

A toolkit for community activists

World Rainforest Movement



What do forests have to do with climate change, carbon markets and **REDD+**?

April
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WRM - International Secretariat

Avda. Gral José María Paz 1615/3 CP 11400 - Montevideo Uruguay

Ph: +598 2605 6943

E-mail: wrm@wrm.org.uy

Website: <http://wrm.org.uy>

Drawings: Nieves Capote

Lay out: Juan Morante

Photo Credits: Page 25: Fern, Page 32: Jutta Kill, Page 33 A: Wildlife Works Carbon Mai Ndombe, Page 33 B: CIFOR, Page 39: Pedro Martins, Page 13 and 15: Polluting factories: Reuters / Todd Korol, Page 15: Jutta Kill. Polluting Factory in Sitara industrial belt, India and oil spill in the Niger Delta, Nigeria.

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What do forests have to do with climate change, carbon markets and REDD+?

During the past 10 years, a new word - REDD - has been created in international discussions about how to halt forest loss. With REDD, countries with high deforestation rates are paid for taking action that results in **Reducing Emissions from Deforestation and Forest Degradation**. The payment is conditional on proof that carbon emissions from forest destruction have been reduced. That is why REDD is sometimes called a results-based payment. But this is only part of the story of REDD.

The other part of the story is rarely mentioned: contrary to what the name suggests, REDD is not really about forests. Rather, **REDD is first and foremost about industrialized countries and corporations that depend on burning oil and coal delaying the end of their use of these fossil fuels**. When oil and coal are burned, a gas called carbon dioxide is released. The same gas, carbon dioxide, is also released when forests are destroyed, because the trees accumulate carbon in their trunk and branches while they grow. A big increase in the concentration of carbon dioxide in the atmosphere is causing climate change. Companies dependent on burning oil and coal claim that 'carbon dioxide is the same anywhere'. Therefore, they say, halting emissions from forest loss is as much a contribution to fighting climate change as ending the release of fossil carbon – the carbon released when extracting fossil fuels which is at the heart of those corporations' business model.

The information in this booklet will explain why it does make a difference for climate change where a carbon emission is reduced; why carbon in a forest is not the same as fossil carbon in petrol or coal when it comes to climate change and why REDD is a bad deal for the climate, forests and forest peoples.

The booklet starts with a short introduction of how those corporations and countries most responsible for climate change use REDD to continue burning fossil carbon. The chapters that follow provide additional background to information presented on seven flipchart posters which you can find on the WRM website ¹. The drawings on these posters aim to help community activists explain what REDD has to do with forests, energy, climate change and greenhouse gas emissions; what lies behind REDD; and why some people who visit forest communities present REDD as an opportunity for a better life and a new tool to protect forests while others come to warn of the risks of REDD to community control over their territories.

The flipchart posters and this accompanying booklet aim to support communities interested in exploring what REDD means for them. The flipchart posters can be used in many different ways. You can use the full set as an exhibition and start a meeting with participants studying the images and sharing the thoughts

¹ The flipchart posters can be downloaded from <http://worm.org.uy/books-and-briefings/what-do-forests-have-to-do-with-climate-change-carbon-markets-and-redd/>

the flipchart drawings provoke. Or select some of the flipcharts for more in-depth discussion, e.g. selecting those that provoke most reaction or interest among participants. Or you can use one or a few images only to explain a particular part of the forest - climate change - carbon market connections. You could also choose to highlight particular parts of one flipchart only, adding your own designs and comments onto the flipchart, or covering parts of the design that are not useful to your particular discussion and focus on the remaining. In other words, these images are meant to provide you with a versatile tool that makes it easier to explain the complexities of the forest - climate change and carbon market connections, and that give you the freedom to work only with those drawings that are most relevant for your particular meeting or discussion. Images from the flipchart posters are inserted in the booklet text to make it easier to relate the explanations in the text to the images on the flipchart posters. Key arguments or points are highlighted in bold in the booklet, links to further information can be found at the end of the booklet.

The materials aim to explain what REDD is without resorting to exclusive and technical language. We are aware that on their own, the posters and booklet may not provide sufficient information to those who are looking for a comprehensive introduction to REDD. They are not meant to provide such an introduction on their own. Rather, they have been designed to help those who are already familiar with concepts such as REDD, carbon markets and climate justice to more easily explain what lies behind REDD and market-based conservation to forest peoples and traditional communities they work with. In addition, the information highlights how and why REDD reduces forests to tradable units of carbon dioxide. Such a reductionist idea is intricately linked to the technocratic world view of Western science. It would be hard to imagine in cosmologies that conceive of each forest as unique, place-bound and as an indivisible, intricate and ever-changing web of human and non-human relations and interactions.

We hope you will find this booklet useful and informative. We welcome suggestions that help us improve the flipchart posters and information presented in this booklet.

Introduction

REDD stands for **R**educing **E**missions from **D**eforestation and Forest **D**egradation. When forests are destroyed, the carbon stored in the forest's vegetation is released as carbon dioxide. **The idea of REDD is that countries with high deforestation rates or companies responsible for forest destruction are paid for taking action to reduce deforestation.** The hectares of forest saved from destruction are converted into tonnes of carbon dioxide emissions not released into the atmosphere, and the REDD payment is based on these tonnes of carbon dioxide not emitted. Because the payment is supposed to be made only once evidence has been provided that emissions from forest destruction have actually been reduced, REDD is sometimes described as a results-based payment. But this is only part of the story about REDD.

The other part of the story is rarely mentioned: **contrary to what the name suggests, REDD is not really about preventing forest loss. Rather, REDD is first and foremost about industrialized countries and corporations delaying the urgent task of ending the use of petrol and coal.** When these fossil fuels are burned, the gas carbon dioxide is released. The rapid increase of carbon dioxide and other gases during the last 150 years or so in the atmosphere is causing the climate to change. The same gas, carbon dioxide, is also released when forests are destroyed, because the trees accumulate carbon in their trunk and branches while they grow (see flipchart 2). Companies and those promoting REDD often claim that 'carbon is the same anywhere', and therefore, they say, the climate benefit from halting emissions from forest loss is equivalent to ending the release of carbon dioxide from burning oil or coal – the fossil carbon that is at the heart of those industries' business model. With this justification, through REDD, they can pay someone elsewhere for reducing emissions by preventing planned forest destruction while they continue releasing fossil carbon when they burn oil, petrol, coal or natural gas (see flipchart 7).

But for people who live next to oil refineries or polluting factories such as iron smelters, bauxite and aluminium factories, chemical plants, cement factories, etc. it does make a difference where emissions are reduced, because along with the carbon dioxide emissions, these industries also release other toxic substances (see flipcharts 3 and 5). It also makes a difference for the climate where emissions are reduced – and whether the most polluting companies need to reduce their destruction or if they are given the option to pay someone elsewhere to reduce emissions for them while they continue polluting – increasing their profits as they keep up or even expand their pollution. REDD provides such an opportunity to the corporations most responsible for climate change.

Oil companies and other companies in the extractive industries sector, the industrial food system and industrialized countries have gained their power and make their profits from burning the fossil carbon contained in oil, coal and natural gas. Without this powerful source of energy, particularly petroleum, their current business model would not generate the profits it does for their shareholders. **The claim that reducing emissions from forest loss is as beneficial for the climate as reducing the burning of fossil carbon helps those companies and their supporters to shift the focus of international climate negotiations away from the urgent need to keep fossil carbon in the soil – to stop extracting petroleum, coal and natural gas, in other words. Instead, they change**

the focus of discussion and claim that the carbon that is released when forests are destroyed is an important part of the climate problem that needs to be dealt with. Conservation NGOs present REDD as an instrument that can help reduce emissions from forest loss (see flipchart 7). Industrialized country governments, oil companies, conservation NGOs and institutions like the World Bank and the International Union for Conservation of Nature (IUCN) provide funding and technical support, convene meetings and conferences and help publish reports that show just how promising a solution REDD could be. This way, REDD is introduced into international climate agreements and helps corporations and governments delay the only real solution to the climate change problem: Leaving the fossil carbon stored in oil and coal ² in the ground.

REDD is therefore a bad deal for the climate. It is also a bad deal for communities for whom the forest provides a livelihood and home. Their forest use – shifting cultivation, use of forest products and small scale agriculture in the forest – is presented as the main cause of deforestation and climate change while the real causes of both – the destruction undertaken by powerful and polluting corporations – are no longer at the centre of the public debate about climate change or deforestation.

This blaming of peasant farming and indigenous peoples' use of the forest as the main problem has to do with how REDD is designed to work (see flipchart 7). **To qualify for a REDD payment, a country or a company needs to show that it is saving a forest that was at risk of being destroyed.** They then claim to take action that prevents this planned destruction; they hire consultants to calculate exactly how much carbon has supposedly been saved as a result of the action they have taken; they convert the hectares of forest that were apparently saved, calculate how much carbon was stored in this forest, and how much carbon dioxide would have been released into the atmosphere. This amount of carbon dioxide that was not released is then converted into carbon credits which in turn can be sold. One carbon credit represents the permission for the buyer of the credit to emit one additional tonne of carbon dioxide, carbon dioxide that s/he would otherwise not have been allowed to emit. This permission to pollute allows credit buyers to claim that their own carbon dioxide emissions have been neutralized and are not contributing to climate change.

Because large-scale deforestation for cattle ranching, soya or oil palm plantations is much more profitable than the payments offered through REDD, the companies that are responsible for this large-scale forest destruction will not stop destroying forest because of REDD (see flipchart 7). So, conservation NGOs, the World Bank, consultants, government agencies and corporations promoting REDD as a solution started to propose projects that focus on peasant farming and shifting cultivation instead. They found it easier to impose REDD on peasant farming and indigenous peoples' communities often living in very remote places and who do not have the political influence and economic power to reject REDD and who can more easily be forced to comply with the restrictions that REDD projects put on their land use.

² Natural gas is another store of fossil carbon. But because petroleum and coal are the two types of fossil fuel that are most widely used, we focus on petroleum and coal. But preventing climate change will mean also ending the use of natural gas, just as it means leaving petroleum and coal in the ground.



Initially, REDD focused on reducing emissions from deforestation and forest degradation only. But by 2009, REDD had become REDD+. The plus indicates an expanded version of REDD that includes activities not part of the initial definition of REDD. For example, countries with lots of forest but with little forest loss can receive payments under the expanded version of REDD, REDD+, when they show that the forest loss is not increasing in their country. Logging companies can also receive REDD+ payment if they reduce forest degradation through showing that they manage their forests "sustainably". Even tree plantation companies can receive REDD+ payments, saying that the trees they plant on a large-scale and in monoculture are absorbing carbon. What they do not say is that these trees are cut again after a few years; that the management of these plantations requires fertilizers, agrotoxins and mechanized harvesting; that the products produced from these trees require burning of petroleum or coal; and that most of the carbon stored in the trees will be released into the atmosphere soon after harvest. Also, such large-scale monoculture plantations have a lot of additional negative ecological and social impacts on the communities whose territories they occupy. Often, they will also destroy local economies and threaten a community's food sovereignty because plantations occupy or dry up land previously used for local food production.

