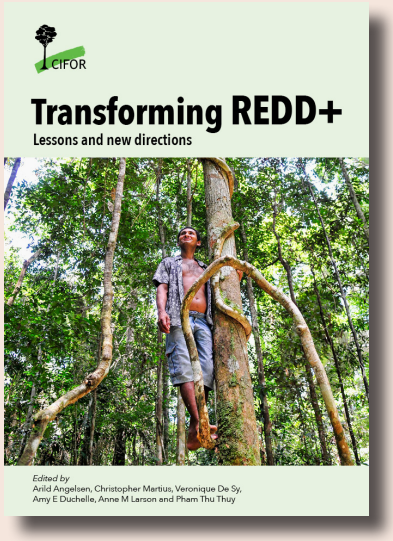
Chapter 4

Results-based payment

Who should be paid, and for what?

Arild Angelsen, Erlend AT Hermansen, Raoni Rajão and Richard van der Hoff



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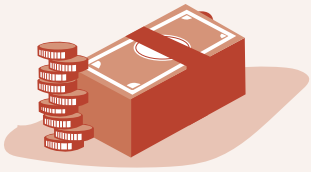
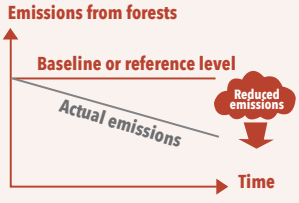
Key messages

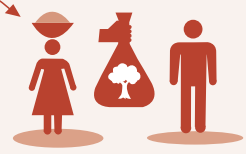
- Results-based payment (RBP), the main innovation brought by REDD+, has also been the most challenging to implement. Three key challenges for RBP are: what to pay for, how to set reference levels, and whom to pay; these challenges are at risk of biases, including a 'cherry picking' of numbers.
- Current and emerging RBP initiatives are hybrid approaches. As such, they make compromises on key RBP principles, such as payment based solely on results, recipient discretion (on how to achieve results) and independent verification of results.
- Minimising these risks requires learning from previous experiences to develop a clear rule book for the Paris Agreement, as well as institutional checks and balances. Managing these risks would help preserve the effectiveness (environmental integrity) and efficiency of RBP in REDD+, and thus its long-term political credibility and financing.

Results-based payment in a nutshell

CHALLENGES	KEY ISSUES	WAYS FORWARD
What to pay for?	- What in the impact chain should be paid for? - Which goals should be incentivised?	- Focus on carbon, with safeguards and other non-carbon benefits as constraints - Incentives during all three REDD+ phases
Reference levels	- Poor or missing data - No consensus on methods - Forecasting uncertainty	- Develop a clear Paris Agreement rule book - Independent, third party review of FRELs/FRLs is needed
Who should be paid?	Many stakeholders deserve payment: forest owners, forest stewards and forest users; project proponents and governments agencies	- As a rule, pay those who incur the costs of reducing emissions - Manage fragmented finance through national REDD+ coordination offices
Biases (Cherry picking)	- Strong monetary and political interests in results - Self-serving biases in data selection and analysis	- Establish a clear rule book in the Paris Agreement - Ensure third-party assessment of results - Promote transparency and public debate







4.1 Introduction

Results-based payment (RBP) distinguishes REDD+ from previous large-scale forest conservation initiatives, and is a dominant theory of change in the REDD+ discourse (Chapter 2). Payment is contingent on results, which are normally operationalised as reduced emissions. Yet what is simple in theory is also the most challenging to implement. This chapter reviews three key challenges: what to pay for, what is the reference level, and whom to pay?

The notion of positive incentives was part of the initial definition of REDD in the Bali Action Plan (UNFCCC 2007); an explicit link to RBP was then established by the Warsaw Framework for REDD+ in 2013 (Voigt and Ferreira 2015), and later solidified in the Paris Agreement (UNFCCC 2015, Art. 5.2). To enable results-based payment distribution across eligible countries, the Green Climate Fund (GCF) – the funding arm of UNFCCC – in 2017 made USD 500 million available (Box 4.1). Another multilateral mechanism is the Carbon Fund under the World Bank's Forest Carbon Partnership Facility (FCPF) (Box 4.2). Notable bilateral initiatives are Norway's International Climate and Forest Initiative (NICFI), established in 2008, and Germany's REDD Early Movers programme (2011). The Brazilian Amazon Fund (2008) is by far the largest recipient of this finance (Box 4.3).

