

# Cheating the climate: the problems with aviation industry plans to offset emissions

# Introduction

In December 2015, the United Nations Conference on Climate Change (UNFCCC) adopted the [Paris Agreement](#), an international treaty to reduce greenhouse gas emissions after 2020. This Agreement does not cover emissions from international aviation and marine shipping. The UN's International Civil Aviation Organization (ICAO) regulates matters concerning aviation. The body has been tasked with adopting a proposal to tackle emissions from international aviation. ICAO's proposal for how to deal with the sector's contribution to climate change allows the industry to grow indefinitely, merely introducing compulsory offsetting for growth in emissions from 2027.

The Paris Agreement also includes a mechanism for carbon offsetting, and it requires that not just industrialised countries, but all nations that sign the Agreement account for their greenhouse gas emissions. With the ICAO proposal running parallel to the Paris

Agreement, there is a major risk that claimed reductions in emissions in general, and from deforestation in particular, will be counted twice. Countries might count them towards objectives in the Paris Agreement, while the aviation industry counts them as offsetting the growth of the aviation sector. Such double-counting would cheat the climate.

This briefing is based on [Who takes the Credit? REDD+ in a post-2020 UN climate agreement](#).



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# 1. The risk of double-counting under the UN's Paris Agreement

The Paris Agreement has provisions to include international carbon trading – described as 'international transfer mitigation outcomes'. If these are activated, there will need to be a system to stop two countries from claiming the same emissions reduction. As all countries will agree nationally determined contributions, and account for these contributions towards reducing greenhouse gas emissions,<sup>1</sup> the system would have to ensure that if a carbon offset is sold from a project taking place within that country, the government doesn't also claim that as a reduction in its national greenhouse gas balance sheet.

The setting up of such a system may be made more difficult due to the lack of a common accounting unit, which has meant that nationally determined contributions have been expressed in different ways. While some countries have communicated their contribution in absolute reductions, expressed in tonnes of 'carbon dioxide equivalent' (CO<sub>2</sub>e),

others use carbon intensity as their metric, or define reductions below a business-as-usual reference.<sup>2</sup>

This diversity of metrics is not necessarily a problem for each country, but if carbon trading is introduced it will be hard to define the value of these different contributions in units of CO<sub>2</sub>e – the metric of the carbon market – with any meaningful level of certainty.

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*Without accounting rules it is, "almost impossible to avoid double claiming of emission reductions."*<sup>3</sup>

# 2. The risk of double-counting is greater for land and forests

REDD+ type<sup>4</sup> offset credits or carbon credits from activities that supposedly reduce emissions from soils that would otherwise have been released into the atmosphere,<sup>5</sup> are a particular risk.

Many countries, particularly from the global South, have included emission reductions from the land use sector into their nationally determined contributions. Inaccuracy and uncertainty is far greater for land-based greenhouse gas emission fluxes, compared with accounting for fossil fuel emissions,<sup>6</sup> and carbon storage in vegetation and soils is naturally reversible. This is one of the reasons forest carbon offset projects were largely excluded from the

[Clean Development Mechanism](#) (CDM), the carbon trading mechanism of the first UN climate treaty, the Kyoto Protocol. Many, Fern included, argue that attempting to account for emissions from land use in entire jurisdictions – as opposed to the CDM's focus on the project level – will not remedy the problems inherent in accounting for emissions from land use activities.

Greenhouse gas inventories that include both land-based and fossil carbon emissions are likely to delay reductions in fossil carbon emissions and therefore increase the risk of missing the Paris Agreement goal of keeping average temperature increases well below 2° Celsius.<sup>7</sup>

## 3. The risk of double-counting with voluntary offset markets

Because many countries' nationally determined contributions contain economy- or-sector-wide contributions, there are relatively few sectors (beyond international aviation and marine shipping) not covered in national greenhouse gas inventories. This has consequences also for the voluntary carbon market, the main trading platform for REDD+<sup>8</sup> offset credits.

If the greenhouse gas inventory of a country includes the land use sector or forests, that country will take credit for reductions in emissions from forest loss. The country should therefore not allow the selling of private sector REDD+ offset projects in voluntary offset markets unless they can show how they have deducted the emissions reductions claimed by such offset projects from their own accounting. If this does not happen, both the country and the voluntary market buyer of the REDD+ credit market will be claiming the same credit.

