Comprehensive land-use planning: A rights-based approach

Discussion paper for addressing the land sector under the ADP

Forest loss and land use change play a significant role in climate change, contributing around one quarter of global greenhouse gas emissions. In UNFCCC discussions so far, the role of forests in mitigation has been developed first through land use, land use change and forestry (LULUCF) for developed countries, and then through reduced emissions from deforestation and degradation (REDD+) for developing countries. There is also a limited role for LULUCF activities for developing countries in the clean development mechanism (CDM). Discussions on the role of agriculture in mitigation have been limited, with food security concerns prominent.

The land sector is unique in climate mitigation as it is the only sector where both emissions and removals occur. Emissions and removals of terrestrial carbon occur on different time scales than fossil carbon sequestration (which happens over millions of years). This means that terrestrial carbon and carbon from fossil fuel use are not the same – because of the time scales involved, emissions from fossil carbon can be considered permanent, while sequestration of emissions in the land sector (forests and soils) is only temporary.

The central role played by the land sector in providing for the food and livelihood security of peoples, communities, and countries means that mitigation policies must ensure food security and sovereignty measures, biodiversity protection including wetlands, and ensure rights and other social and environmental standards and safeguards. Any mitigation measures for the land sector must not be used as an excuse to derail or delay the implementation of agrarian reform.

Mitigation activities in the land use sector must be conducted in a way of not impacting biodiversity (eg: of natural forests or other landscapes) in order to make sure that the UNFCCC does not jeopardize the objectives of other Rio Conventions (CBD and UNCCD). Their targets - biodiversity conservation and combatting desertification - must be strengthened by climate mitigation activities.

Addressing all of these unique attributes of the land sector requires a comprehensive approach to land-use planning, which is not focused solely on mitigation action, but on establishing a broad framework for the development and support of policies and measures to enhance and protect land-sector resources and the wealth of benefits derived from those resources.

For a full list of organizations, networks and movements supporting this discussion paper, see back page.

Key principles for mitigation action

Actions to reduce emissions in the land-use sector, whether carried out in developed or developing countries, must take account of three fundamental principles to ensure that mitigation action is ambitious and equitable; supports food security and sovereignty, sustainable livelihoods, biodiversity conservation and poverty alleviation; and promotes the broad participation of civil society, indigenous peoples and local communities.

• **Ambition:** mitigation in the land use sector should not be used to displace or reduce mitigation in other sectors. Sequestration of carbon in land cannot compensate for continued fossil fuel emissions - fossil fuel emissions are permanent, whereas carbon sequestration in forests and soils is well documented in scientific research to be temporary. Emission removals and reduced emissions in the land sector should be considered additional and separately to industrial emission reductions.

• **Food security and equity:** in line with the ultimate objective of the climate convention (Article 2), *to ensure that food production is not threatened*, developing countries must prioritize food security and sovereignty, and the security and sustainability of smallholder livelihoods, which support up to 80% of people in developing countries.[i] Food security in developing countries must be safeguarded through a base level of permitted emissions. In the poorest countries, such as LDCs, ensuring food security may mean increasing emissions in the agriculture sector, both per capita and in aggregate, subject to safeguards to guard against land use change and detrimental impacts.

• **Rights:** tenure, usage and access rights of indigenous peoples, local communities, forest-dependent peoples, smallholder farmers and landless farmers must be legally enforced in all actions taken at local and national level to implement mitigation and adaptation policies in the land sector. Agreements under the ADP must be clear to affirm the rights of landholders, local communities and indigenous peoples, including the right to free, prior and informed consent (FPIC).

Reporting and accounting land sector emissions

Currently, all countries ***report*** on emissions from the land-use sector under the UNFCCC, while developed countries are additionally required to ***account*** for selected land-use emissions and removals under the Kyoto Protocol. Reporting and accounting differ in that reporting can be understood as accumulating data and providing information, while accounting involves comparing reported quantities ***against a target***.

Accounting for land sector emissions under a "common accounting framework" (encompassing all land use uses and all countries), risks creating new loopholes and obscuring emission reductions. Complex accounting rules for the land sector under the Kyoto Protocol have created loopholes which allow developed countries to hide emissions from land use, allowing increased emissions in other sectors.