Box 4.1 The Green Climate Fund: USD 500 million for REDD+

Simone C Bauch

The Green Climate Fund (GCF), an operating entity of the UNFCCC's Financial Mechanism, was established at COP16 (2010) in Cancún. At its 18th board meeting, in September 2017, it published its first request for proposals for REDD+ results-based payment. This request for proposals focuses on the third phase of REDD+ and indicates a flexible funding envelope of USD 500 million. Countries compliant with UNFCCC requirements are eligible to request payment for results (reduced emissions from land use and land use change) accrued between 2014 and 2018; they have until 2022, or until funds are spent, to make the request. In line with existing bilateral and multilateral REDD+ processes, the GCF pre-set a price of USD 5 per tCO_2e. No single country can request more than USD 150 million, and at least three concept notes must be submitted to the GCF Secretariat to start the request for proposals evaluation process. Countries retain ownership of emission reductions paid for by the GCF and thus can count them towards achieving their Nationally Determined Contributions. Proceeds must go to REDD+ activities, and both the generation of the REDD+ emission reductions and the use of funds must follow Cancún and GCF safeguards processes.

Currently only three countries are eligible for the request for proposals: Brazil, Colombia and Ecuador. Brazil is the only one that could easily exceed the 150 million threshold for its historically reduced emissions, while the others could request smaller amounts. It remains to be seen if these countries can have their REDD+ results-based payment proposals approved within the current GCF funding allowance or whether they would have to wait for the GCF replenishment process.

Box 4.2 The Emission Reduction Program Buffer: Supporting both mitigation and non-carbon benefits

The Carbon Fund is part of the Forest Carbon Partnership Facility (FCPF), a global partnership of governments, businesses, civil society and indigenous peoples, led by the World Bank. The Fund's Methodological Framework, which is supported by main donors, has introduced a yet untested innovation in the form of the Emission Reduction Program Buffer. It aims to bridge: (i) payment for achieved forest mitigation (as measured in tCO_2e per year), and (ii) payment for achievement and demonstration of "those non-carbon benefits that contribute to the long-term sustainability of REDD+ implementation" (FCPF 2015).

Between 10% and 55% of the RBP could be withheld (or 'buffered') as a carbon insurance for subsequent accounting periods. The amount depends on how five broad categories of risks have been addressed and documented: (i) statistical uncertainty on MRV data; (ii) lack of broad and sustained stakeholder support; (iii) lack of institutional capacities/coordination; (iv) lack of long-term effectiveness in addressing underlying drivers; and (v) exposure and vulnerability to natural disturbances.

Source: FCPF (2015)

RBP funding can come from compliance carbon markets (offsets), from voluntary carbon markets, or from public sources. Before COP15 in Copenhagen (2009), many thought REDD+ would become part of a global carbon market, with REDD+ credits representing a form of results-based payment (Angelsen 2008). The failure to establish a broader cap-and-trade system explains why, to date, funding has come from public sources rather than carbon markets (Chapter 3). International REDD+ funding can thus be seen as a "light form of result-based aid" (Angelsen *et al.* 2017, 719).

The attractiveness of paying only for demonstrated and verified results has remained strong. In Norway, the clear incentives and perceived low-risk (for donors) of RBP was a key factor in the successful establishment of NICFI. In contrast to other forms of aid – the results of which may never materialise due to, for instance, corruption or inefficacies – RBP was seen as a safe bet as it only pays for results achieved (Hermansen and Kasa 2014). Yet challenges abound.

4.2 Challenges facing RBP

We define RBP as 'a transfer of money conditional upon achieving a predetermined performance target' (for related definitions, see Eichler 2006, 5; Klingebiel and Janus 2014; Angelsen 2017; van der Hoff *et al.* 2018). RBP can refer to an international agreement, such as between a donor country or multilateral organisation and a recipient country, or a domestic arrangement, such as a government-sponsored payment for environmental services (PES) system.

