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False Solutions for Real Problems

Introduction

Rich countries are showing little political will to agree to second commitment period of the Kyoto Protocol at the upcoming Durban meeting of the UN Framework Convention on Climate Change (UNFCCC). The Kyoto Protocol is the only legally binding international instrument with emission reduction targets and a timeline but rich countries are promoting a much weaker 'pledge and review' mechanism for emissions reduction which lets them off with little accountability.

This is tragic, because pledges put on the table so far by rich countries to cut their greenhouse gas (GHG) emissions are way below the levels necessary to avert disastrous climate change. They would in fact likely lead to a 3.5ºC[1] and possibly a 5ºC rise in temperatures by the end of the century, according to UNEP.[2]

Shifting the climate burden South

While even a 2ºC temperature rise would devastate agricultural production, putting the food security of over half a billion people in tropical countries at risk,[3] rich countries at the UNFCCC are striving to divert attention away from their paltry emissions reduction promises and seem determined even to 'offset' their agreed responsibilities by shifting their burden onto poorer countries and millions of smallholders in the South.

The sums needed in the Global South for affected communities to adapt to accelerating climate change and begin the transition to a sustainable future are far greater than the currently-pledged $100 billion a year by 2020, promised by rich countries in 2010.

And so while rich countries have shown little appetite for coming up with adequate, predictable, additional and reliable public financing to meet their $100 billion/year climate commitment, rich countries, the World Bank and a shadowy army of private sector and industry-body lobbyists, consultants and commodity speculators have been eager to promote apparently innocuous but highly dubious market-based initiatives and so-called solutions to help fill this ever-widening financing gap.

False solutions

ActionAid has examined two such seemingly unrelated northern and private-sector-led market-based initiatives – soil carbon markets[4] and biofuels.[5] Although both are now widely touted as potential climate change panaceas, we have found that they are both false solutions, fraught with multiple social, environmental and climate change costs and risks.

Biofuels may in fact *increase* greenhouse gas emissions in the atmosphere, rather than reduce them, and certainly both schemes are dangerous diversions and distractions from the enormity of the adaptation task ahead. In particular, the fundamental premise that biofuels reduce GHG emissions regardless of their source in comparison to the fossil fuels they are meant to replace was recently firmly rejected by the European Environment Agency's Scientific Committee as a 'mistaken assumption [which] results in a serious accounting error.'[6]

And making smallholder farming in developing countries dependent on the unlikely emergence of markets willing to pay for soil carbon credits may prove to be a *chimera*, which fails both in reducing emissions and improving conditions for rural communities.

As such, soil carbon markets and biofuels join a host of other industry-hyped false solutions to climate change which undermine the rights, practices and livelihoods of smallholder communities, such as patented GM (Genetically Modified) crops, biochar,[7] geo-engineering[8] and many aspects of existing agriculture and forestry-related Clean Development Mechanism (CDM) projects – which have led to cases of land-grabbing, violence, marginalization of women and the poorest and dubious environmental and climate change gains.[9]

Soil carbon market

Agriculture is a key contributor to climate change, but it also has the potential to reduce existing carbon in the atmosphere. Some agricultural activities can store carbon in the soil or reduce methane emissions through improved feeding practices.

The World Bank is heavily promoting the concept of 'climate smart' agriculture in Africa, which ostensibly provides a 'triple win' of enhanced productivity, increased farmers' resilience to climate change and reduced GHGs.

The idea is that farmers would use agricultural practices, such as low or no tillage farming and utilization of compost or manures in their fields, to maximize the carbon dioxide captured – or sequestered – in soil. The logic is that if the stored soil carbon can be measured and valued, it can then be sold and traded as carbon offset credits[10] on financial markets.

Credits that are generated in the South would then be bought by companies or individuals to make up for – or *offset* – their own GHG emissions in the North. The World Bank argues that through the creation of a market for soil carbon credits, small-farm productivity in developing countries will increase and private sector investment will be mobilized for their under-funded agricultural sector.