There are two key issues that arise when accounting (as opposed to reporting) land-use emisisons: the ***need for transparency***, and the ***barriers to comparability*** between emission reductions from land use and other (industrial) sectors.

Need for transparency:

• Transparency in emissions data from the land sector is essential to build trust in the integrity and fairness of the reporting system. Current LULUCF accounting rules under the Kyoto Protocol are overly and needlessly complex. Monitoring land-use emissions may involve a range of approaches that should be based on the principles of **simplicity** to increase transparency and **adequacy** to incentivize low-emission land-use practices.

• Using business-as-usual (BAU) baselines, determined by each Party and from which emission reductions are calculated, increases complexity and does not deliver reliable mitigation numbers.[ii] Other reporting and accounting methods, such as land-use change, hectares of forest maintained or increased, land area under agro-ecological management and emissions intensity targets should be considered instead of BAU baselines.

• Current reporting for land sector emissions under the Convention should be maintained in a new climate agreement. LULUCF rules under the Kyoto Protocol are complex and can reduce mitigation ambition. They should not be continued under a new climate agreement in their current format.

Barriers to comparability:

• Emissions from burning fossil fuels and terrestrial carbon pools are fundamentally different and hence non-comparable (i.e., fungible for accounting purposes) with emissions from other sectors.[iii] In order to incentivize ambitious emission reductions across all sectors, arrangements such as separate targets for industrial and land-use emissions, additional targets for land-use emissions, or policy-based measures to reduce land-use emissions should be considered at the international level.

• The land sector is the most difficult sector in which to estimate emissions - uncertainties of 50% are not uncommon when measuring changes in emissions from reduced deforestation.[iv] Using more direct indicators than emission reductions avoids the problems raised by uncertainty, i.e, reporting hectares of forest lost/maintained or reporting land-use change to estimate emission reductions.[v]

• The mitigation potential of the land sector is often significantly overstated, particularly in relation to soil carbon sequestration. Various studies have found soil carbon sequestration to be technically and economically unfeasible, and point to a variety of factors that contribute to the volatile and hence temporary nature of carbon sequestered.[vi] Better soil management should be incentivized as an adaptation, rather than a mitigation, measure.

Policy recommendations:

Incentivizing emission reductions from land use will require a range of measures and approaches – many of which are non-quantifiable. Developing countries with significant land-use emissions could employ a range of approaches such as commitments based on policies and measures and other qualitative approaches, which can be characterized as comprehensive land-use planning.

Forests

• Good forest governance and addressing tenure rights are the first steps to tackling deforestation and forest degradation. Comprehensive land-use planning should include indicators for improvements in forest governance and recognizing tenure rights.[vii]

• The drivers to deforestation emanate from global commodity chains in forest products, as well as land clearing for agriculture. Reporting on international as well as national drivers to deforestation is required to increase understanding and effective intervention.

• Comprehensive policy approaches will be needed to tackle conversion of forests to agricultural land, and incentives should focus on enabling such reform.

Agriculture

• Ensuring food security and sovereignty is a fundamental responsibility of all countries. The specific needs and special circumstances of developing countries with regard to ensuring food security should be given full consideration in discussions of mitigation in agriculture.

• Mitigation efforts in agriculture should focus on the main emissions from the sector (methane and nitrous oxide).[viii] Mitigation options in the agriculture sector should, as a priority, include addressing high national per capita meat consumption ,and the production and use of synthetic nitrogen fertilizers in developed countries and industrial agriculture systems.[ix] Emission reductions from actions to implement these options would be permanent.

• A range of agricultural practices that enhance soil health, in particular agro-ecological practices, can reverse soil degradation, increase water-holding capacity, and increase carbon sequestered in soils. These practices should be supported for reasons of food security and associated adaptation benefits. Emission reductions from these actions would be temporary due to the short-term nature of soil carbon sequestration, and therefore do not have a mitigation value.

Conclusion

There is an urgent need for ***comprehensive land-use planning*** in order to effectively address emissions from the land-use sector. Whether emissions from forests and agriculture are reported together or separately, there is interplay between land-use changes, such as agricultural expansion driving deforestation. Therefore, a global climate agreement must support and strengthen sustainable and low-emission land-use decisions, and good governance at all levels of land use management.
A comprehensive land-use planning approach under the ADP could enhance ambitious mitigation across all sectors, while protecting ecosystem health and rights to land, livelihoods and food-security.