Box 4.3 The Amazon Fund: To reward past or future results?

The formal methodology for RBP to the Amazon Fund, developed by Brazil and agreed upon by donor countries, veils clashing interpretations on what constitutes 'results' (van der Hoff *et al.* 2018). Brazil views RBP as a reward for past achievements and as financial support for the implementation of national forest policies, and this is reflected in the calculation of the limit up to which it can receive result-based funds. This reward is also understood to accumulate over time, leading national policy-makers to believe that the reduction of deforestation rates between 2006 and 2016 merits an international financial compensation of USD 21.5 billion (Box 4.4). Following this line of reasoning, Brazil has received less than 6% of its total reward, even though donations have increased since 2013. In contrast, donor countries view RBP as a financial incentive for contributions to *future* climate change mitigation. This is reflected both as a condition of the contractual agreement and in donor behaviour (Figure 4.1).

Since 2013, Norway and, to some extent, Germany have enacted their policies to make donations in any given year for results obtained in the preceding year. Representatives of donor countries have argued that making payment for results obtained too far in the past would not align with the aim of stimulating new results. On this note, in 2016 Norway sent a warning to Brazil that donations may dry up if deforestation rates continue to rise, especially since the calculation of a new RL in the same year had drastically reduced the Amazon Fund's upper limit for raising funds (Box 4.4). This approach contrasts with the donation behaviour of Petrobras (Brazil's largest oil company), which has consistently paid for results achieved in 2006, the year with the largest 'stock' of results.

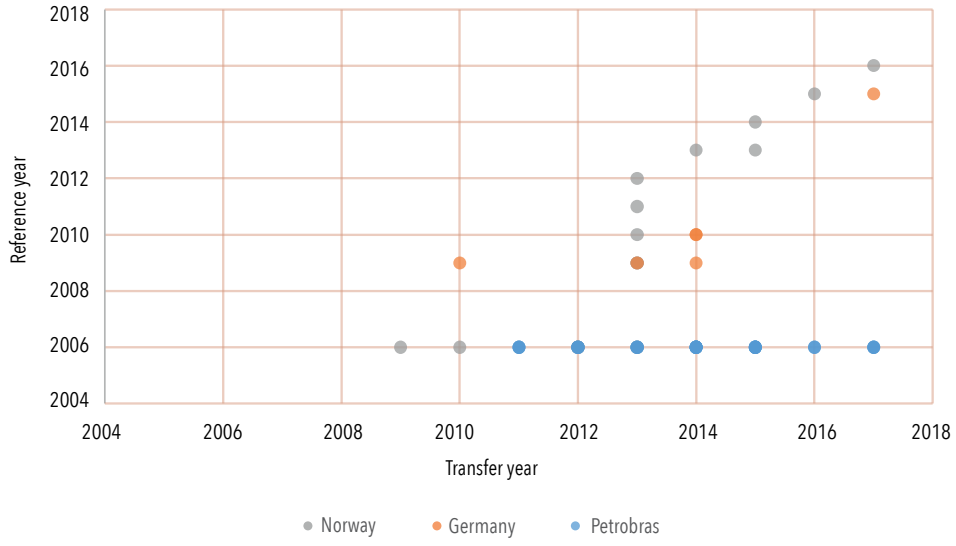


Figure 4.1 Relation between payment years (horizontal) and reference years (vertical)

Note: Bubbles correspond to one payment, independent of the amount paid.

Source: Amazon Fund. www.fundoamazonia.gov.br/en/home; see also BNDES (2018)

