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Geoengineering: Risky Technofix for Climate Change  
Three rich nations dump new Kyoto Deal  
Civil society: 'World Bank, MDBs out of Green Climate Fund'



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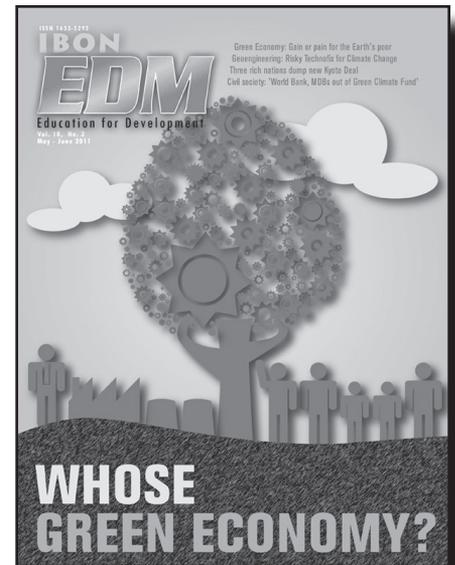
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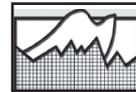
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E-mail Address: [ibon.international@ibon.org](mailto:ibon.international@ibon.org)  
Tel. Nos. +632 927 7060 to 62  
Local 202  
Fax +632 927 6981

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International Director  
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International Department

**Paul Quintos**  
**Maria Theresa Nera-Lauron**  
**Jennifer del Rosario-Malonzo**  
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# Green Economy: Gain or pain for Earth's poor?



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By PIO VERZOLA JR. and JOHN PAUL CORPUS with GALILEO BURGOS JR.

**T**he concept of Green Economy (GE) has gradually emerged and caught the attention of global policy bodies in recent years. In December 2009, the UN called for a conference to mark the 20th anniversary of the 1992 Rio Earth Summit, and later identified “green economy in the context of sustainable development and poverty eradication” as one of its two major themes.

Then in February this year, after an extensive three-year study, the UN Environmental Program (UNEP) came up with a 626-page *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*, commonly known as the Green Economy Report (GER).<sup>1</sup>

Just this May, the Organisation for Economic Co-operation and Development (OECD) published its own Green Growth Strategy (GGS), on which it will base its policy positions in the Rio+20 conference, building from its earlier “Declaration on Green Growth” in June 2009.<sup>2</sup> Other major development

actors have declared their positions or critiques, in one form or another, on the Green Economy.<sup>3</sup>

Defining GE is a challenge because the concept is still evolving, and in different directions at that due to the influence of several streams of discourse and practice. But social movements must closely follow its evolution so they can critique it, or try to influence its shape and course.

### Background

One obvious influence behind the GE concept is that of sustainable development, expressed through UN processes from the 1972 Stockholm Conference and the 1987 Brundtland Report towards the 1992 Rio Conference on Environment and Development. The 1992 summit had come up with a 27-point Declaration of Principles and a 40-chapter Agenda 21, which implementation were left to the voluntary action of states and were soon overrun by the globalization steamroller of the Washington Consensus.

There was one other stream of discourse and practice that gradually ran in parallel with UN processes: that of pursuing green business, with the 1989 book *Blueprint for a Green Economy* as an early pioneer.<sup>4</sup> Developed countries especially in Europe began to develop “environmental technologies” or “eco-industries,” i.e., low-carbon and small-footprint energy and production systems that offered room for growth while helping to satisfy their UNFCCC-Kyoto commitments, and which were given positive marks in an EC-commissioned 2006 study.<sup>5</sup>

The growing Northern interest in ecosystems-based economics took a crucial turn when the G8+5’s 2007 Potsdam ministerial meeting launched a strategic study led by senior banker Pavan Sukhdev of Deutschebank to measure environmental disruption and weigh green alternatives in hard-nosed money terms. In May 2008, the Sukhdev team presented *The Economics of Ecosystems and Biodiversity (TEEB)’s* Phase I report at the UNEP-linked CBD meeting in Bonn.<sup>6</sup>

Five months later, responding to the triple whammy of financial, food and fuel crises that year, UNEP and leading economists launched the Green Economy Initiative (GEI) to refocus the global economy “towards investments in clean technologies and

‘natural’ infrastructure such as forests and soils,” and thus create green business and job opportunities.<sup>7</sup> The UNEP study team, also led by Sukhdev, released the monumental Green Economy Report (GER) in February 2011, just as the Rio+20 agenda began to take detailed shape.

### GREEN ECONOMY OVERVIEW

We focus on the UNEP-GER since it is by far the most detailed official document on how the world economy, entire countries, businesses and communities can turn green.

#### *What is a Green Economy?*

If we go by the UNEP-GER, a green economy in its simplest terms does the following: (a) produce low greenhouse gas emissions; (b) use resources more efficiently; (c) continue to generate growth, income and jobs; and (d) observe social equity and inclusiveness. In the GER’s words, it is one that “results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.”<sup>8</sup>

How can the world achieve a transition to GE? The steps seen as most crucial are:

- a. to **measure the monetary value of the environment and its resources** (which are often called “ecosystem services”), so that they can be treated as a form of capital, called “natural capital,” on the same plane as physical-technical, human, and financial capital, and which can also be depleted and lost, or built up and made productive;
- b. to **prove the viability and profitability of enhancing this natural capital** and related small-footprint technologies as a “new engine of growth” so that it can replace “business as usual” while also satisfying social goals; and
- c. to **create the enabling conditions** — such as policies and market mechanisms — for such “public and private investments to incorporate broader environmental and social criteria.”<sup>9</sup>

The GER contrasts its green model with “brown economies” where the engine of growth is physical-technological and financial capital (also called “built capital”), and wealth comes at the cost of

overreliance on fossil fuels, resource depletion and other environmental losses. A green economy, by refocusing on natural capital, “can generate as much growth and employment as a brown economy, and outperforms the latter in the medium and long run, while yielding significantly more environmental and social benefits.”<sup>10</sup>

Take note, however, that the GER does not fault brown economies for riding on economic and social inequities to create wealth, such as by exploiting labor and by taking advantage of market, trade and financial mechanisms. The green-versus-brown distinction boils down to a choice of investment and technology: those that enhance natural capital as against those that deplete it. The roles of finance capital, markets, and labor appear to be retained, whether in brown or green economies.

Shifting from brown to green is therefore not so much a fundamental paradigm shift as a shift in emphasis. At the same time, GE is more strongly presented as a corrective to prevent the recurrence of crises such as those of recent years as while ensuring long-term growth.

The UNEP-GER implicitly blames the 2008-2009 crises on wrongly deployed capital in the past 20 years, stating that “at a fundamental level they all share a common feature: the gross misallocation of capital [into] ... property, fossil fuels and structured financial assets with embedded derivatives” while little was invested in “renewable energy, energy efficiency, public transportation, sustainable agriculture, ecosystem and biodiversity protection, and land and water conservation.”<sup>11</sup>

#### **Key sectors and policy measures for greening**

According to the GER, the green economy is to be achieved by “greening” eleven key economic sectors.

Four sectors—agriculture, fisheries, forests and the water sector—are identified by the GER as “derived from natural capital.” As the frontliners in the greening process, these sectors will need “more sustainable and equitable management” and also more investments that rebuild or maintain the ecosystem services on which they are based.

Seven sectors that could be characterized as “built capital”—energy, manufacturing, waste, construction, transportation, tourism and cities—are traditionally considered “brown.” In these sectors, the GER calls mainly for adopting technologies and processes which are low-carbon and more energy- and resource-efficient.

The GER suggests a range of policy measures that serve as enabling conditions to encourage the green transition, especially in the eleven sectors:

First, the GER calls for **prioritized investment and spending** to stimulate the greening of sectors. Public expenditure and investment incentives are needed to trigger the transition, but “the bulk of green economy investment will ultimately have to come from the private sector.”

Based on its T21 projections (for an explanation of the T21 model, see Box No. 1), the GER calculates the investment needed for the transition to be from a low end of \$1.2 trillion to a high end of over \$3.4 trillion annually, from 2011 to 2050. This amounts to around 2% of global GDP.<sup>12</sup>

Second, the GER sees **taxes and market-based instruments** (e.g., taxes on polluters, and tradable permit schemes and payments for providing ecosystem services) as “powerful tools to promote green investment and innovation.”

Third, the GER wants **reform on subsidies** and other “poorly managed government spending” in environmentally harmful activities, such as fossil fuels, because they “can encourage inefficiency, waste and overuse” and “can also reduce the profitability of green investments.”

Fourth, the GER calls for a **framework of laws, regulations and enforcement** at the national level to reduce business risks and to increase confidence among green investors and markets.

Fifth, the GER sees investment in **capacity-building and training**, both for governments and national workforces, as essential to the green transition.

### Box No. 1: GREEN ECONOMY PROJECTIONS BASED ON T21 MODELLING

The GER's main analyses are based on an economic model that largely drew on the Threshold 21 (T21) modeling framework created by the Millennium Institute. The T21 is described as a large and complex mathematical model, which includes "200 stock variables and several thousand feedback loops" organized into 80 modules.

Using the T21-World model, the UNEP team first established baseline scenarios ("business-as-usual" or BAU) that replicated the world's economic history over the period 1970-2009, then projected two BAU scenarios for the period 2010-2050 that basically showed increasingly worse environmental, economic and social indicators.

Next, two "green investment scenarios" were simulated for the same 2010-2050 period. The first (G1 scenario) assumed that 1% of global Gross Domestic Product (GDP) was to be invested equally across all sectors in the green transition. The other (G2 scenario), which the UNEP preferred as "more relevant and coherent," assumed a bigger investment of 2% of world GDP and prioritized climate change, water scarcity and food security. The mostly positive indicators of economic growth, employment, poverty reduction, nutrition, water access, and biocapacity from year to year until 2050 are finally presented as clear proof that the green investment scenario—especially G2—is desirable and viable.

Source: UNEP<sup>13</sup>

Finally, the GER is pushing for strengthened *international governance*, based on multilateral agreements and related processes, to promote a green economy.

### CRITIQUE OF UNEP-GER'S GREEN ECONOMY SPECIFICS

#### 1. Preferred green scenario falls short of GHG reduction targets

The GER concedes that the G2 scenario (see Box No. 2), which is its showcase scenario, "does not fully achieve the emissions reductions projected by IEA as necessary for limiting atmospheric concentrations to 450 ppm [parts per million]."<sup>14</sup> As derived from energy tables in the G2 scenario, annual energy-related CO<sub>2</sub> emissions by 2050 will have fallen by over a third against 2011 levels, but only by 4-7% relative to 1990 emissions. This is wide off the mark in terms of achieving the

conservative target of stabilizing atmospheric CO<sub>2</sub> at 450 ppm, which is still risky and considered by many as outdated, not to mention attaining the safer 350-ppm levels.<sup>15</sup> (See Box No. 2 for details.)

The G2 is not a credible strategy for averting disastrous climate change, which is the most serious of the environmental crises faced globally since it can trigger or worsen many other problems such as biodiversity loss, land degradation, ocean acidification, sea level rise and so on, all of which of course have dire economic and social implications. If for this alone, the G2 scenario cannot be a viable pathway to sustainable development, especially in developing countries that are most susceptible to climate change.

#### 2. GER model does not reconcile 'competing aspirations of rich and poor countries'

The GER recognizes and sees a big challenge in reconciling "the competing economic development aspirations of rich and poor countries" in the face of worsening environmental problems.<sup>16</sup> Yet it doesn't touch on some of the most intense sources of these conflicts in recent decades, such as debt, trade, and investment inequities—candidly admitting that its T21 analysis "purposely ignores issues such as trade and sources of investment financing." Thus, "the potential impacts of a green investment scenario at a global level are not intended to represent the possibilities for any specific country or region."<sup>17</sup> A new green terrain is merely offered where countries of the North and South will still have to compete on unequal ground.

The report attempts to explode a "myth... that a green economy is... a ruse to restrain development and perpetuate poverty in developing countries." But many GER critics see warning signs in the proposed enabling conditions that could turn into "green protectionism" or new finance conditionalities against developing countries.<sup>18</sup>

#### 3. GE offers only limited poverty alleviation, not poverty eradication

The GER is supposed to give the highest priority to sustainable development and poverty eradication, as implied in its very subtitle, yet not one chapter is devoted to addressing the root causes of underdevelopment and poverty on their own terms, especially in developing countries.

Creating green jobs, ensuring access to basic services, and setting up safety nets for poor people whose present jobs, livelihoods and consumption might be adversely affected by the green transition are discussed in disparate parts of the GER. They are almost treated as an afterthought, instead of being hard-wired into the framework of the greening process as a basic premise.

The G2 scenario shows that allotting 2% of global GDP annually on green investments will grow the global economy nearly three times its current size and more than double income per capita by 2050, yet it also projects that 8.4% of the global population or about 750 million people will remain living on less than \$2 per day.

Green growth is supposed to create green jobs, but mostly in levels that only replace jobs lost in the transition. In the best-case scenario, jobs are even expected to decline around 2030 before they rise again to equal or to slightly exceed business-as-usual employment rates by 2050.

#### **4. GE favors a big-business approach in greening agriculture and other sectors**

GER carries a presumption that big business will lead the way because it controls the bulk of capital (which indeed it does). Take for example the greening of agriculture. The GER recognizes both “conventional (industrialized) agriculture systems and traditional (subsistence) smallholder agriculture” as two farming paradigms. On the surface, it seems to emphasize the drawbacks of both systems, and urges all modes of agriculture to adopt green practices that boost productivity and efficiency.

But here’s the catch. The GER wants the world’s farmers to “scale up adoption of green agriculture by partnering with leading agribusinesses,” and for the world’s top 40 agribusinesses to play this leading role, since their investment decisions can determine how global agriculture could “encourage green and sustainable farming practices.”<sup>19</sup>

This represents, at the least, an inadequate analysis of the roots of agricultural stagnation and rural poverty. At worst, it is a license for agribusiness giants to extend and deepen further their control of global agriculture. The same bias for big business leadership can be seen

#### **Box No. 2: WHY UNEP’S GREEN ECONOMY IS AN EPIC FAIL ON GHG EMISSION TARGETS**

Analysis in the IPCC’s fourth assessment report (2007)—which is increasingly seen as out of date—says that to hold global warming to 2-2.4 degrees, GHG concentrations must reach no higher than 400 ppm. To achieve this, GHG emissions have to fall by 50-80% of 2000 levels in 2050, or about 43-83% of 1990 levels, using the IEA CO<sub>2</sub> figures for 1990. This target is something like 10 times greater than the emissions reduction that GER’s G2 scenario can achieve.

More recent science calls for 350 ppm as a safer boundary for atmospheric CO<sub>2</sub> stabilization, and even more rapid and stringent cuts to reach this target. Baer, Athanasiou and Kartha (2009), building on Hansen et al (2008), argue that to stabilize atmospheric CO<sub>2</sub> at 350 ppm by around 2100 (we are currently at 391ppm), the feasible pathway is for emissions to peak in 2011 and decline at an annual rate of 10% to reach zero emissions by 2050. In contrast, in the GER’s G2 scenario, the world would still emit 20Gt in 2050.

Baer et al. recognize a lot of uncertainty, and the possible need for emission cuts that are even more stringent than the 350 model asks for. But the GER just seems oblivious of this, and does not even show pretense to caution by, say, having even slightly higher targets.