REDD+ has become the latest attempt by states, international agencies and conservation NGOs to prevent the loss of (tropical) forests. Plans presented in the past by these actors to halt forest loss have not been very successful - quite the opposite. While those responsible for large-scale deforestation such as industrial agriculture,

logging, mining and infrastructure companies continued destroying as before, communities that depend on forests are made to pay the price for the large-scale destruction caused by these companies. This was the case for example under the World Bank and FAO Tropical Forestry Action Plan of the 1980s/90s. While peasant families and forest peoples were evicted from their territories in order to turn forests into tree plantations, national parks and other conservation areas, logging, mining and agribusiness companies continue to destroy forests.

Just like these past international initiatives, the proposal for REDD+ did not come from forest communities. It is a concept based on an external and very biased view on the causes of deforestation (see flipchart 1). This view hides the real causes of deforestation, and the economic and political interest and influence that the extractive industries, logging companies, plantation and agriculture food companies have which are responsible for forest destruction on a large scale. This economic and political dominance secured those responsible for large-scale deforestation a seat at the table when REDD was designed while communities who depend on forests and have protected forests for generations were not involved when REDD was elaborated. The result is a mechanism that does not hinder large-scale deforestation and blames forest loss on the politically and economically excluded: communities that live in and with the forest.

REDD+ continues to exclude forest communities - despite many conservation NGOs and government agencies organizing community meetings on REDD+ where they highlight its benefits for forest communities. Language about 'participatory REDD+' and 'community-led REDD' rhetoric does also not change that exclusion. One reason for this is that where communities are given the option to participate in REDD+ – often they are not – the concept is presented in very technical language. The risks are rarely mentioned and REDD+ is explained in a confusing and intimidating way which creates the impression among community members that REDD+ is something for outside experts and engineers, not for the community. And in a way it is, even though its consequences are borne by communities living in and with the forest.

Community workshops and participatory meetings cannot change the fact that the idea of REDD+ reduces the uniqueness of every forest with its complex and ever-changing web of human and non-human relations to a number: x tonnes of carbon, converted into tonnes of carbon dioxide prevented from release into the atmosphere. This process requires that that which makes any one place special and unique is abstracted away, that the uniqueness is reduced to units of carbon that can be measured, compared, turned into carbon credits which can be bought and sold. **The very companies responsible for large-scale forest destruction can then buy these REDD+ credits and use them to claim that their destruction does not cause any climate change even though they continue their destruction. By contrast, communities that have protected the forest for generations are prohibited from using what has been turned into a "REDD+" offset forest** (see flipcharts 1 and 7). Often, conservation consultants do not talk about this part of the REDD+ story. They fail to mention many problematic aspects of REDD+ that are important for communities to know about and which show why and how REDD+ is an instrument that enables the social, local economic and ecological destruction caused by corporations to continue.

How are REDD+ projects introduced in communities? Who is involved in promoting REDD+?

Q: *How did you hear about REDD+?*
How would you describe what REDD+ is about in a few sentences?

Many times, communities are not asked if they agree to a REDD project being implemented on their territory. They are just informed that there will be a REDD+ project or programme and that there will be rules to comply with that regulate (read: restrict) community forest use. If communities are asked at all by those who come to present a project whether they want to be part of it, they usually hear: 'Our project is important for the climate. It will bring jobs and benefits to the community and help protect the forest. There will be a meeting to explain what the project is about and after the meeting you can sign to be part of the project.'



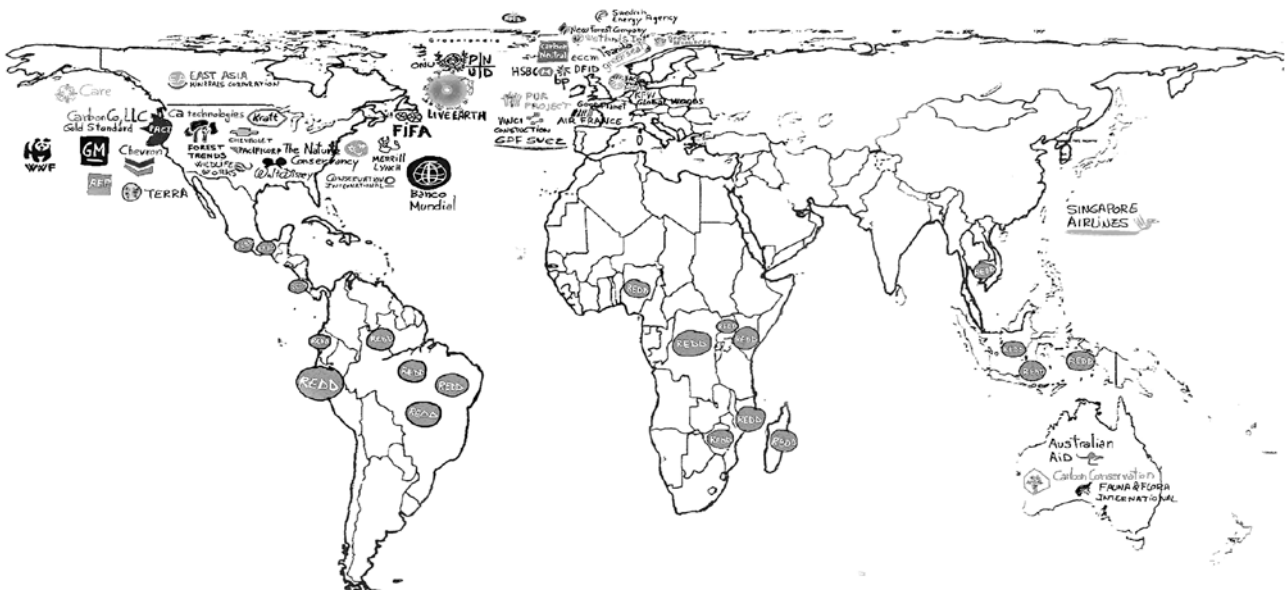
The people who come from outside the community – development agencies, conservation NGOs, representatives of carbon companies, consultants – will have told a very similar story in the different communities they visit. They will have used similar ways of introducing and promoting REDD+. They will have talked a lot about carbon and deforestation and that peasant farming and shifting cultivation are causing carbon emissions that need to be reduced because of climate change. They will also have talked about the importance of 'measuring and monitoring carbon' and that REDD+ is important to stop climate change and that their REDD+ project in particular will create jobs and other benefits for the community.

Many times, meetings that conservation groups or government agencies organize on REDD+ in forest communities leave people very confused: 'Those city people talked a lot about carbon and climate change and measuring our carbon and that people from far away want to help us protect the carbon in our forest, and that they need our carbon. But I still don't know what they need our carbon for or how the carbon will get there,' a community member affected by a REDD+ project in Kenya explained.

REDD+ projects located in very different and distant parts of the world share this common pattern: **People from outside the community come to talk about carbon; they cannot really explain well what this carbon has to do with the problems the community faces. Once a REDD+ project begins, community members can no longer use the forest as they did before while the benefits promised by the REDD+ project are not materializing.**

A look at the global distribution of REDD+ projects reveals a few noteworthy points:

- A small number of conservation NGOs including The Nature Conservancy, Conservation International, WWF and the Wildlife Conservation Society are involved in many of these REDD+ projects;
- Most REDD+ projects are located in the global South, but the actors promoting them and the companies buying the credits are based in industrialized countries;
- Most REDD+ projects are in very remote locations that are difficult to reach, and therefore it is both difficult for community members in these locations to obtain access to information and experience from elsewhere about REDD+ and it is easy for the REDD+ project to monitor who visits the communities on the land the project has declared a REDD+ project area;
- Many REDD+ projects are located near protected areas.



What is this carbon that consultants, companies and conservation NGOs talk about?

Q: What comes to your mind when you think about energy? (Firewood? Charcoal? Cookstove? Work performed by humans or animals? Petroleum? Coal?)
What makes up the energy in the wood or charcoal or petroleum?Carbon.....

Western science and the knowledge it produces and indigenous peoples' traditional knowledge systems are very different from each other. Their explanations of what makes up a forest and how different parts of a forest interact also differ greatly. The following is a **Western science description of how plants use the energy from the sunlight to produce their food: energy that plants need to grow.** The process used by the plant is called photosynthesis (using light to put things together: photo is the Greek word for light and synthesis means putting things together). In photosynthesis, **the plant uses the energy from the sun to turn the gas carbon dioxide – CO₂ – and water into a kind of energy that the plant can use to grow: sugars.** As a by-product, the plant produces oxygen that is released back into the atmosphere. So, **plants breathe in carbon dioxide and breathe out oxygen (when there is light), humans and animals do the reverse: they breathe in oxygen and breathe out carbon dioxide.**

Carbon dioxide + water + energy from light → sugar (energy plants use to grow) + oxygen ³

The sugars – and the carbon locked up in them during photosynthesis - that the plant does not need immediately to feed itself is stored, e.g. in the wood and roots of a tree. When the wood or roots are being cut and burned, the carbon stored in them is released back into the atmosphere as carbon dioxide. The burning of wood for energy which has happened throughout human history also releases carbon dioxide to the atmosphere. The concentration of carbon is different in firewood and charcoal: In charcoal, the carbon is more concentrated ➤ more powerful source of energy.



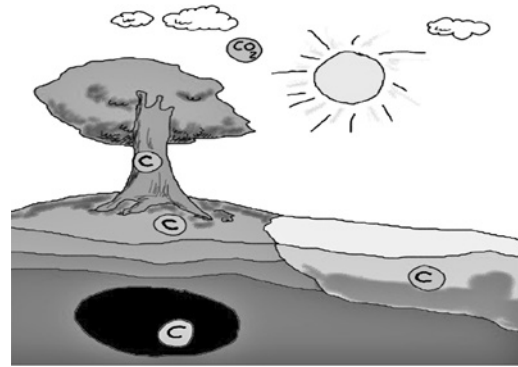
The carbon in trees and vegetation is stored aboveground, it can easily be released naturally, through fires, storms, insect outbreaks.

Wood and roots of a tree and other vegetation are places where carbon is temporarily stored

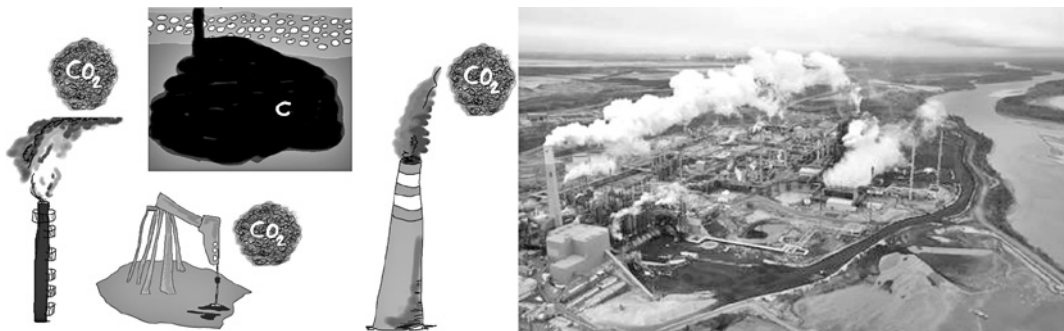
³ 6 units of carbon dioxide (CO₂) + 12 units of water (H₂O) + light → one unit of sugar (C₆H₁₂O₆) + 6 units of oxygen (O₂) + 6 units of water (H₂O)

Q: Can you think of another source of energy connected with carbon?

