
[REDD moves from forests to landscapes: More of the same, just bigger and with bigger risk to cause harm](#)

In the late 1980s, the FAO and the World Bank launched their first large programme to halt forest loss. It was called *Tropical Forestry Action Plan (TFAP)*. A report for WRM in 1990 showed that "*the Tropical Forestry Action Plan is fatally flawed. Far from curbing forest loss, the Plan will accelerate deforestation.*" Little change to the analysis from some 24 years back would be required to make it applicable to REDD, REDD+, and probably soon, landscape REDD. The landscape REDD approach attempts to include both forests and agriculture, and remains as top-down and condescending towards forest-dependent communities and collaborative with the corporate associations of the agriculture and logging sectors as the FAO and World Bank's failed Tropical Forestry Action Plan of the 1980s. Deforestation and the emissions from it will continue, and in the process landscape REDD will cause a lot of harm by vilifying forest-dependent communities and those who produce the majority of the world's food – small scale farmers. But it need not be that way if instead government action focused on leaving fossil fuels in the ground and phasing out industrial agriculture – the cause of the large majority of emissions in the land use sector. REDD is the smokescreen to hide inaction on these pressing challenges.

Since the 2007 climate summit in Bali, Indonesia, UN climate negotiators have discussed how to reduce forest loss – or more precisely, how to reduce the emissions caused when forests are destroyed - under a concept called REDD, Reducing Emissions from Deforestation and Forest Degradation (see [WRM website section on REDD](#) and [10 Things Communities Should Know About REDD](#)). Soon, REDD became REDD+, and climate negotiators were talking not just about avoiding forest loss but also about "*the conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries,*" – in other words, how to include the logging and industrial tree plantations industry in any potential future carbon revenue stream. In parallel to the UN talks, hundreds of millions of euros began to be spent on consultants preparing methodologies, entrepreneurs and conservation NGOs implementing REDD plans, pilot initiatives and model projects, and another set of consultants certifying that the methodologies the first consultants had developed were applied. When the REDD project salesmen arrived in the forest, forest dependent communities and indigenous peoples were given many promises of benefits and employment but got mainly harassment, restrictions on the land use that provides their livelihood and blame for being responsible for deforestation. While those practising traditional forest use, and who often defended the forest against outside destruction, were vilified, the real drivers of forest loss continued unabated, and so did emissions. This pattern has been documented in a large number of reports (see the [WRM website for a selection](#)).

That deforestation continues at alarming speed despite all the money and words spent on REDD should not come as a surprise. The focus of REDD on carbon has diverted attention away from the direct and underlying causes of deforestation – violation of forest peoples' tenure rights and customary land use, industrial agriculture and monoculture plantations, cattle ranching, commercial logging, extraction of minerals, gas and oil, large-scale infrastructure (1) and the associated

development model that relies on ever-growing consumption. At an international seminar on 'REDD+ Implementation and Sustainable Forest Management' in Tokyo, Japan, in early 2014, Donna Lee, the former lead negotiator on REDD for the USA mentioned the example of a country that *"spent over \$50 million to use fancy remote sensing techniques [...] to try to get very precise measurements of land-cover change; spending a lot of money on carbon assessments [...]. However, they did not really actually know what they were planning to do to actually reduce emissions [from deforestation]."* (2) In a major study on REDD, the Center for International Forestry Research, CIFOR, found that where REDD+ initiatives aim to reduce forest loss, they are *"encountering major challenges whose root causes lie outside their project boundaries"*. (3)

