### Ag Adv

#### Cuban agriculture is at a critical turning point – capital shortages are causing a turn away from ecological sustainability

M. Dawn King, Professor of Environmental Studies at Brown, 3/21/12

(Cuban Sustainability: The Effects of Economic Isolation on Agriculture and Energy, wpsa.research.pdx.edu/meet/2012/kingmdawn.pdf)

Cuba needed an alternative agricultural model when foreign oil imports were cut off significantly at the end of the 1980s, and the partial opening of the Cuban economy, focused on creating more autonomous agricultural cooperatives, in the 1990s helped diversify food crops and set Cuba along a path of increased food security. The Cuban model was initiated out of necessity, not because of any sort of Cuban environmental consciousness, yet better environmental conditions went hand in hand with the new development strategy. Cuba learned the limits of their agricultural model under their socialist economic system and it is in need of further transformation in both the agriculture and energy sectors. A further opening of the economy to joint ventures could help with updating the power grid and providing more sources of renewable energy – potentially expanding Cuba’s potential for a more sustainable means of energy security. Further, Cuba needs foreign investment to update agriculture facilities and take maximum advantage of cogeneration and biofuel potential with sugarcane waste. The strong state control of farming practices, used to successfully jumpstart the alternative model, has hit its limit. The Cuban government must begin loosening its grips on the domestic economy to allow for more competition in the farming sector. Despite the potential to become more sustainable with a purposive and focused opening of the economy, the recent surge in joint venture investment on expanding domestic oil extraction, petrochemical facilities, and oil refinery infrastructure reveals a trend toward decreasing environmental sustainability. Once heralded as the world’s most sustainable country by coupling environmental performance indicators with their human development scores, Cuba is slipping further away from this goal. Perhaps the most distressing part of this current trend is that it took Cuba decades to create a national identity that embraced sustainable environmental practices in both the energy and agricultural sector, and it seemingly took only a couple of years to derail these efforts. Undoubtedly, conservation efforts and sustainable education programs can only satiate citizen’s energy desires to a certain point. In order to further the quality of life in the country, electric production must increase to rural areas with little energy infrastructure and to Havana in order to spur foreign investment and domestic small business growth. Cuba’s trade agreement with Venezuela is bringing in much-needed petroleum for electricity production, but their dependence on a relatively unstable country for crude is trapping them into the same relationship that crippled their economy in 1990 – impairing their original goal of self-sufficiency. Cuba is at a turning point in their path toward environmental sustainability, and the current need for immediate foreign capital and increased energy production seem to be trumping its desire to achieve development sustainably. Cuba still has enough centralized control to leap-frog dirty electric production for cleaner renewable forms of energy and the potential to guide development strategies that emphasize investments in and research on renewable energy. It can utilize its expertise on organic farming strategies to increase sugar production in a much more ecologically friendly manner than their monoculture approach in the 1970s and 80s. Decisions made in the next five years will demonstrate whether Cuba embraces their newly created national identity as a society striving for sustainable development or rejects the goal of sustainable development to increase short-term capital and energy needs.

#### Cuba is reverting back to industrial methods – this eliminates a critical model for global agroecology necessary to adapt to future challenges and prevent mass shortages

Raj Patel, Fellow at the Institute for Food and Development Policy, 2012

(April, What Cuba Can Teach Us About Food and Climate Change, www.slate.com/articles/health\_and\_science/future\_tense/2012/04/agro\_ecology\_lessons\_from\_cuba\_on\_agriculture\_food\_and\_climate\_change\_.single.html)

The Studebakers plying up and down Havana’s boardwalk aren’t the best advertisement for dynamism and innovation. But if you want to see what tomorrow’s fossil-fuel-free, climate-change-resilient, high-tech farming looks like, there are few places on earth like the Republic of Cuba. Under the Warsaw Pact, Cuba sent rum and sugar to the red side of the Iron Curtai/n. In exchange, it received food, oil, machinery, and as many petrochemicals as it could shake a stick at. From the Missile Crisis to the twilight of the Soviet Union, Cuba was one of the largest importers of agricultural chemicals in Latin America. But when the Iron Curtain fell, the supply lines were cut, and tractors rusted in the fields. Unable to afford the fertilizers and pesticides that 20th-century agriculture had taken for granted, the country faced extreme weather events and a limit to the land and water it could use to grow food. The rest of the world will soon face many of the same problems: In the coming decade, according to the OECD, we’ll see higher fuel and fertilizer costs, more variable climate patterns, and limits to arable land that will drive cereal prices 20 percent higher and hike meat prices by 30 percent—and that’s just the beginning. Policymakers can find inspirational and salutary ideas about how to confront this crisis in Cuba, the reluctant laboratory for 21st-century agriculture. Cuban officials faced the crisis clumsily. They didn’t know how to transform an economy geared toward sweetening Eastern Europe into one that could feed folk at home. Agronomists had been schooled in the virtues of large-scale industrial collective agriculture. When the “industrial” part became impossible, they insisted on yet more collectivization. The dramatic decline in crop production between 1990 and 1994, during which the average Cuban lost 20 pounds, was known as “the Special Period.” Cubans have a line in comedy as dark as their rum. Cuban peasants proved more enterprising than the government and demanded change. First, they wanted control over land. The state had owned 79 percent of arable land, and most was run in state cooperatives. Initially the government refused to listen, but the depth of the crisis and the demands of organized farmers created some space for change. Through reform, the government decentralized farm management. The land remains in government hands, but now it is also available with “usufruct” rights to tenants, who can invest in the soil and pass the land onto their children. But that took the farmers only so far. So some of the country’s agronomists, plant breeders, soil scientists, and hydrologists (Cuba has 2 percent of Latin America’s population but 11 percent of its scientists) found themselves being put to use by Cuban peasants in the fields. Their task: figure out how to farm without the fossil-fuel products upon which the country’s agricultural systems had become dependent. With no fertilizer, pesticide, or herbicide, and no means to import substitute chemicals, many in the scientific community landed on “agro-ecology.” To understand what agro-ecology is, it helps first to understand why today’s agriculture is called “industrial.” Modern farming turns fields into factories. Inorganic fertilizer adds nitrogen, potassium, and phosphorous to the soil; pesticides kill anything that crawls; herbicides nuke anything green and unwanted—all to create an assembly line that spits out a single crop. This is modern monoculture. Agro-ecology uses nature’s far more complex systems to do the same thing more efficiently and without the chemistry set. Nitrogen-fixing beans are grown instead of inorganic fertilizer; flowers are used to attract beneficial insects to manage pests; weeds are crowded out with more intensive planting. The result is a sophisticated polyculture—that is, it produces many crops simultaneously, instead of just one. In Cuba, peasants encouraged scientists to adopt this approach. One of their most important ideas, borrowed from elsewhere in Central America, was a model of knowledge diffusion called “Campesino a Campesino”—peasant to peasant. Farmers share their results and ideas with one another and with scientists, which has helped agro-ecological systems spread. So has it worked? That’s up for debate. The Cuban vice minister of the economy and planning ministry reportedly said in February 2007 that 84 percent of the country’s food was imported—not terribly encouraging, if we are looking at Cuba to foretell our agricultural future. But a recent paper by UC-Berkeley’s Miguel A. Altieri and the University of Matanzas’ Fernando R. Funes-Monzote suggests that while the country still imports almost all its wheat (a crop that doesn’t do well in the Caribbean), it now produces the majority of its fresh fruit and vegetables—even much of its meat. In 2007, Cubans produced more food while using one-quarter of the chemicals as they did in 1988. Agro-ecology is particularly valuable in years when disaster strikes the island. After Hurricane Ike flattened Cuba in 2008, a research team found that both traditional plantain monocultures and agro-ecological farms were devastated. But there were striking differences: Monocultures lost about 75 percent of tree cover, where agro-ecological farms lost 60 percent. On agro-ecological farms, tall plantains—a staple of the Caribbean diet—were often righted by the families working the land. By contrast, on conventional farms, the seasonal labor force arrived on the scene too late to save the plants. When trees were beyond salvage in the polyculture farms, crops lower down in the canopy thrived. By contrast, in the monoculture, the only things that flourished in the gaps between trees were weeds. About four months after the storm, strongly integrated agro-ecological farms were nearly back to full production. It took conventional farms an additional two months to spring back. Yet all is not well in the Cuban food system. For many, especially government officials, choosing agro-ecology wasn’t a red-blooded Communist decision. It was a practical one. They are quite ready for an industrial-agricultural relapse if the occasion arises. Recently, they have had an unlikely enabler: Hugo Chávez. In exchange for the 31,000 Cuban doctors who are treating Venezuelans, Cuba receives 100,000 barrels of oil a day, plus a great deal of chemical fertilizer. As a result, the parts of the country untouched by agro-ecology are starting to spray and sow like it’s the 1980s again. At odds aren’t just two different farming systems, but two different social approaches. On one hand, in Cuba and around the world, is industrial agriculture. In this top-down, command-and-control model, knowledge, fertilizers, seed, and land are all fed into the black box that is the farm. Wait long enough, and food comes out the other end. On the other hand, there’s agro-ecology, in which farmers are innovators and educators, soil can be built over generations, and the natural environment can be bent with, rather than broken. Climate change has already reduced global wheat harvests by 5 percent, and food prices are predicted to double by 2030. Cuba’s example is both instructive and frustrating. Technical innovations in Cuban agriculture point to the kinds of thinking needed to address the future: moving away from monoculture and understanding the value of complex, integrated systems. The trouble is that this also means a change in the mindset of governments and scientists schooled in last century’s agriculture. If that’s a lesson the rest of the world is ready for, Cuban peasant organizing could well light the way to the future, even if their automobiles are stuck in the past.

