



**Global Forest Coalition Submission to UNFCCC Secretariat about Issues Related to
Agriculture
(under Article 76 of the COP17 LCA decision)**

5th March 2012

The Global Forest Coalition is deeply concerned about proposals for an Agriculture Work Programme under SBSTA and believes that UNFCCC is not the appropriate forum for developing a work programme on agriculture.

Summary of our concerns about proposals for an Agriculture Work Programme under SBSTA:

We agree with La Via Campesina that industrial agriculture is a major contributor to climate change and that replacing it with sustainable small-scale agriculture/agro-ecological peasant farming can and must play a major role in addressing climate change. We believe that UNFCCC is the wrong forum for addressing the climate change contributions of industrial agriculture: Firstly, UNFCCC does not allow for meaningful participation by small farmers' and pastoralists' organisation. Secondly, the focus of the UNFCCC debate about agriculture has been on 'measurement, reporting and verification' or different technologies and agriculture, linked closely to the proposals about including soils and more of agriculture into existing and new carbon trading mechanisms. A work programme developed with such a focus threatens to lend further support to agribusiness interests and the industrial agriculture model which is responsible for major greenhouse gas emissions.

We note that calls for an agriculture work programme under SBSTA have been closely linked to calls for Climate-Smart Agriculture. The Climate-Smart Agriculture concept relies on the false assumption that further intensification of agriculture can be relied upon to reduce pressures on forests and other ecosystems, thus mitigating climate change. As we show in detail below, it will most likely benefit agribusiness and industrial agriculture, not small farmers and sustainable small-scale agriculture. There are striking parallels between general proposals for Climate-Smart Agriculture on the one hand and Agricultural Growth Corridors in Mozambique and Tanzania on the other hand, both in terms of the concept and language and in terms of the organisations supporting both. The Agricultural Growth Corridor initiatives regard the future role of 'smallholders' to be largely one as contract farmers for agribusiness.

Furthermore, we note with concern that support for industrial tree plantations forms part of leading calls for Climate-Smart Agriculture, including by the World Bank and FAO.

Background:

Industrial agriculture is undoubtedly one of the major contributors to climate change:

- ⤴ Expansion of industrial crop monocultures, driven largely by the excessive demand for animal feed, biofuels and other agricultural products in the global North, especially Europe and North America, is a major underlying cause of deforestation and the destruction of other

ecosystems, including peatlands and grasslands.

- ▲ Industrial tree plantations, driven largely by excessive demand for wood, especially for pulp and paper and, more recently, industrial bioenergy are equally a key driver of the destruction of forests and other ecosystems. Yet as a result of UNFCCC 's flawed definition of 'forests', tree and shrub plantations are being classed as 'forests'. The Global Forest Coalition report “Getting to the Roots: Underlying Causes of Deforestation and Forest Degradation, and Drivers of Forest Restoration”¹ provides detailed evidence about industrial crop and tree plantations as a key driver for deforestation and forest degradation.
- ▲ Nitrous oxide and methane emissions from agriculture account for 10-12% of all greenhouse gas emissions worldwide, according to the IPCC². As Grain have pointed out³: “*What often goes unsaid, however, is that most of these emissions are generated by industrial farming practices that rely on chemical (nitrogen) fertilizers, heavy machinery run on petrol, and highly concentrated industrial livestock operations that pump out methane waste.*” This figure does not include soil carbon losses caused largely by industrial farming practices which degrade and erode soils and which destroy forests and other ecosystems. Nor does it include CO₂ emissions from fossil fuel in industrial agriculture.
- ▲ Grain has estimated that industrial agriculture, including fossil fuel use in industrial farming, food processing and related transport, as well as deforestation and other land conversion to monocultures accounts for 44-57% of global greenhouse gas emissions⁴.

We fully agree with La Via Campesina that replacing industrial agriculture with sustainable small-scale agriculture/agro-ecological peasant farming can and must play a major role in addressing climate change⁵: This would, for example, protect forests and other ecosystems instead of converting them to monocultures, protecting and regionally increase biodiversity, keep soils healthy (which includes restoring soil carbon), avoid reliance on industrial fertilisers and thus a large source of greenhouse gas emissions, and replace industrial livestock and thus one of the main demands for soy monocultures as well as a major source of methane emissions.

Such structural change would also result in improved nutrition, livelihoods and agro-biodiversity, critical for resilience in the face of climate change.

