
“Climate Smart Agriculture” – The Commodification of soils in the Global South

In March this year, the Intergovernmental Panel on Climate Change (IPCC), an international scientific body tasked with the responsibility of assessing climate change, released its 5th assessment report, mainly focusing on ‘impacts, adaptation and vulnerability’, with a full chapter dedicated to global food security and production systems (1).

The message is clear and the evidence irrefutable: the drivers behind climate change are not only altering the climate at dangerous speed. They also are causing a net global loss in crop yields, with maize and wheat –crops that are heavily relied on as national staples in developing countries -being the most affected. The report works to cement the vast array of information that has been in the public domain for a while regarding the global state of food production systems. With regards to Africa, the findings of the report are nothing but grim. Between 75 and 250 million Africans run the grave risk of being exposed to serious water stress (2), an extremely worrying issue considering that many small-holder farmers in the continent still rely heavily on the availability of rains to aid their food production. Some countries could witness yields from rain-fed agriculture dropping by up to 50% by the year 2020. In addition to this, the expected rising water temperatures will further compromise local food sovereignty for Africans as the obvious result will be dwindling fisheries resources.

Prioritizing the strengthening of agricultural systems of food production than can guarantee the food sovereignty of Africans has never been more urgent. Doing so would also be desirable from a climate perspective. Industrial systems of agriculture, forestry and land-use change (indirect contributions) emit almost half of all global greenhouse gases (GHG), while ecological farming systems, employed mostly by farmers in the South, produce far fewer greenhouse gas emissions and also mitigate against the effects of climate change.

As the climate changes and the food sovereignty and livelihoods of billions, mostly in the Global South is threatened, the Green Climate Fund (GCF), which was founded under the UNFCCC as a mechanism to transfer money from the Global North to the Global South, lies nearly empty with practically no money available to aid developing nations to adapt and mitigate to the effects of climate change. But instead of developed countries remedying this by acting on their historical responsibilities, carbon markets are being aggressively marketed and pushed by institutions such as the World Bank, as sources of funding for climate change adaptation initiatives, now including the agricultural sector.

The Kenya Agricultural Carbon Project – For whose benefit?

The Kenya Agricultural Carbon Project, funded by the World Bank’s BioCarbon Fund and implemented by the Swedish NGO VI Agro-Forestry, is a project targeting approximately 60,000 Kenyan farmers in Western Kenya. The project, which began in November 2010 and is expected to be completed by December 2017, banks on the so-called ‘**triple win**’ for farmers in the Global South: an increase in yields, adapting to the climatic changes, while helping farmers to mitigate climate

change by sequestering carbon through 'sustainable farming'. This is what the World Bank and the UN's Food and Agriculture Organization (FAO) are calling 'climate-smart' agriculture.

The full cost of the project is estimated to be US\$1 million and, aside from the main implementing partner, other partners include the French Development Agency and the Syngenta Foundation for Sustainable Agriculture.

In January, the World Bank issued a press release stating that under the Sustainable Agricultural Land Management (SALM) accounting methodology, 60,000 farmers had finally earned carbon credits (5). The press release stated that, *"...for sequestering carbon in soil, thanks to these changed agricultural land management practices. The credits represent a reduction of 24,788 metric tons of carbon dioxide, which is equivalent to emissions from 5,164 vehicles in a year."*

In addition to the claims regarding soil carbon sequestration due to 'sustainable' farming practices, the World Bank reports that SALM can help increase farmers' yields by 15-20% (6), the evidence of which many of us would like to get a hold of and especially when looking at long-term impacts of the project.

'Climate smart' agriculture, with its exceptionally brilliant name, invites us to envision a world where, rather than being stripped off their agency, small-holder farmers in the Global South can be at the forefront of combating climate change and most importantly, build their resilience, preserve their livelihoods and boost their food sovereignty.

The reality however, is strikingly different. There is no proof that carbon markets have contributed to a decrease in fossil fuel emissions globally but have merely shifted the burden of doing so to countries in the Global South (7). Under the UN climate convention, developed countries are mandated to reduce their emissions and, at the same time, provide technical and financial assistance to poor countries in order to aid their adaptation and mitigation measures. Carbon markets have allowed rich countries not only to continue polluting, but also to benefit financially from their pollution.

Focusing on the immense carbon sequestration abilities of small-holder farmers in the Global South is in many ways suicidal. The Kenya Agricultural Carbon project does not tackle the system and structural causes of climate change. Even if those farmers adapt and mitigate as best as they can, developed countries are still maintaining high levels of emissions nationally. And because climate change is directly attributed to fossil fuel emissions, putting undue focus on accounting for land emissions - which is imprecise, costly and ineffective, rather than focusing policy and praxis efforts on transitioning to a fossil-free world, is really the nail in the coffin for those farmers and the billions supported by the work that they do.

