota from the Great Plains Synfuels plant where it is a byproduct from coal gasification, to the Weyburn Oil Field in Saskatchewan. The US Energy Secretary, Samuel Bodman said, "the success of the Weyburn project could have incredible implications on reducing CO₂ emissions and increasing America's oil production." He added that if the process were used in all the oil fields in Western Canada, "we would see billions of additional barrels of oil and a reduction of CO₂ emissions equivalent to putting more than 200 million cars off the road for a year."

The process is called carbon sequestration. The first phase has given the partners a base of data on how the process can reduce the risk of climate change while increasing oil recovery.

Carbon dioxide, which is produced from the burning of fossil fuels, is considered by many scientists to be the leading cause of greenhouse gases because when it is released into the atmosphere it creates a heat-trapping blanket. The scientists who subscribe to this theory believe that the growth of manmade sources of these gases will lead to a warming of the earth if the program is not reversed.

In the Weyburn project, the carbon dioxide when pumped into the oil reservoir, increased the pressure and brought more oil to the surface. The oil field production was increased by 10,000 barrels a day, which suggested to the researchers that carbon sequestration could be "economically viable" according to the DOE. The researchers estimate that such a process can increase oil recovery by 60 per cent, extending the life of aging oil fields by decades and provide a permanent repository for carbon dioxide underground. Plans called for expanding the carbon injection process to an adjacent field in order to improve efficiencies.

