



# Progress on the New York Declaration on Forests

## Technical Annexes

**Goal 9: Reward countries and jurisdictions that, by taking action, reduce forest emissions — particularly through public and private scaled-up payments for verified emission reductions and private-sector sourcing of commodities**

November 2015

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Climate Focus. 2015. Progress on the New York Declaration on Forests – An Assessment Framework and Initial Report: Technical Annexes. Goal 9: Reward countries and jurisdictions that, by taking action, reduce forest emissions — particularly through public and private scaled-up payments for verified emission reductions and private-sector sourcing of commodities. Prepared by Climate Focus, in collaboration with Environmental Defense Fund, Forest Trends, Global Alliance for Clean Cookstoves, Global Canopy Program and The Sustainability Consortium.

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# Description of the Goal and the Indicators

Goal 9 describes the financial incentives that reward tropical forest countries and jurisdictions through payments for verified emission reductions from forests. Early thinking on financing forest conservation, as expressed within the influential Stern Report (Stern 2007) and Eliasch Review (Eliasch et al. 2008) was that incentive payments are required to tip the economic balance in favor of conserving forest rather than deforesting. According to this model, to be effective, the level of incentive payments would have to be higher than the opportunity cost of foregone deforestation (e.g., timber and agricultural production). Recent thinking has shifted away from this opportunity cost model, due largely to: (1) the complexities of calculating opportunity costs; (2) a realization that environmental compensation payments are unlikely to ever reach the scale that they can compete on a per hectare basis with the production of highly profitable commodities such as palm oil; and (3) recognition that other policy tools, such as effective regulation limiting forest clearing, are often more effective in conserving forests than payments to landowners (Linacre 2015). Thus, forest finance is increasingly viewed as a tool that provides political and economic incentives to politicians and other decision makers to take action to reduce forest emissions. In this context, payments are framed as 'incentives' rather than 'compensation', though there is recognition that the scale of reward payments requires significant scaling-up.

We track Goal 9 according to two indicators.

## INDICATOR 1

International payments for verified emission reductions (VERs) disbursed through multilateral and bilateral funds and public programs

## INDICATOR 2

The value of purchases of forest VERs through voluntary and compliance markets

Indicator 1 encompasses the amount of international finance, mostly in the form of Official Development Assistance (ODA), for the generation of verified emission reductions and removals from forests (together referred to as VERs), delivered through bilateral and multilateral channels. Indicator 2 covers the amount of finance channeled through carbon markets, both compliance and voluntary, for the purchase of verified emission reductions. Indicator 1 focuses on public funds while Indicator 2 captures mostly private investments.

The focus of Goal 9 is on rewarding countries and jurisdictions hence we focus on incentive systems in which governments, national or subnational, are direct or indirect beneficiaries. At present we include in our tracking the purchase of VERs on voluntary carbon markets from project level REDD+, on the grounds that national or sub-national authorities are frequently project participants. Even where projects are developed exclusively by private project developers, some government involvement is often required, and governments will tend to benefit indirectly.

It would be ideal to also capture under Goal 9 private initiatives to preferentially source commodities from countries or jurisdictions that have committed to action to reduce forest emissions (e.g., through the paying of a price premium). However, we have not included this as an indicator here as there are no such examples to date, but we leave this open for inclusion in the future should any such initiatives arise.

# Main Concepts and Definitions

<b>Reward</b>	<p>We understand 'reward' to mean encouraging action by countries and jurisdictions that reduces forest emissions and increases forest removals. We focus on payments for verified emission reductions. However, were other incentives to emerge (such as price premiums paid by private companies for commodities sourced from deforestation free zones, as suggested by Meyer and Miller 2015) we suggest tracking these too. We distinguish the rewards in Goal 9 from the support for the development and implementation of strategies in Goal 8, which comprises financial support other than incentive payments.</p>
<b>Verified emission reductions</b>	<p>We define 'verified emission reductions' or VERs broadly to mean any credit, unit or certificate, tradable or non-tradable, which represents a quantity (typically one ton) of CO<sub>2</sub>-equivalent emissions reduced or sequestered, which has been generated according to agreed standards of measuring, reporting and verification. This encompasses emission reduction credits traded on voluntary and compliance markets, and payments for performance.</p>
<b>Payment for performance</b>	<p>'Payment for performance' and results-based finance are synonymous, and mean payments, typically from public sources, that are conditioned on the generation of a particular result, in this case, the generation of a verified emission reduction</p>
<b>Compliance carbon market vs voluntary carbon market</b>	<p>A 'compliance carbon market' is one in which entities are regulated by e.g. a cap-and-trade scheme. The 'voluntary carbon market' is characterized by entities or individuals that purchase emission reductions voluntary, for example, for reasons of corporate social responsibility.</p>
<b>Primary carbon market vs secondary carbon market</b>	<p>The 'primary carbon market' is the segment of the carbon market in which participants buy carbon credits from project developers, or host jurisdictions and countries. The 'secondary carbon market' is the segment of the carbon market in which credits are traded between brokers/end-users.</p>

