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Photo: Anne Petermann/Global Justice Ecology Project



Land, Forests *and* Hot Air

For a comprehensive, holistic, rights based approach to land-use

Introduction

The coming weeks will be shaped with intense negotiations to elaborate a legally binding agreement on concrete greenhouse gas emission reductions before the 21st Conference of the Parties of the UN Framework Convention on Climate Change (UNFCCC COP21), which will take place early December in Paris. Yet some of the proposals that have been put on the table will make any future Climate Agreement meaningless, as they would allow the use of significant amounts of false or fraudulent carbon credits.

One of the most dangerous proposals concerns the inclusion of land use related emissions and emission reductions. Especially if combined with a market mechanism, flawed accounting approaches for land use related emissions might create significant amounts of hot air that will dramatically undermine the effectiveness and environmental integrity of any agreement.

Land: carbon sink or territory, home, source of livelihood and food

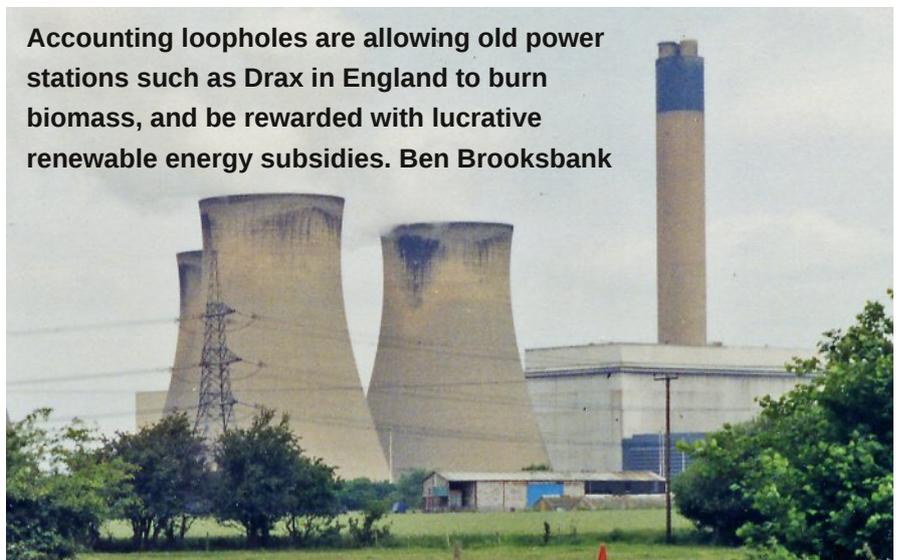
Under the UNFCCC, emissions are categorized in sectors according to the sector they occur, e.g. energy or agriculture. The land sector is unique in its character and has to be handled with caution. In contrast to other sectors, not only emissions but also removals, in the form of vegetation or soils, which take up CO₂ acting as sinks, have to be taken into account. Climate change effects such as droughts, floods or wildfires can be relatively large on the overall emissions.

Currently, there are debates around a comprehensive inclusion of land-use in the framework due to its supposedly large potential to reduce (at least on paper) GHG at relatively low costs. The European Union, for instance, recently consulted stakeholders and experts on addressing GHG emissions from land use in the EU 2030 Climate and Energy Framework. [1] So far, the UNFCCC treats emissions related to land use as a separate pillar where, compared to other sectors, different reporting and accounting rules apply. It is worth

mentioning that there is a distinctive difference between reporting and accounting. While reporting means reporting the actual emissions without comparing them to any reference level, accounting requires comparing the actual emissions to a baseline which is the assigned amount of GHG a party has agreed upon. Under the UNFCCC only reporting is required while under the Kyoto Protocol also accounting is applied.

In addition to the complex nature of the sector, various accounting methods bring even more confusion in the affair, which leads to a quite high level of uncertainty when it comes to accounting emissions and reductions from land use. The proposal for carbon accounting in the land-use sector opens a new door for polluters to use accounting loopholes to escape their historical responsibility to immediately and deeply cut emissions at source.

