



Say No to Soil Carbon Markets!

Six reasons why soil carbon markets won't work for smallholders

An ActionAid International Briefing

Introduction

Soil carbon capture or sequestration is the process of transferring carbon dioxide from the atmosphere into the soil through crop residues and other organic materials. It is being heralded as one of the key ways to offset emissions that cause climate change. Markets are being established to trade credits earned through soil-based sequestration of carbon.

Many organisations, including the World Bank, claim that not only will soil carbon markets reduce greenhouse gas emissions, but also that smallholder farmers in developing countries will benefit through participating in these markets. There seems to be, however, little evidence behind these claims.

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 sequestration is being presented as a triple win - a solution to the global warming crisis, a way for African farmers to adapt to climate change, and as a means to increase resources for African

farmers. But far from a “triple win”, soil carbon markets could actually become a “triple injustice” for poor smallholders, particularly women, in Africa:

Apart from adapting to climate change, smallholder farmers would now have to also bear the mitigation burden of the climate crisis caused by rich countries who are simply avoiding urgent decisions to reduce carbon emissions in their own countries.

Insecurity of land tenure of poor farmers will be exacerbated, as those with more money and power will try to control opportunities and acquire more land in anticipation of making money through the new markets.

Smallholders may have to depend on an unpredictable and volatile source of funding through carbon markets, instead of receiving sustainable, adequate and compensatory public finance from rich countries for the costs of adapting to climate change.

Promoting soil carbon markets therefore is a major distraction from providing the public finance needed to help poor countries tackle climate change.

For these and other reasons, soil carbon markets must not be established.

Six reasons why soil carbon markets won't work for smallholders

1 There is no soil carbon market currently.

The first rule of a market is that they need sellers and buyers. A soil carbon market requires international rules that give incentives to polluters and investors to offset emissions through carbon credits. However, there is a strong possibility that world governments will allow key provisions of the Kyoto Protocol to lapse after 2012, undermining demand within its market mechanisms. Moreover developed countries' extremely weak emission reduction commitments will contribute to the lack of global demand for carbon credits.

Added to the problem of sagging demand generally for carbon credits is the fact that the European Emissions Trading System (EU-ETS) – currently responsible for 98 percent of the compliance market – does not allow credits from soil carbon to be traded. These rules are in place until at least 2020.

2 If there were a market, it would not provide revenues to farmers.

Soil carbon will be worth little. Investors want certainty when purchasing carbon credits – they need to be confident that the tonnes of carbon purchased are real, additional and permanent. The market price of carbon will reflect the value that investors see – or not. Soil carbon will not provide the certainty that investors need for several reasons:

Soil carbon sequestration is easily reversible. The loss of soil carbon can be caused by external occurrences such as fires, strong winds, droughts, pests, and human activities such as change in land management practices and deforestation.

Because soil carbon sequestration is reversible, the environmental integrity of the soil carbon sequestration projects cannot be guaranteed.

Soil carbon, like forest carbon, cannot be measured with the precision necessary for commodity investors. According to The Munden Project: *"from a trading point of view, the process [by] which forest creates carbon is ill defined to the point of being unacceptably risky. It contains a vague, poorly defined and scientifically unreliable process for creating forest carbon."*¹ This assessment is equally applicable to soil carbon. Farm soils cannot sequester much carbon in a year. Soil sequestration rates under ideal conditions are less than 1 tonne per hectare. Soil carbon prices on the voluntary market have hovered around \$1.20 per tonne in past years.

Transactions costs are extremely high. Transaction costs associated with soil carbon schemes include negotiation, approval, administration, monitoring, enforcement, and insurance costs. The costs to implement many of the practices can also be significant. The FAO (Food and Agriculture Organisation) estimates the range of adoption costs to be from \$12-\$600/hectare, effectively preventing smallholders from participation without significant support. Even small costs to participate in projects, such as \$3 per year required to join an organisation that is aggregating

1. The Munden Project. 2011. REDD and forest carbon: market-based critique and recommendations. New York: The Munden Project.

farmers in Kenya, can be prohibitive for the poor smallholder farmers.

Revenues principally go to intermediaries. Carbon credits, already in use with offset schemes like tree-planting, rarely deliver money to projects and communities on the ground. Because of high transactions costs, revenues largely go to intermediaries. Even though projects themselves are in developing countries, most of the **money stays in rich countries**. For example, in the case of the Kenya Agricultural Carbon Project, the Swedish project developer admits that the only benefit for farmers will be through co-benefits, such as an increase in yields. The Swedish aid authority will make up the difference between the cost of the project and the expected revenue from the carbon market, and is providing upfront all the financing for the project development.