# Key Messages

## INDICATOR 1: PUBLIC PAYMENTS FOR VERIFIED EMISSION REDUCTIONS

- Between 2008 and 2014, over US\$3 billion has been committed, almost exclusively from international public sources, for performance-based REDD+ payments. Disbursements, at just over US\$1 billion, have lagged behind commitments
- The majority of this has been committed bilaterally by Norway's International Climate and Forests Initiative (NICFI) in agreements with Brazil, Indonesia and Guyana. Germany's REDD Early Movers (REM) program, and the multilateral Carbon Fund of the Forest Carbon Partnership Facility (FCPF), and the BioCarbon Fund, are also significant sources of payment for performance.

## INDICATOR 2: PURCHASE OF VERIFIED EMISSION REDUCTIONS THROUGH CARBON MARKETS

- Between 2005 and 2013, approximately US\$1 billion was generated through the sale of forest carbon credits in voluntary and compliance markets (excluding carbon credits generated through cookstove programs that are captured under Goal 4). To date, demand has been relatively muted, due largely to the exclusion of most types of forest credit from the largest compliance markets (the EU Emission Trading Scheme and the Clean Development Mechanism), and general lack of demand in carbon markets. Voluntary forest carbon markets expanded rapidly between 2008 and 2011, but have subsequently leveled off.

## Data Gaps and Limitations

- Most REDD+ payment for performance programs have publicly accessible and up-to-date information on commitments and disbursements. However, this is not the case across all funds. Regular updates on commitment and disbursement levels by all payment for performance programs would help assessing progress achieved under this goal.
- Forest Trends' analysis on the state of the forest carbon market examines the volume and value of carbon offsets transacted to chart the size of the global marketplace in terms of carbon offsetting and future project investment (Forest Trends 2015). This is consistent with most other marketplace analysis. However, tracking overall market size does not distinguish between payments for carbon credits made to project developers on the primary carbon market, and payments for carbon credits traded between brokers/end users on the secondary market, and a transaction is recorded each time a credit changes hands. Although Forest Trends do separate primary and secondary market transactions, this data is not complete, so it is not currently possible to determine how much investment is flowing directly to mitigation projects themselves.

# Findings

## Indicator 1: International payments for VERs disbursed through multilateral and bilateral funds and public programs

Between 2008 and 2014, a number of bilateral and multilateral results-based programs for reducing forest emissions have been established, with over US\$3 billion committed. These have been funded to a large extent through Norway's International Climate and Forests Initiative, though Germany, the UK and other donor countries have also made significant contributions. Private sector bodies have also contributed to publicly managed funds in the form of contributions to the FCPF Carbon Fund by BP and The Nature Conservancy, though these represent a small percentage of the whole. We do not include in this section contribution agreements to the Green Climate Fund, as Green Climate Fund finance has yet to be allocated between sectors. In the case that the Green Climate Fund does make REDD+ finance available on a payment for performance basis in the future, this should be recorded under this Indicator.<sup>1</sup>

