



FUELING DISASTER

A Community Food Security Perspective on Agrofuels

A report by the Community Food Security Coalition International Links Committee

DECEMBER 2007

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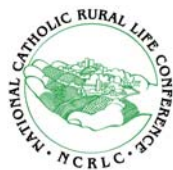
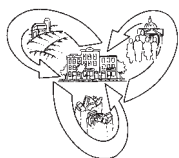
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Front Cover Photo: *Corrina Steward*, rainforest deforestation for soy production in the Brazilian Amazon

Back Cover Photos: *Corrina Steward*, seeds from around the world brought to Nyéléni 2007 - Forum for Food Sovereignty in Mali; *MST-MA*, rice harvested by hand in Brazil

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Food First

EXECUTIVE SUMMARY

Faced with dwindling fuel reserves and the intensifying impacts of climate change, society's hopes for the future of our food and energy systems rest on the notion that we can produce renewable fuels. Yet a global debate has erupted over the best sources of renewable energy. "Biofuel" proponents speak of meeting future energy needs while raising farm incomes and renewing rural economies. **Critics, however, warn that what we are getting are "agrofuels," produced in industrial systems that extract wealth out of communities and pollute the environment.**

Meanwhile, recent federal policies have mandated major increases in U.S. agrofuel consumption, causing us to reach outside of our borders to countries such as Brazil to meet our demand. As the United States' appetite for agrofuels continues to grow and other countries join this trend, the ecological and social footprint of agrofuel consumption will be increasingly felt throughout the world. Recognizing the growing interdependency of our food and energy systems, this report addresses the agrofuels debate from a fresh perspective: that of **communities who are trying to feed themselves.**

Case studies, testimonials from farmer and indigenous movements, and reports from international and U.S. agencies demonstrate that the trend towards massive expansion of agrofuel production is the latest in a progression towards industrial agriculture and corporate consolidation of the world's land, food, and water resources. This trend poses a particular threat to the community food security movement, which promotes the right of all people in all communities "to obtain safe, culturally acceptable, nutritionally adequate diet(s) through a sustainable food system that maximizes community self reliance and social justice."¹

This report exposes the threat of industrial-scale agrofuel production to community food security through examination of the following areas: **Food Security and the Right to Food, Agricultural Workers' Rights, Community Economic Development, and Environment.** This report is addressed to the many constituencies within the community food security movement, including anti-hunger advocates concerned by rising food prices and dwindling food supplies; family farmers threatened by increased corporate control; and food system activists, conservationists, and others working in the areas of health, environment, and justice.

Food Security & the Right to Food

The right to food is already denied to the twenty percent of the world's population who are food insecure.² Expansion of agrofuel production (including the industrial-scale production of "second generation" agrofuels) will directly compete with community resources for food production (e.g., land, water, and nutrients); increase dependency on food imports; and perpetuate an unregulated market for agricultural commodities that neither guarantees food for all nor fair prices for farmers.



MSTFMA

Agricultural Workers' Rights

Human rights violations are prevalent in industrial agricultural fields today. The growth of agrofuel production, which relies on large-scale plantations, will only perpetuate a system that already disregards workers' rights. Increased demand for agrofuel crops such as sugarcane and soy will likely lead to increased human rights violations including slave wages, enslavement, and child labor, as well as increased incidences of sicknesses and deaths resulting from dangerous plantation work.

Community Economic Development

Agrofuels are often presented as a way of rescuing an industrial agriculture-based economy that is deeply broken. The reality is that the commodity markets themselves are broken. Without addressing corporate concentration, parity for family farmers, and the need for local food systems to feed communities, simply selling more commodities for agrofuels will not reverse existing failures, nor will it bring lasting prosperity to rural communities in the U.S. or abroad.

Environment

Agrofuels are promoted as a “green” technology, yet current production practices contribute to water depletion, soil erosion, contamination by genetically modified organisms, and other environmental problems. The refining process is also quite polluting, and the common placement of refineries in low-income communities has raised serious environmental justice concerns. Furthermore, the net energy balance of agrofuels remains subject to major debate, and as carbon-capturing forests are felled to make way for fuel crops, the result will be increased, rather than decreased, greenhouse gas emissions.

Conclusions and Recommendations

The principles of community food security imply that **fuel is not a priority over food**, and governments' actions to make it so undermine the world's hungry and struggling rural communities. Unless the agrofuels market builds new wealth that stays in rural economies, strengthens the social fabric of communities, and builds greater resilience for an uncertain future, communities will gain very little from agrofuel production. While this report focuses on industrial-scale agrofuels, there are examples of integrating sustainable energy and agriculture that benefit community food security, such as small farmer settlements in Brazil intercropping energy and food crops and community farms in the U.S. using locally-made biodiesel for farm machinery. Family farmers, indigenous peoples, and environmentalists are using these examples to further explore the connections between sustainable energy, food security, and rural development and to promote food and energy sovereignty – the democratization of both food and energy systems. Below are key actions that focus on food security and developing real sustainable energy solutions.



