

Protecting carbon to destroy forests:

Land enclosures and REDD+

CARBON TRADE WATCH



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Author: Carbon Trade Watch **Editors: TNI, FDCL and IGO**

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HANDS OFF THE LAND

TAKE ACTION AGAINST LAND GRABBING

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Parque Nacional Yasuni, Rainforest in Ecuador - Joanna Cabello

The need to halt the alarming rates of deforestation and forest degradation is without hesitation of high importance. Forests destruction displaces forest dependant peoples, often destroying their livelihoods and violating human rights. Moreover, even though the majority of

I. Introduction: Why is the REDD+ discussion important?

greenhouse gas (GHG) emissions come from the burning of fossil fuels, deforestation also contributes to the accumulation of carbon dioxide in the atmosphere. Yet, the question of *how* remains problematic. The scheme *Reducing*

Emissions from Deforestation and Forest Degradation in developing countries, and forest conservation, sustainable forest management and enhancement of forest carbon stocks (REDD+) aims to create a financial value for the carbon stored in forests, offering economic incentives for Southern countries to reduce emissions from forested lands. Guided by the United Nations (UN) and the World Bank, REDD+ proponents believe that although there are some problems with REDD+, these can be solved by securing large sums of money to improve its governance, safeguards and/or improve local communities' 'participation'.

However, the neoliberal governance reacting to the climate crisis is the product of a complex interplay between various actors and policy tools, such as within the UN climate negotiations, multilateral financial institutions, industry lobbies, big conservation organizations, sub-national programmes, voluntary carbon markets, etc., aiming to establish how the carbon 'absorbed' by nature can be accounted for and traded under REDD+. Thus, increasingly conflicting objectives are competing for taking a piece of forested lands. Inherently linked to such trading schemes, REDD+ is a key piece in the emerging 'green economy'.

This paper helps to evidence that REDD+ will not stop forest destruction. Companies and Northern governments sponsor REDD+ projects and REDD-type funds with either public money or the carbon markets to show how they are 'contributing' to halt deforestation. However, the underlying causes of deforestation remain untouched and thus, the problem continues to worsen. Because REDD+ is embedded in the logic that environmental destruction can be 'compensated' for somewhere else it acts to reinforce the underlying drivers of deforestation and climate change. It also gives forest destroyers a way to legitimize their actions as environmentally 'friendly' or 'carbon neutral'. Far from positioning itself as an ally to the many local groups that have preserved forested lands most strongly, REDD+ tends to silence debates about the unjust realities surrounding corporate pressures on land tenure regimes.

Moreover, the categories used to structure modern understandings of territories subordinate indigenous 'world views', which invoke a relational understanding of space that includes humans and non-human beings, to rationales of legally-defined rights, environmentalism, and cultural difference (Bryan, 2012). Indeed, in the rush for the 'stored' carbon, more lands and territories are being enclosed from people living in or dependent upon forests. Groups trying to influence REDD+ believe that it could be fixed if independent financial mechanisms outside of the carbon markets were used instead, such as taxes or other public funds. This paper aims to provide a historical background and experiences on the ground in order to further the argument that because land and nature enclosures are central to its operation, REDD+ cannot be fixed.



Eucalyptus Monoculture, Espírito Santo, Brazil, 2012 - Tamra Gilbertson



Since the introduction of international carbon markets through the 1997 Kyoto Protocol, policies based on placing a monetary value on pollution became increasingly prominent as the 'only possible' way of tackling climate change. In response to heavy corporate lobbying, mainly by the US, carbon markets give Northern governments and companies 'flexible' market-based options for reaching their targets, that

Carbon Trading: A short background

is, a way out of reducing emissions at source.¹ Although the US refused to ratify the Protocol adopted under the UN Framework Convention on Climate Change (UNFCCC), carbon trading still became the leading international response to global warming.

Based on the assumption that "an emission reduction achieved in one location has the same beneficial effects as an emission reduction achieved anywhere else"², carbon trading comprises

two market-based mechanisms: cap and trade, and offsets. Under cap and trade, governments or intergovernmental bodies, such as the EU, set an overall legal limit of carbon emissions in a certain time period and then grant industries a certain number of licenses to pollute (carbon permits). Companies can trade those permits between one another in order to comply with their reduction targets and/or trade them in the financial carbon markets.

Carbon offsets, meanwhile, are 'emissions-saving' projects created for 'compensating' continued pollution from Northern countries and companies. Each tonne of 'saved' carbon in the South generates a (cheap) credit that allows another tonne to be emitted somewhere else. The UN's Clean Development Mechanism (CDM) is the largest offsetting scheme³, although credits are also traded in non-UN-backed, voluntary carbon markets. Yet, offsets do not reduce emissions. Any 'saving' is by definition nullified by increased emissions allowed to the buyer, displacing emissions cuts in the North in favour of offset projects in the South. Thus, the unsustainable economic system based on fossil fuels is effectively locked-in.

Offsets moreover evidence the power inequalities entrenched in the carbon markets. On one end, industries and governments in hand with big conservation organizations and financial institutions are able to buy cheap credits and gain profits while legitimizing (and expanding) business as usual. On the other end are the communities affected by offset projects which have mostly translated into land and human rights violations, displacement, land grabbing and increased local environmental destruction (Checker, 2009; Gilbertson et. al., 2009; Bohm et. al., 2009). Moreover, this also affects the local populations in the North living next to the facilities that buy the credits and who suffer from continued and increased pollution. According to proponents of the carbon markets however, increased pollution can become 'sustainable' as long as it can be 'compensated' for.

Within this neoliberal framework another international mechanism that would allow payments to Southern countries for *reducing emissions from deforestation and forest degradation (REDD)* became widely popular since the early 2000s. It was seen as the quickest, cheapest and most cost-effective way to tackle deforestation emissions. During the climate talks in Bali in 2007, the UNFCCC, pressured by heavy corporate and consultancy lobbies, repackaged the concept of forestry offsets despite the many uncertainties and loopholes. The Bali



Recently harvested eucalyptus monoculture area categorized as “Sustainable Forestry”, Espírito Santo, Brazil, 2012 - Tamra Gilbertson

Action Plan added a ‘+’ to the acronym (REDD+) to include: *forest conservation, sustainable forest management and enhancement of forest carbon stocks.*

As many neoliberal policies, REDD+ picks up legitimate concerns and demands from communities and movements living in or dependent upon forests. With discourses of ‘participation’, ‘progress’, ‘economic benefits’, and at times even presented as a tool for ‘securing land tenures’, many communities have high expectations for what REDD+ could mean for them.

Indigenous Peoples in particular however, raised an epistemological challenge by pointing on how the current order has been historically constituted through practices of exclusion frequently justified in racial terms. Yet, while indigenous political conceptions of ‘territory’ attempt to unite the importance of control over land with questions of racism and dispossession, land tenures and rights under the hegemonic logic “preserve an underlying socio-spatial order, perpetuating dominant forms of power and economy” (Bryan, 2012).

Structures of power are still organized on and around a colonial framework with an apparent paradoxical relation between “independent states and colonized societies” (Quijano, 2011:234). Other alternative knowledges are dispensable for the needs of capitalism. In this case, those regarding ‘nature’ as a source of life and knotted relations between human and non-human beings. By reducing land and territories to something to be designed and established through legal reforms, titling and demarcation, the hegemonic logic further shifts the attention to the ‘legal’ practices of administration and management.

In this way, by using local communities’ expectations instrumentally, REDD+ aims to expand the logic where the only ‘value’ attached to nature is ‘the price’. As Folker Franz from BusinessEurope, the largest confederation of private sector firms in the EU, declared, the greater use of forest credits “would be the way to go to save the world. If we see people profit from this, then let them profit, so long as it stops deforestation in Indonesia and Brazil”.⁴ This apparent apolitical ‘logic’ seeks (intentionally or not) to detach the process of profit accumulation from a system dependent on extraction and dispossession of mainly Indigenous Peoples, small farmers, traditional communities and forest-dependent peoples.

Many projects are already underway all over the Southern world and the associated credits are being traded in the voluntary carbon markets despite that REDD+’s architecture is still being debated in the UNFCCC. This gives us a clear indicate of how the scheme is moving forward and who is behind pushing its approval. Local communities living in or dependent upon forests are confronted with the reality of how to deal with this type of encroachment, not only the many pressures over their territories from growing global consumption and capital accumulation, but also policies pushing nature’s cycles into ‘free carbon market’ systems.

This paper aims to uncover what lies behind REDD+, a scheme increasingly threatening to deprive small-scale farmers, indigenous and forest-dependent peoples from their access, use and control of their territories. In order to halt deforestation and forest degradation, it is crucial to understand what is causing it. Placing an economic value on nature’s capacity to ‘store’ carbon does not deal with the underlying logic of further deforestation. Alternative understandings of territories founded on relations between human and non-human beings are moreover crucial for the existence of other forms of political epistemologies and alternatives.

II. Sustaining land enclosures

An important proportion of the world's remaining biodiverse lands are located within forest-dependent and Indigenous Peoples' territories. These areas, independent of whether formal rights have been granted, have been historically subjected to threats, impositions and destruction in the name of 'development' and 'progress', now repackaged as the 'green economy'. This can be tracked back worldwide through centuries, including seizures associated with territorial wars and European and colonial enclosures. Yet, essential requirements for capital accumulation and economic globalization – along with the dynamics of the globalized food regime, energy security apparatuses, and the flow of financial capital searching for new and safe investments – are encouraging new and faster dispossessions of lands, cultures and livelihoods, particularly in Southern countries.

Deforestation and forest degradation are complex economic and socio-political events related to pressures emerging largely from outside the forests themselves. The production and consumption model built up in the North heavily depends on raw materials and energy sources extracted and controlled by mostly Northern corporate players. Attention to continuing resistance on the ground against land and nature enclosures is crucial for a thorough understanding of these pressures. REDD+ entails what has been called by some as 'green' grabbing, in which environmental agendas become the drivers and goals of grabs, whether linked to biodiversity conservation, carbon sequestration, agrofuels, or climate and other ecosystem services (Fairhead et.al., 2012).

In order to understand REDD+ controversies, it is crucial to critically recognize the histories around land struggles. This overview suggests how the hegemonic logic of reducing land, nature (and labour) into mere commodities has been violently imposed for centuries. Although

Land Enclosures in History

each space and time has its own specific history of land concentration and resistance, due to space constraints, this section will focus on the Latin American region and

only on some of its aspects. It intends to be an example of the broader process of land and nature's enclosures and resistance in the South. In Latin America, as elsewhere in the South, from the period of colonial exploitation up to the imposition of European and US enclaves, lands have been seen largely as a source for resource production or extraction.

Current land conflicts and usurpations in Latin America are mostly a consequence of colonization, which established relationships of domination that continue today. Colonial powers reduced local populations to servitude, while 'importing' slaves from the African continent as extra labour force. Local populations were overtaxed in a way that forced them to surrender their territorial rights. Further, land used for traditional agriculture, including for crop rotations, or lands that involved fallow cycles, were considered to be 'unoccupied' by colonizers, who assumed rights over them or simply seized them (OAS, 2002). The expansion of colonialism implied the necessity of denying two bases from the traditional cultures: their sovereign character and their communal organization (Gilbert, 2006).

