



## **A lot of money for hot air**

- 1. Industrialised countries must reduce their emissions**  
We cannot delay in curbing greenhouse gases
- 2. Climate protection must respect human rights**  
No climate protection on the backs of people in the Global South
- 3. Sustainable climate action requires support**  
The forests of Indigenous Peoples and climate-friendly cultural landscapes must be protected

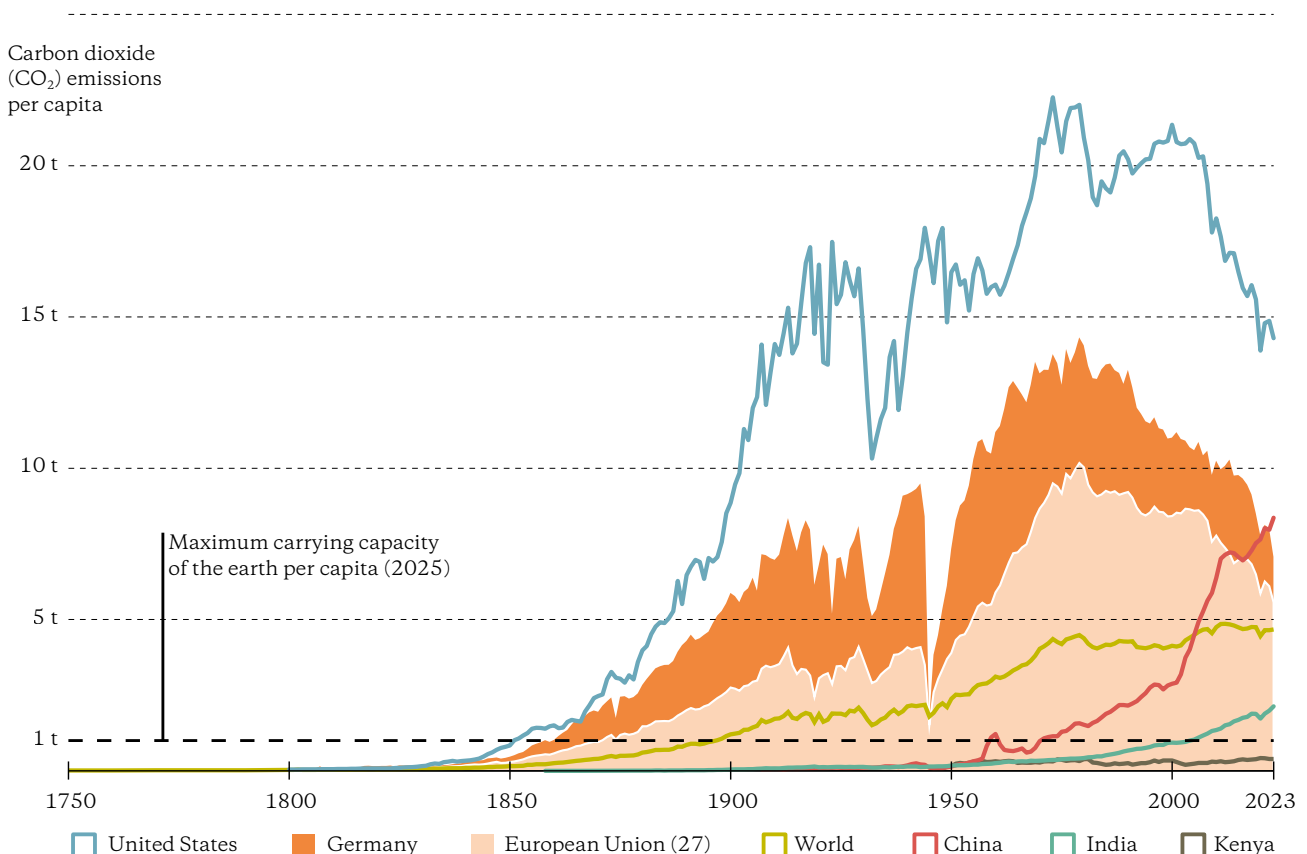
Imagine walking into a bathroom and seeing an overflowing bathtub. The tap is fully open, water is running over the edge of the tub, the entire bathroom is flooded and the bathroom fittings are being destroyed by the massive amounts of water. The water is threatening to penetrate through the floor into the rooms below and cause permanent damage. What is the first thing you would do to stop the disaster? Would you use a mop to soak up the water? Or would you turn off the taps to solve the cause of the problem?

