An end to forest offsets!

Why forests should not be part of the carbon market

While the fight against deforestation has become a priority on the political agenda, the driving motivation is not reducing pressure on forests, but reducing the pressure to do something about fossil fuel emissions and the short term profit motive.

Education and Culture DG

Lifelong Learning Programme

This manual was put together by the partners of the ***Grundtvig Learning Partnership "Forests and climate protection – merging topics in environmental education"***. It provides background information for developing new approaches in environmental education focusing on the intricate relation of forests and climate.

In the international climate negotiations forests have become a major topic. While most agree that reducing deforestation is essential to reach the goal of keeping temperature rise below two degrees, many believe that opening the international carbon market for forest offsets will be highly counterproductive.

For a better understanding of the ongoing processes this paper provides information on the concept of carbon trade, why offsetting does not lead to a reduction in emissions and the role forests are supposed to play.

Trying to answer the question who will gain most from forest offsets sheds a new light on the international negotiations on a mechanism called REDD (Reducing Emissions from Deforestation and Degradation). Some examples illustrate the importance of sustainable forest use and traditional land rights which are not respected by most carbon offset projects.

The partners are:

- Amis de la Terre (France)
- Arbeitsgemeinschaft Regenwald und Artenschutz, ARA (Germany)
- Euronatura (Portugal)
- Norges Naturvernforbund (Norway)
- Rainforest Foundation UK (UK)
- Stichting FERN (Belgium)

Fir plantation in South Africa

1. Carbon offsetting: A political invention

Since the nineteenth century industrial revolution, the use of fossil fuels like oil, coal or gas, has allowed industrialised countries to develop economically at an unprecedented rate. It has also led to the rapid and massive release of greenhouse gases like carbon dioxide (CO_2) and methane, and this is profoundly changing the global climate.

Faced with the challenge of climate change - to keep average temperature rise at a safe level - industrialised countries need to start making changes now by moving to low-carbon economies. However, instead of taking action, industrialised countries are proposing another solution. One that is a lot more controversial. This solution is called carbon trading.

A (brief) history of carbon trading

At the end of the 1960s, Ronald Coase, an economist from the University of Chicago proposed the creation of a market in pollution. His theory was that pollution could be reduced by market mechanisms. He believed that if you fixed an objective for how much you wanted a polluting agent to be reduced by, it could be reduced by distributing permits (or quotas, or rights to pollute) to companies who cause the pollution and allowing them to trade them. Reducing the number of permits allocated each year would lead to an overall reduction of the pollutant. The trade element would ensure that businesses that could most cheaply reduce their emissions did so first.

The first compliance carbon market (as opposed to voluntary market where there is no legal obligation to reduce emissions) was established in 1997 with the signing of the Kyoto Protocol. It was intended to be just one of the tools to reduce greenhouse gases in industrialised countries, but pressure from the USA meant that the carbon market ended up as the main tool for obtaining these reductions. More damagingly, carbon offset schemes (see below) were included as part of the carbon market and remain included to this day. The basic idea of carbon offsetting is that instead of reducing their own carbon emissions, companies and countries can finance the attempted reduction of emissions in projects in countries or sectors without emission limits.

Carbon offsetting can be a godsend to companies lobbying for controversial polluting projects. Claiming a project will be "carbon neutral" deflects criticism, and allows the company to hide behind a green smokescreen. Examples include, in the southwest of France, the Aquitaine region creating a carbon compensation fund to justify the creation of the A65 Langon-Pau motorway and a controversial power station in the Netherlands being justified with an offsetting scheme in Uganda. Carbon offsetting doesn't intend to reduce emissions. Even in a best case scenario it is intended to move emissions from one place to another, so if offsetting is used to block opposition to projects that are harmful to the climate, it can actually lead to an increase in emissions.

Although public opposition to offsetting is increasing, many companies and NGOs defend voluntary carbon offsetting as being acceptable as it is complementary to reduction efforts. In fact, voluntary and compliance offsetting are both based on the same logic and the same errors. Indeed if a company is looking to greenwash its activities, voluntary offsetting can work even better because it can be used to show they are spontaneously reducing their emissions before being required to by law.

Forests: at the heart of the new carbon market?

In the voluntary carbon market, planting trees is one type of offset project that can be used to attempt to compensate for carbon emissions. The principle is that when a tree grows on an offset project, it absorbs CO_2. An estimate is made of the amount of CO_2 absorbed and this can be sold to allow the release of an equivalent amount of CO_2 emitted elsewhere, e.g. from transport or manufacturing.