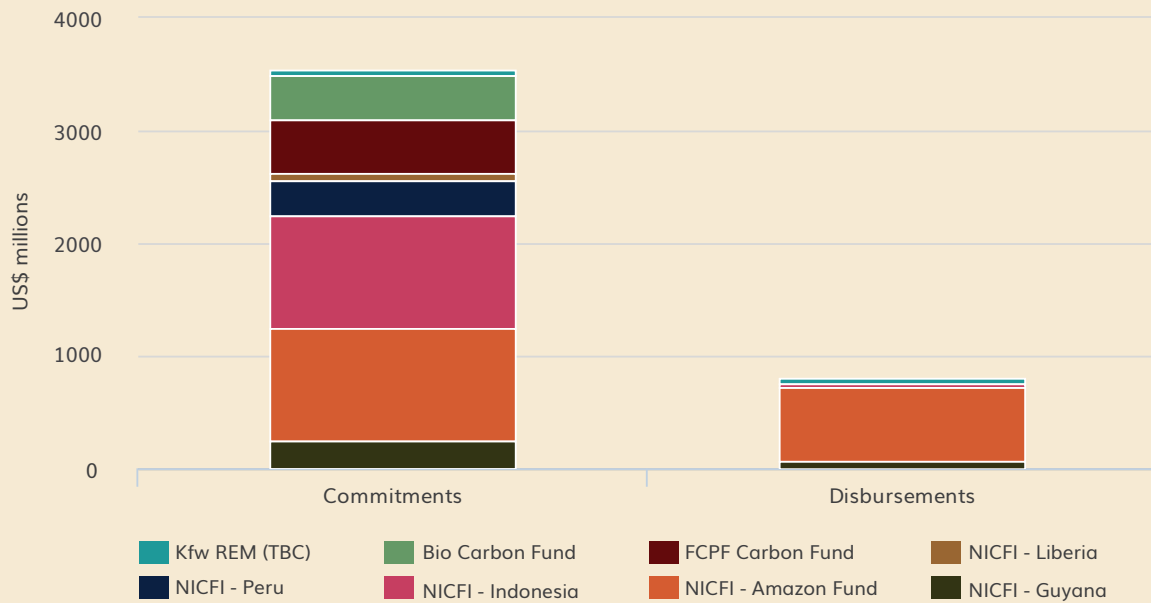
As indicated by Figure 1, disbursements, at just over US\$1 billion, have lagged somewhat behind commitments. This is because forest countries have been engaging in a 'readiness' process in recent years—building national strategies, developing monitoring systems and so on—and only more recently are starting to actually implement programs that are expected reduce emissions from deforestation and forest degradation. Internal procedures and administrative requirements of donors and multilateral funds have also delayed disbursements.

Some observers note that development agencies face immense pressure to spend allocated budgets and that donors – often too eager to spend – are hampered by the limited availability of verified results to finance (Angelsen 2013). At the same time REDD+ countries can have problems mobilizing upfront payments that allow the implementation of REDD+ programs. Others have noted that too much emphasis can be placed by donors on meeting compliance standards (e.g., fiduciary standards) by recipient countries, and that this can jeopardise cooperation (Birdsall & Busch 2014).

Progress has been slow implementing the results-based Norway-Indonesia agreement. It was originally anticipated that Norway would begin paying for VERs in 2014, but as of August 2015 this had not occurred. The World Bank FCPF Carbon Fund, which became operational in 2011 and which was projected to run until 2020, has yet to complete an emission reduction payment agreement with a partner country. On the other hand, results-based programs have been more successful in countries with the capacity to generate results and reliably track performance. Norway's contributions to Brazil through the Amazon Fund have materialized according to the expected timetable, and Germany's REM program, established in 2011, has already made payments for emission reductions in Acre.



**Figure 1: Commitments to and disbursements from international payment for performance funds as of 2014 in US\$ millions**

