

UNITED NATIONS DEVELOPMENT PROGRAMME



PLANT

Paris Agreement LULUCF and NDC Tool

Quarterly Global Report

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This publication was developed with support from the UN-REDD Programme. UN-REDD is the UN knowledge and advisory platform on forest solutions to the climate crisis. It supports nationally-led REDD+ processes and promotes the informed and meaningful involvement of all stakeholders, including Indigenous Peoples and local communities, to mobilize finance for and implement REDD+ activities agreed under the UNFCCC. UN-REDD builds on the convening capacity and technical expertise of FAO, UNDP and UNEP, serving 65 partner countries. UN-REDD is made possible through support from the European Commission and the governments of Denmark, Luxembourg, Norway, Japan, Republic of Korea, Spain, Switzerland and United Kingdom.

About this publication

UNDP's Paris Agreement LULUCF and NDC Tool (PLANT) helps countries to analyze opportunities to enhance the contribution of the forest sector to NDC mitigation targets, the potential for high-quality emission reductions/removals available for carbon market access, and the systems and processes needed to meet the requirements of the enhanced transparency framework under the Paris Agreement. The PLANT Quarterly Global Assessment Report provides a periodic overview of the 63 countries currently included in PLANT, summarizing data and insights, based on what countries have submitted to the UNFCCC under the Paris Agreement, with relevance to the role of forests in global climate action. Released quarterly, the report presents periodically updated, aggregated global insights on key climate and forest sector indicators, covering aspects such as Greenhouse gas emission profiles, Nationally Determined Contributions data and information, and carbon markets.

UN disclaimer

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Introduction

The Paris Agreement LULUCF Assessment & NDC Tool (PLANT) was created by the Climate & Forests team within UNDP Climate as an agile database to consolidate country data on GHG emissions and removals from the land use, land use change and forestry (LULUCF) sector. By systematizing and illustrating publicly available data, PLANT allows countries, with the support from UNDP Climate & Forests experts, to assess key elements for the implementation of the Paris Agreement ¹ from the perspective of the LULUCF sector, with particular focus on forests (Figure 1).

- Support countries to **implement policies for sustainability in the forest sector** to advance the **Paris Agreement**,
- Support countries to **access and implement REDD+ performance finance** and **access international carbon markets for forests** in line with their NDCs,
- Promote partnerships and access to knowledge to **accelerate forest solutions to the climate crisis**.



Figure 1: UNDP Climate & Forests objectives and scope of work

UNDP, through the Climate Promise, is supporting developing countries' efforts to enhance their Nationally Determined Contributions (NDCs) to the Paris Agreement and to access carbon finance, guided by principles for high ambition and environmental integrity, including applying robust social and environmental safeguards and respecting the rights of Indigenous Peoples and local communities.

¹ PLANT includes information on the various articles of the Paris Agreement, namely Article 4 on NDCs, Article 5 which covers REDD+, Article 6 on cooperative approaches, Article 9 on climate finance, Article 13 on transparency.

As of May 2025, 63 countries² and 16 subnational jurisdictions have been assessed and their information and data included in PLANT (Figure 2).

PLANT is continually updated and improved through cross-referencing and validation of data by international LULUCF experts, consultations with and review of information by government representatives and national experts, as well as collaboration with other international and national organizations.



Figure 2 - Countries in the PLANT Tool (in blue)

This report presents the aggregated global information of all countries and jurisdictions currently included in PLANT.

² The criteria for the inclusion of a country into PLANT is if this country has made a REDD+ reference level submission to the UNFCCC. This criterion was defined to ensure a minimum amount of country-based information to populate the database. There are many global datasets being developed but REDD+ countries have been working for more than 10 years in the development of national MRV systems that can produce national data to inform policies and measures that mitigate climate change through this forest sector. PLANT is supportive of these processes.

Key messages

1

The LULUCF sector makes a significant contribution to the GHG profile of many developing countries, either as a source or net sink, and there is substantial mitigation potential.

2

Developing countries have made important progress in the process of developing submissions to the UNFCCC, contributing to the enhancement of transparency of data and information relevant to the LULUCF sector.

3

51 out of 63 countries in PLANT have an explicit reference to the forest sector and/or REDD+ in their NDCs. **38 countries out of 63** have indicated specific LULUCF targets in their NDCs, with **34** of those presenting quantified targets.

For the others, the targets or goals are either based on policies and measures, or some combination of quantified targets and/or policy and measures-based targets.

4

18 countries of 63 have already completed all requirements from the Warsaw Framework for REDD+. Having a Safeguards Information System is the requirement that fewest countries comply with (21 out of 63) while the presentation of a summary of information on safeguards was made by **only 27 out of 63 countries**. The results for both of these safeguard-related elements together indicate the importance of supporting countries in this area.

5

REDD+ has been an important trigger for the development of **Biennial Update Reports (BURs)** to the UNFCCC. More than **69%** (44 countries) of the REDD+ countries inserted into PLANT have submitted at least one BUR to the UNFCCC. Additionally, **36%** (23 countries) of countries in PLANT have submitted 2 BURs and **23%** (15 countries) have submitted 3 or more BURs.

Key messages

6

54 out of 63 countries included in PLANT have included GHG time series for the LULUCF sector in their reported GHG inventories. Nonetheless, only 21 countries have submitted a Technical Annex to the BUR with REDD+ Results.

7

In terms of readiness for the Enhanced Transparency Framework (ETF), **42 countries** have reported “Key Categories”³ in the LULUCF sector. **47 countries** have identified indicators to track progress towards the implementation and achievement of their NDC, while only 17 have selected indicators related specifically to the LULUCF sector.

