

Today's global food system, with all its high-tech seeds and fancy packaging, cannot fulfil its most basic function of feeding people. Despite this monumental failure, there is no talk in the corridors of power of changing direction. Large and growing movements of people clamour for change, but the world's governments and international agencies keep pushing more of the same: more agribusiness, more industrial agriculture, more globalisation. As the planet moves into an accelerating period of climate change, driven, in large part, by this very model of agriculture, such failure to take meaningful action will rapidly worsen an already intolerable situation. But in the worldwide movement for food sovereignty, there is a promising way out.

The international food system and the climate crisis

GRAIN

This year more than one billion people will go hungry, while another half a billion people will suffer from obesity. Three-quarters of those without enough to eat will be farmers and farm workers (those who produce food), while the handful of agribusiness corporations that control the food chain (those who decide where the food goes) will amass billions of dollars in profits. Now the latest scientific studies are predicting that, in a business-as-usual scenario, rising temperatures, extreme climate conditions and the severe water and soil problems related to them will push many more millions into the ranks of the hungry. As population growth raises demand for food, climate change will sap our capacities to produce it. Certain countries already struggling with severe hunger problems could see their food production cut by half before the end of this century. Yet where elites gather to talk about climate change, very little is being said about such consequences for food production and supply, and even less is being done to address them.

There is another dimension to this interaction between climate change and the global food system that reinforces the urgent need for action. Not only is today's dysfunctional food system utterly ill-equipped for climate change, it is also one of the main engines behind it. The model of industrial agriculture that supplies the global food system essentially functions by converting oil into food, producing tremendous amounts of greenhouse gases (GHGs) in the process. The use of huge amounts of chemical fertilisers, the expansion of the industrial meat industry, and the ploughing under of the world's savannahs and forests to grow agricultural commodities are together responsible for at least 30 per cent of the global GHG emissions that cause climate change.¹

But that is only a part of the current food system's contribution to the climate crisis. Turning food into global industrial commodities results in a tremendous waste of fossil-fuel energy in transporting it around the world, processing it, storing it and freezing it, and getting it to people's

¹ International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD), Global Report, 2008, <http://tinyurl.com/6r82ry>



homes. All these processes are contributing to the climate bill. When added together, it is not at all an exaggeration to say that the current global food system could be responsible for nearly half of the world's GHG emissions.

The rationale and urgency for an overhaul to the world's food system has never been more stark. From a practical point of view, there is nothing preventing transition to a saner system, and people everywhere are showing willingness to change – whether they be consumers searching out local foods or peasants barricading highways to defend their lands. What stands in the way is the structure of power – and it is this, more than anything, that requires transformation.

The forecast is for famine

In 2007, the Intergovernmental Panel on Climate Change (IPCC) issued its long-awaited report on the state of Earth's climate. The report, while stating in unequivocal terms that global warming is happening and saying that it is "very likely" that humans are responsible for it, cautiously forecasts that the planet will heat up by 0.2° Celsius (C) per decade if nothing is done to reduce our GHG emissions. The report warns that a rise in temperature of 2–4°C, which may be reached by the end of the century, would produce a dramatic rise in sea levels and a sharply increased frequency of climatic catastrophes.

Now, just two years later, it appears that the IPCC was too optimistic. Today's scientific consensus is that a 2°C increase over the next few decades is already a virtual certainty, and that the business-as-usual scenario could heat up the planet by as much as 8°C by 2100, pushing us over the tipping point and deep into what is described as dangerous and irreversible climate change.² Already, the impact of much milder climate change is hitting hard. According to the Geneva-based Global Humanitarian Forum, climate change is seriously affecting 325 million people a year – with 315,000 dying from hunger, sickness and weather disasters induced by climate change.³ It predicts that the annual death toll from climate change will rise to half a million by 2030, with 10 per cent of the world's population (700–800 million people) seriously affected.

Food is and will remain at the centre of this unfolding climate crisis. Everyone agrees that agricultural production has to continue to rise significantly over coming decades to feed the growing population. Climate change, however, is likely to put agricultural production into reverse.

