

What is **REDD+**?

An Introduction to forests
and climate change



How to use this booklet!

This booklet is part of a series of booklets. It is recommended to go through them in order as they attempt to de-code and deepen your understanding of REDD+. In each booklet you will find the grandmother and granddaughter reflecting on a specific theme related to REDD+; visuals or maps; detailed information on this theme and ideas for workshops and games you can carry out in your local area to collectively de-code and understand REDD+. At the end of each booklet there is a glossary that explains all the words that are with a **different color** within the booklet.

An Introduction to forests and climate change

This booklet aims to decode **REDD+*** which is a focus in the international **climate change** debates. It will explore key ideas behind the complexities of REDD+ which link lands, **forests** and climate change. Although there are many ways different communities understand this link, this booklet aims to introduce and problematize the terms that are used in the REDD+ debate

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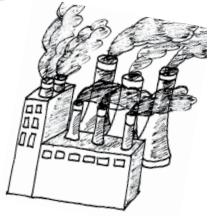
* In this booklet we will refer to all of the variations of REDD (+,++) as REDD+. This booklet will explain the differences and definitions. Keep reading or see the glossary!



Cracking the REDD+ code!

1. Greenhouse Effect

The air in the sky is the **atmosphere** and it protects the Earth from the sun's heat. The sun's rays are very strong and without a balanced atmosphere the Earth would be too hot to sustain life. When an excess of certain chemicals and/or pollution are released into the sky, the atmosphere cannot maintain this balance. When there are too many chemicals in the atmosphere, the sun's heat becomes trapped inside so that less of the heat can be released into space. Imagine the atmosphere is like a blanket made from cotton that allows heat in and out while regulating temperature. When the blanket becomes too full of chemicals imagine now that the blanket is made of clear plastic and the heat cannot go out. These chemicals are called **Greenhouse Gases** and this concept is called the **Greenhouse Effect**.



2. Climate Change

The increase of greenhouse gas **emissions** is pollution caused by either burning oil, coal and gas (called **fossil fuels**) or by gases from **incineration**, industrial pollution, toxic chemicals, animal wastes, agriculture and **deforestation**. When these gases are released in excess into the air they create more molecules than the atmosphere (air) can handle which causes the Earth to heat up. This causes the ice at the Earth's poles to melt and raise sea levels. It also causes an imbalance in ocean currents, clouds and rain which cause flooding, warmer or colder seasons, unfrozen tundra and many other changes in weather patterns and cycles.

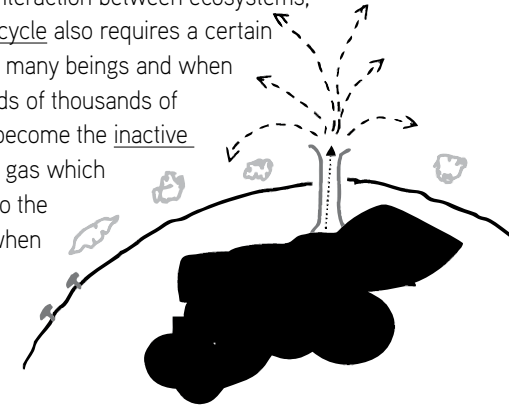


3. Ecosystems and Biodiversity

Ecosystems are made of living beings and non-living things that are connected in one area. The living beings are made up of plants, animals, fungus and **bacteria**, and the non-living things are chemicals and physical factors such as air, rocks and water. All of these together make up an ecosystem. A healthy ecosystem will normally have a balance of **biodiversity** or many living and non-living things that rely on each other for survival. If the balance of this flow of energy between the living and non-living things are upset, it can cause great devastation to these ecosystems. Biodiversity is the degree of variation of life forms within a given ecosystem or an entire planet. Biodiversity is a measure of the health of ecosystems. Rapid environmental changes typically cause mass **extinctions**.

4. Carbon Cycle

Carbon dioxide (CO_2) naturally exists in the air. There are two types of carbon cycles – the active and inactive. The active cycle is a continuous interaction between ecosystems, oceans, living beings and **forests**. This **active carbon cycle** also requires a certain balance to sustain life. **Carbon** is the building block of many beings and when these die they return carbon to the soil. After hundreds of thousands of years this carbon becomes 'fossilized' carbon. They become the **inactive cycle of carbon**. Inside the Earth there is oil, coal and gas which is "locked in" fossilized carbon and cannot escape into the atmosphere. Carbon dioxide is a gas that is emitted when oil, gas or coal is burnt. When too much of it is burnt and converted from the inactive cycle to the active cycle, it causes an imbalance which increases the greenhouse effect and causes **climate change**.



5. Forests and Climate

Forests play a particularly important role in maintaining a balanced climate. First, trees hold a lot of carbon dioxide (CO_2) in their leaves, trunks, roots and the soils they live in. That is where the term forests as '**carbon stocks**' or '**carbon sinks**' comes from. The process by which these trees remove carbon dioxide from the atmosphere is known as **carbon sequestration**. Second, plants breathe in carbon dioxide from the air and exhale oxygen which provides a critically important function to all living beings. Forests are continually transferring carbon dioxide to the soil through the decomposition of leaves and branches. The carbon in the soil is called **soil carbon**. When a tree is cut down and soils are dug up CO_2 is released into the atmosphere.