Corrina Steward



Jake Miller, Grassroots International

What you can do to support community food security and sustainable energy:

- Sign your group/organization on to the moratorium on global agrofuels trade. For more information and to sign on, contact the Rainforest Action Network: www.ran.org.
- Tell Congress that you do not support policies (e.g., subsidies, targets, and other measures) that increase the production of industrial agrofuels.
- Tell Congress that you want real market reforms for family farmers, including support for fair prices for food and loosening of agribusiness' control over our food and fuel markets.
- Resist the threat to the hungry from increasing food prices and dwindling food supplies by advocating for price stabilization and national food reserves.
- Support sustainable agricultural practices that reduce energy consumption. Promote more localized food systems to reduce food mileage.
- Join with ecojustice and family farm movements throughout the world, such as the Movement of Landless Rural Workers (MST) in Brazil and the Via Campesina global peasant network, that are fighting back against agrofuel monocultures.
- Publicize the conflict of interest when agribusiness corporations gain greater control of the fuel industry, and vice versa.
- Organize your community to resist corporate control of local food and energy resources. Join movements calling for enforcement and strengthening of anti-trust and anti-monopoly measures.
- Focus the energy debate on conservation and energy consumption rates. No alternative to fossil fuels will be able to meet current and future energy demands if we do not decrease our energy usage altogether and put a major emphasis on conservation.

¹ Anne C. Bellows and Michael W. Hamm, "U.S.-Based Community Food Security: Influences, Practice, Debate," *Journal for the Study of Food and Society* 6.1 (2002): 31-44.

² Food and Agriculture Organization of the United Nations, *State of Food Insecurity in the World 2006* (Rome: UN FAO, 2006), 06 December 2007 <<http://www.fao.org/docrep/009/a0750e/a0750e00.htm>>.

Industrial agrofuels are already exacting heavy costs on food security and rural communities around the world. The anticipated increase in agrofuel production could lead to catastrophic impacts on community food security. This report addresses these impacts and identifies actions that would buffer communities from increased hunger, poverty, and environmental degradation.

INTRODUCTION

Faced with dwindling fuel reserves and the intensifying impacts of climate change, the interdependency of our food and energy systems is more apparent than ever. Our global food system relies heavily on fossil fuels and is a major producer of greenhouse gases. At the same time, agriculture is proving to be increasingly vulnerable to the erratic conditions brought about by global climate change. On a global scale, people are realizing that energy has become an agricultural issue.

Our society's hopes for the future of our food and energy systems rest on the notion that we can produce renewable fuels. Yet a global debate has erupted over the best sources of renewable energy. While "biofuel" proponents speak of meeting future energy needs while raising farm incomes and renewing rural economies in the U.S. and internationally,¹ others see ominous warning signs. Increasingly, global attention is being paid to the fact that "green" energy sources, when produced in an industrial model, may create more harm than good. Critics quite properly warn that what we are actually getting are "agrofuels," produced in industrial systems that are as extractive as the fuel refining process itself.

As the community food security movement in the U.S. grapples with these issues, it has an important role to play in supporting holistic, sustainable, and community-based solutions to our global food, energy, and climate crises. In doing so, it must confront the global agrofuel trend that is undermining the goals of the community food security movement and exacerbating the very problems the movement strives to address.

This report addresses the agrofuels debate from a fresh perspective: that of communities who are trying to feed themselves. Viewed from the vantage point of community food security, our analysis raises critical questions about agrofuel production in an industrial model. This report is addressed to the many constituencies within the community food security movement, including anti-hunger advocates con-

Why Call Them Agrofuels?

Agrofuels are liquid fuels from biomass grown on a large industrial agriculture scale. Agrofuels are currently produced from plants such as corn, oil palm, soy, sugar cane, sugar beet, rapeseed, canola, jatropha, rice, and wheat, as well as animal fat. They can also include trees that are grown on a large scale on plantations.¹

Biofuel is a problematic term because it makes no distinction of scale or production model. It is being used by industry as an umbrella term to falsely present all fuels derived from biomass as sustainable and "green."

This report argues that it is critical to make a distinction between large-scale, industrial production of fuel from biomass versus fuel grown and harvested sustainably on a small scale for the benefit of local communities. Use of the term *agrofuels* allows for this distinction.

¹ Language adapted from "Moratorium on U.S. Incentives for Agrofuels, U.S. Agroenergy Monocultures and Global Trade of Agrofuels," December 2007.

cerned by rising food prices and dwindling food supplies; family farmers threatened by increased corporate control; and food system activists, conservationists, and others working in the areas of health, environment, and justice.

A Community Food Security Approach

The overarching goal of the community food security movement is for “*all community residents to obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice.*”² Inherent in this goal is respect for basic rights, including the universal right to food; the rights of farmers and agricultural workers to fair wages and safe working conditions; and communities’ rights of self-determination and political voice in shaping their food and agriculture systems. Community food security also prioritizes use of productive land to meet communities’ food needs through diversified, sustainable agriculture based on ecological principles.

The community food security movement is a response to the predominant corporate-driven food system. This system is based on an industrial model of agriculture that depletes the Earth while extracting wealth from communities and fostering hunger and poverty. This report argues that the trend towards massive expansion of agrofuel production is the latest step in a progression towards industrialization and corporate consolidation of the world’s land, food, and water resources. Agrofuel production causes the same environmental, health, and labor problems as the industrial-scale production of other agricultural commodities grown for food or food inputs (e.g., corn). The trend toward agrofuels, however, is particularly alarming because of the rapid rate at which farmland, forests, and other productive land are being converted into fuel-crop monocultures, depleting precious resources such as water and topsoil in the process. Equally troubling are the new alliances being formed between agribusiness and energy con-

glomerates that are actively working against the goals of the community food security movement.