Table 1: Estimates for impact of global warming on world agricultural output potential by the 2080s (%)

	without carbon fertilisation	with carbon fertilisation
Global		
output-weighted	-15.9	-3.2
population-weighted	-18.2	-6.0
median by country	-23.6	-12.1
Industrial countries	-6.3	7.7
Developing countries	-21.0	-9.1
median	-25.8	-14.7
Africa	-27.5	-16.6
Asia	-19.3	-7.2
Middle East/North Africa	-21.2	-9.4
Latin America	-24.3	-12.9

Source: edited table taken from William R. Cline, *Global Warming and Agriculture*, p. 96

In the most comprehensive survey of studies modelling the impact of global warming on agriculture to date, William Cline estimates that by 2080, in a business-as-usual scenario, climate change will reduce the potential output of global agriculture by more than 3.2 per cent as compared with today. Developing countries will suffer the most, with a potential 9.1 per cent decline in agricultural output. Africa will suffer a 16.6 per cent decline. These are horrific numbers, but, as Cline says, the actual impacts are likely to be much worse than even these figures suggest.⁴

A major weakness in the forecasts of the IPCC and others when it comes to agriculture is that their predictions accept a theory of "carbon fertilisation", which argues that higher levels CO₂ in the atmosphere will enhance photosynthesis in many key crops, and boost their yields. Recent studies show that this is a mirage. Not only does any initial acceleration in growth slow down significantly after a few days or weeks, but the increase in CO₂ reduces nitrogen and protein in the leaves by more than 12 per cent. This means that, with climate change, there will be less protein for humans in major cereals such as wheat and rice. There will also be less nitrogen in the leaves for bugs, which means that bugs will eat more leaf, leading to important reductions in yield.⁵

When Cline removed carbon fertilisation from his calculations, the results were much more gruesome (see Table 1). Global yields would decline by 15.9 per cent by the 2080s, with yields declining 24.3

2 Chris Lang, "The gaping chasm between climate science and climate negotiations", *World Rainforest Movement Bulletin*, No. 143, June 2009.

3 Global Humanitarian Forum, *Human Impact Report*, May 2009, <http://tinyurl.com/lqvs6v>

4 William R. Cline, *Global Warming and Agriculture: Impact Estimates by Country*, Center for Global Development and the Peterson Institute for International Economics, 2007, <http://tinyurl.com/nc4hrs>

5 John T. Trumble and Casey D. Butler, "Climate change will exacerbate California's insect pest problems," *California Agriculture*, Vol. 63, No. 2, <http://tinyurl.com/m3qf85>



6 William R. Cline, *Global Warming and Agriculture: Impact Estimates by Country*, Center for Global Development and the Peterson Institute for International Economics, 2007, <http://tinyurl.com/nc4hsr>

7 According to Cline, evapotranspiration (the combined loss of moisture from soil through evaporation and plants through stomatal transpiration) increases with temperature.

8 According to the report of the IAASTD, irrigation water supply reliability is expected to decline in all regions, with a global decrease from 70% to 58% from 2000 to 2050. *International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD)*, Global Report, 2008, <http://tinyurl.com/6r82ry>

9 Susmita Dasgupta, Benoit Laplante, Siobhan Murray, David Wheeler, "Sea-Level Rise and Storm Surges: A Comparative Analysis of Impacts in Developing Countries," The World Bank, Development Research Group, Environment and Energy Team, April 2009.

10 FAO, "The wildland fire problem", Rome, 27 July 2009, <http://tinyurl.com/n4qfcv>

11 American Geophysical Union and Harvard University, "Damage, pollution from wild-fires could surge as western US warms", 28 July 2009, <http://tinyurl.com/l53keg>

12 See GRAIN's resources web page on the food crisis, www.grain.org/foodcrisis/

13 See GRAIN's resources web page on the global land grab, www.grain.org/landgrab/

14 Wikipedia, list of countries by carbon dioxide emissions per capita, 1990–2005, <http://tinyurl.com/yzh39x>

15 Greenpeace Canada, "L'agriculture ... pire que les sables bitumineux! Rapport de Statistique Canada", 10 June 2009, <http://tinyurl.com/nkd5pp>

per cent in Latin America, 19.3 per cent in Asia (38 per cent in India) and 27.5 per cent in Africa (more than 50 percent in Senegal and Sudan).⁶