Box 4.4 A calculated approach to calculating reference levels

An illustrative example on the impact of reference levels (RL) is seen by comparing the RL used by the Amazon Fund and the forest reference emission level (FREL) submitted to UNFCCC by Brazil. The starting year of the RL of the Amazon Fund is flexible: the RL is the average of the past 10 years, and updated every 5 years. For example, deforestation rates between 2006 and 2010 were compared with an RL equal to the average deforestation during the 1996–2005 period. According to this logic, the Amazon Fund has reported to have a cumulative 'earned' payment (or fundraising limit) of USD 21.5 billion, based on results obtained between 2006 and 2016 (BNDES 2018). By contrast, Brazil's FREL to the UNFCCC has fixed the starting year at 1996, which implies that the period for calculating average deforestation rates increases by 5 years every 5 years. The high deforestation years (until the mid-2000s) are therefore kept in the formula. Brazil's FREL would yield a cumulative payment level of USD 36.4 billion by 2016. Compared with the Amazon Fund's calculation of USD 21.5 billion (Box 4.3), the difference is nearly USD 15 billion – more than the total international REDD+ funding accumulated worldwide.

In contrast to Brazil, Peru has witnessed increasing deforestation rates since the early 2000s. In its submission, the FREL is estimated by extrapolating this trend, resulting in an estimated FREL in 2020 which is 20% above the 2015 level. In other words, the country may obtain an emission reduction even with an increase in deforestation. A realistic business-as-usual scenario might well imply increasing rates of deforestation, and can thus be defended. An asymmetry arises, however, when countries with increasing rates of deforestation adjust their FRELs upward (compared with the historical average), while those with downward trends do not.

Judging the 'veracity' and technical rigour of an RL is a difficult task, since it involves affirming that a given future is more or less likely to take place. Although the FRELs of Brazil and Peru have been approved by the UNFCCC, these two examples illustrate critiques by, for example, Hargita *et al.* (2015, 346) who note that methodological choices for FREL risk a cherry-picking search "for the most profitable approach" by recipient countries. In particular, while Brazil has the right to present different FRELs for both a national fund and to the UNFCCC, the presence of two FRELs imply that the country has different expectations of future deforestation and notions of what counts as 'reductions', depending on the audience. Likewise, it is difficult to explain to the taxpayers of donor countries why a given country has two FRELs, or why they should provide RBP 'reduced emissions' even with deforestation on the rise, as has been debated in the cases of Guyana and Peru.

Perrin (2013) proposes three defining elements of an RBP: (i) payment based on predefined results; (ii) recipient discretion to decide how to achieve results; and (iii) independent verification of results. Currently, most international REDD+ funding for RBP fails to fully meet this definition. First, payment is not necessarily based on predefined results but on historical ones, and it includes multiple objectives and constraints, like safeguards. Second, recipient discretion is not fully applied. Third, independent (third-party) verification may or may not be used. Ultimately, the actual payment often becomes a matter of negotiation between the two parties.

The existence of hybrid arrangements can, in part, be understood in terms of a long list of challenges in RBP design and implementation. These include: what

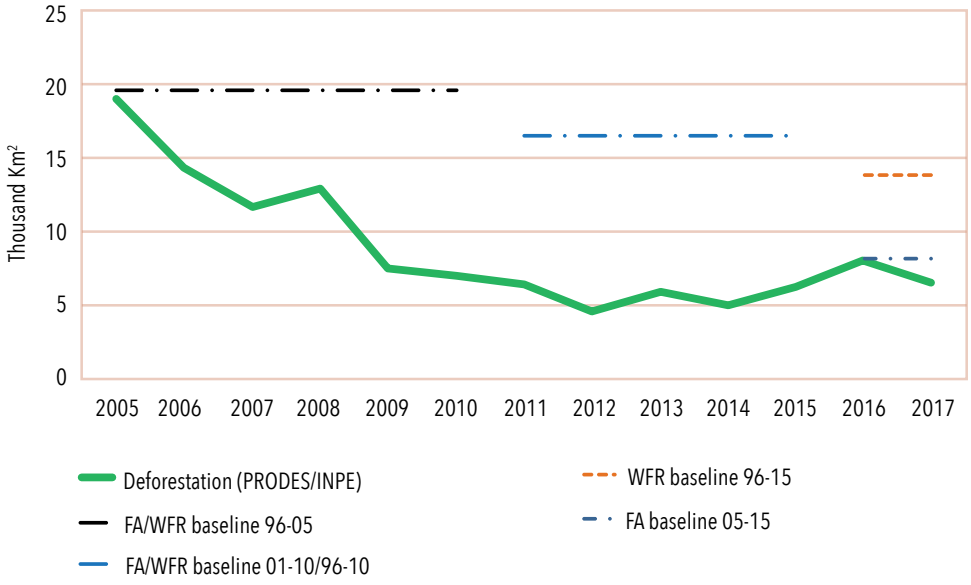


Figure 4.2 Deforestation and different reference levels (baselines) for the Brazilian Amazon