After 'independence' and the establishment of states, colonial powers were mostly replaced with land-owning oligarchies. Liberal laws ended up leaving Indigenous Peoples unprotected and granting significant power to the local *creoles*.⁵ The Mexican agrarian reform in 1910 set a precedent regarding the need to reorganize land ownership, followed by the Bolivian Revolution of 1952 and the Cuban Revolution of 1959. Agrarian reforms emphasized the political-economic significance of 'property'. As a reaction to these, during the 1950s and subsequent decades, the US intervened many times in the region against revolutionary programs with the agrarian reform at their heart.

In this regard, the 'Alliance for Progress' was created in 1961 to promote pre-emptive agrarian reforms. Land reforms were instituted as a consequence in the majority of Latin American countries. However, even though important demands were accomplished for indigenous *campesinos* (peasants), such as voting rights and the abolishment of servitude, the power of large landowners was maintained and *campesinos* were left with little security over their lands. Even some progressive agrarian reforms trying to return individual ownership to landless families served in practice to dismantle collectively owned lands (OAS, 2002).

Later, the Structural Adjustment Programs (SAP) implemented in the 1990s by the IMF and the World Bank demanded that Southern countries apply neoliberal policies if they were to receive new loans. These included constitutional changes, modifications of agrarian regulations, and privatization of public enterprises, including family farming support. A large portion of SAPs also promoted increased use of fertilizers and pesticides. Foreign investment was allowed with no trade barriers. The resources demanded by the 'free market' determined how land was appropriated by capital. Whether 'democratically elected' or not, most governments submitted to the 'adjustments'. The privatization, de-regulation and liberalization policies of the era underpinned and made possible the cycle of land enclosures we see today (Borras, et. al., 2009).

In the meantime, countries like Brazil, with a strong Landless Movement (MST, for its acronym in Portuguese) at the time, launched in the 1990's with the World Bank the '*Banco da Terra*' (the Land's Bank), an initiative by which landless *campesinos* could buy lands and then pay back in 10-20 years. Called by the MST as 'the agrarian reform of the market', it was seen as a strategy to weaken the movements struggling for an agrarian reform. Northern governments, modifying earlier trade strategies, began to sign Free Trade Agreements (FTA's) with individual Southern countries, subjecting them to inflexible permanent rules favouring the interests of foreign corporations and capital.

In 1994, an FTA integrated Mexico's lands into the US and Canadian markets. Consequences continue to severely affect indigenous *campesinos* including rural unemployment, the abandonment of rural areas due to displacements and land grabbing, the exclusion of those who cannot compete with corporations, the impossibility to cultivate traditional crops, and an increase in migration to the US (Winer, 2011:29). Land concentration was justified with the slogan of 'agricultural modernization' oriented to external markets. Imported seeds, export-oriented management, 'efficient' fertilizers and pesticides, were among the features of these policies (Eguren, 2009). FTAs, whether promulgated or pending,⁶ encourage intensive resource extraction undertaken by foreign capital with almost no regulations or controls over the companies' operations and methods of appropriating lands. Extractive activities, however, carry until today another story: the resistances and struggles of thousands of local communities in the fight to defend their territories (land, water, forests, etc.).

Furthermore, where restrictions still existed on foreign land acquisition foreign companies started to create 'partnerships' with local companies to be able to control lands. The Swedish-Finish company Stora Enso, for example, controls 50% of the tree plantation company Veracel Celulose, with more than 200,000 hectares of lands in the state of Bahia, Brazil.⁷ Instead of promoting rural access to lands, patterns of domination and control are intensified, mostly in hand with violent responses from the state and private security forces to defend corporate interests.

According to Winer (2011), land-related capital investment targets include: food-related agribusiness; forestry based on plantations for the production of timber and its derivatives, such as paper; mineral-hydrocarbon extraction; and agribusinesses cultivating agrofuels. The emergence of 'flex' crops, however, also had a major impact. These crops have multiple uses that can be easily changed: soy (animal feed, food, agrofuel), sugarcane (food, ethanol), oil palm (food, agrofuel, industrial use), etc. International demand and national subsidies for these resources has been supported by FTAs, as well as through 'development' banks and 'aid' agencies. The Inter-American Development Bank (IDB) for example granted US\$150 million to "sugar and bioenergy companies and exporters [especially] in Guatemala, Nicaragua, Dominican Republic, El Salvador and north-eastern Brazil" (IDB January 16, 2009). Aiming to diversify their investment portfolios and to profit from the rise in land and commodity prices, financial players have meanwhile increased speculative investments in such commodities, supporting the flex-crop agribusinesses' investment strategy (Hungry Futures, 2012). One of the main players in Guatemala's oil palm industry for example, was a locally incorporated subsidiary of a US agrofuel producer owned by the investment bank Goldman Sachs and the asset manager Carlyle Group (Fradejas, 2012).

In early 2012, the NGO GRAIN released new data documenting a list of 416 large-scale land grabs by foreign investors for the production of food crops. The cases, which cover nearly 35 million hectares of land in 66 countries, showed how agribusiness has been rapidly expanding since the food and financial crises of 2008 and how this is taking food production out of the hands of local communities. GRAIN affirms: "While most of the 298 land grabbers documented are from the agribusiness sector, financial companies and sovereign wealth funds are responsible for about a third of the deals. And on many occasions there is overlap. For instance, the data set shows how Cargill, one of the world's largest agribusiness companies, has been acquiring hundreds of thousands of hectares of farmland through its hedge fund Black River Asset Management."⁸

In this context, neoliberal policies turned the role of the state as coordinating the interests of companies and civil society in order to provide the necessary order for the functioning of the markets (Bryan, 2012). Colombia was the first country in the region to recognize indigenous territorial rights through constitutional reforms in 1991. Long-standing struggles resulted in Argentina, Brazil, Mexico, Guatemala, Paraguay, Peru and Venezuela to make reference to territorial rights in their constitutions. In some cases, social movements also responded by proposing different institutional designs for allowing harmonious coexistence among living beings (Huanacuni, 2010). This led to the creation of plurinational states and new constitutions recognizing Indigenous Peoples' rights in Ecuador in 2008 and Bolivia in 2009. Ecuador also established 'rights to *pachamama*' (translated as 'nature') combining the integrity of nature as key to human and non-human

well-being. However, despite institutional and legal changes, the same logic is being pursued and expanded. The *Kichwa* community on Sani Isla in Ecuador, for example, is struggling to resist oil prospecting by state-backed company Petroamazonas, which covers 70,000 hectares of rainforest close to the Yasuní national park, one of the most biodiverse areas in the world.⁹

Pressures over communal and traditional lands are not new. Yet, changes in demand for food, energy and natural resources, alongside further financialization of nature (including carbon, biodiversity, water), are making competition for lands and territories increasingly global and increasingly unequal. The violent expansion of capitalist enclosures assumes that local communities should be 'integrated' into the development model, thus curbing any dissent. Mechanisms such as REDD+ incorporate areas that were once before inaccessible to markets into the globalized free market economy.

Land and territorial rights are often described as a problem of "ill-defined property rights" (FAO 2009), pointing to a technical or governance solution. In many cases, however, land rights are relatively well-defined at the local level by customary systems, even if not recognized by national legislation (Huggins, 2011). Yet, even when these rights are recognized by national authorities, governments are

The state of play: Lands and rights

often the first to disrespect these rights and continue to allow destructive projects in the relevant territories. There are considerable overlaps. In the Peruvian Amazon for example, the 581 concessions awarded for, inter alia, oil, gas and mining extraction, have 51 overlaps with titled native community land, Indigenous Peoples' territorial reserves or multi-use protected areas. This does not take into account considerable areas of overlap with traditional areas that are not yet officially recognized (Molnar et al., 2011).

A comparison of 15 forested countries by the Rights and Resource Initiative (RRI) showed that the total area allocated to industrial concessions in forested lands was of 412 million hectares, of which 188 million were specifically for timber production. The RRI compared this to the 142 million hectares designated for or owned by communities (117 million hectares excluding Papua New Guinea (PNG), where all forest land belongs to communities), finding that the ratio of industrial concessions to forest land designated for communities is 3:1, or closer to 4:1 if PNG is excluded from the equation (Molnar et al. 2011). It is recognized however that Indigenous Peoples in Latin America are increasingly gaining rights to their territories, in contrast with the vast majority of countries in Africa and Asia. Yet, obstacles ranging from unclear legislation to entrenched power relations have prevented them from having any real decision-making power over their territories with national governments maintaining *de facto* control.

This means that while land tenure gives local populations more leverage in relations with government and the private sector, improvements in tenure alone will not achieve this. Anne Larson, who spent six years studying cases in northeastern Nicaragua and won 2012's Ostrom Memorial Award, affirmed that "Indigenous land rights are being recognised in part because of important national and international movements that have fought for them, but also in part because those who want access to the resources on those lands are finding other ways to get them" (Fraser, 2012). Corporate players largely take advantage of legal ambiguities and sideline them from decision-making. The UN Declaration on the Rights of Indigenous Peoples, for example, includes their right to 'Free, Prior and Informed Consent', which gives communities the right to, without coercion, decide whether they will give or deny its consent to proposed projects that may affect the lands they customarily own, occupy or otherwise use, once they have full and accurate information on the implications of the project. However, when 'economic growth', 'progress' or the 'green economy' is the slogan pushing destructive projects, many countries have not had any problems violating land and Indigenous Peoples rights.

Land demarcations are also being pursued through the REDD+ scheme since investments may be at risk with uncertainty in delivering REDD+ commitments (carbon credits) if tenure issues are unresolved. The prospect of carbon credits appears as a major incentive for establishing other types of land enclosures.

Nuevo Lamas for example, a *Kichwa* indigenous community in Northern Peru, is the only community located within the 132,000 hectares of the *Cerro Escalera* Conservation Area but several communities are dependent on the Reserve for vital forest resources. Jaime Japulima, president of one of the four indigenous federations representing the *Kichwa* people explained that the area is their ancestral territory, "yet the Reserve was created without any consultation".¹⁰ Most recently, charges were brought against eight members of the community *Alto Pucalpilllo* for deforestation of 0.25 hectares in order to grow bananas, maize and fruit trees. The community only holds legal titles to the area around their houses. One of the eight accused stated: "Today, if we want to go into our forest we first have to ask permission from the Government of San Martin!"¹¹ While indigenous land titles have been stalled for years in Peru, the *Cerro Escalera* Reserve has been created alongside hundreds of thousands of hectares for private conservation concessions granted to environmental NGOs and private companies, including three concessions covering over 313,687 hectares which are applying for certification to enter the voluntary REDD+ market.¹²

New sources of profit could encourage governments to recentralise forest governance, make new demands on Indigenous Peoples and even call for their expulsion from the forest if they fail to follow rules (Phelps et al. 2010). Central states in many parts of the world have a key role in controlling forested lands.

What is land grabbing?

The Food and Agriculture Organization (FAO) bases its definition of land grabbing on: large-scale land acquisition involving foreign governments and ensuing food insecurity in the host country. This definition has however been deeply problematized

(Borras et al., 2011). An understanding of 'grabbing' on the broad political economic pressures and orientations of land enclosures is crucial. Moreover, it is also essential to reflect on 'land' surpassing economic values or productive spaces to be measured.