While a major shift from industrial agriculture towards small-scale agro-ecological farming is vital for addressing climate change, this requires major structural changes:

It requires tackling over-consumption in the global North, including by ending targets and subsidies for biofuels and wood-based bioenergy. It also requires fundamental changes which put food sovereignty and support for small farmers and pastoralists at the heart of agricultural and food policies, including trade policies. As La Via Campesina states: “Food sovereignty prioritises local food production and consumption. It gives a country the right to protect its local producers from cheap imports and to control production. It ensures that the rights to use and manage lands, territories, water, seeds, livestock and biodiversity are in the hands of those who produce food and not of the corporate sector.”⁶ Genuine agrarian reform is a key requirement for a shift to sustainable small-scale farming and thus important for addressing an important source of greenhouse gas emissions, too (i.e. those caused by industrial agriculture).

1 www.globalforestcoalition.org/wp-content/uploads/2010/11/Report-Getting-to-the-roots1.pdf

2 www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-chapter8.pdf

3 www.grain.org/article/entries/4357-food-and-climate-change-the-forgotten-link#_ftnref

4 www.grain.org/es/article/entries/4160-climate-crisis-copenhagen-putting-agriculture-front-and-centre-in-the-discussions-over-climate-change

5 <http://viacampesina.net/downloads/PAPER5/EN/paper5-EN.pdf> and

6 <http://viacampesina.org/downloads/profiles/2011/BROCHURE-LVC2011-EN.pdf>

Any future agricultural work programme under SBSTA, however, would not be looking at such necessary structural policy changes. Indeed, UNFCCC is not in any position to do so, not least because it does not allow for meaningful participation by small farmers' and pastoralists' organisations. It is clear that any UNFCCC focus on agriculture, including the focus of any future agriculture work programme, would instead be on 'measurement, reporting and verification' of different agricultural technologies and practices and that it would be closely linked to including soils and (more of) agriculture in existing and new carbon-trading 'market mechanisms'. Most of the calls for an agricultural work programme under SBSTA have come from those who now promote the concept of 'Climate-Smart Agriculture', which we expect to be at the centre of any possible SBSTA work programme on agriculture. We are also aware that "Climate-Smart Agriculture" is already a focus of REDD+ funding discussions amongst investors⁷. Below, we will thus focus on the reasons why UNFCCC support for Climate-Smart Agriculture represents a threat to forests and forest-dependent peoples, as well as to small farmers, pastoralists and the climate.

1) Climate-Smart Agriculture is based on the false assumption that further intensification of agriculture will reduce pressures on forests and other land and thus mitigate climate change:

The World Bank, FAO and others have put 'sustainable intensification and productivity enhancement' at the centre of Climate-Smart Agriculture. FAO claims: "*The sustainable intensification of production, especially in developing countries, can ensure food security and contribute to mitigating climate change by reducing deforestation and the encroachment of agriculture into natural ecosystems.*"⁸ The assumption that intensification of production can be relied upon to reduce pressures on forests and other ecosystems has been widely disproved.

In this context, it is important to note that 'increased production' and yields are commonly measured as yields for individual crops, thus, wrongly, presenting monocultures in a more favourable light than small-scale non-industrial agriculture which relies on intercropping. Yet intercropping and biodiverse farming methods are generally far more productive overall, while at the same time protecting water, soils and the climate⁹.

As a recent CIFOR publication illustrates: "*Current policies and institutional arrangements often lead to inappropriate deforestation, in part due to false assumptions about the causal relations that link the policies to forest clearing (for an elaboration, see Angelsen and Kaimowitz, 1999). One such dubious assumption is that higher productivity and better agricultural technologies will almost always benefit forest conservation.*"¹⁰ As the authors point out, the very opposite often happens when demand is 'elastic': "*The stories of commodity booms and deforestation are almost always about export crops.*" When export-oriented monocultures increase their their productivity and thus profits for agribusiness, the result is ever more investment in land conversion, including deforestation and land-grabbing. For example, the rate of deforestation in Northwest Argentina increased dramatically as a result of more profitable no-till GM soya production being introduced in the country¹¹. A 2010 study published in Nature Geoscience confirmed that growth of export-oriented plantations, as well as increasing urbanisation, are the key drivers of tropical deforestation¹². Further intensification and 'increased production' of export-oriented industrial

⁷ See for example www.cmia.net/Portals/0/Repository/litrev20111002.904be597-0fa4-4d45-b9fa-448f98f1e149.pdf
⁸ www.fao.org/docrep/013/i1881e/i1881e00.pdf