Accounting loopholes are allowing old power stations such as Drax in England to burn biomass, and be rewarded with lucrative renewable energy subsidies. Ben Brooksbank



Reporting and accounting under the UNFCCC and Kyoto Protocol

Reporting under the UNFCCC and Kyoto Protocol

With regard to reporting emissions and removals from the land-use sector, there is a variety of requirements for the parties under the Convention. As for any other sector under the UNFCCC, a land-based approach is used. Territory is categorized under 6 categories where emissions are reported by sources and reductions by sinks. Under the UNFCCC, land use is categorized under land use, land use change and forestry (LULUCF). [2] Reporting requirements are different for Annex I and non-Annex I countries in terms of scope and frequency. [3]

The UNFCCC provides some additional mechanisms to mitigate GHG. With REDD+ (Reduction of Emissions from Forests and Forest Degradation), the UNFCCC introduced a mechanism to reduce GHG from deforestation on a voluntary basis where developing countries are getting financial revenues if they apply REDD+ rules to forests areas in their countries. In addition, the Clean Development Mechanism (CDM) is a flexible mechanism under the Kyoto Protocol which provides Annex I countries with the opportunity to reach their emission reduction targets by

implementing so-called clean development activities in developing countries. However, so far, only very few CDM projects in regard to LULUCF activities have been registered. This is mainly due to complex rules for applicants, registration fees and difficulties in monitoring.

Accounting under the UNFCCC and Kyoto Protocol

Under the Kyoto Protocol, an activity based approach is applied which is focused on human-induced emissions. [4] In practice that means that only emissions from managed land are being reported and accounted. Parties who ratified the Kyoto Protocol have requirements to report and account emissions and removals from LULUCF. However, due to the complex nature of the sector and some resistance of single parties, flexible rules regarding the accounting methods of the sector have been agreed upon.

Accounting of LULUCF emissions under the protocol is based on two

paragraphs. Article 3.3 describes activities in regard to afforestation, reforestation and deforestation. Reporting on these activities is mandatory for Annex I parties who ratified the Protocol. To account for these emissions, a gross-net approach is applied. That means that the emissions of a party from the mentioned activities in a given year are compared to an assigned amount of GHG a party agreed upon. In case the assigned amount is higher than the net emissions, the party books the saved emissions as credits. In case it is lower, debts are booked. Article 3.4 describes additional agricultural and LULUCF

activities including forest management, cropland management, grazing land management, and revegetation. Accounting emissions from these activities can be elected by the parties voluntarily. However, if an activity has been chosen in the first commitment period it becomes mandatory in the second period. Activities under this paragraph are accounted (if elected) with a net-net accounting system. This means that the net emissions are compared to the emissions of a reference year (usually 1990). If a party's activities emits (or removes) 10 million tonnes of CO₂ in the reference year, the

emissions from year X are compared to this amount. The surplus or shortage is booked as credits or debts.

For forest management, different accounting rules apply than for other activities under paragraph 3.4. In the first period, a gross-net accounting approach was applied in combination with a safety cap. The cap acts as a sort of safety net for parties and is applied if the emissions or removals of a party exceeds the previous negotiated cap by more than 3%. Looking back at this period, it shows that the

assigned removals were set far too low and almost all parties exceeded the cap which resulted in large amounts of surplus credits for most parties. A part of these surplus credits could be used to offset debits from activities under paragraph 3.3. Reporting on activities from forest management became mandatory in the second commitment period. To fill the gap of the cap, in the second commitment period activities from forest management are accounted for based on so-called Forest Management Reference Levels (FMRLs). This is done by using 'projected reference levels' which

are proposed quantified amounts of emissions over a longer time period which are compared to the actual net emissions and removals.

Practically, this means that parties can account their activities from Forest Management on expected activities which are supposed to happen in the future, an approach which leaves vast space for loopholes and to continue polluting without giving incentives for reducing emissions.

