

Land Grabs for Biochar? Narratives and Counter Narratives in Africa's Emerging Biogenic Carbon Sequestration Economy

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Biochar

- Carbon-rich product that derives when biomass is burned under oxygen-deprived conditions (pyrolized) and then buried
- A triple win - carbon sequestration, soil enhancement, clean energy production
- Rapidly growing interest by businesses, NGOs and researchers fuelled by promise of carbon markets, yet (so far) only 'trials' on the ground
- Narratives and counter-narratives – about whether and how biochar will deliver on its promises, and who will gain or lose
- Spectre of 'carbon grabs' is central to this debate

Biochar schemes will enable large-scale carbon sequestration

*Biochar is the only true carbon *reductive* technology that exists... unique in its ability to help humanity solve the climate change problem by taking carbon *out* of the atmosphere. ...But this just scratches the surface of what we know about what biochar can do. Biochar is the Swiss Army knife, or the 'killer app' of climate solutions. It is the key to the New Carbon Economy (US-based Huntsville Project: <http://www.newcarboneyconomy.info/page6.php>)*

There is one way we could save ourselves and that is through the massive burial of charcoal.... Then you can start shifting really hefty quantities of carbon out of the system and pull the CO₂ down quite fast (James Lovelock, originator of the Gaia theory)

Use new biochar production systems (feedstocks and kilns) to add rapidly to existing soil organic carbon (including pre-existing chars generated through vegetation fires and settlement practice)

Potential global carbon sink of 5.5 to 9.5 GtC/year by 2100, larger than the annual quantity of carbon currently produced by fossil fuels (Lehmann et al 2006) .

Biochar schemes will lead to land grabs - limiting their scale and feasibility

The latest miracle mass fuel cure, biochar, does not stand up.....At the very least, the so-called “charleaders” need to cool their enthusiasm’ (George Monbiot, The Guardian, 2009).

Biochar production on a scale large enough to impact climate (1 GtC/year) will require up to a billion hectares of plantations of biomass feedstock

Biochar is ‘a big new threat to people, land and ecosystems’ (TNI 2010)

The negative impacts of large-scale biochar development in Africa are likely to be dramatic, including exacerbating land-grabbing in Africa’ (African Biodiversity Network, Biofuelwatch and Gaia Foundation 2009)

Limits to ‘sustainable biochar’ – ‘unused’ land not available (Lehmann et al 2010)

Trade-offs:

biochar feedstocks vs. food (like biofuels vs. food)

But also biochar feedstocks (yielding a little biofuel plus biochar) vs. biofuel

Or biochar AND biofuel feedstocks vs. food

Small-scale biochar is feasible, efficient and good for small farmers

Small scale schemes that recycle agricultural waste overcome feedstock supply problems, avoid technical difficulties (e.g. 'leakage'), and are economically more efficient (Pratt and Moran 2010)

These approaches offer multiple benefits to small farmers:

- **Improved agriculture and food security** (addressing soil structure/fertility constraints with low external inputs; improved efficiency of fertilizer use)
- **Reduced poverty** through gains from carbon markets ('farming carbon' – Lal 2010)
- **Better health** (improved char stoves reduce indoor air pollution)

Growing numbers of pilot projects/trials with small farmers, 20+ in Africa (e.g. WorldStove, Terrafrica, ProNatura, Biochar Fund, universities, NGOs, private sector partnerships)

e.g. Biochar Fund in Cameroon & DR Congo creating '*a synergy that radically changes the livelihoods of some of the world's poorest communities in multiple ways*'.

Small biochar projects are a step towards large commercial carbon-grabbing

Small scale participatory schemes are both a smokescreen for and an opening to pave the way for large scale biochar monocultures that displace farmers from their land (as happened with biofuels)

'emphasis on small-scale biochar appears... to be part of a marketing strategy to make biochar more politically acceptable'. Companies owning commercial pyrolysis machines use *'guerilla marketing tactics'* with a focus on small farmers as a key slogan (African Biodiversity Network, Biofuelwatch and Gaia Foundation 2009)

Commercial organizations and umbrella initiatives such as the IBI use images of small farmers, their fields and woodstoves to promote a *'humanitarian'* image while actually seeking to implement the *'grand visions'* and large scale commercial schemes that have been their interest from the outset (Smolker 2010, Biofuelwatch)

Biochar promises profits in the new carbon economy

Numerous opportunities to 'take biochar to market' – offsets, but also meeting C goals in waste management, agricultural livestock and industrial sectors.