### Double-counting in the REDD Early Movers programme

REDD Early Movers (REM) is a "results-based" payment programme implemented by the German development bank KfW. Its first transaction was with the state of Acre in Brazil. The two parties agreed on the emission reductions the state of Acre needed to show for payments to be made. The reduction target was set in comparison to the average forest loss during the ten-year period of 2000-2010. The target did not require any additional reductions to those already achieved since 2010 because deforestation levels had peaked in the early 2000s and dropped sharply since 2006 through a combination of agriculture commodity price drops and an increase in enforcement of environmental legislation in the Brazilian Amazon. As of August 2016, Acre has no functioning system in place to track the volume of REDD+ offset credits sold in the voluntary offset market. To deal with the problem, the REM programme deducts a set volume of "emission reductions" from Acre's accounts submitted for REM payments, in the hope that this will be sufficient to cover the sum of carbon credits sold by private sector REDD+ projects elsewhere.



## 4. The risk of double-counting with ICAO's global market based mechanism

It has been argued that double-counting of carbon credits sold in the voluntary offset market does not damage the climate because it does not affect binding emission targets. This situation is about to change in two ways.

First, as explained above, after 2020, countries that have signed the Paris Agreement and committed to reductions in emissions from land use or forests in their nationally determined contribution, will have to deduct REDD+ carbon credits sold by private sector REDD+ projects from the national greenhouse gas emissions balance sheet they will present to the UN.

Second, the UN bodies that negotiate regulation of aviation and shipping, ICAO and the International Maritime Organisation (IMO) are developing proposals for how to reduce their sectors' contribution to climate change.

The aviation industry has repeatedly expressed its preference to offset instead of reduce its emissions and ICAO's current proposal relies almost entirely on carbon offsetting to achieve the industry quest for "carbon-neutral growth" from 2020.

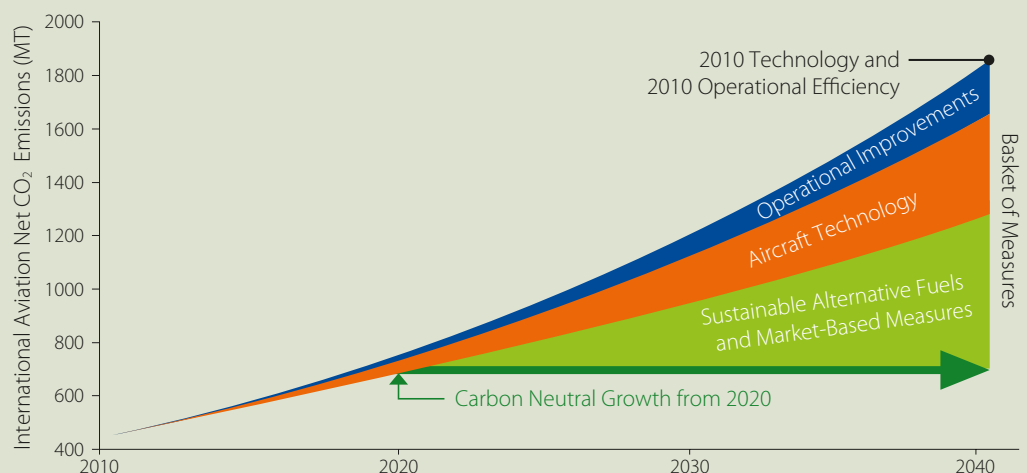
If ICAO goes ahead with its plan, projected airline growth may result in roughly 3,300 million tonnes of carbon dioxide that

need to be offset between 2021 and 2035.<sup>9</sup> (see Figure 1) To put this into perspective, aggregate offset demand in the EU Emissions Trading System has been estimated at around 1,650 million tonnes of carbon dioxide between 2008 and 2020.<sup>10</sup>

The last ICAO Assembly agreed a list of 16 guiding principles for the "global market-based measures" to be prepared for adoption at the upcoming ICAO Assembly in Canada in September/October 2016.<sup>11</sup> These guiding principles<sup>12</sup> include that "international aviation carbon dioxide emissions should be accounted for only once." Presumably this also means that carbon credits used to offset emissions caused by continued growth of international aviation should also be accounted for only once.