Some 16 years ago, many of the same governments now discussing REDD at the UN climate talks met at the Underlying Causes (of tropical deforestation) initiative supported by the UN's IPF, the Intergovernmental Panel on Forests. For this initiative, governments had already committed inter alia to *"prepare in-depth studies of the underlying causes at the national and international levels of deforestation and forest degradation and to analyse comprehensively the historical perspective of the causes of deforestation and forest degradation in the world, and other international underlying causes of deforestation and forest degradation, including transboundary economic forces."* (4) In proposal 29c of the IPF's Proposals for Action, on land tenure and benefit sharing, governments agreed to *"formulate policies aiming at securing land tenure for local communities and indigenous people, including policies, as appropriate, aimed at the fair and equitable sharing of the benefits of forests."* Many NGOs and governments prepared in-depth studies on the drivers of forest loss, though government policies aiming at securing land tenure for local communities and indigenous peoples rarely passed from word to action. In its report to the UN Commission on Sustainable Development in 2000, the Intergovernmental Forum on Forests (IFF) (5) presented the decisions taken at its fourth session. Based on the conclusions from a five-day global workshop in January 1999, hosted by the government of Costa Rica, on the Underlying Causes of Deforestation and Forest Degradation, paragraph 58 of the IFF report states that: *"To overcome major obstacles when addressing the underlying causes of deforestation and forest degradation, IFF stressed the importance of policy consistency inside and outside the forest sector. Furthermore, it emphasized the need for effective policy coordination for addressing underlying causes of deforestation, which are often interrelated and social and economic in character, and include poverty; lack of secure land tenure patterns; inadequate recognition of the rights and needs of forest-dependent indigenous and local communities within national laws and jurisdiction; inadequate cross-sectoral policies; undervaluation of forest products and services; lack of participation; lack of good governance; absence of a supportive economic climate that supports sustainable forest management; illegal trade; lack of capacity; lack of enabling environment, at both the national and international levels; and national policies that distort market and encourage forest lands conversion to other uses, including in low forest cover lands. It was further noted that the underlying causes of deforestation and forest degradation as well as the approaches to deal with them are often country specific and therefore vary among countries."* (6)

That the UN climate meetings have discussed REDD for more than five years now as if they were the first ever to have discovered that tackling deforestation requires looking at the drivers outside the forest demonstrates an astounding lack of institutional learning, or maybe even an inability to learn.

World Bank pioneers another false solution

True to its 'doing without learning' approach (the Bank claims to be 'learning by doing') and its 'pioneer role' in promoting false solutions to climate change, the World Bank, along with UN agencies

like FAO has begun floating yet another new concept – landscape REDD. Same idea as REDD, just bigger – and with the potential to do more harm. For a while, the expression used at the UN climate negotiations was REDD++, with the second + indicating that in addition to logging and industrial tree plantations, emissions from land use for agriculture and benefits for agribusiness would also be considered. References to agriculture and climate change increased, and FAO and others began to talk about 'climate-smart' agriculture (see article on 'climate-smart agriculture' in this bulletin and at [FAO's website](#)). The World Bank picked up the term, talking for example in relation to REDD+ finance about how "*Through higher yield production, climate resilient crops and increased carbon capture, Climate-Smart Agriculture can help the world produce the food it needs to prevent hunger.*" (7)

But the term REDD++ proved too abstract. "*For too many people, REDD is just an abstract financing tool. But landscapes – which include the fields and the farms, the ranchers and farmers – those are things that people can see. If we tell them that we're preserving the landscape, and that REDD is just one tool to help us pay for it, that they understand,*" Indonesian Deputy Minister at the time, HeruPrasetyo, stated in December 2013. In June 2012, the World Bank's vice president and special envoy for climate change, Rachel Kyte, already wrote about "*Landscape Approaches to Sustainable Development*", reporting on the Agriculture and Rural Development Day that took place during the Rio+20 conference – the same conference that replaced 'Sustainable Development' with the 'Green Economy' (see [WRM Bulletin 179](#)). Rachel Kyte quoted the then-CIFOR Director, Francis Seymour, who was also at the Agriculture and Rural Development Day: "*The landscape approach is a way that we can improve agricultural productivity and rural livelihoods while also addressing threats to forests, water and biodiversity.*" Chris Lang of REDD-Monitor also wrote about Seymour's statement: "*How to explain CIFOR's enthusiasm for "landscapes"? In March 2012, REDD-Monitor interviewed Seymour. In a wide-ranging interview, she didn't mention the word "landscape" once. When I asked her about the Forest Days (8) she didn't hint that a change might be in the pipeline. There are 59 posts on CIFOR's Forest News Blog that are filed under "landscapes". Obviously this is a subject that CIFOR considers to be important. But only two of the posts were written before June 2012 and Kyte's announcement that "we need to be coming to 'Landscape Days'".* As Donna Lee, former lead negotiator on REDD for the USA said at the international seminar mentioned above: "*We go through these flavors. I feel like now the flavor is sustainable landscapes. You hear about this a lot at the World Bank, amongst donors; everyone is talking about sustainable landscapes.*"