Also, the project's focus on hybrid seeds –a strong focus being on Maize, a staple in the region and country at large- and agro-chemicals, supplied by one of the multi-national agri-business companies, Syngenta, is highly questionable. Farmers are encouraged to move from native varieties, to hybrid maize varieties with increased inputs. Syngenta presumably stands to make up profits (along with other hybrid seed sellers), while binding small-scale farmers to be dependent on and harvest according to a carbon-focused and corporate controlled approach for long periods. Shefali Sharma, from the Institute for Agriculture and Trade Policy, stated when reviewing the project two years ago that, *"a "high" technology, high input, high cost seeds and herbicides are eager to be decision-makers in the design of such projects. Improving food security under climate change means much more than increased corn yields and richer soils. It also means that farmers are able to diversify their harvests to manage against climate-change induced risk to crop failure, that they are better able to*

predict impacts on their harvests and make planting choices to effectively meet their (and their country's) adaptation and food security needs, in the short and the long- term. Insisting that farmers dedicate scarce resources to carbon accounting, rather than comprehensive efforts to address these urgent adaptation and food security needs is bad policy and poor use of very limited funds" (8).

The focus should rather be on ecological farming methods based on respect of indigenous local farming knowledge, protection of ecosystems, and preservation of biodiversity. Keeping the control of food in local hands, has proven to increase yields and most importantly, is a sure way for farmers to effectively adapt and mitigate to climate change.

There is currently no compliance market for soil carbon. Yet, according to the given estimates, Kenyan farmers on this project are set to earn between US\$2 and US\$5 per hectare per year, and while the exact figure still remains unclear, it is obvious that there is practically nothing to be earned from this project. Soil carbon credits are currently sold in voluntary markets, which are unpopular and also extremely small compared to the compliance markets, and therefore stand no chance to provide the billions of dollars needed to enable farmers in the Global South to effectively adapt. So, here we see that the statements concerning the huge potential of carbon offsets to provide finance for African agriculture begin to crumble.

But perhaps the biggest elephant in the room is the undeniable fact that carbon sequestered in soils is temporary and not permanent (9). A report released by the NGO FERN also challenges the long-held assumption that fossil-based carbon emissions can be negated or 'offset' by increasing or simply protecting the storage potential of the terrestrial eco-system (10) – which is exactly what the Kenya Agricultural Carbon Project (KACP) is premised on.

In September 2014, the UN's Secretary General is expected to launch the 'Global Climate Smart Agriculture Alliance' in New York, USA, on the sidelines of the climate summit which the Secretary General has called for and which will involve heads of states from all over the world. This new Alliance is being considered precisely "to capture the momentum and interest on CSA [climate smart agriculture] and transform it into a coordinated mechanism" (11). The alliance will include actors such as food producers, processors and sellers; the future of small-holder farmers is to be thrust into a value-chain that has little regard for their welfare or the climate crises they face, but that is keen on growing the agri-business and carbon trading conglomerate.

This will no doubt serve to completely legitimize the continued extraction of fossil fuels and emissions of greenhouse gases by developed countries, while dedicating the badly needed resources to expand the carbon market charade. This stands as a real threat to millions of small-holder farmers and citizens in the Global South to lose their livelihoods, face hunger and confront the effects of climate change.

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- (1) http://ipcc-wg2.gov/AR5/images/uploads/WGIIAR5-Chap7_FGDall.pdf
 - (2) <http://www.foe.co.uk/sites/default/files/downloads/advance-briefing-ipcc-report-climate-impacts-45439.pdf>
 - (3) <http://cdkn.org/2013/04/the-current-climate-of-agriculture-in-the-unfccc/>
 - (4) <http://www.worldbank.org/en/topic/climatechange/publication/turn-down-the-heat-climate-extremes-regional-impacts-resilience>
 - (5) <http://www.worldbank.org/en/news/press-release/2014/01/21/kenyans-earn-first-ever-carbon-credits-from-sustainable-farming>
 - (6) <http://www.v-c-s.org/news-events/news/kenya-first-earn-carbon-credits-sustainable-farming>
 - (7) http://www.foe.co.uk/sites/default/files/downloads/climate_justice_brief_8.pdf
 - (8) <http://www.iatp.org/documents/an-update-on-the-world-bank%E2%80%99s-experimentation-with-soil-carbon>
 - (9) http://www.dhf.uu.se/wordpress/wp-content/uploads/2012/10/Climate-Development-and-Equity_single_pages.pdf
 - (10) <http://www.fern.org/misleading-numbers>
 - (11) <http://www.fao.org/climate-smart-agriculture/85725/en/>