



COOL FOODS

Countdown to Copenhagen & Beyond

THIS IS ISSUE ONE in a series of newsletters produced by the Center for Food Safety and Navdanya International to focus on the critical links between food systems and climate change. We will distribute an issue each month to foster discussion about the potential for ecological food systems to become a major solution to climate change, and as preparatory information for the Copenhagen meeting of the United Nation's Framework Convention on Climate Change (UNFCCC).

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Though not as high-profile as some other causes of global warming, modern industrial agriculture is one of the primary contributors to the climate change crisis. Today nearly every phase of our food system relies on intensive energy inputs, primarily fossil fuels, resulting in polluting GHG emissions—on-farm machinery; massive livestock operations; food packaging; transport; use and manufacturing of synthetic fertilizers, pesticides, herbicides; and other practices.

Critical Link Between Climate Change and Food Systems

The UNFCCC negotiations, culminating this December in Copenhagen, have elevated government action on energy and climate change. The goal of the UNFCCC is to establish a global climate treaty for post-2012 when the Kyoto Protocol expires. In tandem with this international process, governments are intensifying efforts to produce national energy and climate legislation.

However, what is still little acknowledged—on both international and national fronts—is that industrial agriculture is one of the major contributors to climate change. According to figures published in the United Nation's 2008 Intergovernmental Panel Fourth Assessment report on Climate Change (IPCC), global industrial agriculture contributes a minimum of 13.5 percent and as much as 32 percent of total greenhouse gas (GHG) emissions.¹ Despite startling statistics, energy and climate agendas are failing to regulate industrial agriculture's GHG emissions, and are not recognizing the vital role that ecological food systems—"cool foods"—can play in reducing emissions.

Hot Potato, Cool Potato

Today nearly every phase of our food system relies on intensive energy inputs, primarily fossil fuels, resulting in polluting GHG emissions—on-farm machinery; massive livestock operations; food packaging; transport; use and manufacturing of synthetic fertilizers, pesticides, herbicides; and other practices. Converting forests and lands with native vegetation to intensive livestock lots and industrial farms is another major source of CO₂ emissions.

Particularly alarming is that industrial agriculture is responsible for 60 percent of total global nitrous oxide (N₂O) emissions, largely from nitrogen fertilizer. Nitrous oxide is the deadliest of the three major GHGs, approximately 300 times more potent than carbon dioxide (CO₂).²

Similarly, agriculture contributes approximately 50 percent of methane emissions (CH₄), primarily from enteric fermentation, improper manure management, and water-intensive rice cultivation. Methane is around 27 times more potent than CO₂.³

Ecological, organic farming is a vital climate solution and can dramatically mitigate GHG emissions. Research has shown that organically managed farms maintain carbon in soils by 30 percent over non-organic crops. Thus, carbon is sequestered in the soil instead of being

released into the atmosphere as CO₂. Additionally, carbon-rich soils help conserve water and support plants that can be more resistant to drought, pests, and diseases. *Studies also demonstrate that if U.S. cropland (based on 434 million acres) were converted to organic farming methods, we could mitigate nearly 25 percent of our total GHG emissions.*⁴

Ensuring Food, Climate, and Energy Security

When chemical use and harmful soil practices are eliminated, agriculture becomes the only human activity that is fully renewable. Ecological food systems do not require massive water resources or expensive inputs such as commercial seeds, synthetic chemicals and fertilizers, and fossil-fuel machinery. As the UN Food and Agriculture Organization (FAO) and other international organizations have stated, ecological agriculture is essential for ensuring food security and adaptation in an era of climate chaos induced by global warming, unstable oil prices and supply, and market volatilities.⁵

Global Green Deal— A Stimulus for Climate Security

This is a crucial year to shape an ambitious and effective international response to climate change, and growing interest from national leaders opens the door for real progress. Currently, economic and agriculture policies heavily favor industrial agriculture methods. With proper policies and economic incentives, societies can transform food systems to dramatically reduce GHG emissions.

This shift toward a new food and climate future can happen quite rapidly and *with much lower finance and investment than almost all other proposed methods for reducing energy usage and GHG emissions*. And, there are many other associated benefits with ecological, organic food systems—they conserve water, protect wildlife, and produce more nutritious and safer foods. If we take climate research and science seriously, we know that a major shift toward organic, ecological farming—“cool foods”—is imperative to reducing GHG emissions.

The United Nations, governments, non-governmental-organizations (NGOs), and others are calling for a “New Global Green Deal” at Copenhagen. The Obama administration promoted a stimulus package that included funds for “green jobs.” However, in both of these arenas, a true green solution is being overlooked—ecological, fossil fuel-free food systems.

The Countdown

The “Countdown to Copenhagen” consists of pre-conference negotiations: August in Bonn, Germany; (informal meeting); September 28 through October 9 in Bangkok, Thailand; and November 2–6 (location to be confirmed). Through this process, we’ll continue to send you newsletters like this one to provide further insight into the issues and discuss a range of subjects at the nexus of climate and agriculture such as genetically modified (GM) seeds and crops; trade and financial agriculture policies; food security; water use; and more.

Who We Are

The Center for Food Safety (CFS), a national non-profit organization founded in 1997 by Andrew Kimbrell, works to protect human health and the environment by curtailing harmful food production methods and by promoting organics and other sustainable alternatives. CFS undertakes legal actions, policy initiatives, science and research, and public education. CFS has won several groundbreaking lawsuits against government agencies, including the historic *Mass v. EPA* global warming Supreme Court case.

Navdanya International, founded in India by physicist and internationally renowned activist Dr. Vandana Shiva, works to defend and protect nature and the rights of people to access to food and water and dignified jobs and livelihoods. Navdanya’s guiding principles include building safe, secure food models to alleviate poverty, hunger, and protect natural resources, including water scarcity; and advocating local, ecological food systems as critical elements to ensuring food and energy security in this time of climate chaos.

For more information about climate and food links and the Cool Foods: Countdown to Copenhagen and Beyond project, please contact Debbie Barker, international director, 202-547-9359. You can also visit our website at: www.coolfoodscountdown.org

¹ http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm

² <http://www.igac.noaa.gov/newsletter/highlights/1998/n2o.php>

³ www.coolfoodscountdown.org

⁴ www.coolfoodscountdown.org

⁵ www.future-food.org