Land grabbing also involves large-scale purchases or leases of land from private investors, non-governmental organizations and governments. Land grabbing encloses vast stretches of lands of campesinos, Indigenous Peoples, fisherfolks, forest-dependent peoples and traditional communities, seriously jeopardizing their livelihoods as well as their physical and cultural survival (Stamatopoulou, 1994; Barsh, 2011; Sweptson et. al., 1985). Land grabbing violates rights to Free, Prior and Informed consent. It captures whatever water, air, biodiversity, carbon, or other resources exist on, below and around these lands, resulting in their de facto privatization. Land grabbing entails forced evictions (including those for 'fortress conservation', that is, forests emptied from people), criminalization of social movements and local organizations, the imposition of destructive models of land use that destroy balanced ecosystems in hand with local populations, the blatant denial of information or provision of misinformation, and the prevention or removal of decision-making power from local populations.

Furthermore, for Indigenous Peoples, territories go way beyond an economic dimension. They imply an ensemble of legal, social, political, economic and spiritual relations between human and non-human beings which are unique and interconnected (Daes, 2008). Because of this, most indigenous territories are still organized within communal frameworks, escaping from individual property rights as well as the productivity focus for valuing lands.

In Africa, according to FAO, most forests remain publicly owned (90%), the majority by central governments. Many African countries have restrictions on whether non-nationals can own land, so foreign investors often arrange long-term land lease agreements; with some of 50 years or more in length.¹³ Southeast Asia displays diversity in this regard: while in Indonesia the state controls the majority of the land, in PNG 97% of the land is held by local groups under customary tenure (Cotula, 2009). Yet, before the UN climate talks in 2009, PNG disbanded its Office of Climate Change and Environmental Sustainability after accusations that it had illegally sold REDD+ carbon credits valued at AU\$100 million to an Australian company, and neglected to consult with communities, the legitimate owners (RRI, 2009). Moreover, the term 'carbon cowboy' was coined after a trader coerced many indigenous groups in PNG to sign their rainforests up for future use as carbon credits thus gaining legal rights to the carbon in their forests.¹⁴

REDD+ effectively separates the carbon 'stored' in forests (and their capacity to 'store' carbon) from broader rights to forests and lands as a different set of property rights. It is crucial to unwrap the implications: who holds the liabilities in case of carbon loss (i.e. in case of fire), who controls these territories, and what are the conditionalities or restrictions of resources use? While the legal implications of the carbon commodity at the national and local levels, especially for forest-dependent and Indigenous Peoples, are a critical area of concern (Lyster, 2011; Skutsch, 2011), concessions for mining, oil, gas, timber, palm oil and now carbon are being handed out. Technical and governance debates around land and territorial rights fail to recognize the longstanding struggles challenging a logic based on exclusion and dispossession.

Forest degradation and deforestation are different, though interrelated, processes. While deforestation involves the destruction of forested areas for another land cover, degradation results when forests suffer major changes in species composition due to overexploitation, exotic

Looking into the roots

species invasion, pollution, fires, or other factors (Sasaki et al., 2009). A close look into the roots is crucial. But most importantly is an even closer look into the logic which feeds these drivers.

Documents in which REDD+ policies are being based, like the 'State of the World's Forests' (FAO, 2012), fall extremely short on identifying who are the actors and activities behind forest destruction. And to make things worst, REDD+ (and the UN) uses the FAO definition of 'forest' which does not differentiate biodiverse forests from plantations.¹⁵ This allows even replacing forests with plantations that would ultimately generate carbon credits.

This section does not aim to be a comprehensive overview of the many interconnected drivers, but it aims to highlight some key players lying at the roots of the problem. Drivers however, are not isolated actors and activities destroying the forests but on the contrary, they are triggered by a logic looking for continuous 'growth'. At the UN intercessional meeting on climate change in May 2012, a working group started to consider issues related to the drivers of deforestation. However, this 'consideration' has so far focused solely on the direct drivers, attempting to 'reduce' their negative impacts with certification schemes for, among others, 'sustainable forest management' practices. These voluntarily and costly certification schemes have being widely used to justify the ongoing destruction of forests (Swedish Society for Nature Conservation, 2013; Global Witness, 2009). The underlying logic however remains untouched.

The Juma Sustainable Development Reserve project was the first REDD+ project in Brazil to be certified as 'Gold Level' by an international standard granted by The Climate, Community and Biodiversity Alliance (CCBA)¹⁶ The international hotel chain Marriot is financing the implementation of REDD+ activities with annual investments of US\$500,000 during the first four years, as hotel guests are invited to donate US\$1 per night to 'neutralize' the calculated carbon emissions of their individual hotel stays (Moreno, 2012). With the money, residents of the remote Juma Reserve are paid around US\$25 every month through a program called *Bolsa Floresta*. The payment is in exchange for the 'environmental services' which ultimately generate carbon credits. The project expects to last until 2050 and to generate around 189,767,027 tonnes of carbon credits by then. The Amazon Sustainable Foundation (FAS, for its name in Portuguese), who runs the project, finds the idea quite simple. "The REDD+ mechanism allows the valuation of emission reduction as a marketable, commercial, environmental service. A polluter can compensate his emissions by buying credits from those who still have something to preserve. On the other hand, the one that keeps his forest standing will be compensated financially" (FAS in Moreno, 2012:52).

However, the reality on the ground seems not so simple. A resident from the reserve participating in the REDD+ project stated in a Frontline report, "we used to plant a lot (...) when this became a reserve they told us that we could no longer plant in the forest. Everyone signed up for *Bolsa Floresta*. But it can't sustain my family." Almost half of the received money has to be spent in the travels to collect the money from nearby towns.¹⁷

In addition, FAS recently made a partnership with the oil company HRT, which resulted in the investment of US\$12.8 million. This is the same HRT which owns 55% of the participation rights in 21 exploration oil blocks in the Brazilian Amazonas state and has announced the drilling of 130 wells in the entire Amazon region by 2015, directly contributing to deforestation and forest degradation (Moreno, 2012). Besides HRT, other major sponsors of FAS are the government of Amazonas, the Brazilian private Bradesco Bank and Coca Cola.

There are many more certification schemes which 'verify' and issue credits to be traded in the voluntary carbon markets.¹⁸ These voluntary certifications also assist in the creation of methodologies for projects to be able to account for carbon. Consequently, while forest destroyers can be 'certified', deforestation and degradation of forested lands keeps increasing.

Deforestation

Many studies on the causes of deforestation misleadingly focus on single-factor causation, such as population growth (Mather et. al., 2000) or shifting cultivation (Ranjan et. al., 1999), overlooking the complex interactions of social, economical and political pressures involved. This is especially true for REDD+. A review of eight REDD-readiness plans found that almost without exception, local people and their practices are found to be responsible for deforestation (FERN et. al., 2011). 'Overpopulation' claims, which provoke a diversion from the root causes, mainly turns the blame onto the poorest and most vulnerable groups, downplaying questions of power, inequality and injustice (Lohmann, 2003). Further, analysis on how forests fare under shifting cultivation through the same areas (as opposed to under permanent agriculture) in South East Asia clearly demonstrates that efforts to eliminate the ancient practice have actually contributed to deforestation (Fox, 2000).

Deriving from colonial minded concepts, uncultivated land is usually misleadingly perceived as 'unused' or 'abandoned', opening the door for industrial agriculture to settle in with mostly large-scale monoculture crops. 'Marginal' lands play a key role in the discourse of agrofuel promotion (Moreno, 2010). Industrial agriculture is found as the direct driver of roughly 80% of tropical deforestation. In Latin America it represents around 70% of total deforested area, while in Africa and (sub)tropical Asia it accounts for around 30% (Kissinger et al., 2012).

Monocultures include crops and trees. Crop monocultures are cultivated for food products, animal feed, oils and agrofuels, while tree plantations are largely used for paper pulp, charcoal, timber and, increasingly, for energy-based biomass. They are large areas of land cultivated with a single crop, using high amounts of inputs such as agrototoxic chemicals and machinery. Monocultures have a host of social and environmental problems. When local populations are confronted with large-scale monocultures, they are faced with water and other resource shortages, contamination from pesticide spraying and GMO crops, as well as threats of land grabbing and forced evictions.

The Brazilian *Centro de Tecnologia Canavieira* (CTC) recently announced its plans to use transgenic sugar crops in 2017 aimed for exports and ethanol production.¹⁹ Promoted as 'sustainable biomass' production, Brazil has pioneered the agrofuels and ethanol market and is also one of the biggest producers of transgenic soy crops, mainly exported to the EU and China. At least 80% of Brazilian agrodiesel comes from soy, the increase of which is a key culprit of deforestation (Moreno, 2010). Soy, sugar cane and other agrofuel crop expansion have worsened long-standing conflicts over indigenous territories.²⁰

In Peru, 72 percent of oil palm expansion in the Amazon since 2000 has come at the expense of biodiverse forests.²¹ Local populations are vulnerable because they lack titles for the 'uncultivated' lands that are part of their territories. The company Maple Energy for example, acquired 'uncultivated' lands in Peru for sugarcane ethanol.²² With a total of 13,500 hectares, "it is to be assumed that it purchased close to 3,000 hectares from the farmers in the valley" (CEPES, 2010:22). The state also granted Maple Energy exclusive rights to the Chira River's water supply.²³ It is important to note that land acquisitions often imply companies' access to and control of water resources (TNI, 2012).

Resource demands is primarily Northern-driven. For example, under the 'Renewable Energy Directive', the EU agreed in 2007 that agrofuels must make up at least 10% of the energy used for transport in each Member State by 2020.²⁴ This target implies an extra demand for agrofuel feedstocks in general, with rapeseed, soybean and palm oil being the most consumed at the moment. In this context, at least 5 million hectares of land in 11 African countries is being acquired by foreign companies to produce agrofuels, mainly for the EU market (Friends of the Earth, 2010). Indonesia is the largest producer of palm oil, supplying over 40% of the world's market, followed by Malaysia and Nigeria.²⁵ Palm oil plantations are often expanded by clearing existing forested lands and draining peat swamps. The agrofuels industry is moreover mainly controlled by corporate agribusiness such as Cargill and Monsanto.²⁶

In Indonesia, industrial tree plantations have expanded at a fast pace since colonial times, resulting in substantial conversions of customary lands to oil palm and pulpwood industrial monocultures. Commercial plantations were first introduced in Java, and then expanded to Sumatra, which was less densely populated than Java and still largely covered by rainforests, by the second half of the 19th century. Today, approximately 600,000 hectares of forest are cleared each year in Indonesia for oil palm. Tree plantations are becoming a major driver of deforestation in West Papua, which hosts the world's third largest block of continuous rainforest (Overbeek et. al., 2012).

Planting trees, however, is habitually portrayed as a 'green' activity. Most of the time, industrial tree plantations are used for the lumber, rubber and cellulose industries however, now they are also in demand by the US and the EU for 'biomass-energy' (Zacune, 2012). Some of the main expansion countries, each already boast millions of hectares of industrial tree plantations, include Brazil, Malaysia and Indonesia. Expansion is also underway in African countries such as Mozambique, and in the Mekong region. Yet, the US and the EU together consume most of the final products. Benefiting also are Northern-based banks, businesses and increasingly investment funds which are key players in the different industry sectors (Overbeek et. al., 2012).