6. Plantations and Monocultures

Plantations are areas where crops (i.e. plants, mushrooms) are artificially grown with the intention to harvest them and sell to an often distant market rather than for local consumption. The crops are usually fast-growing trees, cotton, tobacco, sugar cane, soybeans, and oil seeds (mostly oil palms) to name a few. **Monocultures** areas grow one single crop at a time for large-scale agriculture. Tree plantations are usually large-scale tracks of lands to grow one species of fast-growing trees in rows with the intention to harvest and make a **profit**. Monocultures are not environmentally or socially sustainable because they disturb the soils, and are susceptible to diseases which lead to the excessive use of **pesticides** and **herbicides**. In addition, the monoculture trees do not stand long enough to build up carbon stocks. Monoculture tree plantations have devastating affects on biodiversity and local communities. The **United Nations** (and **REDD+** programs) consider monoculture plantations to be the same as biodiverse forests!

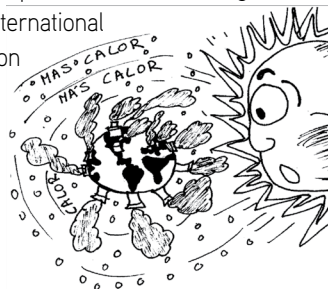
7. Deforestation, Afforestation, Reforestation, Avoided Deforestation and Degraded Lands

- a. **Deforestation** refers to the removal of natural **forests** or standing trees where the land is converted to non-forest use; simply put, areas where biodiverse forests are cut down. A natural biodiverse forest is an area that has not been planted by humans. Common examples of deforestation are conversion of biodiverse forests for cattle pastures, soy, sugar and tree plantations, coal mining and oil and gas extraction.
- b. **Reforestation** refers to re-planting trees in areas where there were trees before.
- c. **Afforestation** refers to planting trees in areas where there were no trees before.
- d. **Avoided Deforestation** refers to the act of avoiding deforestation by preventing cutting down forests in certain areas.
- e. **Degraded lands** are usually defined as lands that have been damaged by agriculture, over-grazing or draught. It is viewed as any disturbance to the land perceived to be undesirable. This term is problematic however. First, this definition may also include certain traditional agricultural practices such as “slash and burn” (**swidden**) which is not a major cause of deforestation. Second, what one community may consider as an important cultural and vibrant land with multi-uses, a government body may call ‘degraded’. The perception of what is degraded is then subject to whom perceives it and their political agenda.



8. Drivers of Deforestation

“Drivers” in this context refer to the major causes of deforestation. Many of the main causes of deforestation come from large-scale industrial agriculture, plantations, coal mining and oil and gas extraction. However, many organizations, international institutions and governments place the blame of deforestation on small-scale local communities that live as a part of the forest **ecosystem**. This is a critically important part of the debate in the sense that local people should not be blamed for surviving while large companies exploit communities and destroy massive tracks of forests and lands in order to generate **profit**.



9. Commodification

Commodification takes place when an economic value is assigned to something which was not previously considered in economic terms and then is standardized for making it possible to trade in the market, for example, an idea, a seed type, women’s bodies or pollution. Through the **United Nations** climate negotiations, **carbon dioxide** (and five other **greenhouse gases**) became an economic valued tradable **commodity** on a market in 2005.

10. Climate Negotiations

Governments in the United Nations have on-going talks for reaching agreements to address the climate crisis. These talks are influenced by other actors such as the **World Bank**, corporations, conservationist NGOs, etc. Decisions of how to reduce pollution and deforestation are discussed during formal sessions that meet annually in the beginning of December. Many powerful actors, including large corporations and wealthy countries, take a lot of space at these meetings while affected communities and countries with little economic power are often marginalized and cannot participate in the decision making process.

11. Carbon Trading

Carbon trading allows companies and governments to buy and sell carbon dioxide (and other six greenhouse gases) as a commodity. Governments and corporations use carbon trading to claim that they reach their emission reduction targets as well as to avoid reducing pollution where it is generated. It is a way for polluters to make more money out of the climate crisis (see booklet “Why is there **REDD+**?”).



12. The North and The South

The **North-South** divide is a way to differentiate between financially wealthy or so-called developed countries, known as “the North”, and financially poorer or so-called developing countries, known as “the South” (mainly Africa, Asia-Pacific and Latin America). Although most countries called “the North” are in fact located in the Northern Hemisphere (with the exceptions of Australia and New Zealand), the divide is not wholly defined by geography. This division comes mostly from the political, economic, cultural and military power. However, it is important to highlight that there are wealthy elite **classes** in the South as well as exploited and underprivileged classes in the North.

Will REDD+ help us protect our forests?

Many people say that it will, but considering other similar market-based attempts to deal with forests and the REDD+ pilot projects implemented until now, looks like it will not. REDD+ aims to generate a profit from the carbon stored in the trees, however, this can very well be a monoculture plantation even though plantations threaten water supplies, the biodiversity in the forests and our health! Part of the problem is that if we give away our rights to the lands, water and forests, we cannot live here anymore because we need these natural resources for our survival. REDD+ seems to only be interested in counting carbon dioxide and not of the immense biodiversity and balance of the fragile ecosystems that coexist here.

