Turning farms into carbon sinks: Agriculture and the COP16 in CancÃºn

by Joanna Cabello
Thursday, 20 January 2011

Emissions targets related to land use, land use change and forestry (known in the jargon as LULUCF) were not included in the Kyoto Protocol, the international climate change treaty signed in 1997, but played a central role in the latest round of UN climate negotiations in CancÃºn.

Â

en castellano

The expansion of agriculture projects within the Clean Development Mechanism (CDM) offset scheme has continued, with new plantation projects now eligible to apply for carbon credits. As a prelude to new offset projects, uncertainties about how to count â€œsoil carbonâ€• are increasingly being brushed aside with a view to further its inclusion in the markets, whilst a technical body was asked to undertake a report on new forms of agriculture-related carbon accounting. Moreover, although agriculture is not formally part of negotiations on Reducing Emissions from Deforestation and Degradation (REDD+), the methods being piloted within such schemes are seen as potentially expandable to land use as a whole. The push for a greater emphasis on agriculture is being led by the World Bank, in particular, in conjunction with the UN's Food and Agriculture Organisation (FAO).

The CancÃºn climate summit was not an unmitigated success for those pushing agricultural carbon markets and the expansion of industrialised agricultural models. Most notably, an initiative from New Zealand (with US and Canadian backing) to establish a specific work programme on agriculture within the main track of climate negotiations was not agreed. With decisions increasingly being taken which go around the UNFCCC framework, however, such setbacks should be put in context. As if to reinforce this point, a new World Bank Roadmap on Agriculture, Food Security and Climate Change was launched, with the intention of promoting â€œclimate smart agricultureâ€• offsets and rebranding industrialised agriculture as climate-friendly.

Background

Under existing LULUCF rules for the Kyoto Protocol, human-induced deforestation, reforestation and afforestation activities must be accounted for by industrialised countries as carbon sources or sinks during its first commitment period (2008â€“2012). Accounting for agricultural sinks is optional and limited to cropland and grazing land given the difficulties in measuring, reporting and verifying (MRV) changes in the carbon stocks of agricultural land.1

Several methods are being introduced in order to account the carbon stored in soils and thus, set the basis for its commodification. Yet, the complexities and uncertainties of engaging in such a homogenization of biodiverse systems still remains. For example, setting the baselines to account how much carbon was in the soil before a particular practice is implemented remains a very complex and uncertain process. Other offset mechanisms have shown that this frequently results in over-accounting, a form of gaming the system, and offers fertile ground for corruption. In spite of this, the fast process of on-the-ground pilot projects for accounting forests carbon stocks â€“ in spite of strong opposition, makes the next step very obvious for the neoliberal rationale that dominates the climate negotiations: all land-use and land-use change activities should follow the same steps.2

The underlying idea is clear: quantify the amount of carbon stored in agricultural soils so that farmers adopting specific

crop management practices that can then claim to increase the amount of soil carbon and therefore gain â€œcarbon creditsâ€•, which will â€œoffsetâ€• industrialised countries and polluting corporationsâ€™ emissions, or be traded by speculators.

As the Institute for Agriculture and Trade Policy (IATP) affirms, small farmers will be the most affected by these policies. In order to be profitable, agriculture soil carbon projects will require a large number of farmers be aggregated into groups with incentives to apply whichever â€œtechnologyâ€• is being promoted. â€œAggregatingâ€• small farmers for the sake of carbo credits with the backing of large agribusiness while brushing aside crucial accounting and environmental uncertainties, could create increased social conflicts, incentives for land grabbing, dispossession of small-scale food production, and violation of human rights.3

Representatives from the World Bank and the FAO repeatedly highlighted during the COP16 that â€œAgriculture is part of the problem and part of the solution to climate changeâ€•. However, the â€œsolutionâ€• part that they propose â€“ to include agricultural lands and practices into the carbon markets, is not a solution for the climate, food sovereignty nor for the local farmers.

What was negotiated and agreed at COP16?