8

49 out of 63 countries that have indicated in their NDCs their intention to use cooperative approaches that involve the use of internationally transferred mitigation outcomes (ITMOS) as part of Article 6 of the Paris Agreement, representing **73%** of the total countries included in PLANT. These reflect the 2020 NDC cycle.⁴

9

As of May 2025, **31 out of 63 REDD+ countries** (49%) in PLANT have submitted the first BTR to the UNFCCC in late 2024 and early 2025. Biennial Transparency Reports (BTRs) were due to be submitted by countries by the end of 2024.

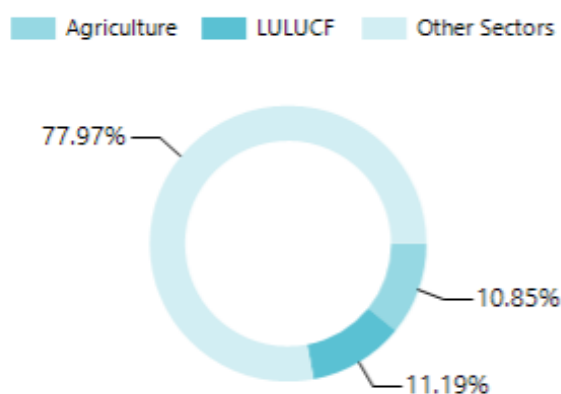
³ A key category is one that is prioritised within the national inventory system because its estimate has a significant influence on a country's total inventory of greenhouse gases in terms of the absolute level of emissions and removals, the trend in emissions and removals, or uncertainty in emissions or removals. Whenever the term key category is used, it includes both source and sink categories (2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Glossary).

⁴ NDCs for the 2025 cycle will be reflected, starting with the next report.

GHG emissions profile and LULUCF sector

In 2019, according to the estimates provided in Table 2.1 in the contribution of Working Group III (Mitigation of Climate Change report) to the IPCC Sixth Assessment Report (2022), total global GHG emissions were 59 ± 6.6 Gt CO₂e. Of these, according to Figure 2.5 (a) in the same report, 64% (38 ± 3 Gt CO₂e) were associated with CO₂ emissions from fossil fuel and industry, 11% (6.6 ± 4.6 Gt CO₂e) to net CO₂ from LULUCF, 18% (11 ± 3.2 Gt CO₂e) to methane, 4% (2.7 ± 1.6 Gt CO₂e) to nitrous oxide and 2% (1.4 ± 0.41 Gt CO₂e) to fluorinated gases. Estimates from Figure 2.12 in the same report indicate that in 2019, the AFOLU sector accounted for 22% of total anthropogenic direct emissions, equivalent to 13 Gt CO₂e (Figure 3). The percent regional distribution of emissions in 2019, including LULUCF, shown in Figure 2.16 (b) indicates that 27% of the emissions are attributed to East Asia, 12% to North America, 10% to Latin America, 9% to each Africa, Europe, and Southeast Asia, 8% to South Asia, 6% Eurasia, 5% Middle East and 3% Australia, Japan and New Zealand, together.

Figure 3 - Percent average of the total net anthropogenic emissions for the agriculture sector, LULUCF sector, and non-AFOLU sectors, in the period of 2007 - 2016.



LUCUCF Global contribution in 2019:

**6,600
MtCO₂e**

Source: UNDP PLANT, 2025, based on the contribution of Working Group III (Mitigation of Climate Change report) to the IPCC Sixth Assessment Report (2022).

An analysis was made on the role of LULUCF in the total annual GHG emissions reported by the 63 countries assessed. The analysis was made by comparing the total annual GHG emission estimates with and without LULUCF. Information from national GHG inventories from only 61 countries was assessed since for two countries there was no information available in a format that allowed the contribution of LULUCF to the total annual net emissions to be assessed. The Table below provides information regarding the number of years reported and the initial and end years reported.

Table 1a - Details on the GHG emissions reported by the 63 countries - # of years reported vs # of countries

<i>Number of years reported</i>	<i>Number of countries</i>
1	11
2 - 4	10
5 - 7	11
8 - 9	8
10 - 14	5
15 - 20	7
21 - 25	3
26 - 30	2
31 - 33	4
Total	61*

Table 1b - Details on the GHG emissions reported by the 63 countries - Initial vs Final year reported vs # of countries

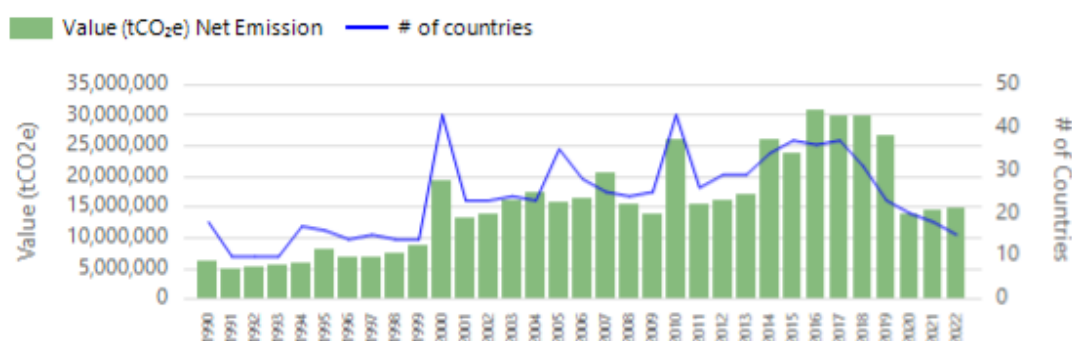
<i>Initial year reported</i>	<i>Number of countries</i>	<i>Final year reported</i>	<i>Number of countries*</i>
1990	15	2005-2009	4
1994	8	2010	2
1995 - 1997	5	2013-2016	9
2000	19	2017	9
2005 - 2006	4	2018	7
2010 - 2011	4	2019	10
2013 - 2016	6	2020	6
2017-2018	2	2021-2022	2
Total	63		49**