Despite being quite popular as a voluntary offset, controversies around the viability of forest offsets (see chapter two) have meant that carbon offsets from tree planting projects are not allowed in the world's largest carbon trading scheme - the EU Emissions Trading Scheme (EU ETS) - which covers the largest industrial emitters in Europe.

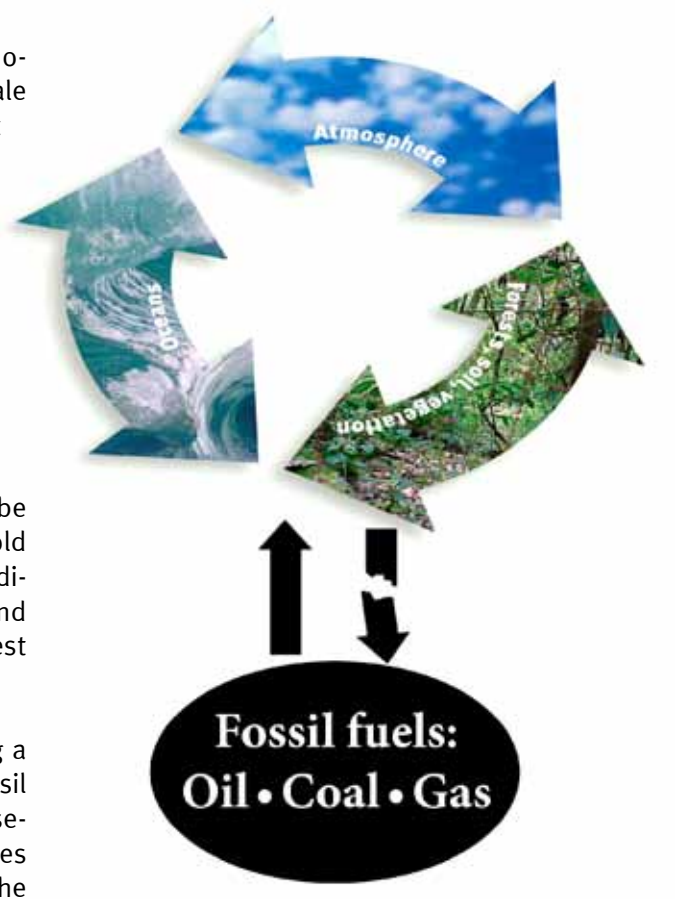
Despite this, many are still pushing for forests and plantations to be included in the carbon market.

2. Carbon offsetting with trees: comparing apples with pears

Trees are considered to be carbon sinks because of their ability to absorb CO_2, but they are not the only stores of CO_2. It is also present in soil and vegetation, in the atmosphere, and in the oceans. The atmosphere, terrestrial ecosystems and oceans constitute the three major areas of the active carbon cycle, with carbon circulating freely from one area to the other.

This relatively stable equilibrium has however been disrupted by the industrial scale burning of fossil fuels or fossil carbon that was stored underground. Left undisturbed, fossil carbon is passive, but when burnt it becomes active, increasing the quantity of carbon that circulates in the atmosphere, the oceans and the forests. This is happening at a time when industrial-scale deforestation has also led to a disruption of the equilibrium, releasing more greenhouse gases into the atmosphere. It is important to note that once forests have been cut down, they cannot be replaced, a plantation on the site of an old growth forest will generally be far less biodiverse, offer less livelihoods opportunities and hold far less carbon that the original forest left undisturbed by industry.

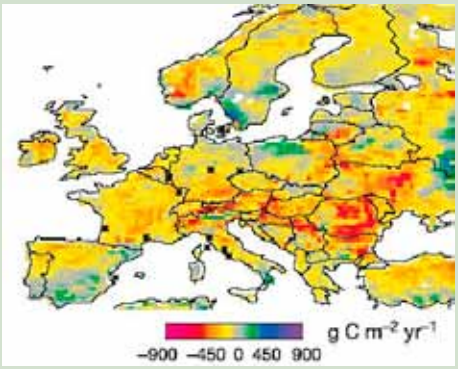
From a scientific point of view, planting a tree to compensate for the release of fossil carbon in the atmosphere doesn't work on several levels. For example, the territorial scales are wrong - there is not enough land on the planet to plant the amount of trees it would require to soak up current fossil carbon emissions. Secondly, the timescales are wrong - oil and coal are compressed fossil carbon, whose development has taken millions of years, whereas the lifecycle of a tree represents a millennium at best after which time any stored CO_2 is released back into the atmosphere.