Source: Paul Baer, Tom Athanasiou and Sivan Kartha, “A 350 ppm Emergency Pathway,” November 2009, accessed from <http://gdrights.org/wp-content/uploads/2009/11/a-350-ppm-emergency-pathway-v2.pdf>

in GER’s other sectoral strategies, from energy to manufacturing to transport.

#### **5. GER handles ‘brown technologies’ with kid gloves**

While any global economic shift from brown to green will entail a long transition in which both will have to coexist in some awkward mix, one would expect a serious sustainable development strategy to consistently push for policies that can drastically reduce all destructive brown technologies within the next 40 years. Yet the GER seems to show trade-off favoritism in areas such as nuclear power and mining where brown business interests are well-entrenched.

GER’s green scenarios (both G1 and G2) bear down hard on fossil fuel use—which is generally positive. On the other hand, they also show an increasing use of nuclear power from 2011 all the way to 2050—thereby endorsing an implicit yes-nukes policy.<sup>20</sup> The GER disappointingly keeps quiet on phasing out nuclear

plants or finding clean solutions to the perennial problem of nuclear waste disposal.

The GER similarly pampers mining and exempts it from merciless dissection. It is concerned about metal ore depletion, intense access and supply competition, and growing extraction costs, but merely calls for higher resource efficiency, including recycling technologies, without proposing greener modes of ore extraction and clear-cut policy proposals against destructive (especially large-scale) mining. The iron and steel recycling rate has dropped from 60% in 1980 to 35% in 2006, but GER hopes the positive trend will resume and attain a 55% recycling rate by 2050, or even higher if pushed by “appropriate policy interventions.”<sup>21</sup> More drastic policy interventions than the GER dares contemplate are clearly needed to green the mining industry.

#### **6. The GER favors REDD+ and carbon markets**

The GER paints the REDD approach (reduced emissions from deforestation and forest degradation) in glowing lights, and even wants it included in a multi-layered payment for ecosystem services (PES) scheme, despite its potentially serious impact on indigenous peoples, rural communities and biodiversity that have been raised since the scheme was first tabled in COP-13 in Bali.

As summarized by Chris Lang in a REDD-Monitor website piece, the main criticisms of REDD (and REDD+) are that impositions by national parks and protected areas may lead to large-scale evictions and loss of rights for indigenous peoples and local communities; forest management programs may be abused by commercial logging firms; and forested or reforestation-targeted land may be converted to industrial tree plantations with serious implications for biodiversity and local communities.<sup>22</sup>

The GER is also batting strongly for carbon markets in general, which are questionable since they don't truly reduce global GHG emissions, but only pass the responsibility to mitigate from one entity to another. Forest carbon markets are increasingly associated with land grabs, as has happened in Africa.<sup>23</sup> Worse, carbon markets can behave so much like financial derivatives and futures trading, which greatly figured in the 2008 crash. The same financial circles who were involved in

creating the financial derivatives market have also been involved in creating carbon markets.<sup>24</sup>

#### **7. 'Get economy right' but hold on to old paradigms**

The GER admits that its best scenario falls short of the 1992 Rio vision of sustainable development, but defends it anyway: “The concept of a green economy does not replace sustainable development; but there is a growing recognition that achieving sustainability rests almost entirely on getting the economy right.”<sup>25</sup>

“Getting it right” in reality, however, means seeking an early and solid buy-in from big business, mainstream economists, and developed countries. The GER does this by framing its greening strategies in terms of capital, prices, cost-benefit analysis, profits and markets. Its core idea is to treat ecosystems as “natural capital” and as sources of marketable “ecosystem services,” and define their role as a “new engine of growth” in the whole scheme of capitalist business and markets.<sup>26</sup>

This approach has its virtues, if only to make a compelling case for countries and industries to either adopt the most urgent environmental reforms or else suffer economic deficits that lead to more crises and social instability. But it is flawed in a fundamental way because it makes capital—not the environment, not people's rights and needs—still king. Perversely, the environment is deemed valuable only as a form of capital, as a balance sheet entry.

As George Monbiot cautions about markets: “As soon as something is measurable it becomes negotiable. Subject the natural world to cost-benefit analysis and accountants and statisticians will decide which parts of it we can do without. All that now needs to be done to demonstrate that an ecosystem can be junked is to show that the money to be made from trashing it exceeds the money to be made from preserving it.”<sup>27</sup>

This approach risks further ecosystem imbalances. As Helena Paul said: “[A] resilient ecosystem is a complex whole, composed of interconnected elements that cannot safely be prioritised over others and some of which, of course, we do not yet understand. Fragmenting such wholes or making a hierarchy of their parts will inevitably degrade them. Fragmentation of ecosystems including forests, is already a major problem that the ‘green economy’ looks likely to enhance.”<sup>28</sup>

Allocating natural resources based on capacity to pay promotes resource grabs and lock out access by the poor, while big businesses and rich economies are shown escape routes away from radical changes in production and resource use. Meanwhile, the social agenda is relegated to trickle-down poverty alleviation, effectively sidelining issues of redistribution.

### PATHWAYS TO SUSTAINABLE DEVELOPMENT

We can credit the UNEP-GER, with structuring massive bodies of data into a comprehensible set of trends and proposals that are relevant to the sustainable development discourse and to specific policy questions. At the very least, it provides a most convincing corpus of evidence that the world cannot carry on with business as usual, and that there are so many viable options to avoid the worst environmental scenarios. One could not but agree with a good number of concrete measures the GER proposes, which in any case are already gaining ground in some parts of the world. Some of these include sustainable farming methods by smallholders;<sup>29</sup> better ways of generating renewable energy; closed-loop manufacturing systems that minimize waste; and shifting from private to public and non-motorized modes of transport.

But the GER model has failed to capture the key workings of the present global economy as it reels from one crisis to the next. Its greening strategy risks veering away from the positive directions of sustainable development taken by Rio and further explored by social movements especially those based in the global South. Neither does it express a fundamentally new paradigm that reflects the aspirations of the world's peoples, especially among the poor and marginalized in developing countries.

If GER's green scenarios are the best it has to offer, developing countries will have to find radically different paths to sustainable development. As the

debate heats up and specific points are critiqued further in the lead-up to Rio+20, social movements need to reemphasize in various forums and platforms at all levels, the following at the minimum:

First, to reassert and further elaborate the principles of sustainable development as first enunciated in Rio 1992. These include, among others, the principle of common but differentiated responsibilities, which addresses the asymmetries between developed and developing countries; and the preeminence of social equity in attaining the correct balance among the three pillars of sustainable development.

Second, to revisit Agenda 21, restate the global goals of sustainable development in ways that recognize diverse national conditions and interests, with a strong emphasis on the needs and aspirations of developing countries where the majority of the world's populations live, and always guided by a human rights-based approach as already enshrined and elaborated in UN and other international instruments including the UDHR, UNDRIP, and CEDAW, among others.

Third, to pursue the discourse on Green Economy, redefined to include a wider array of scenarios and policy options, but clearly set within the framework of the principles and goals of sustainable development, as basis for further multilateral and inclusive processes, and with due respect to national sovereignty, country ownership, and full participation by civil society.

There is global recognition that, with crises lingering on many fronts, a drastic reshaping of social and economic structures and relations with the environment needs to happen now, and fast. If only because the Green Economy is being tabled by the Rio+20 process as the pathway to attaining sustainable development at this juncture, the world needs to give this issue some really serious and critical thought.

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# Geoengineering: Risky techno-fix for climate change



By Pio Verzola Jr. and Galileo Burgos Jr.

**A**s governments, business and civil society start preparations for COP-17 of the UN Framework Convention on Climate Change (UNFCCC) to be held late this year in Durban, South Africa, the question is coming up more frequently: Is there a way of using technology in massive or global scales to stop global warming cold in its tracks?

The question is not idle talk, since climate change is indeed worsening by the year and wreaking more havoc due to relentless increases in greenhouse gas (GHG) emissions, principally carbon dioxide (CO<sub>2</sub>) emissions. At the same time, natural carbon sinks that could remove the excess CO<sub>2</sub> from the air, such as forests, are fast shrinking due to increased deforestation and land use conversion.

Responding to the UNFCCC call to reduce GHG emissions, many countries—including industrialized countries where most of the emissions come from (see Box 1)—are now seriously planning or implementing mitigation measures, including proposals for tapping into alternative energy sources. However, some of these sources being considered, such as nuclear

energy, megadams and agrofuels, are also outright problematic since they spawn their own set of environmental hazards, which may even worsen the factors for climate change and also aggravate problems of social inequity and physical dislocation.

Megadams not only reduce forest cover and produce their own GHG emissions, but also displace people's homes and farms. Biofuel production not only reduces land available for food crops, but also causes its own CO<sub>2</sub> emission estimated to be from 17 to 420 times greater than CO<sub>2</sub> saved by the displacement of fossil fuels<sup>1</sup>. Nuclear plants, of course, are famously notorious for various kinds of long-term environmental and health hazards—from the dangers of nuclear accidents to the problems of safe nuclear waste disposal.

### Geoengineering technologies

As current mitigation efforts increasingly prove inadequate to even just slow down global warming in the next several years, especially with strong resistance among major industries and industrialized countries to pay for the costly transition to a “Green economy” if no clear profits are forthcoming, certain sectors have started to consider other drastic approaches in stopping global warming.

The most spectacular among these have been given the label “geoengineering”: the intentional and large-

scale manipulation of the Earth's environment, aimed especially at counteracting the atmospheric processes that lead to climate change. Indeed, the idea has caught the attention of scientists, government agencies and research funders. After the Copenhagen debacle in 2009, for example, Microsoft co-founder Bill Gates announced that he was spending \$4.5 million over the next three years for research on such ambitious projects.<sup>2</sup>

Geoengineering technologies and projects generally fall into two categories:

First, those that intend to reduce the amount of solar radiation absorbed by the Earth by shielding the planet from sunlight through chemical, mechanical or other means. Examples of these Solar Radiation Management (SRM) ideas are cloud brightening, sulfur shields, and space sunshades.<sup>3</sup>

Second, those that intend to reduce the GHG already in the atmosphere through the so-called Carbon Dioxide Removal (CDR) approach, that is, by massively capturing CO<sub>2</sub> from the air instead of reducing emissions at point sources. The best-known CDR suggestion is to enrich the oceans' iron nutrients to boost worldwide growth of CO<sub>2</sub>-absorbing algae.

#### • Cloud-brightening through massive seawater spraying

Some scientists led by John Latham of the U.S. National Center for Atmospheric Research, who first proposed the idea in 1990, claim that spraying seawater into clouds makes them denser and increases their capacity to reflect more sunlight back into space, thus cooling the globe. The idea is to field some 1,500 ships with huge smokestack-like rotors that will ply the world's oceans on autopilot, spraying the sky with seawater as they go. Gates has been funding research on the project's feasibility; the estimated minimum cost of the entire operation is \$2.6 billion.<sup>4</sup>

Other scientists, however, have expressed big doubts about this scheme's effectivity, saying that it could backfire. “Our research suggests that

#### BOX 1. Top GHG emitters.

According to the latest (2009) world CO<sub>2</sub> emission record, published by the US Energy Information Administration, China, US, India, Russia, and Japan are now the world's top GHG emitters based only on CO<sub>2</sub> emission in energy use, excluding those that come from livestock and deforestation. Although the US and other industrialized countries have lower rankings now, due to lower emissions at home, they still are contributing to the growing GHG emissions in the developing countries and so-called emergent economies such as India and China, where many Western industries are relocating their highly-polluting processes. (See also: Facts and Figures on page 51-52)

attempts to generate brighter clouds via sea spray geoengineering would at best have only a tiny effect and could actually cause some clouds to become less bright,” said Professor Ken Carslaw of the University of Leeds, adding that “generating a uniform covering of reflective clouds over large regions of the world’s oceans would be extremely challenging.”<sup>5</sup>

#### • Stratospheric sulfur shield

Scientists know that major volcanic eruptions, which spew millions of tons of sulfur into the atmosphere, help cool the earth by reflecting more sunlight away back to space. The 1991 Mt. Pinatubo eruption, for example, cooled the earth’s surface by about 0.9 degrees Fahrenheit worldwide in the following year.

Nobel laureate Paul Crutzen first proposed the idea of mimicking volcanic sulfur emission in the August 2006 issue of *Climate Change*. Now some scientists want to do it by launching giant balloons that will inject sulfides such as sulfur dioxide into the atmosphere at high altitudes.<sup>6</sup> The gases, when combined with water, form stratospheric sulfate aerosols—tiny droplets that have the same effect as volcanic sulfur and which are expected to stay in the stratosphere for up to two years.

However, there are big gaps in our understanding of how sulfate spraying may impact atmospheric processes. Many scientists are concerned about unexpected side-effects such as disturbance of rainfall patterns, natural cloud formation and other weather processes, which in turn may result in global dimming, monsoon failures and catastrophic droughts. Sulfate spraying also creates chemical imbalances that may lead to acid rain and ozone depletion, which are clearly hazardous to human health and environment.<sup>7</sup>

#### • Space parasols

A third proposal, first raised in 1989 and which verges on science fiction, is to send up in space trillions of tiny parasol-like reflectors—each one a small thin disk about 0.6 meter in diameter. The simple devices are supposed to function collectively like a planetary venetian-blinds curtain capable of tweaking the amount of sunlight that reaches the earth. The proponents claim that 16 trillion of these, launched into earth orbit, could dim earth-bound sunlight by 2%, and thus drastically reduce global warming.<sup>8</sup>

Critics point out that this very expensive space curtain (which could be ready in 25 years at the cost of a few trillion US dollars<sup>9</sup>) will have an uneven impact at best. While it may effectively cool the tropics, it cannot stop the warming of polar regions and the melting of arctic ice, and may change rainfall patterns and vegetative cover in unpredictable ways—all of which have global consequences.

Finally, SRM proposals like the saltwater-spray, sulfur-shield, and space-parasol strategies have one common flaw: since their singular aim is to reduce the amount of solar radiation, they don’t address the other serious impacts of GHG emission, such as ocean acidification. Thus, granting that they succeed in cooling the earth to pre-industrial levels, they still cannot fully solve the complex problems of climate change resulting from runaway GHG emissions.

#### • Iron fertilization of oceans

Historically, marine phytoplankton have absorbed and fixed nearly half of the world’s CO<sub>2</sub> emissions, or an estimated 50 billion tons annually. Adding big amounts of nutrients into the ocean, specifically dust-sized particles rich in iron,

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encourages phytoplankton bloom. More carbon is thus absorbed and fixed by more algae, which quite literally sink to the ocean bottom with the sequestered carbon when they die.

Huge boosts in marine algal growth occur naturally in localized settings, due to dust storms and river silt reaching the sea for example, but have been repeated by “relatively small-scale” ocean trials and computer simulations of global scale. Based on experiments, some scientists claim that if the iron fertilization of oceans is done globally and massively, major reductions in atmospheric GHGs (estimated at from 1/3 to 1/2 of all industrial and automotive emissions) could be attained at less cost than if other conventional methods of mitigation were adopted.<sup>10</sup>

Perhaps because the scheme is feasible at no great cost and sounds attractive to big business, it has raised worries among the wider scientific community that it might actually be implemented without weighing the many unseen risks and uncertainties that could lead to catastrophic impacts. These include the possibility that the algae not sink fast enough and instead block sunlight needed by other marine life, thereby disrupting natural cycles; that the enriched nutrients favor the growth of toxic algae such as those that cause “red tide”; and that much of the algae enter the marine food chain instead of sinking to the ocean bottom, thus losing its hoped-

for carbon sequestration effects while possibly multiplying unwanted side effects.