By 2013, the World Bank was not just talking up the 'landscape REDD' idea, but it had also been given the funding to advance landscape REDD on the ground. At that year's UN climate meeting in Warsaw, Poland, three countries - Norway, the United Kingdom, and the USA - together committed US\$280 million to the "BioCarbon Fund Initiative for Sustainable Forest Landscapes". The BioCarbon Fund is a public-private partnership, housed in the World Bank, "*that mobilizes finance for activities that sequester or conserve carbon emissions in forest and agricultural systems*". (9) Ecosystems Marketplace, an internet platform promoting trading in ecosystem services and a strong promoter of including forests into carbon markets, wrote from the UN climate meeting in Poland: "*You couldn't escape it if you attended year-end climate talks in Warsaw this year. After all, Indonesian Deputy Minister HeruPrasetyo talked about it incessantly, as did World Bank Vice President Rachel Kyte. Peter Holmgren, who heads the Center for International Forestry Research (CIFOR), built the two-day Global Landscapes Forum around it, and the United States, United Kingdom, and Norway launched the Initiative for Sustainable Forest Landscapes (ISFL) to make it a reality. Even official negotiators meeting under the auspices of the under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC) held a two-day workshop on it. The "it" is the "landscapes approach" to reducing greenhouse gas emissions from fields, farms, and forests.*" (10) Agriculture was on the way in, forests on the way out at the UN climate talks.

As with all such new flavours, this one required preparation. In an April 2012 document labelled "Brief Note for External Discussion", the government of the USA indicates its willingness to contribute to a fund with the objective to: *"Facilitate the implementation of national REDD+ strategies by developing the enabling environments necessary to source more sustainably-produced commodities at scale."* As 'expected results', the document mentions among others that *"The implementation of well-designed, large-scale integrated programs of this type should lead to the establishment of a better enabling environment for sourcing sustainably-produced commodities, improving conditions for farmers while facilitation the achievement of sustainability commitments made by companies."* The document contains an imaginary example of what action such a new funding mechanism might support (see box below). The last paragraph is particularly worth noting – perhaps even more so in conjunction with the article in this bulletin about the World Bank's push in Kenya for 'climate-smart agriculture', and when comparing the imaginary example with the approach that will be taken by the BioCarbon Fund Initiative for Sustainable Forest Landscapes.

Also in preparation for 'landscape REDD' in October 2013, the Government of Norway, through its International Climate and Forest Initiative, convened the REDD Exchange *"in order to facilitate learning and knowledge sharing on REDD+."* What would they be talking about in this exchange? *"In particular, the Exchange facilitated discussions on the landscape approach within the framework of REDD+, commodity supply chains relevant for REDD+, analysis concept and methodology development for REDD+ implementation, jurisdictional approaches, and finance."* (11)

Norway's development cooperation agency, NORAD, also financed a project called 'Reduced Emissions from All Land Use'. The project conducted a report in 2013 called 'Towards a Landscape Approach for Reducing Emissions', which documents lessons and experiences "*from exploratory work on landscape approaches towards emission reductions, the results of which aim to support actors in Reducing Emissions from Deforestation and Forest Degradation (REDD+), agriculture and climate smart landscapes.*" (12)