**Note: For two countries there was no information available in a format that allowed the contribution of LULUCF to the total annual net emissions to be assessed.*

*** Note: 11 countries reported only one year, included in the initial year reported.*

Figures 4a and 4b below provide the total annual gross and net GHG emissions⁵ from LULUCF (green bars), respectively, and the number of countries reporting this information in each year (blue line), noting that for some countries this distinction is not always clear. For instance, in 2015, approximately 40 countries reported net GHG emissions, whereas only 29 reported gross GHG emissions. Also, it must be noted that the annual variations do not necessarily represent global trends in terms of increased or reduced GHG emissions. Not all countries have consistently reported their annual GHG emissions through their national inventories submitted to the UNFCCC. In addition, there are inconsistencies across countries regarding the methodological approach adopted to develop and report their national GHG inventories.⁶

Figure 4a - LULUCF net emissions from the countries included in PLANT (tCO₂e) and number of reporting countries per year

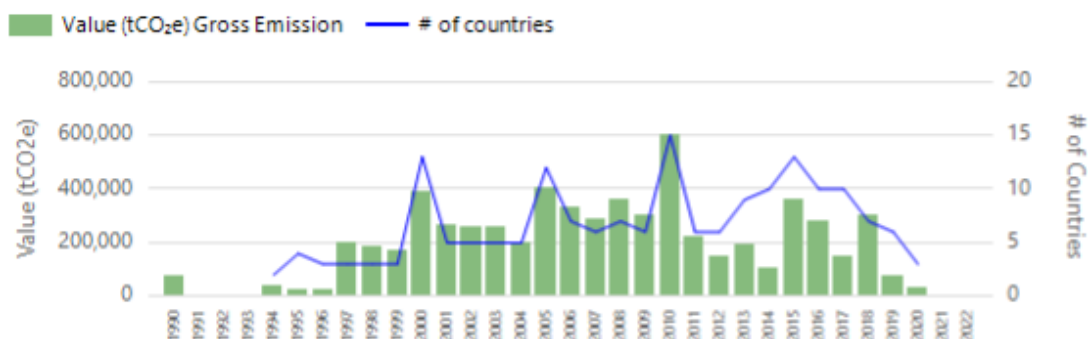


Source: The most recent GHG Inventories submitted to the UNFCCC by the countries included in PLANT (UNDP PLANT, 2025)

⁵ In the context of NDC accounting, countries may be reporting based on "gross" versus "net" or both. Gross emissions include emissions from sectors excluding the LULUCF sector. In comparison, net emissions comprise gross emissions minus any LULUCF removals or plus emissions from LULUCF activities. The balance between emissions and removals within the LULUCF sector determines whether the sector itself is a net carbon source (emissions exceeding removals) or a net carbon sink (removals exceed emissions). If LULUCF emissions are a sink, as is most frequently the case, the emissions level reported by that country would appear lower, compared to a country using a gross approach, as the removals reduce the resulting net emissions levels, and vice versa: if LULUCF emissions are added to gross emissions, emissions appear larger in comparison to the country that excludes LULUCF (Climate Action Tracker).

⁶ With the submission of Common Tabular Format (CTF) Tables alongside Biennial Transparency Reports (BTRs), reporting is expected to become more standardized over time, providing a clearer and more reliable trend analysis within the next quarterly report.

Figure 4b - LULUCF gross emissions from the countries included in PLANT (tCO₂e) and number of reporting countries per year



Source: The most recent GHG Inventories submitted to the UNFCCC by the countries included in PLANT (UNDP PLANT, 2025).

Information from the latest national GHG inventory of a given country in PLANT was extracted for that country's assessment. In 2015, the most recent year with the largest data reported by 40 countries in PLANT, aggregated net LULUCF emissions were estimated at 2,742 MtCO₂e.

Net LULUCF emissions for 40 countries in PLANT in 2015:

2,742 MtCO₂e

The net emissions from the LULUCF sector, when compared to the total annual emissions without LULUCF, contributed to one of three ways:

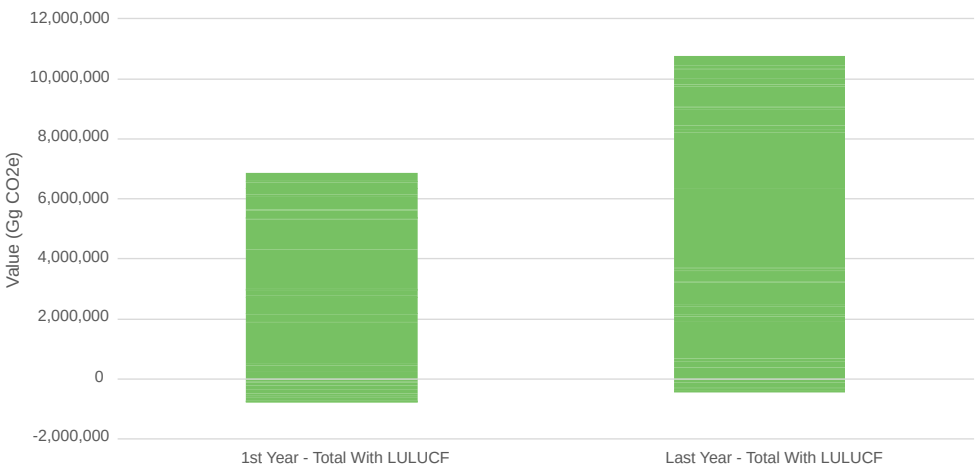
- increase in the total annual net emissions;
- decrease in the total annual net emissions but not sufficiently to make the country become a carbon sink in that year; and
- decrease in the total annual net emissions sufficiently to make the country a carbon sink in that year.