Can we still live here?

That is very confusing. Some projects have allowed communities to stay and others have not. It depends on the contracts that each community signs.

We also do not know exactly how REDD+ money will affect the rights to our lands and forests. If we sign contracts that take away our rights then we could have problems in the future. Also, one thing is to be allowed to stay and another is to be allowed to use the forests. It is a big risk. There is a project in Guaraqueçaba, Brazil, for example, that was created by the NGO, The Nature Conservancy in order to create carbon credits for big companies like Chevron. The project has destroyed local people's livelihoods by not allowing them into the forest and they even use a special police force to 'protect' the forests from anyone entering.*

* PBS Frontline: www.pbs.org/frontlineworld/stories/carbonwatch/2010/05/the-carbon-hunters.html.
REDD-Monitor: www.redd-monitor.org/2009/11/06/injustice-on-the-carbon-frontier-in-guaraquecaba-brazil

Why would we want to do this?

Project developers and carbon brokers promise us money, jobs and things like schools or hospitals if we give them our rights to the carbon in the forests. But they really are creating a system in which the companies buying the carbon credits are allowed to pollute more and keep their dirty businesses! In a project in Acre, Indonesia, they even offered concessions to a coal mining operation inside a REDD+ project territory. That is even worse. And then we need to ask, what about the communities in the North and South living next to the polluting factories that leads to health and social problems. It is a bad loop.

How much money would we make?

It is not clear really. Each project is different. But without the use of our forests it may not be enough for everyone in our communities. It is impossible to calculate in monetary terms all that the forests give us. In the Juma Project in Brazil, Indigenous Peoples got more food and sustenance before the project when they could still have gardens and enter the forest.**

** see previous footnote

How often and where would we receive the money?

This also depends on each project. Some communities get monthly payments like at the Juma Project in Brazil, where families receive 25 dollars every month through a program called *Bolsa Floresta*. People however need to travel a two-day roundtrip journey by boat just to receive their stipend and they say this is not enough to live on for the month.

Can we still collect and use our medicinal plants?

Every contract is different, but it is an important question. If we sign a contract giving away our rights to use the forests then we cannot collect or harvest plants anymore.

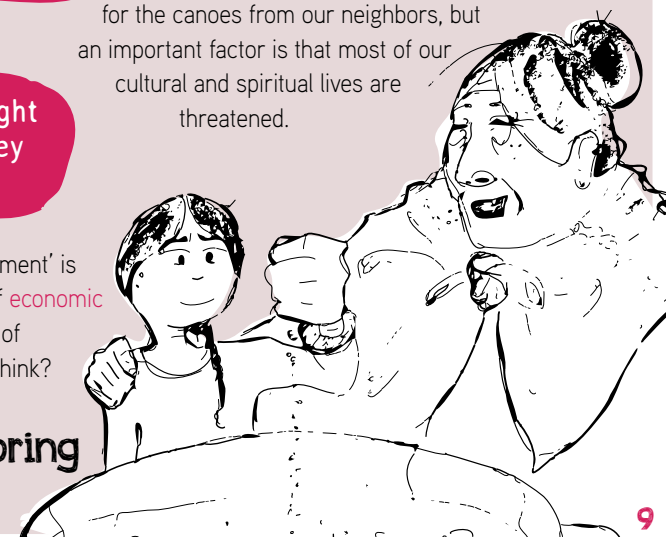
If we cannot cut down a tree, how can we make our canoes?

We will not be able to do a lot of things the same way. These are crucial issues. We probably would need to buy wood for the canoes from our neighbors, but an important factor is that most of our cultural and spiritual lives are threatened.

This does not sound right to me, is this what they call 'development'?

The meaning of 'development' is entrenched in the idea of economic growth as the main goal of societies... what do you think?

...Let's keep exploring these ideas...



REDUCING

"R" stands for reducing the pollution that causes **climate change**. The **carbon** stored in **forests** however cannot be equated to the carbon stored in fossil fuel deposits. Burning **fossil fuels** like gas, coal and oil for energy creates the excess of **greenhouse gases** which disables the Earth's climate. In order to decrease these greenhouse gases polluters should really '**reduce**' emissions **at source** while aiming to keep the gas, coal and oil in the ground and soil!

The second "D" stands for forests degradation or 'marginal' lands. Since there is not an official definition of degradation, it is difficult to explain what this means or to understand why this term is used. However, lands used by local populations for grazing or using shifting techniques for harvesting are clustered in what is considered 'degradation'. What may be considered 'degradation' to policy makers may be considered critical viable lands to local communities.

* The Intergovernmental Panel on Climate Change (IPCC) defines degradation as the depletion of forest to tree crown cover at a level above 10 percent. See IPCC. *IPCC Special Report: Land use, Land-use Change, and Forestry*. IPCC. 2000.