Note: FA = Amazon Fund; WFR = Warsaw Framework for REDD+ (UNFCCC submission); numbers refer to historical year for calculating reference level.

to pay for; how to measure and verify results; whom to pay; how much to pay; how to set reference levels (RLs); the spending pressures of donors; risk sharing; mobilising sufficient funding, including up-front funding; avoiding adverse distributional impacts; preconditions beyond the stated results; cherry picking among uncertain figures for self-benefit; and aligning policies to REDD+ and RBP (Müller *et al.* 2013a; Angelsen 2017; van der Hoff *et al.* 2018). We have selected three of these challenges to discuss here – what to pay for, how to set RL, and whom to pay – and offer suggestions on how to deal with them.

4.2.1 What to pay for?

The phased approach of REDD+ indicates that the focus of international financial support should evolve along the impact chain: from capacity building (inputs and activities) in Phase 1, to policy reforms (outputs) successfully implemented (outcomes) in Phase 2, to actual emission reductions (impacts) in Phase 3 (Angelsen 2017). Since reducing emissions is the ultimate aim of REDD+, there are strong reasons to link payments to actual outcomes and impacts, rather than to inputs and activities. For example, an improved monitoring system does not guarantee reduced deforestation, nor does a seemingly good policy that is not implemented effectively. However, this focus on actual emissions reduction places high demands on recipients to invest in the setting of RLs, in data collection and in monitoring

(Skutsch *et al*. 2014). In contrast to traditional forms of aid, RBP also puts a higher share of the risk on the recipients, as the ultimate impact depends on factors outside their control (Mumssen *et al*. 2010). For these and other reasons, "there is an increasing inclination to also count incentives for the provision of inputs … as results" (Helland and Mæstad 2015, 4).

Another line of discussion asks which other goals (outcomes or impacts) to incentivise, beyond carbon (Box 4.2). REDD+ is about reducing emissions and increasing removals ('enhancement of forest carbon stocks'); however, non-carbon benefits (NCBs) have become more prominent over time. Some fear the "carbonization of forest governance" (Gupta *et al*. 2012, 727), leading to other forest values and policy objectives being ignored. Meanwhile, others stress that since climate change is such a formidable challenge, it should remain the focus of REDD+, and suggest that other instruments are better suited to tackle other objectives, such as poverty reduction. It is also worth noting that the UNFCCC mandate concerns only climate, i.e., "stabilization of greenhouse gas concentrations in the atmosphere" (UNFCCC 1992, Art. 2).

In practice, however, other objectives are important for donors, REDD+ governments and project proponents. The Carbon Fund (FCPF) has proposed a buffer programme that addresses both permanence and NCBs (Box 4.2). Likewise, a functioning safeguard information system is one of the four prerequisites for RBP according to the Warsaw Framework for REDD+.[1] As such, payment is to be made for emissions reduction, within a set of constraints to ensure that safeguards and other NCBs are not jeopardised.

An alternative is to award NCBs directly by paying for the achievement of non-carbon goals, as happens in the voluntary carbon market. For example, mitigation projects with Verified Carbon Standard (VCS) certification achieved an average price of USD 2.3 per tCO_2e in 2016, while those that also complied with Climate, Community & Biodiversity (CCB) Standards received USD 3.9 per tCO_2e – a premium of 70% (Hamrick and Gallant 2017).