Organizations, networks and movements supporting this discussion paper:

International

CARE International
Oxfam International
Centre for International Environmental Law
Environmental Investigation Agency (EIA)
Ecumenical Advocacy Alliance (EAA)
FERN
Forest peoples programme (FPP)
Global Forest Coalition
Greenpeace International
Institute for Agriculture and Trade Policy (IATP)
LDC Watch
IWGIA (International Work Group for Indigenous Affairs)
StandUpForYourRights
Rainforest Action Network
[Earth]

Regional/National

Africa Forum for Alternatives, Senegal
Africa Youth for Peace and Development
All Nepal Peasants Federation
Indigenous Peoples Alliance of the Archipelago
(aliasing masyarakat adat nusantara) AMAN
ARA, Germany
Association Nigerienne des Scouts de l'Environnement
(ANSEN), Niger
Bangladesh Kishani Sabha
Bangladesh Krishok Federation
Bangladesh Adivasi Samity
Brot für die Welt
Community Empowerment for Progress Organization-CEPO,
South Sudan-Juba
EquityBd, Bangladesh
Forests of the World, Denmark
Friends of the Earth England, Wales and Northern Ireland
(FOE EWNI)
Friends of the Earth, Japan
Friends of the Siberian Forests, Russia
The Foundation for GAIA, UK
Association for Community-Based and Ecological Law Reform
(HuMa)
Jubilee South - Asia/Pacific Movement on Debt and Development
Makabayan Pilipinas, Philippines
National Peasants Coalition, Nepal
NGO Coalition for the Environment, Nigeria
Pakistan Fisherfolk Forum
Pan African Climate Justice Alliance
The Planetary Association for Clean Energy, Canada
Pro REGENWALD, Germany
Rural Reconstruction Nepal
Sanlakas, Philippines
South Asian Alliance for Poverty Eradication
South Asia Peasants Coalition
Southern and Eastern African Trade Information and Negotiations
Institute (SEATINI), Uganda
SONIA, Italy
Timberwatch Coalition, South Africa
Urgewald, Germany
Federation of Community Forestry Users Nepal (FECOFUN), Nepal
Climate Justice Programme, Australia
EcoNexus, UK
Rainforest Foundation Norway

NOTES

[i] See GRAIN. 2014. Hungry for land: small farmers feed the world with less than a quarter of all farmland. www.grain.org

[ii] Karsenty, A. 2009. What the (carbon) market cannot do. Perspective No 1, CIRAD. Paris, France

[iii] Mackey, B., et al. 2013. Untangling the confusion around land carbon science and climate change mitigation policy. *Nature Climate Change* 3, 847.

[iv] FERN. 2014. Misleading Numbers: The case for separating land and fossil-based carbon emissions.

[v] Bucki, M., et al. 2012. Assessing REDD+ performance of countries with low monitoring capacities: the matrix approach. *Environmental Research Letters* 7, 014031.

[vi] See for example: Lam, S.K., et al. 2013. The potential for soil carbon sequestration in Australian agricultural soils is technically and economically limited. *Nature Scientific Reports* 3, 2179; Hopkins, F.M., et al. 2012. Warming accelerates decomposition of decades-old carbon in forest soils. *Proceedings of the National Academy of Sciences* 109, E1753.

[vii] Forest governance is understood as consisting of five principles related to decision making: transparency; participation; accountability; coordination; and capacity.

[viii] Non-CO2 emissions from agriculture contribute an estimated 10-12% of global emissions. The production of synthetic nitrogen fertilizers is alone responsible for 0.6%-1.2% of global emissions. See: Bellarby, et al. 2008. Cool farming: climate impacts of agriculture and mitigation potential. Greenpeace International.

[ix] "Halving the consumption of meat, dairy products and eggs in the European Union would achieve a 40% reduction in nitrogen emissions, 25–40% reduction in greenhouse gas emissions and 23% per capita less use of cropland for food production." Westhoek, et al. 2014. Food choices, health and environment: effects of cutting Europe's meat and dairy intake. *Global Environmental Change*.