But even this dreadful forecast may be an underestimate. Cline's study, like the IPCC report and other major reports dealing with agriculture and climate change, did not factor in the looming water crisis associated with climate change. Currently 2.4 billion people live in highly water-stressed environments, and recent predictions indicate that this number will rise to 4 billion by the second half of this century. Sources of water for agriculture have run out or are running dangerously low in many parts of the world, and global warming is predicted to compound the problem, as higher temperatures generate drier conditions and increase the amount of water needed for agriculture.⁷ It is going to get much harder to sustain current levels of food production even as the demand for it grows with increasing populations.⁸

Also outside Cline's forecast are the impacts from the increase in extreme weather that climate change will foster. Droughts, floods and other "natural" disasters are expected to increase in frequency and intensity, wreaking havoc for agriculture. The World Bank forecasts that the intensification of storms caused by climate change will make an additional three million hectares of farmland in coastal areas vulnerable to inundation.⁹ At the same time, wild fires, which already affect an estimated 350 million hectares of land each year,¹⁰ are expected to increase dramatically as a result of global warming, creating a serious problem of carbon aerosol pollution, which would further aggravate the greenhouse effect. One study foresees a 50 per cent increase in wild fires in the western USA by 2055 as a result of the predicted increase in air temperature.¹¹

And then there is the market to consider. The global food supply is increasingly controlled by a small number of transnational corporations that exert near-monopoly positions all along the food chains – from seeds to supermarkets. The amount of speculative capital in agricultural trade is also on the rise. In this context, any disruptions to the food supply, or even perceived disruptions, lead to tumultuous price increases and extreme profit-taking by the speculators, which makes food inaccessible to the urban poor and derails agricultural production in the countryside.¹² Indeed, talk of a looming global food shortage is already attracting private equity speculators into agriculture and impelling a global farmland grab, the like of which has not been since the colonial era.¹³

We are moving into an era of severe disruption of food production. There has never been a more pressing need for a system that can ensure that food is distributed to everyone, according to need. Yet never has the world's food supply been more tightly controlled by a small group, whose decisions are based solely on how much money they can extract for their shareholders.

Cooking the planet for dinner

Proponents of the Green Revolution boast of how its basic recipe of uniform plant varieties and chemical fertilisers saved much of the world from starvation. Defenders of the so-called Livestock and Blue (aquaculture) Revolutions sell a similar story about uniform breeds and industrial feeds. The narratives, however, sound less convincing today, with nearly a quarter of the planet going hungry and with crop yields stuck on a plateau since the 1980s. In fact, they read more like horror stories when the environmental consequences are considered, especially as the world learns more about the contribution that these transformations in agriculture and the larger food system make to changing the climate.

The scientific consensus is that agriculture is now responsible for around one third of all human-made GHG emissions. But lumping all forms of farming into a single pile hides the truth. In most agriculture-based countries, agriculture itself makes little contribution to climate change. Those countries with the highest percentages of rural populations and whose economies are most dependent on agriculture tend to make the lowest GHG emissions per capita.¹⁴ For instance, although Canadian agriculture is said to account for only 6 per cent of the country's overall GHG emissions, this works out at 1.6 tonnes of GHG per Canadian, whereas in India, where agriculture is much more important to the national economy, per capita GHG emissions from all sources are only 1.4 tonnes, and only 0.4 tonnes from agriculture.¹⁵ There is a difference therefore in the kind of agriculture that is practised, and one cannot just point a finger at agriculture in general.

Moreover, when we break down agriculture's overall contribution to climate change we see that just a small section of activities account for almost all of agriculture's GHG emissions. Deforestation caused by land use changes account for around half the total, while, with on-farm emissions, the biggest culprits by far are livestock production and fertilisers. All of these sources of GHGs are closely linked to the rise of industrial agriculture

Box 1: The roots of deforestation

The reason that land-use change is often lumped in with agriculture in the statistics on factors responsible for climate change is that much of it occurs through the conversion of forest or grassland to crop production or cattle raising. The FAO estimates that 90 per cent of deforestation is caused by agriculture, nearly all of it in developing countries. Even so, farmers are conserving significant areas of forest. A recent study using detailed satellite imagery, carried out by the World Agroforestry Centre, shows that 46 per cent of the world's farmland contains at least 10 per cent tree cover.¹ "The area revealed in this study is twice the size of the Amazon and shows that farmers are protecting and planting trees spontaneously", said Dennis Garrity, the Centre's director-general. These trees already play an important role in protecting farmers against climate change and could help more, particularly as farmers in the tropics have a staggering 50,000 different tree species to choose from. "When crops and livestock fail, trees often withstand drought conditions and allow people to hold over until the next season", said Tony Simons, the Centre's deputy director-general.