Landscape REDD and the Green Economy

"Increasing public and private investments in REDD+ would create productive, profitable, and sustainable landscapes that sequester and store more carbon and will enable enhanced delivery of environmental services – the heart of a Green Economy," writes UNEP's International Resource Panel Working Group on REDD+ and a Green Economy. (13)

Corporations whose demand for agricultural commodities causes massive greenhouse gas emissions from both forest loss and fossil fuel use – and is destroying peasant agriculture, their territories and health around the globe - are among the strongest promoters of the shift from REDD to landscape REDD and 'climate smart agriculture'. "*This is exactly the type of initiative that we are delighted to support. We need to find new forms of public-private partnership to address global challenges such as deforestation,*" the World Bank quotes Paul Polman, the chief executive officer of Anglo-Dutch multinational consumer goods company, Unilever, about the BioCarbon Fund Initiative for Sustainable Forest Landscapes.

Unilever has also teamed up with other corporate commodity food companies in the Consumer Goods Forum, "*a collaboration of 400 retailers, manufacturers, and service providers with combined annual sales of over US\$3 trillion*". Brazilian research institute IPAM cites Unilever as a prominent

private sector participant in a "consortium of organisations, commodity roundtables (*Roundtable on Responsible Soy, Bonsucro/sugar cane, Roundtable on Sustainable Palm Oil and more recently the Global Roundtable for Sustainable Beef*)". According to IPAM, the consortium "aims to build bridges between agricultural commodity roundtables and REDD+ financing," stating that "synergies between REDD+ and roundtable standards show that there is a potential for REDD+ to contribute to market transformation for agricultural commodities." (14) A 2014 publication by staunch carbon markets advocates Forest Trends elaborates that "a key ambition is to move from improving sustainability at the individual farm level to the landscape level to reduce costs and secure supply and, from a REDD+ perspective, to ensure that certification tools are associated with GHG mitigation outcomes." (15) (See [WRM's website on certification](#) for how this tool is used to help advance corporate expansion of industrial plantations at the cost of small scale farming and rural economies).

One topic is absent in all of these initiatives, however: the urgent need to reduce overconsumption and export-oriented industrial monoculture production of oil palm and other agricultural commodities that Unilever and other international food corporations trade internationally, with all the consequences for forests, forest peoples and the climate that this trade causes.

Rather than supporting small farmers whose agriculture feeds the world with less than a quarter of all farmland, (16) and calling for action to tackle the severe problems this corporate model of industrial agriculture and plantation forestry causes, the World Bank sees these corporations as its strong allies. "Engagement and support of the private sector therefore lies at the core of the new BioCarbon Fund initiative. In fact, corporations such as food and health products giant Unilever, Mondelez, and Bunge have been deeply involved from its inception, spearheading a new model of engagement," the World Bank writes. (17)

How closely REDD and the landscape approach are intertwined is also shown in a project carried out by the conservationist NGO, The Nature Conservancy (TNC), funded with a grant from the Government of Norway, and support from USAID, UK Prosperity Fund, Mafrig, Walmart, Cargill, the Amazon Fund, and the Ann Ray Charitable Trusts, under a programme titled 'Sustainable Landscapes in Brazil and Indonesia.' The São Félix do Xingu REDD+ Pilot Program in Brazil "is developing a model for sustainable, low-carbon development across more than 9 million hectares in the Amazon. This model helps to register all of the municipality's landowners to comply with Brazil's Forest Code, and assists ranchers to increase cattle production on their existing pasture land." (18)