## Emissions continue to rise

The bathtub analogy reflects our current behaviour when it comes to curbing global warming. We are using a wealth of ideas and resources to try and capture the greenhouse gases that continue to be spewed into the atmosphere, seemingly without end, instead of working hard to prevent them from arising in the first place. Greenhouse gases are the main driver of global warming, and not only are emissions not falling at present, they are actually rising. Carbon dioxide (CO<sub>2</sub>)

is not the most dangerous of these gases but it remains in the atmosphere the longest. Even though per capita emissions are falling in individual countries, these gains are being offset by rising emissions from other countries.

One reason for the increase in emissions is various forms of international emissions trading. The idea behind this trade is that emissions that are generated and emitted into the air in one place on the planet, usually in the Global North, can be taken out of the air and bound again in another place, usually in the Global South, a process known as “offsetting”. To finance these measures, climate protection certificates are generated as part of special climate protection projects, for example through large-scale afforestation or the protection of existing primeval forests. Companies can buy these certificates to offset their greenhouse gas emissions. Emissions trading is thus a kind of trade in absolution: the Global North finances climate protection in the Global South, thereby buying its way out of obligations to substantially reduce its own emissions.



CO<sub>2</sub> emissions are attributed to the country where they are emitted, not to where the associated products are consumed. If, for example, a lithium battery is produced in China using fossil fuels and later consumed in Germany, the associated CO<sub>2</sub> emissions are credited to China and not to Germany. If this chart were adjusted for the import and export of CO<sub>2</sub>, per capita consumption would be about 24 percent higher in Germany and about 9.2 percent lower in China.

**Graphic 1:** CO<sub>2</sub> emissions per capita of different countries since 1750

Source: Our World in Data: <https://ourworldindata.org/co2-emissions-metric>. August 2025.

## Types of emissions trading

**Emissions trading was developed in the United States in the 1960s** and was driven by the Clean Development Mechanism (CDM), introduced in the Kyoto Protocol (1997). The purpose of emissions trading was to help industrialised countries to meet their greenhouse gas reduction targets under the Kyoto Protocol and promote the transfer of technology to developing countries. Right from the outset, tradable certificates were issued for presumed CO<sub>2</sub> savings, allowing CO<sub>2</sub> reduction activities in one country to be offset against CO<sub>2</sub> emissions in another country.

Under the **United Nations Framework Convention on Climate Change (UNFCCC)**, an international agreement aimed at slowing global warming and mitigating its effects, measures to reduce CO<sub>2</sub> implemented in one country can be transferred via certificates to another country and counted towards that nation's climate targets. As part of this convention, Article 6.4 of the 2015 Paris Agreement on Climate Change includes a multilateral carbon trading mechanism, which is overseen by a body appointed by the Conference of the Parties and contains rules and procedures for its implementation. This mechanism is intended to achieve an absolute reduction in emissions in the global balance sheet, as two percent of the emission reduction certificates are retired in each transaction, meaning they cannot be offset against pollution rights. However, Article 6.2 of the Agreement also allows for direct intergovernmental co-operation, which is subject only to vague guidelines and may undermine the ambitions of Article 6.4.

In the **Voluntary Carbon Market (VCM)**, private companies, organisations or individuals buy climate protection certificates to offset their emissions and claim their products are "climate neutral". The value of the VCM was estimated at around USD 1.7 billion in 2024, with expected annual growth rates of about 25 percent in the coming years.<sup>1</sup> Certificates are mainly generated through international forest and climate protection projects. These aim to use financial incentives to limit deforestation and promote reforestation in order to sequester greenhouse gases.

The **Compliance Market (CM)** is based on nationally or internationally defined emissions budgets (caps) and permit certificates that mainly affect large industrial sectors. These certificates represent the right to emit a certain amount of CO<sub>2</sub> equivalents. Companies are obliged to submit a corresponding number of certificates for their emissions and can trade these amongst themselves. The largest and best known example is the European Emissions Trading System (EU ETS), which has been in force since 2005 and covers around 40 to 45 percent of the EU's greenhouse gas emissions. Mandatory emissions trading has led to real reductions in greenhouse gases and is not the target of this brochure's criticism. However, current plans to open the EU ETS to certificates from the Global South would undermine this previously well-functioning mechanism. That is because this opening up would lead to additional, sometimes highly questionable certificates in the EU ETS, which would in turn bring down the price of certificates. This price reduction would remove the incentive to conserve CO<sub>2</sub>.

