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Growing Climate Justice

By Annie Shattuck

“Climate Justice means stripping transnational corporations of the tremendous power they hold over our lives, and in its place building democracy at the local, national and international levels.”

– CorpWatch

Climate change compels us for our very survival to create a more just and equitable food system. As world leaders gather in Copenhagen for the 15th conference of the UN Framework Convention on Climate Change, leaders can’t agree on how to address the climate crisis. Agriculture has been all but ignored, and no specific solutions to the impending climate crisis in our food systems have been floated outside of the biotech industry’s public relations departments.

With time running out on an agreement, a new international voice is emerging, one that demands climate justice. Led by countries in the global South, small island nations, people of color, and other marginalized communities in the industrial North, the movement for climate justice demands solutions which are democratically controlled, socially just and framed within a context of human rights. This movement has much in common with the movement for food sovereignty and, in fact, food sovereignty and climate justice go hand in hand.

The Problem

Climate change poses enormous threats to food production. A one to two centigrade increase in average global temperatures will likely cause crop yields to fall in many underdeveloped areas of the global South. According to the UN Intergovernmental Panel on Climate Change (IPCC), large areas of Africa could be stricken by yield decreases of over 50% by the year 2020 as a result of an increasingly hotter and drier climate.ⁱⁱ Small mountain glaciers will disappear, threatening water supplies, and there will be extensive damage to local fisheries and coral reefs.

Scientists predict that at least some of these changes will occur even if the world can rapidly reduce emissions. Agriculture is also one of the primary contributors to climate change, so any solution tailored to agriculture will have to help our food systems adapt to a changing climate while massively reducing its contribution to the problem.

The Intergovernmental Panel on Climate Change estimates that agriculture accounts for 13.5% of greenhouse gas emissions—as much as the entire global transportation sector.ⁱⁱⁱ These measured emissions are largely the results of synthetic fertilizer use, which releases nitrous oxide, a gas with 296 times the warming power of CO₂,^{iv} methane from large scale animal operations, and methane release from rice paddies. The IPCC number however does not include the indirect emissions from agriculture, including deforestation, transport, fertilizer synthesis, on-farm energy use and food processing. Deforestation alone is responsible for 18% of total global carbon emissions,^v and is the number one source of emissions in large agriculture export economies like Brazil and Indonesia. The Stern Review on the Economics of Climate Change pegged agriculture as the largest driver of deforestation.^{vi} Destruction of the Amazon is directly linked to the price of soy – suggesting the march of soy into agricultural frontier drives Amazon deforestation.^{vii} Indonesia has one of the highest deforestation rates in the world, and is now the world's third largest producer of greenhouse gases. By 2020 Indonesia's palm oil plantations—thanks in part to the industrial North's demand for biodiesel—will triple in size, resulting in a 98% loss of forest cover.^{viii}

The rural poor are often blamed for deforestation, but regressive land policies and years of land concentration have made millions landless and facilitated the march of the poor into virgin and marginal lands. Furthermore, in places like

Guatemala and Indonesia, pressure from increasingly extractive international agribusiness, and not small farmers, is driving land conversions.^{ix} While agriculture may not be responsible for all the world's deforestation, if even half can be indirectly ascribed to agriculture, then the global food system is responsible for fully a quarter of greenhouse gas emissions. The world's peasant farmers contributed little to this destruction, and yet they may have the most to lose.

The Official Solutions

As world leaders debate climate policy in Copenhagen, the dialogue predominantly centers around market-led solutions to climate change, despite the fact that Europe's cap and trade system has failed to help the EU live up to its commitments under the Kyoto Protocol. In fact, the EU's carbon trading scheme has failed to reduce emissions at all. Carbon trading - practically the only regulatory scheme being seriously considered - has already been piloted at a global scale as well. The UN Clean Development Mechanism (CDM) is fraught with problems. The advocacy group International Rivers estimates that fully 75% of the projects approved by the CDM were completed before they received CDM financing, meaning the projects would have happened anyway, providing no additional climate benefits.^x The group cites additional issues such

as new dam projects, massive coal plants, and toxic trash incinerators have all received CDM funding.