The expansion of monocultures under corporate controlled systems is at the root of numerous socio-environmental conflicts, especially in Southern countries. A few corporations control the production, financing, trade and/or input production. In addition, increased consumption of meat in Northern (and in recent years also Southern elites) diets has had a profound impact on the industrial feed complex with direct consequences on deforestation. In Paraguay for example, the main driver of forest loss is meat, mainly caused by cattle ranching and by the production of soy as fodder for European and Chinese livestock, resulting in devastating impacts on local populations (Lovera, 2012).

Offsets in Honduras: Palm oil and murders

In July 2011, the Clean Development Mechanism (CDM) Board approved a palm oil biogas offset project run by Grupo Dinant, a major Honduran snack food and agricultural company. Dinant joined the agrofuel rush backed by funds from bilateral and multilateral credit agencies like the World Bank.²⁷ Much of the palm oil development in Honduras is taking place in the Bajo Aguán valley

where an escalating conflict is taking place against thousands of campesinos. Between 600-1000 soldiers were deployed in a military occupation of the Bajo Aguán valley. Grupo Dinant claims ownership over 17,000 hectares. Many of these are contested and likely illegal under agrarian reform legislation passed before the military coup in June 2009, which Grupo Dinant's CEO, Miguel Facusse,, publicly supported. Dinant has the support of the national army alongside Dinant's own paramilitary forces.²⁸

A project partner who was to purchase the CDM credits publicly withdrew from the project due to human rights concerns. The Chair of the CDM Board claimed however that the Board was not equipped to investigate human rights abuses.²⁹ With complete impunity for the deaths of more than 80 campesinos, the CDM will allow Grupo Dinant to classify their monocultures as 'sustainable'. In May 2012, a public hearing on the human rights situation in the communities of Bajo Aguán concluded that the agrarian conflict in that area is the "most serious situation in terms of violence against campesinos in Central America in the last fifteen years."³⁰ Until today, killings continue, the region around the plantations has been heavily militarized, and long-standing peasant communities have been violently evicted.

Despite the increasing violence in hand with governmental agencies, Honduras is nevertheless in the pipeline to receive funds for implementing REDD+. After several letters of protest against the World Bank REDD+ activities in Honduras³¹, on February 2013, the Civic Council of Popular and Indigenous Organisations of Honduras (COPINH) wrote to the World Bank an outright rejection of REDD+ and demanded that "this neo-colonialist imposition" is stopped. COPINH highlighted "the lack of transparency, representativeness and illegitimate positions that are contrary to the historical cause of Indigenous Peoples", moreover, they denounced that "REDD+ is a step towards intensifying land grabs in our territories and forests, and means more monocultures, and the eviction from, or limited access of our people to the forests, the loss of sovereignty, increased militarisation, repression and occupation of indigenous territories and the territories of all our people."³² Moreover, on January 2013, the National Congress approved a new Mining and Hydrocarbons Law which, according to the Garifuna organization OFRANEH, aims "to auction the country off piece by piece to foreign investors."³³

Degradation

Timber extraction is one of the biggest direct drivers of forest degradation (and accompanied deforestation), accounting for more than 70% in Latin America and (sub)tropical Asia (Kissinger et al., 2012). The total combined area of tropical forests exploited under 'sustainable logging plans' rose sharply in 2010 and is now greater than the 135.5 million hectares of forest destroyed around the world in the 1990-2010 period (Andrade, 2012). The NGO Global Witness (2009b) observed that even when it follows 'best practices' to reduce its impacts, 'selective' or 'sustainable' logging is highly destructive. In Brazil for example, 32% of 'selectively' logged forests were destroyed over a period of four years. Despite this, timber extraction is not identified as a driver of forest degradation (and deforestation) in REDD+. Conversely, the forestry industry is a dominant sector benefiting from the scheme.

By identifying the world's tropical timber producer and consumer countries (Blaser et. al., 2011:18), the International Tropical Timber Organization (ITTO) made clear that not only are the production areas outside the main centres of consumption, but also, that the consumer countries encompass the centres of international financial, political and military power, which aim to secure the fossil fuels-based economic model of over production and consumption (Andrade, 2012). The global demand for timber is moreover set to increase significantly over the next two decades (Obidzinski et. al., 2012).

At the same time, investment in extractive industries is accelerating and not only in minerals, oil, coal and gas, but also in their associated financial markets. Goldman Sachs, a leading investment bank, is storing 156.000 tonnes of coal (expecting to reach 300.000) imported from Colombia in the port *El Musel* in Gijon, Spain to sell in the futures markets.³⁴ Banks and fossil fuel companies not only make up the wealthiest corporations, they sit on each other's boards and their executives include some of the world's most powerful political and social institutions (TNI, 2013). Depending on the type of mining, extractive industries can also be a direct cause of deforestation, such as iron and bauxite mines. In the last ten years, iron ore production has increased by 180%, cobalt by 165%, lithium by 125%, and coal by 44% (GAIA, 2012).

Exploration and extraction of fossil fuels result in irreversible damage to soils, water, air, biodiversity, and local livelihoods. The associated militarization has mostly spawned violence and abuses, leading to accusations against companies like Shell, Chevron, Exxon and Texaco of financing armed groups in countries like Nigeria, Burma, Colombia and Sudan (Barreda, 2010). While being a main source of degradation (and associated deforestation), GHG emissions from fossil fuels increased sharply in 2010 and 2011 (UNEP, 2012). The construction of pipelines, roads and camps, as well as the spillages, gas flaring and drilling mud, severely impact territories and people. Despite this, the fossil fuels industry expands activities in a system that falsely implies that environmental damages can be 'compensated'.

REDD+ and extractive industries in Indonesia

In August 2010, the Rimba Raya REDD+ conservation project in Central Kalimantan, Indonesia hit the headlines. Funding for preparing the methodology came from Shell Canada, Gazprom Marketing and Trading and the Clinton Foundation. The project aims to preserve around 80,000 hectares of forest, of which over 47,000 hectares was threatened with conversion to oil palm plantations. It will pay for this throughout the 30-year lifespan of the project by selling carbon credits into the global marketplace.³⁶ The Project Design Document thanks Shell Canada for "generous support and tireless work in developing the peat methodology". Undoubtedly though,

Shell and Gazprom have their eye on REDD+ credits to offset their operations, such as Shell's tar sand mining in Canada and Gazprom's destructive oil and gas operations off the coast of Sakhalin Island in Russia's Far East.³⁷

Nnimmo Bassey, Director of Environmental Rights Action (FoE Nigeria) and Chair of Friends of the Earth International, denounced in a joint press release with the Indigenous Environmental Network "We have suffered Shell's destruction of communities and biodiversity as well as oil spills and illegal gas flaring for decades. Now we can add financing REDD+ for greenwash and profits to the long list of Shell's atrocities."³⁸

Indonesia is the world's largest exporter of coal for power stations. The government is planning new infrastructure including a US\$2.8 billion railway, to help increase exports even further. Digging out and burning Indonesia's coal would dramatically raise GHG emissions while furthering the devastating impacts on water supplies, forests, biodiversity, livelihoods and local populations' rights. Vast areas of Indonesian Borneo's wilderness – territories with strong links to indigenous communities – have been allocated as coal mining concessions (Greenpeace, 2013).

In May 2011, a Canadian mining company called 'East Asia Minerals Corporation', signed a Memorandum of Understanding to buy 50% of 'Carbon Conservation', a company set up to profit from trading REDD+ credits. East Asia Minerals explained that the deal would help develop a 'green' brand for one of its existing mines on Sumatra, Indonesia, and "potentially facilitate a smoother process for approval of, and support for, mining permits". The company has proposed several mining projects in forested lands, including inside the Ulu Masen National Park, which a 'carbon conservation' project is supposed to be protecting.³⁹ In this regard, mining companies are not only interested in REDD+ credits, but involvement in the scheme may increase their chances for further mining project authorization.

One of the largest oil patches in the world sits over Alberta, Canada, ranked third after Saudi Arabia and Venezuela. Covering 149,000 km², the 'tar sands' operations extract recoverable crude bitumen, in one of the dirtiest forms of oil extraction. The extraction process uses large amounts of water and fossil energy, producing more than three times the CO₂ emissions produced by a conventional oil barrel (Walsh et. al., 2010). Called "a slow industrial genocide" by First Nations communities downstream from operations,³⁵ rare cancers and other autoimmune diseases are on a worrying rise. Oil giants like BP and Shell, big players supporting REDD+, operate in Alberta.

While it is calculated that mining and oil contracts cover 70% of the Peruvian Amazon (CEPES, 2009), by 2004 Guatemala had 160 mining agreements with conflicts related to land ownership between extractive industries and Indigenous Mayan Peoples (Yagenova et. al., 2009). Likewise in the Philippines, mining has been among the main forces behind the loss of forest cover. With over half of ongoing and planned mining operations located in vulnerable areas, and with over a third of approved mining and exploration leases located in forests, the little that remains could be lost to extractive industries (World Rainforest Movement, 2010).

Extractive industries also consume large amounts of electricity from other industries. For example, about half of all electricity consumed by the aluminium industry comes from hydroelectricity.⁴⁰ The big resurgence in hydroelectric dam construction worldwide is mainly driven by new capital from Southern countries, heavy lobbying by the dam-building industry to sell hydropower as a source of clean energy and climate policies backed up by the UN and the World Bank favouring these mega-constructions. By the end of the 20th century, the dam industry had obstructed more than half of the earth's major rivers with some 50,000 large dams. The consequences are devastating: wiping out species; flooding huge areas of wetlands, forests and farmlands; and displacing millions of peoples (Imhof et. al., 2010).

More than 100 hydroelectric dams are planned in the Brazilian Amazon. By flooding large areas of forests, opening up new areas to logging, and changing the flow of water, the dams threaten to disturb the fragile balance of the Amazonian Basin and increase vital water loss. Amazonian dams are some of the dirtiest on the planet; the Balbina Dam emits 10 times more GHG (from rotting vegetation in the reservoir) than a coal-fired plant of the same capacity (Imhof et. al., 2010). Nonetheless, misleadingly considered as 'clean' energy, dams represent 27% of the registered CDM projects for the carbon market.

Brazilian VALE, the second largest mining company in the world, operates with a very long list of environmental and social conflicts.⁴¹ Yet, as a 9% shareholder, Vale is the largest company involved in the Belo Monte dam, a huge complex under construction on the Xingu River in the Amazon for which 80% of the river will be diverted from its original course, directly affecting the *Paquiçamba* and *Arara* territories and peoples.⁴² In addition, the company also has large-scale palm plantations in Brazil and plans to expand them together with the state oil company Petrobras.⁴³ Meanwhile, Vale is involved in several controversial CDM projects. And it has also invested in a number of forest projects which could allow it to profit from REDD+. The Vale Forest project has financed reforestation projects in the Amazon since 2007, including industrial tree plantations (Friends of the Earth, 2012). Hence, companies directly causing environmental destruction can continue doing so while benefiting from market-based climate 'policies'.

Governments in the meantime provide crucial support to private actors through infrastructure, subsidize financing, tax exemptions and control of the workforce (Andrade, 2012). The Regional Infrastructure Integration Initiative in South America (IIRSA) is a clear example of this destructive 'support'. IIRSA comprises more than 300 mega-projects with serious social and environmental impacts, especially in the Amazon basin.⁴⁴ The Southern Interoceanic highway for example, promoted largely to meet the demand for Brazilian soy for agrofuels and grains on Asian markets, connects Brazil with the Pacific ports in Peru, also threatening to undermine an area that provides refuge to indigenous groups living in voluntary isolation.⁴⁵ The pollution and deforestation caused by the construction, asphaltting, maintenance and use of the highway are being justified with REDD+ projects.