## Offsetting is not climate protection

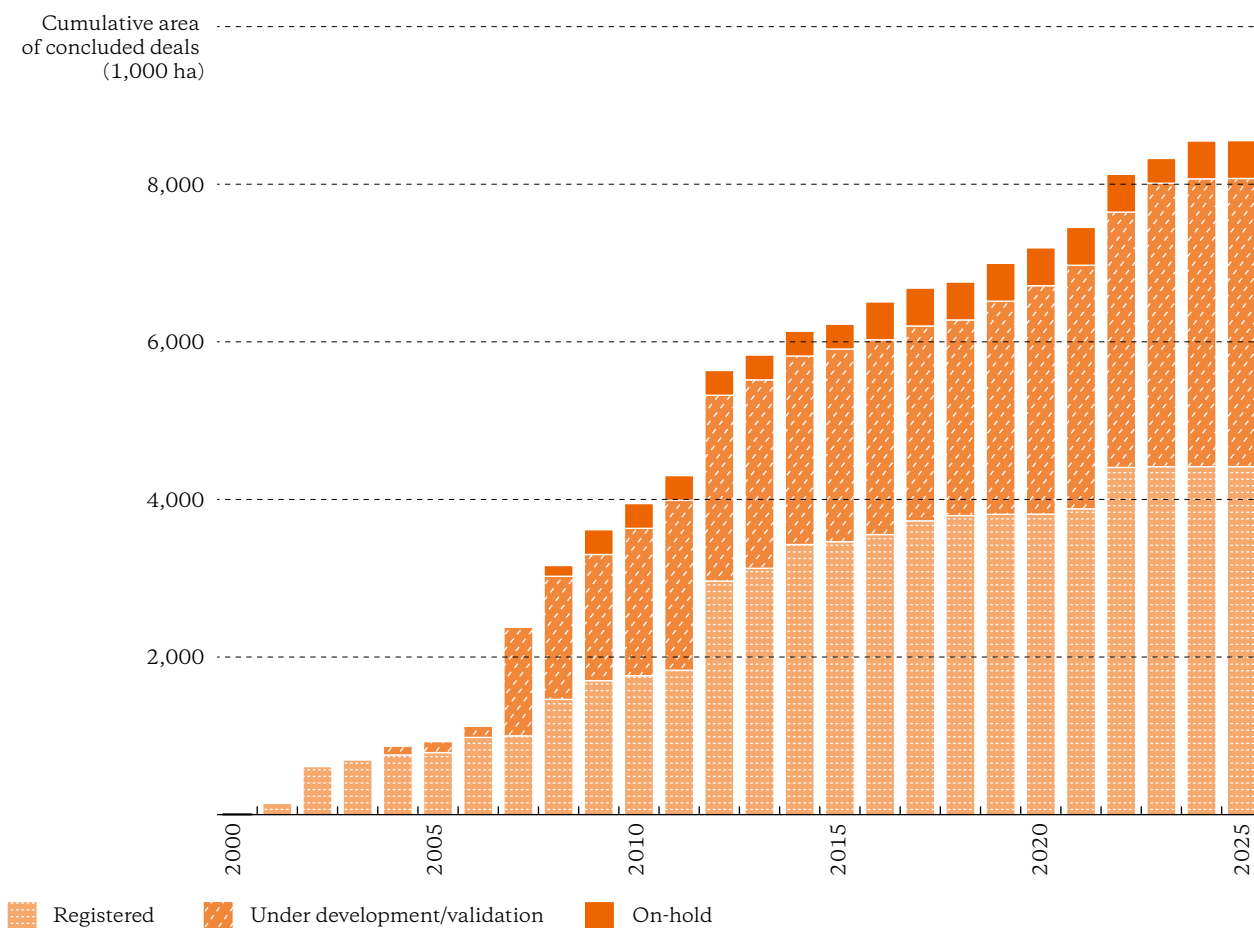
Emissions trading cannot effectively protect the climate because it has an inherent flaw. In the VCM, emissions are ideally traded on a one-to-one basis: for every tonne of CO<sub>2</sub> emitted in the Global North, one tonne of CO<sub>2</sub> is to be sequestered in the Global South, meaning this is a zero-sum game that does not lead to a reduction in greenhouse gases. But even this one-to-one offsetting is hardly a given in reality. For example, a forest must exist for at least 100 years in order to have a significant climate impact. Emissions that are produced now will therefore only be captured in the distant future, causing significant damage in the meantime. Nor does forest conservation guarantee permanent CO<sub>2</sub> sequestration. If the forest is cut down, burned or disappears due to pest infestation before this time has elapsed,