#### Soil erosion ends civilization – only organic farming can solve

**Montgomery 7** (David R. Montgomery, Quaternary Research Center and Department of Earth and Space Sciences, University of Washington, http://www.geosociety.org/gsatoday/archive/17/10/pdf/i1052-5173-17-10-4.pdf)

“Is agriculture eroding civilization’s foundation?”

Recent compilations of data from around the world show that soil erosion under conventional agriculture exceeds both rates of soil production and geological erosion rates by from several times to several orders of magnitude. Consequently, modern agriculture—and therefore global society—faces a fundamental question over the upcoming centuries. Can an agricultural system capable of feeding a growing population safeguard both soil fertility and the soil itself? Although the experiences of past societies provide ample historical basis for concern about the long-term prospects for soil conservation, data compiled in recent studies indicate that no-till farming could reduce erosion to levels close to soil production rates. Similarly, organic farming methods have been shown to be capable of preserving—and in the case of degraded soils, improving—soil fertility. Consequently, agricultural production need not necessarily come at the expense of either soil fertility or the soil, even if recent proposals to rely on conventionally grown corn for biofuels exemplify how short-term social and economic trade-offs can deprioritize soil conservation. Like the issues of climate change and loss of biodiversity, ongoing global degradation and loss of soil present fundamental social challenges in which the slow pace of environmental change counterintuitively makes solutions all the more difficult to adopt.

They’re making more people every day but they ain’t makin’ any more dirt.—Will Rogers

Public concern over the future of civilization and issues of sustainability in general tends to focus on global warming, loss of biodiversity, and the end of the fossil-fuel era. Far less societal concern has been focused on how dramatically conventional agriculture has increased soil erosion around the world, however, or on the role of soil degradation and loss in the history and fate of civilizations. With global agricultural soil erosion outpacing soil production by a wide margin (Wilkinson and McElroy, 2007; Montgomery, 2007b), modern conventional agriculture is literally mining soil to produce food (Fig. 1)—and yet, feeding humanity fundamentally depends on fertile soil. Unless this deceptively simple problem is solved, soil loss will become a key issue facing society over the next several centuries, in a process like that recognized as contributing to the decline of ancient societies (e.g., Montgomery, 2007a). Even a casual reading of history shows that under the right circumstances, climatic extremes, political turmoil, and/or resource abuse can bring down a society, and in the upcoming century, we face the potential convergence of all three as shifting climate patterns and depleted oil supplies collide with accelerated soil erosion and the resulting loss of cropland (Brink et al., 1977; Larson et al., 1983; Ruttan, 1999). Soil erosion represents just a single aspect of agricultural sustainability because soil productivity involves nutrient budgets, not just soil loss. Ecologically productive soils, those with more soil microorganisms and organic matter, can support greater plant growth. Numerous studies have shown how conventional tillage reduces soil organic matter (Lal, 2007) and thereby reduces biological activity that supports soil fertility. In addition, soils that thin due to rapid erosion have reduced weathering time that may limit the availability of key plant nutrients, leading to reduced soil fertility. And it has long been recognized that sustained cropping without appropriate crop rotation can deplete soil nutrients and that chemical fertilizers can greatly enhance the productivity of degraded soils. So even though the issue of sustainable soil erosion may be appropriately gauged by soil production rates, the overall health and fertility of the soil further depends on soil nutrient and organic matter contents. An agricultural soil need not be entirely eroded away to preclude economical farming.