Petroleum and coal are stored deep inside the Earth, underground. The carbon that is locked up inside these deposits of petroleum and coal is not usually released spontaneously, humans need big machines to dig it up and process it into petrol, diesel and coal that can be burned as fuel.



➤ **Fossil carbon:** Petroleum and coal



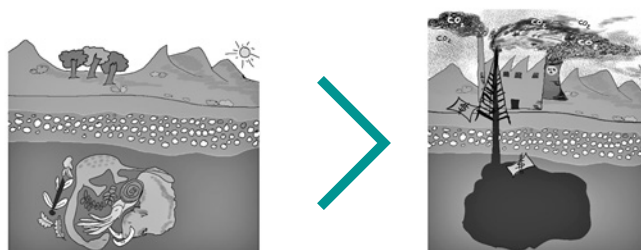
This carbon that is locked up in petroleum and coal deposits deep inside the Earth was once stored in trees in forests and in vegetation aboveground. Over millions of years, this vegetation was compressed and turned into underground deposits of petroleum and coal. That is why the carbon stored in petroleum and coal is also called fossil carbon and petrol and diesel and coal are called fossil fuels.



This process of compression of dead plants over millennia has turned petroleum, gas and coal into very potent, very high-concentration sources of energy. Because petroleum, coal and natural gas are so powerful sources of energy, their use accelerated production and consumption of industrial goods. This enabled the globalized trade and the rise of global corporations like those mentioned on flipchart 1 and others that dominate that trade today. Fossil carbon became **the engine of global industrialization.**

What does carbon have to do with climate change? What is global warming?

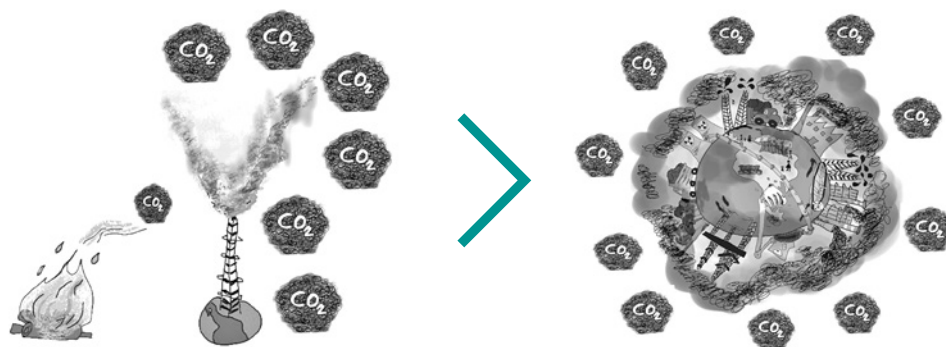
Please note that the text in this chapter also relates to Flipchart 4.



Fossil carbon = plants that grew millions of years ago, were compressed into underground deposits of petroleum and coal & contain high concentration of carbon

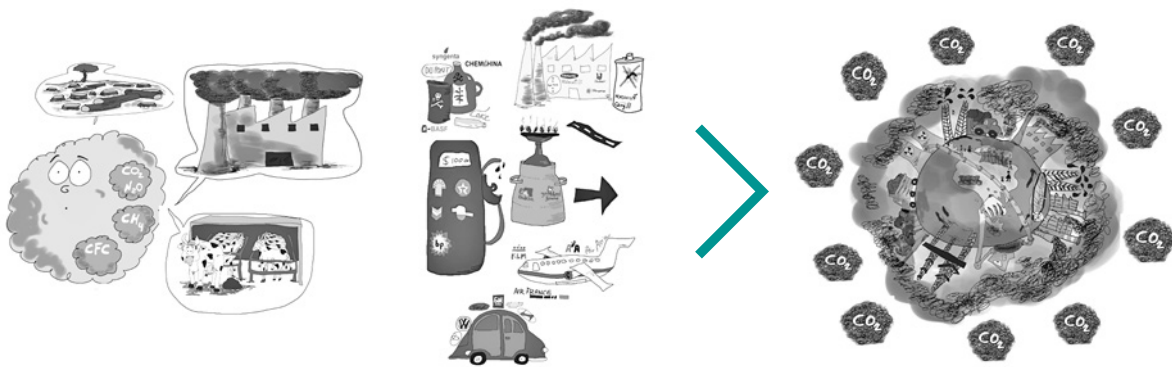
It took millions of years for plants to be turned into petroleum and coal. This process involved a lot of pressure and heat and resulted in the carbon locked up in these plants becoming very concentrated. **The fossil carbon that is currently burned as petrol or coal each year is the equivalent of 400 years worth of plant growth** – carbon stored by plants over 400 years is thus released every year when oil, coal and natural gas are burned.

The enormous concentration of ancient plant carbon in petroleum and coal is what makes them such a powerful carrier of energy: Small quantities of fossil carbon contain a lot of energy, compared with the energy in wood or charcoal. Like the difference between the caffeine in a weak coffee and in a very strong coffee. This fossil carbon can also be more easily transported from one place to another, something that is very important for industrial production. For example, petroleum is shipped from Nigeria or Venezuela or Ecuador to the refineries and factories in industrialized countries and the industrial zones in China, India and elsewhere that produce many of the goods produced for the global North. **The global economy has become dependent – addicted – to this highly concentrated energy stored as fossil carbon in oil and coal and natural gas.**



Just as the carbon stored in trees is released as carbon dioxide when wood is burned and the energy is used, burning petrol and coal releases the carbon stored in these fossil fuels. But because the carbon concentration in oil and coal is so much higher than in wood or charcoal, much more carbon dioxide

is released into the atmosphere when oil or coal are burned. And large and ever growing quantities of oil and coal are used in the steel, iron, bauxite, fertilizer, chemical, car etc. factories that produce the industrial goods traded in the global economy; for industrial agriculture that uses large amounts of fertilizer (need petrol to produce fertilizer) and large machines (running on diesel or petrol) to produce a very small variety of crops for export (transport over long distances) on very large scale; or for transport in huge container ships and aeroplanes (the fastest-growing sources of carbon dioxide emissions). **The result of this ever-increasing use of oil and coal is a huge increase of carbon dioxide in the atmosphere.**

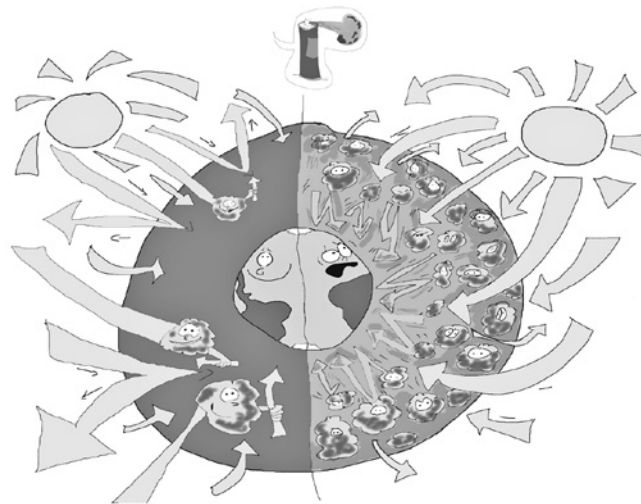


In addition, when oil and coal are taken out of their underground deposits and burned as fossil fuel, the damage they cause is not only the massive release of carbon dioxide but also other pollution, environmental and social destruction and conflict.

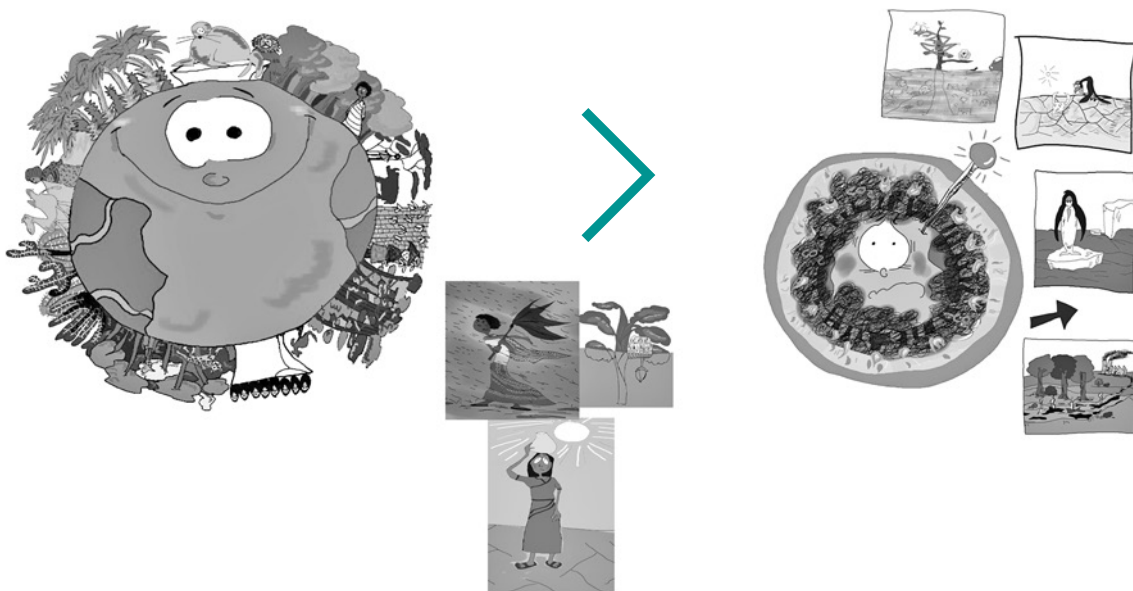


What does carbon have to do with global warming and climate change?

Even though carbon dioxide is a gas that we cannot see, smell or taste, it has always been present in the atmosphere. It plays an important role in regulating the temperature on earth because it acts like a filter: it lets the energy from the sun in and keeps a part of the sun's energy close to the earth. The higher the concentration of carbon dioxide in the atmosphere, the more of the sun's heat is trapped. Too little carbon dioxide in the atmosphere would mean that the temperature on the Earth would be very low, too low for human life to flourish. Too much carbon dioxide, by contrast, means that too much of the heat from the sun is trapped, and the temperature increases. Carbon dioxide therefore acts like the glass in a greenhouse: it traps heat from the sunlight and keeps that heat close to the ground. That is why carbon dioxide, methane etc. are also called '**greenhouse gases**'.



The concentration of carbon dioxide in the atmosphere has always changed in the earth's history. **But the rapid release of large amounts of ancient carbon that was locked up in petroleum and coal deposits underground means that the concentration of carbon dioxide and other greenhouse gases (like methane) has risen very rapidly. As a consequence, more of the sun's energy is trapped and the global temperature has begun to increase. This is what is called global warming.**



Forests and oceans have been soaking up some of the fossil carbon that is released from oil and coal burning. But they have not been able to absorb all of the extra carbon released through the burning of petrol and coal. The increase in carbon dioxide in the atmosphere is affecting the climate worldwide. **Changed weather patterns and weather extremes such as stronger and longer floods, droughts and storms are the first signs of a changing climate. The weather is also becoming more unpredictable as a result of climate change.**

What do governments do about climate change? Which are the main international agreements on climate change?