For 50 countries that report net GHG emissions for more than a single year, LULUCF consistently contributed to increase the total net annual GHG emissions in 21 countries, for all years reported; for another 21 countries, LULUCF consistently contributed to decrease the total annual GHG emissions: 10 of the countries were carbon sinks in all years reported, whereas for 11 countries, LULUCF decreased the total annual emissions but not sufficiently to make the country be carbon sink for all years reported.

For the remaining countries, there was not a consistent trend, with LULUCF contributing to increase the total emissions in some years and reduce in others.

Figure 5 provide the total net GHG emissions with LULUCF from 50 countries included in PLANT. The figure shows the aggregated total net emissions with LULUCF considering the first and last reporting years for each country.




Figure 5– Total GHG emissions with LULUCF for respective first and last reporting years from 50 countries included in PLANT (t CO₂e)



Forest and deforestation area

Out of the 63 countries in PLANT, 49 have reported data for two or more years in their GHGI time series, 11 have reported only one year, and three countries have not provided data for the LULUCF sector.

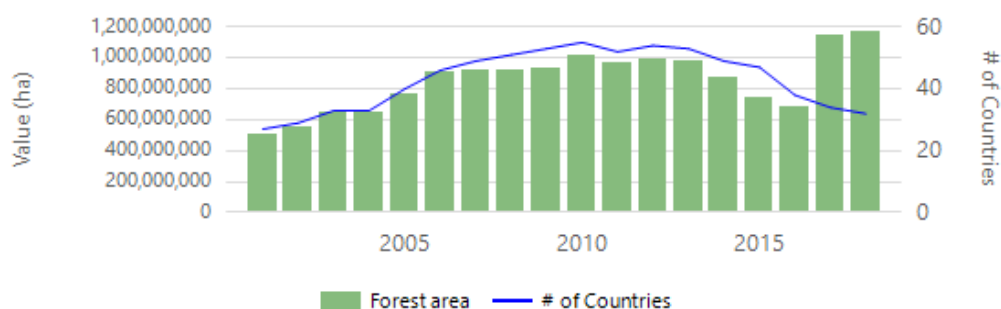
Based on the most recent GHGI data reported to the UNFCCC:

-  **14 countries** are net carbon sinks, meaning removals exceed emissions.
-  **In 16 countries**, the LULUCF sector has contributed partially to offset emissions.
-  **30 countries** are net emission sources, where emissions exceed removals.

Among the four countries with the longest GHG time series (Argentina, Côte d'Ivoire, Guyana and Mongolia), only Guyana (n=33, with an estimated average GHG net emissions of -3,665.38%) has consistently remained a net carbon sink across all years.

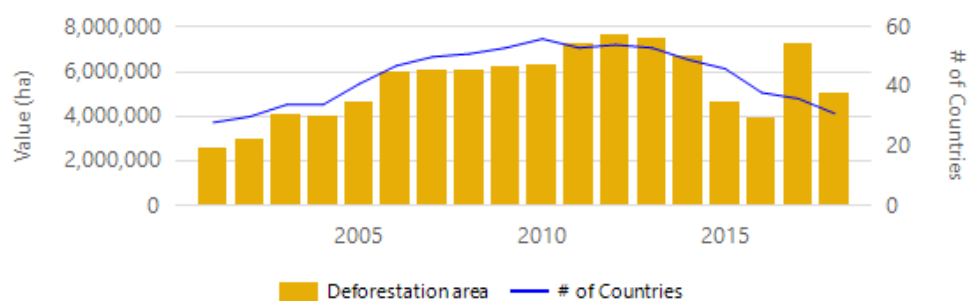
For illustration purposes, according to the countries' most recent FRELs submitted to the UNFCCC, 32 countries reported forest area totaling 1,167,893,255 ha (Figure 6a) and 31 countries reported deforestation area totaling 5,036,045 ha (Figure 6b). Please note that the graph in the next page does not constitute a trend as the set of countries may vary from year to year. Further, the definition of forest might differ amongst countries. Figures 6a and 6b show the total forest area (in green) and the deforested area (in yellow) reported by PLANT countries from year 2000 until 2018, respectively. The lines in blue show the number of countries that provided information for each year of this period.

Figure 6a - Forest area reported by the countries included in PLANT (hectares) in the period 2000 - 2018



Source: The most recent FREL submitted to the UNFCCC by the countries included in PLANT (UNDP PLANT, 2025).

Figure 6b - Deforestation area reported by the countries included in PLANT (hectares) in the period 2000-2018



Source: The most recent FRELs submitted to the UNFCCC by the countries included in PLANT (UNDP PLANT, 2025).

Global summary

This section presents a quantitative summary of the information that countries in PLANT have submitted to the UNFCCC or that is relevant to be considered in the context of the implementation of the Paris Agreement. This includes NDCs (Table 2), the Warsaw Framework for REDD+ (Table 3), BURs (Table 4) Enhanced Transparency Framework, or ETF (Table 5), and carbon market potential (Figure 7).

