



IS BRAZIL ON THE WAY TO MEET ITS CLIMATE TARGETS?

**Explainer note by the Climate
Observatory**

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Abstract

Data presented on a number of occasions by Brazilian government officials, including Environment minister Ricardo Salles, seem to imply that Brazil is on the right track to meet the commitments it made under the Paris Agreement. Here we argue that not only it isn't, but also will miss the 2020 deforestation reduction target and will likely miss the target of emission reductions by 2020 inscribed in the country's climate change policy law (Política Nacional sobre Mudança do Clima). Brazilian emissions are on the rise because of the increase in deforestation in 2018 and 2019. Even considering the average annual variation of Brazilian GHG emissions according to Climate Observatory's Greenhouse-Gas Emissions Estimates System between 2010 (first year of the implementation of Brazil's climate change policy) and 2017 (most recent year with available data from Climate Observatory' Greenhouse-Gas Emissions Estimates System, SEEG), we conclude that Brazil is likely to miss its 2020 least-ambitious target by 47.3 million tons of CO₂e (2.3% above) and its most-ambitious target by 138.3 million tons of CO₂e (7%). This is a very conservative estimate that doesn't account for the 2018 and 2019 rises in deforestation in Amazonia.

1. The claim

As part of the strategy to deflect international criticism for its environmental policy, the Brazilian federal government has argued on several occasions that Brazil, unlike developed countries, is on track to meet its Paris Agreement goals (NDC). The claim was made by Environment minister Ricardo Sallesⁱ, and outlined again during his US roadshow, in September. It is likely that it will be a centerpiece of Mr. Salles' pitch to investors and foreign government officials during the European leg of his trip. The minister has also stated that, while Brazil is doing a lot on climate, developed countries are matching neither emissions cuts, nor climate finance commitments.

Among the arguments supporting the narrative are:

- ❖ The NDC commits Brazil to a 37% cut in emissions below 2005 levels by 2025, and in 2015 (when the pledge was made) Brazil had already cut its emissions by 35%;
- ❖ The annex to the NDC, which lists policies and measures towards the target, has some provisions that Brazil is already meeting, such as:
 - Forest restoration or reforestation of 12 million hectares (9.4 million hectares already restored and another 2 million hectares of plantations in place between 2006 and 2016, according to the government).
 - 15 million hectares of degraded pastureland to recover (of which 10.44 Mha would have already been recovered between 2010 and 2017).
 - 5 million hectares of integrated forest/agriculture/cattle systems, of which 5.8 Mha would have already been implemented between 2010 and 2016 (Brazil would have outperformed).
 - 45% of renewables in the energy mix (in 2019 Brazil would have achieved 45.3%).
 - Expansion of non-hydro renewables from 28% to 33% of the energy mix (Brazil would already be at 33%).
 - 18% of the energy mix as sustainable bioenergy (Brazil would have achieved 17.4% in 2018).

Besides those, Mr. Salles has argued that Brazil has already “zero relative deforestation”ⁱⁱ in the Amazon, because the 7,900 km² destroyed last year (the correct figure is 7,536 kmⁱⁱⁱ) amount to a mere 0,00157% of the total area of the so-called Legal Amazonia (5,020,000 km²).

We shall examine those claims in the light of the commitments made before the NDC, of the degree of ambition of the NDC itself, and of the current emissions trajectory.

2. Two policies, two targets

Brazil adopted its first commitment at cutting greenhouse-gas emissions in 2009, as part of the pioneering National Climate Change Policy Law (hereafter PNMC). The legislation committed the country to a deviation in emissions between 36.1% and 38.9% by 2020^{iv}, compared to projections from a business as usual scenario. A 2010 decree expressed the global target in emission levels –by 2020, Brazilian gross emissions should be between 2,068 MtCO₂e and 1,977MtCO₂e^v.