In the final hours of the CancÃºn negotiations, industrialised countries led by New Zealand, the United States and Canada, attempted and failed to fast track a special work programme on agriculture. As IATP reports, significant efforts were made by New Zealand and others to bypass the impasse on â€œcross sectoral approachesâ€• to move ahead on agriculture. Moreover, the primary focus was on â€œmitigationâ€• in the form of soil carbon accounting, at the expense of progress on â€œadaptationâ€• measures to help farmers adapt to climate variations. However, developing countries opposed a decision on agriculture without a framework that deals with other sectors that contribute to greenhouse gases.4 In this regard, the New Zealand Minister for International Climate Change Negotiations, Hon Tim Groser, stated â€œNew Zealand has not achieved every element of what we sought to advance here at Cancun in a number of areas like agriculture and forestry but we will have the opportunity to advance these important issues of detail as the negotiations progress forward next year.â€•5

In the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA), agriculture and food security are only mentioned in passing as areas for consideration when enhancing action on adaptation.6 However, the negotiating text also calls for the Subsidiary Body for Scientific and Technological Advice (SBSTA) to create a programme of policy approaches on issues relating to reducing emissions from deforestation and forest degradation; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries (known as the REDD+ mechanism).7 No decision on a work programme on agriculture under the SBSTA was rendered. Unlike the forestry sector, agriculture per se does not have a dedicated work programme yet, although the forest and agriculture sectors are intertwined in the LULUCF.8

The CancÃºn Accords, which form the basis of continuing negotiations, emphasise the role of carbon markets in climate finance, paving the way for an increase in agricultural offsets. These until now relate to two market mechanisms: the Clean Development Mechanism (CDM), which is currently the biggest UN offsetting scheme, and Reducing Emissions for Deforestation and Degradation (REDD+), which is still under negotiation, although pilot projects are already underway.

- The CDM and agriculture

Due to key uncertainties for carbon stocks accounting, the Kyoto Protocol had ruled that soil carbon sequestration and avoided deforestation are not eligible for CDM credits, and furthermore, that afforestation and reforestation can only account for 1 per cent of the accounted Certified Emission Reductions (or carbon credits). Now, economic and political

powers (led by the World Bank, FAO, large agribusiness, and interested countries) are looking eagerly to rewrite the rules by expanding the eligibility of CDM projects to soil carbon sequestration mitigation activities, leaving aside the complexity and uncertainty of accounting for reductions in these sectors. Distracting from making any real steps towards sustainable agriculture adaptation, this would give more â€œpermits to polluteâ€• to continue business as usual and thus, increase land tenure pressures and social conflicts.

The decisions that were taken note of in the Copenhagen climate summit (COP15) introduced new language into the draft chapter on LULUCF under the Kyoto Protocol to expand the remit of the CDM to include most land-use.9 It requests the SBSTA to initiate a work programme to develop and recommend modalities for â€œRevegetation, cropland management, grazing land management, wetland management, soil carbon management and other sustainable land management activities.â€• In addition, it highlights the need for â€œalternative approaches to addressing the risk of non-permanence.â€• Loosely translated, the former is an invitation to massively extend the scope of offsetting in relation to land use practices, whilst the latter implies that fundamental uncertainties about how to count soil carbon should not be an impediment to establishing CDM projects that assume such calculations can be made and quantified as â€œreductions.â€•

The situation gets worse as new CDM methodologies for agrofuels including charcoal from industrial tree plantations used as a fuel, and the inoculation of legumes (such as soy)10 which have recently been adopted by the CDM Executive Board.11

- REDD+ and agriculture

REDD+ negotiations are attempting to add all LULUCF practices into the carbon markets. The activities that would be included in this mechanism have been evolving with time: from RED (Reducing emissions from Deforestation), to REDD (adding Degradation), to REDD+ (which includes 'sustainable forest management', 'conservation' and 'increasing forest carbon stocksâ€™). This mainly opens the door to logging operations in primary forests, displacement of local populations for 'conservation', increase of tree plantations (since the UN definition of forests currently does not distinguish between natural forests and monoculture tree plantations). And finally, there is also REDD++, sometimes called Agriculture, Forestry and Other Land Uses (AFOLU), which incorporates all land use including agriculture.12