Nationally Determined Contributions (NDCs)

NDCs are at the heart of the Paris Agreement and the achievement of its goals. Through their NDCs, countries communicate to the UNFCCC their post-2020 climate commitments to reduce emissions via domestic mitigation measures and/or through international support and cooperation (i.e., Article 6).

One of the main objectives of PLANT is to support developing countries in identifying potential opportunities for enhancing their NDCs through the LULUCF sector, in particular through potential synergies with REDD+.

Table 2 – Quantitative summary of NDC information	# of countries	% of countries
# of countries that have explicit reference to REDD+ in their NDC	51	81%
# of countries that have included the forest sector in their NDC	57	90%
# of countries that have specific LULUCF targets	38	60%
# of countries that have quantifiable LULUCF targets	34	54%
Tonnes of CO ₂ eq	24	38%
Hectares	11	17%
# of countries that have selected indicators related to the LULUCF sector to track progress made in implementing and achieving its NDC	17	27%
# of countries that have explicitly mentioned gender policies and/or considerations in its NDC	55	87%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Warsaw Framework for REDD+ (WFR)

With the seven relevant decisions from COP19 (2013) the UNFCCC completed delivery of the expected technical guidance for REDD+ implementation. The Warsaw Framework for REDD+ builds on earlier UNFCCC decisions especially the Cancun Agreements from COP16 which defined the REDD+ activities, the safeguards, the phased approach and the four key elements required for developing countries participating in REDD+. Guidance for the four elements was subsequently elaborated through decisions from COP17 and then finalized with the Warsaw Framework for REDD+, which completed “the REDD+ rulebook.”

Table 3 - Quantitative summary of WFR information		# of countries	% of countries
Combined REDD+ results total value (MtCO ₂ eq)		14,925	
# of countries that have completed the requirements of the Warsaw Framework for REDD+	18	<div><div></div></div>	29%
# of countries that have a national REDD+ strategy	48	<div><div></div></div>	76%
# of countries that have considered gender in the REDD+ strategy	39	<div><div></div></div>	62%
# of countries that have submitted a FREL	63	<div><div></div></div>	100%
# of countries for which the FREL is consistent with GHG inventory	6	<div><div></div></div>	10%
# of countries that have included the following REDD+ activities in their FRELS			
Deforestation	62	<div><div></div></div>	98%
Degradation	37	<div><div></div></div>	59%
Conservation	11	<div><div></div></div>	17%
Sustainable management of forests	11	<div><div></div></div>	17%
Enhancement	37	<div><div></div></div>	59%
# of countries for which the scale is national?	47	<div><div></div></div>	75%
# of countries that have a National Forest Monitoring System (NFMS)	35	<div><div></div></div>	56%
# of countries that have a Safeguards Information System (SIS)	21	<div><div></div></div>	33%
# of countries that have presented a Summary of Information on Safeguards (Sol)	27	<div><div></div></div>	43%
# of countries for which the Sol includes information on gender	22	<div><div></div></div>	35%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

⁵ The total value of the combined REDD+ results illustrates the scale of REDD + results that have already been generated by the countries in PLANT that went through the whole cycle of the Warsaw Framework for REDD + under the UNFCCC. These REDD + results were estimated using data from official documents built with different approaches and methodologies, therefore this total combined valued should not be used widely.

Biennial Transparency Report (BTR)/ Biennial Update Report (BUR)

Until December 2024, BURs were the reports to be submitted by non-Annex I Parties, containing updates of national Greenhouse Gas (GHG) inventories, including a national inventory report and information on mitigation actions, needs and support received. From December 2024 onwards, Biennial Transparency Reports (or BTRs) are now the main reporting channel for these types of data and information, for all Parties to the Paris Agreement. In addition to the categories included in the BURs, BTRs also include NDC progress, as well as capturing adaptation efforts.

Such reports provide updates on actions undertaken by a Party to implement the Convention, and specifically the Paris Agreement, in the case of the BTRs, including the status of its GHG emissions and removals by sinks, as well as actions to reduce emissions or enhance sinks (UNFCCC, 2025). Countries have submitted Technical Annexes with their REDD+ results through the BURs, and moving forward these are now submitted as part of the BTRs. With the implementation of the Paris Agreement, the final BURs for developing countries were to be submitted by 31 December 2024 and will undergo the last technical assessment cycle between 2024-2026 (UNFCCC, 2024). BURs are being phased out and replaced by the Biennial Transparency Reports (BTR) under the Enhanced Transparency Framework (ETF). Countries' first BTRs were due by the end of 2024. As of May 2025, 31 out of 63 countries in PLANT have submitted their first BTR.

Table 4 - Quantitative summary of BTR/ BUR information	# of countries	% of countries
# of countries that have submitted 3 or more BURs	15	24%
# of countries that have submitted 2 BURs	23	37%
# of countries that have submitted 1 BUR	48	76%
# of countries that have not submitted any BUR	19	30%
# of countries that have included GHG time series for the LULUCF sector	54	86%
# of countries that have used the 2006 IPCC GL	53	84%
# of countries that have submitted a Technical Annex to the BUR with REDD+ results	21	33%
# of countries that have submitted the first BTR*	31	49%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Enhanced Transparency Framework (ETF)

The enhanced transparency framework for action and support has been established in order to build mutual trust and confidence, and to promote effective implementation of the Paris Agreement. The framework builds on and enhances the existing MRV arrangements under the Convention, with built-in flexibility which considers Parties' different capacities and builds upon collective experience. The purpose of the framework for transparency of action is to provide a clear understanding of climate change action, including clarity and tracking of progress towards achieving Parties' individual NDCs (UNFCCC, 2021).