And TNC is not the only NGO promoting landscape REDD in Brazil. "Corporate Practises linked to biodiversity are good business", writes Conservation International (CI) when they launched the 'TEEB for Business Brazil' report in March 2014. One of their partners in the project was Monsanto. The multinational agrochemical corporation has been aggressively promoting soya plantations, the use of pesticides and genetically engineered seeds and continues to cause controversy. According to Monsanto Brazil's Sustainability and Corporate Social Responsibility Manager, Daniela Mariuzzo, "This initiative is in line with Monsanto's mission of improving the daily live of farmers and support them in producing more and better, and in a sustainable way [...]" (19). CI's report is notable for its absence of references to the effective approach the government of Brazil used to reduce deforestation before REDD came along – law enforcement and strengthening enforcement agencies while linking access to agricultural credit to demonstration of compliance with the law. REDD and initiatives like 'TEEB for Business Brazil' have provided space for this approach to be swapped for a new flavour, one that is likely more to the taste of the corporate sectors that have thus far profited immensely from deforestation. That new trend aims to "transform environmental legislation into tradable instruments," as Pedro Moura Costa, founder of the Brazilian environmental stock exchange Bolsa Verde Rio de Janeiro, BVRio, and previously founder of carbon trading firm Ecoscurities,

explained when announcing the BVRio. (20)

Brazil's agricultural sector is preparing for the possible new revenue stream that they hope landscape REDD may provide. JBS, the world's largest beef processor; Grupo Andre Maggi, a top trader of soy and corn; Marfrig, a global processor of animal protein; and the local arm of food giant Bunge Ltd, have all entered a program to develop new guidelines to measure emissions from the agricultural sector. The benefits? *"The companies which adopt the Protocol's directives and tools for [greenhouse gas] accounting will have some competitive advantages. [...] To understand the operational risks and reputation risks; to identify opportunities to reduce emissions; [...] to anticipate to a potential carbon market"* Internationally, major commodity traders are already familiarising themselves with the carbon market, with multinational commodity firms Vitol, Bunge and Shell Trading active in the trading of carbon credits from the now largely dysfunctional Clean Development Mechanism. (21) Márcio Nappo, the Sustainability Director of JBS, is also making sure the focus of the debate over landscape REDD and 'climate-smart agriculture' will not be on the actual deforestation caused by expansion of the industrial agricultural frontier. He prefers to talk about 'solutions' – particularly the kind that allow his company to continue business-as-usual: *"The big discussions about carbon dioxide emissions will not be around transport and deforestation, but around soil management for agriculture."* His solution? Intensifying industrial scale agriculture: *"With the integration of Agriculture-Cattle-Forestry, we will produce meat and grains on the same property making the most of the land-use in a highly productive way and fulfilling the goals of the Forest Code"* (22)

Also in Brazil, a conference 'Scaling Up Sustainable Commodity Supply Chains', held in March 2014 at Iguazu Falls, brought together *"major corporations in the cattle and soy industries, policy makers, financial institutions, deforestation experts, and civil society organizations to identify challenges and discuss potential solutions to shift towards sustainable, low deforestation commodities."* The agenda suggests that they neither discussed how to reduce international agricultural commodities trade and instead enable food sovereignty through strengthening peasant agriculture and community rights to the land, nor how to halt expansion of tree and crop plantations, that continue to not only destroy forests but also livelihoods of those who depend on forests.

Some who were involved in REDD seem to be willing to taking a second look. *"On some ways we can do fancy models, but at the end of the day these local communities actually know what they need. It seems as though that is the starting point,"* Donna Lee commented at the Tokyo seminar mentioned earlier. That insight has evidently not reached the architects of landscape REDD at the World Bank's BioCarbon Fund and elsewhere. The landscape REDD idea they are putting into place will be applying the same model, be based on the same flawed analysis and thinking that has already been tried and been failing with REDD, has failed in the UN's IPF, then IFF, then UNFF since the late 1990s, and failed in the FAO and World Bank's Tropical Forestry Action Plan (TFAP) (23) before that. In 1990, Marcus Colchester and Larry Lohmann wrote about the TFAP that it was *"fatally flawed. Far from curbing forest loss, the Plan will accelerate deforestation."* Little change to the analysis from some 24 years back would be required to make it applicable to REDD, REDD+, and probably soon, landscape REDD.