The 'Madre de Dios Amazon REDD Project' for example, created under the 'sustainable forest management' rubric, argues that forests are being threatened because "the new road will bring settlers who subsist on farming and ranching economies that create deforestation." They estimate that within ten years the project will generate 11 million tons in carbon credits. There are two private concessions inside the project area for 'selective' logging, next to the Territorial Reserve for peoples in voluntary isolation inhabited by *Yora* and *Amahuaca* peoples. Some of the associated carbon credits have already been sold on the voluntary market to China Flooring Holding Inc., China's largest supplier of wood flooring.⁴⁶

Until today, forest-dependent populations have continuously stood against the destruction of 'nature', whose relation to the environment is based on co-existence and respect instead of domination and devastation. Territoriality is linked to the existential dimension of each peoples in hand with non-human beings. Indigenous Peoples' rights however have been pushed within Western juridical frameworks, which, far from having a possibility to include the fabric of relationships, values and spiritualities that they weave with the non-human environment, are prescriptively imposed (García Hierro, 2001), rendering a governable space from complex histories of struggle (Bryan, 2012).

III. Spinning the same coin: from carbon markets to REDD+

Calls for 'sustainable development' first gathered momentum with the Brundtland Report (WCED, 1987) in the run-up to the UN Conference on Environment and Development, 'Earth Summit', held in Rio de Janeiro in 1992. The assumptions that economic growth is not only compatible with but is an important precondition for environmental sustainability, and that market-based tools are the best instruments for achieving that goal, furthered the neoliberal climate agenda (Bernstein, 2002). Along the same lines, carbon markets, introduced in the 1997 Kyoto Protocol, were embraced as the 'only possible' way of tackling climate change (Lohmann, 2006). Reaffirmed at the Rio+20 conference in 2012, carbon markets are key components of the 'green economy' (UNCED, 2012).

In the early 2000s, after the US rejection to the Kyoto Protocol, Europe took the lead for hosting what is today's largest carbon market in place: the EU Emissions Trading Scheme (EU-ETS). The first two phases of the EU-ETS (2005-2007 and 2008-2012) however proved to be a resounding failure. After seven years, the EU-ETS did not reduce GHG emissions while consistently gave generous free permits (subsidies), translated into windfall profits, to industrial polluters (Coelho, 2012). Research by CE Delft estimates that almost all of the cost of compliance with the EU-ETS was passed through to consumers, reaching windfall profits of €14 billion between 2005 and 2008 (Bruyn, et al., 2010). Although the EU-ETS is now struggling for survival, it is being used for extending the carbon trading model to other places such as the US and Brazil (Furtado, 2012). In 2011, offsetting by European companies grew by a staggering 85%.⁴⁷ More than 120 organizations, networks and social movements from around the world are demanding the EU that 'It is time to scrap the ETS' in order for effective policies to be in place.⁴⁸ While the EU-ETS does not admit REDD+ credits, individual EU countries and companies can trade them in the voluntary carbon markets.

Approximately 5% of the trade in voluntary carbon market comes from individuals trying to 'compensate' their carbon-intensive activities, such as air travel (Fahrenthold, 2008). The rest is comprised of businesses wishing to 'green' their image (Pearse, 2012) and gain profits in the associated financial markets, where a fortune of dozens of billions of euros is traded each year (FERN, 2010). Banks, intermediaries and brokers can trade carbon credits like any other financial instrument, including a range of derivatives.

Yet, the use of offsets has resulted in an increase of CO₂ emissions worldwide, displacing emissions cuts in the North in favour of projects in the South. Stanford University's Program on Energy and Sustainable Development claimed that between 30-70% of CDM projects "do not represent real carbon reductions" (Wara, 2008). But the problem goes deeper. It is impossible for offset projects to prove the required 'additionality', meaning that the problem is not "that the tools for regulating the offset market need further development or that they are not being used correctly. The problem is that no such tools exist" (Lohmann, 2009:6). Offsets in fact create additional profit for many environmentally-destructive projects which were already in planning, or under construction, or in existence before the beginning of the first Kyoto commitment period in 2008 (Gilbertson et.al., 2009).

Based on carbon dioxide molecules, the carbon market considers other GHGs as 'equivalent' to carbon. Scientific 'experts' have to measure the CO₂ moving around the atmosphere, vegetation, soils and oceans. These measures however, can never be climatically equivalent to fossilized carbon kept underground. This is because carbon emitted from the burning of fossil fuels adds to the overall burden of carbon circulating between the atmosphere, vegetation, soils and oceans. These non-equivalences on which the carbon markets rely, allows carbon traders to inflate the value of credits and further justify the increased use of fossil fuels. Thus, the tradable unit is typically defined "not in terms of what the unit is, but what it entitles the holder to do" (Button, 2008 *in* Lohmann, 2012).

Carbon markets moreover, ignore the historical, social and economic aspects that have caused the climate crisis. Despite that Kyoto's first commitment period (2008-2012) failed to reduce emissions at source, a second period has started. Countries like New Zealand and Japan have not taken on new targets. Japan has signed a bilateral agreement with Mongolia for acquiring offset credits and has plans

to expand these agreements to Indonesia, Vietnam and Bangladesh.⁴⁹ During the UN climate talks in 2012, negotiations halted over a disagreement about the verification of emission reductions from forests (having certainty that emissions were in fact reduced). While donor countries want 'independent' verification which would allow them to use 'verified' emissions reductions towards their own climate targets instead of cutting emissions at source, Brazil, with the support of the G77, argues that they are already required to submit their GHG inventories for international assessment in order to receive climate finance (Dooley, 2012).

REDD+ issues currently under discussion, including Monitoring Reporting and Verification (MRV), reference levels, safeguards information systems and drivers of deforestation and forest degradation, along with all of the unresolved uncertainties and contradictions, have been left for a decision at future UN climate talks (Dooley, 2012). Yet, an agreement on MRV is strongly being pushed inside and outside the UN by Northern governments and corporate allies to ensure that REDD+ credits will be marketable (Lovera, 2012). Carbon markets in this way, layered over existing social and environmental inequalities, go along longer histories of colonialism and enclosures of land and nature. REDD+, embedded in a carbon trading framework, is set to reward forest destroyers.

Early attempts to include emissions and removals of CO₂ from forests in the UN carbon markets entailed uncertainties that led to complex technical debates. Making payments to discourage deforestation and forest degradation has thus been rejected until now by the UN climate talks for very good reasons. Unresolved technical problems include additionality, leakage (forest destroyers moving to another area), permanence (trees will never store carbon permanently), measurement (highly complex and uncertain since it relies on biological variables), and temporality (emissions and removals may still occur many years after a project happens).

However, many more structural flaws do not even appear on the agenda. These include the increased pressures over land and access rights in hand with the contradictory idea of 'selling nature to save it' (McAfee, 1999); local and indigenous populations' rights; and the underlying drivers of forest destruction. Most importantly, the fact that trading offset credits allows pollution to happen somewhere else, locking in an unsustainable fossil fuels-based system which furthers over-production and consumption. Hence, the real source of the problem remains.

CDM and REDD+: two paths towards the same trap?

As a result of 2003 UN agreements, the CDM confined 'carbon sinks' to Afforestation and Reforestation (A/R) activities⁵⁰ which are supposed to be 'additional' to what would have happened without the project. Fruit trees, bamboos, and palms may qualify together with tree species like eucalyptus and acacia.⁵¹ As of November 2012, A/R CDM projects represent 0.8% of the total CDM portfolio.⁵² Most projects include eucalyptus and acacia in mixed or monoculture situations. Further, they represent 6% of the transaction volume in voluntary carbon markets as of 2010, with "REDD taking a centre stage in the developing world" (Ecosystem Marketplace et. al., 2011:18).

The World Bank is a forerunner in setting up funds for forestry offsets, even though its track record on forests conservation is hardly impressive. The most active fund used for A/R, and now also for REDD+, is the Biocarbon Fund, channelling one third of the 15 registered CDM A/R projects by July 2010 (Corbera, 2012). Allowing A/R in the CDM was a major setback in the struggle against the expansion of industrial plantations, particularly since GMO plantations were also approved for carbon offsets (World Rainforest Movement, 2000).

The first A/R CDM project under the BioCarbon Fund in the Democratic Republic of the Congo's (DRC) was a plantation for charcoal production. The project was identified by DRC's Ministry of Environment, along with the World Bank, as a building block for the national REDD+ strategy. An objective is to convert 'unproductive' savannah into a source of biomass with 8 million trees planted over 8,000 hectares, to supply the capital Kinshasa. Hailed as an inspiring model for Africa, the Fund agreed to buy 50% of the credits it generates. Other customers include the French food giant Danone and emissions trader Orbeo.⁵³

According to a 2007 study however, discrimination against the *Batswa* peoples in the DRC led them to be excluded from participation in the project, with no formal land rights. "The *Batswa* cannot participate in the project as a people with dignity and rights; instead, they are treated as second-class entities in a project that does not favour their benefit or involvement" (Makelo, 2007). Foreign investors are able to establish control of community land and water through individuals creating powerful relations with local populations. Job promises are also contested as plantations offer less employment than agriculture (Karumbidza et al., 2011).

By November 2012, DRC received the most funding through a World Bank's REDD-specific fund.⁵⁴ However, problems around land tenure in the DRC emerge and do not look likely to be resolved soon. All forested lands are state-owned while local communities have some rights to possession. DRC's REDD+ National Plan points out that strategic options for REDD+ contain actions such as 10 million hectares of new logging concessions, in addition to opening new plantations and cattle ranches.⁵⁵

Across East Africa, CDM A/R projects have largely led to outright evictions of local populations. The predominance of plantation interests in A/R projects effectively supports corporate land concentration. The result is an increasing number of plantations (wrongly defined as forests) and an emphasis on enforcement of protected areas (Nel et. al., 2010).

Harvesting sustainable injustice

Plantar SA is a pig-iron and plantation company whose A/R CDM project in the state of Minas Gerais, Brazil, was one of the first to be supported by the World Bank Prototype Carbon Fund, a partnership between 17 companies and six governments managed by the Bank. The project anticipated the purchase of over 1.5 million credits by 2012 with the objective to "reduce GHG emissions by establishing sustainable eucalyptus plantations to supply pig iron production with renewable charcoal".

Plantar itself owns properties covering more than 180,000 hectares, largely devoted to eucalyptus for charcoal, and provides services for more than 590,000 hectares of plantations for itself and others in Brazil. Plantar is now doing "what they have been doing for decades."⁵⁶ The company's activities in the area of the project have illegally dispossessed many people off their land, destroyed jobs and livelihoods, dried up and polluted local water supplies, depleted soils and the biodiversity of the native cerrado savannah biome, threatened the health of local people with the use of excessive amounts of pesticides, and exploited labour under appalling conditions. The CDM project helps sustain the environmentally destructive model of monocultures and iron production while doing nothing to improve the climate (Gilbertson et. al., 2009).

After several denouncements of the impacts on the ground, in July 2010, the project was accepted and Plantar was granted status to sell these credits. The World Bank Prototype Carbon Fund has already bought and sold part of the credits, with financial support from the Biocarbon Fund.