#### Organic agriculture sequesters carbon and solves three internal links to water shortages – pollution, irrigation and nutrition only this prevents billions of deaths

**Beck 4** (Malcolm, writer for the Garden-Ville Method, internally citing Senator Paul Simon, Dr. Jerry Parsons, and a study from the United States Department of Agriculture, “WATER: Quality, Quantity & Organic Agriculture,” 5/17, http://www.malcolmbeck.com/books/gv\_method/WaterQualityQuantityandOrganicAgriculture.htm)

No life, not even the simplest, can exist without water. Three quarters of the Earth is covered with water, but most of it is too salty to drink. Only three percent of all the water on Earth is fresh water. Agriculture uses 80-90 percent of that small amount. And each year, that three percent is getting more and more contaminated with sewage, pesticides, fertilizers, herbicides and other toxins.¶ Water consumption per capita is continually going up. Texas, California, and Florida are already experiencing water shortages and contamination, at times severe. The population of the earth is continuing to grow. Our grandchildren will live to see the population double.¶ The book, Tapped Out by Paul Simon, former United States Senator and current director of the Public Policy Institute at Southern Illinois University, presents a very gloomy forecast. Simon says, "We must act quickly to avoid a major catastrophe. The seemingly obvious answer to our fresh water shortage is to utilize seawater. But, as Simon points out, desalination of water is very expensive and energy consuming. It costs more than $2,000 per acre to use desalinized water in agriculture. Although new technology for desalinization is being developed that may make it more cost effective, it is still in the future.¶ Building dams to create new lakes will not solve the problem either. In many areas, soil conditions make building lakes impossible. Instead of creating collectors of clean water, the new basins become silted, polluted mud holes. In and areas, lakes lose great amounts of water to extreme evaporation.¶ Global warming is also believed to contribute to water problems. Given all these contributors, it is easy to see that Simon is not overstating the seriousness of the water crisis. In his book, he mentions several ways to help solve the problem, but he misses one of the most important and best solutions - organic rich soil, the best and easiest answer to quality and quantity of fresh water.¶ Simon, like most people, does not have a clear understanding of how Nature builds and maintains fertile topsoil and how rich soil collects and saves fresh water. Modern agriculture generally ignores this process.¶ Farmers, ranchers, landscapers, gardeners, and sports turf keepers that build organic soil and use mulch see the process and understand it well. Around Texas, we now have numerous sports fields and hundreds of lawns that have a thin layer of compost applied regularly. There are many farmers building the organic content of their soil by recycling animal waste and by using low-or even no-till methods that do not disturb the soil and leaves crop residue on top as a mulch. All are reporting their irrigation needs to be less, in many cases, 30 to 50 percent less. Also, these practitioners notice that they need less fertilizer and pesticides. All of this helps prevent water pollution.¶ Organic matter is the reservoir for water, nitrogen, phosphorus, sulfur, boron, zinc - in short, it is a general catch pan for all nutrients. Also, with a good supply of organic matter as an energy source, the microbes in the soil are able to degrade and detoxify pesticides and other pollutants in the water as it passes through the soil. This is important to maintaining water purity.¶ After realizing that 55 inches of water is lost each year from lakes and bare soil in Central Texas due to evaporation, and after studying the Edwards Aquifer, San Antonio's only water supply, Dr. Jerry Parsons came to the conclusion that there is only one answer to San Antonio's water problems. Dr. Parsons, local Agricultural Extension Agent, believes that answer is mulch on the soil and organic matter in the soil.¶ According to a United States Department of Agriculture (USDA) study, a block of soil containing 4 to 5 percent organic matter, weighing 100 pounds, occupying a space of 3 feet by 1 foot by 6 inches deep, can hold 165 to 195 pounds of water. This means that a field with such rich soil could absorb a 4 to 6 inch rain in an hour! This saves water, stops erosion, and helps prevent flood damage.¶ Soils rich in organic matter also produce more abundant crops. Unfortunately, most soils in the U.S. are way below that organic content - generally between .5 to perhaps 2.5 percent. Soil with that organic content can only absorb about 1/2 inch of rain. When the Rio Grande Valley was first opened for agriculture, the soil organic content was between 3 and 5 percent. According to soil test labs, the current organic content is about 1/2 percent.¶ Lack of organic matter in the soil is the biggest cause of our water problems. California alone is losing 10,000 acres of usable soil to desert each year because of loss of soil organic matter. Worldwide, 26,000 acres daily are turning to desert and being lost to water insoak and food production.¶ Since agriculture and landscaping use up to 90 percent of our fresh water, conservation must start there. Building soil organic content, growing cover crops, selecting correct plant varieties, proper tillage, and recycling back to the land all organic waste, biosolids included, is our only salvation. These practices solve our water quantity and quality problems, our soil loss problems, and food production problems. Organic matter is mostly carbon. Increasing soil organic content takes carbon from the air and places it where it is needed, and that helps check global warming.¶ Scientists have calculated that if, each year, we build the organic content of the soil 1/10 of 1 percent, we can offset all the excess carbon we put into the air. Is this solution too simple? [From Burning Fossil Fuels]¶ It has been demonstrated over and over that organically grown plants require from 10 to 50 percent less irrigation. If 90 percent of our water goes to irrigation, saving just 10 percent of that 90 is a lot of water freed up for more agriculture, industry and human consumption.

#### Water shortages will trigger global water conflicts

CSIS, Center for Strategic and International Studies, 9/30/2005

(Addressing Our Global Water Future, <http://water.csis.org/050928_ogwf.pdf>)

Taken together, all of these factors—from the rising imbalance of supply and demand to the devastating effects of water on human prosperity—point toward a world in which growing water challenges could ignite the underlying economic forces that may lead to conflict and war in the future. Such warnings have been voiced by leaders and scholars across the planet—from U.N. Secretary Generals Kofi Annan and Boutros Boutros Ghali to the U.S. National Intelligence Council. These warnings should certainly be weighed heavily, but the inevitability of conflict solely over water resources remains uncertain. Historical data on international interactions regarding water show many more cooperative arrangements than conflicts. In fact, the last incident of full-out war over water occurred 4,500 years ago between two Mesopotamian city-states (Postel and Wolf 2001). On the other hand, from 2000-2003, 15 violent conflicts across the world involved water either directly or indirectly. Twelve of these were related to disputes over the development of shared water resources (Gleick 2004a). While history gives cause for comfort, increasing water scarcity and declining water quality across the world certainly present the threat of increased instability and conflict in the future. Defining the exact nature of that threat is the first step to avoiding unrest or dangerous disputes. In the future, instability or conflict related to water supplies will likely take two forms: (1) domestic unrest caused by the inability of governments to meet the food, industrial, and municipal needs of its citizens, and (2) hostility between two or more countries—or regions within a country—possibly leading to greater insecurity or conflict, caused by one party disrupting the water supply of another.