A 2016 report by the Wuppertal Institute notes that due to the absence of accounting rules under the Paris Agreement, adoption of the offset mechanism by ICAO "could lead to a situation in which emission reductions are claimed both by the host countries and the ICAO towards achieving their mitigation goals, thus leading to double counting," adding that "as long as there is no clarity on this issue, it is virtually impossible to adhere to ICAO's own draft recommendations on the eligibility of emission units."<sup>13</sup>

**Figure 1: Contribution of measures for reducing international aviation net CO<sub>2</sub> emissions**



Source: ICAO, 2015b

# Conclusion: multiple risks of cheating the climate

This briefing shows that offsets that ICAO buys risk being double-counted, thereby cheating the climate. Unless countries track the sale of carbon offset credits in voluntary carbon markets from 2020 and deduct any carbon credits sold in voluntary carbon markets from their own national greenhouse gas accounting sheet, double-counting of claimed emission reductions is a given.

The risk of double-counting is particularly acute for land and forest based offsets, since many tropical forest countries sell emission reductions from REDD+ activities to the private sector and conservation NGOs on voluntary offset markets. The necessary systems to track (and where relevant deduct) credits traded on voluntary offset markets are not foreseen in the Paris Agreement. Without such measures, however, double-counting cannot be avoided if international trade of offset credits continues once the Paris Agreement enters into force.

The double-counting risk could easily be avoided if ICAO members and parties to the UN climate agreement focused on reducing emissions instead of using offsets to merely shift them from one place to another.

Over the past decade, REDD+ has shown that it is not fit to tackle the underlying causes and direct drivers of forest loss. These include deforestation for expansion of industrial agriculture, deforestation for infrastructure projects such as energy generation from hydro power, and illegal logging. Reducing emissions from forest loss will mean dealing with these drivers of large-scale deforestation and recognising the rights of forest peoples to live on and use the lands they have conserved for generations.



## Double-counting scenarios with international trade of offsets from REDD+ projects post-2020

Here are four ways that the Paris Agreement might double-count (or even triple count) the same “internationally transferred mitigation outcome” (a REDD+ carbon credit, for example):

- 1 A country has included reducing emissions from the land use sector into its nationally determined contribution to the Paris Agreement. The country sells REDD+ credits to another country or a company whose emissions are already accounted for in the country’s greenhouse gas inventory. The buyer includes the “internationally transferred mitigation outcome” from REDD+ in its emissions inventory, but the country that sold the REDD+ “mitigation outcome” does not deduct the REDD+ credit from its own inventory. Both countries then claim the same REDD+ reduction when they report on progress towards their nationally determined contribution.
- 2 A country has included reducing emissions from the land use sector into its nationally determined contribution to the Paris Agreement. A province within the country sells REDD+ credits to the World Bank Carbon Fund. The World Bank passes the credits to a different country member of the Carbon Fund in return for its financial contribution to the Fund. The country then includes these REDD+ credits into its own national greenhouse gas inventory. The REDD+ “mitigation outcome” will be double-counted if the country whose sub-national jurisdiction sold the REDD+ credit to the Carbon Fund does not deduct an equivalent number of “mitigation outcome” units from its balance sheet while the Carbon Fund member includes the credit into their national inventory.<sup>14</sup>
- 3 A country has included reducing emissions from the land use sector into its nationally determined contribution to the Paris Agreement. A province of this country is part of a “governor’s initiative” on REDD+ between sub-national jurisdictions. The initiative has been developed outside the UN climate negotiations, but the emissions from land use in these jurisdictions are part of the countries’ nationally determined contribution. As part of the governors’ initiative, the forested province makes an agreement to sell REDD+ credits to companies in another country that also submitted a nationally determined contribution. This country, in turn, enters the companies’ emissions accounts (including the purchased REDD+ credits) into the national greenhouse gas inventory used to keep track of the country’s contribution to the Paris Agreement. Even though the trading of REDD+ credits happened outside of the scope of the Paris Agreement, the REDD+ “mitigation outcome” could be counted by both the country whose province sold REDD+ credits to ‘governors’ initiative’ partners and the country that allowed corporate emitters to count REDD+ credits towards their emission target.
- 4 A country has included reducing emissions from the land use sector into its nationally determined contribution to the UN’s Paris Agreement. Several private-sector REDD+ projects<sup>15</sup> take place in the country, but the national government does not keep track of how many exist, how many REDD+ credits these private-sector projects sell, or to whom they are sold. They could be sold to buyers in an international voluntary market or to airlines that might have an obligation to offset their additional emissions from 2020 under the “global market-based- measures” currently negotiated by ICAO. Because the country does not keep track of private sector REDD+ offset sales, it does not deduct these REDD+ credits from its national greenhouse gas inventory. The buyer of the REDD+ credits, such as an airline bound by ICAO emission targets claims the same REDD+ “mitigation outcome” as the tropical country hosting the private sector REDD+ project.

