

# Ethanol & Pipelines: Unintended Consequences From Iowa to California

Perspectives from  
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Fossil fuel energy production is the source of much health threatening pollution before and after CO<sub>2</sub> is released



**COMBUSTION**

Carbon  
Hydrogen  
Nitrogen  
Sulfur  
Oxygen

### Primary Pollutants

CO - Carbon Monoxide  
CO<sub>2</sub> - Carbon Dioxide  
SO<sub>2</sub> - Sulfur  
NO<sub>x</sub> - Nitrogen Dioxide  
N<sub>2</sub>O - Nitric Oxide  
VOCs - Volatile Organic Compounds  
or  
HCs - Hydrocarbons

### Particulate Matter

PM<sub>10</sub> - Course Particles - less than 10 microns  
PM<sub>2.5</sub> - Fine Particles - less than 2 microns  
NH<sub>3</sub> - Ammonia

# Iowa's Rural Poverty

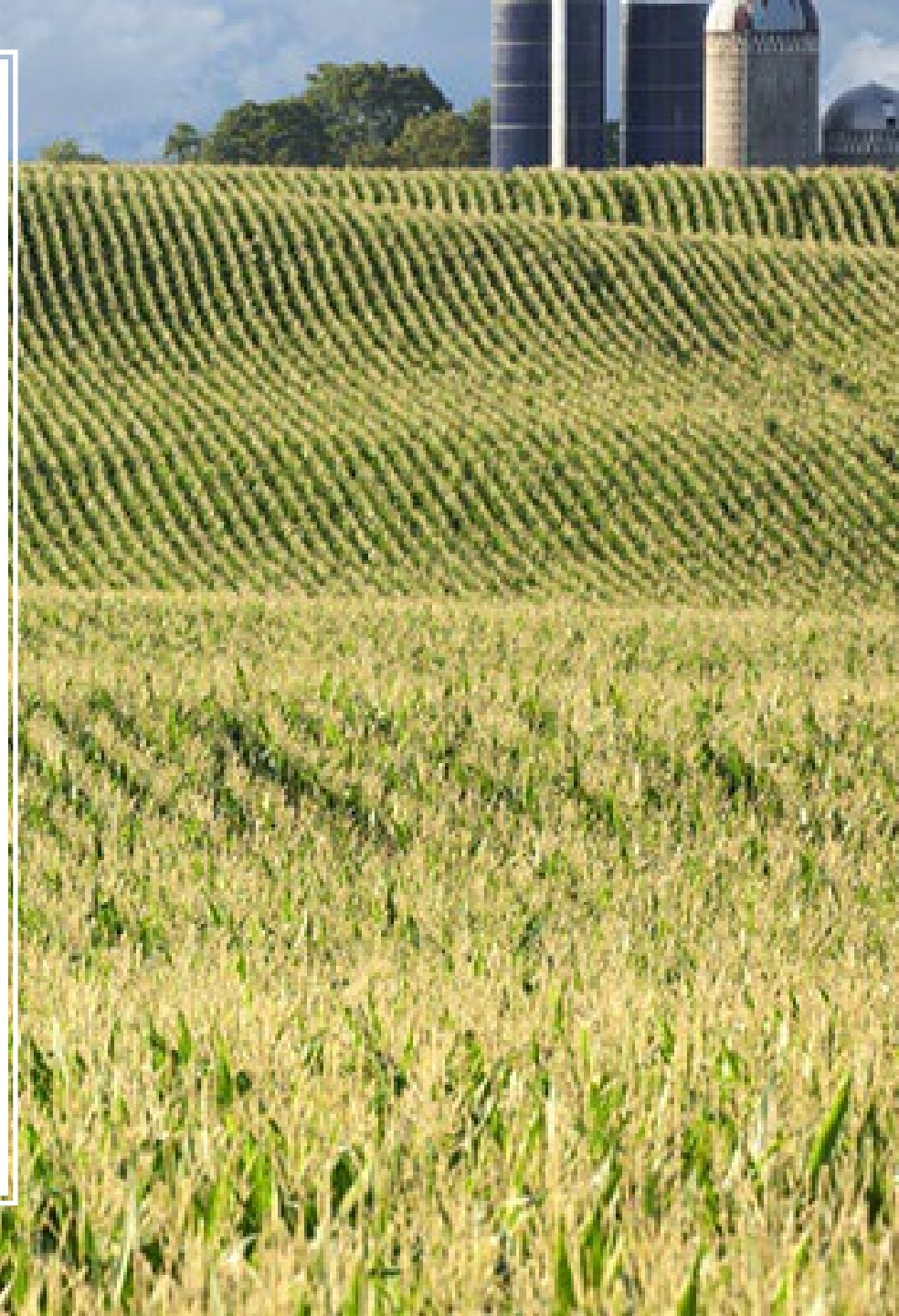
Industrial Ag is destroying rural Iowa:  
Agriculture in Iowa is dominated by two crops – corn and soybeans. Historically, the average number of crops grown on an Iowa farm was thirty-four. Now it's two. That's a real problem.