Those that stand to benefit most from carbon trading are financial speculators, such as JP Morgan and Goldman Sachs, who buy and sell carbon credits like any other tradable commodity. **It is one more situation of wealth transfer from South to North** – where developing country farmers create a commodity – in this case soil carbon credits – that increases the wealth of traders, speculators, and middlemen, rather than the farmer.

3 The system will be biased against smallholders.

Larger landholdings and high quality land will be more attractive to project developers. Given the limited amount of carbon that can be sequestered per hectare, project developers will need to aggregate many hectares to make the project worthwhile. It will be easier to aggregate larger holdings than many small landholdings. Better quality land can sequester more carbon, so these lands will be preferred by project developers. As wealthier farmers are likely to be on

better quality land, they will disproportionately benefit from a market in soil carbon, if it performs well.

Lands under secure legal title will be preferred by the market. Farmers holding secure and private title to land are much more likely to be included in sequestration projects, and the creation of a soil carbon market is likely to intensify pressures in some areas to favour formal or legal title over customary tenure systems. Women farmers often are not the holders to the title of the property they farm and will be disproportionately disadvantaged by loss of access and use rights they now have under customary tenure systems. Moreover, if soil carbon prices rise as the overall price of carbon credits rises, land will become more valuable for its carbon sequestration potential, creating one more reason for dispossession of land of the poor and powerless.

An emphasis by the market on practices that generate and maintain carbon in soils will reduce farmers' ability to respond and adapt to climatic changes. Agriculture in the developing world is particularly vulnerable to climate change and the Intergovernmental Panel on Climate Change is predicting a drastic reduction in yields from rain-fed agriculture. Farmers are already reviewing and changing their agriculture practices to adapt to ever-changing weather patterns. Soil carbon sequestration requires long-term commitment and often binds farmers to certain type of agriculture practices and land management practices that may negatively affect the adaptive capacity of poor farmers, who may need to change their production systems to adapt to new climate conditions and economic needs. *"Favouring a prescribed package of 'best' management practices that score highest on sequestration rates, C (carbon) storage ... might in fact undermine farmers' dynamic and diverse adaptation mechanisms and, thus, increase rather than reduce their vulnerability to risk."*²

2. Tschakert, Petra. 2004. Carbon for farmers: assessing the potential for soil carbon sequestration in the Old Peanut Basin of Senegal. *Climatic Change* 67: 273-290.

4 To sustain finance from an offset market, developed countries need to keep emitting.

"The 'sustainability' of finance from carbon trading is ... structurally reliant on the failure to reduce emissions adequately in industrialized countries." (FERN et al. 2011)

The fundamental conundrum of soil carbon markets is revealed by the fact that to sustain financial returns from the market, developed countries need to keep emitting. Reliance by developed countries on an offset market means that real emission reductions don't happen: emissions are merely moved into trees and soils (maybe): but the structural changes needed at the economic level to move towards low- or zero-carbon economies are postponed.

Instead of facing head-on the difficult task of reducing emissions domestically, developed countries are designing elaborate offsetting schemes that avoid reducing the own emissions, while reframing the conversation around the 'marvellous mitigation potential' that exists in developing country agriculture. Such schemes are a way of displacing the work and challenges of reducing carbon emissions away from those responsible for most of past, present and future emissions, and onto those least able to control the terms of their participation. This echoes economic and social patterns that have marginalized Africa and other regions for decades, indeed centuries.

The end result is that developed countries continue to emit greenhouse gases and developing country agriculture remains significantly at risk and may now have to bear the mitigation burden too.

5 Soil carbon markets are a distraction from addressing real adaptation needs and mobilizing real funding to support adaptation.

Adaptation and food security must be the central objectives of agricultural policies in a warming world.

Unfortunately, the creation of a soil carbon market results in significant diversion and misallocation of resources for adaptation and agricultural development. Policymakers are distracted by the need to create market-friendly institutions. In order to effectively participate in the market, smallholders, researchers and development professionals must worry about measuring and maintaining the amount of carbon in the soil, rather than prioritising the many steps necessary to adapt effectively to a changing climate and enhance food security.

The World Bank and other soil market proponents argue that there are huge sums of money that could be mobilized for agricultural extension and development through the carbon market. However, the creation of a soil carbon market cannot be the driver of the adaptation agenda. Food security and systems resilience must be the guiding objectives of both adaptation efforts and means of their finance.

6 Soil carbon markets are a diversion from real obligations of rich countries: to reduce emissions and to provide substantial, stable, predictable, new and additional public finance.

Developed countries have accepted obligations to provide new public funding to help tackle climate change, but soil carbon capture and offset schemes are diversions to evade these promises. Rich countries, which are responsible for historic and current emissions, including massive nitrous oxide and methane emissions from industrial agriculture, are trying to shift the burden of responsibility onto poor communities in developing countries, while focusing on 'private financing' as a means to evade their funding obligations. Investing resources in establishing a soil carbon market diverts attention from the central question of how to generate public finance that can be used to address food security threats posed by climate change.