Forests for sale: The REDD+ story

"In Friends of the Earth Latin America and the Caribbean (ATALC) we have defined REDD+ as a mechanism of neoliberal markets which violates the sovereignty of the people and their right to free, prior and informed consent as well as the sovereignty of national states. It is not a mechanism to tackle deforestation or its causes but, on the contrary, it could contribute to its increase" – ATALC, 2012.

REDD+ functions under a framing largely coming from international bodies in hand with corporate lobbies and big conservation organizations, seeking for technical and market fixes to the climate crisis. There is little to no space for discussing the underlying causes of forest loss, nor the historical, social and economic aspects that have caused the climate crisis. Despite the lack of an international agreement, an inventory of REDD+ activities showed that at least 100 'readiness activities' and 79 pilot projects had been undertaken by October 2009 (Cerbu et al., 2011). Some of the generated credits are already being sold in the voluntary carbon markets.

The International Emissions Trading Association (IETA) for example, with a membership of +150 companies, including a range of energy-intensive oil, mining and power companies such as British Petroleum (BP), E.ON or Shell, and many banks such as Deutsche Bank, JP Morgan or PNB Paribas, plays an active lobbying role pushing for the expansion of carbon trading. During the UN climate talks in 2010, IETA offered 80 "business-oriented side-events" with sessions on the CDM, climate financing and REDD+. The oil giant Shell was a primary sponsor.⁵⁷ IETA's position paper for the UN climate talks in 2012 revealed that its "member companies are involved in all aspects of REDD+ activities, from the implementation and financing of projects to the purchase of offsets".⁵⁸

In 2005, discussions on ways to *Reduce Emissions from Deforestation* (RED) encouraged Southern countries to undertake voluntary actions. An additional D was added then to the acronym, signifying '*forest Degradation*'. Even though many of the same uncertainties and loopholes

REDD+ is nevertheless a raging controversy in the climate debate.

remained, during the negotiations in Bali in 2007, the UNFCCC, pressured

by heavy corporate and consultancy lobbies, repackaged the concept of forestry offsets (Coelho, 2009). The Bali Action Plan included the role of '*conservation*', '*sustainable forest management*' and '*enhancement of forest carbon stocks*', referred to as REDD '+' (plus) (UNFCCC, 2007: paragraph 1b-iii).

'*Conservation*' though has been historically linked to the establishment of 'pristine' national parks involving evictions of local populations (Neumann, 1999) whereas studies show national parks performing worse than community-managed forests in controlling deforestation (Porter-Bolland et.al., 2011; Oilwatch and WRM, 2004). In Mexico, there are 175 Protected Natural Areas, many of them overlapping with traditional and indigenous territories. The communities that are not evicted from their lands mostly lose their rights to decision-making and control over their territories.⁵⁹

The National Commission in charge of protected areas in Mexico aims to include and expand them under REDD+ 'conservation' strategies. In 2010, the governors of Chiapas, Mexico, Acre, Brazil and California, US signed a Memorandum of Understanding to cooperate with the aim of establishing an authorized market for the buying and selling of forest-based carbon credits. This set the ground for the government of Chiapas to promote a REDD+ pilot project in the *Lacandon* rainforest expecting to generate carbon credits for polluters in California.⁶⁰ The project operates over seven Natural Reserves. In order to be 'Ready for REDD+' the government of Chiapas must prove that the areas from which carbon certificates would be generated are under environmental protection (Conant, 2012). The National Commission has already 're-located' several communities with forced evictions and economic pressures in spite of strong resistance.⁶¹ Many have repeatedly opposed this program.⁶²

With the task of protecting the carbon 'stored' in the trees, 42 indigenous *campesinos* from the *Lacandon* rainforest have been hired to become the 'ecological police' with patrol cars. While they cannot stop large-scale forest destroyers, the 'ecological police' can stop 'suspects' who commit an offence within the regions of the project, which includes cutting trees for subsistence purposes (Castro, 2012). Many REDD+ projects hire community members living inside the project to control other community members to comply with the agreement. By pitting one community against another, these agreements harm local organization and worsen conflicts between and within communities. Research on 23 REDD+ projects in Indonesia for example, showed that while none of the projects ignored the presence of affected communities, they attempted to buy their 'engagement' in the project with jobs, gifts and money (Morgan, 2010). Indigenous Peoples in Chiapas also called on others to "be alert to the double intention of these programs, dispossessing us while changing our culture with the purpose of disorganizing us and neutralizing our resistances" (Otros Mundos Chiapas, 2011). A report from Friends of the Earth Mexico concludes that while REDD+ intensifies conflicts between and within communities, it is being used as "another tactic for grabbing the land away from indigenous *campesinos*" (Castro, 2012:48).

The expansion of monocultures for agrofuels is another of Chiapas government's rush. The second axis in REDD+' is the '*enhancement of forest carbon stocks*', which includes both the improvement of degraded forests and increase of forest cover through plantations. A Chiapas state program called 'Productive Reconversion of Agriculture' is giving indigenous *campesinos* from the *Lacandon* jungle payments to grow African palm and jatropha for agrofuels. Chiapas is the state in Mexico with the largest plantation area for oil palm trees. Located at the edges of the Protected Natural Areas, these monocultures use vast quantities of pesticides which pollute soils and water and seriously harm the health of local populations (García, 2012). Such 'eventualities' are however mostly blamed to 'bad governance' rather than to the corporate political pressure to which REDD+ is structurally vulnerable (Morris, 2010; Cabello et. al., 2012).

In the community *Marques de Comillas*, Chiapas, an indigenous *campesina* signed a contract with the Mexican government for growing palms with intercropping (to plant corn and vegetables between the palm trees). A report from the magazine Truthout revealed another unjust reality of REDD+ on the ground (Marotta et. al., 2013). A *campesina* explained that they received the subsidy while growing their own food. But after a few years, the high-grown palm trees block sunlight from reaching the crops. This, along with the degradation of the soil through intense pesticide use, impedes crops growth. She regretted how monocultures broke the cyclical nature of the maize seeds they once planted. Moreover, a man from a neighbouring community was arrested for burning down his plantation after he couldn't plant vegetables anymore. "He was charged with breaking his contract and put in jail. It was only then that he learned his plantation was generating carbon credits. He had never heard of the carbon market before." The contract states that palms cannot be cut for 25 years. "Now, many wished they hadn't entered into the contract, but at the same time, they don't want to go to jail."

Furthermore, *'sustainable forest management'* goes even further into the REDD+ paradox. Besides 'protecting' the carbon 'stored' in natural parks and monoculture plantations, the last axis inside REDD+', opens the door widely to commercial logging operations. The case of the state of Acre in the Amazon region of Brazil makes the links between the timber industry and REDD+ more visible, and explains why the ITTO, FAO and other promoters have pushed so much for its inclusion (Andrade, 2012).

The state of Acre has received financing for over a decade from the World Bank, the Inter-American Development Bank (IDB) and the Brazilian Development Bank (BNDES) as well as conservation NGOs like the WWF to promote a 'sustainable development' model, now re-named as 'green economy'. Many policies have been undertaken based on the conception of the forest as a supplier of goods and services. Specially significant is the Economic Environmental Zoning with the aim of 'sustainable management' of land-use in Acre, and the successful implementation of 'sustainable forest management plans' in their different forms: private sector, community-based and individual (Andrade, 2012). Consequently, in 2010, 750.000 cubic meters of wood was extracted in the form of roundwood, primarily by companies and large landowners. This amount however is 150% more than the volume of roundwood extracted annually in the state of Acre during the previous decade (Verocai et al., 2012 in Andrade, 2012).

Acre's State System of Incentives for Environmental Services (SISA) law is considered one of the most 'advanced' laws in terms of setting the legal bases for the 'green' economy. The SISA law paves the way for Acre to participate in the international carbon market and the markets for other environmental services, such as biodiversity and water. With the legal backing of SISA, the state of Acre signed a REDD+ agreement with the states of California, US, and Chiapas, Mexico, in 2010 for trading forest carbon credits. According to the Acre News Agency, "Policies for the reduction of deforestation are the greatest advertising for Acre carbon" (Andrade, 2012). On January 2013, the first legally binding carbon market including forest carbon credits kicked off in California.⁶³

In addition, REDD+ carbon quantification has another dark side. It is proposed that measuring carbon can be done with a combination of satellite and infrared technology combined with on-site sampling, a type of advanced geospatial technology (ETC, 2010b). Technologies capable of detecting changes in forest biomass (trees and vegetation) necessarily lead to increased surveillance not only of the biomass but also of the whole forest, as well as the local populations who live there. With all these new assets on the line, forest enforcement is stepping up to 'protect' carbon.

In 2000, the US utility American Electric Power, General Motors and Chevron Oil, bought several areas of the Brazilian Atlantic Forests in the municipalities of *Antonina* and *Guaraqueçaba* in the state of Paraná, investing US\$18 million to 'preserve' this forest - and the generated carbon credits. The conservation NGO, The Nature Conservancy, brokered the deal. The Green Police (*Força Verde*), established to "protect against environmental crimes", changed its role with the carbon market to protect against anyone endangering the new asset. A farmer living on the border of the 'reserve' in *Guaraqueçaba* had a leaky roof and couldn't afford the materials to fix it. He went out to find wood in the forest where he lives. As a result, he spent 11 days in jail, and has since moved away because of continued harassment by the Green Police.⁶⁴ Since local inhabitants cannot plant freely anymore, finding money for food has become an additional pressure for leaving their communities (Overbeek, 2012).

Therefore, the architecture of REDD+ is set to maintain (and expand) a logic based on the destruction of forested lands and local livelihoods. This logic guides violent and polluting models of production and consumption, while REDD+ acts as a pipeline to fuel this. Southern states, along with Northern 'development' agencies, multilateral banks, big 'conservation' NGOs and corporate allies, are pushed to institutionalize legal and regulatory frameworks adapted to the commodification of nature's cycles and functions.

Ready for REDD+: adjusting forested lands to the market logic

In order to get Southern countries 'ready' to enter the forest carbon markets, the World Bank launched its Forest Carbon Partnership Facility (FCPF) fund in 2007 despite the lack of any UN agreement on REDD+ and broad civil society opposition. The following year, the UN launched its own UN-REDD program, both asserting that they would set up pilot projects. Promoting 'market readiness' is strategically important for the Bank and its financial backers in order to open up national (and especially, Southern) economies for carbon markets. Technical and policy readiness elements include creating a baseline of existing emissions; a system of Monitoring, Reporting and Verification (MRV); and a carbon credit registry - which are basic instruments to account for carbon. These readiness funds also pave the way for legal changes, including the drafting of new laws required to implement carbon markets. Each country's 'readiness' level would determine the funding allocation decision.

The FCPF selected 36 countries and consists of 2 funds: the Readiness Fund and the Carbon Fund.⁶⁵ The former 'assists' countries in creating a national REDD+ strategy, while the Carbon Fund facilitates actual trading in forest carbon credits. The oil giant British Petroleum (BP) is investing in the Carbon Fund hoping to offset activities, such as its oil exploration in the heart of the Amazon rainforest, which directly contributes to increased forest loss.⁶⁶

Under the Readiness Fund, each country has to produce a Readiness Preparation Proposal (R-PP) outlining the REDD+ national framework.⁶⁷ Then, pilot projects are implemented as well as policy and legal reforms. This is supposed to 'prepare' countries for the last phase under which they would receive 'performance-based payments' over several years based on their accomplished emissions 'removals/reductions' in forests. These payments take the form of Emission Reduction Payment Agreements, under which countries will have to generate carbon credits (one credit per tonne of carbon avoided or removed).