This report is not an argument against the use of biomass for fuel, which has long played a role in meeting society’s energy needs (e.g., growing fodder for draft animals or burning dung and wood for heat). Our main goal is to identify and denounce the current threats to community food security from industrial-scale agrofuels. From case studies, testimonials from farmer and indigenous movements, and recent reports from international and U.S. agencies, there is clear evidence that agrofuel production is already exacting a heavy toll on community food security.

The report presents evidence of the impacts of agrofuels in the following areas: **Food Security and the Right to Food, Agricultural Workers’ Rights, Community Economic Development** and the **Environment**. Attention is given to the impacts of agrofuels in both rich and poor countries, while emphasizing those communities in poor countries that are the most severely affected. While we primarily focus on the impacts of agrofuels in the Americas, the issues we analyze are part of a global trend.

The report concludes that when agriculture is used to fulfill fuel needs, it should be done from a community food security framework that includes diverse, sustainable, community-based farming and puts communities’ food needs first. Increasingly, the community food security movement is pointing to *food sovereignty*, the right of people to determine their own food and agricultural policies, as offering a clear step forward in the food versus fuel debate.

BACKGROUND

Modern agrofuel development in the U.S. began during the oil crisis that erupted in 1973.³ This set the stage for development of a domestic agrofuel industry, which included establishment of an import tariff on ethanol to protect U.S. agrofuel production,⁴ along with support for agrofuel facilities, production-related payments, and exemption of agrofuels from fuel-excise taxes.⁵ An estimated \$5.5 billion to \$7.3 billion are spent annually in U.S. agrofuel subsidies for ethanol and biodiesel.⁶ In January 2007, President George W. Bush set a policy direction to reduce gasoline consumption by twenty percent in 10 years through a fifteen percent substitution of conventional gasoline with agrofuels and five percent gasoline reduction through increased fuel efficiency.⁷ Since setting the “Twenty in Ten” goal, a proliferation of additional federal and international agrofuel support programs have been proposed.

The U.S. set a mandatory agrofuel target called the Renewable Fuel Standard (RFS) in the 2005 Energy Bill. To meet the 2007 “Twenty in Ten” goal, Congress is poised to increase the RFS and U.S. ethanol infrastructure in the 2007 Energy Bill.⁸ Even with major expansion of the U.S. agrofuel industry in recent years (from 2004 to 2005, there was a twenty percent increase in agrofuel production),⁹ current levels of U.S. agrofuel-based fuel use total only about three and a half percent of total U.S. gas consumption.¹⁰ Agrofuel proponents and critics alike agree that reaching the fifteen percent target will require importing agrofuels from countries where the ethanol industry and infrastructure is more advanced, such as Brazil.¹¹ To facilitate mass importation of agrofuels, the Bush Administration is currently working to process and import agrofuels via Central America, the Caribbean, and Mexico, where regional trade agreements and bilateral memorandums of understanding circumvent the 1973

ethanol import tariff.¹² These anticipated sources mean that sugarcane, corn, and palm oil will serve as the primary means of agrofuel supply for the foreseeable future.

The U.S. will only continue turning to other regions to meet its energy needs through agrofuels. In a March 2007 meeting between President Bush and Brazilian President Lula, Brazil’s agrofuel industry and technology were the major topic of discussion, indicating a strengthening alliance for Brazil-U.S. agrofuel import.¹³ Other developments include World Bank and Inter-American Development Bank investment in research and policy development for the growth of agrofuel production in Central and South America.¹⁴ The United States’ appetite for agrofuels continues to grow, and other countries are seeing opportunities both to produce and consume agrofuels. As these trends continue, the ecological and social footprint of agrofuel consumption will be increasingly felt throughout the world.



Charles O'Rear, USDA

ANALYSIS

THREATS TO FOOD SECURITY AND THE RIGHT TO FOOD

The Right to Food

A fundamental principle of community food security is *access to safe, nutritious, and culturally appropriate food for all people at all times*. Similarly, the International Convention on Economic, Social and Cultural Rights (Article 11) codifies the right to food and governments' obligation to uphold it.¹⁵ The right to food means having regular, permanent, and unrestricted access to food, through the means to produce or to purchase food that is quantitatively and qualitatively adequate. The right to food is already denied to the twenty percent of the world's population who are food insecure.¹⁶ Expansion of agrofuel production will only increase this number and further challenge the values of community food security.