The plankton proposal so alarmed the wider scientific community that the Convention on Biodiversity adopted a moratorium on ocean fertilization at the COP-9 meeting in Bonn in May 2008, even before a more encompassing policy on geoengineering was adopted at COP-10 (see further below).

#### • Other carbon capture and sequestration technologies

There are other carbon capture and storage (CCS) technologies that seem more practicable, and not usually seen as geoengineering efforts since these operate on smaller scales, or at least not on a world scale. These CCS systems, which work within or close to the combustion and exhaust processes of big emission sources such as power plants, are now mostly at the pilot testing or demo stage. Major energy companies supported by their governments have been racing each other on who can claim success in terms of technical and cost efficiency.

The biggest unresolved problem in the CCS strategy is not so much that of capturing CO<sub>2</sub> emissions at the pre-combustion or post-combustion stage—for which a number of viable technologies already exist—as that of finding safe, adequate, and long-term or permanent storage space for immense amounts of the captured gas. The general proposed solution thus far is to transport and inject the gas into vast underground reservoirs in deep geological formations, to remain there for thousands of years if necessary.

Such storage methods clearly involve megatechnologies, which smack of geoengineering and have been criticized as environmentally hazardous due to risks of leakage and seepage at some weak point along the pipeline or storage reservoir. Stanford geophysicist Mark Zoback has warned that this method, if done extensively, could induce localized earthquakes strong enough to breach the pipeline or storage system and cause the gas to seep into water sources or leak back to the atmosphere,<sup>11</sup>

#### **BOX 2. Principle 15 of the 1992 Rio Declaration on Environment and Development**

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Source: “Rio Declaration on Environment and Development,” from the Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972. UN Environment Programme website. Accessed 29 September 2011 at <http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=78&ArticleID=1163>

possibly killing people and livestock living near the escape fissures (since CO<sub>2</sub> at high concentrations is an asphyxiant).

GHG storage in underground reservoirs is also unsustainable. In a study cited by IBON International, for instance, it has been estimated that in the US alone, 300,000 storage wells need to be drilled annually to keep the country's CO<sub>2</sub> emissions at 2005 levels, as compared to the concurrent drilling for 40,000 new oil and gas wells.<sup>12</sup> "Think about how many wells and pipelines and how much infrastructure has been developed to exploit oil and gas resources over the last hundred years," Zoback explained. "You need something of comparable scale and volume for carbon dioxide sequestration."<sup>13</sup>

### UN CBD frowns on geoengineering

Many environmental groups invoke the broader principles of the 1992 Rio summit, especially its precautionary principle (see Box 2), in their critiques of geoengineering as response to global warming. Because geoengineering intervenes in very complex and global physical processes, it entails a tangle of risks that are also global or systemic and thus more difficult if not impossible to reverse. As the ETC Group explained: "A moratorium invoking the precautionary principle is essential when gaps in knowledge are substantial, the risks are considerable, and the need for preventive action is imminent."

Thus, on October 29, 2010, COP-10 of the UN Convention on Biodiversity (CBD), representing 193 countries, adopted a decision that in effect called for a ban on geoengineering activities and suggested that four conditions be first met before the ban is lifted:<sup>14</sup>

- Adopt a "science based, global, effective, transparent control and regulatory mechanism";
- Observe the precautionary approach and CBD Article 14 obligations (see Box 3);
- Establish sufficient scientific basis to justify

#### BOX 3. Article 14 of CBD. Impact Assessment and Minimizing Adverse Impacts

1. Each Contracting Party, as far as possible and as appropriate, shall:

- (a) Introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures;
- (b) Introduce appropriate arrangements to ensure that the environmental consequences of its programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account;
- (c) Promote, on the basis of reciprocity, notification, exchange of information and consultation on activities under their jurisdiction or control which are likely to significantly affect adversely the biological diversity of other States or areas beyond the limits of national jurisdiction, by encouraging the conclusion of bilateral, regional or multilateral arrangements, as appropriate;
- (d) In the case of imminent or grave danger or damage, originating under its jurisdiction or control, to biological diversity within the area under jurisdiction of other States or in areas beyond the limits of national jurisdiction, notify immediately the potentially affected States of such danger or damage, as well as initiate action to prevent or minimize such danger or damage; and
- (e) Promote national arrangements for emergency responses to activities or events, whether caused naturally or otherwise, which present a grave and imminent danger to biological diversity and encourage international cooperation to supplement such national efforts and, where appropriate and agreed by the States or regional economic integration organizations concerned, to establish joint contingency plans.

2. The Conference of the Parties shall examine, on the basis of studies to be carried out, the issue of liability and redress, including restoration and compensation, for damage to biological diversity, except where such liability is a purely internal matter.

Sources:

Convention on Biological Diversity. Accessed 29 September 2011 at <http://www.cbd.int/convention/articles/?a=cbd-14>.



<http://infowars.net/>

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geoengineering; and

- Fully consider its risks and impacts to biodiversity, the environment, and society.<sup>15</sup>

The COP-10 decision is particularly important because it represented a very broad consensus, covered a wide scope of geoengineering projects on land, sea and air, and served as a de facto moratorium—although the term was not officially used. In the CBD tradition, once a moratorium is established, it is not easily overturned.

The only exceptions allowed by the COP-10 decision are small-scale scientific research studies that are needed to gather specific data; conducted in a controlled setting; with impacts only within national jurisdiction; and subjected to thorough prior environmental impact assessment.

### **Other social and political questions**

Geoengineering has also raised a set of inter-related social and political questions

on top of environmental or scientific-technical issues. For example: who pays, and who benefits? Who makes the decisions? Who assumes responsibility?

Behemoth projects require huge capital and expensive technology, which only the most developed countries and corporate giants of the global North have the capacity and interest to deploy, in exchange for a huge windfall in profits and business advantage. If it prospers, geoengineering (like biotechnology before it) promises to become yet another tool of immense

economic and environmental leverage at the hands of Northern countries and firms.

If geoengineering is allowed and its potentials realized, who should be given decision-making powers? Geoengineering is such a powerful tool, that a highly-developed country could be tempted to use it for purposes other than stop global warming. What would that imply in terms of who controls, evaluates and monitors the global operations of a geoengineering project? And should anything go catastrophically wrong, who will take responsibility and shoulder the liabilities?<sup>16</sup>

### **Geoengineering as ‘weapons of last resort’?**

Proponents of geoengineering have one more line of defense: They say that even if current research into geoengineering has not proven its feasibility, they must continue pursuing research since the aim

is not to replace mainstream mitigation efforts by developed countries, but only to study possible backup approaches—weapons of last resort, so to speak—should the mainstream efforts not succeed fast enough.

However, this effort to justify geoengineering creates a moral hazard issue, in which GHG emitters may feel they can drop their emission cutback commitments once geoengineering solutions are available. This may partly explain, for example, why the U.S., currently the world's second biggest CO<sub>2</sub> emitter and home to oil giants Exxon Mobil and Chevron, remains a leading researcher and advocate of geoengineering approaches.<sup>17</sup>

Ultimately, the obsession with quick techno-fixes only distracts us from fully confronting climate change as a complex set of social, economic and environmental problems, which are rooted in precisely the same discredited development model that now generates one global crisis after another. It is a development model that favors profligate, unplanned and market-driven growth because that is the only way to reward the most successful players with superprofits.

A simple human-scale allegory is useful at this point: The story of our crises-ridden global era is the story of a heavy smoker who is suffering from severe obesity, a debilitating and now life-threatening condition. Holistic health science has long been telling him that it's time not just to quit his vices but to change his whole lifestyle, that it will be a painful process but there is no other way. Yet here comes still another snake-oil doctor urging him to rely instead on a magic pill that will quickly dissolve his obesity, so that he can "have his cake and eat it too."

### **Lifestyle change, not magic pill**

The lesson from this allegory should be clear enough for scientists, environmentalists, and social activists, as well as policy makers in government and business: Geoengineering schemes are too costly, too risky and unpredictable, too unilateral

and unequal; they turn climate solutions into commodities and detract from sound and practicable climate action measures.<sup>18</sup>

There is no quick techno-fix, no magic pill, no easy way out of the climate crisis. What is needed is for the entire global economy—for all countries, starting with the developed ones—to adopt a fundamental "lifestyle change." That, in fact, has long been the message being pushed by so many official and civil-society global forums, including the 1992 Rio Earth summit whose 20th anniversary we will mark next year with the UN Conference on Sustainable Development.

**Geoengineering has also raised a set of inter-related social and political questions on top of environmental or scientific-technical issues. For example: who pays, and who benefits? Who makes the decisions? Who assumes responsibility?**

As the 2009 document People's Protocol on Climate Change stated: "Climate change must be understood not merely as an environmental issue but as a question of social justice—its causes are rooted in the current capitalist-dominated global economy which is principally driven by the relentless drive for private profits and capital accumulation."

The People's Protocol concluded: "It is clear that solving the climate crisis requires far-reaching social transformation. Unequal patterns of power behind such injustices as poverty, hunger, exploitation and colonialism are the same ones that have caused ecological destruction and climate change. And as with other injustices, the climate crisis and its roots can only be dealt with through political struggles by the people."<sup>19</sup>

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# Can the World Feed 10 Billion People?

Here's a piece the author wrote for *Foreign Policy*, updated with the news on 3 May 2011 about revised population estimates for the rest of the century.

By Raj Patel

**T**he world's demographers this week increased their estimates of the world's population through the coming century. We are now on track to hit 10 billion people by 2100. Today, humanity produces enough food to feed everyone but, because of the way we distribute it, there are still a billion hungry. One doesn't need to be a frothing Malthusian to worry about how we'll all get to eat tomorrow. Current predictions place most of the world's people in Asia, the highest levels of consumption in Europe and North America, and the highest population growth rates in Africa — where the population could triple over the next 90 years.

There are, however, plans afoot to feed the world. One of the countries to which the world's development experts have turned as a test bed is Malawi. Landlocked and a little smaller than Pennsylvania, Malawi is consistently among the world's poorest places. The latest figures have 90 percent of its 15 million people living on the equivalent of less than two dollars a day. By century's end, the population is expected to be nearly 132 million. Today, some 40 percent of Malawians live below the country's poverty line, and part of the reason for widespread chronic poverty is that more than 70 percent of Malawians live in rural areas. There, they depend on agriculture — and nearly every farmer grows maize. *Chimanga ndi moyo* — “Maize is life,” the local saying goes — but growing maize pays so poorly that few people can afford to eat anything else.

If you arrive in Malawi in March, just after the rainy season, growing food seems like a fool's game. It's hard to find a patch of red soil that isn't a tall riot of green. From the roadside you can see maize about to ripen, with squash and beans planted at the base of the thick stalks. Even the tobacco fields are doing well this year. But there's a rumble in this jungle. Malawi's swaying fields are a battleground in which three different visions for the future of global agriculture are ranged against one other.

**Current predictions place most of the world's people in Asia, the highest levels of consumption in Europe and North America, and the highest population growth rates in Africa — where the population could triple over the next 90 years.**

The first and most venerable development idea for Malawi sees these farmers as survivors of a doomed way of life who need to be helped into the hereafter. Oxford economist Paul Collier is the poster child for this "modernist" view, one that he presented in a scathing November 2008 *Foreign Affairs* article in which he cudgelled the "romantics" who yearned for peasant agriculture. Observing both that wages in cities are higher than in the countryside, and that every large developed country is able to feed itself without peasant farmers, Collier argued the virtues of big agriculture. He also called on the European Union to support genetically modified crops and for the United States to kill domestic subsidies for biofuel. He was one-third right: biofuel subsidies are absurd, not least because they drive up food prices, siphoning grains from the bowls of the poorest into the gas-tanks of the richest — with limited environmental gains, at best.

Collier's contempt for peasants seems, however, to rest on something other than the facts. Although international agribusiness has generated great profits ever since the East India Company, it hasn't brought riches to farmers and farmworkers, who are invariably society's poorest people. Indeed, big agriculture earns its moniker — it tends to work most lucratively with large-scale plantations and

operations to which small farmers are little more than an impediment.

It turns out that if you're keen to make the world's poorest people better off, it's smarter to invest in their farms and workplaces than to send them packing to the cities. In its 2008 World Development Report, the World Bank found that, indeed, investment in peasants was among the most efficient and effective ways of raising people out of poverty and hunger. It was an awkward admission, as the Bank had long been trumpeting Collier's brand of agricultural development. Farmers organizations from Malawi to India to Brazil had been pointing out that access to land, water, sustainable technology, education, markets, state investment in processing, and — above all, access to level playing field on domestic and international markets — would help them. But it took three decades of lousy policy for the development establishment to realize this, and they're not quite there yet.

Because of its colonial legacy, Malawi had long been following conventional economic wisdom: exporting things in which the country had a comparative advantage (in Malawi's case, tobacco) and using the funds to buy goods on the international market in which it didn't have an advantage. But when tobacco prices fall, as they have of late, there's less foreign exchange with which to venture into international markets. And being landlocked, Malawi also faces higher prices for grain than its four neighbors — Zimbabwe, Mozambique, Zambia, and Tanzania — simply because it costs more to transport into the country. According to one estimate, the marginal cost of importing a ton of food-aid maize is \$400, versus \$200 a ton to import it commercially, and only \$50 to source it domestically using fertilizers. Particularly at a time when food and fertilizer prices are predicted to rise, Malawi is wise to consider how vulnerable to the caprices of international markets it wants to be.

This partly explains why, in the late 1990s, almost a decade before it became fashionable, Malawi bucked the advice of its international donors and decided to spend the majority of its agriculture

budget on fertilizer, the first and perhaps most necessary ingredient in prepping the soil for producing viable crops. The government gave farmers a “starter pack,” with enough beans, improved seeds, and fertilizer to cover about a fifth of an acre. International donors weren’t pleased. A USAID official decried the program as consigning farmers to a “poverty treadmill” in which farmers would be stuck growing just enough maize to survive, but never enough to get rich.

Although the program had modest success, it took off when Malawian President Bingu wa Mutharika expanded the program over the 2005-2006 growing season, quadrupling the amount of fertilizer available. Although driven by domestic political promises, his international timing was perfect — he was embarking on a policy whose time had come. And this is why what happens in Malawi’s fields today matters so much beyond its borders.

To understand why, we need a quick history of agricultural policy in developing countries. Many developing countries were, especially before World War II, pantries to be raided by their colonizers. Post-independence, rural areas were often net contributors to government revenues, but there were some assurances of stability, with government schemes to buy crops at guaranteed prices. Internationally — especially in Asia — the post-war era saw governments pressured to feed a restive population that was increasingly wondering whether their lot wouldn’t be improved through socialism and a change in land ownership. In order to fight the Cold War in foreign fields, the U.S. government and key foundations invested heavily in agricultural technologies such as improved seed and fertilizer. These technologies were designed to keep land in the hands of its feudal owners, food plentiful, and communists at bay. In 1968, William Gaud, the USAID administrator, dubbed it a Green Revolution, because it was designed to prevent a red one.