There are clearly other important reasons, apart from farming, why forests get cut down. Logging, mining, roads, urban sprawl and dams are also major causes of deforestation. So too is small-scale collection of fuel-wood, which is often driven by lack of access on the part of the poor to public sources of energy. In many countries, deforestation is camouflaged as agricultural development by companies who want to acquire land concessions for the timber. Palm oil and rubber companies are notorious for clearing virgin forest to get at the lumber, while not following through on promises to develop the land for agriculture.²

That said, farmers do cut down forests to get at new farm lands. But we have to ask why they do so. Population pressures are only one part of the story. As the World Rainforest Movement has extensively documented, more often the problem is not a lack of agricultural land, but the concentration of land and/or resources in the hands of an elite, or the expulsion of communities to make way for development projects.³ Deforestation tends to happen when communities lose control over their resources. Where deforestation occurs, there are usually local communities trying to stop it – especially communities of indigenous people. And where poor people clear forest for farmland, they were often pushed off of their former lands – and the odds are that they tried to resist the process, as witnessed by the backlog of court cases and petitions over land conflicts in countries such as Vietnam and China.

Moreover, those converting forests and grasslands to agriculture are not, in many cases, small farmers but transnational corporations (TNC), or large-scale farmers producing for TNCs. The expansion of oil-palm plantations in Indonesia's rain forests or sugar-cane plantations in Brazil's *cerrado* are two obvious examples.⁴ Indeed, it is hard to imagine how small farmers could cause large-scale deforestation when, in many countries, they occupy only a small percentage of the agricultural land. In Latin America, in countries where such data is available, small farmers occupy only 3.5 per cent of the agricultural land in Ecuador, 8.5 per cent in Brazil and 5 per cent in Chile.⁵ In Colombia and Peru, where small farmers own most of the farms (82 per cent and 70 per cent, respectively, of the holdings), they occupy only a modest share of the farmed land (14 per cent and 6 per cent, respectively).⁶

1 Robert J. Zomer *et al.*, *Trees on Farm: Analysis of Global Extent and Geographical Patterns of Agroforestry*, ICRAF Working Paper No. 89, World Agroforestry Centre, Nairobi, 2009,

http://www.worldagroforestry.org/af/newsroom/for_journalists/agroforestry_assessment_report

2 See for example, Chris Lang, "The expansion of industrial tree plantations in Cambodia and Laos," *Focus Asien*, 26 December 2006, <http://chrislang.org/2006/12/26/the-expansion-of-industrial-tree-plantations-in-cambodia-and-laos/>

3 See, for example, World Rainforest Movement, "Zambia: Causes of Deforestation linked to government policies", *Bulletin* No. 50, 2001, <http://www.wrm.org.uy/bulletin/50/Zambia.html>

4 Almuth Ernsting, "Agrofuels in Asia: Fuelling poverty, conflict, deforestation"; GRAIN, "Corporate power: Agrofuels and the expansion of agribusiness", *Seedling*, July 2007, <http://www.grain.org/seedling/?type=68>

5 Ecuador: Breve análisis de los resultados de las principales variables del censo nacional agropecuario 2000, http://www.sica.gov.ec/censo/contenido/estud_an.htm

III Censo agropecuario del Ecuador, 2000, <http://www.sica.gov.ec/censo/docs/nacionales/tabla1.htm>

Serafin Ilvay, Foro brasileño por la reforma agraria: "Repartir la tierra y multiplicar el pan", 13 June 2000,

http://movimientos.org/cloc/mst-br/show_text.php3?key=10. Censo Agropecuario y Forestal de Chile, www.censoagropecuario.cl

6 Edelmira Pérez Correa and Maniel Pérez Martínez, "El sector rural en Colombia y su crisis actual", redalyc.uaemex.mx/redalyc/pdf/117/11704803.pdf

and the expansion of the corporate food system (see Box 1 above, "Earth matters" on p. 9, and "Real problems, false solutions" on p. 23). So too is our food system's heavy reliance on fossil fuels and the significant carbon footprint generated by trucking and shipping inputs and food all around the world, wrapped in all manner of plastics.