The United Nations Special Rapporteur on the Right to Food, Jean Ziegler, recently expressed great concern to the Human Rights Council that agrofuels are contributing to hunger.¹⁷ Ziegler states, "The sudden, ill-conceived, rush to convert food - such as maize, wheat, sugar, and palm oil - into fuels is a recipe for disaster. There are serious risks of creating a battle between food and fuel that will leave the poor and hungry in developing countries at the mercy of rapidly rising prices for food, land and water. If agro-industrial methods are pursued to turn food into fuel, then there are risks that unemployment and violations of the right to food may result..."¹⁸ Fuel crops use resources - land, water, credit, labor - that could otherwise be dedicated to food production, and cases of violations of the right to food as a result of agrofuel production are already surfacing. Ziegler notes that in Brazil, the aggressive

production of ethanol is inhibiting the potential of six million landless people to obtain land and produce food for their families. Similarly, in Africa, "it is becoming clear that whenever agrofuels are on the agenda, the pressure on farmers to leave their land intensifies."¹⁹ The agrofuel industry is even prospecting countries facing famine, such as Ethiopia, where vast tracks of land are now being granted to foreign companies to produce energy for export to Europe.²⁰

A Broken System

In the last century, agricultural industrialization and supportive trade and agriculture policies, including the U.S. Farm Bill, have moved in the opposite direction from community-based food systems and the reality of food for all. The dominant agricultural model relies on the market to set prices for commodity foods and, ostensibly, to keep those prices low enough to "feed the world." Yet the continuing prevalence of hunger worldwide clearly shows that the market approach hasn't succeeded in feeding the world, let alone in providing adequate income to sustain family farmers and rural livelihoods.

It is clear that the industrialization of agrofuels is an extension of a failed market approach to agriculture that has and will result in corporate concentration, unstable prices for farmers, and more hunger. Under the current system, agrofuels have become one more end product, like meat or processed foods, competing for the global supply of raw commodities. Increased competition for corn as the raw material for corn-based ethanol, for example, has already resulted in higher corn prices which, combined with high oil prices, has contributed to recent increases in food prices.²¹

Higher retail food prices, however, are not reflected in prices paid to growers, especially for growers who produce raw commodities rather than food crops. Recent price spikes will not create any lasting solution for family farmers, who face skyrocketing costs for fuel, fertilizer, and other inputs, and who are at the mercy of a volatile marketplace in which prices could change at any moment. Historically, due to farmers' lack of market power, each time the prices paid to farmers have risen, input suppliers or buyers have found ways to increase farmers' costs.^{22,23} The USDA Economic Research Service (ERS) predicts that agrofuels will have far-reaching effects throughout the U.S. agricultural sector, including increased volatility of crop prices and reduced supplies of crops for food.²⁴ The U.S. currently only holds a few months' worth of grain reserve as a buffer against production shortfalls, natural disasters or other shocks. This creates an even more precarious situation for farmers and consumers alike. The increased volatility of the U.S. food system spurred by the agrofuels boom is coming at a time when many community food and family farm allies are advocating for just the opposite – *a sound food and farming system that ensures fair, stable prices for producers while maintaining secure access to affordable food for consumers*. Such a system would include infrastructure to move fresh foods to local markets, as well as strategic reserves for storable foods such as grains.²⁵

The threat that agrofuels pose to food security is not so much the increases in crop prices as it is the perpetuation of an unregulated market for food commodities that makes no guarantee that everyone will get enough food. The world's poor – both consumers and producers – are the most vulnerable in this market-driven food system.

Increased Dependency on Food Imports

A primary concern impacting the right to food is that the increased land use for agrofuel production

will make more people increasingly reliant on food purchases or food aid, as communities will be less able to produce food for themselves.²⁶ Short-term projections by the UN Food and Agriculture Organization (FAO) calculate that the poorest countries will see their cereal import bill increase by one quarter over the course of a season, spurred by demand for agrofuel.²⁷ The USDA ERS also predicts that ethanol expansion in the U.S. will impact countries that import U.S. food.²⁸



Daniel Moss, Grassroots International

The recent uproar over tortilla prices in Mexico is a dramatic example of the long-term impact of market-driven agricultural trade policies compounded by competition of agrofuels for global commodity supplies. Mexico has become increasingly dependent on U.S. corn since the passage of the North American Free Trade Agreement (NAFTA) in 1994. NAFTA pushed through industry and land reforms that resulted in increased food and agriculture industry concentration, fewer small farmers able to feed themselves, and greater dependency on food imports.^{29,30} Given this framework, it came as no surprise this past year that as corn prices increased in the global market, the price for corn tortillas skyrocketed in Mexico. Increased demand for agrofuels is one of the major reasons cited for this price spike, along with speculation and hoarding by agroindustrial monopolies and increased energy costs.³¹ Price spikes were an especially great assault on the poor, who most rely on corn tortillas as a staple food.³²

The tortilla price crisis was particularly alarming because Mexico's capacity for domestic food production has been eroded by the passage of NAFTA, leaving local communities even more food insecure. Throughout the world, development of agrofuel markets exacerbates the erosion of local food production by shifting food supplies and agricultural resources to energy production for the global market. In South Africa, where corn is a critical staple food for the poor, its availability has plummeted and prices have increased because of the country's ethanol push.³³ In Argentina, the agrofuel boom is further driving the production of soy, accelerating the rate at which staple food crops are being replaced with agroindustrial commodities.³⁴ In Indonesia, the very communities who are producing palm oil for the global agrofuel market cannot afford the same palm oil for their basic cooking needs.³⁵

Not only does increased competition for commodities decrease food access for the poor, increased competition coupled with the lack of food reserves make it harder to respond to emergencies such as wars and droughts that require food aid. UN agencies, U.S. government agencies, and prominent charitable food programs³⁶ have all recently testified to the dramatic increases in food prices as well as shipping costs, with drastic consequences for the amount of food aid available to the hungry of the world.

Second Generation Agrofuels as the Answer?