⁹ See for example Agroecologically efficient agricultural systems for smallholder farmers: contributions to food sovereignty, Miguel A. Altieri et al, Agronomy for Sustainable Development, 21st November 2011, <http://agroeco.org/wp-content/uploads/2009/11/Altieri-Funes-Petersen-Palencia.pdf>

¹⁰ The Role of Agricultural Technologies in Tropical Deforestation, Arild Angelsen and David Kaimowitz, www.cifor.org/publications/pdf_files/Books/CAngelsen0101E0.pdf

¹¹ Agriculture expansion and deforestation in seasonally dry forests of north-west Argentina, H.R. Grau et al, Environmental Conservation 32: 140-148, 2005

¹² Deforestation driven by urban population growth and agricultural trade in the twenty-first century, Ruth S. DeFries

agriculture is thus likely to lead to more, not less deforestation.

The ever growing Northern demand for biofuels and wood-based bioenergy ensures a virtually unlimited demand for crops and wood. Companies tend to target the most fertile lands for biofuels and wood-based bioenergy plantations, resulting in large-scale direct and indirect deforestation and other ecosystem destruction.

2) Climate-Smart Agriculture is most likely to benefit agribusiness, not small farmers, thus reinforcing and extending the model of industrial agriculture which, as discussed above, is a major contributor to climate change.

FAO, the World Bank and other proponents of Climate-Smart Agriculture imply that it would benefit small farmers and large-scale industrial agriculture alike. However, as FAO have stated, the aim for 'commercial systems' (i.e. industrial agriculture) will be to increase efficiency and reduce emissions whereas 'smallholder systems' are to be 'transformed' 13. What this is likely to mean is illustrated for example by the current plans for 'Agricultural Growth Corridors' in Mozambique and Tanzania discussed below. Clearly agribusiness is in the best position to profit from soil and agriculture carbon offsets, and also from additional funding mechanisms proposed for Climate-Smart Agriculture elsewhere, such as other Payments for Environmental Services, public-private partnerships, bonds, insurances, etc, all of which favour economies of scale.

Many of the practices and technologies widely promoted as 'climate-smart' are ones which favour or exclusively relate to industrial agriculture – reinforcing root causes of climate change, deforestation and land-grabbing. Here are four examples:

- ⤴ **No-till agriculture** commonly means agro-chemical intensive, industrial GM no-till. As a recent report published by Misereor¹⁴ shows, the four main countries where no-till agriculture is practiced are the US, Brazil, Argentina and Canada, followed by Australia and in four of those five countries, no-till is largely confined to large plantations. According to the report: “*In many parts of the world, no-till is practised temporarily as part of the crop rotation*”, yet the focus on presumed carbon sequestration from 'permanent' no-till creates a bias against such proven practices by small farmers and in favour of herbicide- and GM dependent industrial no-till. Yet, as the Misereor report shows, a positive carbon or overall greenhouse gas balance from industrial no till is entirely unproven and, as discussed above, no-till GM soya expansion has been a major cause of deforestation for example in North-west Argentina – as well as in Paraguay and Brazil.
- ⤴ **Livestock** 'productivity improvements', “advanced technology in feeding and nutrition, genetics and reproduction”¹⁵, manure treatment (including through biogas use) etc. all favour and promote intensive industrial livestock, at the expense of pastoralists and livestock integrated into peasant farming. The unsustainable demand for meat in the global North is not being addressed. Yet industrial livestock is responsible both for very large-scale direct greenhouse gas and especially methane emissions and also for large-scale deforestation, especially for soya in South America.
- ⤴ **Bioenergy CHP systems for agricultural processing**¹⁶. Bioenergy and efficient cogeneration are being promoted as 'climate-smart' and as ways of reducing energy intensity and greenhouse gas emissions from agriculture. Recent investment into bioenergy CHP

et al, Nature Geoscience 3, 7th February 2010

13 <http://www.fao.org/docrep/013/i1881e/i1881e00.pdf>

14 http://m.misereor.de/fileadmin/redaktion/MISEREOR_no%20till.pdf

15 <http://www.fao.org/docrep/013/i1881e/i1881e00.pdf>

16 See: www.fao.org/docrep/014/i2454e/i2454e00.pdf

systems for agricultural processing have primarily gone towards large-scale agribusiness operations: Palm oil mills, sugar mills, soya mills, ethanol and biodiesel refineries etc. They thus increase the profitability of the very export-oriented plantation industry responsible for large-scale deforestation, land-grabbing and inherently unsustainable practices which deplete soils and water, destroy biodiversity and rely on large-scale agro-chemicals, including pesticides and herbicides.