The outcomes of landscape REDD will therefore likely not differ much from those of TFAP or REDD. The approach remains as top-down and condescending towards forest-dependent communities and collaborative with the corporate associations of the agriculture and logging sectors as the FAO and World Bank's failed Tropical Forestry Action Plan in the 1980s. Deforestation and the related emissions will continue, and in the process will cause a lot of harm by vilifying forest-dependent communities and those who provide the staple foods that feed the world – small scale farmers.

The result for small scale farmers? Likely the same as for forest-dependent communities and swidden cultivation under REDD: promises of benefits that will turn into even more precarious conditions of production and vilifying of peasant farming while the large agroindustry corporations pass the blame down the supply chain and their biotechnology partners offer genetically engineered (GE) seeds suited for 'climate-smart' no-till farming (see article in this bulletin on 'climate-smart' agriculture).

And the consequences may be felt on land use policies more broadly, as the case of the Forest Code in Brazil showed. Gerson Teixeira, the former president of the Brazilian Association for Agrarian Reform, warned that the introduction of tradable forest restoration credits as were introduced with the revised 2012 Forest Code would pose a great risk to Agrarian Reform in Brazil. The historical instrument of Agrarian Reform has been the expropriation of *latifúndios* that could be shown to be unproductive and thus not fulfilling the constitutionally required social function of the land. The introduction of tradable forest restoration credits created an instrument that could shield owners of *latifúndios* from expropriation for social purposes because these credits would transform unproductive estates into carbon factories and repositories of environmental reserves. This in turn would allow land owners to claim that the land is fulfilling the constitutionally required productive function. *“The possibility to buy carbon credits will turn unproductive latifundia in “carbon factories.”* (24) *Landscape REDD and 'climate-smart' agriculture may well further undermine Brazil's Agrarian Reform process - already under intense pressure from agribusiness interests - in those areas where the Forest Code does not apply, in the REDD landscape outside forests.*

The problems are clear, the solutions exist ...and they are very different from the World Bank's Landscape REDD concept

“Turning our farmers' fields into carbon sinks – the rights to which can be sold on the carbon market – will only lead us further away from what we see as the real solution: food sovereignty. The carbon in our farms is not for sale!” La Vía Campesina wrote when governments and corporate lobbyists met in Warsaw, Poland to discuss landscape REDD and 'climate –smart agriculture'. (25) They pointed out that while agriculture is a major contributor to climate change, not everybody growing crops shares the same responsibility for the emissions. It is the industrial food system – with its heavy use of chemical inputs, the soil erosion and deforestation that accompanies monoculture plantation farming, and the emphasis on production for export markets – which is the main source of greenhouse gas emissions (26), not shifting cultivation and peasant farming (see WRM bulletin article). By contrast, peasant farming and agroecology, with a focus on food sovereignty are already proving that it is possible to grow food to 'feed the world', and do so producing far fewer emissions than the industrial model of agricultural production of crops for export markets. Pat Mooney of ETC Group sums up why landscape REDD and climate-smart agriculture have little to offer and bear great risks for peasant farming: “For the world's small farmers, there is nothing smart about this. It is just another way to push corporate controlled technologies into their fields and rob them of their land.”

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Notes:

(1) See World Rainforest Movement Bulletin 203 of June 2014 for more detail on the role of infrastructure in forest destruction. <http://wrm.org.uy>

(2) <http://www.ffpri.affrc.go.jp/redd-rdc/en/seminars/reports/2014/02/06/01.html#programnew>

(3) W. Sunderlin et al. (2014): The Challenge of Establishing REDD+ on the Ground: Insights from 23 Subnational Initiatives in Six Countries. <http://www.cifor.org/library/4491/the-challenge-of-establishing->

redd-on-the-ground-insights-from-23-subnational-initiatives-in-six-countries/

(4) IPF proposals for action, Proposal 27a and b, see <http://wrm.org.uy/oldsite/deforestation/UC.html>

(5) The IPF had in the meantime been renamed into Intergovernmental Forum on Forests (IFF), and would later change name to UN Forum on Forests, UNFF. Its effect on tackling forest loss remains elusive, as the continued loss of large areas of forests across the globe demonstrates.