With land grabs for agrofuels on the rise and CDM and other programs providing few benefits to peasant farmers, it is no wonder that small farmers are wary of these top-down policy fixes. In fact, a declaration from Via Campesina last year stated “farming communities are more threatened now by the so-called solutions to climate change promoted by corporate interests... than by climate change in itself.”^{xi}

The problem of climate change in agriculture is complex, varies widely across geographies, and encompasses social, ecological and cultural factors. But so far, policy makers have failed to step outside of market-only solutions to examine what climate policy expert Dr. Michael Dorsey, professor of Environmental Studies at Dartmouth, calls the “salvific power of diversity,” the power that lies in local food and energy sovereignty.

A Just Solution for the Food System: Agroecology and Food Sovereignty

In October of 1998, Hurricane Mitch ripped through Central America at a devastating 180 miles per hour. The second most powerful hurricane ever to hit the Atlantic, Mitch caused over \$5 billion in flood damage alone, killed 11,000 people, and left hundreds of thousands hungry and homeless.

CARBON TRADING 101

Carbon trading (or “cap and trade”) was set up as one of the ‘flexible mechanisms’ to reduce emissions under the Kyoto Protocol. This scheme allows for two types of credit: offsets and allowances. Allowances are auctioned or given away to industries and companies as a license to pollute a set or “capped” amount. If the company does not stay under their allowed amount, they must buy “offsets” – either extra allowances from companies who were able to stay below their cap, or credits from projects promising additional carbon storage. Under Kyoto, offsets can be purchased from designated developing countries for clean development projects, called the “Clean Development Mechanism” or CDM, as long as these projects are “additional,” meaning the carbon savings they provide are quantifiable and would not have happened without the CDM credits.

The U.S. is proposing a similar national system under the Waxman-Markey American Clean Energy and Security Act. Agriculture has been exempted from emissions caps, but under the proposed legislation would be eligible for offset payments from polluting industries for “chemical no-till” practices (RoundUp Ready GM), despite USDA studies demonstrating superior carbon storage on organic farms.^{xii}

Mitch also gave the farmer-to-farmer movement in Nicaragua, Honduras and Guatemala a chance to test their methods. Along with Food First Director Eric Holt-Giménez, the Campesino a Campesino movement set out to measure how well their agroecological farms held up to the storm. The study measured and compared nearly 1,000 pairs of agroecological and conventional farms, located close together with similar topography, slope, and aspect. Agroecological farms had 30-40% more topsoil after the storm than their conventional neighbors, greater soil moisture, and about 20% more vegetation. Ecological farmers had a 49% lower incidence of landslides.^{xiii}

The superior resilience of the agroecological farms in the face of Hurricane Mitch is only one example of the climate benefits of agroecology. Agroecological practices help store carbon in the soil (at a 25% greater rate than no-till practices by one estimate),^{xiv} provide drought and pest resistance, and reduce dependence on fossil fuel.

Perhaps the most important finding of the Hurricane Mitch study is that ecological farmers suffered fewer economic losses due to the disaster. This points to the ability of farmer-led approaches to mitigate the socially produced hazards of climate change. Whether or not an extreme weather hazard is disastrous depends not only on the intensity of the hazard itself, but on the level of vulnerability of the people who experience it. When farmers are poor and hungry, have too little agricultural land, and farm unprotected soils with poor water access and low agrobiodiversity, even a low-intensity hazard—like a heat wave, cold snap, or a three-week delay in the rainy season—can have devastating consequences.

Agroecology, when combined with structural policies for food sovereignty and farmers' rights—to help increase farmers' market power, access to credit, control over seeds and secure land tenure—will allow smallholder farmers, who make up one sixth of

the world population and are responsible for the majority of the world's food production, to weather the economic storms climate change is sure to bring.

Conclusion

The call for climate justice and democracy in the food system was recently echoed by the Prime Minister of Bangladesh, Sheikh Hasina in an address to the FAO. She demanded that women, disproportionately affected by both climate change and hunger, have “equal access to information, skill development, market linkages, technology and financial resources” to effectively participate in climate change initiatives. Women “have knowledge in agriculture, food security and therefore,” she demanded, “must be involved in policy...at all levels.”^{xv}

This demand, for climate policy from below, from women, peasant farmers, people of color, and the nations with the most to lose from a climate catastrophe is one of the most vocally articulated demands emerging from the Copenhagen climate summit. As world leaders continue to debate the official solutions, farmers, women, and the movement for climate justice worldwide are forging their own solutions on the ground.