## Endnotes

- 1 This is the expression used for emission targets that countries made under the UN's post-2020 climate treaty, the Paris Agreement.
- 2 Lukas Hermville (2016). Op cit.: 3.
- 3 Lukas Hermville (2016): Offsetting for International Aviation. The State of Play of Market-Based Measures under ICAO. JIKO Policy Brief No. 1/2016. Page 14. <http://www.carbon-mechanisms.de/publikationen/details/?jiko%5Bpubuid%5D=451>
- 4 "REDD" stands for Reducing Emissions from deforestation and forest degradation. REDD+-type projects include activities focused on logging and agricultural land use. The overwhelming majority of REDD+ projects blames deforestation on small-scale farming practises and are silent about the drivers of large-scale deforestation such as industrial agriculture, logging or infrastructure.
- 5 See also: World Rainforest Movement (2015): 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 See for example, FERN (2014): Misleading numbers: The Case for Separating Land and Fossil Based Carbon Emissions. [http://www.fern.org/sites/fern.org/files/misleadingnumbers\\_full%20report.pdf](http://www.fern.org/sites/fern.org/files/misleadingnumbers_full%20report.pdf)
- 7 Institute for European Environmental Policy (2015): Designing a LULUCF pillar that works for forests and climate. <http://www.fern.org/LULUCFpillar>
- 8 REDD, or reduced emissions from deforestation and forest degradation, is one of the most controversial issues in the climate change debate. The basic concept is simple: governments, companies or forest owners in the South should be rewarded for keeping their forests instead of cutting them down. The devil, as always, is in the details. For more information see: [www.fern.org/storyofREDD](http://www.fern.org/storyofREDD)
- 9 Martin Cames (2015): Availability of offsets for a global market-based mechanism for international aviation. Öko-Institut. <http://www.oeko.de/oekodoc/2394/2015-552-en.pdf>
- 10 Valentin Bellassen et al. (2012): Will there still be a market price for CERs and ERUs in two years time? CDC climat Climate Brief 13/2012. [http://www.cdclimat.com/IMG/pdf/12-05\\_climate\\_brief\\_no13\\_-\\_supply\\_demand\\_for\\_cer\\_eru\\_in\\_the\\_ets.pdf](http://www.cdclimat.com/IMG/pdf/12-05_climate_brief_no13_-_supply_demand_for_cer_eru_in_the_ets.pdf)
- 11 The ICAO negotiation process for a "global market-based measure" is not very transparent. All documents are strictly confidential. The status of discussion on eligibility criteria or concrete approaches to avoid double-counting should ICAO opt for a global offsetting mechanism is unknown outside the negotiation committees.
- 12 The guiding principles are listed in an annex to resolution A37-19 of the ICAO's 37th Assembly 2010. [http://www.icao.int/Meetings/AMC/Assembly37/Documents/ProvisionalEdition/a37\\_res\\_prov\\_en.pdf](http://www.icao.int/Meetings/AMC/Assembly37/Documents/ProvisionalEdition/a37_res_prov_en.pdf)
- 13 Lukas Hermville (2016). Op cit.: 3. Page 14.
- 14 There could also be a double-counting of efforts (though not of "mitigation outcomes") if the donor counts Carbon Fund contributions as a contribution to its 'climate finance' while the tropical forest country counts the "mitigation outcome" from REDD+ towards its "nationally determined contribution" under the UN Paris Agreement. Even more double-counting of financial contributions would occur if the World Bank Forest Investment Programme (FIP) funded activities that generate REDD+ credits which the World Bank Carbon Fund then buys from the tropical forest country Carbon Fund participant. If a country is a donor to the FIP as well as to the Carbon Fund, the country will pay twice for the same REDD+ credit, and possibly count both these financial contributions to the same REDD+ credit as 'climate finance'.
- 15 The projects could also generate tradable credits from reducing the use of biomass/fuelwood by distributing efficient cooking stoves, and the reduction in use of fuelwood would be reflected in the seller country's emissions balance sheet while the private-sector offset project would sell its carbon credits based on the same claim of reduction of fuelwood.



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