*We can't drink the water, we can't breathe the air, the soil is dead.*  
Denise O'brien



# Ethanol and CCS = False Solutions to Climate Change

- Ethanol = “Triumph of Hope Over Experience!” It creates competition for resources such as water and food, speeds up deforestation, soil and nutrient loss, and causes disputes over land rights.
- The increasing use of biofuels contributes to pollinator extinction & rising food costs here in the U.S. and abroad.
- Like many false solutions, Ethanol maintains our reliance on dirty energy all along its lifecycle requiring energy for growing, harvesting, transporting, fermenting, fuel production and distribution.
- Using CCS to capture these emissions, can only capture a small portion and does not address other environmental or health harms.
- Higher-ethanol blends reduce fuel efficiency & are treated with skepticism by some car manufacturers for the damage they do to engines.



# Pipelines: Destroy Fertile Topsoil, & Land Rights

Keokuk County Iowa farmer Steve Roquet says this picture shows how some of the most fertile topsoil in his field was buried many feet underground as part of the Dakota Access Pipeline in 2016.

Photo courtesy of Steve Roquet





# When CO2 Pipelines Leak & Rupture

- Liquified CO2 is more corrosive and pressurized 3x higher the rate of natural gas in the older more common pipelines.
- Rupture results in an explosive plume of lethal CO2 displacing O2 that can suffocate living beings in a matter of minutes –
- Internal combustion engines used for rescue by 1<sup>st</sup> responders won't work either!

# Ethanol & CCS are parts of a large bucket of False Solutions



**NET ZERO is FAKE ZERO:**  
why we need real emissions reductions,  
not gimmicks and false promises

**CARBON OFFSETS DON'T  
STOP CLIMATE CHANGE**

There is no more time to waste on pay-to-pollute schemes. Delaying real climate action is climate denial.

**DON'T NUKE  
THE CLIMATE !**

It is Time to **End  
Carbon Capture**

We don't need to fix fossil fuels; we need to ditch them.

Instead of bankrolling CCS, public funds should be boosting sustainable, job-creating solutions to the climate crisis.



# In Conclusion:

PSR Iowa along with PSR LA are two of many groups in a national coalition of orgs., communities, doctors, lawyers, scientists, and individuals concerned about the dangers of supporting and expanding biofuels like ethanol as covers for maintaining the very energy and profit motivated systems that are already bringing us mass disasters, hunger, illness, and likely extinction. The time to address and stop these and other false solutions, eliminate fossil fuels, invest in energy efficiency and non-combustion energy sources, protect forests and ecosystems that naturally capture and store carbon, is now.

**The future won't wait.**

## GET THE FACTS ABOUT CARBON CAPTURE AND STORAGE

The facts are clear: Carbon capture and storage is dangerous, expensive, wasteful, unhealthy, unnecessary, and a distraction from the urgent need to eliminate fossil fuels and replace them with clean, renewable energy as soon as humanly possible.

LEARN MORE AT:

[Carboncapturefacts.org](https://Carboncapturefacts.org)



# From Iowa to California With Love