Q: What are governments doing to prevent more greenhouse gases being released into the atmosphere? Do they negotiate how to end burning oil and coal as quickly as possible?

Governments from 193 countries have been meeting annually since 1992 to talk and negotiate actions that would reduce emissions of greenhouse gases. Without reducing these emissions, the concentration of carbon dioxide and other greenhouse gases in the atmosphere will continue to rise, leading to ever more of the sun's energy being trapped, and to the global temperature therefore rising. **Already with the current concentration of carbon dioxide in the atmosphere, the climate is changing: the weather has become more unpredictable, storms, floods and droughts have become more extreme** (see flipchart 3).

The annual meetings have been convened by the United Nations, the institution that came into being in 1945. Its mission is to maintain peace and security through "international co-operation [among the governments that are UN members] in solving international problems of an economic, social, cultural, or humanitarian character and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion."



Over the years, corporate interests have gained more and more influence at the UN. Oil and coal companies in particular have spent a lot of money to prevent governments from taking decisions at these UN climate meetings that would hurt their profits. As a result, these annual climate talks have not resulted in much tangible action to really deal with the root of the problem: the addiction of the industrialized world to fossil carbon.

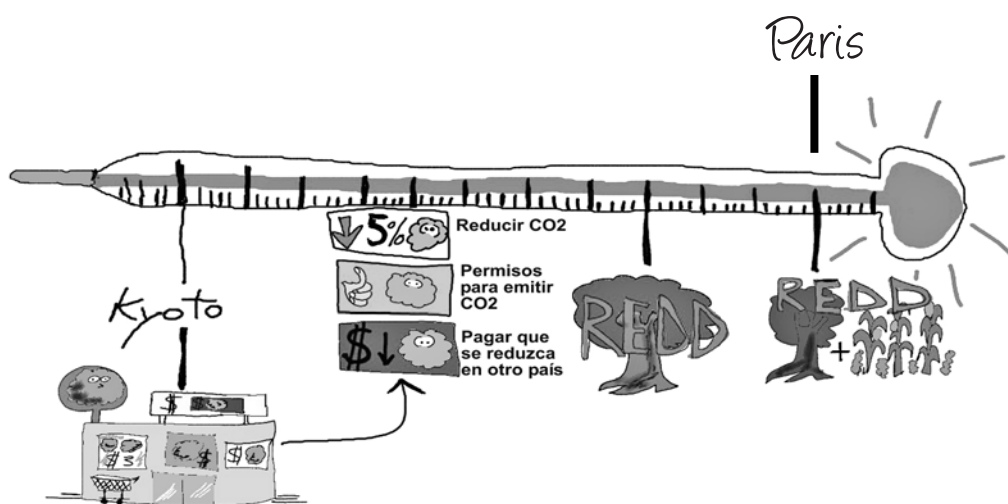
But governments felt under pressure to show that they are doing something, so they have adopted two agreements saying that countries will reduce emissions.

In 1997, the UN conference adopted the **Kyoto Protocol: Industrialized countries** reduce emissions by an average 5 percent compared to emissions in 1992. The USA was part of the countries that negotiated the Kyoto Protocol but the US parliament did in the end not ratify the agreement so the USA as the only industrialized country and the biggest emitter of greenhouse gases at the time did not assume a binding commitment to reduce emissions under the Kyoto Protocol.

At the annual UN climate meeting in 2015 in **Paris, France, governments adopted the Paris Agreement on Climate Change. From 2020, all countries committed to reduce their emissions or limit the increase but these commitments are not legally binding.**

There has been much talk about the reduction targets in the Kyoto Protocol and the Paris Agreement not being high enough, especially from industrialized countries. That is true.

Maybe more important, however, – and more dangerous especially for rural communities and for people living in areas where polluting factories are operating – **is that governments included a mechanism in these UN climate agreements that allows companies to avoid making these (already insufficient) reductions. This mechanism allows companies whose emissions are limited as a result of these agreements to continue polluting without limits.**



This mechanism is called carbon trading. **Carbon trading allows a country or company to exceed their own pollution limits as long as they buy an "emission permit" from another country or company that has more emission permits than they need to cover their emissions (see flipchart 5).** Carbon trading also gives the country or company that wants to exceed its pollution limits the possibility to pay someone

with no legal obligation to limit their emission to make the reduction for them. In return for the payment the company or country receives a carbon credit, which allows them to exceed their carbon emission limit (see flipchart 5). The projects that sell these carbon credits are usually located in the global South.

All a company (or country) has to do to legally exceed the emissions limit is buy pollution permits from another company that does not need all its permissions to pollute or buy a carbon credit from a project that sells carbon credits.

Since 2007, governments have discussed how they can include forests into carbon markets. This discussion has created the new word "Reducing Emissions from Deforestation and Degradation of tropical forests: **REDD ... REDD+ REDD++**

From 2020: Carbon markets (see flipchart 5) are expanded in the Paris Agreement to also include REDD+ and agriculture.

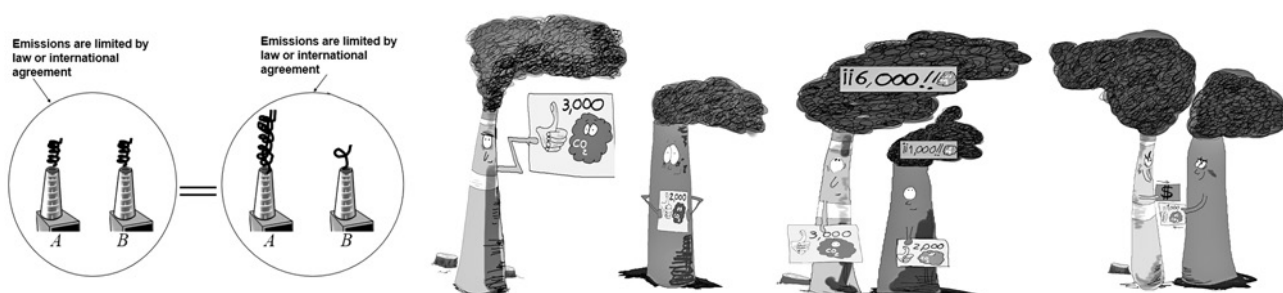


What is carbon trading?

Trading of carbon permits⁴

Carbon trading is a mechanism that allows polluters to release greenhouse gas emissions in excess of their emission limit. The Kyoto Protocol has limited the greenhouse gas emissions of industrialized countries. To comply with these limits, each industrialized country has to reduce emissions in the different sectors of their economies. For some sectors like transport or agriculture, the governments introduce a variety of policies that are aimed at reducing emissions; for example, tax incentives for smaller cars, electric cars, better public transport, insulation of buildings, etc. For large sources of emissions, such as factories or refineries, paper mills and so on, some governments have chosen a different instrument: **legislation that limits the emissions at each factory but at the same time allows them to exceed the limit if they buy additional permissions to pollute. This is called carbon trading.**

The European Union, for example, has limited carbon dioxide emissions of around 11,000 factories and oil refineries in its 26 member states. For each year since 2005, each of these factories needs to show that they have a carbon permit for every tonne of carbon they release. If they have used up all the permits they have for a given year but want to continue polluting, they can buy additional permits from another of the 11,000 factories with an emission limit if that factory has not yet used up all its emission permits. **How can a factory have more permits than it needs? It predicts emissions to be higher than they actually will be. The factory receives permits based on this prediction, and if these predictions were higher than actual emissions will be the factory has extra permits because less carbon dioxide was emitted than had been predicted. Even though the factory does not release as much carbon dioxide as its owners said it would when the permits were distributed, the company can keep the unused permits and sell them to another factory that has run out of permits to pollute.**

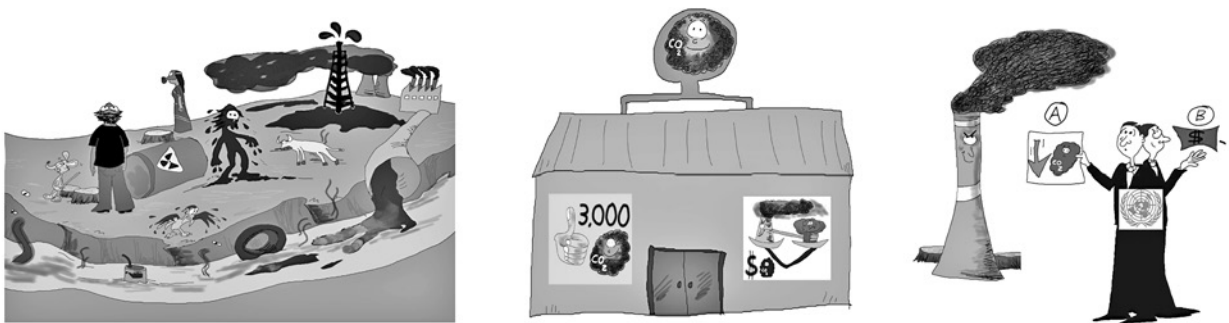


⁴ For most community workshops in the global South, this first part of the flipchart is probably less relevant than the part about carbon credits, below. For more information about how the trade in carbon permits works, see: [FERN \(2010\): Trading Carbon. How it works and why it's controversial, Chapter 2](#), [FERN \(2011\): Designed to fail? The concepts, practices and controversies behind carbon trading](#), as well as [Carbon Trade Watch \(2012\): Green is the color of Money: The EU ETS failure as a model for the green economy](#).

Companies and governments supporting carbon trading claim that as a result of this carbon permit trade between polluting companies, an overall emission limit is being respected on balance: One factory polluting more in one place is balanced out by another factory elsewhere polluting less than the law allows.

This form of carbon trading system is also called 'cap and trade'; today "cap and trade" legislation limiting emissions of factories and refineries mainly exists in industrialized countries where since the Kyoto Protocol, limits have been placed on how much carbon dioxide these large factories can release. Companies with such emission limits can in addition buy carbon credits (see below), another type of permission for these companies to exceed their pollution limits.

Those who support carbon markets claim that because greenhouse gases move around in the atmosphere, it does not matter where in the world a reduction is made, that what is important is that emissions are reduced or stay within an agreed limit – and that the criticism should be about the limit not being ambitious enough rather than about carbon trading. But even with more ambitious pollution limits, carbon trading is a way for heavy-polluting companies (oil, gas and mining companies, cement and chemical companies, etc.) to continue polluting. They can even expand their production and increase their profits from extracting and burning fossil fuels because carbon trading gives these companies the option to buy additional pollution permits from other companies that have 'spare' permits. And they can also buy carbon credits from a project in the global South that claims to reduce emissions that otherwise would have been released into the atmosphere (see below). These carbon credits then allow extra emissions beyond the limit set by the law.