Since most of the energy used in the industrial food system comes from fossil fuel consumption, the amount of energy it uses translates directly into the emission of GHGs. The US food system alone is calculated to account for a formidable 20 per cent of the country's fossil fuel consumption. This figure includes the energy used on the farm to



Box 2: Five key steps towards a food system that can address climate change and the food crisis

1. Move towards sustainable, integrated production methods

The artificial separations and simplifications that industrial agriculture has brought upon us have to be undone, and the different elements of sustainable farming systems must be brought together again. Crops and livestock have to be reintegrated on the farm. Agricultural biodiversity has to become the cornerstone of food production again, and local seed saving and exchange systems need to be reactivated. Chemical fertilisers and pesticides must be replaced by natural ways of keeping soil healthy, and pests and diseases in check. The restructuring of the food system along these lines will help to create the conditions for near-zero emissions on farms.

2. Rebuild the soil and retain the water

We have to take the soil seriously again. We need a massive global effort to build organic matter back into the soils, and bring back fertility. Decades of soil maltreatment with chemicals in many places, and mining of soils in others, have left soils exhausted. Healthy soils, rich in organic matter, can retain huge amounts of water, which will be needed to create resilience in the farming system, to deal with the climate and water crises that are already encroaching on us. Increasing organic matter in soils around the world will help to capture substantial amounts of the current excess CO₂ in the atmosphere (see "Earth matters", p. 9).

3. De-industrialise agriculture, save energy, and keep the people on the land

Small-scale family farming should become the cornerstone of food production again. By allowing the build-up of mega-industrial farm operations that produce commodities for the international market rather than food for people, we have created empty countrysides, overpopulated cities, and destroyed many livelihoods and cultures in the process. De-industrialising agriculture would also help to eliminate the tremendous waste of energy that the industrial farming system now produces.

4. Grow close by and cut the international trade

One principle of food sovereignty is to prioritise local markets over international trade. As we have seen, international trade in food, and its associated food processing industries and supermarket chains, are the food system's chief contributors to the climate crisis. All of these can largely be cut out of the food chain if food production is reoriented towards local markets. Achieving this is probably the toughest fight of all, as so much corporate power is concentrated on keeping the trade system growing and expanding, and so many governments are happy to go along with this. But if we are serious about dealing with the climate crisis, this has to change.

5. Cut the meat economy and change to a healthier diet

Perhaps the most profound and destructive transformation that the industrial food system has brought upon us is in the livestock sector. What used to be an integral and sustainable part of rural livelihoods has become a mega-industrial meat factory system spread around the world, but controlled by a few. The international meat economy, which has grown fivefold in recent decades, is contributing to the climate crisis in an enormous way (see p. 27). It has also helped to create the obesity problem in rich countries, and destroyed – through subsidies and dumping – local meat production in poor countries. This has to stop, and consumption patterns, especially in rich countries, have to move away from meat. The world needs to return to a decentralised system of meat production and distribution, organised according to people's needs. Markets that supply meat from smaller farms to local markets at fair prices need to be restored and reinvigorated, and international dumping has to stop.



grow the food, and the post-agricultural processes of transporting, packaging, processing, and storing food. The US Environmental Protection Agency reported that US farmers emitted as much carbon dioxide in 2005 as 141 million cars in the same year! This hopelessly inefficient food system uses 10 non-renewable fossil-fuel calories to produce one single food calorie.¹⁶

The difference in energy use between industrial and traditional agricultural systems could not be

starker. There is much talk of how efficient and productive industrial agriculture is compared with traditional farming in the global South but, if one takes into consideration energy efficiency, nothing could be further from the truth. The FAO calculates that, on average, farmers in industrialised countries spend five times as much commercial energy to produce one kilo of cereal as do farmers in Africa. Looking at specific crops, the differences are even more spectacular: to produce one kilo of maize, a farmer in the US uses 33 times as much commercial