DEGRADATION

RED

In this context, "E" stands for the **emissions**

provoked by **deforestation**. Historically, wealthy countries from the **North** are responsible for the pollution that brought us to this climate crisis in the first place. In addition, many of the natural resources in the **South** like timber, rubber and nuts are historically and still today exported to the North where there is extensive over-consumption of these and many other resources.

EMISSIONS

"D" stands for deforestation. When **forests** are burned and/or cut down, the **carbon dioxide** absorbed in the trees and soils is released into the **atmosphere** causing more carbon dioxide build-up. Reducing emissions from deforestation refers to keeping carbon dioxide stored in trees and soils. However, the first "D" in **REDD+** fails to address the direct and indirect drivers of forest loss, including the lack of recognition of customary caretakers of forests; overconsumption of and trade in forest products and products that directly or indirectly impact on forests; **subsidies** for export crops; mineral, oil, gas or coal exploration and extraction activities, shrimp farming and large-scale infrastructure projects such as hydroelectric dams, as well as incoherent government policies in general.

DEFORESTATION

D

The second '+' (plus) refers to all land uses but is very loosely defined. This includes agriculture practices and lands, which could also involve '**no till**' genetically modified (GM) crops or anything that would constitute **soil carbon** including controversial **biochar**. This double plus is also sometimes referred to as Reducing Emissions from All Land Uses (REALU), or as Agriculture, Forestry and Land Use (AFOLU), which in the context of climate policy refers to all forms of '**terrestrial carbon**'.

++: ALL LAND USES

+

+

+: CONSERVATION, SUSTAINABLE MANAGEMENT OF FORESTS AND ENHANCING OF CARBON STOCKS

During the **United Nations** climate conference in Bali, Indonesia in 2007, REDD added a first '+' (plus) and became **REDD+**.

The 'Bali Action Plan' which came out of that meeting calls for: "Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries." Let's look carefully those 3 concepts:

Conservation

Although this sounds good, the history of the establishment of national parks includes large-scale evictions, often undermining the access to natural resources and livelihoods for Indigenous Peoples and local communities. As a recent study shows, these parks and protected areas performed worse than community-managed forests in controlling deforestation.**

Sustainable forest management

This will likely open the doors to commercial logging operations in old-growth forests. Most logging companies sell their **concessions** after the exploitation and move on to other forests. They leave behind roads which were built to extract the valuable timber which enable other companies to access formerly remote areas more easily and illegally exploit the forest.

Enhancement of carbon stocks

Most likely enhancing carbon stocks will be implemented through large-scale **monoculture** plantations of pine, spruce, eucalyptus or acacia, with serious implications for **biodiversity**, forests and local communities. According to the United Nations, a 'forest' is any area bigger than 500 square meters with crown cover of 10 per cent and trees capable of growing two meters high. This means that not only the biodiverse forests from the Amazon, the Congo Basin or Indonesia are considered forests, but also the million of hectares of monoculture tree plantations. Plans to increase carbon storage could focus on rapidly growing tree plantations, or even **genetically modified trees** despite the harm they do to biodiversity, communities and **ecosystems**.

** Porter-Bolland, L., Ellis, E.A., Guariguata, M.R., Ruiz-Mallén, I., Negrete-Yankelevich, S. and Reyes-García, V. (2011), 'Community managed forests and forest protected areas. An assessment of their conservation effectiveness across the tropics', posted 05-2011 to *CIFOR*, [www.cifor.org/nc/online-library/browse/view-publication/publication/3461.html]

Workshops and Games:

What is REDD+?

An introduction to forests
and climate change

This section outlines workshops and dynamic ideas for motivating group discussion over the issues reviewed in this booklet with an aim to build trust among each other. These can be modified and changed in any way the group wants. Some recommendations for carrying out these workshops include:



Try to find a quiet space. It is usually best if the group can sit in a circle or semi-circle depending on the space.



Each workshop should have one or more facilitator(s) to help in the process. If you choose to have more than one, try to have people from both sexes (male and female). Facilitators should try to include everyone and ensure that the group is treating each other with respect, for example by preventing people talking over each other or using offensive language. The facilitators should encourage calm moments where tough discussions might come up and to keep the discussions flowing.



One way to ensure respectful participation could be at the beginning of the workshop the facilitator(s) can agree with the group on some basic guidelines or group **contract** for the day. For example: "We need to respect all our opinions, even if we don't agree. Wait until someone has finished talking before speaking. Monitor how much and for how long you talk to make sure you are not dominating the discussion..." These can be written in a big piece of paper and placed somewhere in the room. Then the facilitator(s) can refer to the collectively agreed guidelines if someone forgets.



The facilitator(s) should avoid imposing any solution to the group or presenting opinions as the 'right' answer. (S)he should try to encourage discussion and bring the different viewpoints.



Use humor and examples that people can identify with during the workshop.



Take breaks if the workshops last more than an hour. The facilitator(s) should try to be available during the breaks to talk with participants.



Be patient, creative, respectful and have fun!

Workshop #1

Let's know each other!

materials

No Materials Required

This is an easy dynamic for 'breaking the ice' and to feel more comfortable. Each person in

concept

the group is encouraged to say their name and any fact of her/himself to share with the group. Then, the next person does the same. The facilitator(s) can explain the workshop and start the round by doing it themselves. Humor can be useful here to relax every one.