Furthermore, communities living next to a polluting factory, an oil refinery or a chemical plant know that it does make a difference where emissions are released and where they are reduced because the factories do not only release greenhouse gases but also many other pollutants. So, an international agreement or a national law that allows a company to release more carbon dioxide at their factory means not just more greenhouse gas emissions at this location but also more of the other types of pollution and impacts for the community living next to the factory.

Many problems exist also in implementation of this type of carbon trading between factories. In the carbon trading scheme of the European Union, the EU ETS, not only companies but also speculators, i.e. companies

from the financial sector that were not affected by the legislation limiting emissions, could buy and sell carbon permits and carbon credits. And there were many of these companies when the EU carbon market was set up. EU tax authorities lost about 6 billion euros in revenue when fraudsters from financial trading companies traded carbon permits very quickly between companies in EU countries with different value-added-tax (VAT) rates; they charged the VAT when they sold the permits and then disappeared without passing the VAT they had charged to the tax authorities.

Some of the largest polluters in the EU have made huge profits with the EU ETS. Companies like the cement producer Lafarge or the steel producers ArcelorMittal and ThyssenKrupp received many more permits at the beginning of the year than they really needed because they had inflated or overestimated the volume of carbon dioxide emissions their factories were projected to release the following year(s). They did not have to pay for the permits they were given to cover their emissions during the year. The reason they did not have to pay for these permissions was - unfair competition: Because their competitors outside the EU did not have to cover their emissions with permits, they claimed it would be unfair competition if they had to pay for the permits. **Only if factories exceeded their limits, they had to buy extra permits to cover the additional emissions. Factories that did not need all their permits could sell them even though they had received them for free. That way, the EU emissions trading scheme turned the polluter pays principle into a system where the largest polluters are being paid. The French cement producer Lafarge, for example, had accumulated unused carbon permits worth around €485 million between 2010 and 2014.** Even a Lafarge factory that was shut down during the year but that had received permits because the company had said it would be producing during the whole year can sell the carbon permits they received to other polluting factories that are looking for extra emission permits. Steel producer ArcelorMittal's factories in Germany received almost 20 million more carbon permits than they needed between 2008 and 2011. Even at the low carbon permit prices of 4-5 euros per permit, ArcelorMittal could cash in 80-100 million euros from selling unused carbon permits their factories in Germany had received for free. German company ThyssenKrupp accumulated almost 9 million excess carbon permits during the same period of time.

Note on the side:

There was much discussion that the 5% reduction targets of the **Kyoto Protocol** was too low – it was! Many also commented that countries in the global South had not taken on emission limits under the Kyoto Protocol because countries in Europe, Japan, the USA, Canada, Australia and Russia needed to reduce emissions first given that they had caused by far the most emissions historically. But - what really should have been discussed is that **industrialized countries – while they committed to reducing their emissions a little bit – in return handed themselves carbon permits free of charge to cover the 95% of the emissions that they continued to release into the atmosphere. Why did they not have to pay for these? They are polluters and their emissions are causing damage to populations in other countries as well as their own – why did the polluters not pay for the right to continue to pollute that the Kyoto Protocol's carbon permits gave them?** Like companies under the EU Emissions Trading Scheme, countries that had bargained well during the negotiation of the Kyoto Protocol

and received more carbon permits than they needed, could sell their excess carbon permits to another industrialized country with an emission limit that wanted to reduce their emissions by less than 5%. Or countries with excess permits could give more permits to the polluting companies in their country than these companies needed and then the companies could sell for a profit these permits they had received for free.

Countries from the global South had not assumed an emission limit under the Kyoto Protocol. But they also did not receive free carbon permits because they did not have to reduce emissions. Only countries with emission limits had to show that each emission in their country was covered by a carbon permit at the end of the year, and therefore **only countries with emission limits received permits with which to cover the emissions they now had a right to emit. The introduction of carbon trading into the Kyoto Protocol therefore meant that only industrialized countries were given (gave to themselves) this new asset – without even paying for it: Economic value – represented by these new tradable carbon permits – was created out of nothing** (or more precisely, out of first nationalizing and then privatizing the right to dump carbon dioxide into the atmosphere). **And the more greenhouse gas emissions a country had caused, the bigger the free gift of carbon permits!**

Carbon trading does not mean that polluters pay but that polluters are being paid!

Trading of carbon credits ⁵

Carbon credits are an additional type of permission to pollute that companies can buy to exceed their emission limits. All existing carbon trading schemes accept both carbon permits and carbon credits.

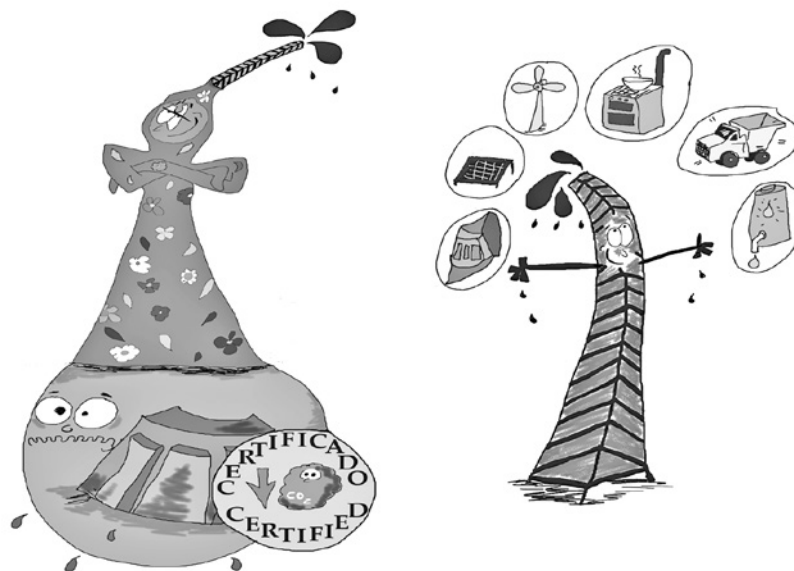
Carbon credits are also the part of the carbon market that communities in tropical forests will have heard about because most projects that sell carbon credits are located in the global South. The following section will describe where the idea for carbon credit trading comes from and what types of projects have been selling carbon credits. Flipchart 6 will look at how these projects calculate how many carbon credits it can sell.



⁵ For more information about how the trade in carbon credits works, see: [Carbon Trade Watch \(2009\): CARBON TRADING – HOW IT WORKS AND WHY IT FAILS](#) as well as [FERN \(2010\): Trading Carbon. How it works and why it's controversial, Chapter 3](#), [FERN \(2011\): Designed to fail? The concepts, practices and controversies behind carbon trading](#)

If companies in industrialized countries run out of pollution permits or if other companies are not selling any of theirs at attractive prices, the carbon market offers another alternative for the company to exceed their pollution limit: carbon credits. When the Kyoto Protocol was negotiated, industrialized countries, above all the USA and their corporate lobbyists, insisted that in addition to the trading of permits between companies, the Kyoto Protocol should give companies even more 'flexibility' in reaching their emissions reduction targets. That is the purpose of carbon credits. **The purpose of the Kyoto Protocol's 'compensation credit' mechanism, which is called Clean Development Mechanism (CDM), is to give companies an additional possibility to avoid reducing emissions.** In the end, the USA did not sign the Kyoto Protocol but the 'compensation credit' mechanism was there to stay.

Many projects located in the global South – most of them in China, India, South Korea and Brazil – have sold carbon credits to companies in industrialized countries through the Kyoto Protocol's '**Clean Development Mechanism' (CDM)**. A look at the list of these projects reveals that contrary to the name and the 'green' image, **Clean Development Mechanism credits have been neither clean nor have the projects brought development to communities in the global South.** Many large hydro projects sold carbon credits, claiming that the energy they produce is clean. One such project was the Barro Blanco dam in Panama, for which indigenous peoples face eviction and which has caused many other conflicts. Nonetheless, the owners of the hydro dam were able to register the project with the CDM and generate extra profit by selling carbon credits from a CDM-registered project. The project also became the first CDM project to be de-registered as a result of ongoing conflicts in 2017.



Iron and steel producers in Brazil and India also sold many CDM credits. The Brazilian companies Vallourec and Plantar, for example, sold carbon credits claiming that the charcoal they use in their factories releases less carbon dioxide. They claim that this is less damaging to the climate compared with using coal for iron smelting or steel or tire production. They forgot to mention, however, that the charcoal is produced from their monoculture eucalyptus plantations with all the destruction these plantations cause. Vallourec was even allowed to continue the sale of carbon credits after security guards killed a peasant passing through the company' eucalyptus plantations.

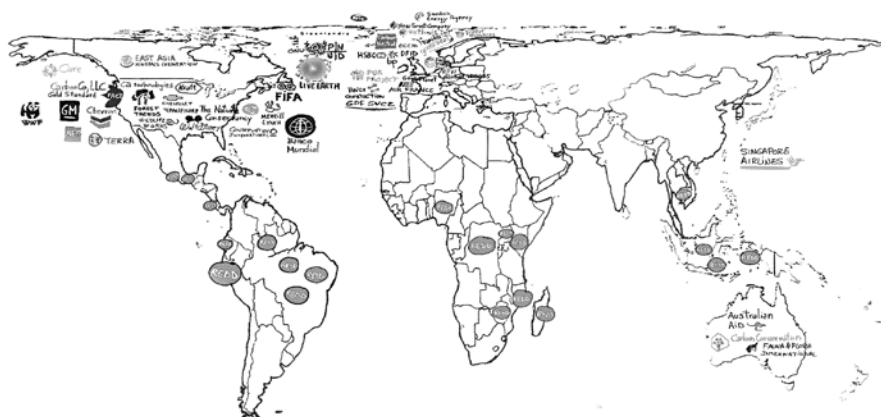
Among the biggest buyers of CDM carbon credits are energy companies like Germany's RWE or Sweden's Vattenfall. Both energy companies burn a lot of lignite coal, the dirtiest variety of coal. RWE has been involved in over 100 CDM projects, including hydro, biomass and wind energy projects. Over half of their projects are located in China. They used the carbon credits from these CDM projects and bought additional carbon credits from other CDM projects to cover over 15% of the emissions they cause in the EU, and to greenwash their dirty fossil fuel burning.

Because the CDM provides extra profit to the companies operating these polluting factories in the global South, for communities such CDM projects mean more of the same corporate destruction that has threatened their livelihood for decades. And often it also means companies grabbing community land can now use the claim that their projects are an important contribution to fighting climate change. **The large majority of CDM carbon projects are in the hands of companies or financial investors. The profits from the sale of carbon credits thus go to the owners of these projects, not the communities who tend to get restrictions on the use of their land instead.** Thus, for the community, this is neither clean nor development.



90% of the money goes to intermediaries

The CDM does not accept forest or REDD+ projects; but tree plantation companies can sell carbon credits through the CDM, e.g. if an iron smelter burns charcoal instead of coal, as in the examples of Plantar or Vallourec in Brazil.