ActionAid's analysis of soil carbon markets shows,[11] however, that there is no market for carbon credits at this time and if there were a market it would not provide revenues to smallholder farmers. Because soil carbon sequestration is reversible and hard to quantify, measure and verify, the environmental integrity of soil carbon sequestration projects cannot be guaranteed. The credits have therefore been excluded from the 'compliance markets' that provide credits to industry to meet legal requirements – by far the most significant carbon markets.

There are currently two types of carbon markets: regulatory compliance and voluntary markets. The global carbon market was valued at $142 billion last year,[12] while the project-based voluntary market was merely $663 million – or less than 0.3% of the global carbon market.[13] Only a few agriculture and forestry-related projects in poor countries are eligible for regulatory compliant carbon credits – known as Certified Emission Reductions – under the Clean Development Mechanism.

Soil carbon credits are only sold on a few 'voluntary markets' and their value has hovered around near-record lows of around US$1.20 per tonne in recent years. Soil sequestration rates under ideal conditions are less than one tonne per hectare per year, which means that farmers will have only a slight monetary incentive to adopt sequestering methods. The average smallholder controls less than two hectares; meaning average annual revenues would be below US$3.

In addition, the transactions costs for these soil carbon projects are extremely high, so most of the revenues would actually go to intermediaries rather than farmers or communities. Even though the projects themselves are in developing countries, most of the money would stay in rich countries and increase the wealth of traders, speculators, middlemen and carbon consultants, rather than smallholder farmers. For example, a smallholder farmer will receive only US$0.29 cents each per year – less than US$6 each over 20 years – under the World Bank-supported Kenya Agricultural Carbon Project soil carbon sequestration pilot that currently involves 15,000 smallholders on 7,000 hectares of land.[14]

However, there is World Bank, government and industry pressure at COP17 in Durban to establish a mitigation-based agriculture 'work programme' which could lead to more projects being eligible for the CDM, including biofuels, soil carbon, low and no-till and GM crops, peat land restoration, agroforestry, biochar and industrial crops and tree plantations.

ActionAid is concerned that without critical examination of the potential impacts of soil carbon markets on the livelihoods of tens of thousands of smallholders, we could be stumbling blindly into 'false solutions'.

Soil carbon markets are a distraction from addressing real adaptation needs and mobilizing real funding to support adaptation and a diversion from the real obligations of rich countries: to reduce emissions and to provide substantial, stable, predictable, new and additional public finance.

Biofuels

ActionAid and others have also warned of another linked 'false solution' to combat climate change – biofuels. This year, key government officials have joined the growing consensus that biofuels are not carbon neutral and in fact can increase GHG emissions. Industry-wide false accounting of the true GHG emission impacts through direct *and* indirect land use changes incurred by biofuels was formally exposed by a devastating report by the European Environment Agency Scientific Committee in September this year.

It concluded that regardless of the source of the biofuel, the assumption that its combustion would not result in carbon accumulation in the atmosphere was mistaken. As such, the EEA Scientific Committee recommends an overhaul of EU bioenergy policies so that they use only biofuels that actually reduce GHG emissions over their lifecycle and those that do not destroy eco-systems or displace food production.[15]

Our joint life-cycle analysis of a proposed Italian-owned 50,000 hectare jatropha biofuel plantation in the Dakatcha woodlands in Kenya found, for example, that these biofuels destined for the EU would release up to *six times* the carbon emissions of fossil fuels – due largely to the release of sequestered carbon caused by the destruction of scrubland and woodland required to plant the jatrophra.[16]

High and volatile prices

Besides exacerbating climate change, biofuel production has serious food security implications. Biofuels, for example, are conservatively estimated to have been responsible for at least 30% of the global food price spike and subsequent food price crisis in 2007-2008, which was estimated to have pushed 100 million more people into hunger.[17]

And with biofuels production now accounting for 20% of all sugarcane consumption, 9% of oilseeds and coarse grains and 4% of sugar beet production, biofuels are seen as a key cause of recent high and volatile global food prices,[18] and top-level opinion has turned against them this year.[19] Indeed, a joint multilateral agency report (by the FAO, World Bank, IMF, OECD, WTO, and others) recommended in June this year that biofuels' negative impact on food security requires that G20 governments should remove all biofuels mandates and subsidies that encourage their production and consumption.[20]