Ideas

- favorite tree
- favorite activity
- sharing a dream

Example: "My name is Ana and my favorite tree is the Araticum."

You can also ask each participant to say for example why that is their favorite tree, activity or why that dream is special. If you are using a video camera, each person films the person sitting opposite them. In this way, each person in the group has the opportunity to film and to introduce themselves. Then the facilitator(s) can show the little film after the introductions.



Workshop #2

The Greenhouse Effect

materials

Clay or sculpting material, transparent salad bowl, flashlight, toys, magazines or newspapers' images of stars, sun, rainbows, etc. or self-made drawings and smoking items (cigarette or incense).

concept

The participants sculpt something significant from their territory with clay or sculpting material and explain it to everyone else (can be all together or in sub-groups depending on the amount of people and materials available). Place it on a round space on the table (the Earth). This is a great way to get to know each other and each others cultures and territories.

Next, place a clear salad bowl (the **atmosphere**) over it all and put the sun and stars and rainbows on the bowl (the sky). Next, shine a flashlight (the sun) into the bowl and discuss the entrance of light and heat into the atmosphere. Then place inside the bowl toy cars, trucks, bulldozers, factories, airplanes and oil wells with little pieces of lit cigarettes and/or incenses in their tailpipes or smokestacks and watch as the atmosphere fills with smog. (Be careful not to burn the table!)

Discuss **climate change** while watching the Earth heat up! For example, how the light and the heat from the sun get trapped and cause the fevers of Mother Earth. Then, ask each other what the solutions are. Hopefully, the group will liberate the Earth from the sources of pollution by taking away the smoking items.



Ideas

For the first part, some participants have sculpted canoes, trees and birds and explained things about them. For the 'sky' you can glue drawings or paint them on top. You could also explain the role of the atmosphere here!

Workshop #3

Trees in the community

materials

Clay, sculpting material.
Materials for making
monoculture trees (paper
cutouts, cardboard, sticks
or toothpicks)

concept

Ask the group to make trees from their communities using clay or sculpting materials. Be creative! When the trees are completed, ask the group to present their trees and what they are used for.

Next, the facilitators 'cut down' (move them gently) the beautiful trees and replace them with identical cut outs of **monoculture** trees. They can be made from paper cutouts, cardboard, sticks or toothpicks – this important thing is that they look alike. Discuss the difference between a natural, biodiverse forest and a tree plantation (no animal biodiversity, medicine, etc).

after natives

This workshop can also be done with paper and colors or pens.



Workshop #4

REDD+ Cocktail Game

materials

Paper and pen – if there is no paper or pen the facilitators can quietly whisper the word to each person.

concept

This game is a way for people to collectively define **REDD+** and share information about how they understand it. The facilitator(s) write different words on pieces of paper related to **climate change**, REDD+ and other issues which may affect the community. Each person in the group takes a word and the group mingles with each other to discuss their words. The group is encouraged to talk to everyone. It is recommended to give a time-frame for these group discussions. After the group reconvenes, each person shares their words and what they have learned.



ideas

Ideas for the words on the pieces of paper: **forests**, drought, land-tenures, water, **carbon dioxide**, plantation etcetera.

after natives

People can also act out the words and all the group then try to guess. People can also exchange words.



Workshop #5

Who are we?

This is a group building activity which aims to build trust within the group. This workshop tries to explore ourselves and our relations to the surrounding environment.

The group collectively creates a poster or collage in response to the question, "Who are we?" This can bring up tough issues of identity and fears into the open which the group can discuss together during or after the poster is finished in order to build trust.

It can also empower communities and focus on positive aspects of their connections to each other and their surroundings. After finishing the first work, the group creates another poster or collage related to the question, "Who are we in 5 years?" The aim is for the group to reflect on how they envision to see their community and surroundings.



Ideas

Both final posters or collages can be placed together in a collective space (school, kitchen...) so that everyone can reflect on what the group came up with. If possible, a short writing on what the group reflected can also be placed next to these. A paper or carton with some pens can be left in blank to motivate others to include their own thoughts.

The facilitator(s) can also try to stimulate the exploration of "Who are we?" by adding some sub-questions, like "what makes us a community?" "are the forests part of who we are?", etc. The same can happen for the second question with sub-questions like "what would happen if the river becomes polluted?"

concept

after natives

materials

Paper, carton or poster board, writing materials (pens, markers, paint, brushes, etc.), old magazines, glue, leaves, sticks, tape, and anything that can contribute to a collective poster or collage.

Workshop #6

Paco & Petra's Wedding*

materials

No materials required

This workshop emphasizes the importance of organizing together. The group divides into three subgroups. One subgroup

pretends to be the groom's friends and family, the second is the bride's friends and family and the last one is the bride's guests. Next, ask each group to decide what kind of cake, drinks, color of dress or suits, type of wedding and so on. Be creative. When they are ready, ask each group to present their ideas. Then the facilitator(s) ask how the decisions were made in each group, if everyone participated and if everyone agreed.

concept



Ideas

After the presentations from each group and a small discussion on participation and decision-making, the facilitator asks everyone how they can organize the celebration party. If the subgroups divide up again, the facilitator(s) should ask when the groups come back to present why they divided up instead of working together.

