



Review

What is Required for Advancing REDD+? (Progress to Date and Challenges Ahead)

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ABSTRACT

To facilitate international discussion and research on the REDD+ framework and associated programs, I present an overview of the historical background, major rules, and challenges of implementing REDD+. The framework of REDD+ is illustrated using examples from scientific literature and the agreements adopted by the United Nations Framework Convention on Climate Change (UNFCCC). The institutional challenges related to REDD+ are discussed in the context of how to promote and implement REDD+ activities. Key issues for advancing REDD+ in the future include the establishment of a financial framework, the transferability of results, the risk of double counting, the timing of payments, and the domestic distribution of funds. Because agreements related to REDD+ do not mention transfers or trade of results from REDD+ activities, the transfer of results might give disincentives to developing countries; thus, allowing transfers or trade may actually limit REDD+ activities. Therefore, it seems preferable that the results of reduced emissions and increased removals through REDD+ activities, through publicly financed programs under the UNFCCC and Green Climate Fund (GCF), should be non-transferable. The transferability of results through REDD+ activities is important to consider, especially for different schemes such as the Forest Carbon Partnership Facility (FCPF) and the Joint Crediting Mechanism (JCM), because double counting can occur between countries and between schemes. Although I support advance performance-based payments for the planning and implementation of REDD+ activities, which is a similar concept to that discussed by the GCF, appropriate indicators and transparent methods for monitoring and evaluating performance will be required.

INTRODUCTION

The forestry sector has been highlighted as an important CO₂ sink in climate change negotiations under the United Nations Framework Convention on Climate Change (UNFCCC; United Nations, 1992: 1998:2007). The Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report stated that 20% of CO₂ was emitted by land-use changes such as deforestation (Denman et al., 2007). The international program is called "Reducing Emissions from Deforestation and Forest Degradation and the Role of Conservation, Sustainable Management

of Forests, and Enhancement of Forest Carbon Stocks in Developing Countries" (REDD+); it is intended to mitigate CO₂ emissions by conserving forests in developing countries and has become an important item on the agenda under the UNFCCC after COP13 in 2007 (UNFCCC, 2007). After long negotiations, the framework of REDD+ was constructed (UNFCCC, 2010: 2014). The Paris Agreement, which was adopted at COP21 in 2015, stressed the importance of forests and strongly supported the implementation of REDD+ (UNFCCC, 2015a). Based on the agreements on REDD+, 25 countries have, to date, presented a total of 26

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submissions of Forest Reference Emission Levels and/or Forest Reference Levels (FREL/FRL) to the UNFCCC for technical assessment (FAO, 2017). As a consequence, many developing countries are interested in REDD+ and have begun rapidly constructing their institutions and technology according to the REDD+ guidelines.

While REDD+ is publicized as promoting the mitigation of climate change and sustainable forest management internationally, the framework of REDD+ is very complicated, so it is not always clear what should or should not be considered part of the program. Furthermore, the financial issues of REDD+ are currently under discussion at the Green Climate Fund (GCF) negotiations (UNFCCC, 2013: Green Climate Fund, 2016b). While representative political papers (e.g. Streck, 2016; Wong et al., 2016) discuss challenges of the financial implementation of REDD+, such specific discussion is not widely recognized by researchers and experts of natural science.

Considering the background and present situation of REDD+, this paper aims to facilitate international discussion and research on the REDD+ framework and associated programs. To do so, I clarify the historical background and the major rules of REDD+, based on scientific discussion and the agreements adopted by the UNFCCC. This paper also identifies challenges of effectively advancing REDD+ in the future, focusing on four key issues such as financial framework, the transferability of results, the risk of double counting, the timing of payments, and the domestic distribution of funds.

BACKGROUND

The main idea of REDD+ is to provide positive financial incentives to countries that would reduce CO₂ emissions from deforestation and forest degradation, or for increasing CO₂ removal by enhancing forest carbon stocks (Brockhaus et al., 2012).