the stored CO<sub>2</sub> is released. A major survey conducted by the Max Planck Institute's Net Zero Lab in 2024 shows that CO<sub>2</sub> offsetting projects sequester far fewer greenhouse gases than many claim. Less than 16 percent of the CO<sub>2</sub> certificates issued in the projects studied resulted in a real reduction in emissions.<sup>2</sup>

## Land grab for emissions trading

Land-based offsetting projects, such as forest conservation or afforestation projects, lead to an enormous demand for land. Just to implement countries' official climate action plans (Nationally Determined Contributions — NDCs), some 1.2 billion hectares of land would be required worldwide — about two thirds of global arable land. The preferred target areas for the implementation of offsetting projects

are the countries of the Global South:<sup>3</sup> 31 tropical countries in Africa, Asia and Latin America — including Brazil, the Democratic Republic of the Congo (DRC), Indonesia, Peru and Colombia — are home to almost 70 percent of the world's tropical forests and thus offer a high level of carbon sequestration. The following chart shows the increase in land acquisitions for offsetting projects, particularly in the Global South:



**Graphic 2:** Carbon market related land acquisitions since 2000

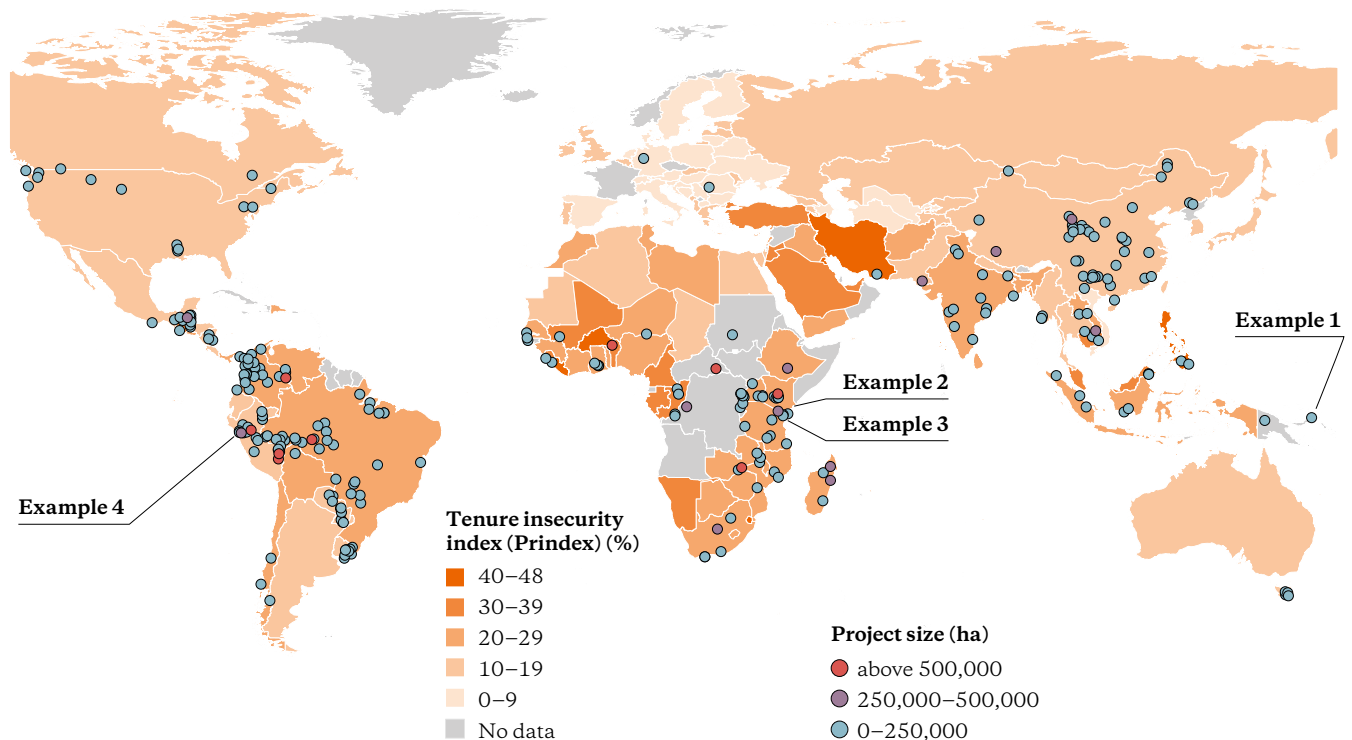
Source: Kubitzka et al. (2025): Analytical report on land-based offset projects. Land Matrix.