The decree also included sectorial plans to cut emissions economy-wide. The most important of those was PPCDAm, the Plan for Deforestation Prevention and Control in Amazonia, started in 2004, whose target was to slash deforestation rates by 80% by 2020 compared to the 1996-2005 average. Another sectorial plan, for the agriculture sector, established that Brazil should recover 15 million hectares of degraded pastures – a figure that would be doubled in 2015 by the NDC for 2030.

The 2020 BAU emissions were projected under overoptimistic assumptions: a GDP growth of 5% a year between 2009 and 2020, and 100% of the additional energy demand being met by fossil fuels, which has never been a realistic scenario for a country as rich in hydropower and biofuels as Brazil.

In 2015, Brazil stepped ahead of other emerging economies and adopted an absolute, economy-wide pledge in the framework of the Paris Agreement. Its iNDC, later converted to NDC, committed the country to a 37% reduction in emissions by 2025 from 2005 levels and to the implementation of a National Adaptation Plan.

The annex to the NDC, a document presented “for clarification purposes only”^{vi}, mentioned examples of policies and measures that Brazil would adopt in order to meet its commitments. Some of the supporting measures were quite substantial – restoring an extra 15 Mha of pastures on top of the 15 Mha pledged in 2009, for instance. Others not much so: in the energy sector, the rhythm of installation of renewables was already higher in 2015 than what was pledged in the NDC^{vii}.

The key measure proposed in the document, addressing Brazil’s biggest source of emissions, was to achieve zero illegal deforestation in the Amazon by 2030. That target is conspicuously absent from the figures Mr. Salles has been parading in his talks.

Overall, Brazil’s pledge was an important step for an emerging economy, but still far from the ambition needed for the 2°C Paris goal. It has been rated “insufficient” by Climate Action Tracker^{viii}, as it was based on action lines that departed little from current policies. In 2016, an analysis concluded that Brazil’s economic slump would enable the country to meet its NDC in the energy sector with no added cost^{ix,x}.

3. Off track to 2020 – and beyond

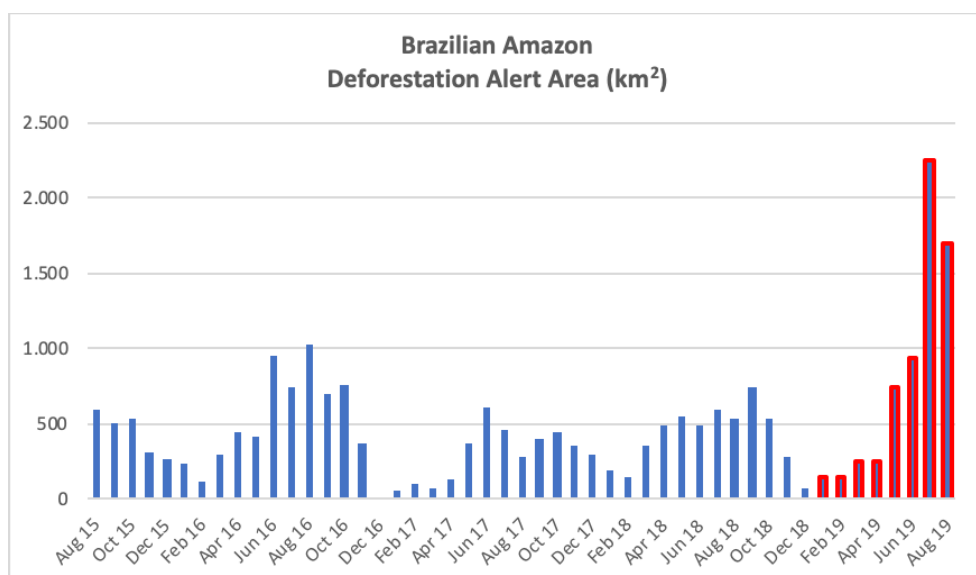
Any attempt at declaring that Brazil is “on the way” to meeting its NDC must first consider two questions: a) Is Brazil on track to meet its PNMC targets? And b) Does Brazil have the policies and governance structures in place to meet the NDC? The answer to both questions is “no”.