For a range of mainly geopolitical reasons, the Green Revolution was implemented with less fervor and

success in Africa than in Asia. The International Fertilizer Development Center observed in 2006 that \$4 billion worth of soil nutrients were being mined from the African soil by farmers who, struggling to make ends meet, weren’t replenishing the nitrogen, potassium, and phosphorous in the ground beneath their feet.

**UN Special Rapporteur on the Right to Food, Olivier de Schutter, recently argued that the world might be better fed not by pumping the soil with chemicals, but by using cutting-edge “agroecological” techniques to build soil fertility, and using policy to achieve environmental and social sustainability.**

The prescription for declining soil quality lay, however, not in addressing the policy causes of farmers’ environmental panic — a systematic neglect since the 1980s to which the World Bank itself admitted in an internal evaluation — but to fix the soil with technology. So in 2006, the Rockefeller Foundation (the original sponsors of the Green Revolution in Asia) joined the Gates Foundation to launch the Alliance for a Green Revolution in Africa, or AGRA. This is the second brave new development policy that hopes to feed Africa.

AGRA claims to have learned the lessons of history, rejecting Collier’s view and focusing on policies that “unlike the Green Revolution in Latin America, which mostly benefited large-scale farmers because they had access to irrigation and were therefore in a position to use the improved varieties ... [are] specifically geared to overcome the challenges facing smallholder farmers.”

So did it work in Malawi? It depends on the goal. If the aim was to increase output, then yes. Although economist and Earth Institute Director Jeffrey Sachs recently over-egged the data by suggesting that production had doubled because of the fertilizer subsidy (it only increased by 300,000 – 400,000 tons or up to 15 percent, the rest being mainly due to the return of the rains), the amount of maize in Malawi has undoubtedly gone up.

As the 50 million people food insecure in the United States know all too well, though, having enough food in the country doesn't necessarily mean that all people get to eat, and Malawi still has more than its fair share of glassy-eyed and underweight children. Chronically hungry kids have low height for their age and the number of children malnourished in this way — “stunted” is the term in the statistics — has remained stubbornly high since the subsidies began.

Measuring increased yields of maize from fertilizer and starter kits doesn't necessarily translate into a society that is well-fed and economically viable in terms of agriculture. Rachel Bezner Kerr, a professor of geography at the University of Western Ontario who also works in Malawi as a project coordinator for the Soils, Food and Healthy Communities Project, isn't surprised. “Any nutritionist would scoff at the notion that increased yield automatically leads to increased nutrition,” she says.

Bezner Kerr told me that having more crops in the fields and bigger yields can actually be a bad thing, taking “women out of the home and away from domestic work. Particularly if they are doing early childcare feeding, this can lead to poorer nutritional outcomes.” What happens within the household is crucial in translating increased output into better nutrition.

Indeed, gender matters when it comes to food and farming. Sixty percent of the world's malnourished people are women or girls. Yet the U.N.'s Food and Agriculture Organization recently pointed out that by increasing access to the same resources as men, women could boost their farm's output by up to 30 percent, leading to a 4 percent increase in total agricultural output in developing countries. In Malawi, 90 percent of women work part time, and women are paid some 30 percent less than men for similar jobs. Women are also burdened with care work, especially in a country

ravaged by HIV/AIDS. Even if they own land and have access to the same resources as men, women find themselves torn between the demands of child and elder care, cooking, carrying water, finding firewood, planting, weeding, and harvesting.

These problems are better addressed through social change — abetted by programs like the Soils, Food and Healthy Communities Project — than chemistry. Yet these are precisely the kinds of programs that are crowded out by fertilizer subsidies. The fertilizer program has been a jealous child, sucking resources away from other programs. The opportunity cost of fertilizer for farmers is money that might have been spent on something else — a serious concern when global fertilizer prices are going through the roof. Research by the World Bank in Latin America and Southeast Asia has suggested that it's smarter for government to subsidize public goods like agricultural research and extension services and irrigation, rather than directing money at private inputs like fertilizer.

Again, this matters beyond Malawi's borders, particularly in sub-Saharan Africa. The world's population growth is scheduled to be driven by “high fertility countries” — most of which are in Africa. The UN Special Rapporteur on the Right to Food, Olivier de Schutter, recently argued that the world might be better fed not by pumping the soil with chemicals, but by using cutting-edge “agroecological” techniques to build soil fertility, and using policy to achieve environmental and social sustainability. In a review of 286 sustainable agriculture projects in 57 developing countries covering 91 million acres, a team led by British environmental scientist Jules Pretty found production increases of 79 percent — again, far higher than the fertilizer subsidy in Malawi, and with a far broader range of ecological and social benefits than increased food production.

These programs succeed, in part, because they don't see hunger as the

**Fifteen percent of Malawians remain ultra poor, living on less than a dollar a day and unable to buy enough to eat. They tend to be people who are landless.**

consequence of a surfeit of peasants or a deficit in soil, but as the result of complex environmental, social, and political causes. You don't just need chemists to solve hunger — you need sociologists, soil biologists, agronomists, ethnographers, and even economists. Paying for their skills is the opportunity cost of spending precious dollars on imported fertilizer. Of course, agroecology is an entirely different paradigm than one in which technology is dropped into laps from foreign laboratories accompanied by a sheet of instructions. The programs require much more participatory education work, and much more investment in public goods, than the Malawian government and donors currently seem inclined to provide.

Agroecology is the third development vision battling for the future. In Malawi, it works. By growing cowpeas and groundnuts with maize — expanding the range of crops — Bezner Kerr's program has beat the fertilizer program's yield by 10 percent and increased nutrition outcomes too. Yet even agroecology has its limits. Fifteen percent of Malawians remain ultra poor, living on less than a dollar a day and unable to buy enough to eat. They tend to be people who are landless, or who have poor quality land and have to sell their labor at harvest time, just when they need it the most. They remain untouched by the Malawian miracle.

The future doesn't look terribly promising for agroecology. Concerned about the financial sustainability of its fertilizer subsidy program, the Malawian government is about to embark on a Green Belt project, in which thousands of acres will be irrigated to induce foreign investors to begin large-scale farming of sugar cane and other export crops. The foreign exchange brought in by this program, it is hoped, will bankroll the fertilizer spending. The result will help balance the country's current account, but as a consequence, thousands of smallholders are scheduled to be displaced to clear lands that will attract the kind of large-scale agriculture of which Collier would approve.



Martin Godwin (<http://www.guardian.co.uk>)

Particularly in the light of the new population projections for the 21st century, it seems foolish to stick to 20th century agricultural policy. Recall that the agroecological interventions in Malawi turned on women's empowerment. Nobel Laureate Amartya Sen has famously argued that there are few policies better placed to improve individual, family, and community lives (and lower fertility rates) than education — particularly the education of women and girls. The prophecies presented to us by demographers vary widely — change the assumptions, and you end up with a world of between 8 billion and 15 billion people. No matter what the future holds, though, it's clear that a world in which everyone gets to eat depends on women's empowerment — and rather than treating that fact as something irrelevant to feeding the world, agroecology puts it right in the middle.

A great deal of past agriculture policy has been designed either economically to bomb villages in order to save them, or to administer a technological quick fix in order to postpone politics. Collier wants to get rid of peasants. New fads want to keep them, but keep them knee-deep in chemicals. Yet if we are serious about feeding the hungry, in Malawi or anywhere else, we need to recognize that the majority of the hungry are women, and that we need more public, not private, spending on those least able to command rural resources. Because when it comes to growing food, those who tend the land are anything but fools.

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This article was posted 4 May 2011 at <http://rajpatel.org/2011/05/04/can-the-world-feed-10-billion-people/>. Raj Patel is a blogger, writer, activist and an academician.

peruanista.wordpress.com (http://cache.daylife.com/image/serve/0ann78B46MeW/610x.jpg)



People protest on the airstrip of Manco Capac airport at the outskirts of Juliaca, Peru, Saturday, June 25, 2011.

## Blogger's view: Cops kill 9 in indigenous uprisings vs mining in Peru

At least nine civilians have been killed in Peru this week after a militarized squadron of the Peruvian police opened fire against protesters in the region of Puno, in the southeastern border of Peru and Bolivia.

By Carlos Quiroz, [peruanista.wordpress.com](http://peruanista.wordpress.com)

Five people were killed when protesters broke fences and ran into the airstrip of the international airport of Juliaca, as part of massive protests against mining concessions in the region. A British journalist has written a blog report as he witnessed the violent events in Juliaca when he landed from Lima.

Mainly responsible for this killings is—again—the disgraced Peruvian president Alan Garcia who leaves power on July 28th and has refused to talk

and listen to the communities of the region of Puno, which strongly oppose mining activities in their territories. Meanwhile, elected president

Ollanta Humala has demanded that Garcia solve the crisis by listening to the protesters, led mostly by Aymara leader Walter Aduviri who until last week, was being unfairly prosecuted by the Peruvian judiciary.

The killings in Puno reminds us of the 2009 Bagua massacre, where hundreds of people were killed and injured. The reasons for the protests and the response of the government of Peru are very similar in both instances: people protest and demand to be asked first before Lima gives the okay to extractive industries to operate in their lands, Lima ignores them, and when things get complicated, the police are sent to kill protesters. It seems that no one in the current Peruvian government wants to learn anything from that tragedy.

Alan Garcia, who is known for his racist views about indigenous peoples as “they are not first class citizens” and on our cultures which he calls “primitive”, is also responsible for the deaths of thousands of Peruvian civilians during his two terms as president, and he might be prosecuted after he leaves office. Garcia has neglected hundreds of social protests in Peru during his five years in power, after he stole the 2006 presidential elections with an electoral fraud.

Puno is a region located in the southeastern border of Peru and Bolivia, its geography consisting mostly of high altitude plains surrounded by snow peaks and creeks that lead into the Amazon rainforest. Puno shares with Bolivia the Titicaca lake, the highest lake in the world and a sacred place for native peoples as the center of all life in the Kollao region, which is shared by Peruvians and Bolivians, one people divided by a border. This is the birthplace of the one of the oldest human civilizations and the Andean cultures.

The area is rich in minerals (including the sought-after uranium) but most of

its economy is based on trade, services, agriculture and livestock, and also on illegal trade of goods produced in neighboring countries Bolivia, Chile and Brazil. Lack of control and law enforcement has created a chaotic situation: an informal economy and illegal activities like child prostitution, drug production and trafficking. Puno is the fifth poorest region of Peru, with a population of about 1.3 million people.

The people of Puno, who are mostly Aymara and Quechua indigenous and mestizo (mixed-blood) peoples, have been protesting against mining projects in their territories for years (both formal and informal mining in Peru go mostly underreported). The Lima government ignored them widely.

The Aymara and Quechua communities don't want the mining industry in their territories, unless it's strongly regulated by the government and it provides the locals with good jobs. I spoke over the phone with Pablo Salas, a Quechua leader of CONACAMI, the National Confederation of Communities Affected by Mining in Peru, and they insisted that their demands will continue, until the government of Peru ends mining projects in sacred lands and vulnerable ecosystem areas including water sources like rivers and lakes.

**The protests in Puno will continue and the locals are willing to risk everything including their own lives. For years they have been protesting and asking the government of Lima to listen to their demands, and nothing was done.**

Also, the protests are against the informal character of mining, which in Peru has grown tremendously in the last few years. Usually mining corporations (mostly from Canada, U.S. and Europe) face little supervision on their environment impact and on bringing workers from Lima.

The biggest issue here is the lack of presence of the Lima government in the rest of the country, such that illegal activities easily appear anywhere, any given time in distant regions of the Andes mountains and the Amazon forest. Peru is today the

biggest producer of cocaine and counterfeit dollars, and one of the reasons is the lack of a national security system. In other words, the government of Peru doesn't really exist in distant regions like Puno.

The press in Lima tried this time to listen to the voices of Aymaras and Quechuas, but they are still portraying the protesters as dangerous "violent" people who are on a destructive mission by rejecting any attempt at dialogue. That is false and, once again, social media in Peru has taken the role of what corporate media has failed to do, which is informing the public.

The protests in Puno will continue and the locals are willing to risk everything, including their own lives. For years they have been protesting

and asking the Lima government to listen to their demands, and nothing was done. Now, they are blocking roads, airports and even setting fire to police stations. The current situation is calm, and President Garcia has signed decrees intended to stop the protest, including the cancellation of a Canadian mining concession, but the popular demands have yet to be met.

The Puno people want the government to help them reduce the 61% poverty rate (official data, which is usually hard to trust). They also want to be in control of their lands to prevent pollution and environmental destruction while promoting development models inspired by their thousand-year knowledge. This, in the end, is good not only for Puno, but for the whole planet.

peruanista.wordpress.com (http://cache.daylife.com/imageserve/06rPbr3X5dht/610x.jpg)



Demonstrators carry the coffin of one of their fellow protesters killed in clashes with police in Juliaca, southern Peru, on June 25, 2010. Photo Getty Images.

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Carlos Quiroz is a Peru-born social media activist, writer, blogger, photographer and painter now living in Washington, DC. This article, edited here mainly for grammar, was posted 26 June 2011 on his Peruanista blog at <http://peruanista.wordpress.com/2011/06/26/indigenous-uprisings-peru-against-mining-9-people-killed-police/>



# Global day of action on military spending

By DEMILITARIZE.ORG

On April 12, 2011, the Institute for Policy Studies (IPS) and the International Peace Bureau (IPB) co-organized the first-ever Global Day of Action on Military Spending (GDAMS). We accomplished our major goal of elevating the issue of military spending. Our GDAMS events generated considerable media coverage with stories in the Christian Science Monitor, Huffington Post, Russia Today Television, Telesur, Voice of America, and many national and local outlets. We also accomplished our secondary goal of creating a global network of organizations and individuals committed to

working on the reduction of military spending worldwide. Finally, we forged an important partnership with the Stockholm International Peace Research Institute (SIPRI) that we plan to continue in future years.

There were GDAMS events at the international, national, and local levels. Activists produced videos, constructed powerful public displays and performances, held press conferences and seminars, and mobilized public opinion in favor of reducing military spending.

At the international level, the UN High Representative for Disarmament Affairs issued a supporting statement that concluded that GDAMS

“should serve as a catalyst for shifting global and national priorities from massive military spending to creating human security and safety for all.” Religions for Peace mobilized people from more than 30 countries to send letters to the permanent members of the UN Security Council – the United States, China, the United Kingdom, France, and the Russian Federation – asking them to cut their military spending by 10% and re-allocate those funds to development. In front of the UN offices in Geneva, the International Peace Bureau was creatively thinking inside the box with a visual representation of global spending priorities. The Foundation for Peace in Barcelona produced a short, powerful video in Spanish, Catalan, and English on military spending versus Millennium Development Goals. The indie pop group Peachcake composed a song for the Global Day.