- ▲ **Biochar:** Although biochar has so far been marginal to the debate about Climate-Smart Agriculture, it has been strongly promoted for soil carbon sequestration within UNFCCC, UNCCD and the FAO. Australia is the first country to have introduced a stand-alone carbon offset system for the 'land sector', including forests, plantations, soils and croplands, called the Carbon Farming Initiative and biochar has been listed on the 'positive list' of eligible activities¹⁷, although no biochar methodology has as yet been published. Biochar is being promoted to small farmers as well as agribusiness through a wide range of projects, even though the effect which different types of biochar have on crop yields under different conditions is unpredictable, highly variable and by no means always positive¹⁸. Biochar R&D institutes are increasingly promoting the development of 'designer biochars' or 'bespoke biochars'¹⁹. If such 'designer biochars' proved possible, which is far from certain, they would undoubtedly be unaffordable to small farmers. There are serious concerns that a future large-scale demand for biochar would further increase pressures on land, thus potentially replicating the experience with industrial biofuels and resulting in land-grabbing and (direct or indirect) deforestation²⁰. Not only would the overall climate impact of creating a large new demand for wood and other biomass for biochar likely be extremely negative but soil science findings show that even at the field level biochar cannot be relied upon to sequester carbon at all²¹.

3) Promotion of Climate-Smart Agriculture is closely linked to the promotion of a greater role of soils and agriculture in existing and new carbon trading/market mechanisms.

Climate-Smart Agriculture and the debate about a possible SBSTA agriculture work programme has very much centred around the 'potential' for future agriculture and soil carbon offsets. Carbon trading continues to be at the centre of UNFCCC policies, regardless of the overwhelming evidence that it is not resulting and cannot result in greenhouse gas reductions. Seven years after the Kyoto Protocol came into force and large-scale carbon trading began, global greenhouse gas emissions have increased dramatically, so much so that the world is now following the worst-case trajectory outlined by the IPCC in 2007. This is hardly surprising since, in the best possible case, carbon offsets could only ever be a 'zero sum game', since any possible 'emissions prevented' will legitimate polluting companies in industrial countries to burn even more fossil fuels. In reality, however, CDM offset projects have primarily 'benefited' polluting industries, including plantation companies at the expense of communities and have been beset by accounting and verification problems. The current push for a further extension of carbon trading into agriculture, soils, forests and other ecosystems ironically coincides with the global collapse of carbon prices, including for the CDM and EU-ETS.

4) Climate-Smart Agriculture would likely involve further expansion of industrial tree plantations.

¹⁷ www.climatechange.gov.au/government/initiatives/carbon-farming-initiative/activities-eligible-excluded/additional-activities-positive-list.aspx

¹⁸ www.biofuelwatch.org.uk/2011/a-critical-review-of-biochar-science-and-policy/, Chapter 3

¹⁹ E.g. www.biochar.org.uk/research.php?id=7 and

http://adl.brs.gov.au/data/warehouse/biochar9abcm001/biochar9abcm00101/TR.2011.06_Biochar_v1.0.0.pdf

²⁰ www.biofuelwatch.org.uk/2010/biochar-land-grabbing-the-impacts-on-africa/

²¹ www.physorg.com/news/2011-10-soil-carbon-climate-team-scientists.html

Industrial tree plantation expansion falsely classed as “Afforestation and reforestation” is being promoted not only under current CDM rules and through REDD+, but also under Climate-Smart Agriculture. Several of Climate-Smart 'examples' cited by the World Bank, for example, are 'afforestation and reforestation projects' 22 . During the recent “Forest Day” in Durban, World Bank representative Andrew Steer claimed that “*climate-smart agriculture combined with integrated landscape management and improved governance of forests and woodlands can reverse deforestation and degradation while addressing food security.*”23 As an example, he cited the Sahel Great Green Wall project. Serious concerns about this project have been expressed, including by IPACC (Indigenous People's of Africa Coordinating Committee) in 2011. It is feared that this could involve large-scale plantations of non-native invasive trees, deplete freshwater and threaten the livelihoods of Indigenous Peoples, including pastoralists24. In Australia, the Carbon Farming Initiative has led to a major upsurge in investments in industrial tree plantations25, in anticipation of such projects being approved under that scheme.