#### Industrial agriculture is the primary cause of global warming – extinction is inevitable without a greater diffusion of organic agricultural practices

Ronnie Cummins, International Director of the Organic Consumers Association, 10/7/10

(Agriculture and Human Survival: The Road Beyond 10/10/10, http://www.commondreams.org/view/2010/10/07-9)

Despite decades of deception and mystification, a critical mass at the grassroots is waking up. A new generation of food and climate activists understands that greenhouse gas-belching fossil fuels, industrial food and farming, and our entire global economy pose a mortal threat, not just to our present health and well being, but also to human survival. Given the severity of the Crisis, we have little choice but to step up our efforts. As 35,000 climate activists at the historic global climate summit in April of 2010 in Cochabamba, Bolivia shouted, “We must change the System, not the climate.” “Changing the System,” means defending our selves, the future generations, and the biological carrying capacity of the planet from the ravages of “profit at any cost” capitalism. “Changing the System,” means safeguarding our delicately balanced climate, soils, oceans, and atmosphere from the fatal consequences of fossil fuel-induced climate change. “Changing the System” means exposing, dismantling, and replacing, not just individual out-of-control corporations like Monsanto, Halliburton, and British Petroleum, and out-of-control technologies like gene-altered crops and mountaintop removal; but our entire chemical and energy-intensive industrial economy, starting, at least for many of us, with Food Inc.’s destructive system of industrial food and farming. “Changing the system,” means going on the offensive and dismantling the most controversial and vulnerable flanks of our suicide economy: coal plants, gas guzzlers, the military-industrial complex, and industrial agriculture’s Genetically Modified Organisms (GMOs) and factory farms. Frankenfoods and Industrial Agriculture Highly subsidized GM crops - comprising 40% of U.S. cropland, and 10% of global crops - and the junk food and unhealthy processed foods and beverages derived from them, are the most profitable and strategically important components of industrial agriculture. Taxpayer subsidized GMOs and factory farms allow Food Inc. (corporate agribusiness) to poison the public and pollute the atmosphere and environment. Subsidized GM and monoculture crops - along with cheap soy, corn, and chemical additives - allow the McDonald’s, Cargills and Wal-Marts of the world to sell junk food, meat, and beverages at much lower prices than healthy, non-chemical foods. GMO crops and their companion pesticides and chemical fertilizers are the cash cows and vanguard of a global farming and food distribution system that consumes prodigious amounts of fossil fuels and emits tremendous amount of climate-destabilizing greenhouse gases. GMOs provide the ideological and technological foundation for the factory farms and mono-crop plantations that are destroying the climate, the soils, and the planet. Either we bring them down, or they will bring us down. According to Monsanto and the global war on bugs, war on biodiversity, chemical farming lobby, patented GMO seeds, crops, biofuels, animals, and trees can miraculously kill pests, reduce pesticide use, boost yields, alleviate world hunger, reduce petroleum use, and help farmers adapt to drought, pestilence, and global warming. As a growing "Millions Against Monsanto" corps understand, the Biotech Bullies are dangerous liars. Industrial agriculture, GMOs, and so-called cheap food have destroyed public health and wrecked the environment. Genetically Modified (GM) crops have neither reduced pesticide use, nor chemical fertilizer use. They kill pests, but they also give rise to superweeds and superpests. GM crops, like all industrial monoculture crops, use vast amounts of fossil fuel and water. GMO and their companion chemicals (pesticides and chemical fertilizers) destroy the greenhouse gas sequestering capacity of living soils and kill off non-patented plants, trees, and animals. Most GM crops, 90% of which are derived from Monsanto’s patented seeds, are genetically engineered to boost the sales of toxic pesticides such as Roundup, and thereby increase toxic pesticide residues in foods. GM crops do not produce higher yields, nor provide more nutritious foods. GM soybeans, the most important industrial agriculture crop, along with corn, consistently have lower yields, while chemical-intensive GM food crops contain far fewer vitamins and essential trace minerals than organic foods. Nor has gene-splicing (unlike organic farming) produced plant or tree varieties that can adapt to global warming. Nonetheless GM crops remain Food Inc.’s propaganda “poster child.” The unfortunate bottom line is that 65 years of chemical and GM agriculture, a literal World War Three on public health, rural communities, and the environment, have nearly killed us. Humans and our living environment have been poisoned, not only by pesticides, nitrate fertilizers, greenhouse gas pollution, and contaminated factory-farmed food, but also by the mutant organisms and patented chemical residues that accompany these genetically modified foods and crops. Either we make the Great Transition to a relocalized economy whose foundation is renewable energy and solar-based (as opposed to GMO and petroleum-based) organic food and fiber production, or else we are destined to burn up the planet and destroy ourselves. Despite mass media brainwashing (“Better living through chemistry… Monsanto can feed the world… GMO crops and trees can reduce fossil fuel use and climate-destabilizing greenhouse gases…”), consumers and farmers are seeing through the lies. Defying the efforts of the powerful industrial agriculture/biotech lobby, a growing number of activists and concerned citizens are connecting the dots and taking action. As a consequence Monsanto has become one of the most hated corporations on earth. A critical mass of research reveals that genetically engineered crops, now covering almost 40% of U.S. cropland (173 million acres of GM crops) and 10% of global farm acreage (321 million acres), pollute the environment, kill essential soil micro-organisms, generate superweeds and pests, decrease biodiversity, aid and abet seed monopolization, encourage massive use of toxic pesticides and chemical fertilizer, spew out massive amounts of climate-destabilizing greenhouse gases, and seriously damage animal and human health. Injecting genetically engineered hormones into dairy cows to force them to give more milk is reckless and dangerous. Monsanto’s genetically engineered Bovine Growth Hormone rBGH, now marketed by Eli Lilly, increases the risks of breast, prostate, and colon cancer for those who consume the milk. It also severely damages the health of the cows. Residue levels of Monsanto’s toxic herbicide, Roundup, found routinely in non-organic foods, destroy animal and human reproductive systems. Haphazardly ramming indeterminate amounts of patented foreign DNA, bacteria, and antibiotic-resistant genes into the genomes of already non-sustainable energy and pesticide-intensive crops and foods (corn, soy, cotton, canola, sugar beets, alfalfa) in order to increase the sales of Monsanto or Bayer's GMO companion herbicides or to facilitate monopoly control over seeds by the Gene Giants is not only non-sustainable, but criminal. Rejection of this out-of-control GM technology is a major driving force in the rapid growth of organic food and farming, as well as the growing demand for mandatory safety testing and labeling of GMOs. In the EU, where GM-tainted foods must be labeled, GMO crops are almost non-existent (although large quantities of GM animal feed are still being imported into the EU from the U.S., Canada, Brazil, and Argentina). Local and organic food production is now growing faster than GMO/industrial food and farming; improving public health and nutrition, reducing fossil fuel use and greenhouse gas pollution, sequestering billions of tons of CO2 in the soil (up to seven tons of CO2 per acre per year), and providing economic survival for a growing number of the world’s 2.8 billion small farmers and rural villagers. The growth of organic agriculture and relocalized food and farming systems are encouraging, but obviously organics are still the alternative, rather than the norm. As we enter into the Brave New World of global warming and climate chaos, many organic advocates are starting to realize that we need to put more emphasis, not just on the health and pollution hazards of GMOs; but rather we need to broaden our efforts and mobilize to abolish the entire system of industrial food and farming. As we are now learning, industrial agriculture and factory farming are in fact a primary (if not the primary) cause of global warming and deforestation. Even if were able to rip up all of Monsanto’s GMO crops tomorrow, business as usual, chemical-intensive, energy-intensive industrial agriculture is enough to kill us all. On the other hand, if we’re going to take down industrial agriculture, one of the best ways to leverage our efforts is to target the most hated corporation in the world, Monsanto. Besides contaminating our food, destroying the environment and moving, by any means necessary, to gain monopoly control over seeds and biodiversity, Monsanto and their Food Inc. collaborators are guilty of major “climate crimes.” These crimes include: confusing the public about the real causes of (and solutions to) global warming; killing the soil’s ability to sequester greenhouse gases; releasing massive amounts of greenhouse gases (CO2, methane and nitrous oxide) into the atmosphere; promoting bogus industrial corn and soy-derived biofuels (which use just as many fossil fuel, and release just as many greenhouse gases as conventional fuels); monopolizing seed stocks and taking climate-friendly varieties off the market; promoting genetically engineered trees; and last but not least, advocating dangerous geoengineering schemes such as massive GM plantations of trees or plants than reflect sunlight. The negotiators and heads of state at the December 2009 Copenhagen Climate negotiations abandoned the summit with literally no binding agreement on meaningful greenhouse gas (carbon dioxide, nitrous oxide, methane, and black carbon) reduction, and little or no acknowledgement of the major role that industrial food and farming practices play in global warming. Lulled by the world’s leaders vague promises to reduce global warming, and still believing that new technological breakthroughs can save us, the average citizen has no idea how serious the present climate crisis actually is. A close look at present (non-legally binding) pledges by the Obama Administration and other governments to reduce GHG pollution shows that their proposed, slightly modified “business as usual” practices will still result in a disastrous global average temperature increase of 3.5 to 3.9 C by 2100, according to recent studies. This will not only burn up the Amazon, the lungs of the planet, but also transform the Arctic into a region that is 10 to 16 degrees C warmer, releasing most of the region’s permafrost carbon and methane and unknown quantities of methane hydrates, in the process basically putting an end to human beings’ ability to live on the planet. We are literally staring disaster in the face. In the follow up to the Copenhagen Climate Summit this year, which is to be held in Cancun, Mexico (Nov. 29-Dec. 10) we, as members of global civil society, must raise our voices loud and clear. We must make it clear that we are years, not decades away, from detonating runaway feedback mechanisms (heating up and burning up the Amazon and melting the Arctic permafrost) that can doom us all. Industrial Food and Farming: A Deadly Root of Global Warming Although transportation, industry, and energy producers are obviously major fossil fuel users and greenhouse gas polluters, not enough people understand that the worst U.S. and global greenhouse gas emitter is “Food Incorporated,” transnational industrial food and farming, of which Monsanto and GMOs constitute a major part. Industrial farming, including 173 million acres of GE soybeans, corn, cotton, canola, and sugar beets, accounts for at least 35% of U.S. greenhouse gas emissions (EPA’s ridiculously low estimates range from 7% to 12%, while some climate scientists feel the figure could be as high as 50% or more). Industrial agriculture, biofuels, and non-sustainable cattle grazing - including cutting down the last remaining tropical rainforests in Latin America and Asia for GMO and chemical-intensive animal feed and biofuels - are also the main driving forces in global deforestation and wetlands destruction, which generate an additional 20% of all climate destabilizing GHGs. In other words the direct (food, fiber, and biofuels production, food processing, food distribution) and indirect damage (deforestation and destruction of wetlands) of industrial agriculture, GMOs, and the food industry are the major cause of global warming. Unless we take down Monsanto and Food Inc. and make the Great Transition to a relocalized system of organic food and farming, we and our children are doomed to reside in Climate Hell.