Brazilian emissions of greenhouse gases in 2017, the last year for which an update is available, were 2,070 MtCO₂e^{xi}, which is within the lower ambition boundary of the 2020 target (2,068 MtCO₂e). Projecting the average yearly emissions between 2010 and 2017 into 2020, one arrives at 2,115 MtCO₂e, which is 2.3 % higher than the lower ambition boundary of the target. This means that even with the unrealistic assumptions made back in 2009 about the BAU emissions scenario until 2020, Brazil is underperforming.

The 2,115 MtCO₂e figure is conservative: it doesn’t factor in the increase in emissions in 2018, when deforestation in the Amazon rose by 8.5% (the SEEG 2018 data will be released in November 2019). Preliminary SEEG figures suggest that, for the Amazon alone, that increase will mean an extra 46 MtCO₂e being released^{xii}. In 2019, deforestation rates exploded: a 50% increase in deforestation alerts compared to 2018, as measured by Deter-B, Brazil’s official real-time monitoring system. Official data from the Prodes won’t be out until November, but emissions will increase and drive Brazil off the target.

It is impossible to project the official yearly rate using the real-time alerts system because of the differences in satellite resolution and data acquisition. In Figure 2, we present a conservative “guesstimate”, applying a ~33% increase (lower than indicated by Deter) to Prodes rates, and comparing it to the 2020 target.

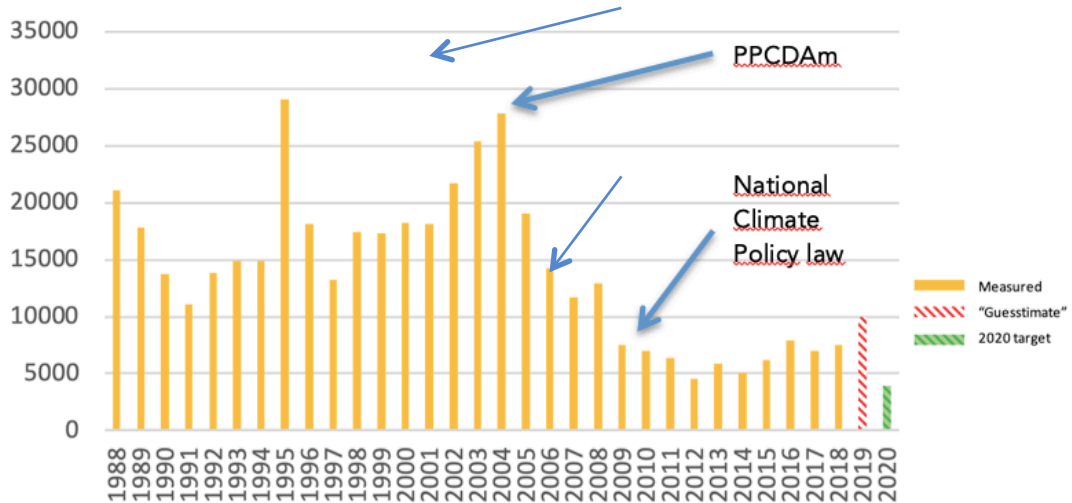
Fig. 1 – Monthly Deforestation alerts in the Amazon, 2015-2019, as measured by Inpe’s Deter-B system. Months under the new administration appear in red



Source: Inpe – Portal TerraBrasilis

Even if by chance Brazil could manage to cut drastically emissions in other sectors to stay in the target, it is way off track to meet the deforestation sectorial goal: an 80% reduction in deforestation from 1996-2005 levels would imply in arriving at 2020 with 3,925 km² of deforestation in the Amazon. In 2018, Brazil was 92% above the target, and the figures for 2019 will even worse. Since monitoring began in 1988, Brazil never managed to cut deforestation rates by half or more from one year to the next.