But there also already is a carbon market that accepts carbon credits from REDD+ projects: The **'voluntary carbon market'**, where companies buy carbon credits for PR-reasons, not because they have to comply with an emissions limit. **Entertainment company Walt Disney for example, or Microsoft. The World Football Association FIFA, use REDD+ credits from this voluntary carbon market to claim that the Football World Cup Brazil (2014) was carbon-neutral even though thousands of people used airplanes to see the games. Airlines are another big buyer of carbon credits.** Their industry is one of the fastest-growing sources of carbon dioxide emissions and there has been pressure for them to reduce emissions.

But this industry in particular finds it difficult to reduce emissions therefore they have proposed that they should be allowed to continue to grow – increasing not just their greenhouse gas emissions but also all the other pollution associated with flying – and that this growth can be called “carbon neutral” because they will buy carbon credits to ‘neutralize’ their emissions. Some airlines, like Air France, are already involved in REDD+ projects. Particularly projects selling carbon credits in these voluntary carbon markets claim that their projects are beneficial to communities.

Q: How is this different from what your community was told about ‘carbon credits’?

Consultants who visit communities to introduce carbon projects rarely tell the community that the project’s carbon credits help corporations in industrialized countries continue burning fossil fuel. They are also not likely to mention that these carbon projects allow the expansion of extractive and polluting industries both in the global North and South - industries that are not only responsible for massive greenhouse gas emissions but also cause misery, bring violence and environmental destruction to the communities whose territories this industrial expansion will destroy. Nor will the consultants mention that **many carbon credit projects around the world have caused conflicts with communities that were promised a variety of benefits but instead saw their land taken away for the carbon project**. Instead of mentioning that the large majority of carbon credit projects is controlled by corporate and financial investors, and that many of the projects are large hydro dams, polluting factories, tree plantations, industrial wind parks and so on, the consultants will talk about projects introducing cooking stoves and water filters that are said to improve the life of people in the community.

CDM consultants use similar arguments as REDD consultants



Instead of putting carbon credit projects in this context of enabling continued environmental and social destruction and burning of fossil carbon, the carbon project usually is presented as being important to protect the climate, and an opportunity for social benefits and job creation. A consultant or government agent will explain that they have a project or programme that can help the community reduce emissions, and that this way, they

can do their bit to help protect the climate. This can be a project that offers cleaner cooking stoves or bio-digesters to turn cow dung into gas to cook with; or a project offering water filters so less wood is used to boil water for drinking, or a project that plants trees that absorb and store carbon as they grow (see also flipchart 7).

As mentioned before, consultants will also usually forget to mention who is buying these carbon credits: corporations in industrialized countries, where the credit allows these companies to continue not just emitting carbon dioxide but also the other pollutants that contaminate the surroundings of these polluting factories and impact those who have to live in the vicinity.

Note: Carbon offset trading has also served as a model for governments, particularly in the global South, and international agencies like the World Bank's International Finance Corporation (which funds corporate projects) to change their environmental laws and regulations. More and more of these environmental regulations include the possibility for companies to buy 'compensation credits' if they pollute or destroy more biodiversity than the law allows.

In Brazil, for example, the 2012 Forest Code allows land owners to buy 'forest restoration credits' on a green trading exchange called 'Bolsa Verde Rio'. Once they have bought such a forest restoration credit, the land owners do not have to restore the illegally destroyed forest on their own land, but instead can continue to profit from this illegal destruction and still claim to have the 'reserva ambiental' that is required by law.



How do carbon offset projects know how many carbon credits they can sell?

What makes carbon credits a bad deal from a climate perspective is that they do not reduce emissions. In the best case, they just move emissions from one location to another. So the supposed reduction of one tonne of carbon dioxide in one place justifies the extra release of one tonne of carbon dioxide elsewhere. What makes carbon credits even worse a deal for the climate is that no-one can know for certain if the emission that the carbon project claims to have prevented would really have been released, or if it would also have been prevented without the carbon project. If the emission the carbon credit project claims to reduce would not have happened anyways, or if the emissions would also have been reduced without the carbon project, there is no extra reduction. In this case, the result of selling a carbon credit that claims to represent an extra reduction is more emissions in the atmosphere than without the carbon project.

For example, companies in China or Panama or Guatemala or Uganda producing energy from hydro-dams claim that they would not have built the dam without knowing that they can sell carbon credits – even though the dam was already half-built when they applied to the CDM for registration as a project that can sell carbon credits. Or plantation companies that produce charcoal for the pig iron industry claiming that they would not have replanted their eucalyptus plantations without the prospect for income from carbon credit sales even though charcoal production from eucalyptus monoculture is part of their core business.

The calculations that carbon projects use to show that they really reduced extra emissions are mind-boggling. These calculations are never done by community members but by outside consultants, and communities have no control over what goes into these mathematical formulas.

6.3 Assess uncertainty in the baseline GHG changes

Uncertainty should be expressed as the 90% confidence interval as a percentage of the mean.

$$\text{Uncertainty}_{\text{wood}_{\text{exist},t}} = \sqrt{\frac{(U_{\text{wood}_{\text{exist},1,t}} \cdot A_{1,t})^2 + (U_{\text{wood}_{\text{exist},2,t}} \cdot A_{2,t})^2 + \dots + (U_{\text{wood}_{\text{exist},n,t}} \cdot A_{n,t})^2}{A_{1,t}^2 + A_{2,t}^2 + \dots + A_{n,t}^2}} \quad (4)$$

$$U_{\text{wood}_{\text{exist},t}} = \sqrt{\frac{(U_{\text{wood}_{\text{exist},1,t}} \cdot \Delta C_{\text{wood}_{\text{exist},1,t}})^2 + (U_{\text{wood}_{\text{exist},2,t}} \cdot \Delta C_{\text{wood}_{\text{exist},2,t}})^2 + \dots + (U_{\text{wood}_{\text{exist},n,t}} \cdot \Delta C_{\text{wood}_{\text{exist},n,t}})^2}{\Delta C_{\text{wood}_{\text{exist},1,t}}^2 + \Delta C_{\text{wood}_{\text{exist},2,t}}^2 + \dots + \Delta C_{\text{wood}_{\text{exist},n,t}}^2}} \quad (5)$$

$$\text{Uncertainty}_{\text{BBL}} = \text{Uncertainty}_{\text{wood}_{\text{exist},t}} \quad (6)$$

Where:

- $\text{Uncertainty}_{\text{wood}_{\text{exist},t}}$ = Percentage uncertainty in the baseline carbon stock changes in selected pools, at time t ; %
- $\text{Uncertainty}_{\text{BBL}}$ = Percentage uncertainty in the carbon stock changes in existing wood vegetation, at time t ; %
- $U_{\text{wood}_{\text{exist},i,t}}$ = Percentage uncertainty in the carbon stock changes in existing wood vegetation for stratum i , at time t ; %
- $\Delta C_{\text{wood}_{\text{exist},i,t}}$ = Carbon stock changes in existing wood vegetation (trees and shrubs), at time t ; $\text{CO}_2\text{-e}$

1.1.1 Step 5: Calculate the mean aboveground biomass carbon stock for each stratum, converted to carbon dioxide equivalents:

$$C_{AG_tree,j,t} = \frac{1}{Asp_j} * \sum_{sp=1}^{B_j} C_{AG_tree_sp,j,t} * \frac{44}{12} \quad (2)$$

Perhaps these calculations are the most visible sign of how reductionist and problematic the international discussions about how to (not) solve the climate problem are if they rely on mechanisms that are based on this sort of calculation. First, these calculations show how the climate problem has been reduced to an accounting exercise. This has effectively prevented climate negotiations talking about all the other damage that the corporations most responsible for climate change – the oil industry above all – are causing and the political influence they have gained on the UN climate negotiations. This influence has meant that the UN climate negotiators talk about a lot of things but not about the one thing that is really needed to solve the climate problem: keeping petroleum and coal underground and this way, keeping fossil carbon safely locked away underground.

Second, these calculations give the impression that it is possible to know exactly how much carbon dioxide would have been released through activities that did not happen because the carbon credit project happened instead. Crazy, but every project selling carbon credits claims to know what would have happened in a future without the project.



In fact, the project needs to claim that it is possible to know exactly how many tonnes of carbon dioxide would have been released into the atmosphere in the future that did not happen. This unknowable knowledge about what would have happened in a future without the carbon project is the basis on which the consultants hired by the project owners calculate how many carbon credits a project can sell.

Q: Why are so many consultants coming to visit the 'offset' project?

This contradiction of pretending to know the unknowable is at the root of every carbon credit that is sold – irrespective of whether the project itself is harmful or beneficial to a community: The project must pretend to be able to know how many tonnes of carbon dioxide would have been released into the atmosphere without the carbon project. This information is usually prepared by consultants, not community members. They write reports of many pages (usually in English) that include a very detailed story, backed up by very complicated mathematical formulas, about exactly how many tonnes of carbon dioxide would have been released in the carbon project area without the carbon project.

Once the project starts, more consultants or project representatives come to measure how much carbon is released with the project taking place (are people using their new cooking stoves or water filters? Are households burning firewood on the side? How much? Are the windmills or hydropower dam or bio-digesters running as is claimed in the reports? etc).

After these visits to measure the actual emissions taking place with the project, consultants make a second calculation. This calculation determines how many emissions are released with the carbon project. The difference between the emissions that would have been released without the carbon project and the emissions that are released with the project is the number of carbon dioxide emissions that the carbon project has saved – claiming that without the carbon project, these emissions would have ended up in the atmosphere. The carbon project therefore claims that it has saved these emissions that otherwise would have been released into the atmosphere.

Before the project can sell these extra emission reductions that supposedly happened only because of the carbon project, another group of consultants, from a certification or auditing company, will come to verify that the previous consultants produced the correct numbers. The auditors will then certify that x tonnes of emissions were actually prevented - and therefore the project is issued x carbon credits that can be sold as 'emissions that were only prevented because of this carbon project.'

These carbon credits – that represent these additional emission savings that only apparently happened because of the carbon project – then allow someone elsewhere to release additional carbon dioxide and at the same time claim that these extra emissions do not contribute to climate change because someone elsewhere has made an extra reduction. On balance, the carbon credit buyers claim, there is no increase in emissions because the additional carbon saving by the seller of the credit cancels out the buyers additional emissions. **Zero-net emissions, they say.**

But zero-net emissions does not mean zero emissions, and it certainly does not mean emissions are reduced!

Note also that **all these consultants need to be paid, usually in hard currency. Therefore, overhead costs of carbon projects are very high and tend to get paid before any possible revenue is passed to a community!**



Despite all these layers of calculation, measurement, auditing and verifying, however, the carbon credit calculation remains based on the claim of a carbon consultant knowing exactly how many tonnes of carbon dioxide would have been emitted in a future without the carbon project, and another consultant being able to verify that this hypothetical number is correct. It is this claim that carbon consultants are able to verify hypothetical emission numbers that makes explaining carbon credits so complicated: the claim to be able to predict the exact quantity of future emissions that did not happen is covered up by layers of technical language and confusing mathematical formulas.

Because it is impossible to ultimately tell the difference between 'additional' and 'non-additional', many emission reductions that would have happened anyways are sold as additional emission savings. As carbon credits they then give a buyer the right to release extra emissions even though the carbon credit is not backed by an extra emission reduction.