#### Warming causes extinction

Tickell 8 [Oliver, “On a planet 4C hotter, all we can prepare for is extinction]

We need to get prepared for four degrees of global warming, Bob Watson told the Gurdian last week. At first sight this looks like wise counsel from the climate science adviser to Defra. But the idea that we could adapt to a 4C rise is absurd and dangerous. Global warming on this scale would be a catastrophe that would mean, in the immortal words that Chief Seattle probably never spoke, "the end of living and the beginning of survival" for humankind. Or perhaps the beginning of our extinction. The collapse of the polar ice caps would become inevitable, bringing long-term sea level rises of 70-80 metres. All the world's coastal plains would be lost, complete with ports, cities, transport and industrial infrastructure, and much of the world's most productive farmland. The world's geography would be transformed much as it was at the end of the last ice age, when sea levels rose by about 120 metres to create the Channel, the North Sea and Cardigan Bay out of dry land*.* Weather would become extreme and unpredictable, with more frequent and severe droughts, floods and hurricanes. The Earth's carrying capacity would be hugely reduced. Billions would undoubtedly die.

#### Warming causes ozone depletion

**Brandenberg 99** (Dr. John, Physicist, Dead Mars, Dying Earth, p. 224)

One of the problems that makes any estimate of the real effects of: greenhouse warming so difficult is that the global system is so complicated and so much of the greenhouse gas emission and absorption is mediated biologically. As has been discussed, an important and unpredictable part of the biosphere affecting climate is humanity itself. But the rest of the biosphere presents problems also. Because part of climate change is biological, it can display enormous sensitivities and unexpected couplings to other effects. This leads to nasty surprises—that global warming and ozone hole are coupled, for example. Ice crystals in the stratosphere are the **sites of catalysis for ozone destruction**. More thunderstorms in the polar regions owing to global warming increase the ice crystal supply in the stratosphere.

#### Ozone depletion causes extinction

**Greenpeace 95** (Full of Holes: Montreal Protocol and the Continuing Destruction of the Ozone Layer -- A Greenpeace Report with contributions from Ozone Action, http://archive.greenpeace.org/ozone/holes/holebg.html)

When chemists Sherwood Rowland and Mario Molina first postulated a link between chlorofluorocarbons and ozone layer depletion in 1974, the news was greeted with scepticism, but taken seriously nonetheless. The vast majority of credible scientists have since confirmed this hypothesis. The ozone layer around the Earth shields us all from harmful ultraviolet radiation from the sun. Without the ozone layer, life on earth would not exist. Exposure to increased levels of ultraviolet radiation can cause cataracts, skin cancer, and immune system suppression in humans as well as innumerable effects on other living systems. This is why Rowland's and Molina's theory was taken so seriously, so quickly - the stakes are literally the continuation of life on earth.