Developed countries must immediately and rapidly reduce their emissions of greenhouse gases domestically. Only immediate and real reductions in emissions

can prevent further humanitarian catastrophes such as the current drought and famine situation in the Horn of Africa. Every year that emissions continue at their current rate put the lives and livelihoods of millions of the world's poor increasingly at risk. Developed countries not only have the historical responsibility and the obligation to address the impacts of

their emissions on the world's poor, they also have the means to do so. One of the first steps that must be taken is to agree on an ambitious, legally binding second commitment period for the Kyoto Protocol at the UN climate conference (COP17/CMP7) in Durban and also get comparable targets for the USA, which is not a signatory to the Protocol.

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Acknowledgements:

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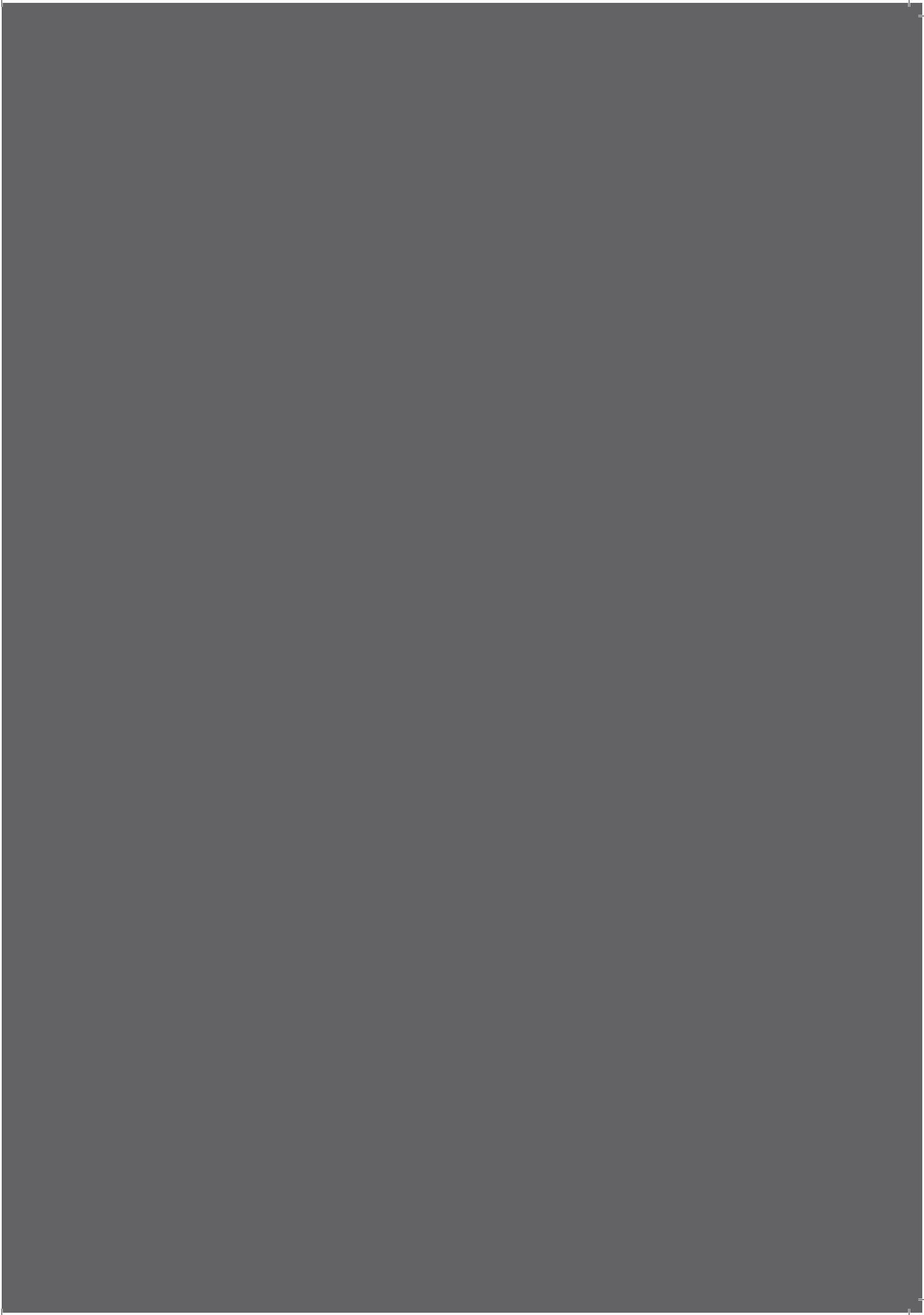
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