As for the results themselves, they must be defined, measured, reported and verified. There is no objectively correct methodology to estimate what results might be. This ambiguity allows direct monetary and political interests – combined with the uncertainty of numbers and the flexibility of the guidelines – to create a fertile ground for 'gaming', i.e., selection and use of data for own benefits. Gaming does not imply fabricating data (although that might happen), rather it points to processes where the unavoidable choices in data generation and use are influenced by self-interest. Different stakeholders have different interests in what

1 The three other prerequisites are: a national REDD+ strategy, a national forest reference emission level (FREL) and/or forest reference level (FRL), and a national forest monitoring system (UNFCCC 2011, Decision 1, Art. 71). See also Chapter 2.

should be measured (or not), the *magnitude* of the selected variables, and *how* such variables should be measured, aggregated and verified.

Political factors may complicate an accurate functioning of RBP; for example, the differing interpretations of what constitutes 'results' (van der Hoff *et al*. 2018). On the one hand, payments are based on demonstrated emissions reductions achieved in the past, and recipient countries may view them as a reward for their efforts. On the other hand, donors expect these financial resources to be reinvested in policies and strategies for future emissions reductions. From a recipient perspective, RBP may in practice become the worst of two worlds: limited or no upfront finance (as in a pure RBP system), with high expectations and control over how these funds are used (as in traditional development aid).

Among donors, cherry-picking of favourable numbers may play an important role in legitimising REDD+ initiatives. For example, after 10 years of NICFI funding, a causal link to decreasing Brazilian deforestation rates is yet to be proven with analytical rigour. Yet Norwegian politicians repeatedly point to the success of the initiative; for example, how many years of annual Norwegian emissions the reduced deforestation in Brazil equates to (70 years; Riksrevisjonen 2018). This is not to deny that Norwegian funding and the Amazon Fund have played a positive role in Brazil's efforts to set targets for reductions in deforestation and to keep forests on the agenda in spite of domestic political, economic and social turmoil. But it does illustrate that reference levels also play a political role in donor countries, and this should be acknowledged in the context of REDD+.

4.2.2 How to set reference levels?

Reference levels are ultimately linked to the question of what to pay for. A result in the form of an emission reduction (ER) is defined simply as the actual emission (AE) over a given time period, relative to the counterfactual or RL ($ER = AE - RL$). The RL is therefore key, not only for the level of payment, but also as a benchmark from which to evaluate policy/project effectiveness and success.

The exercise of setting an RL is by nature a hypothetical one: what would the state of deforestation and forest degradation – and resulting emissions – be in the absence of REDD+? Deforestation rates typically vary from year to year, adding noise to the data. At low rates, deforestation forest degradation and forest regrowth can be hard to detect and monitor. Equally, there is no scientific consensus on the most appropriate methodology, on which factors to include in the estimation of RLs, or on the time period for which to calculate historical deforestation (or emissions).

The UNFCCC has provided some guidance. COP15 (2009) encouraged developing countries to establish forest reference emission levels (FRELs) or forest reference levels (FRLs), noting that they "should do so transparently taking into account historical data, and adjust for national circumstances" (UNFCCC 2009,

Decision 4, Art. 7). The Warsaw Framework for REDD+ extended these guidelines, also encouraging countries to submit FRELs/FRLs. As of mid-2018, 34 countries have submitted their RLs (UNFCCC 2018). All use historical averages, but many also adjust for national circumstances, e.g., deforestation trends.

At the project level, the VCS has various methods for setting REDD+ baselines.[2] The approach for 'unplanned deforestation' uses historical deforestation as the point of departure, but may also include drivers (population growth, in particular).

RLs may also be candidates for gaming, as defined above. The time period, definitions and statistical approaches for estimating historical emissions vary in the UNFCCC submissions, and this may greatly affect the actual RL – and hence the estimated emissions reduction. Box 4.4 illustrates this in the case of Brazil. There are few formal checks and balances in place to avoid inflated RLs. Country submissions are subject to a technical assessment by UNFCCC "to offer a facilitative, non-intrusive, technical exchange of information …" (UNFCCC 2013, Decision 13, Annex). While there may be good reasons for this consensus approach, it also limits the scope for critical assessment to detect systematic biases across submissions.