Box 1

Could forests move from being carbon stores to being carbon sources?

The United Nations group working on climatic issues, the Intergovernmental Panel on Climate Change, states we urgently need to stabilise greenhouse gas emissions by 2015 in order to avoid a snowball effect, known as runaway climate change. In runaway climate change, increases in temperature cause methane to be released from under ice caps and CO2 to be released from forests, these emissions in turn increase temperatures. This is not far-fetched, indeed it has already happened on a small-scale. In 2003, during the heat wave, European forests released more carbon into the atmosphere than they absorbed. This could occur globally, or worse, such as increased temperatures leading to large-scale forest fires releasing massive quantities of terrestrial carbon (such as happened in 2010 in Russia).



Carbon flux in european forests during the heat wave in 2003: red and yellow shades show carbon emissions.
Source: Ciais et al., Nature, Sept. 2005

3. The introduction of REDD+

Each year, approximately 13 million of hectares of forests disappear worldwide and it is estimated that the CO2 released from this disappearance represents between 12 and 18 per cent of total global greenhouse gas emissions. The reasons to halt deforestation are clear, it would safeguard the livelihoods of communities that depend on these forests, protect biodiversity and help stabilise the climate, but halting deforestation instead of drastically reducing emissions from fossil fuels, would simply not work. Temperatures will still rise, which could ultimately spell the end for many forests (see box one). That is one of the key reasons that forest carbon offsets are a false solution – they advocate reducing emissions from deforestation instead of reducing fossil fuel emissions, whereas both types of emissions need to be reduced.

While the fight against deforestation has become a priority on the political agenda, the driving motivation is not reducing pressure on forests, but reducing the pressure to do something about fossil fuel emissions and the short term profit motive.

So, if forest or tree-planting offsets will not work to reduce global temperature increases, why is it on the cards, and who would gain? The answer is simple, billions of tonnes of carbon stored in forests (it is impossible to accurately measure the amount of carbon stored in forests, but this is a logical estimate), represent an impressive economic potential for:

- companies specialised in carbon offsetting
- Southern countries who hope to gain new money to protect their forests
- industrialised countries who hope it will be cheaper to pay for forest carbon offset projects than it would be to reduce their use of fossil fuels.

UN climate negotiations discussions about how to reduce emissions from deforestation and forest degradation now come under the heading of REDD+ (see box below).

Over the years, national interests have progressively changed the initial aim of reducing emissions from deforestation. In a meeting in Accra in 2008 India and China, two countries with increasing political weight, successfully lobbied for tree plantations to be eligible for funds. This was important for them because both countries have practically no primary forests, but many large monoculture plantations of rapidly growing trees.

The countries of the Congo Basin, with the technical support of France, also successfully demanded that "sustainable management of forests" (which includes the industrial exploitation of primary forests through concession forestry (although there are still some disputes over the definition of "sustainable management")), also became eligible as an activity that can generate carbon offsets.

In the end, any UN mechanism to reduce emissions from deforestation and degradation is more the result of political compromise than of a clear and voluntary will to put an end to the deforestation.

Box 2

What is REDD+?

Paying Southern countries to avoid deforestation, thus reducing the release of greenhouse gases is an idea that has been around since the 1997 United Nations Framework Convention on Climate Change (UNFCCC) meeting in Kyoto. At that time it was rejected by NGOs and developing countries, arguing that Northern countries would use it as an excuse to continue burning fossil fuel, that it would not be practical, and that it would displace rather than reduce deforestation.

These concerns have not gone away, but 'REDD' is now seen as an important element of global action against climate change. It has even grown to REDD+ including tree planting, sustainable forest management and conservation. This often turns out to be monoculture plantations, unsustainable industrial logging and protecting forests that were not going to be logged, respectively.

REDD's focus on carbon rather than on the drivers of deforestation has, however, led it down a blind alley. Negotiations tend to get bogged down in discussions about how to measure, report and verify carbon, when what is needed to protect forests is improved forest governance as well as strengthening local peoples' tenure rights. Measuring forest carbon is seen as essential because of the assumption that carbon trading will finance REDD activities. UN climate talks need to move away from forest carbon, and refocus on improving forest governance and strengthening forest peoples' rights to the forests they have historically lived in.

And why is it impossible to forecast the deforestation of a country?