Final questions to the group can be about organizing together, like, "What steps are needed to reach a goal? What is organizing? What brings us together? How can we work together to insure positive results?" The group can work on process here, strategic planning, development, participation, timelines and implementation.

after natives

* Adapted from *Popular Education Tool Kit*, Jefferson Center for Education and Research. 2004. <http://www.jeffctr.org/docs/Popular%20Education%20Tool%20Kit.pdf>

Workshop #7

Show Videos

materials

Support for showing a film: TV, video projector, computer, etc.

concept

Showing a video aims to empower the group with visuals and knowledge and/or other community struggles. Show a short film which address **climate change**, **REDD+**, or other communities resisting REDD+.

Free Documentaries On-line:

“Fever”

English, Spanish, French, Bahasa:

<http://www.lifemosaic.net/en/fever.php>

“Our Land, Our Struggle”

English, Portuguese:

<http://www.carbontradewatch.org/video/our-land-our-struggle.html>

“No caigas en la REDD del Socio Bosque”

Spanish:

<http://www.accionecologica.org/component/video/flow/?task=play&id=7&sl=cats&layout=listview>



Divide into small groups after the film. Each group is given a question to answer. Each small group organizes a reply for the entire group.



Glossary

Afforestation Planting trees in areas where there were no trees before.

Atmosphere The layer of gases which surrounds the Earth, i.e. the air in the sky.

Avoided Deforestation The act of avoiding **deforestation** by preventing the cutting down of **forests** in certain areas.

Bacteria Bacteria are classified as one of the five Kingdoms of life. They are microscopic living beings present in most habitats on Earth, including soil, water, and deep in the Earth’s crust, as well as in organic matter and the live bodies of plants and animals.

Biochar Biochar is charcoal made from biomass—which is plant material and agricultural waste. The term ‘biochar’ was coined in recent times, but the origins of the concept are ancient. What differentiates biochar from charcoal is its purpose; it is produced as an additive to soils, mainly to improve nutrient retention. Biochar advocates claim that burying charcoal in soils is a viable means of sequestering carbon for hundreds of years, however this claim is highly controversial and proposed

methods of large-scale biochar could most likely result in escalating competition with food production, deforestation, expanding industrial **monocultures**, depleting water resources, land grabs and more rather than less greenhouse gas **emissions**.

Biodiversity Biodiversity is the degree of variation of life forms within a given **ecosystem** or an entire planet. Biodiversity is a measure of the health of ecosystems.

Carbon Carbon is a chemical element, like hydrogen, oxygen, lead or any of the others in the periodic table of the elements. It is an abundant element on Earth. It can also combine with other elements to form molecules. These carbon-based molecules are the basic building blocks of life on Earth including humans, animals, plants, trees and soils.

Carbon broker A carbon broker acts as the middleperson between the buyers and the sellers in the carbon market.

Carbon dioxide Carbon becomes carbon dioxide when one carbon atom joins with two atoms of oxygen (hence the chemical formula of carbon dioxide, CO₂).

Carbon sequestration The process by which trees and soils remove and store **carbon dioxide** from the **atmosphere**.

Carbon sink A carbon sink is anything that absorbs more carbon than it releases. **Forests**, soils, oceans and the atmosphere all store carbon which is absorbed and released through a continuous cycle.

Carbon stock The quantity of carbon contained in a reservoir or system which has the capacity to accumulate or release carbon.

Class Social classes are economic arrangements of groups in society. The most basic class distinction is between the powerful and the powerless. Social classes with a great deal of power are usually viewed as 'the elites' within their own societies.

Climate change Greenhouse gas **emissions** is pollution. When these gases are released in excess into the air they create more molecules than the atmosphere (air) can handle which causes the Earth to heat up. This causes climate change, also called global warming or the climate crisis.

Commodification This takes place when an economic value is assigned to something which was not previously considered in economic terms and then is standardized for making it possible to trade in a financial market.

Commodity A commodity is the generic term for any economically valued item or service produced to trade in a market.

Concession A concession is a right granted by a government to a corporation to operate in a defined area. It specifies rules under which the company can operate locally. It is also designed to encourage a company to come to or stay in an area. A concession can also be used as a **contract** between a host country's government and a foreign firm that wants to invest in the host country.

Contract A contract is a legal agreement entered into by two or more parties with the serious intention of creating a legal obligation or obligations. If this agreement is broken by one of the parties involved they have a legal right to demand compensation.

Deforestation Refers to the removal of natural forests or standing trees where the land is converted to non-forest use; simply put, areas where biodiverse forests are cut down. A natural biodiverse forest is an area that has not been planted by humans. Common examples of deforestation are conversion of biodiverse **forests** for cattle pastures, soy, sugar and tree plantations, coal mining and oil extraction.

Degraded Lands Are defined as lands that have been damaged by agriculture, over-grazing or draught. It is viewed as any disturbance to the land perceived to be undesirable over a period of time. However, the perception of what is degraded is subject to whom perceives it and the political agenda behind this perception.