Fig. 2 Deforestation in the Amazon (in km²) X 2020 target



Source: Inpe – Portal TerraBrasilis

If the 2020 target looks out of reach, meeting the NDC is an even bigger challenge. Such effort would require new policy and a governance structure that currently doesn't exist in Brazil's federal government. It will also require no further setbacks on environmental regulations, so that emissions from deforestation don't return to turn-of-the-century levels^{xiii}. Neither seems to be on the table today.

After taking office, the first measure of President Jair Bolsonaro on the environment was to change the structure of the ministry, shutting down the Climate Change and Forests secretariat. That office was in charge of formulating and coordinating the implementation of Brazil's climate targets, managing deforestation control plans, managing the National Climate Change Fund and implementing the National Adaptation Plan^{xiv}, as well as formulating Brazil's strategy for implementing the NDC after 2020. With its extinction, climate policy became one of the attributions of the International Relations secretariat, and most of its policies, plans and programs, like the plans for deforestation control and prevention in the Amazon (PPCDAm) and the Cerrado (PPCerrado), were effectively shelved. No strategy or plan for implementing the NDC was ever presented.

The ministry's budgetary performance has behaved accordingly: in 2019 until early September, budget appropriation for climate change adaptation had been zero; deforestation control got a meager US\$ 4,500, while climate change policy received US\$ 28,500^{xv} – a quarter of the value appropriated in 2018. The National Climate Change Fund's expenditure was also zero.

Table 1. Budget appropriation of the Environment Ministry for climate change, in BRL

Policy	2018	2019
Implementation of the National Climate Policy	544.395,46	22.496,34
Deforestation prevention and control	175.897,39	19.188,54
Reduction of vulnerability to drought and climate change	460.493,17	0,00
Climate Change Fund	6.368.812,34	0,00

Source: this note, based on federal budget data (www.sioop.planejamento.gov.br)

The key inter-ministerial climate governance instances were also extinguished: in April, a presidential decree shut down several hundred collegiate organs within federal administration, including the Inter-ministerial Climate Change Council (CIM) and its Executive Group on Climate Change (GEx)^{xvi, xvii}.

Other measures taken by the government, such as grounding enforcement agencies^{xviii}, promoting purges in the National Environmental Institute (Ibama) and the national parks service (ICMbio)^{xix}, slashing wildfire prevention budget^{xx}, suspending the Amazon Fund^{xxi} and trying to open up indigenous lands for mining^{xxii}, also have helped derail Brazil from its NDC by speeding up deforestation. No mitigation action in other sectors was done. In June, the Climate Action Tracker declared Bolsonaro’s environmental policy “at odds with the urgent need for climate action in Brazil^{xxiii}”.

Some NDC figures presented by minister Ricardo Salles and other Brazilian officials are misleading on a number of ways: when the minister says, for instance, that Brazil had already cut 35% of its emissions by 2015 (compared to the 37% of the pledge), he chooses to ignore that emissions are on the rise, and 2015 numbers inform very little about their trajectory towards 2025; when he says 10.44 million hectares of pastures were restored between 2010 and 2017, he is both celebrating achievements of past governments and mixing up the 2020 PNMC and the NDC targets – the total target for 2010-2030, as seen above, would be 30 Mha. Likewise, and as explained above, figures for renewable energy reflect current policies and not an effort at meeting Paris Goals. As for the “zero relative deforestation”, the number is at once a sophistry and an error; a sophistry because Brazil has the biggest absolute deforestation rate of any country in the world^{xxiv}, and an error because it divides the rate for the whole area of the political Amazon – which is much larger than the Amazon biome and includes vast portions of savanna and prairies.

4. Conclusion

Contrary to claims by government officials, Brazil is not on track for meeting any of its climate change commitments and is not developing or implementing policies that would deliver Brazil's obligations either under national legal framework or the international climate regime. The 2020 commitments from the National Climate Change Policy law will likely be missed by at least 2.3%, even though the original target was calculated under exceedingly generous assumptions, and the 2020 target for Amazon deforestation will be vastly overshoot. The NDC not only has no implementation plan but also is being actively undermined by the current administration's environmental policy.

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