In many of these countries, governments are weak because of past or ongoing conflicts, as is the case in the DRC or Sierra Leone. Or, as in Indonesia or El Salvador, governments use heavy-handed tactics to push through the will of their political elites against the interests of the population. In such cases, offsetting projects are often carried out without first notifying or consulting with the affected population. These projects often lead to a loss of land use rights and forced resettlement. Those affected are thus denied basic human rights without the opportunity to mount a legal defence.

**Convention 169 of the International Labor Organization of the United Nations (ILO) provides for free, prior and informed consent (FPIC). FPIC holds that a population affected by a project's activities must be well informed about the project and give its consent to the implementation without external pressure before the project can begin.**

The following map illustrates the global distribution of voluntary emissions trading projects certified by VERRA, the world's largest provider of emission credits. It is striking that

most of these projects are taking place where land rights are least secure:



### Examples of land-intensive projects for voluntary carbon trading

- 1. Papua New Guinea:** In 2019, representatives of the community of Kait signed a contract with the US company NIHT Inc. for a carbon project. In this contract, the rights to the land and the forests on it were withdrawn from the community and transferred to the company. Neither the obligations vis-à-vis the community nor its share of the profits were clarified in any meaningful way. There were massive conflicts within the community, as only part of the community supported the project and others were opposed to it due to significant restrictions on land use. The project generated over 1.3 million verified CO<sub>2</sub> certificates in the VCM and sold them via VERRA. To date, the community has not received any money from the project.
- 2. Kenya:** In Kenya, the indigenous Ogiek were driven from their ancestral forestlands to make way for afforestation and conservation projects negotiated with the Kenyan government by the Dubai-based offsetting company Blue Carbon. Since 2023, the Kenyan government has destroyed hundreds of Ogiek homes and forcibly relocated families.<sup>4</sup>
- 3. Tanzania:** The Longido and Monduli Rangeland Carbon Project is located in a Maasai grazing area and covers 970,000 hectares. In this project, changes to the use of grazing land are intended to increase carbon storage in the soil. The project is planned for a period of 40 years. One of the main sponsors is Volkswagen. The project involved only a few powerful community representatives, excluding many from the decision-making process, particularly women and young people. The project severely restricts the mobility of large numbers of local pastoralists, thereby depriving them of their livelihoods.<sup>5</sup>
- 4. Peru:** The Peruvian government has designated the “Cordillera Azul” nature reserve (1.3 million hectares of land) on the traditional land of the indigenous Kichwa people without informing or consulting with them in advance. As a result, the Kichwa are no longer allowed to use this part of their territory. The Peruvian state has issued certificates on the international carbon market for the park’s “nature services”, but the Kichwa were not entitled to revenues from emissions trading.<sup>6</sup>

**Graphic 3:** Location and size of land-based projects in the Voluntary Carbon Market

Source: Kubitz, Christoph & Bourgoïn, Jeremy (2025). “Land Grabbing and Global Climate Action” in *Net Zero & Land Rights 2025*, TMG Research & Robert Bosch Stiftung.



## Who benefits from emissions trading?

The voluntary carbon market involves a large number of protagonists, often based in the Global North, who reap the financial gains while the local communities on whose land the activities are often carried out receive only a tiny share

or none at all. Lack of transparency and regulation of cash flows are major obstacles to a fair distribution of the financial benefits of carbon offsetting. One study found that in offsetting projects, up to 97 percent of the expenditures go to intermediaries, while only 3 percent is passed on to the communities affected.<sup>7</sup>

### Roles of the various market participants

The **end users** of carbon certificates are companies, organisations or private individuals who want to market services or products as “climate neutral”. They pay for the carbon certificates and bring money into the system.