Agrofuel proponents often claim that any food security threats posed by agrofuels today will be mitigated by the development of "second generation" agrofuels derived from fast-growing trees and grasses in the future. These second generation agrofuels will not undermine food security, they argue, because they will be derived from non-food crops and can be planted on marginal land so as not to compete with food crops for more productive land. What they fail to mention, however, is that these crops, even if they

are not food crops per se, will continue to compete for the very same resources as food crops (e.g., water, nutrients, and even land). According to Eric Holt-Giménez of Food First, "The issue of which crops are converted to fuel is irrelevant. Wild plants cultivated as fuel crops won't have a smaller 'environmental footprint.' They will rapidly migrate from hedgerows and woodlots onto arable lands to be intensively cultivated like any other industrial crop, with all the associated environmental externalities."³⁷ The bottom line is that any industrial agricultural production - whether corn or switchgrass - that attempts to produce large quantities of agrofuel stock for the global marketplace will compromise the resources available for food production.

AGRICULTURAL WORKERS RIGHTS

Fundamental principles of community food security are *fair wages, decent working conditions, and sustainable livelihoods for farmers and food system workers alike*. Human rights violations are prevalent in industrial agricultural fields today. As we have seen, the growth of agrofuel production and development will only perpetuate a system that already disregards workers' rights. The cost to human lives and dignity as a result of these human rights violations remains mostly invisible, because the effects are predominantly felt by marginalized people in developing countries.



João Roberto Ripper

Research on the connections between agrofuel production and human rights is in preliminary stages, but initial reports are alarming. The situation on sugarcane plantations, where the majority of Latin American agrofuel biomass is grown, is among the most well-documented. These examples are not exclusively drawn from agrofuel-dedicated plantations, but these cases clearly demonstrate the current reality for many plantation workers - and what more we can expect from increasing agrofuel production.

The majority of agricultural workers are landless migrants from the poorest regions of countries like Brazil, or migrant workers who travel from a poor country to a more agriculturally developed neighbor (e.g., from Nicaragua to Costa Rica). They have little power to negotiate wages, hours, or working conditions, and are often forced to live under the parameters of the plantation since they have no home of their own. Some governments have laws on the books to protect agricultural workers, but they are rarely enforced. In Costa Rica, for example, where Nicaraguans annually migrate for the sugarcane harvest, wages are generally based on tons harvested, and usually do not equal the legally-mandated minimum daily wage.³⁸ In Brazil, workers in the largest ethanol-producing state, São Paulo, are also paid by the ton, earning \$1.20 per ton harvested. Sugarcane plantations set a typical daily quota of ten to fifteen tons, which, harvested by hand, translates to a back-breaking thirty swings of the scythe per minute for eight hours -- and only a minimal monthly salary.³⁹ While some reports highlight these wages as a good deal for migrant workers given the lack of other options,⁴⁰ on-the-ground human rights investigations uncover that most sugarcane workers cannot meet the quotas. Not only do they then not receive their monthly pay, this is often used as grounds for firing, often without retroactive pay.⁴¹

The most atrocious reports coming from the agrofuel fields are cases of slavery and child labor. In June 2007, Brazil's Ministry of Labor uncovered 1,108 workers living under slave conditions in a sugarcane

plantation in the Amazon.⁴² An earlier Greenpeace report revealed slave labor on soybean plantations, also in the Amazon.⁴³ The conditions on these plantations included being paid with food, harvesting equipment, and lodging before being paid wages. Under these conditions, workers remain in debt to plantation owners and are unable to earn their way out of debt. In Bolivia, the sugarcane industry is notorious for using child labor on plantations. One study found that 7,000 children and adolescents work in the fields. The youngest are categorized as "helpers," while adolescents cut sugarcane up to twelve hours a day, sometimes without pay.⁴⁴



Andy Lin

The working and living conditions for agrofuel workers are extremely harsh with regards to health. The standard method of sugarcane harvest is to burn the fields before cutting the cane. The resulting poor air quality has led to cases of asthma, bronchial illnesses, headaches, burns and dehydration in both workers and their families living on or near the plantation.⁴⁵ A Brazilian worker describes the work of cutting sugarcane, saying, "By the end of the day, your entire body hurts so much you think you are going to die."⁴⁶ From 2005 to 2006, 17 workers in Brazil died from pure exhaustion, and in 2005, 450 deaths of Brazilian sugarcane workers were officially reported from assassinations, accidents, health-related conditions and burns. Some estimates indicate that between 2002 and 2006, 1,300 sugarcane workers died from these combined causes.⁴⁷

COMMUNITY ECONOMIC DEVELOPMENT

A critical component of community food security is *“a sustainable food system that maximizes community self-reliance and social justice.”* This means a food system that is *adapted to local ecology and culture; is responsive to diverse community needs; and fosters equitable access to healthy, culturally appropriate food.*

These principles are currently being violated by an extractive food and fuel economy in which wealth and resources are drained from communities to serve corporate interests. Agrofuels are often presented as a way of rescuing an industrial agriculture-based economy that is deeply broken. Yet the commodity markets themselves are broken. Simply selling more grains will not reverse these failures, nor will it bring lasting prosperity to rural communities in the U.S. or abroad.