With the World Bank's ultimate goal "to jump-start a forest carbon market", a total of US\$457 million have been pledged to the FCPF, assisting 24 of 36 country members with their 'readiness' strategies. Germany has pledged the most money (24%), followed by Norway (20%), Canada (10%), and Australia (9%). Currently, the FCPF has five to ten Southern countries expecting to be 'ready' for taking part in the Carbon Fund (selling credits). Yet, an Independent Evaluation Group (2012) from the World Bank indicates that only 16% of the paid-in contributions to the Readiness Fund has been disbursed, either to recipient countries or spent by the Facility Management Team on technical support or administration. The FCPF has so far spent about US\$22 million to deliver a total of US\$4.9 million in grants. Of this, 70% went to only five countries.⁶⁸

Meanwhile, another review of eight Readiness Preparation Proposals (R-PP) found that issues related to the respect of customary rights, land conflicts, the right to Free Prior and Informed Consent, and drivers of deforestation were overlooked. National consultations have been non-existent or inadequate (FERN, 2010). AIDSESEP, the biggest indigenous organization in Peru for example, denounced the violation of indigenous rights over their territories during the FCPF process,⁶⁹ while others criticised it for presenting an incomplete picture of the drivers of deforestation, specifically in relation to on-going conflicts between indigenous groups and industrial logging and mining concessionaires.⁷⁰ On February 2013, AIDSESEP sent a letter to the World Bank's Forest Investment Program denouncing a modified negotiating paper which fails to recognise millions of hectares of untitled indigenous territories while insisting on a "failed model of large concessions", the "promotion of plantations" and the idea of "'false' degraded forests". According to AIDSESEP, the text repeatedly states that they "are 'unproductive' and 'incapable' and that the 'alternative' is the large concessions and (companies and some NGOs) and a specialist technocracy."⁷¹

Meanwhile in Panama, the National Coordinator of the Indigenous Peoples of Panama (COONAPIP) declared in February 2013 that it was abandoning the UN-REDD program in the country, accusing it of "not recognizing that almost 76 percent of the forests of Panama are found in indigenous lands and territories, which indigenous peoples have inalienable rights to."⁷² On March, the Senior Advisor to the Central American Indigenous Council (*Consejo Indígena de Centro América* – CICA), wrote to the UN Resident Coordinator in Panama in support to COONAPIP, declaring that "I worry that the actions of the UN-REDD program in Panama with COONAPIP are not isolated, but form a new practice of racial intolerance and discrimination with Indigenous Peoples and organisations."⁷³

Similar to the Structural Adjustment Programmes imposed to establish neoliberal economies in Southern countries, but this time with 'adjustments' related to environmental, land and forest laws, countries are urged to advance legislation for assuring the provision of carbon credits. In this way, REDD+ reinforces historical inequalities based on exclusion and racism along with unjust juridical frameworks to leave pressing deforestation and forest degradation problems to the supply and demand of carbon credits under corporate control.

Not surprisingly, a 2013 study by World Bank inspectors has found that the US\$4.1bn investments in forestry over the past 10 years have done little to reduce poverty, improve conservation, tackle climate change or benefit local communities in Southern countries. The Independent Evaluation Group, which visited many projects and interviewed hundreds of people, strongly criticised the Bank for "continuing to support industrial logging; not involving communities in decision-making; assuming that benefits would accrue to the poor rather than the rich and powerful; and paying little attention to rural poverty." The study found that 70% of the 37 projects that the Bank funded in protected areas has forced people to move against their will.⁷⁴

In 2010, the World People's Conference on Climate Change and the Rights of Mother Earth carried out in Bolivia, stated in its final declaration: "We condemn market mechanisms such as REDD and its versions + and + +, which are violating the sovereignty of peoples and their right to free, prior and informed consent as well as the sovereignty of national States, the customs of Peoples, and the Rights of Nature" (Peoples' Agreement, 2010). Nevertheless, the UN climate talks in 2011 formulated a methodological basis for counting forest carbon under REDD+, and during the intra-session UN negotiations in Bonn in May 2012, the inclusion of agriculture in REDD+ activities was started to be discussed.

Ecuador entered the UN-REDD programme in 2011 with support from the German cooperation (GIZ) and several organizations from the US, in order to accelerate the creation of 'appropriate' laws for REDD+.⁷⁵ With the first phase ending in 2013, political-judicial frameworks are being redefined. Communities' decision-making power over their territories is at stake. In the yet-under-discussion Environmental Organic Code project, "the Environmental National Authority is responsible for the estimation of environmental services, the issuance of any titles, whether they are certificates, credits or others, the method of commercialization and revenue collection mechanisms for the benefit of the State."

The REDD+ National Ecuadorian Plan states, "Article 74 of the Constitution calls on the State to regulate the production, provision and use of environmental services. In some way then, it can be argued that the character given in the Constitution to environmental services is similar to those applied to the strategic resources of the State such as hydrocarbons and minerals." According to Ecuadorian NGO Acción Ecológica (2012), this interpretation of the Constitution would be unconstitutional, as it hides a part of the same article which states that "environmental services will not be subject to any kind of appropriation."

De-regulating legislation: Ecuador under REDD+ policies

Meanwhile, the Ecuadorian government launched the Sociobosque and Sociopáramo projects in 2008, aiming to include them into the national REDD+ strategy. The idea is that whoever has preserved forests or Andean plains (páramos in Spanish) can sign a contract with the State and receive an economic incentive. In exchange, the 'owner(s)' commits to 'voluntarily' renounce certain rights, since access and use of the territories will be significantly limited for protecting the 'stored' carbon. Ironically, these 'conservation' projects do not prevent extractive activities in the 'protected' territories.⁷⁶ As the coordinator of the Sociobosque program in the Ministry of Environment affirmed, "With or without Sociobosque, a mining or oil activity could be carried out in those territories if the extraction is a state priority"⁷⁷

The Ecuadorian government is indeed promoting oil activities on indigenous territories associated to Sociobosque. The Indigenous Sapara People for example, who holds tenure over their territory and has agreed to put part of it under Sociobosque, has now encountered their territory immersed under oil concession blocks granted by the Government without their consent. REDD+ is not even protecting these territories from extractive industries' activities, violating indigenous and local populations rights (Indian Law Resource Centre, 2012).

Yet, contracts commit signatories to maintaining the area in the same condition as when the project started. It also requires that the received money be spent according to an investment plan approved by the Ministry of Environment. With contracts signed for periods of 20 years, with possible automatic renewal of 20 more years, the delimitation of lands and territories is increasingly a matter of conflict.

Meanwhile, the approved Law for Public Security (RO35) states that "the Ministry of National Defence, in cases of critical unsafe circumstances endangering the public or private companies responsible for the strategic sectors management, will instruct the Armed Forces to take preventive measures for protecting the installations and necessary infrastructure to guarantee its normal functioning" (Acción Ecológica, 2012)

To market or ... to market

An important aspect of the REDD+ discussion involves where the money is going to come from and how. Yet, even the current text on REDD+ finance talks about the 'demand for carbon' being a condition for a 'scaled-up finance' – which is also taken to signify markets. Moreover, REDD+ projects currently being supported through public money are generally designed to help jump-start forest carbon markets or 'compensate' for further pollution (Climate Connect, 2011; Harvey, 2011; Cardona et. al., 2010).

Setting up funds to finance REDD+ projects has brought together a host of corporations, powerful governments, the banking industry, traders and the donor community. Fossil fuel companies also support and finance REDD+ funds, while conservation NGOs are among others who stand to profit from this scheme (Ecologist, 2011). However, much of the promised funding for REDD+ projects has yet to materialize, especially for local communities with promised funding consistently delayed.

The UN agreements of 2010 commit Northern countries to collectively provide resources "approaching US\$30 billion for the period 2010-2012", with REDD+ as an important target. Norway for example pledged in 2010 approximately US\$580 million, from which US\$380 million were to be directed to REDD+.⁷⁸ This 'fast-start finance' is presented as 'new and additional'. Yet, there is not enough information to prove that the contributions so far are really new and not just diverted from existing aid budgets. Countries such as the UK and the US are counting previous commitments to the Climate Investment Funds as part of their fast-start finance pledge. The US also counts its annual contribution to the Montreal Protocol Fund, a long-standing commitment that dates back more than two decades.⁷⁹ To make things worse, more than half of the fast-start finance is in the form of loans, which means Southern countries must repay with interest the costs of tackling a problem they have not caused.⁸⁰

REDD+ could also be partly-funded by an instrument called the Green Climate Fund, which was established at the 2009 climate talks as a financial mechanism for the UNFCCC, and saw its governing instrument approved in 2011. At the beginning, Southern countries asked for US\$400 billion per year, but eventually settled on a quarter of that. The Fund will have the World Bank as its Interim Trustee, subject to a review three years after it becomes operable.⁸¹ So far, there has been no discussion about how to raise the money. The Fund remains empty even though it is supposed to begin dispensing money in 2013. Following the neoliberal framework, the Fund appears to be going towards an over-reliance on the private sector which mostly sees their contributions as investments for further profits and expansion.⁸²

In the end, much if not most REDD+ finance is likely to come from the trade of carbon credits. Although there is no explicit commitment to carbon markets in UN negotiating texts, it was already agreed in 2011 that REDD+ finance 'could' come from markets rather than funds. The World Bank has had the intention to make REDD+ market-based every step of the way, with carbon finance constituting a core part of the Bank's overall global lending program (Carr et al., 2007; World Bank, 2010). Costa Rica became in late-2012 the first country to access 'performance-based payments' through the Bank's FCPF Carbon Fund, "heralding a new phase in forest carbon finance."⁸³

By feeding the same logic of unlimited economic growth in a finite planet, carbon markets deepen its destructive social and environmental consequences as well as the already serious impacts of climate change. Forested lands and local populations living in and dependent on forests are further being threatened by hungry investors eager to profit from carbon money.

The UN and FAO coined in 2010 the term 'climate smart agriculture' and are investing significant resources into projects that promote the carbon sequestration in soils. The World Bank, together with the giants of agribusiness, is leading an initiative to quantify and commodify the carbon in soils. The basic idea is that if the carbon can be measured and valued, then it can be traded, further explaining the focus on

Carbon markets in the soils: REDD and agriculture

Monitoring, Reporting and Verification (MRV) methods. Soil carbon credits are currently sold on the voluntary market (Ecosystem Marketplace et al., 2011).

Several problems arise in linking agriculture with carbon markets. A key technical issue similar to the case with forests is how to measure carbon. Carbon can easily react with oxygen and re-enter the atmosphere at any time (Sharma, 2012). Setting baselines to specify how much carbon was in the soil before a particular practice is implemented is also an uncertain process. Moreover, in order to be profitable, soil carbon projects require a large number of farmers to be aggregated into groups with incentives to apply whichever methodology is being promoted. 'Aggregating' small farmers for carbon markets is prone to increase social conflicts, land grabbing, and violation of human rights (Sharma, 2010).