Nevertheless, agricultural land could potentially already be included in REDD+. This was more clear when on 4 December, the â€˜Agriculture and Rural Development Dayâ€™ was held in CancÃºn in parallel to COP16, highlighting the need for â€œAgricultural intensification as a REDD strategyâ€•.13 The event was organised by among others the World Bank, FAO and the UNâ€™s World Food Programme, along with funds from USAID, the European Union, the Department for International Development (DfID) and others. One of the main calls that came out from this day was to include â€œexplicit recognition of the critical links between agriculture and forestry and the creation of an agricultural work program under the SBSTA as a first step toward the inclusion of food security in any post-2012 agreement.â€•14 This was not reached at CancÃºn but will definitely be a crucial push in Durban, South Africa, during COP17.

The World Bank and â€œClimate Smart Agricultureâ€•

While all this happened at the official negotiations, in parallel, the World Bank launched â€œThe Roadmap for Action: Agriculture, Food Security and Climate Changeâ€• on 9 December, building upon a work plan launched at The Hague conference (31 October - 5 November).15 The Roadmap aims to â€œidentify and initiate concrete ongoing and new actions linking agriculture-related investments, policies and measures, to the transition to lower greenhouse gas climate resilient growth and human development andâ€¦ to develop a path forward to climate-smart agricultureâ€•.16

According to Ecosystem Marketplace, The Hague conference resulted in three main economic deals. The first one was a

grant that promotes investment, in which the Rockefeller Foundation announced a commitment of US$1.5 million dollars to support the development of climate-smart agriculture.17 The second deal was a form of payment for ecosystem services, in which the Dutch minister for Agriculture and Foreign Trade signed a financial commitment with the investment fund â€œFood 4 Allâ€•, which invests in small companies and cooperatives in East and West Africa.18 The third deal relates to the first approved soil-carbon project that sells credits in Africa, with the World Bank agreeing to purchase the carbon credits from â€œVi Agroforestryâ€•, an NGO that has been active in Eastern Africa since 1983. The credits will be sold to the BioCarbon Fund, one of 12 carbon market funds managed by the Bank.19

The CancÃºn launch of the roadmap was a high profile event, featuring Prime Minister Meles Zenawi of Ethiopia; Robert Zoellick, President of the World Bank; the US Secretary of Agriculture; and ministers from Vietnam, Uruguay, Norway and The Netherlands, who all announced their commitment to climate smart agriculture.20 The launch of the roadmap aimed to â€œensure agriculture plays a key role in the architecture of climate finance at the Cancun Climate Change Conference in Mexicoâ€•. However, the negotiators at the COP16, mostly from developing countries, did not have the same enthusiasm.

The Director-General of the FAO, Jacques Diouf, defined â€œclimate smartâ€• agriculture as that which â€œsustainably increas productivity and resilience to environmental pressures, while at the same time reduces greenhouse gas emissions or removes them from the atmosphere, because we cannot ignore the fact that agriculture is itself a large emitter of greenhouse gases.â€•21

This was also repeatedly called a â€œtriple winâ€• for agriculture: increasing productivity, more resilience and reducing carbon. The rhetoric is persuasive, but what it means in practice is unlikely to benefit the vast majority of farmers or the climate.

â€œClimate smart agricultureâ€• is basically a means of establishing the basis for turning farms into carbon sinks. This raises numerous concerns, which were highlighted by a civil society statement warning of among others, little transparency and participation for the elaboration of the Roadmap, the prioritisation of industrial agriculture, the use of technological fixes, the lack of focus on adaptation, and the use of carbon markets as finance mechanisms.22 However, none of these concerns were taken into consideration as part of the roadmap.