**Intermediaries** buy carbon certificates from forest conservation projects and often sell them at a much higher price to end users who want to offset emissions. 90 percent of intermediaries do not publish their fees or profit margins, making it difficult to track the actual financial distribution.<sup>8</sup> Of the 10 percent of intermediary agencies that disclosed their fees, the average fee was 15.5 percent. In some cases, the fees were up to 86 percent of the price of the certificate.<sup>9</sup>

**Project developers** offer offsetting credits and design carbon projects, often with a strong focus on certificate creation and initial marketing. They also take care of the financing. The largest project developers (e.g. South Pole, Finite Carbon, ClimatePartner, myclimate, etc.) are based in Europe or the USA and siphon off between 30 and 50 percent of the funds raised.

**Standard developers** (e.g. VERRA, Gold Standard Foundation, Plan Vivo, etc.) charge various fees, such as registration and issuance fees, which are usually in the single-digit percentage range of the certificate value.

**Certifiers/validators/auditors** validate and certify the project on-site and receive a fee from the project operator, which varies depending on the size of the project. Validation and verification by accredited third-party vendors typically costs from a few thousand to ten thousand US dollars per case, depending on project size and type.

**Project operators** are natural or legal persons who are responsible for the implementation of a carbon project. They ensure compliance with certification standards, monitoring, data collection and reporting, co-operate with local stakeholders and authorities, and communicate with auditors, certifiers and sometimes buyers. In practice, they often act as project developers at the same time.

**Local communities and Indigenous Peoples**, who are theoretically expected to benefit from the climate and sustainable development aspects of the project, often receive only a minimal share of the financial proceeds, unless projects explicitly provide for a fair distribution of benefits. Benefits promised to these groups are often only partially paid out, if at all. But even the money that does end up reaching communities is often not distributed fairly, owing to the lack of transparency in the flow of money and power structures within communities. Often, the very groups that have had to give up their land-use rights for a project are left empty-handed.

## Clean energy becomes sullied

Due to these major shortcomings of land-based climate projects, emission certificates are now increasingly being generated for investments in wind power plants, energy-saving stoves or solar plants, based on the argument that these technologies avoid emissions. That seems logical on the face of it. However, investments in renewable energies and energy-saving technologies have now become so economical that they can almost always be implemented without the need for offsetting payments.<sup>10</sup> According to the UN Framework Convention on Climate Change, climate protection measures

or emission reduction projects may only be classified as CO<sub>2</sub> offsetting projects if the emission reductions would not have occurred or would not have occurred to a comparable extent without additional funds from emissions trading. Although this requirement of additional benefit is rarely credibly demonstrated, these projects are becoming increasingly prevalent in emissions trading. By their integration into the carbon trade, these investments to avoid emissions actually create new pollution rights that would not have otherwise existed. This means that emissions trading even helps to increase global emissions rather than reduce them.

## The fallacy of geoengineering

As climate change picks up pace and the costs of the associated damage explode, great hopes are now being pinned on geoengineering. This term encompasses various technical processes by which CO<sub>2</sub> is permanently removed from the atmosphere, or sunlight is reflected back into space.

Although these technologies have been studied for decades, no significant breakthroughs have been achieved. On the contrary, geoengineering is considered extremely expensive, high-risk and as yet ineffective. Many of these methods do not take into account the sensitive functioning of ecosystems. They are often tried out in the Global South without the involvement of the local population. Despite these concerns, emission credits are now to be issued for geoengineering technologies as well — a free pass for new emissions.

### Forms of geoengineering

**Direct Air Capture (DAC)** filters carbon directly from the air to reduce the CO<sub>2</sub> concentration in the atmosphere.

**Carbon Capture and Storage (CCS)** captures carbon during the production process and later compresses it and injects it underground or under the sea, to prevent it from entering the atmosphere.

**Bioenergy with Carbon Capture and Storage (BECCS)** burns fast-growing plants for energy, capturing the resulting carbon and injecting it underground or under the sea in a similar way to CCS.

**Marine geoengineering** takes many forms, such as stimulating the growth of certain types of algae through fertilisation and altering the chemistry of sea water, in order to absorb CO<sub>2</sub>.

**Solar geoengineering** aims to reduce global warming by reflecting sunlight away from the Earth, for example by releasing chemicals into the air or making clouds brighter.