Drivers of deforestation Drivers in this context refer to the large-scale causes of **deforestation**. This definition is a space of conflict. Often local communities are blamed as drivers of deforestation while corporations involved in large-scale deforestation operations are not held accountable. Among the drivers causing large-scale deforestation are **fossil fuels** exploration and extraction activities; industrial agriculture; **monoculture** plantations or large-scale infrastructure projects.

Economic growth Economic growth is understood by its defenders as a successful, flourishing or thriving economic condition. A desirable state in which increasing accumulation is needed. However, economic growth has proven to be unequal within and between countries and socially unjust. Moreover, pursuing endless economic growth (accumulating more money and resources) contradicts the fact that we live on a planet with finite resources (once depleted there is no more available for future needs).

Ecosystem Ecosystems are made of living beings and non-living things that are connected in a given area. The living beings are made up of plants, animals, fungus

and **bacteria**, and the non-living things are chemicals and physical factors such as air, rocks and water. All of these together make up an ecosystem.

Emissions Emissions are gases which are chemicals, particulate matter, or biological materials that cause harm or discomfort to humans or other living organisms, or cause damage to the natural environment, into the atmosphere. In **climate change**, emissions are mostly referred to the **greenhouse gases**.

Extinction Extinction is the end of an organism or of a group of organisms (species). The moment of extinction is generally considered to be the death of the last individual of the species which will never exist again on the Earth.

Forests There are many definitions of 'forests' in different parts of the world. Yet, there is one viewed as an official international definition which many governments, corporations, the **United Nations**, and other institutions adhere. This definition concentrates only on trees (overlooking animals, soils, rivers, etc.) and also specifies the height and density of the trees and the size of the area they cover in order to be considered a forest. Based on this definition, not only the biodiverse forests from the Amazon, the Congo Basin or Indonesia are considered forests, but also the million of hectares of monoculture tree plantations of eucalyptus, oil palm, and others, causing serious environmental, social, cultural and economic impacts for the communities that live with the forests.

Fossil fuels Fossil fuels (coal, oil and gas) are non-renewable resources (once depleted there is no more available) because they take millions of years to form. The current reserves are being depleted at a very fast pace. The exploration, extraction and use of fossil fuels have serious environmental and social consequences. Moreover, the burning of fossil fuels is considered one of the main reasons for **climate change**, producing high levels of **carbon dioxide** per year.

Genetically modified trees Genetically modified (GM) trees, also called genetically engineered (GE), are trees whose DNA or genetic code is modified using genetic engineering techniques. In spite of the uncertainties and potential risks, forestry scientists are playing with genes to 'improve' trees. GM tree plantations will exacerbate the existing impacts of large-scale tree **mono-cultures**, threaten even more **biodiversity**, natural **forests** and local populations' health.

Greenhouse effect The air in the sky is the **atmosphere** and it protects the Earth from the sun's heat. The sun's rays are very strong and without a balanced atmosphere the Earth would be too hot to sustain life. When an excess of certain chemicals and/or pollution are released into the sky, the atmosphere cannot maintain this balance. When there are too many chemicals in the atmosphere, the sun's heat becomes trapped inside so that less of the heat can be released into space.

Greenhouse gases Greenhouse gases (sometimes abbreviated GHG) are gases in an atmosphere that can be absorbed and emitted. The most abundant greenhouse gases in Earth's atmosphere are: carbon dioxide, methane, nitrous oxide and ozone. At present, the primary source of carbon dioxide (CO₂) **emissions** is from burning **fossil fuels**.

Herbicides An herbicide, commonly known as a weedkiller, is used to kill unwanted plants. Some herbicides will eliminate every plant they touch, while others are designed to eradicate only specific types. Herbicides have widely variable toxicity. There is a range of human health effects from skin rashes, cancer to death. Moreover, even when herbicides have low toxicity, these decrease the abundance of many types of vegetation which birds and other animals rely on.

Incineration Incineration is a waste treatment process that involves the combustion of substances contained in waste materials that converts the waste into ash, flue gas, and heat. The gases released by incineration have health consequences for the populations nearby.

Monoculture Monocultures are plantations where only one single crop is grown in an area. Monocultures are not environmentally or socially sustainable because they disturb the soils and are susceptible to diseases which lead to the excessive use of **pesticides** and **herbicides**. Monoculture tree plantations

have devastating effects on biodiversity and local communities. The **United Nations** (and **REDD+** programs) makes no difference between monoculture plantations and biodiverse forests! (see definition of 'forest')

No till No-till farming (also called zero tillage or direct planting or pasture cropping) is a way of growing crops without disturbing the soil through tillage (agricultural preparation of the soil by mechanical agitation, such as digging, stirring, and overturning). It requires herbicide use.

North 'The North' refers to the financially wealthy, so-called developed or industrialized countries. Although most countries called 'the North' are in fact located in the Northern Hemisphere (with the exceptions of Australia and New Zealand), the divide comes mostly from the political, economic, cultural and military power. However, it is important to highlight that there are wealthy elite **classes** in the **South** as well as exploited and underprivileged classes in the North.