At the national level, activists targeted their governments and their national media to influence the debate on military spending. The Australian anti-bases movement produced a video of many citizens speaking with one voice. In London, the Campaign Against the Arms Trade did a die-in at the steps of the Treasury building. In Athens, protestors erected eye-catching displays and invited passers-by to indicate where they would spend government money. In Bangladesh, activists held discussions with parliament members including the Deputy Speaker. In India, activists drummed for three hours in New Delhi as part of a campaign to get the attention of national leaders. In Thailand, campaigners conducted a Chinese funeral rite in front of the Ministry of Defense where they burned money and guns. In Uganda, the government cracked down on a proposed 2-kilometer-march in Kampala, forcing activists to hold their meetings in more remote areas. Activists in Canada, Ireland, France,

Spain, and Malaysia all presented petitions to their national governments.

At the local level, activists highlighted the impact of misplaced budget priorities at the community level. At Henoko in Okinawa, Japan, activists connected the anti-base protests to GDAMS. Village rallies took place in a number of rural Indian communities. Activists leafleted subway stations in Medellin, Colombia and San Francisco in the United States. In the Lehigh Valley in Pennsylvania, activists did a walk for peace through a community devastated by cuts in social spending. In Corvallis, Oregon, Veterans for Peace set up in front of the library, where hours have been cut back because of funding, and asked people to indicate their own budget priorities.

In all, more than 90 events took place in more than 35 countries.

Plans are already under way for the 2012 edition of this global action. Between now and then, organizers are planning face-to-face strategy sessions to identify the tactics most likely to have political impact, a report on successful case studies of military spending reductions to publish at the same time as the SIPRI annual findings, and a revised organizer’s packet to help grassroots groups to continue pushing for cuts in military spending leading up to GDAMS 2012.

**At the international level, the UN High Representative for Disarmament Affairs issued a supporting statement that concluded that GDAMS “should serve as a catalyst for shifting global and national priorities from massive military spending to creating human security and safety for all.”**

May 19, 2011

*Global Day of Action on Military Spending:* <http://demilitarize.org>

*International Peace Bureau:* <http://www.ipb.org>

*Institute for Policy Studies:* <http://www.ips-dc.org/>

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This report was posted on 19 May 2011 at <http://demilitarize.org/gdams-2011-events-summary/>

# Why the rich love high unemployment



Job seekers line up to attend the New York City Startup Job Fair (AFP Photo / Spencer Platt)

EDM is reprinting this last installment of a three-part series by Mark Provost on the state of the US economy, which were published on Truthout in December 2010, January 2011, and May 2011. Part 1 dealt with the Obama administration's policies that allowed corporate profits to recover from the 2008 meltdown at the expense of labor. Part 2 details the collusion between the US federal government and big US corporations. This last part focuses on the widening gap between rich corporations and their poor workers, a fitting summary of the worsening situation of labor as the world commemorates the International Day of Labor on May 1.

By Mark Provost, TRUTHOUT

Christina Romer, former member of President Obama's Council of Economic Advisors, accuses the administration of "shamefully ignoring" the unemployed. Paul Krugman echoes her concerns, observing that Washington has lost interest in "the forgotten millions." America's unemployed have been ignored and forgotten, but they are far from superfluous. Over the last two years, out-of-work Americans have played a critical role in helping the richest one percent recover trillions in financial wealth.

Obama's advisers often congratulate themselves for avoiding another Great Depression—an assertion

not amenable to serious analysis or debate. A better way to evaluate their claims is to compare the US economy to other rich countries over the last few years.

On the basis of sustaining economic growth, the United States is doing better than nearly all advanced economies. From the first quarter of 2008 to the end of 2010, US gross domestic product (GDP) growth outperformed every G-7 country except Canada.

But when it comes to jobs, US policymakers fall short of their rosy self-evaluations. Despite the second-highest economic growth, Paul Wiseman

of the Associated Press (AP) reports: “The U.S. job market remains the group’s weakest. U.S. employment bottomed and started growing again a year ago, but there are still 5.4 percent fewer American jobs than in December 2007. That’s a much sharper drop than in any other G-7 country.” According to an important study by Andrew Sum and Joseph McLaughlin, the US boasted one of the lowest unemployment rates in the rich world before the housing crash; now, it’s the highest.<sup>1</sup>

### **Persistent unemployment and weak unions have changed the American workforce into a buyers’ market—job seekers and workers are now “price takers” rather than “price makers.”**

The gap between economic growth and job creation reflects three separate but mutually reinforcing factors: US corporate governance, Obama’s economic policies, and the deregulation of US labor markets.

Old economic models assume that companies merely react to external changes in demand—lacking independent agency or power. While executives must adapt to falling demand, they retain a fair amount of discretion in how they will respond and who will bear the brunt of the pain. Corporate culture and organization vary from country to country.

In the boardrooms of corporate America, profits aren’t everything—they are the only thing. A JP Morgan research report concludes that the current corporate profit recovery is more dependent on falling unit-labor costs than during any previous expansion. At some level, corporate executives are aware that they are lowering workers’ living standards, but their decisions are neither coordinated nor intentionally harmful. Call it the “paradox of profitability.” Executives are acting in their own and their shareholders’ best interest: maximizing profit margins in the face of weak demand by extensive layoffs and pay cuts. But what has been good for every company’s income

statement has been a disaster for working families and their communities.

Obama’s lopsided recovery also reflects lopsided government intervention. Apart from all the talk about jobs, the Obama administration never supported a concrete employment plan. The stimulus provided relief, but it was too small and did not focus on job creation.

The administration’s problem is not a question of economics, but a matter of values and priorities. In the first Great Depression, President Roosevelt created an alphabet soup of institutions—the Works Progress Administration (WPA), the Tennessee Valley Authority (TVA) and the Civilian Conservation Corps (CCC)—to directly relieve the unemployment problem, a crisis the private sector was unable and unwilling to solve. In the current crisis, banks were handed bottomless bowls of alphabet soup—the Troubled Asset Relief Program (TARP), the Public-Private Investment Program (PPIP) and the Term Asset-Backed Securities Loan Facility (TALF)—while politicians dithered over extending inadequate unemployment benefits.

The unemployment crisis has its origins in the housing crash, but the prior deregulation of the labor market made the fallout more severe. Like other changes to economic policy in recent decades, the deregulation of the labor market tilts the balance of power in favor of business and against workers. Unlike financial system reform, the deregulation of the labor market is not on President Obama’s agenda and has escaped much commentary.

Labor-market deregulation boils down to three things: weak unions, weak worker protection laws and weak overall employment. In addition to protecting wages and benefits, unions also protect jobs. Union contracts prevent management from indiscriminately firing workers and shifting the burden onto remaining employees. After decades of imposed decline, the United States currently has the fourth-lowest private sector union membership in the Organization for Economic Cooperation and Development (OECD).

America's low rate of union membership partly explains why unemployment rose so fast and—thanks to hectic productivity growth—hiring has been so slow.

Proponents of labor-market flexibility argue that it's easier for the private sector to create jobs when the transactional costs associated with hiring and firing are reduced. Perhaps fortunately, legal protections for American workers cannot get any lower: US labor laws make it the easiest place in the world to fire or replace employees, according to the OECD.

Another consequence of labor-market flexibility has been the shift from full-time jobs to temporary positions. In 2010, 26 percent of all new jobs were temporary—compared with less than 11 percent in the early 1990's recovery and just 7.1 percent in the early 2000's.

The American model of high productivity and low pay has friends in high places. Former Obama adviser and General Motors (GM) car czar Steven Rattner argues that America's unemployment crisis is a sign of strength:

*Perversely, the nagging high jobless rate reflects two of the most promising attributes of the American economy: its flexibility and its productivity. Eliminating jobs—with all the wrenching human costs—raises productivity and, thereby, competitiveness... Unusually, US productivity grew right through the recession; normally, companies can't reduce costs fast enough to keep productivity from falling.*

*That kind of efficiency is perhaps our most precious economic asset. However tempting it may be, we need to resist tinkering with the labor market. Policy proposals aimed too directly at raising employment may well collaterally end up dragging on productivity.<sup>2</sup>*

Rattner comes dangerously close to articulating a full-unemployment policy. He suggests unemployed workers don't merit the same



<http://asiabzz.com>

### **Out-of-work Americans deserve more than unemployment checks—they deserve dividends.**

massive government intervention that served GM and the banks so well. When Wall Street was on the ropes, both administrations sensibly argued, “Doing nothing is not an option.” But for the long-term unemployed, doing nothing appears to be Washington's preferred policy.

The unemployment crisis has been a godsend for America's superrich, who own the vast majority of financial assets—stocks, bonds, currency and commodities.

Persistent unemployment and weak unions have changed the American workforce into a buyers' market—job seekers and workers are now “price takers” rather than “price makers.” Obama's recovery shares with Reagan's early years the distinction of being the only two post-war expansions where wage concessions have been the rule rather than the exception. The year 2009 marked the slowest wage growth on record, followed by the second slowest in 2010.<sup>3</sup>

America's labor market depression propels asset price appreciation. In the last two years, US corporate profits and share prices rose at the fastest pace in history—and the fastest in the G-7. Considering the source of profits, the soaring stock market appears less a beacon of prosperity than a reliable proxy for America's new misery index. Mark

Whitehouse of The Wall Street Journal describes Obama's hamster wheel recovery:

*From mid-2009 through the end of 2010, output per hour at U.S. nonfarm businesses rose 5.2% as companies found ways to squeeze more from their existing workers. But the lion's share of that gain went to shareholders in the form of record profits, rather than to workers in the form of raises. Hourly wages, adjusted for inflation, rose only 0.3%, according to the Labor Department. In other words, companies shared only 6% of productivity gains with their workers. That compares to 58% since records began in 1947.<sup>4</sup>*

Workers' wages and salaries represent roughly two-thirds of production costs, and drive inflation. High inflation is a bondholders' worst enemy because bonds are fixed-income securities. For example, if a bond yields a fixed five percent and inflation is running at four percent, the bond's real return is reduced to one percent. High unemployment constrains labor costs and, thus, also functions as an anchor on inflation and inflation expectations—protecting bondholders' real return and principal. Thanks to the absence of real wage growth and inflation over the last two years, bond funds have attracted record inflows and investors have profited immensely.<sup>5</sup>

The Federal Reserve has played the leading role in sustaining the recovery, but monetary policies work indirectly and disproportionately favor the wealthy. Low interest rates have helped banks recapitalize, allowed businesses and households to refinance debt and provided Wall Street with a tsunami of liquidity—but its impact on employment and wage growth has been negligible.

CNBC's Jim Cramer provides insight into the counter-intuitive link between a rotten economy and soaring asset prices: "We are and have been in the longest 'bad news is good news' moment that I have ever come across in my 31 years of trading. That means the bad news keeps producing the low interest rates that make stocks, particularly stocks with decent dividend protection, more attractive than their fixed income alternatives." In other words, the longer Ben Bernanke's policies fail to lower unemployment, the longer Wall Street enjoys a free ride.

Out-of-work Americans deserve more than unemployment checks—they deserve dividends. The rich would never have recovered without them.

**Notes**

1 Andrew Sum and Joseph McLaughlin, "The Massive Shedding of Jobs in America," *Challenge*, 2010, vol. 53, no. 6, pp. 62-76.

2 Steven Rattner, "The right path on jobs, jobs, jobs," *Washington Post*, n.d. Accessed at [http://www.washingtonpost.com/opinions/the-right-path-on-jobs-jobs-jobs/2011/01/30/ABqPCME\\_story.html](http://www.washingtonpost.com/opinions/the-right-path-on-jobs-jobs-jobs/2011/01/30/ABqPCME_story.html)

3 David Wessel, "Wage and Benefit Growth Hits Historic Low," *Wall Street Journal*, January 30, 2010; Chris Farrell, "US Wage Growth: The Downward Spiral," *Bloomberg Businessweek*, February 5, 2010.

4 Mark Whitehouse, "Number of the Week: Workers Not Benefiting From Productivity Gains," *The Wall Street Journal*, March 5, 2011. Accessed at <http://blogs.wsj.com/economics/2011/03/05/number-of-the-week-workers-not-benefiting-from-productivity-gains/>

5 Kelly Evans. "A 'Wage-Less' Recovery in the U.S.," *The Wall Street Journal*, April 4, 2011. Accessed at <http://online.wsj.com/article/SB10001424052748704530204576237182248727802.html>

Mark Provost (gregsplacenh@gmail.com) is a freelance writer from New Hampshire. This article was posted on 24 May 2011 at <http://truthout.com/why-rich-love-high-unemployment/1305061465>. Parts 1 and 2 are available at <http://archive.truthout.org/the-greatest-recovery-part-i66040> and <http://archive.truthout.org/will-our-economy-ever-recover-from-greatest-recovery66628>.

# Three rich nations to snub Kyoto 2nd round deal, US to stay out

The future of global climate action got bleaker after Canada, Japan and Russia confirmed at the May meeting of the G8 in France that they would not join a second round of emissions cuts under the Kyoto Protocol. The United States meanwhile reiterated that it would remain outside the treaty.

This announcement throws greater doubt on the survival of the Kyoto Protocol, whose first phase ends in 2012.

The future of the Kyoto Protocol has been a sticking point in climate negotiations under the UN's Framework Convention on Climate Change, which annual Conference of Parties (COP) will meet in Durban, South Africa later this year.

Developing countries and climate activists say an agreement for a second commit round of emission cuts should be reached in Durban.

But developed countries disagree with the current Kyoto format, which does not require developing countries such as China and India to make emissions cuts.

Under the Kyoto Protocol, rich industrialized countries are obliged to meet binding emissions targets, while poorer countries can reduce emissions voluntarily and with support from wealthier countries.

Instead of a treaty with differential obligations between rich and poor nations, developed countries outside the EU want a non-binding deal based on voluntary emissions pledges that includes



developing countries.

The Kyoto Protocol remains the world's only internationally-binding treaty on curbing greenhouse gas emissions responsible for global warming.

Signed in 1997, the treaty commits 37 developed countries and the European Union to reduce emissions by five percent against 1990 levels by 2012.

The Intergovernmental Panel on Climate Change stressed in 2007 that developed countries have to cut emissions by 25 to 40 percent by 2020 to keep global temperatures from rising above the safe limit of 2 degrees Celsius. More recent scientific findings are leading to more urgent calls for global emissions to drop to zero by mid-century to limit warming below 1.5 degrees Celsius.

To date, developed countries have pledged to cut emissions by only 10 to 15 percent of 1990 levels by 2020.

# Civil society: 'WB, MDBs stay out of Green Climate Fund'

**I**BON Foundation joined nearly 100 civil society groups from different countries involved in environment and development work to urge the United Nations to leave out the World Bank and multilateral development banks in the design and management of the new Green Climate Fund (GCF).

In a letter dated 5 April 2011 and addressed to the Secretary of the UN Framework Convention on Climate Change (UNFCCC) and the convener of the first GCF design meeting, the group expressed opposition to the Bank and the MDBs having any role in the fund.

"We strongly oppose such... involvement based on past experience of the devastating social and environmental impacts of these institutions' activities and policies, and their ongoing role in financing climate destruction.

"In spite of the climate and economic crises, the World Bank continues to finance fossil fuel projects at an alarming rate, promote false solutions to the climate crisis, and use funding instruments that increase the indebtedness of developing countries. Thus, the World Bank is not suited to advise in the design of a fund that must ensure fair and effective long-term financing based on the principles of environmental integrity, equity,



World Bank Group headquarters, Washington, D.C.

sustainable development, and democracy," the letter said.