...a long-term and readily measurable sequestration product, [that] will provide additional revenue in any market or jurisdiction where C is traded or C sequestration outcomes are valued (Glover 2009)

Biochar not (yet) in Kyoto Protocol/CDM carbon trading schemes, yet multiple market opportunities and promises

Numerous start-up companies and business ventures – producing biochar and products (e.g. soil supplements); producing pyrolysis technologies; implementing projects; offering offsets; offering consultancy services to firms



outbackbiochar.com



Biochar development is just another misplaced technical and market 'fix' for climate problems

Geo-engineering and carbon trading distract from pressing needs to cut carbon emissions at source, and make systemic changes in economies, production systems and lifestyles.

Environmental and climate debts must be paid. No false, dangerous, and short term solutions should be promoted and adopted, such as nuclear power, agro-fuels, offsetting, carbon capture and storage (CCS), biochar, geo-engineering and carbon trading....

(People's Declaration, Klimaforum at Copenhagen 2009)

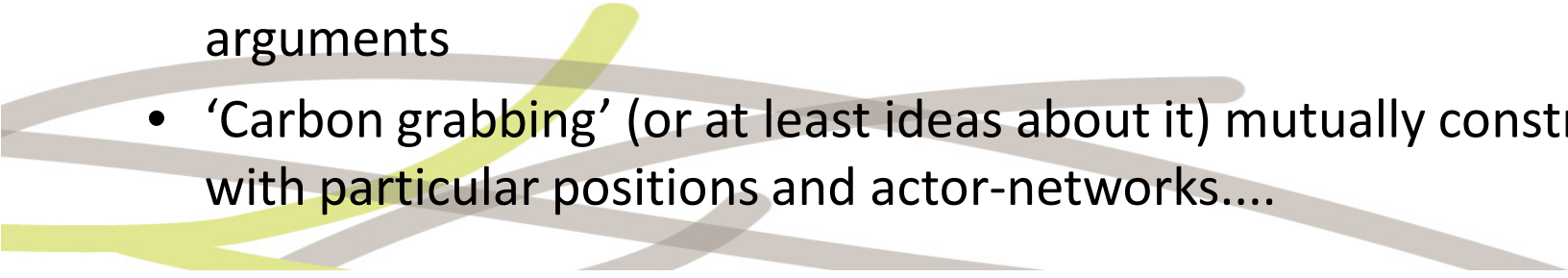
Top-down, centralized approaches promoted by a techno-capitalist industrial complex are inappropriate and unjust.

We want to take the future into our own hands by building a strong and popular movement of youth, women, men, workers, peasants, fisher folks, indigenous peoples, people of colour, urban, and rural social groups, which is able to act on and deal with environmental degradation and climate change (ibid).

Climate change is not 'a problem' to be solved (Hulme 2009).

The idea that biochar is a universal solution that can be safely deployed on a vast scale is as misguided as Mao Zedong's Great Leap Backwards... We clutch at straws (and other biomass) in our desperation to believe there is an easy way out (Monbiot 2009)

A polarized debate

- Carbon grabbing (as spectre, symbol?) central to, and shaping debate over whether and how biochar technology should be developed
 - In the carbon economy's 'brave new world' (Spash 2009) - of companies, business and NGO initiatives, marketing and argumentation – where evidence, governance and formal rules are lacking
 - Dynamics of polarization – pro and anti, large vs. small scale, commercial vs. humanitarian – fed by carbon-grabbing images and arguments
 - 'Carbon grabbing' (or at least ideas about it) mutually constructed with particular positions and actor-networks....
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Missed opportunities

Are more nuanced, qualified narratives and pathways being overlooked?

- Much African smallholder farming is already integrated with practices that involve the clearing and burning of vegetation. If a switch to charring improves farmer's yields, then enabling farmers to cash in on the carbon sequestration that might incentivise it further offers opportunities for pro-poor, pro-climate approaches.
- Opportunities to build on existing farmer knowledge, practices and histories
- Diversity and context specificity of landscapes, lives and livelihoods
- Biochar as contributor amidst multiple technical/economic portfolios to address climate and agricultural challenges



Locally-created carbon-enriched soils in NW Liberia