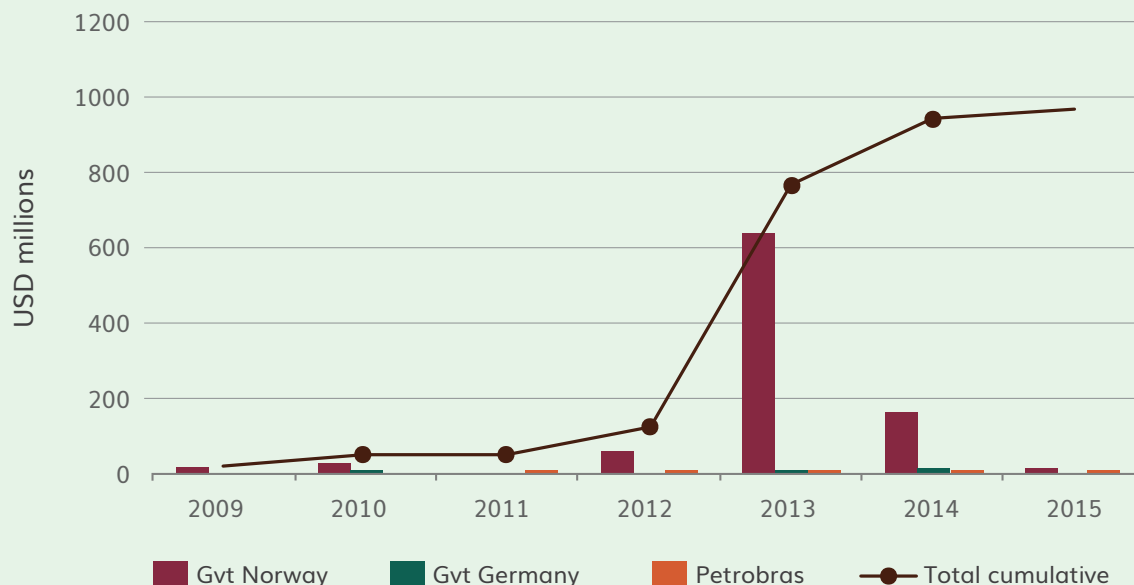


**Source:** Climate Focus calculations. NICFI commitments taken from MOUs with Brazil, Indonesia, Guyana, Peru and Liberia. Commitments to FCPF Carbon Fund, BioCarbon Fund and REM programs taken from respective fund websites. NICFI disbursements available from Amazon Fund website and Real-Time Evaluation of Norway's International Climate and Forest Initiative. No disbursements recorded from FCPF Carbon Fund and BioCarbon Fund to date. REM disbursements from Forest Trends report.

## Box 1: The Amazon Fund

The Norwegian Government, through its International Climate Forest Initiative (NICFI), committed to provide up to US\$1 billion by 2015 for avoided forest emissions, at US\$5 per ton. Transfers are formalized in donation agreements between the government of Norway and BNDES, the state owned Brazilian development bank. At the time of writing, almost US\$1 billion has been disbursed by NICFI, with the German development bank KFW and Petróleo Brasileiro S.A., a.k.a. Petrobras, a majority state owned oil and gas company, also providing minor contributions.

Figure 2. Disbursements to the Amazon Fund



Brazil has responsibility for measuring, reporting and verifying avoided emissions, which are estimated by the Ministry of Environment and are based on data supplied by the National Institute for Space Research and the Brazilian Forest Service. Emission reductions are calculated as the difference between the historical average rate of deforestation and the deforested area measured in the relevant year, multiplied by the amount of carbon present in the biomass in tonnes of carbon per hectare (the emission factor). Annual deforestation rates are compared with the average deforestation rates for ten-year periods, and are updated every five years.

Under the Amazon Fund, there is no transfer of title to an emission reduction. Rather, BNDES issues non-transferable, nominal diplomas in exchange for donations. Though the Amazon Fund receives international support on a payment for performance basis, it disburses 'input' based grants to forestry projects for activities including sustainable forest management and biodiversity conservation.

Sources: Real-Time Evaluation of Norway's International Climate and Forest Initiative, Synthesising Report 2007-2013.