Pesticides A pesticide is a chemical, biological agent or disinfectant used to eradicate other living beings (pests) perceived to harm the growth of a crop. They include but aren't limited to: fungus, **bacteria**, plant disease, snails, slugs, fish, birds, mammals and weed infestation. Nine of the 12 most dangerous and persistent organic chemicals are pesticides. Pesticides are categorized into four main chemicals: herbicides, fungicides, insecticides and bactericides.

Profit The economic gain from an investment or business operation after subtracting for all expenses.

Project developers The project developers are those who are in charge of the implementation of a project. In referring to REDD+ cases, the project developer can be an NGO, a governmental body, an international donor agency, the **World Bank** or a branch from a private company, among others.

REDD Reducing **Emissions** from **Deforestation** and forest Degradation.

REDD+ Reducing Emissions from Deforestation and forest Degradation and conservation, sustainable management of forests and enhancing of **carbon stocks**.

REDD++ Reducing Emissions from Deforestation and forest Degradation and conservation, sustainable management of forests and enhancing of carbon stocks and all land uses.

Reduce emissions at source This phrase is used when referring to a real reduction of greenhouse gas emissions where the pollution is taking place. It highlights the importance of cutting pollution where it is happening instead of using mechanisms like carbon markets which allow polluters to buy their way out of responsibility.

Reforestation Refers to re-planting trees in areas where there were trees before.

Soil carbon Soils have the ability to absorb **carbon dioxide** and influence its concentration in the **atmosphere**.

South 'The South' refers to financially poorer or so-called developing countries. Although countries called 'the South' are in fact located in the Southern Hemisphere (Africa, Asia-Pacific and Latinamerica), the divide comes mostly from the political, economic, cultural and military power. However, it is important to highlight that there are wealthy elite **classes** in the South as well as exploited and underprivileged classes in the **North**.

Subsidies A subsidy (also known as a subvention) is an assistance paid mostly by the government to producers or distributors in an industry in order to prevent the decline of that industry or an increase in the prices of its products. Depending on the situation, subsidies can be regarded as a form of protectionism or trade barrier by making national goods and services artificially competitive against the ones coming from abroad.

Swidden Called also 'slash and burn' or shifting cultivation, Swidden cultivation clears an area for temporary cultivation by cutting and burning the vegetation and rotating areas to allow them to grow back.

Terrestrial carbon Terrestrial carbon is the **carbon** stored in soil and vegetation in the planet Earth, especially in **forests**, savannahs, and agricultural systems.

United Nations The United Nations has 193 member states. The UN was founded after World War II (1945) as a peace keeping international body; however it has been criticized for its inability to cope with international conflicts. Moreover, five countries concentrate power in the security decisions of the organization, which has led to accusations that it only addresses the strategic interests and political motives of these countries, especially in 'humanitarian interventions'.

World Bank The World Bank is an international financial institution that provides loans to countries in the **South** (Latin America, Africa and Asia) for expanding '**economic growth**'. The Bank's nature as a lending institution, its structure and the 'development' paradigm it promotes are in contradiction with the construction of just, fair and sustainable societies. It finances fossil fuel projects that deepen the climate crisis, supports private corporations at the expense of public interests, is governed by undemocratic structures and operates without full transparency and accountability.

Resources:

Indigenous Peoples Guide,
False Solutions to Climate
Change
http://www.ienearth.org/docs/Indigenous_Peoples_Guide-E.pdf#search=%22REDD%22

REDD – Reaping Profits
from Evictions, Land
Grabs, Deforestation and
Destruction of Biodiversity
<http://www.ienearth.org/REDD/index.html>
No REDD, a Reader
<http://noredd.makenoise.org>

REDD: The reality in black
and white
<http://www.foei.org/en/resources/publications/pdfs/2010/redd-the-realities-in-black-and-white>
Why REDD is Wrong
<http://ggjalliance.org/node/567>

Position Paper, Imaginary
Sinks: India's REDD
Ambitions
<http://globalforestcoalition.org/wp-content/uploads/2011/07/Sinks-in-the-making1.pdf>
<http://infochangeindia.org/Environment/Community-forests-of-Orissa/The-taming-of-the-wilds.html>



Websites:

<http://www.redd-monitor.org/>
<http://www.wrm.org.uy/>
<http://globaljusticeecology.org/>
www.accionecologica.org/

www.oilwatch.org
<http://www.thecornerhouse.org.uk>
<http://www.timberwatch.org/>

WHAT IS REDD+?

An Introduction

Some say that the Reducing Emissions from Deforestation and forest Degradation (REDD+) scheme could help communities who rely on the forests while others see REDD+ as paving the way for land grabs around the world which threaten the livelihoods and cultures of communities and the forests. This educational booklet aims to decode the complexities of REDD+ using clear and straight-forward language while opening up a space for critical perspectives.

This is part of a series of REDD+ booklets that can be used as a tool for widening on-going collective discussions and learning about REDD+.

All the booklets can be downloaded in English and Spanish at <http://noreddpoped.makenoise.org> Please, feel free to print, reproduce and disseminate as much as you want!

And since this is a work in progress, we would like your feedback! Please go the website <http://noreddpoped.makenoise.org> and send your ideas to improve the booklets or write an email to carbontradewatch@gmail.com

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