Montana farmer, and coordinator of Via Campesina North America, Dena Hoff reminds us, “When we talk about climate change, we often forget that everyone of us has a role to play in terms of our consumption habits, including the food we choose to eat (if we have a choice and many people in the world do not.) *Políticos* make a big show of selling credits to pollute as a solution, when we need to return to a society and an economy based on conservation and cooperation worldwide. It is the belief of Via Campesina that returning to a local, sustainable, peasant based agriculture is the way to a healthy environment and a just world.”



Photo by Mobilization for Climate Justice-London

NOTES

- i in Dorsey, M.K. 2007. Global Green Hustlers. Foreign Policy in Focus. June 19, 2007. <http://www.fpiif.org/fpiftext/4313> (accessed November 17, 2009). ii World Resources Institute. 2008. IPCC Forecasts Alarming Consequences of Global Warming. <http://earthtrends.wri.org/updates/node/181> (accessed November 19, 2009). iii Pachauri, R.K. and Reisinger, A, eds. 2008. Climate Change 2007 Synthesis Report. Intergovernmental Panel on Climate Change. Geneva: United Nations Environment Program. iv Crutzen, P.J., A.R. Mosier, K.A. Smith, and W. Winiwarter. 2007. “Nitrous oxide release from agro-biofuel production negates global warming reduction by replacing fossil fuels” Atmospheric Chemistry and Physics. Discuss. 7, 11191-11205. v Pachauri, R.K. and Reisinger, A. 2008. vi Stern, Nicolas. 2007 “Chapter Seven: Projecting the growth of greenhouse gas emissions” The Economics of Climate Change: The Stern Review. Cambridge University Press. vii Morton, Douglas C. et al. 2006. “Cropland expansion changes deforestation dynamics in the southern Brazilian Amazon.” PNAS 3:14637-14641. viii Aslow, Mark. 2007. Biofuels: Fact and fiction. The Ecologist. February 19, 2007. ix Hurtado, Laura. 2009. Agrofuels Plantations and the Loss of Land for Food Production in Guatemala. In ed. Jonasse, Richard. Agrofuels in the Americas. Oakland: Food First Books. x Haya, Barbara 2008. Trading in Fake Carbon Credits: Problems with the Clean Development Mechanism (CDM). Fact Sheet. International Rivers and Friends of the Earth. <http://tinyurl.com/yj95w9y> (accessed November 19, 2009). xi Via Campesina. 2008. “UNFCCC: Don't trade off climate!” La Via Campesina, December 2008. <http://tinyurl.com/ygtcfkf> (Accessed May 4, 2009). xii Teasdale, John R. Charles B. Coffman, and Ruth W. Mangum. 2007. Potential Long-Term Benefits of No-Tillage and Organic Cropping Systems for Grain Production and Soil Improvement. Agronomy Journal. 99:1297-1305. xiii Holt-Giménez, Eric. 2002. Measuring farmers' agroecological resistance after Hurricane Mitch in Nicaragua: a case study in participatory, sustainable land management impact monitoring. Agriculture, Ecosystems & Environment 93:87-105. xiv Teasdale et al. 2007. xv in “PM for involving women in tackling climate change challenges” Financial Express. November 18, 2009. Dhaka, Bangladesh. <http://tinyurl.com/yz64vuz> (accessed November 19, 2009).

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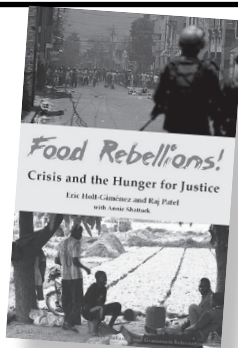
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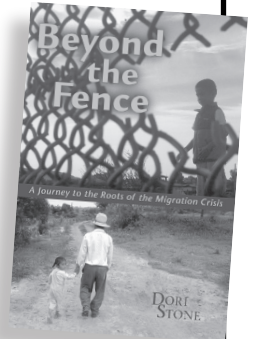
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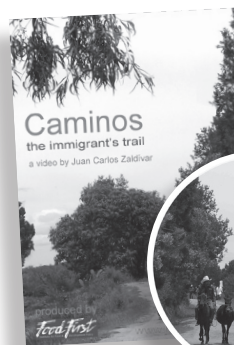


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