¹⁶ Data in this paragraph is from Food & Water Watch, "Fuels and Emissions from Industrial Agriculture", Washington, November 2007, <http://tinyurl.com/mdgpy>

energy as his or her traditional neighbour in Mexico. And to produce one kilo of rice, a farmer in the US uses 80 times the commercial energy used by a traditional farmer in the Philippines!¹⁷ This “commercial energy” that FAO speaks of is, of course, mostly the fossil-fuel oil and gas needed for the production of fertilisers and agrochemicals, and that used by farm machinery, all of which emit substantial amounts of GHGs.¹⁸

But then, agriculture itself is responsible for only about a quarter of the energy used to get food to our tables. The real waste of energy and the pollution happen in the broader international food system: the processing, packaging, freezing, cooking, and moving of food. Crops for animal feed may be grown in Thailand, processed in Rotterdam, fed to cattle somewhere else, which are then eaten in a McDonalds in Kentucky.

Transporting food consumes huge amounts of energy. Looking at the USA again, it is calculated that 20 per cent of all the commodity transport within the country is to move food, resulting in 120 million tonnes of CO₂ emissions. The US import and export of food accounts for another 120 million tonnes of CO₂. Add to that moving supplies and inputs (fertilisers, pesticides, etc.) to industrial farms, transporting plastic and paper to the packaging industries, and moving consumers to increasingly faraway supermarkets, and we get a picture of the tremendous amount of GHGs produced by the industrial food system’s transport requirements alone. Other big GHG producers are the food processing, freezing, and packaging industries, which account for 23 per cent of the energy consumed in the US food system.¹⁹ It all adds up to an incredible waste of energy. And on the subject of waste, the industrial food system discards up to *half* of all the food that it produces, in its journey from farms to traders, to food processors, to stores and supermarkets! This is enough to feed the world’s hungry six times over.²⁰ Nobody has begun to calculate how much GHG is produced by the rotting of all this thrown-away food.

Much of this tremendous global waste and destruction could be avoided if the food system were decentralised and agriculture oriented more towards local and regional markets. Small farmers and consumers would get closer together again, and large agribusiness would be cut out of the food system. Healthier food, happier producers and consumers, and a sustainable planet would be the result.

Yet, as today’s decision-makers contemplate what to do in the face of the current food crisis and

the accelerating collapse of the planet’s life-giving systems, all they offer is more of the same, with the addition of a few useless techno-fixes (*see p. 22*). The corporate food order is thus clearly at a dead end. It proposes industrial agriculture and globalised food chains as a solution to the food crisis. But these activities drive climate change, thereby severely intensifying the food crisis. It is a vicious spiral that spews out extremes of poverty and profits, with the chasm between the two growing ever deeper. It is way past time to overhaul this global food system.

Which way out?

At a most basic level, the climate crisis means that “business as usual” has to stop, now. The profit motive, as an organising principle for our societies, is bankrupt, and we have to build alternative systems of production and consumption organised according to the needs of the people and life on the planet. When it comes to the food system, such a transformation cannot happen when power is vested in corporations, as it currently is. Nor can we trust our governments – as the mismatch between what the scientists say must be done to stop catastrophic climate change and the actions that politicians take becomes ever more preposterous. The force for change rests with us, in our communities, organising to take back control of our food systems and territories.

In the struggle for another food system our main obstacles are political, not technical. We can put seeds back in the hands of farmers, eliminate chemical fertilisers and pesticides, integrate livestock into mixed farms, and organise our food systems so that everyone has enough safe, nutritious food to eat – without plastics. The potential for such a transformation is being borne out by thousands of projects and experiments in communities around the world. Even the World Bank-led International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) has admitted as much. At the farm level, ways for dealing with climate change and the food crisis are pretty straightforward (*see Box 2*).

