

**Center for Food Safety * Environmental Integrity Project * Farm Sanctuary
Food and Water Watch * Friends of the Earth * Humane Society of the United States
National Sustainable Agriculture Coalition * Organic Consumers Association
Sierra Club * Waterkeeper Alliance**

March 18, 2009

RE: CAFO EMISSIONS AND CLIMATE CHANGE MITIGATION

On behalf of our millions of members and activists, we are collectively writing to urge that greenhouse gas (GHG) emissions from concentrated animal feeding operations (CAFOs) be included in any climate change mitigation policy. Given the huge climate impact of these operations, CAFOs must be required to reduce their GHG emissions, just as other major industries, such as coal-fired power plants and the transportation industry, will be required to do. All sectors must do their part to reduce their global warming impact in order to achieve the greenhouse gas reductions that science dictates as necessary.

A 2006 report by the United Nations Food and Agriculture Organization (FAO) found that the animal agriculture sector contributes 18 percent of GHG emissions.¹ This means that animal agriculture is a greater contributor to global warming than the entire transportation sector worldwide.

In the United States, a substantial portion of the GHGs emitted from agriculture come from CAFOs. Specifically, the EPA noted in 2006 that one reason for the increase in agricultural methane emissions – more than 20 times as potent a GHG as carbon dioxide – is the shift toward confining livestock in facilities that use liquid manure management systems.² In addition, according to the EPA, the overall increase in nitrous oxide emissions – 310 times as potent a GHG as carbon dioxide – is largely due to the expansion, concentration, and industrialization of the poultry industry, namely the shift toward litter-based manure management systems, confinement in high-rise sheds, and an overall increase in the U.S. poultry population.³

There are approximately 18,800 facilities classified as CAFOs by the EPA. CAFOs are responsible for up to 60 percent⁴ of the 500 million tons of manure produced by animal feeding operations each year.

At least two-thirds of all arable land in the world is used to grow annual grains, such as corn and soybeans, heavily reliant on chemical pesticides, synthetic fertilizers and mechanical tillage of the soil, which contribute significantly to a CAFO's life cycle global warming emissions. Nearly half of all that grain – some 40% of the global corn crop and up to 80% of the global soybean crop – is used to feed animals, not people.⁵

There are ways to reduce pollution from animal agriculture. Switching from farmed animal production systems reliant on feed crops, like corn and soy, to pasture-raised, organic, or extensive farming systems can result in less GHG pollutants, such as methane and nitrous oxide. Studies have found that pasture-based systems use about half as much energy as grain-based systems.⁶

Additional research has suggested that reducing feed grains is the single best way to cut GHG emissions in animal agriculture.⁷

Moreover, well managed and rotational grazing systems can likely sequester more carbon than CAFOs where animals are raised on energy-intensive corn and soybeans. Soils and pastures are essentially carbon sinks; pasture-based farming methods could absorb up to 21 million metric tons of carbon dioxide and up to 7.8 million metric tons of nitrous oxide in the organic matter of pasture soils.⁸

Organic meat production can also significantly reduce GHGs. A 2006 life cycle assessment of three modes of Irish beef production – conventional, pasture-raised, and organic – found that both pasture-raised and organic systems generate fewer GHGs than the conventional system, with the organic system producing 17 percent less than conventional. The difference would likely be even more dramatic in comparison to U.S. conventional beef production, since Irish beef cattle are primarily finished on grass rather than grain.⁹ Organic and/or environmentally sustainable farming systems can also reduce nitrous oxide emissions by avoiding overproduction of manure because animal stocking densities are typically limited to the land available for manure application.¹⁰

We urge Congress to require CAFOs to measure their emissions and reduce GHGs produced from their facilities. The impacts of climate change have become increasingly evident and it is clear that CAFOs and industrial animal production play a significant role in greenhouse gas emissions. Their emissions should be regulated and accounted for like other sectors that are major emitters of greenhouse gases, such as energy and transportation. Failure to do so will continue to exacerbate climate change and its negative impacts at the expense of the environment, rural communities and human health. Thank you for your consideration.

Sincerely,

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¹ Steinfeld H, Gerber P, Wassenaar T, Castel V, Rosales M, and De Haan C. 2006. Livestock's long shadow: environmental issues and options (Rome: Food and Agriculture Organization of the United Nations).

² U.S. Environmental Protection Agency. 2007. Inventory of U.S. greenhouse gas emissions and sinks: 1990 – 2005. Draft for public review, p. 6-8. February 20. www.epa.gov/climatechange/emissions/downloads07/07CR.pdf.

³ U.S. Environmental Protection Agency. 2007. Inventory of U.S. greenhouse gas emissions and sinks: 1990 – 2005. Draft for public review, p. 6-8. February 20. www.epa.gov/climatechange/emissions/downloads07/07CR.pdf

⁴ U.S. Environmental Protection Agency. 2006. Fact sheet: concentrated animal feeding operations proposed rulemaking. June. www.epa.gov/npdes/regulations/cafo_revisedrule_factsheet.pdf.

⁵ Smil V, Distinguished Professor University of Manitoba. 2008. Personal discussion with Danielle Nierenberg.

⁶ Pimentel D and Pimentel M. 2008. Food, Energy, and Society. 69 2008.

⁷ Fless H. et al., *Integrated Evaluation of Greenhouse Gas Emissions (CO₂, CH₄, N₂O) from Two Farming Systems in Southern Germany*. Agriculture, Ecosystems & Environment. 2002. 91: 175.

⁸ Boody Get al. 2005. Multifunctional agriculture in the United States. BioScience 55(1):27-38.

⁹ Casey JW and Holden NM. 2006a. Greenhouse gas emissions from conventional, agri-environmental scheme, and organic Irish suckler-beef units. Journal of Environmental Quality 35:231-239.

¹⁰ Kotschi J and Müller-Sämamann K. 2004. The Role of Organic Agriculture in Mitigating Climate Change: A Scoping Study. Bonn, Germany: International Federation of Organic Agriculture Movements.