Climate-Smart Agriculture in Practice? Two 'Agricultural Growth Corridor' examples

In 2009, the Beira Agricultural Growth Corridor (BAGC) was launched, followed a year later by the Southern Agricultural Growth Corridor of Tanzania (SAGCOT). Both are public-private partnerships, with strong representation from agribusiness corporations, including Yara, Syngenta, DuPont, Monsanto, General Mills and Unilever. Their two Investment Blueprints cover a combined area of 17 million hectares with support from key advocates of Climate-Smart Agriculture. They are backed by a several leading advocates of Climate-Smart Agriculture, including:

- ⤴ *Yara International*, a Norwegian multinational corporation, who describe themselves as the world's biggest nitrogen fertiliser producer. They are members of the Executive Committee which drew up the the SAGCOT Investment Blueprint²⁶ and helped convene the Beira Agricultural Growth Corridor initiative and are still on their Executive Committee²⁷. Yara have taken a pivotal role in the development of the Climate-Smart Agriculture concept, too, which they describe as an “*initiative championed by Yara for several years*”²⁸.
- ⤴ The *World Bank* and its *International Finance Corporation*, which has committed significant funding to both “growth corridors”²⁹.
- ⤴ *FAO*, an official partner of SAGCOT.

Both Agricultural Growth Corridor initiatives are aimed at increasing agricultural 'productivity' and SAGCOT has been described as an example of “climate-compatible agriculture” by the South African government and World Economic Forum³⁰. Both Growth Corridor initiatives rely primarily on public-private partnerships which FAO regards as a major vehicle for financing Climate-Smart Agriculture³¹. SAGCOT seeks additional 'innovative finance' and carbon credits, including for reducing deforestation and sequestering soil carbon³², reflecting FAO's and the World

22 http://climatechange.worldbank.org/sites/default/files/documents/CSA_Brochure_web.pdf

23 <http://climatechange.worldbank.org/content/call-action-climate-smart-agriculture-forest-landscapes>

24 www.irinnews.org/report.aspx?ReportId=92422 and http://www.ipacc.org.za/eng/news_details.asp?NID=276

25 <http://fw.farmonline.com.au/news/state/agribusiness-and-general/finance/growing-landholder-interest-in-carbon-sink-opportunities/2443097.aspx>

26 www.africacorridors.com/sagcot/about.php

27 www.beiracorridor.com/resources.php

28 www.yara.com/investor_relations/latest_annual_report/financial_md_a/business_environment/index.aspx

29 <http://allafrica.com/stories/201202062106.html> and <http://www.beiracorridor.com/documents/IBlow.pdf>

30 http://www3.weforum.org/docs/WEF_COP17_DurbanGrowthSeries_Programme_2011.pdf

31 http://www.fao.org/fileadmin/user_upload/newsroom/docs/the-hague-conference-fao-paper.pdf

32 http://www.africacorridors.com/sagcot/pdfs/IBP_%28low_resolution%29.pdf

Bank's vision for future financing for Climate-Smart Agriculture. Similar to Climate-Smart Agriculture proposals, both Agricultural Growth Corridor initiatives seek to focus investment both on agribusiness and 'smallholders'. BAGC and SAGCOT make it clear what what type of 'transformation of agriculture' they envision for small farmers, or 'smallholders': They are to be integrated into 'commercial agriculture' primarily as contract farmers to agribusiness. By far the largest of the BAGC 'pilot projects' for 2010-2015 are two ethanol plantation schemes (sugar cane and sorghum) by Envalor and Grown Energy, covering 58,000 hectares in total, of which 55,000 hectares would be directly operated by the companies and 3,000 hectares by 'outgrowers'³³. Within SAGCOT, the lead role for "climate change mitigation agro projects" is taken by Yara and Syngenta³⁴, who describe their aims as being "*to increase farm productivity driven by improved land use and optimal use of proper agricultural inputs rather than opening up new land*". Yara and Syngenta thus aim to benefit from climate mitigation funding under this initiative by expanding the use of fossil-fuel based fertilisers, agrochemicals and GM industrial monocultures.

For all of the reasons discussed above, we believe that no agricultural work programme under SBSTA must be approved.

³³ http://www.umb.no/statisk/noragric/publications/reports/2010_nor_rep_53.pdf

³⁴ http://www.africacorridors.com/sagcot/pdfs/Appendix_VI-Investment_Matrix.pdf