Corrina Steward

Rural Community Survival

Commodity markets are exceptionally efficient at extracting wealth from rural areas. In the U.S., farmers have doubled productivity since 1969, while net farm income fell from \$40 billion to \$6 billion (in 2005 dollars).⁴⁸ Federal farm subsidies help to compensate for these losses, but they do not solve the underlying problems. Faced with difficult circumstances, farmers are often encouraged to take on

more debt than local credit sources can sustain. When farmers pay interest on these loans, they ship far more dollars out of the community than subsidies can replace.⁴⁹ Although some farms may prosper, the region as a whole is weakened. As a result, rural communities find themselves depleted by commodity markets. Already, ethanol factories have started to close, ironically squeezed by rising prices of corn and fossil fuel on one side and the lack of distribution infrastructure on the other.⁵⁰

The situation is similar internationally. Agrofuel production offers little benefit or foundation for rural economies and communities. Brazil is one of the best case studies for understanding what happens when industrial agriculture becomes the basis for a rural economy. Decades of large-scale agricultural production have led to increasing concentration of land ownership in a few hands and massive exodus of small farmers. The expansion of agrofuel production is causing even more dramatic disappearances -- not only of farmers, but of entire rural villages and communities. In the Amazon, soy plantations are buying out whole communities.⁵¹ In northeast and southern Brazil, expansion of sugarcane plantations is plowing through rural areas, leaving no sign of the pre-existing communities except for community members that end up working on the plantations.⁵² In Colombia, the government has given away large tracts of indigenous Afro-Colombian peasants' land to paramilitary group for the production of palm oil.⁵³ Such exploitive practices, of course, are not new. The point is that increased industrial agrofuel production only exacerbates them, in the absence of democratic channels for local resource planning.

Agrofuels further skew the balance of agricultural development towards large producers who do not feed the local community. Local transactions that could cycle resources and wealth within rural locales are not favored by existing economic infrastructure -- including tax policies, lending, and distribution channels. In Brazil, programs that encourage family

farmers to grow agrofuel crops have been touted as an example for the U.S. to follow. Evidence shows, however, that family farmers in Brazil would rather have government support for growing food.⁵⁴

Some agrofuel proponents state that agrofuels could spell a real win for developing countries if they result in less “dumping” of agricultural commodities into local markets, as corn and soybeans are diverted for fuel production.⁵⁵ The fact is that much more would be needed to renew rural economies devastated from years of exploitative agricultural policies, and agrofuels only make a bad situation worse. National agricultural markets in Mexico, for example, are so decimated from years of dumping under the North American Free Trade Agreement, that becoming food self-reliant would require investment in agricultural development for food production and a reversal of trade policies. This is a very unlikely scenario, particularly when agricultural investment dollars are instead growing for agrofuel production and decreasing for food production. The real issues are the extractive economic model and continued fluctuation of commodity prices, both of which will only continue under the new agrofuel markets,⁵⁶ that prevent family farmers around the world from having secure livelihoods.

Agrofuel Industry and Corporate Concentration

Industrial agrofuel development takes communities off the path toward self-reliance by placing decision-making power in the hands of those outside the community. Governments and corporations are investing billions of dollars in agrofuel production, and food and energy companies are forming new partnerships. According to Miguel Altieri, University of California at Berkeley professor, these new food and fuel alliances are in a position to decide the future of the world’s agricultural landscapes. Altieri explains that the agrofuel boom consolidates corporations’ control over our food and fuel

systems and allows them to decide what will be grown, the modes of production, and the global supply of food and agrofuel. Corporations’ concern will not be for the communities invisible to the market, and the result will be more rural poverty, environmental destruction, and hunger.⁵⁷



Corrina Steward

The ultimate beneficiaries of the agrofuel revolution will not be rural communities, small farmers, or consumers, they will be major grain merchants including Cargill, ADM and Bunge; petroleum companies like BP, Shell, and Chevron; and biotech corporations such as Monsanto, DuPont, and Syngenta. We see the move towards corporate consolidation already with processing facilities. While 34% of U.S. ethanol plants are currently owned by farmer associations, 88% of newer facilities are owned by large corporations.⁵⁸ Clearly, small farmers are not the main beneficiaries of the agrofuels trend, as the agrofuels industry would have us believe. Instead, the very same megacorporations that the community food security movement has long been up against are now behind this agrofuel push - and new, powerful alliances are forming across industry sectors to promote the agrofuel agenda.

ENVIRONMENT: THE EROSION OF RESOURCES FOR COMMUNITY FOOD SECURITY

The community food security movement is *dedicated to good food, clean water, fertile soil, healthful crops and sustainable agricultural practices*. These values can only be realized through *a food system based on diverse, agroecological, community-based family farming and small-scale agriculture*.

Agrofuels are promoted as environmentally-friendly “green” technology. But while there is proven technology to convert biomass to energy, there are major challenges to implementing such technology in a way that conserves resources and has a positive environmental impact. The industrial agrofuel model is not meeting those challenges.



Linda Mason

An analysis of Brazil’s expanded ethanol program demonstrates that continuing Brazil’s program will create a social and ecological disaster.⁵⁹ Agrofuel production simply expands the number of hectares in large-scale industrial agriculture production, and leaves intact the underlying social problems of landlessness, hunger, and joblessness. Industrial agriculture increases chemical inputs, soil erosion, water use, and pollution. Ultimately, more acreage in industrial agrofuel production will lead to greater environmental degradation - further contributing to social problems and poverty.