Note on the side: Because of the way these carbon credit calculations are done, the dirtier the future in the story of what would have been, the more carbon credits a project can sell. Therefore, large-scale carbon projects like a hydro power dam or wind park or large industrial factories claiming to replace electricity that would otherwise be produced from coal can claim to have prevented a lot more greenhouse gas emissions than a carbon 'offset' project introducing water filters or cleaner cooking stoves in a village. And that means: more carbon credits to sell and thus more profit to be made on the carbon market, because for each tonne of carbon dioxide emissions that the project says it has prevented, it can sell one carbon credit.

Trading carbon credits means allowing an additional release of carbon even though the credit cannot guarantee a verifiably additional reduction!

REDD stands for 'Reducing Emissions from Deforestation and Forest Degradation'. It became REDD+, when forest conservation, so-called sustainable forest management and tree planting were added to the list of activities that can generate carbon credits.

Consultants or government agencies coming to a community to talk about REDD+ will often introduce REDD+ as a **'conservation project'** or a project that 'helps the community to protect forests that are important for the climate' because they store a lot of carbon. **The community will be told that if they cut the forest, the carbon is released and that contributes to climate change. And then, usually only at a later meeting, consultants will explain how peasant farmers or forest peoples must stop doing this and that there will be restrictions on hunting, fishing, shifting cultivation, cutting wood for construction or building a canoe...in short, that the community cannot use the forest any longer in the way it used to** because doing so, in the view of the REDD+ project, is a risk to the climate.



Without saying it, the consultants will argue as if it were peasants and forest communities that are responsible for forest destruction. By contrast, consultants will not talk much about the large corporations that are responsible for large-scale deforestation and that often violate forest peoples' and peasant communities' customary rights when destroying the forest.

It is also important to note that while many REDD+ projects present themselves in REDD+ project documents and at international meetings as ‘community projects’, they very rarely are projects that were initiated by a community living in and with the forest. Many times, they turn into a threat for these communities because to sell carbon credits, one has to show proof of title to the forest. This means that many existing conflicts over the question of who is the rightful “owner” of the land and who holds the title to use the land are exacerbated by REDD+. REDD+ may also cause new conflicts because even if in reality, there is no big market for REDD+ credits, the talk about REDD+ already is increasing the value of land and interest from outsiders to grab the land that could be used to implement a REDD+ project.

What consultants will probably also not have explained well, if at all, is that **REDD+ is not really about forests, it's not even really about the carbon in the forests.** REDD+ is about fossil carbon and the industries and industrialized economies for which fossil carbon (in petroleum and coal) is the engine, the motor that keeps them running! And they need the carbon in the community's forest so they can continue to burn fossil carbon and claim that the emissions caused by this burning of fossil carbon do not damage the climate - because a community elsewhere has volunteered to save carbon in a forest that otherwise would have been cut. This way, companies can continue to burn fossil carbon and make profit the way they are used to making profit, the airline industry can continue to grow and claim such growth does not damage the climate while forest communities must stop using the forest as they always did.



Q: What are the 'benefits' and 'job opportunities' that were mentioned by the REDD+ consultant?

Usually, quite a few promises will be made by REDD+ project representatives coming to visit a community: schools, hospitals, alternative income generating activities, payments, etc.. There are two types of jobs that are almost always promised. They are usually among the few things that actually do happen – and they are very problematic!

Many REDD+ projects will hire community members as 'forest guards' or 'rangers'. Those are people who will have to report to the REDD+ project owner if their fellow community members are abiding by the rules prohibiting most community activities in the forest. These jobs have caused a lot of conflicts inside communities, also because often those most affected by the restrictions are not the ones that receive most of the payments from the REDD+ projects – if there are payments to the community at all (usually not the case!).



Another – usually temporary – job is helping the REDD+ project with carbon measurements in the forest. Where REDD+ is implemented not through projects but through REDD+ programmes that cover larger administrative areas such as a province or a district, carbon measurements also sometimes involve mapping of forest use or areas with particular risk of illegal deforestation, e.g. inside demarcated indigenous territories. These maps can then be used by the government to show it is taking action to reduce deforestation.

Q: Why are these two types of jobs so important for REDD+ projects?

It has to do with how carbon credits are created, what they are – and what rights they confer to the buyer (see also flipchart 6).

For a REDD+ project to be able to sell carbon credits, the project owner needs to calculate how much carbon has been 'saved' – or more precisely, how many tonnes of carbon dioxide emissions have been prevented by the REDD+ project saving the forest from being destroyed. These are the sort of calculations as shown on flipchart 6. As explained there, they reduce the climate problem to a question of accounting for carbon. When applied to REDD+ projects, this means reducing the uniqueness, the vibrant live and diversity of a forest to a collection of trees that store carbon.

For the calculations, REDD+ project consultants need to know how much carbon dioxide **would have been released without the REDD+ project** – and then they compare this figure with the carbon that is in the forest now that the REDD+ project is in place. It really is impossible to measure exactly how much carbon is stored in a forest because this changes all the time and no REDD+ project measures all the trees but makes many dubious assumptions about how much carbon is stored where in the forest. Nonetheless, it is for this calculation that the project often hires local community members to help measure some trees inside the forest and estimate from those measurements how much carbon is stored in the whole forest that is part of the REDD+ project. The difference between these two figures is the carbon emissions saved – and for each tonne of carbon dioxide saved (kept in storage in the forest), the REDD+ project can sell one carbon credit. And for each carbon credit, someone elsewhere can claim that their fossil carbon emission has not damaged the climate.



Q: But - how do the REDD+ project consultants know that the forest would have been destroyed without the REDD+ project, and how many tonnes of carbon dioxide this would have released into the atmosphere?

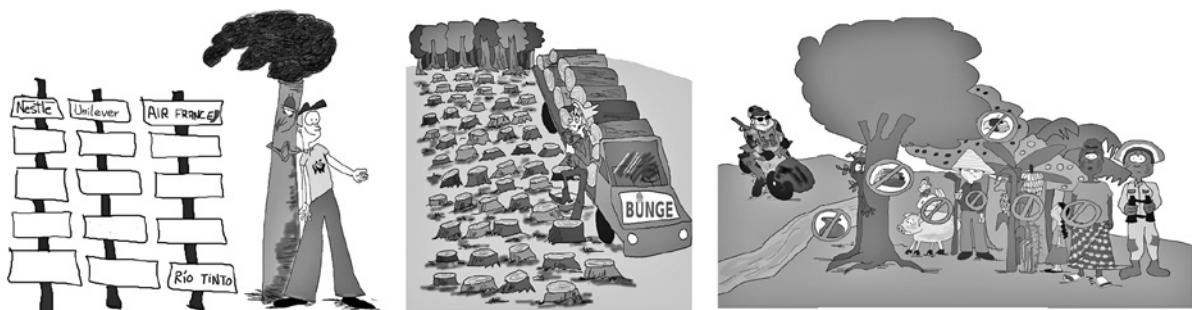
They don't! And probably, the forest would not have been destroyed if the rights of the community to their territory are respected. But ...as carbon 'offset' (see flipchart 6), **every REDD+ project needs to tell a story about a forest that was at risk of being destroyed and that is being rescued by the REDD+ project. Without such a story of a threat to the forest, there is no story of carbon prevented from release into the atmosphere – and therefore no carbon that can be shown to have been saved only because of the REDD+ project.**

And if the REDD+ project cannot show that it has helped keep carbon in the trees – carbon that otherwise would have been released into the atmosphere - the project has no carbon credit to sell. Because the carbon credit really is a placeholder for the carbon that was about to be released into the atmosphere but through the action of the REDD+ project is kept in storage in the forest.

Q: But then how can REDD+ pay forest communities that have always protected their forest and were not planning to destroy the forest that provides their livelihood, is their home and territory?

REDD+ can only pay communities that have guarded their forest and protected it from outside destruction if the community accepts the story that their forest was at risk of being destroyed, that the way they use the forest is a threat to the forest, that their shifting cultivation or agroforestry or peasant farming in the forest is a threat to the forest that must be stopped! Every REDD+ project that wants to sell carbon credits needs such a story that claims there is a risk of the forest being destroyed in future.

That is why, initially, REDD+ was presented as a way to prevent this risk of forest destruction by paying those who are a threat to the forest: REDD+ was supposed to make forests worth more (financially) standing than cut. There are many flaws in the assumption that money can prevent deforestation. But even that assumption at the heart of REDD+ that money could prevent deforestation, did not work out in the end. An average corporate oil palm plantation in Malaysia will yield around 4 tonnes of palm oil per hectare per year. At 2013 prices of 700-800 USD per tonne of crude palm oil, REDD+ would have to offer annual payments of 2,500-3,000 USD to compete with the profit an oil palm plantation company can make. The REDD+ payments are far lower than that, with REDD+ projects using an average carbon content of 130-150 tonnes of carbon per hectare of rainforest in Brazil, and REDD+ credit payments of USD 5 or less for a carbon credit. If you are a logging company or in the oil palm or soya plantation or mining or hydropower business, the payments that REDD+ has to offer cannot compete with the profit your company makes from destroying the forest. REDD+ has shown that its promise of carbon payments cannot prevent large-scale deforestation because REDD+ does not make forests worth more standing than destroyed.



But the architects of REDD+ did not drop their flawed idea and start focussing on actual solutions (leaving fossil carbon in the ground and securing forest peoples' rights and demarcating indigenous peoples' territories). They quietly dropped the claim that REDD+ payments would make "forests worth more standing than cut" and so, could stop large-scale destruction. REDD+ increasingly started to target peasant farming practises and shifting cultivation instead. For these activities, it was argued, the REDD+ payments would be sufficiently high compensation.

The reality of REDD+ (for examples, see [WRM publication REDD: A collection of conflicts, contradictions and lies](#)) shows that few payments are made to communities when REDD+ is imposed. Instead, citizens in these forest communities are experiencing REDD+ as a continuation of disrespect and violation of their rights by the state and companies implementing REDD+. **Conflicts also arise within many communities because those in a community who benefit from a REDD+ offset project are not necessarily those who also face most restrictions and vice versa.**

In some ways, the violations of community rights under REDD+ are more severe than they have been under previous attempts by the state and international agencies to protect (tropical) forests: Because the 'product' being created through REDD+ projects and then traded in international carbon markets is **the preventing of a planned activity**. This means that in a REDD+ offset project, the economic value is created not from extracting (timber, minerals, nuts, latex,...) but from preventing an activity that is said to be a threat to the storage of carbon in the forest. And because the carbon market makes the mistake of assuming that fossil carbon and the carbon in the forest are the same for the climate, the REDD+ credit justifies that fossil carbon is burned and the emissions from this fossil carbon are released into the atmosphere.

Once released, this fossil carbon will stay in the atmosphere for a very long time before it moves on into vegetation or is taken up by the ocean. The scientists advising the UN on climate matters, the Intergovernmental Panel on Climate Change (IPCC) says, on average, fossil carbon will stay 100 years in the atmosphere before it moves on. Therefore, if a REDD+ credit allows extra fossil carbon to interfere with the climate for 100 years, the storage of carbon in the forest that is represented by the REDD+ offset credit also needs to be guaranteed for the same time: 99-100 years. And all that time, there would need to be monitoring and surveillance that the activity that could threaten this carbon storage in the forest remains absent. And that is why all REDD+ offset projects employ forest guards or use drones to monitor the territory and national ministries are deploying "green police".