One of the key questions in the REDD+ debate is how to determine whether a country has succeeded in reducing deforestation. This could be done simply, for example by using satellite imagery combined with verification on the ground to measure hectares of remaining forest on agreed dates. In the case of offset trading REDD+ however, it becomes impossibly complicated. Performance is measured according to the degree to which EMISSIONS from deforestation have been reduced in comparison to the number of tonnes of CO_2 that would have been emitted without the REDD+ action. This requires knowing what would have happened in an alternative version of the future which is, of course, not possible.

As well as being theoretically impossible to guess what deforestation rates were likely

to be like, even trying to make sensible estimates is complicated by the many external factors which affect deforestation rates. For example, if you correlate deforestation rates in the Brazilian Amazon region with the price of beef and soya, you see that when prices for the commodities were at their highest, deforestation rose. When the prices went down, for instance as a result of the economic crisis, deforestation slowed down. Other parameters, like currency parity, political stability or climatic events also influence deforestation: the exceptional draught in 2007 led to numerous fires in the Amazon region, and that brought about an upsurge of deforestation.

Box 3

The difference between tree farming and restoring ecosystems

In the many regions of the world that have already destroyed most of their forests, REDD+ money is more likely to go to "reforestation" projects than avoided deforestation projects. But if this reforestation has the sole aim of generating carbon credits as its starting point, it is possible that it could do more harm than good.

The project will be run differently depending on its aims:

- A project aiming for short-term maximisation of carbon storage would tend to grow rapidly growing, or even genetically modified trees despite the harm they do to biodiversity.

- If a project aims for long term carbon storage and the restoration of ecosystems, it would need to plant mixed native trees that would benefit local human and animal populations.

Many 'reforested' areas today are in reality large-scale monocultures of pine, spruce, eucalyptus or acacia. Restoring ecosystems, by using local species that will provide for a variety of community needs may not be the easiest way of creating carbon credits, but it will have a much more beneficial effect on biodiversity and our climate. Unfortunately, the REDD+ mechanism doesn't include a clear distinction between forests and plantations because it only takes into account the 'increase of terrestrial carbon storage.' Several countries are lobbying for their immense monocultures, including oil palms to be on an equal footing with natural forests.

Box 4

The trap of sustainable forest management (or how to pocket carbon credits by exploiting primary forests)

In the Congo Basin, most of the forest surface is exploited in the form of industrial concessions of tens of thousands of hectares. In theory, these concessions should be managed according to sustainable principles, and any company running a concession must develop a management plan and have it approved by the administration before starting the exploitation. In reality, the weakness of the (national or local government) administration and corruption often give companies carte blanche to act in whichever way they see fit. Many development plans are dubious and the outcome is that foresters mine the forests in an unsustainable manner, extracting precious woods in order to meet the demands of the international market.

Even certifying organisation such as the Forest Stewardship Council (FSC) accept practices such as selective felling. They say that the market will evolve and companies will exploit the unused species at a later stage. In reality, most companies sell their concessions after the exploitation and just move on to other primary forests. They leave behind them the roads opened up to extract the valuable timber and these enable others to access formerly remote areas more easily and illegally exploit the forest. Once a concession has opened up the forest, conversion of forest for agriculture normally explodes.

Despite its initial aims, "sustainable forest management" in most cases is simply business as usual. 'Sustainable management' is now a major element of REDD+ despite little being done to ensure that forestry operations are actually sustainable. And having failed to ensure sustainable forest management is worth the paper it is written on, the FSC is now participating in side events during climate negotiations suggesting it can use its standards to complement those aiming to certify REDD+ carbon credits.

4. Who pays the price for forest offsets?

In most Southern countries, the heritage of colonisation has led to tensions around the use of land. Many states heralded independence by nationalising land without recognising the traditional rights of forest communities or indigenous populations.

Until recently, many of these countries were making progress towards decentralisation of the management of forests to give more power to the communities. Since the debate on climate and forests started, there is some evidence that this trend has been reversed.

Now, in order to be able to gain possible future climate funds, states are looking to gain control over the land and the forests once again.

Case study 1 — The importance of recognising the rights of indigenous peoples to protect the forests

In Brazil, recognition of the rights of indigenous peoples had begun to make some small steps forward. For example, communities can now obtain the demarcation of their land and they have the right to define its use. In 1997, the Kayapo gained the rights over a forest area of several thousands of hectares around the river Xingu, in the State of Para. Whilst pressure from cattle farmers and soybean growers, meant that forests shrank in most of the state, deforestation did not occur in the territories of the Kayapo. To protect their forests, the Kayapo people have asked for no financial compensation whatsoever, only the recognition of their rights.