Impacts on Community Food Resources

Water depletion, soil erosion, contamination by genetic modification, and pollution are just some of the specific ecological crises that will be exacerbated by agrofuel production.

Forty percent of the world’s population currently experiences water shortages. Aquifer depletion, drought, and dry riverbeds are challenges many communities already face, while water needs continue to grow worldwide. Growing crops for fuel and agrofuel processing will cause an even greater strain on water resources. The International Water Management Institute analyzed the impact of agrofuels on water availability and found that in India and China, the increasing production of sugarcane and corn for ethanol is resulting in water transfers from water-abundant to water-scarce areas. The study concludes, “These [water transfer] projects are controversial because of their costs, environmental impacts, and number of displaced people by big dams. Unless other less water-intensive alternatives are considered, biofuels are not environmentally sustainable.”⁶⁰

Using biomass as a fuel source - which can mean removing whole-plant top growth from fields - has the potential to quickly deplete soil productivity if not replaced by other organic matter. When high prices cause more acres to be planted with year-round monocultures instead of healthy crop rotations, agrofuel production will prove damaging to long-term soil productivity. According to the Ontario Ministry of Agriculture, “Organic matter is key to soil productivity. If we allow it to be depleted, there might be a short-term financial gain, but we’ll be faced with compaction, poor soil structure and many other long-term soil quality issues.”⁶¹

Increased agrofuel production will further threaten food supply through expansion of so-called “green

deserts” - huge swaths of land planted with a single crop: one which is usually a sterile hybrid, and often genetically modified. In the last century, 75% of the world’s crop diversity has been lost, primarily due to large-scale production of a handful of crops.⁶² Further land conversion to production of agrofuel monocultures accelerates the loss of genetic diversity in our food stocks. Crop diversity, especially in-situ, is important for buffering the impacts of the crop diseases, pests, and climate change on local and global food supplies.

There are already grave concerns over the safety of genetically modified (GM) food crops. The agrofuel boom is a major opportunity for the biotech industry to further expand its reach over the agricultural sector, and biotech companies are in the midst of developing and patenting a host of new GM agrofuel crops to complement what is already being grown in the fields. For example, Monsanto plans to sell a GM maize variety with high starch content for ethanol production and a GM sugarcane variety resistant to its RoundUp Ready pesticide.⁶³ Biotech companies are also pushing to lift a ban on genetic seed sterilization, more commonly known as Terminator Technology, in the name of “containment” of GM crops to prevent genetic contamination. Furthermore, the promise of cellulose-based “second generation” agrofuels is being built around the “promise” of genetically-modified microbes and synthetic biology, since current conversion processes are not efficient enough to be commercially viable.^{64,65}

Environmental Justice

The health of all humans is tied inextricably to the health of the environment, but low-income communities are often most vulnerable to repercussions of environmental degradation. For reasons that mirror the controversial siting of sewage treatment plants or oil refineries in low-income communities, the agrofuel industry has now come under scrutiny for

environmental justice concerns. Both existing and new ethanol refineries are predominantly located in low-income communities.⁶⁶ Ethanol plants are in the top 20% of the worst U.S. facilities for emissions of recognized carcinogens. The refining process releases carbon monoxide, sulfur dioxide, particulate matter, fine particulate matter, volatile organic compounds, and nitrogen oxide. The resulting smog causes respiratory damage, asthma, and cancer.^{67,68} As new findings are just beginning to emerge in this area, new plants and several existing ones are already meeting increased resistance by those citizens fighting for environmental justice.⁶⁹

Food Security vs. Climate Change?

Climate change is a serious community food security concern. Real solutions will be required to alleviate the predicted impacts on food production, especially in vulnerable regions of the global South. Agrofuels are promoted as part of the solution to mitigate climate change. However, there is still a great deal of debate over the net energy balance of agrofuels - some studies have found that agrofuels (particularly corn ethanol) have a net energy loss due to inputs and processing,⁷⁰ while others have showed an energy gain.⁷¹ Even in the latter studies, however, net energy gain is minimal, demonstrating that agrofuels are not going to eliminate our reliance on carbon-burning fossil fuels any time soon.

Industrial agrofuel production requires major agricultural inputs including energy-intensive fertilizer and pesticides.⁷² Planting and harvesting are done by machinery powered by conventional fuels. Converting plant biomass into liquid fuel produces significant greenhouse gas emissions,⁷³ while transport to markets further raises fossil fuel use. Furthermore, as carbon-capturing forests are felled to make way for fuel crops, carbon emissions will increase, not decrease.⁷⁴ Increased deforestation not only contributes to climate change, it also destroys a vital community food resource.

CONCLUSIONS AND RECOMMENDATIONS

Today, the industrial production of agrofuels is not aligned with community food security nor is it sustainable.⁷⁵ Agrofuels are another step in the industrial-corporate transformation of our energy and food systems that further takes control of food and fuel resources away from communities. The principles of community food security imply that fuel is not a priority over food, and governments' actions to make it so undermine the world's hungry and struggling rural communities. Unless the agrofuels market builds new wealth that stays in rural communities, strengthens the social fabric of communities and builds greater resilience for an uncertain future, rural communities will gain very little from agrofuel production.