Table 5 - Quantitative summary of ETF information	# of countries	% of countries
# of countries that have reported "Key Categories" in the LULUCF sector ^[1]	42	67%
# of countries that have provided information on emissions and removals from natural disturbances on managed lands and on the estimation approach applied	7	11%
# of countries that have provided supplementary information on emissions and removals from harvested wood products estimated with the production approach	6	10%
# of countries that have identified indicator(s) to track progress towards the implementation and achievement of the NDC	47	75%
# of countries that have reported PAMs related to the LULUCF sector	44	70%
# of countries that have reported projections for the LULUCF sector	38	60%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Carbon Markets Potential

Carbon markets aim to mitigate greenhouse gas (GHG) emissions by creating an economic incentive for reducing emissions as cost-effectively as possible, fostering the transition to a low-carbon economy. Under the UNFCCC, Article 6 of the Paris Agreement recognizes that some Parties choose to pursue voluntary cooperation in the implementation of their NDCs, to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity.

⁵ Refer to Table 1 for number of countries that have identified indicators related to the LULUCF sector

Article 6 has two types of market-based approaches/mechanisms:

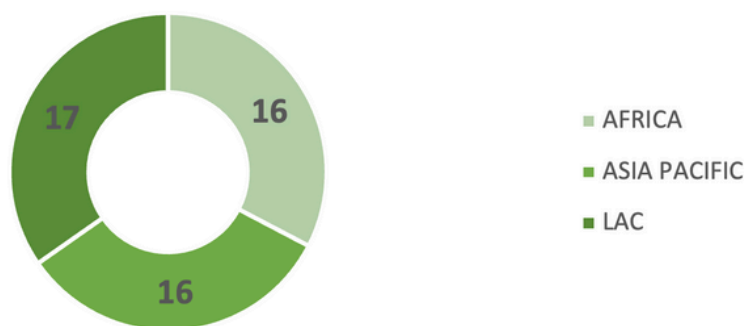
- 1** Voluntary cooperation through Article 6.2 cooperative approaches, including transfer of internationally transferred mitigation outcomes (ITMOs),
- 2** A centralized mechanism, through Article 6.4.

To ensure environmental integrity and avoidance of double counting, host countries must authorize mitigation outcomes (Art. 6.2) or emission reductions (Art. 6.4) when they are to be used for another country's NDC or other international mitigation purposes, including for use toward the aviation carbon offsetting program under the International Civil Aviation Organization's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). Such authorization comes with the obligation to apply a corresponding adjustment (CA) to the host country's NDC, to avoid double counting.

Outside the scope of the UNFCCC, voluntary carbon credits certified and issued by independent private standards that do not have the authorization from the national government to be discounted from their NDCs can be used within domestic carbon markets or by companies with voluntary climate targets, either nationally or internationally, as part of their corporate responsibilities. The latter case could be reported by the host country as private climate finance mobilized for the implementation of its NDC.

Currently, there are 49 countries out of 63 in PLANT that have indicated in their NDCs their intention to use cooperative approaches that involve the use of internationally transferred mitigation outcomes (ITMOS) as part of Article 6 of the Paris Agreement, representing 73.21% of the total countries included in PLANT. Figure 7 presents the breakdown of countries that intend to use cooperative approaches by global region.

Figure 7 - Breakdown of countries that intend to use cooperative approaches in the Africa, Asia and LAC regions.



Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

PLANT includes the assessment of two independent international carbon market standards, The Architecture for REDD+ Transactions (ART) REDD+ Environmental Excellence Standard (TREES)⁹ and Verra's Jurisdictional and Nested REDD+ (JNR) Framework¹⁰. These are currently the only international standards which include methodologies to certify REDD+ results for voluntary carbon markets at the jurisdictional level, consistent with the scale adopted for REDD+ under the UNFCCC.

These PLANT assessments have been done using publicly available data that countries have produced for other initiatives as part of their REDD+ efforts over the past 10 years (e.g., UNFCCC, FCPF, etc.). The indicative potential credits that could be generated as well as the technical requirements feasibility assessment should be treated as preliminary. This information is used by the UNDP Climate and Forests Programme experts to support countries with data for their decision to access carbon market resources to implement their NDCs.

⁹ <https://www.artredd.org/>

¹⁰ <https://verra.org/project/jurisdictional-and-nested-redd-framework/>

According to PLANT estimates as of May of 2025, a total of nine countries have potential to generate carbon credits under ART/TREES for the 2019-2023 period. The combined ART/TREES potential (tCO₂e) of these countries, assuming the submission year is 2025 and the crediting period starts in 2021, is:

390
MtCO₂e

Moreover, a total of 18 countries have potential to generate carbon credits under JNR/VERRA for the period starting in 2016, according to PLANT estimates. The combined JNR/VERRA potential (tCO₂e) of for these countries (assuming a start year for the program is 2016, and the reference period is 2009-2014) is:

1,149
MtCO₂e

References

United Nations Framework Convention on Climate Change (UNFCCC). (2021).

Enhanced Transparency Framework (ETF): an overview. Infographic. Available at:
https://unfccc.int/sites/default/files/resource/UNFCCC%20ETF_Infographics_VF_Feb2021_revised%20UNFCCC.%20final_01.pdf

Annex

This Annex presents the breakdown of the quantitative summary of information from the PLANT countries in relation to BURs, ETF and BTRs, market potential, NDCs and the Warsaw Framework for REDD+, by region.