## Indicator 2: The value of purchases of forest VERs through voluntary and compliance markets

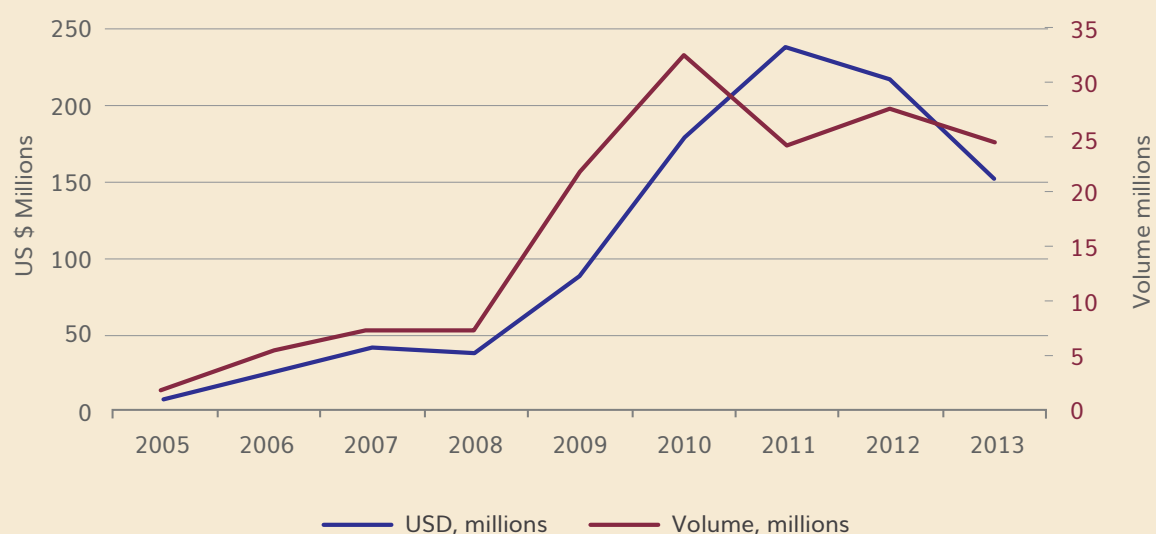
Between 2005 and 2008, the value of the forest carbon market expanded steadily from US\$8 million to US\$32 million. The market then expanded rapidly up to 2011, climbing to US\$237 million over three years, representing an average annual growth of 90%. This was driven primarily by an increase in the size of the voluntary carbon market, which in 2011 represented 73% of the forest carbon market. However, this increase has not continued to 2013, when the value of the forest carbon market fell back to approximately US\$150 million (excluding REM payments, which are counted under Indicator 1). This indicates that the voluntary carbon market alone will not provide sufficient levels of investment necessary to scale-up demand for forest carbon credits.

Greater market demand for forest carbon credits will require the integration of forest carbon credits into emissions trading systems, which will incentivize entities covered under an emission trading system (ETS) to purchase credits as offsets. However, market-based systems such as the Clean Development Mechanism (CDM) and European ETS have restricted the generation and use of forest carbon credits due to concerns over the permanence of emission reductions represented by forestry activities, and the potential for an oversupply of REDD+ credits to remove incentives for other offset projects. That said, California's Cap-and-Trade Program may allow for the use of international forest offsets in the future (though does not currently do so). Similarly the International Civil Aviation Association may provide opportunities for airlines to use forest VERs to offset airline emissions.

As of August 2015, there has been no international agreement on the use of offsetting by countries to meet future emission targets agreed under the UN Framework Convention on Climate Change, or the role that forestry offsets may play within any such arrangement.

The difference between the value and volume of the forest carbon market reflects a variance in the average price of a carbon credit. In 2010, the average price for a carbon credit was US\$5.5, whereas in 2011 this climbed to US\$9.8. This explains why the value of the market grew between 2010 and 2011, while overall volumes of carbon credits fell.

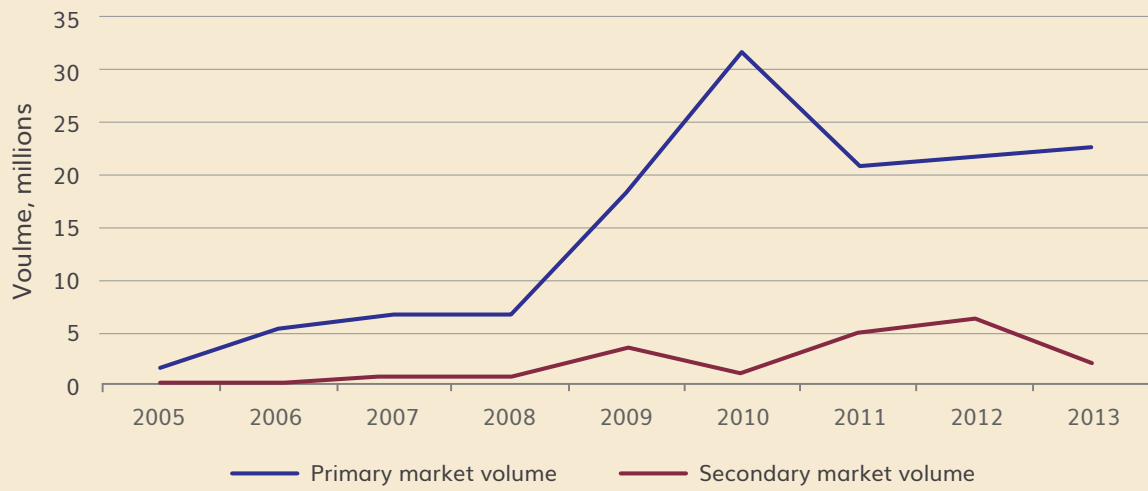
**Figure 3: Size of the forest carbon market 2005-13 in value (US\$ millions) and volume (millions of credits traded)**



Source: Climate Focus calculations with data provided by Forest Trends State of the Forest Carbon Market 2014.