The GCF was established during the UNFCCC meeting in Cancun, Mexico last December to take charge of billions of dollars in financing to support climate change mitigation and adaptation efforts in developing countries. A 40-member Transitional Committee is tasked to work on a blueprint of the fund's design for approval at the climate talks in Durban later this year.

The Cancun meeting named the World Bank as the fund's interim trustee for the first three years, and also invited international financial institutions and multilateral development banks to second staff to advise the transitional committee.

One of the three co-chairs of the GCF's Transitional Committee is South African minister Trevor Manuel, who served as chairman of the Development Committee of the International Monetary Fund and World Bank in the early 2000s, and who also sat as governor on the boards of the World Bank and the African Development Bank.

The group also demanded that the Bank be prevented from being given any further role in the GCF, and instead urged the design committee to "involve technical experts in gender, sustainable development and poverty eradication, new renewable energy and efficiency technologies, indigenous peoples' and human rights, and social and environmental safeguards."

diverseeducation.com

# PHL's Big Three oil profits more than combined income of poorest families

By IBON NEWS

The profits of the Big Three oil firms in the Philippines are rising as rapidly as the increasing oil prices, with a record of at least Php 141.7 billion in profits in the last decade. This is more than the combined income of the country's poorest 2.36 million families—amounting to Php 114.3 billion in 2009, research group IBON said.

The figures debunk the Big Three's claims that local price hikes are needed so that they can recover losses from the global oil price movements. IBON said the call for real transparency in the domestic oil industry remains urgent to make sure that the Big Three are not profiting at the public's expense.

Philippine local price of diesel increased from Php 13.96 per liter in 2001 to peak at Php 44.31 in 2008 before falling slightly to Php 41.26 in 2010. The price of regular gasoline meanwhile increased from Php 16.58 in 2001 to Php 45.92 in 2008 and then further to Php 48.73 in 2010.

At the same time, the net income of Pilipinas Shell increased six-fold from Php 3.1 billion in 2001 to Php 19 billion in 2008 and then Php 16 billion in 2009 with total net income over the 9-year period reaching Php 73.0 billion. The net income of



Chevron increased eleven-fold from Php 1 billion in 2001 to Php 10.7 billion in 2007 then Php 8.6 billion in 2008, before dipping to Php 8.3 billion in 2009. Its total net income over the period 2001-2009 reached Php 40.2 billion.

Profit data for Petron, formerly a state-owned firm before it was privatized, is incomplete but its profits increased from Php 1.2 billion in 2001 to Php 6.1 billion in 2007, totaling Php 28.6 billion over the seven-year period. It has reportedly booked Php 1.9 billion in profits in the first quarter of 2010 alone.

Globally, mother companies of the Big Three firms are also raking in superprofits with the oil price hikes. The price of Dubai crude increased from an annual average of US\$ 22.70 per barrel in 2001 then peaked at US\$ 94.80 in 2008 before falling to US\$ 78.10 in 2010. The price of Dubai crude has again begun to rise rapidly and is already at some US\$ 120 per barrel.

The profits of Royal Dutch Shell more than doubled from US\$ 10.9

billion in 2001 to US\$ 26.3 billion in 2008 and fell slightly to US\$ 20.1 billion in 2010. Its total profits over the decade 2001-2010 reached US\$ 192 billion – or more than the value of the Philippine economy, measured by gross domestic product (GDP), in 2010 of US\$ 189.0 billion.

The profits of Chevron in turn increased over seven-fold from US\$ 3.3 billion in 2001 to US\$ 23.9 billion in 2008 before dipping to US\$ 19 billion in 2010. Its total profits in the last decade reached US\$ 128.3 billion.

These figures show that price increases have benefited the oil monopoly tremendously. In the Philippines, the deregulation policy and its principle of automatic price adjustments have allowed the Big Three to amass huge profits while further strengthening the industry cartel.

IBON has been reiterating its position against the oil deregulation policy because it encourages such wanton profiteering at the expense of Filipino consumers.

This article was posted 5 May 2011 at [http://ibon.org/ibon\\_articles.php?id=142](http://ibon.org/ibon_articles.php?id=142).

# Philippine farmers resist corporate landgrab for biofuel project

By PCFS, IBON INTERNATIONAL, APC, KMP

In the Cagayan Valley of northern Philippines, peasant farmers and Agta indigenous people recall that over the course of 2008, the lands they cultivate were being surveyed and measured by people who had never informed them of—let alone sought their permission for—these activities. They also noted an increase in incidences of anomalous land titles being issued to them by local authorities that required unaffordable amortization fees on lands they had been cultivating for decades—and in some cases, generations. The clearing of land for conversion into plantations on local areas zoned under “Socialized Industrial Forestry Management Agreements” (SIFMAs) was also observed, contrary to contract stipulations set out by the national Department of Environment and Natural Resources. Without affected populations being informed or consulted, the municipality of San Mariano had become the targeted site of the largest agrofuel project in the country. According to local rice farmer and community advocate, Diony Yadao:

*We first found out about this project in 2008, but we didn't know if it would involve the growing of jatropa or sugar cane for bio-fuel. However, we were*



The ethanol plant in San Mariano, Isabela, Philippines during its construction

*aware this project would violate our rights to land and livelihood because all who live here depend on agriculture for our lives. We believe there is no land that is 'idle and available' for bio-fuel plantations because this is land where we grow corn, rice, vegetables, bananas and other fruits. That is why we considered this project as a serious threat—because it would lead to the grabbing of our land without our consent; a land monopoly by and for the interests of foreign agribusiness that would lead to a complete loss of food security.*

## Isabela's rich soil and the grounds of injustice

San Mariano, in Isabela province, is located in the transition zone

between the lowlands of Cagayan Valley and the uplands of the Sierra Madre mountain range. Its almost 45,000 people live in a total area of almost 147,000 hectares: 78,450 hectares of forest, 17,046 hectares of watersheds, and 1,268 hectares of residential areas, and 29,264 hectares deemed as agricultural or cultivable lands.<sup>1</sup>

The traditionally nomadic Agta who are indigenous to the region assert that their rights to the land are based on centuries of tradition and ancestral connections. Subsequently (more than 60 years ago), new waves of settlers from outside the municipality established their homes and began cultivating food on usufruct lands averaging between two and three

<http://www.tripmundo.com/philippines/cagayan-valley/san-mariano/>

hectares (ha.) per household. The efforts of local farmers have made Isabela renowned as one of the top provinces for the production of corn and rice in the Philippines; government statistics show that by 2008, the province was the number one producer of corn and second top producer of rice.<sup>2</sup> Yet, the higher prices of seeds, fertilizers, and other inputs leave many farmers in a constant struggle to avoid debt and provide sufficient healthy food to their families. Nevertheless, small scale farming families assert that their land is not idle or for sale.

### Official deception

Unbeknownst to the local people, the land on which they lived and eke a livelihood had been identified by the government affiliated agency, Philippine Agribusiness Development Cooperation Center (PADCC), as “idle”, and open for foreign multinationals to establish industrial ventures. This official demarcation is part of a more widespread pattern by which the government is leasing vast expanses of land (already populated by small food producers) for conversion into plantations by foreign companies. In fact, on the global market, the Philippines has been noted as one of the top places for speculators and companies interested in foreign land acquisitions.

In the case of San Mariano, the signing away of land for agrofuel development was made possible by a number of factors, including that many small holder farmers lack formal land titles, while the Agta people claim customary land rights

over territories that are disputed by some government bodies due to a lack of territorial demarcation. In addition, large areas reserved for mixed cropping and agro-forestry are monopolized by the traditional landlord families, who also control local government structures and decisions for corporate partnership developments.

This situation created the conditions for two Japanese companies, Itochu Corporation and the JGC Group, along with Filipino partner company, Ecofuel Land Holdings,<sup>3</sup> to advance a proposal to establish the Isabela Bio-Ethanol and Cogeneration Project in San Mariano. The project includes plans to establish 11,000 hectares of monocrop sugar cane

An international fact finding mission (IFFM) was commissioned from 29 May to 6 June 2011 in San Mariano upon the request of local farming families associated with the Danggayan Dagiti Mannalon ti Isabela (DAGAMI) and Sentro para sa Tunay na Repormang Agraryo (SENTRA) – Cagayan Valley to investigate the reported pattern of intensifying land grabbing in San Mariano, Isabela that is reportedly connected to the development of the agrofuel project. Combined with data gathered during an earlier national fact finding mission held in February 2011, 108 household interviews were conducted. The evidence provides critical insights into the struggles for genuine agrarian reform and the recognition of indigenous peoples’ rights to ancestral domain, as well as the growing resistance to the conversion of lands tilled by families for food into an agro-industrial zone for producing and processing agrofuels.

Representatives of the following organizations joined the international fact-finding mission: Action Center for Development and Rights – Japan; Advocates of Science and Technology for the People (AGHAM); Anakpawis Partylist; Asian Peasant Coalition (APC); Friends of the Earth – Japan; Global Forest Coalition; IBON International; Kaduami – Northern Luzon; Kilusang Magbubukid ng Pilipinas (KMP); Organic Consumers Association – USA; People’s Coalition on Food Sovereignty (PCFS); Sentro para sa Tunay na Repormang Agraryo (SENTRA); and Southeast Asia Regional Initiatives for Community Empowerment (SEARICE). They were joined by representatives of a number of local organizations.

These findings of the IFFM are based on site visits, consultations and dialogues with farmers and indigenous people residing in San Mariano, representatives of faith-based organizations, barangay (community) officials, the mayor’s office in San Mariano, the San Mariano Municipal Council, the provincial governor’s office, representatives of GFII and Ecofuel, members of the Philippine House of Representatives and Senate, as well as representatives of the provincial and national offices of the Departments of Agriculture (DA), Agrarian Reform (DAR) and Environment and Natural Resources (DENR).

plantations and nurseries, along with cogeneration facilities and an ethanol distillery plant.

Expected to be operational by 2012, the facilities are to consume an estimated 6,000 cubic meters of water per day – equivalent to almost all of San Mariano’s daily water consumption<sup>4</sup> – just to produce 50-55 million liters of bioethanol. According to company data, once the plant is running at full capacity, 260 skilled personnel will be employed.<sup>5</sup> Local people will be hired as manual farm workers to plant, weed, fertilize, harvest and load sugar cane.

Since local farmers practice diverse cropping patterns to ensure they can provide for much of their family’s needs, the planting of monocrop sugar cane on their fields has directly negative consequences on their rights to determine the use of land and to have a reliable basis of nourishing, sustained food supplies. As explained directly to the IFFM, families who sell rice can earn at least Php 42,000 per hectare per year; Php 5,000 to Php 9,300 per hectare per year for corn; and Php 34,000 per hectare per year for banana. Therefore, the money offered to farmers by Ecofuel for leasing land for sugar cane production – Php 5,000 to Php 10,000 per hectare per year – is not commensurate to the amount they would have earned if they were cultivating the land themselves to grow crops of corn, rice, bananas and vegetables. Thus, since the majority of the farmers do not want to give up their lands, unscrupulous land owner-politicians of the

barangay,<sup>6</sup> municipal and provincial governments are using a variety of schemes to provide the needed land to GFII for their 11,000-hectare project—all of which are tantamount to land grabbing.

Common experiences of peasants in San Mariano include finding out that the lands they have occupied and tilled for their decades have been “falsely identified as idle, abandoned, and unproductive”, and now part of the planned plantation; being charged with exorbitant ‘processing’ fees after promises of free land titling, and receiving legal tenure documents named after other individuals; being reduced to tenant status, being compelled to pay high land amortization fees; and being evicted from their homes and rightfully owned lands.

**Unbeknownst to the local people, the land on which they lived and eked a livelihood had been identified by the government affiliated agency, Philippine Agribusiness Development Cooperation Center (PADCC), as “idle”, and open for foreign multinationals to establish industrial ventures.**

### **Elusive project information, fake project consultations**

In addition to the process of land acquisition being deceptive and unjust, it is questionable whether GFII can affirm that national and international legal standards for transparent dissemination of information and stakeholder consultations prior to the project initiation were upheld. According to residents in San Mariano, the meetings did not provide opportunities for genuine consultation for them to democratically and collectively decide if — and how — the project should advance, and opportunities to raise fundamental questions about the project plans. The meetings also presented the bio-fuel project as a “done deal” in which residents had no option to reject or modify the plans to address community livelihood concerns, and presented land lease contracts with onerous and poorly explained confidentiality clauses related to land use and the conclusion of the contract terms.

Local people also noted that the recent posting of the high numbers of military personnel in their communities, including the positioning of a battalion within the community to conduct “security operations”, is contrary to the national legal mandate of the CARHRIHL.<sup>7</sup> Though there remains a lack of documented evidence regarding connections between the project proponents and the increased militarization of the area, residents nevertheless perceive that the two forces are collaboratively working to ensure

greater profits for the agrofuel venture, while wreaking havoc on their rights to food security, a life free of violence, and healthy, dignified livelihoods.

### Fields of expectation

For those who have been displaced to make way for the sugar cane plantations, working on Ecofuel plantations is seen as one livelihood option. However, the intensive level of exploitation reported in these fields and the lack of willingness of San Mariano farmers to shift from cultivating their own lands to planting and harvesting sugar cane for a corporate venture, have meant that there is in fact a shortage of local people willing to work under these conditions. Instead, Ecofuel has been forced to ship contract laborers to work on plantations from as far away as the island of Mindanao.

Migrant and local laborers working on Ecofuel plantations who spoke with the IFFM reported labor law violations and a denial of dignity at work, describing payments far below legal minimum standards, including as low as Php 15-30 (0.35-0.70 USD) per day for weeding or spraying, and approximately Php 100 (2.30 USD) per day for harvesting. The IFFM also documented other violations of workers' rights as reported by the sugar cane workers including:

- some wages withheld on a three-day alternating basis to ensure "loyalty" to the job
- being paid *only* if a combination of tasks of harvesting and loading

was done

- being required to bring their own equipment for any on-site duties
- being required to spray toxic fertilizers and pesticides without proper safety equipment, resulting in rashes and headaches as well as work clothes soaked with pesticides
- being exposed to occupational health risks, including incidences of severe limb injuries
- violations of government-mandated social security and health insurance benefits
- working without a contract, and without certainty of employment even in the short term.

In addition, the expansion of the sugar cane plantations has led to further exploitation of the precarious livelihoods and land claims of the Agta people. In Sitio Digud of Barangay Del Pilar, land traditionally considered as ancestral domain of the Agta people covered by a Community-Based Forest Management Agreement (CBFMA) was seized for conversion into fields of sugar cane through a process that lacked any form of transparency. In this instance, control over the land was claimed by the barangay captain who identified himself as the leader of a fictitious co-operative, so that he could subsequently lease the land to Ecofuel.

### Defending land and life

Faced with such a situation of intensifying exploitation, injustice and pending loss of their community as well as entire way of life, the indigenous people and peasants of San Mariano are not simply

accepting this situation as a given reality, and are actively mobilizing in defense of their rights to food, land and life. The first-hand experiences of land grabbing have sparked a sense of indignation and a deep determination to find ways to preserve that which remains of their land and heritage, to be protected for future generations.

For example, a married couple with five children, who have claims to nine hectares of land in Del Pilar that have been cultivated by their predecessors, reported to the IFFM that soon after they observed the barangay captain measuring this land without informing them, ownership had been issued to a certain individual they were not related to, and appears to be set aside for clearing and crop conversion. As this family has been deprived of basic literacy, the legal process for asserting their rights to land presents many barriers and challenges.