During the Agriculture and Rural Development Day, Inger Andersen, the Vice President of the Sustainable Development Department of the World Bank, proudly stated, â€œAgriculture is the perfect place where adaptation and mitigation meet, because that is where you can do smart agriculture â€“ no tillage, low tillage type agriculture that will reduce emissions â€“ and by doing this you can have also climate positive impacts. So there is a lot that agriculture can do by mitigating and ensure that emissions are less and also by increasing food productivity.â€•23 In World Bank speak they are referring to no or low-till agriculture based on an industrial model that uses GMO crops with pesticides and fertilizers which benefit multinational agriculture giants such as Monsanto and Cargill, not small-scale local farming. In addition, this means a new push to include soil carbon in the offset mechanisms of the carbon market. An article posted on a blog of the World Bank itself stated that, â€œWith the right interventions [agriculture] can in many contexts become a net â€œsequestererâ€• of carbon.â€•24 At the end of the event, Vietnam agreed to host a major ministerial meeting in 2012 at which the actions taken under the roadmap will be evaluated, and the next phase launched.

Most agricultural production is carried out by small-land holding farmers, who depend on their lands for their livelihoods and food sovereignty. Small-scale farms usually have a high degree of biodiversity on their lands, which is a crucial element for agriculture resilience, needed for the adaptation efforts of farmers (diversity suffer less damage during adverse weather events compare to monoculture).

This is placed in contrast to industrialised fossil-fuel and energy-intensive agriculture. Thus, instead of learning from the diverse small-scale sustainable practices and methods that farmers are constantly proposing, the insertion of agricultural practices in the carbon market could spell disaster for the food sovereignty and livelihoods of local communities, mainly in developing countries, while allowing the giants of agriculture, such as Monsanto and Cargill, to continue their same polluting practices and earn more profits by doing it.25

1Â Â The LULUCF rules can be accessed at: http://unfccc.int/methods_and_science/lulucf/items/1084.php

2Â Â See: http://noredd.makenoise.org/

3Â Â Shefali Sharma, â€œAgriculture in the Climate talksâ€•, Institute for Agriculture and Trade Policy, CancÃºn 2010. http://www.iatp.org/climate/files/document/Print_AgInTheClimTalks_SS.pdf (retrieved December 2010)

4Â Â Institute for Agriculture and Trade Policy â€“ IATP, â€œEmpty global climate deal leaves agriculture behindâ€•, CancÃºn, 2 http://iatp.org/climate/index.php?q=feed/article/empty-global-climate-deal-leaves-agriculture-be (retrieved December 2010).

5Â Â Press Release, New Zealand Youth Delegation, December 12, 2010, â€œNZYD Perspective on the COP16 Outcomeâ€•. http://youthdelegation.org.nz/youth/2010/12/nzyd-perspective-on-the-cop16-outcome (retrieved January 2011)

6Â Â See the AWG-LCA texts at: http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf

7Â Â The SBSTA counsels the Conference of the Parties on matters of climate, the environment, technology, and methodologies. It meets twice a year.

8Â Â In 2008, at the request of Parties, the UNFCCC Secretariat prepared a technical paper on the challenges and opportunities for mitigation in the agricultural sector for the AWG-LCA. At its fifth session in April 2009, the AWG-LCA held an in-session workshop on agriculture to present the technical paper. Eventually, a dedicated drafting group for agriculture was established in relation to Cooperative sectoral approaches and sector specific actions, under â€œEnhanced national/international action on mitigation of climate changeâ€•. The draft negotiating text presented at COP16 featured the proposal to establish a SBSTA work programme on agriculture: FCCC/AWGLCA/2009/L.7/Add.9 (http://unfccc.int/resource/docs/2009/awglca8/eng/l07a09.pdf). Although the Copenhagen and CancÃºn Accords support the REDD+ scheme, they do not mention agriculture nor food security explicitly.