4.2.3 Whom to pay?

The next question is which entity should receive the payment. Who 'owns' the emissions reduction? At the international level, the main rule is payment between (groups of) countries, with the recipient country often establishing a special body for this purpose, e.g., Brazil's Amazon Fund and Guyana's REDD+ Investment Fund. There are also examples of RBP flowing directly to subnational or even local recipients, but these often involve different finance modalities (e.g., carbon trading) that have developed in parallel to mainstream RBP for REDD+ (van der Hoff *et al.* 2015). Prominent examples of this are seen in the jurisdictional approach (Chapter 12).

Trickier yet is the domestic distribution of international or national REDD+ finance, often referred to as the benefit-sharing mechanism/system. REDD+ implementation involves a broad network of different stakeholders at different levels of forest governance (Gebara *et al.* 2014; May *et al.* 2016). Luttrell *et al.* (2013) distinguish between six potential recipients of REDD+ finance: (i) actors with legal land rights (typically the state or large-scale private land owners); (ii) actors achieving emissions reduction (typically companies, or forest and farming communities); (iii) low-emitting forest stewards (typically conservation areas and indigenous peoples); (iv) actors incurring the costs of REDD+ implementation (project proponents and local/national authorities); (v) effective facilitators of REDD+ implementation (NGOs, government); and (vi) the poorest groups in the region (as a way to achieve other objectives and boost public acceptance). This leads to the question, should governments incentivise and compensate the actors that contribute to direct drivers

2 https://verra.org/methodologies/

of deforestation and forest degradation (e.g., cropland and pasture expansion, forest fires and logging) or those who address the underlying drivers (e.g., land tenure, road construction, corruption) (Weatherley-Singh and Gupta 2015)? We propose some guiding principles in the next section.

Brazil offers an example of how these questions could be dealt with practically. To comply with the Warsaw Framework for REDD+, in 2016 the country created the National REDD+ Committee (CONAREDD+), with representatives from federal, state and municipal-level government, and civil society. CONAREDD+ agreed that the federal government has the right to receive RBP of up to 40% of the country's fundraising limit as set by UNFCCC, with the remaining 60% to be distributed to states of the Legal Amazon, based on deforestation reduction (carbon flow) and forest cover (carbon stock).[3] The governments of these states are likely to adopt a passive model, inspired by the Amazon Fund, which evaluates projects put forward by NGOs and public agencies, rather than actively and strategically distributing funds to stakeholders and regions with high risk of deforestation.

India, by contrast, provides an example of strategic distribution of funds to regions, although this is not part of any REDD+ scheme as such. Forest-enhancing fiscal incentives have, since 2014, been part of the central government's allocation of tax revenue to its 29 states. Between 2015 and 2019, an estimated USD 6.9–12 billion per year will be distributed based on the states' forest cover in 2013; equivalent to USD 174–303 per ha and year (Busch and Mukherjee 2018). This represents the first large-scale ecological fiscal transfers for forest cover, and could serve as a model for other countries.

4.3 Ways forward

What are possible ways to handle these challenges? Quick fixes rarely exist, and we face various dilemmas. The Paris Agreement's rule book (i.e., the decisions made to operationalise the agreement) should, on the one hand, be stringent enough to function in governance regimes across the globe by providing effective and efficient standards and limiting the scope for gaming; on the other, it should be flexible enough to account for different capacities and contexts across countries. The rule book must also include mechanisms for high-forest/low-deforestation countries and regions, which struggle to maintain low rates of deforestation but cannot use historical deforestation rates as RLs to claim emissions reductions.

4.3.1 What should be paid for?

RBPs should provide incentives during all three REDD+ phases. The phased approach to REDD+ aims to accommodate the fact that countries were – and still are – at very different stages in terms of monitoring and implementation capacities.

3 http://redd.mma.gov.br/images/central-de-midia/pdf/Documentos/conaredd-resolucao-no6-20170621-final.pdf

We suggest that donors consider opening up RBP for results achieved in the two first phases of REDD+, such as completion of a national REDD+ strategy, MRV systems and verified pilots. That said, not all types of support lend themselves to RBP, and 'pure' readiness funding is still needed (Chapter 3). Otherwise, donors risk encouraging some forest-rich countries to game results to become eligible for RBP, when in reality they need funds to build capacity.