Although complete data is not available on the value of the primary and secondary carbon markets respectively, data on the volume of primary and secondary markets suggests that the slowdown in the market in 2013 was driven by a reduction in the volume of the secondary market, rather than the primary market, which grew modestly in size (Figure 3). This is worthy of note, as the primary market, representing payments flowing to emission reduction projects and programs, is the key focus for measuring progress against Goal 9.

**Figure 4: Size of the primary and secondary forest carbon market from 2005 to 2013 in volume (millions of credits traded)**



Source: Climate Focus calculations with data provided by Forest Trends State of the Forest Carbon Market 2014.

# Technical Annex

## Selection of Indicators

### **Indicator 1: International payments for VERs disbursed through multilateral and bilateral funds and public programs**

This indicator measures international payments, which we define as payments to developing countries from publicly managed multilateral and bilateral funds. Although this may include some private sector contributions to multilateral funds, the vast majority of these payments will be public finance and climate finance from OECD countries.

This indicator measures payments for performance, or results based finance, which condition donor payment on the achievement of particular results. This indicator will not include payments designed to achieve emission reductions, but which are not conditioned on the achievement of emission reductions (for example, ex-ante financing of REDD+ pilot projects by the Forest Investment Program (FIP)). The payments tracked by this indicator are for VERs. For the purposes of this indicator we define VERs to mean emission reductions that have been measured, reported and verified to the standard required by the relevant fund. There does not have to be an exchange of title of the VER between payer and payee for a payment to be recorded under this indicator, as it is sufficient that payments are conditioned on the generation of VERs.

### **Indicator 2: The value of purchases of forest VERs through voluntary and compliance markets**

This indicator measures the value of the forest carbon market. Ideally, it would track only the value of the primary carbon market, which for the purposes of this indicator we define as that in which market participants buy carbon credits from project developers, or host jurisdictions and countries. However, this data is not currently available.

## Methodology

### **Indicator 1: Public payments for verified emission reductions**

There are a limited number of results-based payment programs for forest conservation, and it is currently more straightforward to track financial support for these programs according to data made available in program reports, than relying on the OECD DAC database used for Goal 8, as the OECD Development Assistance Committee (OECD DAC) database currently tracks commitments only. Given the limited number of programs, it will be possible to track year on year disbursements rather than simply stating commitments. One limitation of this approach is that there is no universally accepted definition of "payment for performance" and it will require subjective judgement to determine whether new funds established in the future fall into this category i.e. whether payments are conditional on the delivery of emission reductions.

### **Indicator 2: Purchases of forest emission reductions through voluntary and compliance carbon markets**

Forest Trends data is based on a global annual survey sent to hundreds of forest carbon project developers and offset retailers active in the market, and measures "transacted" offsets. Forest Trends considers "transactions" to occur at the point of contract when suppliers and buyers agree to the terms

of offset delivery and payment. Care is taken to avoid double counting of data captured in indicator 1 (e.g., Forest Trends record REM payments in their dataset, though we will include these under indicator 1).

## Data Sources

### Subindicator 1.1:

Data is compiled using annual reports from REM, NICFI, FCPF and other results-based funds, with cross referencing of Voluntary REDD+ Database, REDDX database, and OECD-DAC. Data available for measuring the results-based payments disbursed for reducing forest emissions is available from 2008 (when such payments were first undertaken) to 2014.

### Subindicator 2.1:

Taken from data published in Forest Trends State of the Forest Carbon Market 2014, plus interviews with Forest Trends staff. Forest trends data is available from 2005 to 2013.

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# Endnotes

<sup>1</sup>The GCF Board has adopted an initial logic model for REDD+ results-based payments and the performance measurement framework for REDD+ results-based payments, though is yet to allocate funds for any specific projects or programs. See GCF DECISION B.08/08.

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