(6) Report of the Intergovernmental Forum on Forests on its Fourth Session (E/CN.17/2000/14). <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N00/351/79/PDF/N0035179.pdf?OpenElement>

(7) <http://www.worldbank.org/climatechange>

(8) Since 2007, CIFOR has been organising an annual meeting called 'Forest Days' on the weekend between the 2-week UN climate meetings. In 2013, these 'Forest Days' were renamed 'Landscape Days' by the new CIFOR director Peter Holmgren, formerly at the FAO.

(9) <http://www.worldbank.org/en/news/feature/2013/11/20/biocarbon-fund-initiative-promote-sustainable-forest-landscapes>

(10) <http://www.landscapes.org/can-unfccc-accommodate-landscapes-views-warsaw/#.U8rjFmSwf0>

(11) <http://climate-l.iisd.org/news/redd-exchange-discusses-landscape-approach-highlights-norways-engagement/>

(12) <http://www.asb.cgiar.org/report/towards-landscape-approach-reducing-emissions-substantive-report-reducing-emissions-all-ian-0>

(13) UNEP (2014): Building Natural Capital: How REDD+ can Support a Green Economy, Report of the International Resource Panel, United Nations Environment Programme

www.ecoagriculture.org/~ecoagric/documents/files/doc_577.pdf

(14) Amazon Environmental Research Institute (IPAM) (2013): Financing of improved agricultural production can reduce forest losses. Draft. www.norad.no/en/support/climate...forest-initiative.../407556?

(15) R. Edwards et al. (2014): Jurisdictional REDD+ Bonds: Leveraging Private Finance for Forest Protection, Development, and Sustainable Agriculture Supply Chains.

(16) GRAIN (2014): Hungry for land: small farmers feed the world with less than a quarter of all farmland. <http://www.grain.org/article/entries/4929>

(17) <http://www.worldbank.org/en/news/feature/2013/11/20/biocarbon-fund-initiative-promote-sustainable-forest-landscapes>

(18) <http://www.nature.org/ourinitiatives/urgentissues/global-warming-climate-change/how-we-work/brazil-redd-fact-sheet-final.pdf>

(19) <http://www.institutocarbonobrasil.org.br/agricultura1/noticia=736719>

(20) See 'Trade in Ecosystem Services. When payment for environmental services delivers a permit to destroy' for detail on the BVRio and the trading of forest restoration credits as alternative to restoring forest on one's own property under the revised Brazilian Forest Code of 2012. <http://wrm.org.uy/books-and-briefings/trade-in-ecosystem-services-when-payment-for-environmental-services-delivers-a-permit-to-destroy/>

(21) <http://af.reuters.com/article/commoditiesNews/idAFL6N0PK3J020140709?pageNumber=1&virtualBrandChannel=0>

(22) <http://www.reuters.com/article/2014/05/29/carbon-agriculture-brazil-idUSL6N0OF3GK20140529>

(23) Marcus Colchester and Larry Lohmann (1990): The Tropical Forestry Action Plan: What Progress?

(24) Gerson Teixeira (2012): Latifúndios improdutivos viraram fábricas de carbono.

<http://www.mst.org.br/Gerson-Teixeira-latifundios-improdutivos-viraram-fabricas-de-carbono>

(25) Climate Summit: don't turn farmers into 'climate smart' carbon traders! <http://www.grain.org/article/entries/4811-climate-summit-don-t-turn-farmers-into-climate-smart-carbon-traders>

(26) See among others, GRAIN (2009): The international food system and the climate crisis. <http://www.grain.org/article/entries/734-the-international-food-system-and-the-climate-crisis>