Focus on carbon, with safeguards and other non-carbon benefits as constraints or additional incentives. We only partially share concern over the potential carbonisation of forest governance to the detriment of other forest benefits. Conserving standing forests is largely compatible with other objectives, including biodiversity conservation (Strassburg *et al.* 2010). As much as a fifth of the household income in forest communities is derived from natural forests (Angelsen *et al.* 2014), and local REDD+ initiatives have generally had a positive, albeit minor, impact on local livelihoods (Chapter 11). Hence, the key challenge is not that the focus of REDD+ may become too narrow, but that funds need to be mobilised to create some modestly sized and effective RBP systems.

4.3.2 How should reference levels be set?

The Paris Agreement rule book should clarify key aspects of RBPs. These include: defining deforestation and forest degradation; standardising the period for calculating historical emissions; specifying the eligible national conditions for payment; and outlining a small set of estimation methods. Flexibility in RL-setting was perhaps the price paid to ensure widespread buy-in, and there is a real risk of overcomplicating the rules, causing high transaction costs and administrative burdens on REDD+ countries, as well as excluding countries with low monitoring capacities (Bucki *et al.* 2012). But the system will eventually need to converge on universal rules for the sake of fairness, effectiveness (environmental integrity) and efficiency.

Independent, third party review is needed. A third-party mechanism (independent from UNFCCC and GCF) should be established to critically review the proposed FRELs/FRLs. Given the critical role of RLs in determining payments and measuring effectiveness and success of projects and policies, the current UNFCCC practice of countries suggesting their own RLs – both for REDD+ and LULUCF (land use, land use change and forestry) – raises pertinent questions. Independent evaluations could be commissioned to get critical reviews and stimulate debate.

4.3.3 Who should be paid?

Allocation of REDD+ funds must be based on incurred costs and attribution of results. The original idea of REDD+ as PES was to pay local forest owners/users the opportunity costs of forest conservation; that is, the foregone agricultural rent from not converting forest land to crops or pasture, or the reduced harvesting

of forest products. Governments would also be compensated for tax revenue losses related to REDD+, and other stakeholders who shoulder transaction costs to generate the results were to be rewarded. The question of fairness and benefit sharing still remains complex; for example, how much deforestation and forest degradation can be deemed fair and legal, or whether rights have been granted through questionable political processes. Benefit sharing is ultimately linked to the allocation of rights to land and carbon (Chapter 8). There is also substantial uncertainty around whether all (or most) of the results achieved will be rewarded by donor countries (Box 4.3).

National REDD+ coordination offices will be key to managing fragmented REDD+ finance. REDD+ finance is likely to become more fragmented, as there are multiple openings for it in the Paris Agreement, for instance in terms of carbon trading (UNFCCC 2015, Decision 1, Art. 6) and adaptation (UNFCCC 2015, Decision 1, Art. 9). More fragmented financing increases the need for national coordination, and this should be supported and strengthened.

4.4 Only by recognising the pitfalls can we avoid them

Results-based payment has attractive features, and has been an important part of the theory of change behind REDD+ (Chapter 2). The ultimate question is whether RBP is more effective than non-conditional support in delivering reduced emissions from deforestation and forest degradation, and in enhancing forest carbon stocks. Chapters 9 and 10 address the extent to which RBP-based policies and projects have delivered more results than non-conditional ones. But, in general the empirical evidence is weak: RBP has not been tested at scale, real-life interventions use hybrid approaches, and data and methodological challenges abound (Chapter 10). Yet RBP remains dominant in the global REDD+ rhetoric, by both proponents and critics of REDD+, and a more nuanced discussion could help move the discussion – and action – to take the necessary steps ahead.

The political dimension of RBP needs to be recognised (Myers *et al.* 2018) and openly discussed. We have proposed several steps to limit the scope for gaming, including a clear rule book and third-party verification. We also need transparency of information to facilitate open, public debates among stakeholders, including researchers. Over time, REDD+ countries also need to align future RLs with their long-term development strategies, making sure they are consistent with their Nationally Determined Contributions and other international commitments. Donor countries, on the other hand, should provide a long-term and predictable system for results-based funding, to reduce uncertainty among REDD+ countries about whether they will be rewarded for effective and costly actions.

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