But even with this increased surveillance (and militarization) in areas where REDD+ is implemented, no-one can guarantee carbon storage in a forest for 99 years into the future. But several contracts oblige communities to guarantee the carbon storage for all these years.

Let's look at a concrete example (use an example from the area):

A private company has come to the community saying it has the approval from the government to implement a REDD+ project on the land the community is using.

The company has already produced documents of many pages, usually in English and with many complicated mathematical formulas before coming to the community. When they (or a consultant or an international or local NGO hired by them) arrive in the community they will say: "The emissions caused by forest loss in this region are a big problem for climate change!" They will probably not say anything about emissions from burning fossil carbon in Europe, the USA, an industrialized country or big city they come from being the real problem causing climate change.

They will then explain that the community needs to reduce emissions caused by the use of the land, and that the REDD+ project will provide benefits and jobs to the community. They will further say that because this is a market transaction, the community needs to sign a contract to receive the money and be able to participate in the project.



Then the company will start bringing in consultants and engineers to walk through the forest to measure trees (they might offer local jobs to help in this work). They will also put up signs or otherwise inform the community that cutting trees, shifting cultivation, growing food in the forest, etc. is no longer allowed and that there will be forest guards (sometimes armed) that will patrol and ensure the restrictions are respected. Many times, they will choose community members to monitor that other community members (their neighbours and family!) do not violate the restrictions that are imposed on them.

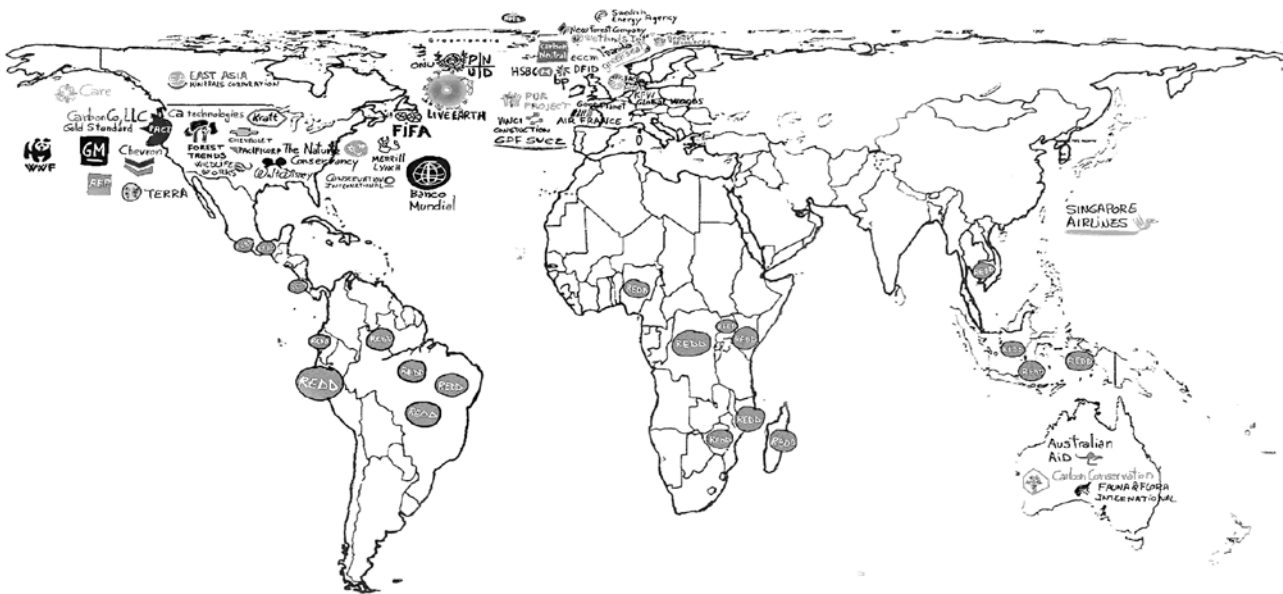
Most other jobs and benefits will not be long-lived or not compensate for the income lost by not being allowed to use the forest any longer. Most of the profits - if the company is able to sell carbon credits - go to consultants, traders and the REDD+ project owner, the community payments usually come last (image showing that, [page 27](#)).

Thus, the experience for communities with REDD+ has been either drastic restrictions on their land use and not enough payment from REDD+ to compensate fairly for the loss of income from being no longer able to use the forest as before – or, if communities resist these rules prohibiting their traditional use of the land, drastic fines and violence from forest guards without any payment from the REDD+ project because the owners of the REDD+ project claim that the community has no rights to the forest anyways, and that the forest belongs to the REDD+ project owners.

In addition, nothing is done about the two big problems that do threaten forests and the communities that depend on them: Large-scale deforestation and climate change caused by the industrialized world burning excessive amounts of fossil carbon.

Community experiences with REDD+

See also map on flipchart 1. The map can help show where the NGOs, consultants and companies involved in a particular REDD+ project are based and which local groups they have chosen to work with. An image or images of specific REDD+ projects in different places helps show that the problems are very similar in these REDD+ projects, regardless of where in the world they occur. The WRM publication [REDD: A Collection of Conflicts, Contradictions and Lies](http://www.wrm.org.uy/books-and-briefings/redd-a-collection-of-conflicts-contradictions-and-lies)⁶ includes over 20 such examples and links to additional material about these projects, including films in different languages.



In all those places, the promoters of the project have come with very similar stories and used similar ways of introducing their project – and the consequences for most community members have been broken promises, restrictions on how they can use their own territory, contracts with clauses that were not explained properly and internal conflict.

For information on how communities in the Extractivist Reserve Tapajós in the Brazilian state of Pará succeeded in preventing a REDD+ project on their territory, see e.g. Brasil: Projeto Demonstrativo de Carbono Florestal na Reserva Extrativista Tapajós-Arapiuns and <http://amazonia.inesc.org.br/artigos/o-dinheiro-do-redd-e-solucao-para-a-falta-de-politicas-publicas/>



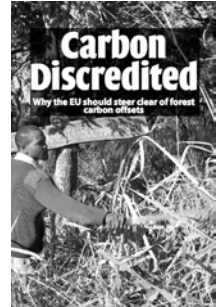
⁶ REDD: A Collection of Conflicts, Contradictions and Lies is available on WRM's web site at <http://www.wrm.org.uy/books-and-briefings/redd-a-collection-of-conflicts-contradictions-and-lies/>

Example: N'hambita carbon offset project, Mozambique: "What have we gained? Not much!"

■ Payment for only 7 years but contract obliging community members to maintain trees and keep firebreaks in community forest for **99 years***!

■ Participation only for families that already had machambas (plots families use to grow food) ➤ caused internal conflicts, especially with younger families that were excluded from using land for food production because they could not open new 'machambas'

■ Project promised help with registration of land title but was able to do so in only very limited way



Food sovereignty situation overall worse than before the carbon offset project:

- Less production of staple food because land is used for participation in the REDD+ project (planting of trees)
- Not enough time left for working in the field in addition to (seasonal) job offered by the REDD+ project but salary and payments from REDD+ not enough to buy food that was produced before
- Land use restricted for 99 years into the future, without real involvement of community members in this decision.

For further information

Reports:

- 10 Things Communities Should Know About REDD.
<http://wrm.org.uy/books-and-briefings/10-things-communities-should-know-about-redd/>
- How REDD+ projects undermine peasant farming and real solutions to climate change (ES, EN, FR)
<https://www.grain.org/article/entries/5322-how-redd-projects-undermine-peasant-farming-and-real-solutions-to-climate-change>
- REDD Collection of Conflicts, Contradictions and Lies:
<http://wrm.org.uy/books-and-briefings/redd-a-collection-of-conflicts-contradictions-and-lies/>
- Trading Carbon. How it works and why it's controversial www.fern.org/tradingcarbon
- Information in Spanish, Portuguese and English on Carbon Trading from Carbon Trade Watch. <http://www.carbontradewatch.org/castellano/publicaciones.html>
- Rio Tinto Biodiversity Offset in Madagascar
<http://wrm.org.uy/books-and-briefings/rio-tintos-biodiversity-offset-in-madagascar-double-landgrab-in-the-name-of-biodiversity/>
- Destruction' <https://www.boell.de/en/dossier-new-economy-nature>
- Focus on the Global South Philippines case study CDM www.focusweb.org
- REDD+ Project Mozambique
<http://www.redd-monitor.org/2013/06/18/carbon-discredited-new-report-on-envirotrades-nhambita-carbon-project-in-mozambique/>

Videos:

- The Carbon Hunters. Film about one of the first REDD+ project in Brazil, the Guaraqueçaba carbon offset project in Paraná.
<http://www.pbs.org/frontlineworld/stories/carbonwatch/2010/05/the-carbon-hunters.html>
- Disputed Territory. Film about the same project.
<http://wrm.org.uy/videos/disputed-territory-the-green-economy-versus-community-based-economies/>
- Brainforest video on the Sustainable Development Law in Gabon.
<http://wrm.org.uy/articles-from-the-wrm-bulletin/section1/trading-communal-rights-in-gabon-the-sustainable-development-law/>
- The Story of REDD <https://www.youtube.com/watch?v=7MJZmzOh4Po>
- Air France and WWF in Madagascar
<http://www.redd-monitor.org/2013/12/12/wwfs-redd-project-in-madagascar-there-is-no-compensation-only-penalties-to-pay/>
- CO2 Alibi on FACE Foundation tree planting offset in Uganda https://www.youtube.com/watch?v=mVEGvA_Vfhs FR version:
<https://vimeo.com/12020892>

Websites:

- WRM webpages on Mercantilization of Nature: <http://wrm.org.uy/browse-by-subject/mercantilization-of-nature/redd/>
- Webdossier Heinrich Böll Foundation New Economy of Nature: https://www.boell.de/en/dossier-new-economy-nature?dimension1=ds_oekonomie_natur_en (in English and German only)
- REDD Monitor Website: <http://www.redd-monitor.org/>

*The World Rainforest Movement (WRM)
is an international initiative set up in 1986 by
activists from different countries to facilitate, support and reinforce the
struggle against deforestation and land grabbing in countries with forests and
forest-dependent communities. In a gender sensitive way, it aims to assist
communities in their struggle to secure access and control over their lands, forests
and livelihoods. The WRM supports efforts that defend forests and forest-dependent
communities from commercial logging, dams, mining, tree plantations, shrimp farms,
agribusiness, as well as other forest preservation-type projects that threaten them,
like REDD+ and other offset projects that are part of the increasing trend of
commodifying nature.*

*The WRM has an international secretariat, with an office
based in Montevideo, Uruguay.*



WRM

WRM – International Secretariat

Avda. Gral José María Paz 1615/3 CP 11400
Montevideo Uruguay.

Ph: +598 2605 6943

E-mail: wrn@wrn.org.uy

Website: <http://wrn.org.uy>