9 Â See the Copenhagen Accords at: http://unfccc.int/meetings/cop_15/items/5257.php

10 Â â€œInoculation is the process of applying Rhizobium bacteria to legume seed that have the ability to hide this bacteria by forming nodules in their roots. The bacteria in these nodules catch nitrogen from the air and transform it into usable form and supply it to the soil to be used by the next crop.â€• (Henrylito Tacio, Agriculture Business Week, July 2009: www.agribusinessweek.com/inoculating-leguminous-crops/). According to the international Peasant Movement La VÃ-a Campesina, â€œThe methodology was created for use on industrial monocultures of soybean and maize rotations, and is based on a technology patented by Becker Underwood Inc., which developed the technology with Amson Technology LLC and Perspectives GmbH for a CDM project in Brazil. In 2008, Monsanto entered into a partnership with Becker Underwood to develop technologies for proprietary seed treatments for corn, soybeans and cotton. Monsanto has been offering nitrogen seed treatments since 2009. (La VÃ-a Campesina, â€œAgribusiness Transnational Corporations (TNCs) and UNFCCC processâ€•, November 2010: http://viacampesina.org/en/index.php?option=com_content&view=article&id=979:agribusiness-transnational-corporations-tncs-and-unfccc-process&catid=48:-climate-change-and-agrofuels&Itemid=75)

11 Â UNFCCC, â€œCDM Methodology Bookletâ€•, November 2010, http://cdm.unfccc.int/methodologies/documentation/meth_booklet.pdf (retrieved December 2010). See CDM Executive board decisions on methodologies at: http://cdm.unfccc.int/EB/index.html

12Â For more information on REDD+ and its implications on the ground see: http://noredd.makenoise.org/

13Â See: http://www.agricultureday.org/

14Â Shaughn McArthur, â€œOpening the door for agriculture at COP16â€•, 05 December 2010, http://www.agricultureday.org/blog/

15Â The Hague Conference documents can be accessed at: http://www.afcconference.com/

16Â See the Roadmap text at: www.afcconference.com/images/templates/

Roadmap_Final_version_9_november_2010.doc

17Â Ecosystem Marketplace, â€œRockefeller Foundation Pledges $1.5 Million for Climate-Smart Agricultureâ€•, November 201
http://www.ecosystemmarketplace.com/pages/dynamic/article.page.php?page_id=7814&section=news_articles&eod=1
(retrieved December 2010)

18Â Ecosystem Marketplace, â€œDutch Government Invests in African Carbon Fundâ€•, November 2010,
http://www.ecosystemmarketplace.com/pages/dynamic/article.page.php?page_id=7815&section=news_articles&eod=1
(retrieved December 2010)

19Â Ecosystem Marketplace, â€œFirst-Ever African Soil-Carbon Deal Signed at Hague Investment Fairâ€•, November 2010,
http://www.ecosystemmarketplace.com/pages/dynamic/article.page.php?page_id=7813&section=news_articles&eod=1
(retrieved December 2010)

20Â World Bank, Press Release No.2011/237/SDN, â€œAgriculture Must Play Key Role In Climate Solutionsâ€•, December
2010, http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/
0,,contentMDK:22786407~pagePK:64257043~piPK:437376~theSitePK:4607,00.html (retrieved December 2010)

21Â The Hindu, â€œClimate-smart agriculture to eradicate world hunger: FAOâ€•, December 2010, http://www.thehindu.com/sc
tech/agriculture/article950456.ece (retrieved December 2010)

22Â Third World Network, Civil Society Statement of Concern on the Hague Conference on Agriculture, Food Security
and Climate Change, October 31, 2010, http://www.twnside.org.sg/title2/susagri/2010/susagri136.htm (retrieved
December 2010)

23Â Agriculture and Rural Day, â€œVoices of Agriculture and Forestâ€™s Days Participantsâ€•, December 2010,
http://www.agriculturedday.org/media (retrieved December 2010)

24Â World Bank blogs, â€œA world of action in Cancun: Don't listen to your grandmaâ€•, December 2010,
http://blogs.worldbank.org/climatechange/world-action-cancun-dont-listen-your-grandma (retrieved December 2010)

25Â La VÃ-a Campesina, â€œVÃ-a Campesina Declaration in CancÃºn: The people hold thousands of solutions in their handsâ
December 2010, http://viacampesina.org/en/index.php?option=com_content&view=article&id=1010:via-campesina-
declaration-in-cancun-the-people-hold-thousands-of-solutions-in-their-hands&catid=48:-climate-change-and-
agrofuels&Itemid=75 (retrieved December 2010)

Â