One family from Barangay Panninan spoke of cultivating upland rice and other crops for more than two generations. In October 2009, a rich land owner claimed the farmland, saying he had the documents to prove ownership, and subsequently contracted the area for sugar cane cropping with Ecofuel. Despite being harassed and facing violent intimidation (including attempted shootings by military personnel), this family continues to demand of returning the land to them – as the original tillers. They have been unjustly deemed as a

national security threat, belonging to the New People's Army, and have been called upon by the Philippine National Police to submit to an inquiry.

An elderly farmer from Brgy. Del Pilar argued for his community's right to development and self-determination in the following manner:

*If we enter into an agreement with the bio-ethanol company, we believe this land will be set up like a hacienda, and that we will be pushed aside to become landless squatters. Therefore, our resistance is strong. We are prepared to hold a barricade and... fight for our right to the lands. We were the first ones to occupy, till and live on these lands. Those who till the land for generations, as we have, have the right to hold the land, and this must be respected by the company and the government. We must be prepared to die for the land to be kept in the hands of the tiller-peasants, because land is life. Even when I die, this land must be left to my children and their children.*

The indigenous Agta people are also concerned about the threats to their community's survival and dependence on the land. For



Anti-landgrabbing rally led by the Kilusang Magbubukid ng Pilipinas.

instance, a community member from Del Pilar who identifies herself as Agta asserted that “the bio-ethanol company should not come in because this is land that should not be taken over by a business. The land must be preserved to feed and provide for the people. We will defend the land and will not allow any company to enter and destroy Agta ancestral land.”

The concerns of the local people for their rights to till the land, to food, human dignity and a healthy fulfilling livelihood, form the basis of community organizing carried out by Danggayan Dagiti Mannalon ti Isabela (DAGAMI), which is affiliated to the national peasant advocates organization, Kilusang Magbubukid ng Pilipinas. They have mobilized in opposition to the agrofuel project through initiating petition-signing campaigns, household-based education discussions, trainings for community paralegals and journalists, and mass actions (vigils and rallies) to voice

their concerns, public “speak-outs” organized in front of the Department of Agrarian Reform, and delegations to offices of national and local elected officials. However, their calls have yet to be heeded.

One of the key overarching demands of DAGAMI is the call for genuine agrarian reform, which would mean an end to the current patterns of

land grabbing, and encompass not only a fundamental redistribution of land to peasant-tiller families, but also the promotion of cooperativization, farmer-directed credit, and sustainable, appropriate farming technologies.

DAGAMI believes the paramount priority of agricultural production should be on the attainment of national self-sufficiency in food and raw materials, and in ensuring healthy, dignified livelihoods for all food producers. As part of their program to assert people's sovereignty over the means of production, they have developed initiatives to exchange and share indigenous seed varieties of rice and corn. In this way, they seek to extend support to their members and fellow farming families in decreasing people's reliance on expensive market-based inputs, such as commercial fertilizers, high yield seed varieties and genetically modified corn crops, while simultaneously increasing

the capacity for self-reliance, local food security, and pro-active collectivism.

Ultimately, this pro-people production model allows for the promotion of both ecological and human health and for the support of local livelihoods. It is a direct contrast to the destructive industrial and profit-oriented development model encapsulated by the Isabela agrofuel venture, which will benefit only a small number of local and Manila-based elite, along with the foreign corporate project proponents.

### Conclusions

By aggravating the situation of land grabbing, further concentrating the control over land and water

resources in the hands of local land owners as well as foreign corporations, and intensifying the hunger, impoverishment and dispossession experienced by small peasant farmers, the agrofuel venture in Isabela has followed a form of development aggression that is becoming increasingly common.

Throughout Asia, Africa and Latin America, private firms, investors and powerful states have sought greater control over vast areas of fertile land via the process of foreign land acquisitions. At stake in Isabela is nothing less than the survival of the rural communities of San Mariano, including their rights to food, health, land and livelihood. Now is the time to listen to the voices of subsistence farmers and

Agta people and critically examine the overall lasting impacts of the San Mariano agrofuel development on the health of the surrounding ecosystem and communities.

Since the Green Future Innovations Inc. venture in Isabela is not yet operational, it is not too late for the Government of the Republic of the Philippines to re-evaluate the project and the overall direction of rural development in Isabela, based on an inclusive process of meaningful dialogues with organizations representing small scale farmers, local indigenous populations, agricultural workers and other rural sectors, in order to delineate and implement programs that will support and strengthen their rights to food, land and a dignified livelihood.

### Notes

1 The Official Website of San Mariano, Isabela <<http://sanmariano-isabela.org/>>.

2 Republic of the Philippines: Department of the Interior and Local Government, Region 2 <<http://region2.dilg.gov.ph/isabela.php?lgu=isabela>>.

3 Under Philippine law, foreign corporations cannot directly purchase land, and as a result, a local business partner is needed for such industrial size projects as the GFII venture. Ecofuel Land Holdings serves this purpose.

4 UNESCAP. Statistical Yearbook for Asia and the Pacific 2009. <http://www.unescap.org/stat/data/syb2009/28-Water-use.pdf>; Municipal Government of San Mariano. The Official Website of San Mariano, Isabela <<http://www.sannmariano.org>>.

5 Dialogue with GFII resident manager, Luis Villa-Abrille, 3 June 2011.

6 The “barangay” is the smallest political and administrative division of the Government of the Republic of the Philippines.

7 The Comprehensive Agreement for the Respect of Human Rights and International Humanitarian Law (CARHRIHL), signed in March 1998 during the peace negotiations between the National Democratic Front of the Philippines and the Government of the Philippines, aims to guarantee the protection of human rights of all Filipinos under all circumstances; affirm and apply the principles of international humanitarian law in order to protect civilians, as well as people who do not take direct part or who have ceased to take part in the armed hostilities; and pave the way for comprehensive agreements on economic, social and political reforms that will ensure the attainment of a just and lasting peace.

People's Coalition on Food Sovereignty (PCFS) is a growing network of various grassroots groups of small food producers particularly of peasant-farmer organisations and their support NGOs, working towards a People's Convention on Food Sovereignty. This article is based on the outcome document of the International Fact Finding Mission (IFFM) in Isabela that was made possible through the combined efforts of PCFS, IBON International, Asian Peasant Coalition (APC), and Kilusang Magbubukid ng Pilipinas (KMP).

# Country outreach brings ‘Key Asks’ paper to CSOs

By IBON / REALITY OF AID COUNTRY OUTREACH TEAM

The IBON/Reality of Aid Country Outreach Team (CORT) is moving in full force to call on civil society organisations (CSOs) worldwide to support the document “CSOs on the Road to Busan: Key Messages and Proposals,” in order to build a strong voice of peoples’ demands towards the Fourth High Level Forum on Aid Effectiveness (HLF4) in Busan, South Korea later this year.

Authored by BetterAid in cooperation with the Open Forum, the draft paper aims to stimulate discussion among CSOs whose comments, suggestions and other inputs will enrich its content to reflect common civil society positions worldwide. The “CSO Key Asks” is pushing for substantial progress in four inter-dependent areas of reform that a wide range of CSOs consider essential for a meaningful and ambitious Busan Compact on Development Effectiveness. These include:



## The Reality of Aid

An Independent Review of Poverty Reduction and Development Assistance

The “CSO Key Asks”—as the document is now widely referred to—has so far gathered some 300 CSO sign-ons, endorsements, and adoptions through the various regional and national consultations conducted by CORT in various countries of Latin America, Asia-Pacific, and Africa. Since April, CORT actively distributed, discussed, and publicized the document among CSOs to further strengthen their collective demands for HLF4.

In Cambodia, six CSOs have endorsed and adopted the “CSO Key Asks” in the formulation of their demands for Busan. An initial 36 CSO signatures have resulted from a consultation held in Nicaragua. Country-level consultations in the Philippines, Democratic Republic of Congo, and Bolivia have resulted in 20, 41, and 184 more CSO signatures on the document, respectively. In Nigeria, a total of six national CSO networks have endorsed the “CSO Key Asks” as their position for the Busan HLF.

- Full evaluation and deepening of the Paris and Accra commitments;
- Strengthening development effectiveness through practices based on human rights standards;
- Supporting CSOs as independent development actors in their own right, and committing to an enabling environment for their work in all countries, and
- Promoting equitable and just development cooperation architecture.

The sign-ons, endorsements and adoptions are expected to increase in the coming months as more CSO consultations and workshops are scheduled to be held leading up to HLF4 this November. Among the countries that will be reached by the Key Asks campaign are Togo, Benin, and Niger in Africa; China, Timor Leste, and Fiji Islands in Asia-Pacific; and Argentina, Dominican Republic, and Guatemala in Latin America.

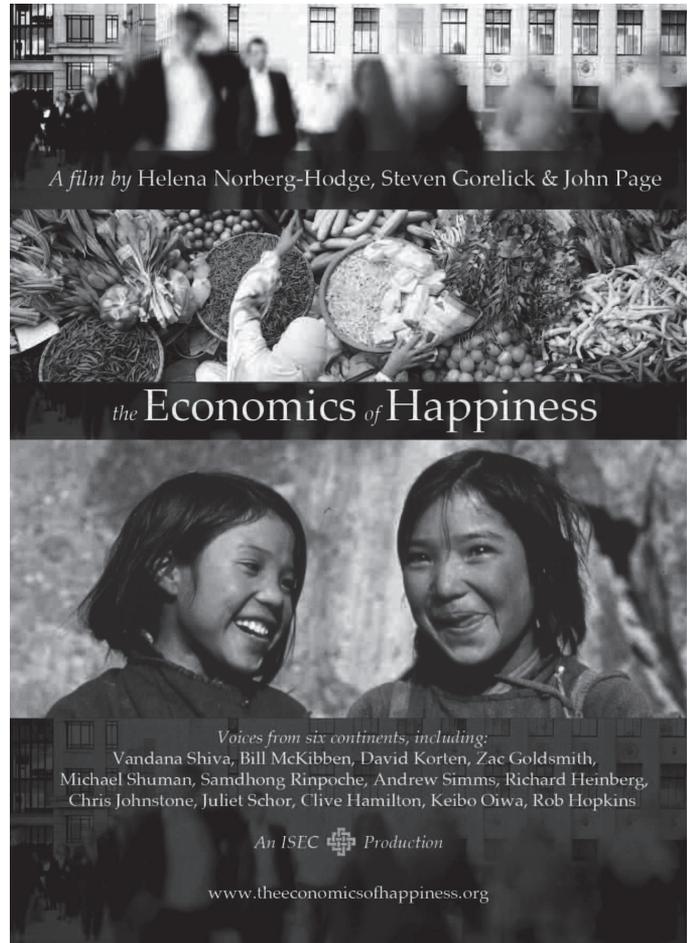
# Film Review: The Economics of Happiness

By Rob Hopkins

The concept of localisation is one increasingly being discussed as the debt-based, high carbon, energy vulnerable model of economic globalisation increasingly comes apart at the seams. A recent conference run by Transition Colorado had the subtitle “food relocalisation as economic development”. I think we might argue for localisation in general, not just in terms of food, being seen now as a key strategy of economic development. “The Economics of Happiness”, as a film that argues that “going local’ is the way to repair our fractured world – our ecosystems, our societies and our selves” has therefore arrived at the right time, but is it the convincing, accessible and rousing film about localisation that we need in order to raise the issue to the next level of the debate?

Running for 65 minutes, it is certainly a very well-produced film which crackles along with good pace. There were never any moments when my eyelids began to feel heavy or my attention drifted elsewhere. The film builds its case against globalisation patiently, its centrepiece being eight arguments against globalisation. It doesn’t pull its punches. Globalisation makes us unhappier, less skilled, less socially connected, was only made possible because of huge subsidies from governments, is catastrophic in terms of climate change and reduces food security (among other things). This is not a film that seeks to give a balance to both sides of the argument, it has a case to make and it makes it very well.

When Naomi Klein visited Totnes recently, she argued that the climate change movement is losing the argument, and that what is needed is a new coalition of organisations built around the arguments that dealing with climate change will



also make us more equal, healthier, better educated, and generate more new jobs and economic activity than not dealing with it. She argued that this wasn’t capitalism, communism or socialism, but an as yet un-named new ‘ism.’ This film argues that that should be “localism” (or “localisation” to be more exact).

This is a powerful argument, one that is only just now starting to be convincingly made, through the work of Michael Shuman, various local economic development organisations, Transition initiatives, groups like Local United, New Economics Foundation, and, increasingly, organisations

such as the Development Trust Association and other organisations that promote community development. This film doesn't present much in the way of research to back up its thesis, other than some work from the US about the multiplier effect which is mentioned briefly, but this is probably because not much work has been done on the potential economic benefits of localisation, and there is much to do. It is like the arguments around energy, and those who argue that it is better to invest in saving energy than in new generating infrastructure ("negawatts"): similarly, getting money to do as much as it can before it leaves local economies would provide a huge boost to those economies.

One of the things the film does best is to explore some of the less tangible benefits of localisation. Helena Norberg-Hodge's observations as to life in Ladakh prior to its being opened up to globalisation offer insights into some of the less tangible things that are being lost from our own culture; interaction between the generations, shared work, celebration and traditions to name just a few. Downsides? Personally, great activist though she is, I thought there was a bit too much of Norberg-Hodge. The film seemed unclear as to who the narrator was; it has a male narrator doing a voice-over, yet she appears so often that it is unclear as to who is actually narrating the story.

**Watch the trailer here:**

[[http://www.youtube.com/watch?feature=player\\_embedded&v=SYEvFRQchyw](http://www.youtube.com/watch?feature=player_embedded&v=SYEvFRQchyw)]



While what she says is powerful, I wondered if there might have been a better way to do it. For me, the film's power lies in the sections voiced by ordinary people, the Chinese teenager talking about how he loves America because everyone is happy there, the two Detroit urban food growers standing by their vegetable beds, and the two Ladakhi women looking, bemused and upset, at the lonely residents of a London old peoples' home. I do also think that the film can, at times, be accused of over-romanticising indigenous peoples. It is, after all, not that indigenous cultures are entirely fantastic and Western culture is entirely bereft of goodness. Is it that the teenager in China so idealises the US solely because of being exposed to marketing that has undermined his sense of culture, or because there are also things in his own culture that are also deeply flawed?

The film can have a tendency to be a bit too black and white, and a more nuanced analysis might have been more honest and more useful. Does the West really have nothing whatsoever of value to offer? Do developing countries really need nothing other than being left alone? There are portions of this film that would appear to suggest this. The over-romanticised version of the lives of indigenous people, always laughing and dancing, children running around happily, is clearly somewhat idealised.

In the interview I recently did with Michael Shuman, he pointed out that often localisation is talked about in terms of shortening the distance between consumer and producer. The aspect of it that is less talked about is around ownership, and the importance of the community itself owning the process and benefiting from it. This is what academics call the difference between "reflexive" and "unreflexive" localisation, the former being one that builds community, fosters sustainability and the collective good, and the latter being one that doesn't. That is an analysis somewhat lacking in this film. There was very little in terms of exploring new (or indeed tried and tested) models of ownership, nor any of the politics around that (but hey, in 65 minutes you can't do everything).