#### Magnitude --- warming will become rapid, kill billions, and cause extinction. Its try-or-die because extinction is inevitable in the status quo --- and outweighs survivable wars

**End** **Times 6** (New York End Times, Non-Partisan News Filter Monitoring World Events Pertaining to Extinction, “The Extinction Scale”, 10-16, http://newyorkendtimes.com/extinctionscale.asp)

We rate Global Climate Change as a greater threat for human extinction in this century. Most scientists forecast disruptions and dislocations, if current trends persist. The extinction danger is more likely if we alter an environmental process that causes harmful effects and leads to conditions that make the planet uninhabitable to humans. Considering that there is so much that is unknown about global systems, we consider climate change to be the greatest danger to human extinction. However, there is no evidence of imminent danger. Nuclear war at some point in this century might happen. It is unlikely to cause human extinction though. While several countries have nuclear weapons, there are few with the firepower to annihilate the world. For those nations it would be suicidal to exercise that option. The pattern is that the more destructive technology a nation has, the more it tends towards rational behavior. Sophisticated precision weapons then become better tactical options. The bigger danger comes from nuclear weapons in the hands of terrorists with the help of a rogue state, such as North Korea. The size of such an explosion would not be sufficient to threaten humanity as a whole. Instead it could trigger a major war or even world war. Under this scenario human extinction would only be possible if other threats were present, such as disease and climate change. We monitor war separately. However we also need to incorporate the dangers here.

#### Warming is real – scientific consensus proves deniers are wrong

Lewandowsky and Ashley 11 (Stephan, Professor of Cognitive Studies at the University of Western Australia, and Michael, Professor of Astrophysics at the University of New South Wales, “The false, the confused and the mendacious: how the media gets it wrong on climate change,” <http://theconversation.edu.au/the-false-the-confused-and-the-mendacious-how-the-media-gets-it-wrong-on-climate-change-1558>, 6/24/11)

Certainty in science¶ If you ask a scientist whether something is “settled” beyond any doubt, they will almost always reply “no”.¶ Nothing is 100% certain in science.¶ So how certain is climate science? Is there a 50% chance that the experts are wrong and that the climate within our lifetimes will be just fine? Or is there a 10% chance that the experts are wrong? Or 1%, or only 0.0001%?¶ The answer to these questions is vital because if the experts are right, then we must act to avert a major risk.¶ Dropping your phone¶ Suppose that you lose your grip on your phone. Experience tells us that the phone will fall to the ground.¶ You drop a phone, it falls down.¶ Fact.¶ Science tells us that this is due to gravity, and no one doubts its inevitability.¶ However, while science has a good understanding of gravity, our knowledge is only partial. In fact, physicists know that at a very deep level our theory of gravity is inconsistent with quantum mechanics, so one or both will have to be modified.¶ We simply don’t know for sure how gravity works.¶ But we still don’t jump off bridges, and you would be pretty silly to drop your phone onto a concrete floor in the hope that gravity is wrong.¶ Climate change vs. gravity: Greater complexity, comparable certainty¶ Our predictions of climate change aren’t as simple as the action of gravity on a dropped phone.¶ The Earth is a very complex system: there are natural effects like volcanoes, and variations in the sun; there are the vagaries of the weather; there are complicating factors such as clouds, and how ice responds; and then there are the human influences such as deforestation and CO₂ emissions.¶ But despite these complexities, some aspects of climate science are thoroughly settled.¶ We know that atmospheric CO₂ is increasing due to humans. We know that this CO₂, while being just a small fraction of the atmosphere, has an important influence on temperature.¶ We can calculate the effect, and predict what is going to happen to the earth’s climate during our lifetimes, all based on fundamental physics that is as certain as gravity.¶ The consensus opinion of the world’s climate scientists is that climate change is occurring due to human CO₂ emissions. The changes are rapid and significant, and the implications for our civilisation may be dire. The chance of these statements being wrong is vanishingly small.¶ Scepticism and denialism¶ Some people will be understandably sceptical about that last statement. But when they read up on the science, and have their questions answered by climate scientists, they come around.¶ These people are true sceptics, and a degree of scepticism is healthy.¶ Other people will disagree with the scientific consensus on climate change, and will challenge the science on internet blogs and opinion pieces in the media, but no matter how many times they are shown to be wrong, they will never change their opinions.¶ These people are deniers.¶ The recent articles in The Conversation have put the deniers under the microscope. Some readers have asked us in the comments to address the scientific questions that the deniers bring up.¶ This has been done.¶ Not once. Not twice. Not ten times. Probably more like 100 or a 1000 times.¶ Denier arguments have been dealt with by scientists, again and again and again.¶ But like zombies, the deniers keep coming back with the same long-falsified and nonsensical arguments.¶ The deniers have seemingly endless enthusiasm to post on blogs, write letters to editors, write opinion pieces for newspapers, and even publish books. What they rarely do is write coherent scientific papers on their theories and submit them to scientific journals. The few published papers that have been sceptical about climate change have not withstood the test of time.

### Plan

**The United States federal government should substantially increase its economic engagement toward Cuba by lifting provisions of the economic embargo of Cuba which prevent trade in organic agricultural products.**

### Solvency

#### Access to the US market is make or break for Cuban organic agriculture

Kost 04

William Kost is an Agricultural Economist with ERS, u.s.. Department of Agriculture

URBAN AGRICULTURE: TO BE OR NOT TO BE ORGANIC?