Ecosystems play a key role in hydrological cycles and local weather patterns. This role tends to be disregarded in carbon accounting methodologies for land use change, while its impacts can be dramatic, especially at the local and regional level. Peasant and small family farmers are already facing the devastating consequences of climatic extremes. Moreover, if the contribution of lands and ecosystems to climate change mitigation and adaptation are calculated on basis of their carbon value only, the most important values and benefits of agriculture, forest conservation and ecosystems in general, including social, environmental and food sovereignty, will at best be classified as "co-benefits" of climate mitigation. Discussions around land-use in the climate mitigation may revolve on technical terms such as mitigation, carbon sinks and adaptation. Treating the issue of land-use as a sector to account under a carbon accounting framework, completely

overlooks the need for a holistic rights based approach to land use. More importantly, treating the whole land-use sector simply with the lens of accounting and possibly markets poses the threat that carbon accounting will determine agricultural policy, prioritizing carbon sequestration rather than putting at the forefront the people's right to food, nutrition, and their food sovereignty.

As these "co-benefits" will not be rewarded financially, a perverse incentive will be created to ignore

them, despite some of the voluntary safeguards that have been created. As a result, many of the proposed land use related options to mitigate climate change will cause significant negative social and environmental impacts, varying from biodiversity loss to hunger, land grabbing and other serious human rights violations. There have been cases of displacement of entire communities to make way for plantations for timber, pulp and paper and bioenergy under carbon trading schemes.



Pine and eucalyptus plantations in Bukaleba, Uganda, have resulted in forest destruction and the loss of community lands. CarbonViolence.org

Fraudulent approaches to Mitigation in the Land Use Sector

The adoption of the Kyoto Protocol has shown that Annex 1 countries did not comply with their legal commitment to cut emissions by at least 5 percent below 1990 levels in the commitment period 2008-2012. The Kyoto Protocol flexibility mechanism also allowed Annex 1 countries to “offset” their emissions by doing “clean development” projects in developing countries or by buying and selling their carbon credits. While the carbon accounting framework of the UNFCCC is questionable in itself, this applies especially for the idea to include the land use sector in it.

While reporting methodologies have improved over the years, the impact of different forms of land-use on climate change can still not be properly measured. Not only is it highly complicated and disproportionately expensive (it is estimated up to 75% of current REDD+ funding is spent on MRV) to properly measure land use related greenhouse gas emissions and emission reductions, divergent reporting and accounting rules under the climate framework bring more confusion in the affair.

Per definition, there are massive problems with in-country and cross-border leakage with any initiative in the land use sector. This problem has been acknowledged in the REDD+ discussions, yet it has remained unaddressed. There are no effective existing methodologies to comprehensively account of indirect land use change and leakage in general.

Existing accounting methodologies for forestry often use “projected reference levels’ which means that countries can pretend they were planning to cause significant emissions through their forestry, agricultural or other land use activities, and count for the emission reductions in comparison with that increased ‘business as usual’ scenario. As a result, countries could significantly increase their emissions and still claim carbon credits for ‘relative reductions’.

As a recent briefing note by FERN and Third World Network concludes, if REDD+ credits would be included in carbon offset schemes there is a significant risk of double-counting, that is, emission reduction credits could be counted by the country where the reductions take place as well as the country that directly or indirectly purchases these credits.

Bioenergy, which is a major direct and indirect cause of forest and ecosystems loss, is still treated as a ‘carbon neutral’ form of renewable energy, despite the fact that regrowth of biomass can never be guaranteed, and even if it does happen it normally requires between a few months for agricultural crops to up to 450 years for woody biomass to grow back. Most wood-based biomass requires between 26 and 450 years to grow back. Simply said, for every tree burnt in 2015, the climate only starts feeling a positive effect in 2041 or later, if ever. This is a time lapse the urgency of the climate crisis simply cannot afford,

which is why **bioenergy should not be classified as renewable nor counted as carbon neutral or what they call net zero**. In addition, this classification leads to massive amounts of deforestation and land grabbing, especially in developing countries, while the sustainability factor of wood which is harvested far away and then shipped to the place of utilization (burning) is very questionable.