Africa summary - NDC

Table 6 - Quantitative summary of NDC information for Africa	# of countries	% of countries
# of countries that have explicit reference to REDD+ in their NDC	18	82%
# of countries that have explicitly mentioned gender policies and/or considerations in it's NDC	19	86%
# of countries that have included the forest sector in their NDC	21	95%
# of countries that have quantifiable LULUCF targets	12	55%
# of countries that have selected indicators related to the LULUCF sector to track progress made in implementing and achieving its NDC	7	32%
# of countries that have specific LULUCF targets	12	55%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Africa summary - WFR

Table 7 - Quantitative summary of WFR information for Africa	# of countries	% of countries
# of countries that have a National Forest Monitoring System (NFMS)	8	36%
# of countries that have a national REDD+ strategy	17	77%
# of countries that have a Safeguards Information System (SIS)	3	14%
# of countries that have completed the requirements of the Warsaw Framework for REDD+	2	9%
# of countries that have considered gender in the REDD+ strategy	13	59%
# of countries that have presented a Summary of Information on Safeguards (Sol)	7	32%
# of countries that have submitted a FREL	22	100%
# of countries for which the Sol includes information on gender	6	27%
# of countries for which the FREL is consistent with GHG inventory	1	5%
# of countries for which the scale is national?	15	68%
# of countries that have included the following REDD+ activities in their FRELs		
Conservation	2	9%
Deforestation	22	100%
Degradation	11	50%
Enhancement	10	45%
Sustainable management of forests	3	14%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Africa summary - BTR / BUR

Table 8 - Quantitative summary of BTR/ BUR information for Africa	# of countries	% of countries
# of countries that have included GHG time series for the LULUCF sector	20	91%
# of countries that have not submitted any BUR	9	41%
# of countries that have submitted 1 BUR	13	59%
# of countries that have submitted 2 BURs	4	18%
# of countries that have submitted 3 or more BURs	1	5%
# of countries that have submitted a Technical Annex to the BUR with REDD+ results	4	18%
# of countries that have used the 2006 IPCC GL	20	91%
# of countries that have submitted the first BTR*	9	41%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Africa summary - ETF & Market Potential

Table 9 - Quantitative summary of ETF information for Africa	# of countries	% of countries
# of countries that have identified indicator(s) to track progress towards the implementation and achievement of the NDC	18	82%
# of countries that have provided information on emissions and removals from natural disturbances on managed lands estimated on the approach taken	1	5%
# of countries that have provided supplementary information on emissions and removals from harvested wood products estimated with the production approach	0	0%
# of countries that have reported "Key Categories" in the LULUCF sector	14	64%
# of countries that have reported PAMs related to the LULUCF sector	15	68%
# of countries that have reported projections for the LULUCF sector	17	77%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

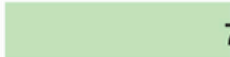
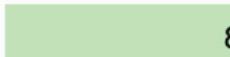

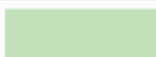


Table 10 - Quantitative summary of Market Potential information for Africa	# of countries	% of countries
# of countries that have estimated the ART/TREES potential	1	5%
# of countries that have estimated the JNR/VERRA potential	5	23%
# of countries that have indicated in the NDC the intention to use cooperative approaches that involve the use of internationally transferred mitigation outcomes (ITMOS) as part of Article 6 of the Paris Agreement.	16	73%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Annex

This Annex presents the breakdown of the quantitative summary of information from the PLANT countries in relation to BURs, ETF and BTRs, market potential, NDCs and the Warsaw Framework for REDD+, by region.

Asia summary - NDC

Table 11 - Quantitative summary of NDC information for Asia	# of countries	% of countries
# of countries that have explicit reference to REDD+ in their NDC	15	 75%
# of countries that have explicitly mentioned gender policies and/or considerations in it's NDC	16	 80%
# of countries that have included the forest sector in their NDC	18	 90%
# of countries that have quantifiable LULUCF targets	10	 50%
# of countries that have selected indicators related to the LULUCF sector to track progress made in implementing and achieving its NDC	4	 20%
# of countries that have specific LULUCF targets	12	 60%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Asia summary - WFR

Table 12 - Quantitative summary of WFR information for Asia	# of countries	% of countries
# of countries that have a National Forest Monitoring System (NFMS)	12	60%
# of countries that have a national REDD+ strategy	15	75%
# of countries that have a Safeguards Information System (SIS)	6	30%
# of countries that have completed the requirements of the Warsaw Framework for REDD+	6	30%
# of countries that have considered gender in the REDD+ strategy	12	60%
# of countries that have presented a Summary of Information on Safeguards (Sol)	7	35%
# of countries that have submitted a FREL	20	100%
# of countries for which the Sol includes information on gender	5	25%
# of countries for which the FREL is consistent with the GHG inventory	3	15%
# of countries for which the scale is national?	17	85%
# of countries that have included the following REDD+ activities in their FRELs		
Conservation	2	10%
Deforestation	19	95%
Degradation	12	60%
Enhancement	16	80%
Sustainable management of forests	3	15%

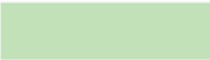


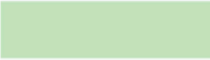
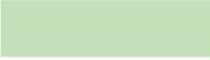
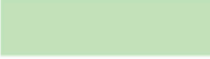
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Asia summary - BTR / BUR