<http://www.ascecuba.org/publications/proceedings/volume14/pdfs/kost.pdf>

EXTERNAL MARKETS MAY BE CRITICAL

FOR AN ORGANIC CUBA

In addition to the above European markets, the successful expansion and viability of Cuba’s organic production may also depend on access to geographically-close, high-income foreign markets, namely the United States and Canada. Currently, Cuban produce is not certified-organic in either of these markets. Only after Cuban products are certified for¶ these countries could Cuba legally export produce labeled organic to these markets. Given that many technical production practices currently followed by Cuban producers are potentially compatible with U.S. certification standards and given Cuba’s prior experience in becoming Swiss-certified, Cuba could be well positioned to meet U.S. certification standards For the U.S. organic market, in addition to a lifting¶ of the U.S. embargo, Cuba would have to be certified¶ by a USDA-accredited certification program that as-¶ sures U.S. markets that Cuban products labeled or-¶ ganic meet all National Organic Program standards¶ and regulations under the U.S. Organic Foods Pro-¶ duction Act of 1990. If the U.S. embargo on Cuba¶ were lifted, Cuban exports, once certified, could play a significant role in the U.S. organic market. In this¶ current U.S. niche market, production costs are high.¶ Opening the U.S. market would enable Cuba to exploit its significant comparative advantage in this area. This market could become a quick foreign exchange earner for Cuba. The largest barrier Cuba¶ faces in expanding into the U.S. organic market will¶ be meeting U.S. requirements for organic certification. Tapping the U.S. market may create sufficient price incentives for Cuban producers to take the necessary steps to meet the organic standards of other importing countries. Cuba could then expand production of organic produce geared to these specialty export markets. With sufficiently high prices for organic produce, urban labor may remain active in an organic urban gardening sector. Most likely, the viability of a vibrant organic produce production and processing sector in Cuba will depend on Cuba’s gaining access to the large, nearby U.S. market. Without such access, organic-oriented production of horticultural products in Cuba will likely remain a necessity-driven way to produce food for domestic consumption in¶ an environment where other production approaches¶ are just not available. The U.S. market is large and diverse. The demand¶ for organic produce is only one portion of that market. How Cuba’s horticultural industry responds to¶ restored U.S. trade will be a function of the relative¶ price and cost incentives of the organic and non-organic market segments. If the organic price premiums are sufficient, Cuba has the climate, land resources, low-cost labor, and history of organic oriented production to allow it to develop and grow its horticultural sector in that direction. If the market incentives are not sufficiently large to pursue the organic produce market, Cuba will return to a chemical and technology-driven, yield-maximizing, and labor-minimizing commercial production as rapidly as they can afford to do so. Cuba will have some incentive to increase domestic food pro-¶ duction as rapidly as possible to feed the domestic population, rather than importing food for domestic consumption. Cuba could then use a larger share of its scarce foreign exchange to import energy, technology, and other inputs to support growth in other sectors of the Cuban economy.

#### Plan increases bilateral trade in organics

Copeland, Jolly, and Thompson 11- Cassandra Copeland, Curtis Jolly, Henry Thompson, professors of economics, business, and trade at the University of Auburn (2011, “Journal of economics and business”, PDF, Auburn, Accessed 6/27/13, <http://www.auburn.edu/~thomph1/cubahistory.pdf>)

Cuba has substantial potential to export to the US. Cuba is the largest island in the Caribbean, about as large in land area as Alabama. Two-thirds of the land in Cuba can be cultivated. Cuba’s population of 11 million is about twice that of Alabama or about equal to Georgia or the combination of Mississippi, Louisiana, and Arkansas. Cuba is potentially a major component of the regional economy. Cuba’s major agriculture exports are sugar, citrus, fish, cigars, and coffee. These crops complement US wheat, rice, meat, poultry, cotton, soybeans, and feed grains. Cuba also has mineral deposits of nickel (world’s second largest reserves), cobalt, iron, copper, chromite, manganese, zinc, 12 and tungsten, as well as unexplored petroleum potential. Cuba has no potential to export manufactures but that would develop with foreign investment. Figure 11 reports US agricultural exports to Cuba in 2006, led by wheat, soybeans, chicken, corn, and rice. Given this demonstrated demand, it is safe to say lifting the embargo will increase demand for US agricultural products. Cuba can compete in only a few international agricultural markets but could supply a niche organic market in the US as suggested by Kost (1998) who projects annual agricultural exports to Cuba of $1 billion of US feed grains with a lifted embargo.

#### Entrance into the global market won’t cause Cuban abandonment of agroecology - they’ll be able to outcompete industrial models and promote global adoption

Christina Cornell, Research Associate at Council on Hemispheric Affairs, 4/17/09

(Cuba Elevates Urban Gardening to a Cause, http://www.thecuttingedgenews.com/index.php?article=11525)

Many worry whether Cuba’s budget and planning services will be able to maintain its commitment to urban agriculture and sustainable methods, as the country enters the global economy and faces pressures to restructure its economic and political system, especially as Washington nears a decision to lift the U.S.- Cuba trade embargo. As the economy opens, the tourism industry and multinational food corporations will compete for urban land and attempt to flood the Cuban market with cheap imported food products that could undermine the urban agricultural system. Havana must develop policies that will protect their growing agricultural sector, but also allow for international influence and trade to flourish. Although the opening of trade relations threatens local food production, Cuba’s success in the agriculture industry makes it a substantial contender in the global market. Its products are competitively priced and thus, have the ability to generate a considerable profit for the island nation. Not only will increased participation in international trade boost revenue, but it could also promote social reform in the country. Cuba’s urban centers, once underdeveloped and filthy, are now encouraging progressive goals, targeting rising living standards and sanitation concerns, while promoting national initiatives that will support future improvements in the urban landscapes. Agriculture for the Future Cuba’s successful implementation of urban agriculture should serve as a model for other developing countries, particularly in Latin America. By embracing more modern and effective methods of farming, countries theoretically have the opportunity to transform their local markets, augmenting the labor force and cultivating capital and infrastructure. Introduction to the global market would allow a country like Cuba to become an important economic actor, ultimately expanding its profits through competitive transactions and trade.

#### The plan generates much needed capital for Cuban organic agriculture and leads to US adoption which fuels worldwide adoption

Jacob Shkolnick, JD Candidate at Drake, Fall 2012

(SIN EMBARGO: n1 THE CUBAN AGRICULTURAL REVOLUTION AND WHAT IT MEANS FOR THE UNITED STATES” 17 Drake J. Agric. L. 683, lexis)