That said, I really liked “The Economics of Happiness”. I felt that it argued its case well and that it presented a strong case for localisation. It has enough moments when the hairs stood up on the back of my neck for me to know that this is a powerful film. It is surprisingly political in its assessment that we didn’t end up where we are today purely due to “progress”, a collective push away from the local, rather it was foisted on us by corporations, legislators and successive international agreements, which was presented as inevitable and as a step towards greater freedom and choice. Those that fell along the way, the small shops, the family farms, the local food processors, were all seen as unfortunate but unavoidable casualties. It will be interesting when the impacts of peak oil mean that we start to see, in effect, “reverse globalization” whether the same sense of fatalism returns.

I must declare an interest: I make an appearance in this film, so you might assume that therefore I am, of course, going to tell you that it is fantastic. However, you never know when you are interviewed for a film whether it is going to be

any good or not. For example I appear in a recent film on Cultural Creatives, and the final result is, in parts, pretty toe-curling, pitching me alongside 2012 people and free energy machine advocates (although it has some good stuff in it too). You can’t win them all.

**This film doesn’t present much in the way of research to back up its thesis, other than some work from the US about the multiplier effect which is mentioned briefly, but this is probably because not much work has been done on the potential economic benefits of localisation, and there is much to do.**

“The Economics of Happiness” firmly dispatches with the idea that the relocalisation of food production in the West would cause starvation in the developing world. This question, which I am often asked, is dealt with beautifully, arguing the food security needs, with great urgency, to be built in both places. Could you show this film to local businesses? To your local political representatives? I think that the answer is yes, this passionate, articulate and passionate film presents a clear and articulate vision of what a shift in the scale at which we do things would look like, and of the many other benefits it would bring. I would highly recommend it as a very timely and powerful addition to the Transition film club.

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This article was posted 28 March 2011 on the Transition Culture website, accessed at <http://transitionculture.org/2011/03/28/film-review-the-economics-of-happiness/>.

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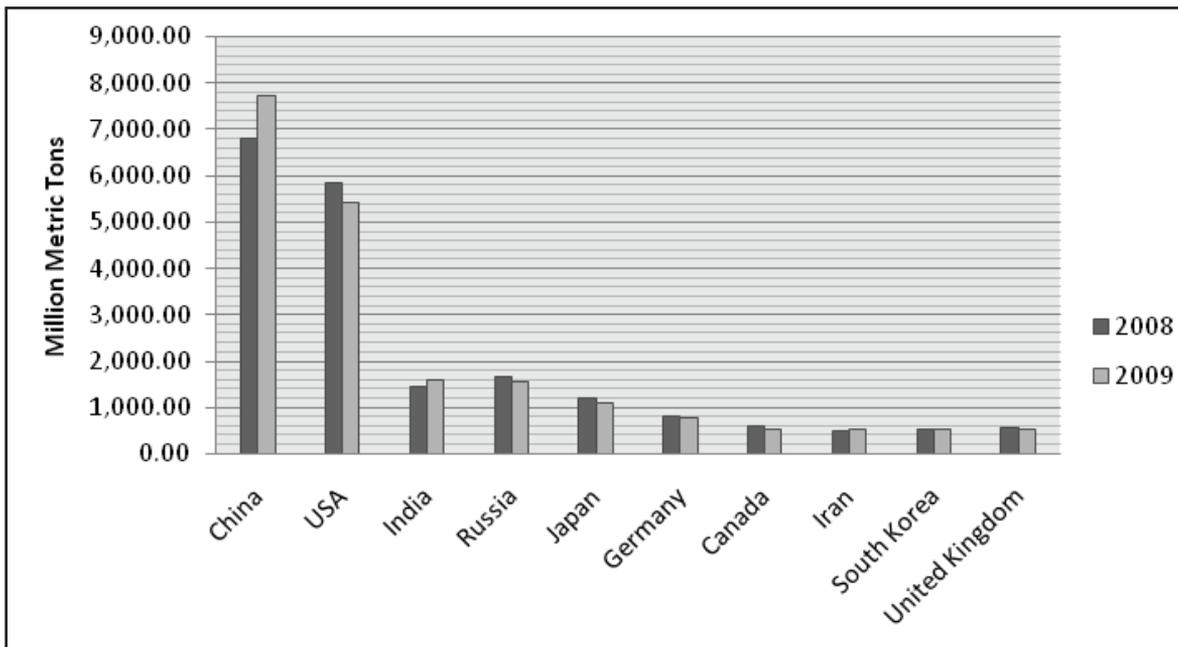
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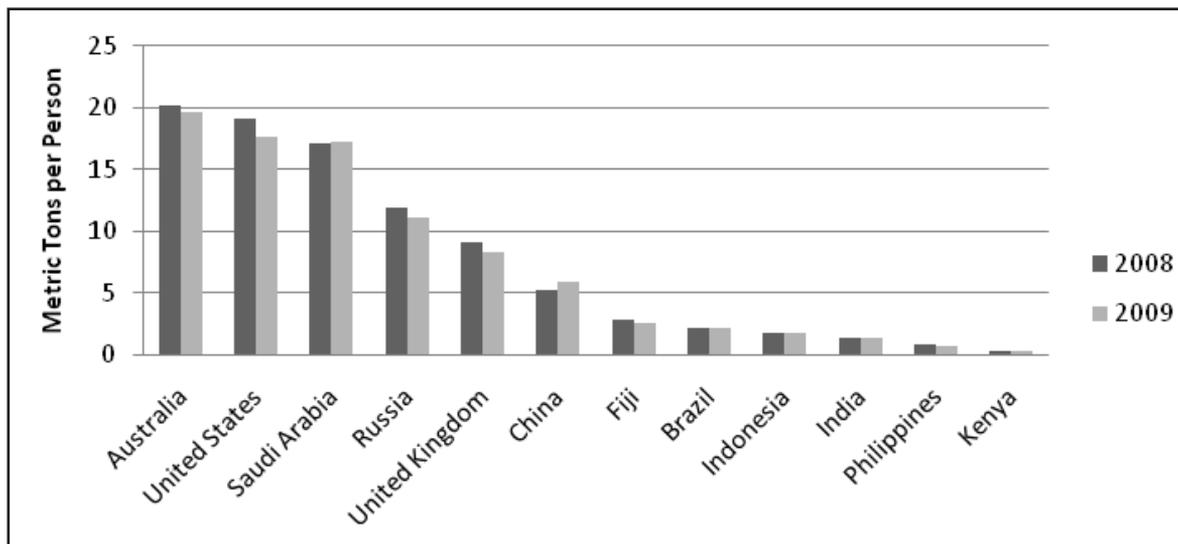
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# CARBON EMITTERS OF THE WORLD

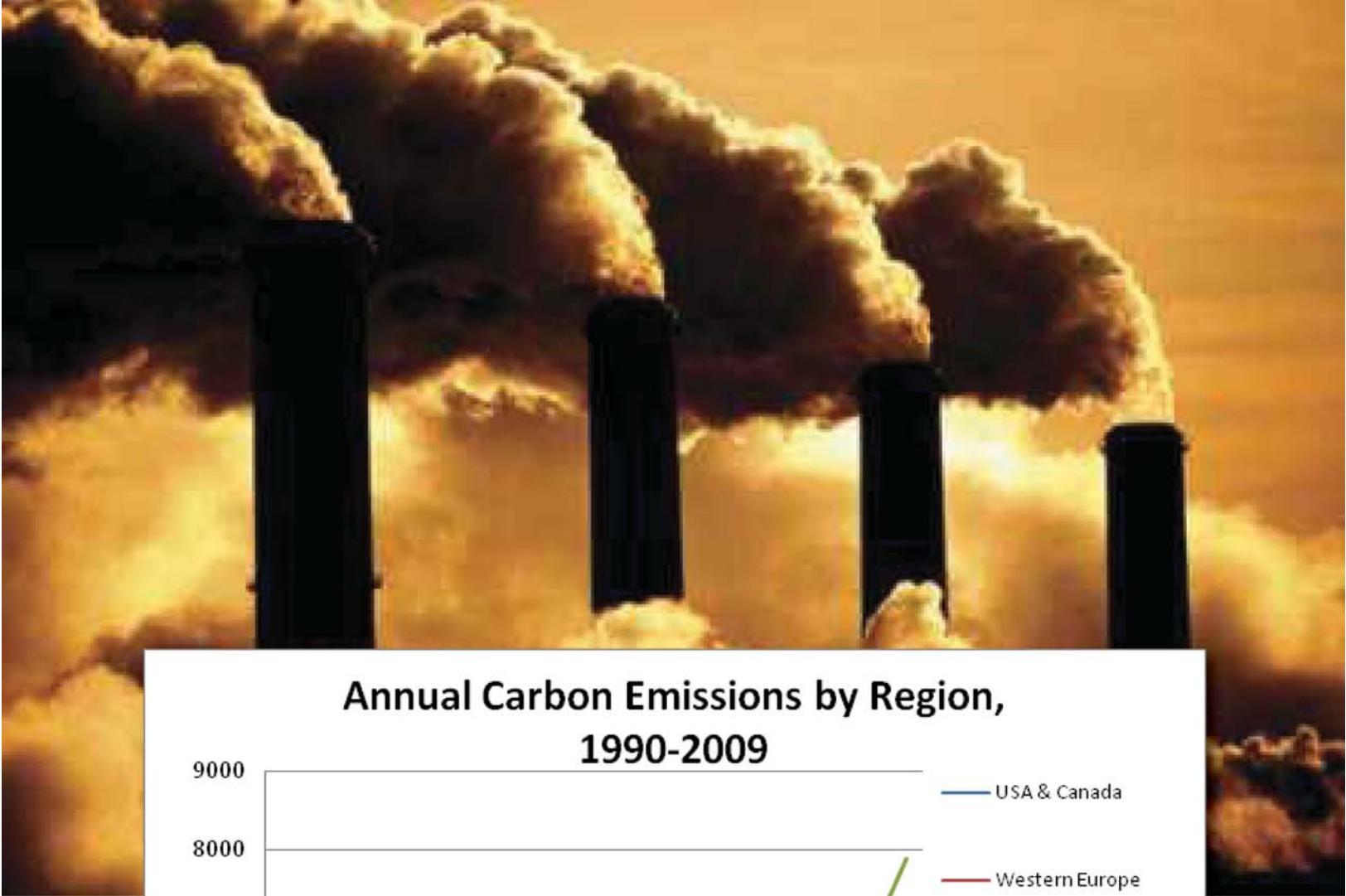
Although China has started to become the world's carbon emissions culprit on a country-by-country basis since a few years ago [see Graphs 1 and 3], it is quite noticeable that its carbon emissions figure per capita is relatively low compared to the US and EU countries [see Graph 2] due to its huge population. We could say that China has overtaken other major emitters because of its rapid industrial growth, much of which are highly-polluting export-bound manufacturing industries that were formerly done in the more developed countries. As can be seen in Graph 3 (next page), the rapidly upward trend of China's carbon emissions started only at the start of the 21st century. This trend must not negate the truth that historically, the biggest emitters have been North America, Western Europe, and until the early 1990s, the former Soviet-bloc countries, and they remain among the biggest per-capita emitters until now.



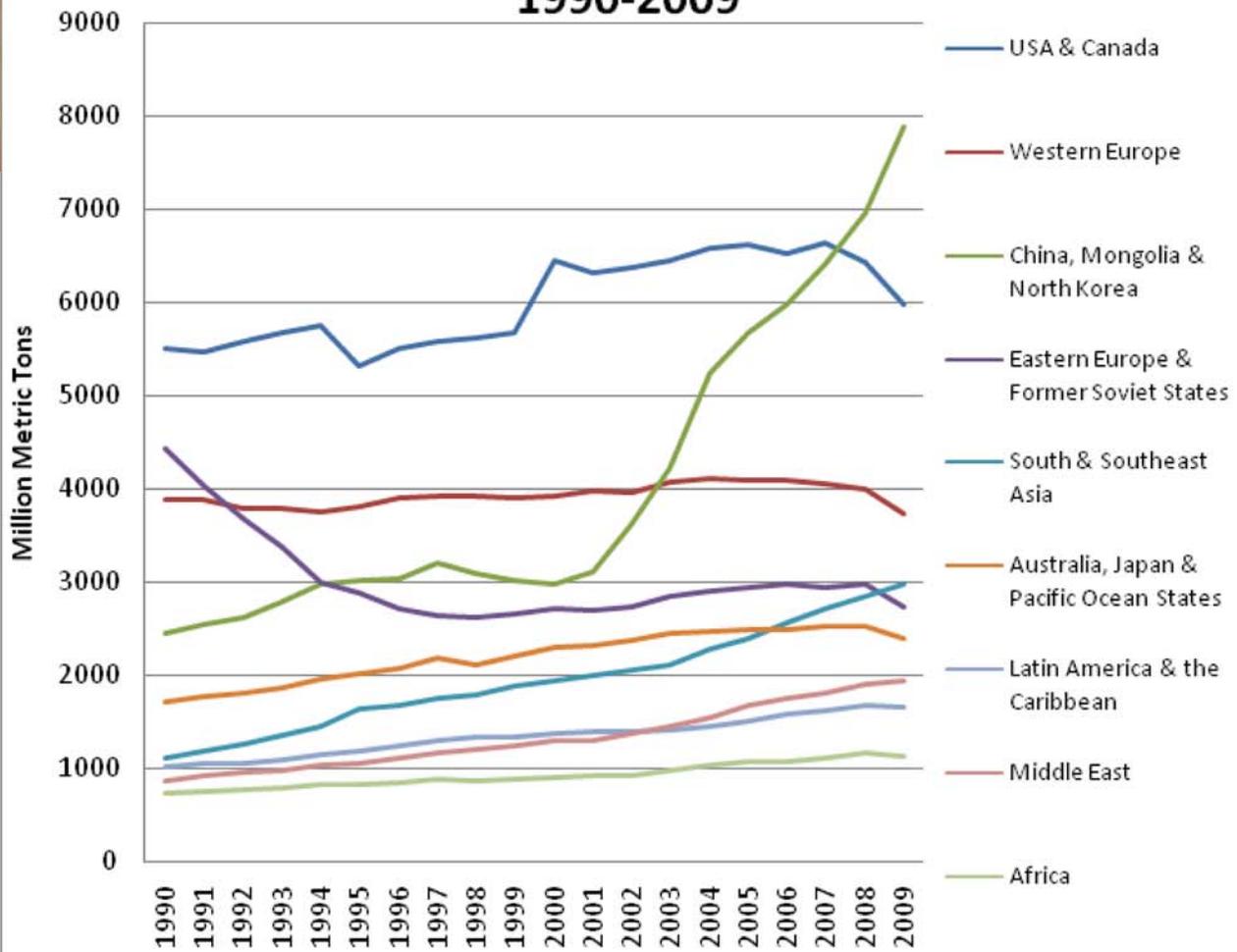
GRAPH 1. Top carbon emitters, 2008-2009



GRAPH 2. Carbon emissions per capita, for selected countries, 2008-2009



### Annual Carbon Emissions by Region, 1990-2009



GRAPH 3. Annual Carbon Emissions by Region, 2008-2009

Source:

US Energy Information Administration. <http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=90&pid=45&aid=8&cid=regions&syd=1990&eyid=2009&unit=MTCDDP>