Case study 2 — Deported from their land in order to grow carbon trees

Uganda has become the African "Eldorado" for companies specialised in carbon offsetting. This may be good for some businesses, but it has been at the expense of the local communities. "Carbon-storing" forestation projects have multiplied over the years as they are encouraged by the government.

Often the projects involve large-scale planting of rapidly growing, monoculture trees, such as eucalyptus. In a country characterised by demographical pressure, arable land is vital to nourish the population. However, breeders and farmers have been displaced, sometimes by military means, and their houses have been destroyed, in order to allow European companies to continue to pollute at the other end of the planet.

„Is there a law in Europe that says that when you build a factory, you can deport people to the other side of the world?" Tutiko Kimaleni, head of the Bagisu

(extract from the French documentary "Acheter vert, l'envers du décor", France 5, 2010)

Case study 3

Ecological 4x4s?

The forests that plunge into the Guaraquecaba bay are a remnant of a far larger range that once covered a large part of the Atlantic coast of Brazil, the Mata Atlantica. These forests, the ancestral lands of the Guarani Indians, have witnessed the arrival of many small farmers looking for arable land. Communities have mainly practised extremely low carbon subsistence agriculture here, but this low impact way of living has been put under pressure with the arrival of the 'green police' several years ago, when a regional protected area was set up.

Antonio, a Paranaguan farmer, was jailed for 11 days. The crime he committed? Felling a tree to repair his home. What he did not know was that the trees of his forest had been sold to a consortium of American companies, General Motors, Chevron and American Electric Power, whose carbon offset project borders the protected area. These companies are among the most polluting companies in the world.

The consortium bought degraded land which if left alone would naturally regenerate. It was an area of buffalo farming and the assumption behind the offset is that without intervention the farming would continue in that area. The intended restoration project has however led to difficulties for non-farming local communities whose carbon footprint is far lower than those who buy General Motors' Sports Utility Vehicles (SUVs). So the community suffer and General Motors' customers are given an excuse to continue to drive their SUVs with a clear conscience.

5. If not carbon offsets then what?

It is to be recognised that there are no shortcuts. It is simply not possible to continue business as usual. Halting deforestation requires the change of our consumption pattern and the reduction of pressures driving forest destruction. Some unpopular decisions have to be made.

Starting points would include:

- Shift subsidies away from fossil fuels
- Support existing positive initiatives and legislation such as feed-in-tariff schemes
- Shift electricity metering so tariffs increase rather than decrease with increasing usage
- Public investment in structural change
- Work with fossil fuel industries to start transitioning jobs away from the fossil fuel economy into the green economy
- Shift taxation so that carbon intensive activities are taxed as close to the source of the carbon emissions as possible.

6. More information

***Here you can find more information on the forest and climate, REDD and carbon markets*:**

- www.redd-monitor.org

The partners of this Learning Partnership:

- www.amisdelaterre.org
- www.araonline.de
- www.euronatura.pt
- www.fern.org
- www.naturvern.no
- www.rainforestfoundationuk.org

For more information please refer to these publications:

- Accra Caucus Report (2010): Realising Rights, Protecting Forests: An Alternative Vision for Reducing Deforestation - www.rainforestfoundationuk.org/Accra_Report_ENG
- FERN (2011): REDD+ and carbon markets: Ten Myths Exploded - www.fern.org/10myths
- FERN (2010): Trading carbon: how it works and why it is controversial - www.fern.org/tradingcarbon
- Friends of the Earth (2009): Subprime Carbon? Rethinking the world's largest new derivative market - www.foe.org/pdf/SubprimeCarbonReport.pdf
- Friends of the Earth International (2010): REDD - the realities in black and white - www.foei.org/en/resources/publications/pdfs/2010/redd-the-realities-in-black-and-white
- Global Witness (2009): Vested Interests - Industrial logging and carbon in tropical forests - www.globalwitness.org/library/vested-interests-industrial-logging-and-carbon-tropical-forests
- IIED (2009): Tenure in REDD: Start-point or afterthought? - pubs.iied.org/pubs/pdfs/13554IIED.pdf
- Rights and Resources (2009): THE END OF THE HINTERLAND: Forests, Conflict and Climate Change - www.rightsandresources.org/documents/files/doc_1400.pdf
- Swedish Society for Nature Conservation (2011): New hope for the forests? REDD, biodiversity and poverty reduction - www.naturskyddsforeningen.se/upload/Foreningsdokument/Rapporter/engelska/new hope for the forest_lågupplöst.pdf
- Worldwatch Institute (2009): Into a Warming World - www.worldwatch.org/node/5984