Land grabs

Finally, rapid biofuel expansion is considered to be a key driver behind an unprecedented global 'land grab', which is impacting millions of poor and marginalized people in the Global South. Some 50 to 80 million hectares of land in poor countries has been snapped up on the cheap by foreign buyers in secretive deals over the last five years.[21]

With a median project size of 40,000 hectares, biofuels projects have played a major role in these deeply unfair acquisitions and account for 21% of all such deals, according to World Bank analysis of 405 recent land deals.[22]

Conclusion

Soil carbon markets and biofuels are dangerous diversions and 'false solutions' to the climate crisis which are being promoted by rich countries to distract and shirk their legal obligation to slash their own carbon emissions through strong national targets for industries, transforming their unsustainable consumption patterns and halting the destruction of natural resources around the world.

Instead of meeting their obligations to provide adequate, predictable, additional and reliable public finance from budgetary contributions and other innovative sources to developing countries to reduce emissions, protect forests and adapt to climate shocks, rich countries instead are pushing these 'false solutions' to create new markets for private sector interests. Such actions undermine poor people's ability to protect themselves against climate shocks and push poor countries and communities to burden emission reductions for the rich.

Acknowledgements:

This paper was written by Alex Wijeratna, independent consultant, with inputs from Ilana Solomon, Harjeet Singh and Soren Ambrose of ActionAid.

Endnotes

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2. UNEP (2010) *The emissions gap report*, Nairobi: UNEP

3. CCAFS (2011) *Mapping hotspots of climate change and food insecurity in the global tropics*, CCAFS Report no.5, Copenhagen: CGIAR Research Program on Climate change, agriculture and food security (CCAFS)

4. See: ActionAid (2011) *Fiddling with soil carbon markets while Africa burns*… Johannesburg: ActionAid; ActionAid (2011) Say no to soil carbon markets!, Johannesburg: ActionAid

5. See: ActionAid (2010) *Meals per gallon*, London: ActionAid; ActionAid et al (2011) *Jatropha biofuels in Dakatcha, Kenya – The climate consequences*

6. European Environment Agency Scientific Committee, '*Opinion of the EEA Scientific Committee on greenhouse gas accounting in relation to bioenergy,*' 15 September 2011

7. *Biochar or Terra preta is charcoal created by pyrolysis (thermochemical decomposition) of biomass. (source: Wikipedia)*

8. The modern concept of geo-engineering (or climate engineering) describes deliberately manipulating the Earth's climate to counteract the effects of global warming from greenhouse gas emissions. *(source: Wikipedia)*

9. See CDM Watch: Open Letter: '*UK Government must withdraw authorisation for Aguan and Lean CDM projects linked to assassinations and other human rights abuses in Honduras'*, at: http://www.cdm-watch.org/?p=1648; also see: Inter-American Commission on Human Rights Preliminary Observations of the Inter-American Commission on Human Rights on its visit to Honduras, May 15-18, 2010, at: http://www.cidh.org/countryrep/Honduras10eng/Honduras10.Situation.htm#_ftn113; Timberwatch (2011) *CDM Carbon sink tree plantations – a case study in Tanzania*, South Africa: Timberwatch

10. A carbon offset is a reduction in emissions of carbon dioxide or other greenhouse gases, or sequestration of gases already emitted, which are made in one location in order to compensate for or to offset an emission made elsewhere. Offsets that are bought and sold are often called credits. This indicates that the purchaser is receiving credit for emission reduction or sequestration in one location that entitles them to emit the same amount of GHG in another location.

11. See: ActionAid (2011) *Say no to soil carbon markets! Six reason why soil carbon markets won't work for smallholders*; Johannesburg: ActionAid; ActionAid (2011) Fiddling with soil carbon markets while Africa burns…Johannesburg: ActionAid

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No False Solutions.