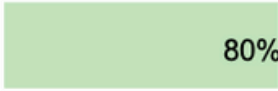
Table 13 - Quantitative summary of BTR/ BUR information for Asia	# of countries	% of countries
# of countries that have included GHG time series for the LULUCF sector	15	75%
# of countries that have not submitted any BUR	7	35%
# of countries that have submitted 1 BUR	13	65%
# of countries that have submitted 2 BURs	8	40%
# of countries that have submitted 3 or more BURs	7	35%
# of countries that have submitted a Technical Annex to the BUR with REDD+ results	6	30%
# of countries that have used the 2006 IPCC GL	14	70%
# of countries that have submitted the first BTR*	8	40%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Asia summary - ETF & Market Potential

Table 14 - Quantitative summary of ETF information for Asia	# of countries	% of countries
# of countries that have identified indicator(s) to track progress towards the implementation and achievement of its NDC	14	 70%
# of countries that have provided information on emissions and removals from natural disturbances on managed lands estimated on the approach taken	2	 10%
# of countries that have provided supplementary information on emissions and removals from harvested wood products estimated with the production approach	1	 5%
# of countries that have reported "Key Categories" in the LULUCF sector	11	 55%
# of countries that have reported PAMs related to the LULUCF sector	11	 55%
# of countries that have reported projections for the LULUCF sector	11	 55%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Table 15 - Quantitative summary of Market Potential information for Asia	# of countries	% of countries
# of countries that have estimated the ART/TREES potential	3	 15%
# of countries that have estimated the JNR/VERRA potential	4	 20%
# of countries that have indicated in the NDC the intention to use cooperative approaches that involve the use of internationally transferred mitigation outcomes (ITMOS) as part of Article 6 of the Paris Agreement.	16	 80%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Annex

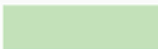

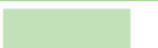
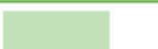
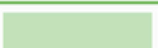


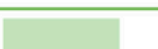

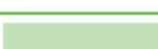





This Annex presents the breakdown of the quantitative summary of information from the PLANT countries in relation to BURs, ETF and BTRs, market potential, NDCs and the Warsaw Framework for REDD+, by region.

LAC summary - NDC

Table 16 - Quantitative summary of NDC information for LAC	# of countries	% of countries
# of countries that have explicit reference to REDD+ in their NDC	18	86%
# of countries that have explicitly mentioned gender policies and/or considerations in it's NDC	20	95%
# of countries that have included the forest sector in their NDC	18	86%
# of countries that have quantifiable LULUCF targets	12	57%
# of countries that have selected indicators related to the LULUCF sector to track progress made in implementing and achieving its NDC	6	29%
# of countries that have specific LULUCF targets	14	67%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

LAC summary - WFR

Table 17 - Quantitative summary of WFR information for LAC	# of countries	% of countries
# of countries that have a National Forest Monitoring System (NFMS)	15	 71%
# of countries that have a national REDD+ strategy	16	 76%
# of countries that have a Safeguards Information System (SIS)	12	 57%
# of countries that have completed the requirements of the Warsaw Framework for REDD+	10	 48%
# of countries that have considered gender in the REDD+ strategy	14	 67%
# of countries that have presented a Summary of Information on Safeguards (Sol)	13	 62%
# of countries that have submitted a FREL	21	 100%
# of countries for which the Sol includes information on gender	11	 52%
# of countries for which the FREL is consistent with GHG inventory	2	 10%
# of countries for which the scale is national?	15	 71%
# of countries that have included the following REDD+ activities in their FRELs		
Conservation	7	 33%
Deforestation	21	 100%
Degradation	14	 67%
Enhancement	11	 52%
Sustainable management of forests	5	 24%

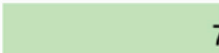


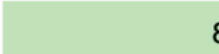


Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

LAC summary - BTR / BUR


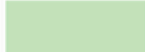
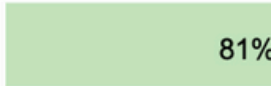
Table 18 - Quantitative summary of BTR/ BUR information for LAC	# of countries	% of countries
# of countries that have included GHG time series for the LULUCF sector	19	90%
# of countries that have not submitted any BUR	3	14%
# of countries that have submitted 1 BUR	18	86%
# of countries that have submitted 2 BURs	11	52%
# of countries that have submitted 3 or more BURs	7	33%
# of countries that have submitted a Technical Annex to the BUR with REDD+ results	11	52%
# of countries that have used the 2006 IPCC GL	19	90%
# of countries that have submitted the first BTR*	14	67%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

LAC summary - ETF & Market Potential

Table 19 - Quantitative summary of ETF information for LAC	# of countries	% of countries
# of countries that have identified indicator(s) to track progress towards the implementation and achievement of its NDC	15	 71%
# of countries that have provided information on emissions and removals from natural disturbances on managed lands estimated on the approach taken	4	 19%
# of countries that have provided supplementary information on emissions and removals from harvested wood products estimated with the production approach	5	 24%
# of countries that have reported "Key Categories" in the LULUCF sector	18	 86%
# of countries that have reported PAMs related to the LULUCF sector	18	 86%
# of countries that have reported projections for the LULUCF sector	10	 48%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>

Table 20 - Quantitative summary Of Market Potential information for LAC	# of countries	% of countries
# of countries that have estimated the ART/TREES potential	5	 24%
# of countries that have estimated the JNR/VERRA potential	9	 43%
# of countries that have indicated in its NDC the intention to use cooperative approaches that involve the use of internationally transferred mitigation outcomes (ITMOS) as part of Article 6 of the Paris Agreement.	17	 81%

Source: UNDP PLANT, 2025, based on information available at: <https://redd.unfccc.int/info-hub>