## Climate protection requires financing

In 2024, direct and indirect government subsidies and investments in the fossil fuel sector amounted to more than USD 1.7 trillion (approximately EUR 1.63 trillion) worldwide. This figure includes both direct payments and tax breaks, as well as public investment in fossil fuels.<sup>11</sup> The current German government plans to provide around EUR 9 to 15 billion a year in additional climate-damaging subsidies and incentives, especially for the energy sector, agriculture and transport.<sup>12</sup>

Much would be gained for sustainable climate protection if state subsidies for fossil fuels were discontinued, unless they are urgently needed for social justice purposes. Together with the USD 1.7 billion (roughly EUR 1.63 billion) in voluntary carbon trading annually, huge amounts could be devoted to real climate action, because the fact is that there are insufficient financial resources, especially in the Global South. This would prevent governments from being tempted by economically disadvantaged countries or cash-strapped local communities to engage in emissions trading projects that promise a lot of climate protection and big profits on paper, but rarely deliver on them in reality.

## Climate protection must be conflict-sensitive

There are already many good examples of sustainable climate protection, a concept which is highly diverse and takes place at various levels, especially in the Global South. Smallholder agriculture in the Global South provides up to 70 percent of local food production in some countries. Using agroecology approaches, this type of farming provides the population with healthy, regionally produced food while protecting the climate and biodiversity. Indigenous groups practise centuries-old systems of land management that are very effective in protecting forests and can make an indispensable contribution to global climate protection. For example, in the Amazon region, 45 percent of the intact forests are on indigenous land,<sup>13</sup> and around 80 percent of all animal and plant species worldwide are found in areas belonging to indigenous communities.<sup>14</sup>

Depending how they are designed, climate protection measures can trigger conflicts and reinforce existing ones, or they can contribute to social harmony. Such projects often change the culture and traditions of the communities concerned, weaken social structures and reinforce existing inequalities, such as gender-based discrimination. That is why they need a secure legal framework and local solutions, and they must be planned and implemented in a conflict-sensitive manner.

# What needs to happen?

## Emissions must be reduced

The best climate protection plan is a consistent retreat from the era of fossil fuels. All subsidies for fossil fuels should be scrutinised and should only be used to prevent social hardship. This would reduce emissions and save a lot of money that is urgently needed for climate protection, to help people adapt to the effects of climate change and for services to support those who have been harmed by climate change. That said, expanding renewable energies and strengthening the circular economy also harbour great potential for reducing emissions of climate-damaging greenhouse gases. Accounting for over 30 percent of emissions, agriculture is one of the main drivers of global warming. A genuine reform of our food systems towards agroecological principles and the dismantling of industrial agriculture and livestock production are essential to stop global warming. These measures would also preserve biodiversity and thus ensure food security for the world's population in the long term.

## Climate protection must respect human rights

People in the Global South are not responsible for saving the Earth that we are currently destroying. However, most climate protection projects take place in the Global South, due to the region's great natural potential and the local populations' often limited ability to assert their rights. The protagonists involved in the implementation, mostly from the Global North, siphon off most of the money invested in the carbon

trade. Hardly any financial support reaches the local people, who often lose access to vital resources such as farmland, forests and water in the name of questionable climate protection measures. Sustainable climate protection can only be achieved by ensuring the active participation and respect for the human rights of those affected locally, principles to which Germany has committed itself on the international stage. Effective grievance mechanisms must ensure that locals are given the opportunity to lodge objections throughout the entire cycle of the climate project. Land and water rights must be protected, and traditional knowledge and cultural identity must be preserved.

## Sustainable climate action requires support

Genuine climate protection cannot be achieved in a system that allows savings or avoidance of CO<sub>2</sub> and other greenhouse gases to be neutralised by an expansion of pollution rights elsewhere. Climate protection is only sustainable if the amount of carbon in the air is reduced globally in absolute terms. Unavoidable "residual emissions" that originate from processes that cannot be converted to carbon-free production methods based on current technologies or products that cannot be replaced by a carbon-free substitute must be clearly defined and limited. Natural CO<sub>2</sub> sinks such as forests and peatlands, but also seas and climate-friendly cultural landscapes, need to be protected worldwide. The special role played by indigenous communities, and women in particular, must be taken into account. Smallholder agriculture in the Global South must be safe from land and water theft by emissions trading projects.

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