These accounting problems are aggravated by proposals to strive for so-called “net zero emissions”. Such proposals aim to compensate greenhouse gas emissions from the energy and transport sectors with very questionable assumptions on carbon sequestration through sinks and so-called Bioenergy and Carbon Capture and Sequestration, which will lead to massive land grabbing and significant negative environmental and social impacts in general.

In the worst case scenario, the proposal to include land use in a future climate agreement is combined with the proposal to allow carbon trading, which means these hot air credits could be freely traded with other carbon credits. This would render any future climate agreement meaningless.

The Hot Air Fairy Tale of EU Renewables

In March 2015 the EU announced its plans to make to a joint global commitment to mitigate climate change, called the 'Intended National Determined Contributions' (INDC). While the EU claims to aim for a 40% reduction in greenhouse gas emissions by 2030 (compared to 1990), this commitment is based on continuing to treat bioenergy as a 'carbon neutral' renewable energy source. Moreover, this percentage includes Land Use, Land Use Change and Forestry (LULUCF) and as described above, accounting methodologies for LULUCF are deeply flawed. Finally, if the EU develops a net zero emissions policy that includes bioenergy as a renewable source, this could compound the problem by enabling Europe to claim bioenergy as means to counterbalance continued or even increased emissions from fossil fuel.

The high land intensity of bioenergy makes it a prime driver of biodiversity loss and a justification for land-grabbing and the neglect of communities' rights to land, food and water. These problems are all related to the scale of bioenergy production and can therefore not be countered by applying so-called sustainability standards. Standards only apply for a specific load of biomass or biofuel, but do not limit expansion as such. Therefore, standards cannot assure sustainability when the very scale is unsustainable. On the contrary, they may lead to increased expansion if the public, through the standards, is persuaded to think that the consumption is sustainable.

A number of rural communities have found ways to sustainably use local biomass to meet limited local energy needs. However, this is incompatible with including it in renewable energy policies, where scaling up is the primary objective. Renewable energy subsidies and support schemes cannot 'discriminate' in favour of local biomass used to meet local needs, since they are commonly 'demand-side' subsidies and therefore subject to trade liberalisation rules set out by the World Trade Organisation and bi- and multilateral trade agreements.

A recent working paper by the Chatham House concluded that of 38 Annex 1 countries analyzed, 14 do not account for wood-based bioenergy related emissions at all, and 24 use accounting

methodologies that partially hide the emissions. Meanwhile, their emissions from biomass burning have increased from 550 MtCO₂ to 885 MtCO₂ between 1990 and 2012, or 5% of their economy wide reductions.



The village of Mundé in Brazil has been surrounded by eucalyptus plantations, planted for bioenergy. Ivonete Gonçalves de Souza

Conclusions

The 2030 Agenda and its Sustainable Development Goals include a very clearcut target to halt deforestation by 2020. They also include goals and targets to promote sustainable agriculture and land use in general, and to reduce land degradation.

The LULUCF regime, however, fails to include adequate rules and social and environmental measures in its current accounting system. Peasant agroecology and sustainable agriculture, the conservation and restoration of forests and other ecosystems and sustainable land use in general provide a broad range of values and benefits, especially for indigenous peoples, local communities and women who depend on these lands for their lives and livelihoods. Their rights, role, needs and aspirations should form the absolute priority for any land use related policies and agreements.

What is necessary is a holistic approach to sustainable agriculture and land use that is based on the Sustainable Development Goals, the work on the UN Committee on Food Security, and its voluntary guidelines on responsible governance of land tenure, fishing and forests, the Convention on Biodiversity and the Convention to Combat Desertification. The values of the communities are reflected in key documents such as the Nyeleni Declaration on Food Sovereignty. Climate change resilience should be an integral and important goal of such practices.