The political challenges are more difficult. But here, too, much is already happening on the ground. Even in the face of violent repression, local communities are resisting large-scale projects for dams, mines, plantations and timber (*see Box 3*). Although rarely recognised as such, this resistance is at the core of climate action. So too are the movements, such as the movement for food sovereignty, that are coming together to resist the imposition of neo-liberal policies and to develop collective visions for the future. It is in these spaces and through such



17 FAO, “The energy and agriculture nexus”, Rome 2000, Tables 2.2 and 2.3, <http://tinyurl.com/2ubntj>

18 GRAIN, “Stop the agro-fuel craze!”, *Seedling*, July 2007, www.grain/seedling/?id=477

19 Data in this paragraph is from Food & Water Watch, “Fuels and Emissions from Industrial Agriculture”, Washington, November 2007, <http://tinyurl.com/mdgypy>

20 Tristram Stuart, “Waste: Uncovering the Global Food Scandal”, Penguin, 2009, <http://tinyurl.com/m3dxc9>

organised resistance that the alternatives to today's destructive food system will emerge, and where we will find the collective strength and strategies to transform power in the food system. 

Box 3: The clash of two worlds in the Peruvian Amazon

The Peruvian government chose the symbolic date of World Environment Day to launch a bloody attack on the peoples of the Amazon. The reason for this repression? The steadfast opposition of Amazonian communities to the invasion of their territory by socially and environmentally destructive industries such as mining, oil drilling, and monoculture plantations of trees and agrofuel crops.

On 9 April local communities throughout the Peruvian Amazon had begun what they called an "indefinite strike" in protest against the failure of the Peruvian Congress to review a series of legislative decrees that endanger the rights of indigenous peoples. These decrees were issued by the executive branch in the framework of the implementation of the Free Trade Agreement signed with the United States.

By unleashing this massacre on World Environment Day, Alan García's government showed the world how little concern it has for environmental protection and how highly it values the large corporations that hope to exploit – and simultaneously destroy – the country's natural resources. Even worse, it publicly declared its contempt for the lives of the indigenous people struggling to defend what little has been left to them by the advance of a "development" model that has proved to be socially and environmentally destructive.

As a result of this bloody repression and the public attention it attracted worldwide, the Peruvian Amazon became a symbol of the clash between two different conceptions of the present and future of humanity, played out on the international stage.

On one side of this conflict there is the world of economic interest, which signifies social and environmental destruction, imposition by force, violation of rights. Obviously, this world is not controlled by the Peruvian president, who is merely a temporary and disposable assistant to the corporations – a fact now made evident by the fate of ex-president Fujimori. Nevertheless, the role played by these assistants is very important, since they are the ones who lend the necessary trappings of "legality" to actions that clearly violate the most basic human rights.

On the other side there is the world of those who aspire to a future of solidarity and respect for nature. In this case, they were symbolised by the indigenous people of the Amazon, but they can also be found in similar struggles around the world, confronting other governments who are also at the service of the economic interests of big corporations. To mention just a few examples, we could point to the current struggle in south-east Asian countries to defend the Mekong river – which provides sustenance for millions of people – from destruction by giant hydroelectric dams; the struggle of the peoples of Africa against oil-drilling and logging; the struggle of the tribal peoples of India to protect their forests from mining.

In this confrontation, the hypocrisy of those striving to impose the destructive model seems unbounded. In the case of Peru, President Alan García, who now wants to open up the Amazon to extractive industries, declared just over a year ago that he wanted "to prevent this basic wealth that God has given us from being degraded by the works of man, by the incompetence of those who work the land or exploit it economically, and that is why we created this Ministry of the Environment."

Governmental hypocrisy is evident all around the world, especially with regard to climate change. During an endless international process that began in 1992, the governments of the world agreed that climate change is the worst threat facing humankind. They also agreed that the two main causes of climate change are greenhouse gas emissions created by the use of fossil fuels and deforestation. Finally, they agreed that something must be done about it. After signing the relevant agreements and flying back to their countries, they have done everything in their power to promote oil-drilling and/or deforestation.

Without needing to create ministries of the environment or participate in international processes to combat climate change, people around the world are taking action to defend the environment and the climate. In almost all cases, their actions are criminalised or repressed – in both the South and the North – by those who should be encouraging and supporting them: their governments.

In the now symbolic case of Peru, the peoples of the Amazon – with the support of thousands of citizens around the world – have won an important battle in this clash between two worlds. No one believes that this is the end of the struggle. But it is a victory that provides hope for others fighting for similar goals, and ultimately for the whole world, because the outcome of this confrontation between two worlds will determine the fate of all of humanity.

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