There are some proposals that insist that increasing the use of agrofuels, with safeguards to protect the environment and family farmers, will bring the possibility of a rural revitalization (primarily in the U.S.).⁷⁶ This might be true in an ideal agrarian context, but that is not the reality today. Many conditions and policies would be needed to allow agrofuels to be a foundation for rural revitalization in the U.S., including fair prices that actually go to farmers and farm workers; a national system of grain reserves; local use of feedstock and fuel; and local ownership of processing plants. This scenario is just as far from reality in the international context.



MST/MA

The values of community food security and sustainable energy are not opposed; in fact, the two are very much interrelated.⁷⁷ Although this report has focused on industrial-scale agrofuels, it is important to point out that many communities have taken their energy needs into their own hands. New ways of integrating sustainable energy and agriculture that benefit community food security are surfacing, from small farmer settlements in Brazil intercropping energy and food crops, to community farms in the U.S. using locally made biodiesel for farm machinery. Small farmers, indigenous peoples, and environmentalists are using these examples to further explore the connections between sustainable energy, food security, and rural development. A powerful example from the global South is a proposal for a new sustainable development paradigm that combines food sovereignty and energy sovereignty - the democratization of both food and energy systems.⁷⁸

Food sovereignty and the building of local food systems can do more for climate change mitigation and feeding people than industrial agrofuel production can.⁷⁹ Around the world, small farmers are calling for local agricultural development that would bolster small-scale production of sustainable energy for local use under local control and prioritize food in diverse, agro-ecological farming systems. Creating and supporting local food systems plays a vital role in local development (including for sustainable energy). If rural communities could make policy for themselves, the most rational way for them to invest would be in creating green energy systems that fuel local food production. This would reduce living costs and build greater self-reliance. Further community benefits would include reducing the costs of shipping fuels great distances, and removing the need to defend foreign production and distribution channels. The next steps needed to counter the tremendous impact of agrofuels on community food security

include short-term changes to stave off immediate damage, and longer-term shifts in rural development and agricultural policies that work towards a community food security vision. Immediate action is needed to soften the blow of U.S. agrofuel policy on communities in the U.S. and around the world. Alliance building and organizing with global South and North networks and movements are needed to bring about future shifts in sustainable food and energy systems. Lastly, participatory and transparent dialogue is needed to bring critical issues like energy consumption into the agrofuel discussion. Below are key actions that address this range of recommendations.



Corrina Steward

What you can do to support community food security and sustainable energy:

- Sign your group/organization on to the moratorium on global agrofuels trade. For more information and to sign on, contact the Rainforest Action Network: www.ran.org.
- Tell Congress that you do not support policies (e.g., subsidies, targets, and other measures) that increase the production of industrial agrofuels.
- Tell Congress that you want real market reforms for family farmers, including support for fair prices for food and loosening of agribusiness' control over our food and fuel markets.
- Resist the threat to the hungry from increasing food prices and dwindling food supplies by advocating for price stabilization and national food reserves.
- Support sustainable agricultural practices that reduce energy consumption. Promote more localized food systems to reduce food mileage.
- Join with ecojustice and family farm movements throughout the world, such as the Movement of Landless Rural Workers (MST) in Brazil and the Via Campesina global peasant network, that are fighting back against agrofuel monocultures.
- Publicize the conflict of interest when agribusiness corporations gain greater control of the fuel industry, and vice versa.
- Organize your community to resist corporate control of local food and energy resources. Join movements calling for enforcement and strengthening of anti-trust and anti-monopoly measures.
- Focus the energy debate on conservation and energy consumption rates. No alternative to fossil fuels will be able to meet current and future energy demands if we do not decrease our energy usage altogether and put a major emphasis on conservation.

A broad network of social and environmental movements is working hard to make the vision of localized, community-based food systems a reality. If we do not buffer communities from the effects of agrofuel production, their efforts will be greatly compromised. Immediate action is needed to prevent governments around the world from setting and implementing targets requiring increased production and importation of agrofuels. It is time to bring the attention of governments and the public back to the importance of true food and energy security. It is time to develop real and sustainable solutions rather than painful policies that hurt farmers, the environment and the poor and hungry.

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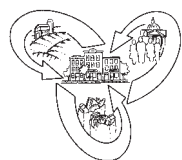
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COMMUNITY FOOD SECURITY COALITION



The Community Food Security Coalition (CFSC) is a North American organization of social and economic justice, environmental, nutrition, sustainable agriculture, community development, labor, anti-poverty, anti-hunger, and other groups. The Coalition has 325 organizational members in 41 states, 4 Canadian provinces and the District of Columbia. We are dedicated to building strong, sustainable, local and regional food systems that ensure access to affordable, nutritious, and culturally appropriate food to all people at all times. We seek to develop self-reliance among all communities in obtaining their food and to create a system of growing, manufacturing, processing, making available, and selling food that is regionally based and grounded in the principles of justice, democracy, and sustainability.

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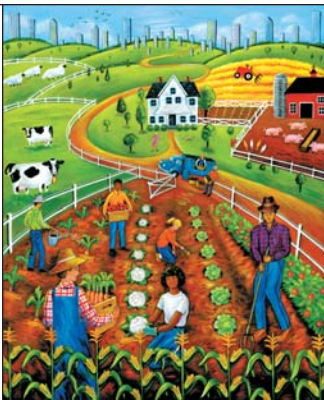


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