While investment in Cuban businesses and sales or purchases of Cuban products must still move through official channels under the joint venture law or other Cuban programs, the time is ripe for organizations in the United States to begin laying groundwork for closer ties with Cuban agricultural entities. Recent regulatory changes implemented by the U.S. government provide a means for individuals and businesses to begin forming the relationships with their Cuban counterparts that will lead to future trade opportunities. As previously mentioned, recent changes in U.S. policy now allow for any individual in the United States, not simply relatives, to donate money to Cuban citizens, though not to exceed $ 500 for any three month consecutive period, with the only restriction being that the recipient is not an official in the Cuban [\*704] government or the Communist Party. n162 Specifically written into these new regulations is the idea that these remittances may be spent "to support the development of private businesses." n163 A five hundred dollar infusion of capital to support a fledging business or farm can be enormously beneficial when the average monthly salary is only 448 pesos, or approximately twenty dollars. n164 Additional capital will enable small Cuban farms to expand operations by hiring additional help or perhaps purchasing additional farm animals. While purchasing a tractor may seem like an obvious choice for a growing farm, Medardo Naranjo Valdes of the Organoponico Vivero Alamar, a UBPC just outside of Havana, indicated that farm animals such as oxen would remain the preferred choice for the foreseeable future on the small and midsized farms that make up the majority of the newer agricultural cooperatives. n165 Not only do farm animals not require gasoline or incur maintenance costs beyond perhaps an occasional veterinarian charge, their waste can be used as fertilizer. Apart from additional labor, funds provided to agricultural cooperatives could be put to use in developing innovative pest control techniques that do not require the use of expensive pesticides or other chemicals. The Vivero Alamar is currently experimenting with a variety of natural pest control techniques such as introducing plants that serve as natural repellents to insects and the introduction of other insects that feed on harmful pests without harming the crops. n166 Investment in agricultural cooperatives done in this manner will likely fail to see much return on the investment for their foreseeable future, until policies in both the United States and Cuba are changed. For a relatively small sum, American investors will get not only the benefit of a close relationship with a Cuban farm that will become a new source of both import and export business in the future, but potentially gain access to innovative agricultural techniques that could be used in the United States immediately. Because the logistical structure needed to transport goods from large rural farms into city markets remains underdeveloped, urban and suburban agriculture makes up a growing portion of the food produced and consumed in Cuba. n169 As in other countries, the population trends in Cuba have continued to shift away from rural areas to more concentrated urban and suburban areas, with about [\*705] three-fourths of Cubans living in cities. n170 With this shift in population has also come a shift in the country's agricultural system. As of 2007, about 15% of all agriculture in Cuba could be classified as urban agriculture. n171 Not only have agricultural practices changed, but eating habits have as well. Without the Soviet Union to provide a ready source of income and the machinery needed to engage in large-scale livestock production, vegetable consumption has increased dramatically. n172 Nearly every urban area has direct access to a wide variety of locally grown, organic produce. n173 Many of the urban farms in Cuba, including the Vivero Alamar, make use of organoponics, a system where crops are produced in raised beds of soil on land that would otherwise be incapable of supporting intensive agricultural production. n174 Many of these raised beds can be constructed in a concentrated area to support a wide variety of produce, with the typical organoponic garden covering anywhere from one half to several hectares in size. n175 The rise of the organoponic production method was a shift away from the earlier centralized production model employed by the state. It has been supported through intensive research and development by a variety of state agencies, such as the National Institute of Agricultural Science, and continued development has been guided through intensive training and educational programs. n176 The organoponic system is not limited in its application to Cuban urban farms, but maintains potential to be applied worldwide, including in the United States. Urban agriculture in Cuba revitalized and put to use previously abandoned and unused land. A similar approach could be applied to the United States as a means to restore blighted areas. Applying Cuban-derived organoponics in U.S. cities could potentially open up an enormous amount of land that was previously unusable. From a business perspective, investing in an organoponic agricultural program in the United States is also a sound decision since the demand for local produce reached $ 4.8 billion in 2008 and is only expected to grow further, potentially reaching $ 7 billion in 2012. n178 [\*706] In an American city beset with high unemployment such as Detroit, Michigan, for example, investing in urban agriculture could potentially generate as many as five thousand new jobs. By utilizing Cuba's system of organoponics, the need to use expensive and complex farm machinery could be significantly reduced. Already companies in the United States, such as Farmscape Gardens in southern California, recognize what Cuba's organoponic system could achieve and have integrated it into their business practices. n180 Rachel Bailin, a partner in the company, indicated that it was Cuba's organic farming practices that helped inspire them to start a company devoted to urban agriculture. n181 They have already used Cuba's organoponic farming methods to produce more than 50,000 pounds of produce since the spring of 2009. n182 The potential for future growth in this industry is huge, as Farmscape Gardens' current levels of production make it the largest urban agriculture company in the state of California. n183 Cuba not only offers attractive prospects for trading in the future, but methods of agriculture pioneered out of necessity have broad prospects if applied to agriculture in the United States. As the demand for locally grown produce continues to increase, a cost-effective and proven agricultural model like Cuba's organoponic system may be just what is needed to allow for urban agriculture to flourish.

#### The state is here to stay—only by engaging it can new systems of ecological governance emerge

Eckersley 4 (Robyn, Department of Political Science – University of Melbourne, The Green State: Rethinking Democracy And Sovereignty, p. 5-6)

#### While acknowledging the basis for this antipathy toward the nationstate, and the limitations of state-centric analyses of global ecological degradation, I seek to draw attention to the positive role that states have played, and might increasingly play, in global and domestic politics. Writing more than twenty years ago, Hedley Bull (a proto-constructivist and leading writer in the English school) outlined the state's positive role in world affairs, and his arguments continue to provide a powerful challenge to those who somehow seek to "get beyond the state," as if such a move would provide a more lasting solution to the threat of armed conflict or nuclear war, social and economic injustice, or environmental degradation." As Bull argued, given that the state is here to stay whether we like it or not, then the call to get "beyond the state is a counsel of despair, at all events if it means that we have to begin by abolishing or subverting the state, rather than that there is a need to build upon it." In any event, rejecting the "statist frame" of world politics ought not prohibit an inquiry into the emancipatory potential of the state as a crucial "node" in any future network of global ecological governance. This is especially so, given that one can expect states to persist as major sites of social and political power for at least the foreseeable future and that any green transformations of the present political order will, short of revolution, *necessarily be state-dependent*. Thus, like it or not, those concerned about ecological destruction must contend with existing institutions and, where possible, seek to "rebuild the ship while still at sea." And if states are so implicated in ecological destruction, then an inquiry into the potential for their transformation or even their modest reform into something that is at least more conducive to ecological sustainability would seem to be

#### Discourse isn’t first – it trades-off with concrete environmentalism

Kidner 2K (David, Professor of Psychology, Nature and Psyche, p. 66-7)

Noam Chomsky has noted that if "it's too hard to deal with real problems,' some academics tend to "go off on wild goose chases that don't matter ... [or] get involved in academic cults that are very divorced from any reality and that provide a defense against dealing with the world as it actually is." An emphasis on language can serve this sort of defensive function; for the study of discourse enables one to stand aside from issues and avoid any commitment to a cause or ideal, simply presenting all sides of a debate and pointing out the discursive strategies involved. As the physical world appears to fade into mere discourse, so it comes to seem less real than the language used to describe it; **and environmental issues lose** the dimensions of **urgency** and tragedy and become instead the proving grounds for ideas and attitudes. Rather than walking in what Aldo Leopold described as a "world of wounds," the discursive theorist can study this world dispassionately, safely insulated from the emotional and ecological havoc that is taking place elsewhere. Like experimentalism, this is a schizoid stance that exemplifies rather than challenges the characteristic social pathology of our time; and it is one that supports Melanie Klein's thesis that the internal object world can serve as a **psychotic substitute for an external "real" world** that is either absent or unsatisfying." Ian Craib's description of social constructionism as a "social psychosis" therefore seems entirely apt. But what object relations theorists such as Klein fail to point out is the other side of this dialectic that withdrawing from the external world and substituting an internal world of words or fantasies, because of the actions that follow from this state of affairs, makes the former even less satisfying and more psychologically distant, so contributing to the vicious spiral that severs the "human" from the "natural" and abandons nature to industrialism.