Along with Norway and the EU, the UK Department for International Development (DfID) has funded a five year program on climate change adaptation and mitigation of the Common Market of Eastern and Southern Africa (COMESA), the Southern African Development Community (SADC) and the East African Community (EAC) (Stabinsky, 2012). According to the DfID business plan, "policy advocacy will develop the 'African Climate Solution' to attract climate change mitigation and adaptation funds",⁸⁴ with one of the program's objectives being "carbon trading benefits."⁸⁵

In order for soil carbon to enter 'official' carbon markets and develop the necessary MRV methods, the Bank and allies want a work program on agriculture under the UNFCCC Subsidiary Body on Scientific and Technological Advice (SBSTA), a technical body that provides advice and responds to scientific, technological and methodological questions to the climate talks. The idea of whole-landscape accounting is also being pursued, which would simplify carbon accounting on a grand scale and allow the integration of forests and agriculture carbon projects in large-scale, sub-national accounting schemes (Stabinsky, 2012).

Although the Kyoto Protocol ruled out 'soil carbon' in the CDM, the World Bank and allies are looking eagerly to rewrite the rules by expanding the eligibility of CDM projects to soil carbon sequestration. This would likely give forest destroyers, like agribusiness, the ability to sell carbon credits resulting in increased land pressures and social conflicts. The CDM Executive Board has already adopted new CDM methodologies for agrofuels, including charcoal-based fuel from tree plantations as well as fertilizers based on the inoculation of legumes mainly for industrial monocultures of soybean and maize.⁸⁶ Under REDD+, agriculture is referred to in a second '+' (REDD++), sometimes called Agriculture, Forestry and Other Land Uses (AFOLU), which incorporates all land use. On December 2010 for example, in parallel to the climate talks, the 'Agriculture and Rural Development Day' highlighted the need for "agricultural intensification as a REDD strategy".⁸⁷

'Climate smart agriculture' is referred to as a 'triple win' for mitigation, adaptation and food security for small-scale farmers. However, this raises numerous concerns highlighted on many occasions by civil society including the limited transparency and participation of local populations, the prioritization of industrial agriculture, the use of technological fixes, the lack of focus on adaptation, and the use of carbon markets as financial mechanisms.⁸⁸

The second *tranche* of the World Bank's BioCarbon Fund, launched in 2004, initiated the first project in soil carbon, the Kenya Agricultural Carbon Project.⁸⁹ In parallel, the Bank commissioned in 2011 two projects to 'build capacity' and institutional infrastructure in the Kenyan government to manage soil carbon investments, called "Readiness mechanisms for climate-smart agriculture." Kenya is also a pilot country of the Bank's FCPF REDD+ fund.

Kenya Agricultural Carbon Project: carbon finance for whom?⁹⁰

Although not officially a REDD+ project, the Kenya Agricultural Carbon Project's activities are technically designed and monitored in line with the push for agriculture in REDD+. The procedures are largely borrowed from the UNFCCC's documented guidelines, likely aiming to demonstrate possible operational approaches in agriculture (Atela, 2012).

The BioCarbon Fund announced the project in 2010 with the aim to sequester carbon and trade verified carbon credits generated from the adoption of 'sustainable land management practices'. The Bank is also funding a 'Climate Smart Unit' within Kenya's Ministry of Agriculture, with the role of collating information and research and promoting the model (including its link to carbon markets) to the rest of Africa. The Swedish NGO Vi Agroforestry has the task to aggregate 60,000 farmers and 45,000 hectares of land over 20 years.

Yet neither the Bank nor the FAO have held any public consultation on the effects for farmers and food sovereignty, giving little information about its development.⁹¹ The farmers enrolled in the project have not yet been paid. According to initial calculations by the Institute for Agriculture and Trade Policy (IATP), payments are likely to be minimal, around US\$1 a year per farmer. Vi Agroforestry admits that many farmers probably have unrealistic expectations. Even so, in the second Global Conference on Food Security, Agriculture and Climate Change held in Vietnam, in September 2012, the Bank and the FAO proposed to 'scale up' this approach. As the NGO Action Aid observed, "the profits earned in that 'soil carbon' market will not be distributed evenly. Most of the revenue generated will go to intermediaries, aggregators, and technicians paid to measure soil carbon, with little or no revenue going to farmers themselves. Smallholders and women farmers are likely to be disproportionately disadvantaged" (Action Aid 2011:9).

The monitoring methodology moreover is based on the assumption that increases in crop yields indicate the amount of carbon stored in the soil. Regular soil measurement across the project area is too costly, so farmers need to fill in information forms that record yield through interviews with monitoring officers, prone to significant errors. As according to the methodology soil is merely classified as 'degraded', the model assumes that carbon will be sequestered at an average linear rate in the 20 years project. However, in reality there is no linear rate of accumulation of carbon in soils. Each field concentrates a wide variation of soils and carbon fluxes; therefore, the methodology is fundamentally flawed.

Farmers are in addition encouraged to move from native varieties, which may produce smaller cobs, to hybrid maize varieties with increased inputs. The agro-giant Syngenta is referenced as "a local seller" of hybrid seeds and herbicides, according to the Climate Change, Agriculture and Food Security Institute. The Bank estimates that 5% of its costs up to 2017 will go towards seeds and seedlings. Thus, Syngenta presumably stands to make up profits (along with other hybrid seed sellers), while binding small-scale farmers to be dependent on and harvest according to a carbon-focused and corporate controlled approach for long periods. It should come as no surprise that Syngenta is one of the investors in the BioCarbon Fund's second *tranche*, which supports this project's methodology.

So-called 'green' techno-fixes, as in the use of hybrid seeds, provokes a larger concentration of corporate control and unleashes privately owned technologies into communities that have mostly not been informed about the impacts. Likewise, for developing 'climate-ready' crops, the largest seed and agrochemical companies are filing hundreds of sweeping, multi-genome patents to enclose the world's plant 'biomass'. Through these patent claims and genetic contamination, 'climate-ready' GMO crops threaten farmers' rights to seed biodiversity and food sovereignty. Six corporations – DuPont, BASF, Monsanto, Syngenta, Bayer and Dow – control 77% of the 262 patent families identified, while the world's 10 biggest pesticide firms control 90% of the global US\$44 billion pesticide market (ETC, 2010). More importantly, these contracts for delivering carbon credits take away the rights of small-scale farmers to decide over their harvests as well as to local knowledge, biodiversity, clean water and food.

IV. Reflections: From a history of enclosure to enclosure through REDD+

Undeniably large-scale deforestation and forest degradation must come to an end. For this, it is crucial to understand what is causing this and how. Yet, REDD+ is silent about the underlying causes of increasing forest loss. On the contrary, REDD+ benefits the actors driving deforestation. Thus, without challenging the logic that fuels forest destruction, REDD+ is set to further aggravate not only the global pollution levels but also the enclosure of nature and the dispossession of local populations who have preserved the biodiverse forests for generations.

There are many overwhelming dangers of reducing forests and other ecosystems to carbon sinks. Territorial struggles intensify as rights to lands are separated from rights to access and use of other elements of nature, including rights to spiritual and cultural heritage as well as rights to carbon. For this, laws are being 'adjusted' once more under the guidance of the World Bank to open up forested lands to the 'free carbon market' logic, while local contracts have to be signed transferring much control over territories where carbon is 'stored' to many of the corporate players driving deforestation in the first place. Significant amounts of public money as well as money through new financial debts are being spent to set up this market.

The many corporations and industries outlined throughout this paper involved in monoculture plantations, large-scale agribusiness, industrial logging, hybrid seeds, extractive industries, financial investment banks, are only some of the vested interests in REDD+. Not only does it help expand the drivers of deforestation, but it also provides forest destroyers a 'green cloak' to escape from any responsibility. There are in consequence no 'fixes' for these structural features; they are inherent to REDD+.

The logic used for assembling REDD+ is entrenched in the logic that the economic system, which resulted in high levels of deforestation and pollution in the first place, should not be stopped. This logic deceives us into believing that environmental and social destruction can be 'compensated' somewhere else. This logic sees nature, its functions and cycles as commodities to be profited from. It sees monoculture plantations as equal to biodiverse forests. This logic imposes a cultural, economic and political paradigm which dismisses local communities challenging it. This logic aims to further a fossil fuels-dependent system that has proven to continuously displace and grab nature in hand with human lives. It ignores the role of yesterday's and today's invasions in the poverty of many indigenous and forest-dependent peoples, reproducing in this way the coloniality of knowledge (Quijano, 1992). By not taking into account the unjust realities of current land regimes, REDD+ does not position itself as an ally to the many groups that have resisted the drivers of deforestation most vigorously and have struggled for their territorial rights.

While REDD+ looks set to get deeper into carbon trading and other environmental services, resistance is growing to challenge the logic and mechanisms that are destroying the planet. It is urgent to support and strengthen the resistances confronting this new type of enclosure worldwide.



Former eucalyptus monoculture burned down and reclaimed by local Quilombola communities for conversion to local ecological agriculture, Espírito Santo, Brazil, 2012
- Tamra Gilbertson

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Notes

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Fenced off forested lands on former Indigenous Peoples lands overtaken by petroleum companies. Near Pekanbaru, Sumatra, Indonesia, 2007 - *Tamra Gilbertson*

CARBON TRADE WATCH

By centring its work on bottom-up community-led projects and campaigns, Carbon Trade Watch aims to provide a durable body of research which ensures that a holistic and justice-based analysis of climate change and environmental policies is not forgotten or compromised. As part of our solidarity work, CTW aims to accompany and support movements and communities in their local initiatives and struggles for environmental and social justice. Importantly, the collective gathers and translates work with others in this field to help facilitate broader co-operation and understanding.

www.carbonradewatch.org



The Transnational Institute (TNI) was founded in 1974 as an independent, international research and policy advocacy institute, with strong connections to transnational social movements and intellectuals concerned to steer the world in a democratic, equitable, environmentally sustainable and peaceful direction. Its point of departure is a belief that solutions to global problems require global co-operation.

www.tni.org



Institute of Global Responsibility (IGO) is an independent non-governmental organisation (NGO) based in Warsaw, Poland. It was established in 2007 and since that time has been focusing on development policy issues, development education and cooperation with partners in the South..

<http://igo.org.pl>



The Center for Research and Documentation Chile-Latin America e.V. (FDCL - Forschungs- und Dokumentationszentrum Chile-Lateinamerika non-profit registered association) exists since 1974 and is a center for information and communication for individuals and groups that wish to inform themselves or get involved with Latin America-related issues. It is well known far beyond the borders of Berlin.

<http://fdcl-berlin.de>

HANDS OFF THE LAND

TAKE ACTION AGAINST
LAND GRABBING

The Hands off the Land project aims to raise awareness about land grabbing amongst the European public, politicians, policy makers, students and professionals. The project presents case documentation, fact sheets and thematic studies of transnational land grabs in Mali, Mozambique, Zambia, Colombia and Cambodia.

For more information contact:

tni@tni.org
office@fian.at
fian@fian-nederland.nl
fian@fian.de
info@fdcl-berlin.de
igo@igo.org.pl

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Cover photo: Eucalyptus stumps after a Quilombola land demarcation resulting in 10,000 ha of lands reclaimed from the land grabbing company Aracruz Cellulose, now Fibria. Espirito Santo, Brazil, 2006
- Tamra Gilbertson