The customary practices of Indigenous peoples, local communities and women, and their traditional knowledge, do not only contribute to biodiversity conservation and restoration, they also form a cornerstone for ecosystem-based climate resilience. These practices almost always have

very significant climate mitigation co-benefits. However, the quantification of the climate mitigation co-benefits of sustainable land use, especially through carbon accounting methodologies as part of a legally binding greenhouse gas emission framework, will open the door to fraudulent methodologies and practices blowing massive amounts of hot air into a potential future Climate Agreement.

The costs of properly monitoring, reporting and verification will be exceptionally high, especially in developing countries, and take away precious resources from real action on sustainable land use. Most importantly, such approaches will almost always lead to elite resource capture, green land grabbing and the expansion of environmentally and socially destructive monoculture plantations.



Campesino communities in Minga Pora, Paraguay, practice peasant agroecology, but their livelihoods are under serious threat from landgrabbing. Oliver Munnion

Recommendations

If there is to be a real and meaningful Climate Agreement:

There should be a clear rejection of the carbon accounting framework that has allowed for massive cheating in both the land use and other sectors, and has allowed developed countries to escaping from the historical accountability to cut deeply their emissions at source.

There should also be a clear rejection of REDD+, CDM and other supposedly clean development projects that displace communities and replace old, native, biodiverse ecosystems and forests with monoculture tree plantations.

Bioenergy should not be labeled as renewable. Burning wood or other biomass is not renewable and is not carbon neutral.

Accounting loopholes combined with proposed market mechanism around the land-use sector pose a great threat to peasants, small farmers, women, communities and Indigenous Peoples as they cast aside their right to food, territory and food sovereignty.

Specifically on land-use, governments should:

1. Develop holistic, rights-based approaches to sustainable land use based on the Sustainable Development Goals, the CBD Aichi Targets, the UN Declaration on the Rights of Indigenous Peoples, the CFS Voluntary Guidelines on Land Tenure and other existing international agreements that contribute significantly to climate change resilience and mitigation, as well as food sovereignty, biodiversity conservation and eliminating land degradation. They should also look to key peoples proposals that reflect the communities aspirations such as the Nyeleni Declaration on Food Sovereignty and others.
2. Report on their sustainable land use policies and projects, their contribution to climate change resilience and mitigation as well as other social, cultural and environmental impacts to the UN Framework Convention on Climate Change. Emissions from land use should be reported but must not be included in any market mechanism or accounting mechanism. Land must definitely not be used in so-called net emission calculations.
3. Foremost in these efforts should be the respect and support to peasants, small farmers, women, communities and their right to food, territory, knowledge, culture, aspirations and food sovereignty. Policies around land-use must not be at the expense and burden of communities, forests, ecosystems and biodiversity.
4. Refrain from subsidizing or otherwise incentivizing forms of land use that have significant negative social, cultural and environmental impacts, including in particular large-scale industrial bioenergy, unsustainable livestock production and other forms of industrial agriculture.

References

[1] http://ec.europa.eu/clima/consultations/articles/0026_en.htm

[2] Under the UNFCCC, land use and agriculture is merged into agriculture, forests and other land use (AFOLU). However, when it comes to reporting LULUCF and agriculture emissions are still reported separately.

[3] Annex I countries have to submit national inventory reports (NIR) on an annual basis, biennial reports and national communication on a 4-year periodic circle. Non-Annex I countries are encouraged to submit periodic communications reports and biennial update reports. The IPCC developed a variety of good practice guidelines and a common reporting format (CRF) is used to provide reporting in a comprehensive and comparable manner.

[4] In 2003, the IPCC stated that due to scientific uncertainties anthropogenic effects cannot be separated from natural effects and indirect effect, the UNFCCC introduced a managed land proxy whereas all emissions and removals from managed land is seen as human-induced.