Deforestation is not a new issue. Deforestation in the tropics began in the 1970s, and calls for conservation soon followed (Barney, 1980). However, land-use changes from forest to farmland and settlements were strongly promoted in developing countries, and deforestation accelerated through the 1990s. After climate change began to receive more attention in the 2000s, deforestation began to be regarded as one of the main causes of CO₂

emission and climate change. Deforestation came to be regarded as not only a tropical forest issue but also a global environment issue.

The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) stated that 80% of CO₂ was emitted by fossil fuel combustion and cement production and that the remaining 20% was emitted as a result of land-use changes such as deforestation (Denman et al., 2007). It reported that about 65% of the total mitigation potential in the forestry sector is located in the tropics; about 50% of the total could be achieved by reducing emissions from deforestation (Nabuurs et al., 2007). The Food and Agriculture Organization's (FAO) 2005 Global Forest Resources Assessment (FAO, 2006) stated that deforestation rates in Brazil, Indonesia, and tropical Africa remain high. Furthermore, the Stern Review (Stern, 2007) emphasized that curbing deforestation is a highly cost-effective way of reducing greenhouse gas (GHG) emissions.

HISTORICAL OVERVIEW

Beginning

In response to escalating deforestation in tropical forests and increased scientific discussion on the topic, discussions about REDD+ began at the 11th Conference of the Parties of UNFCCC (COP11), held in Montreal in 2005. Papua New Guinea and Costa Rica jointly presented a proposal called "Reducing Emissions from Deforestation in Developing Countries" at COP11. This proposal was adopted as an agenda item by the Subsidiary Body for Scientific and Technological Advice and was referred to as REDD. Although the REDD concept was welcomed internationally, many developing countries stated that REDD should not only include reducing emissions from forest degradation but also cover potential mechanisms for the conservation and sustainable management of forests and the enhancement of forest carbon stocks. Therefore, at COP13, held in Bali in 2007, REDD was broadened to REDD+ to include these activities; it was adopted as an agenda item in discussions on the development of a post-2013 framework (UNFCCC, 2007).

The Copenhagen Accord at COP15, in 2009, noted the necessity of developing a robust REDD+ framework early and included a financing mechanism (UNFCCC, 2009a). At the same time,

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technical approaches to forest monitoring systems, monitoring methods, and reference levels were also agreed upon. This agreement forms the basis of the current REDD+ that addresses technical methodology (UNFCCC, 2009b).

The Cancun Agreement

The Cancun Agreement was settled at COP16, which was held in Cancun in 2010. It proposed a basic framework for REDD+ (UNFCCC, 2010) with six main aims. First, it aimed to slow, halt, and reverse forest cover and carbon loss. Second, it defined five activities of REDD+. Third, it demonstrated consideration and respect for environmental integrity, multiple functions of forests and other ecosystems, sovereignty, results-based mechanisms, and sustainable management of forests. Fourth, it requested that developing countries develop a national strategy or action plan, a national forest reference emission level or forest reference level, a national forest monitoring system, and a system for providing information on safeguards. Fifth, it introduced a phased approach for REDD+ activities such as (a) readiness, (b) implementation, and (c) results-based actions. Sixth, it promoted and implemented safeguards, such as ensuring transparent and effective national forest governance structures, guaranteeing respect for the knowledge and rights of indigenous peoples and members of local communities, and making sure that actions were consistent with the conservation of natural forests and biological diversity.

The Durban Agreement, agreed upon at COP17 in 2011, concluded that all countries would participate in the development of a new framework to replace the Kyoto Protocol. This framework was to be completed by 2015 and put into effect in 2020. REDD+ was to be included in this new framework for implementation after 2020. In addition, the parties agreed on how to provide information on the use and respect of safeguards, as well as on methods relating to reference levels for forests and related emissions (UNFCCC, 2011).

The Warsaw Framework for REDD+

At COP19, held in Warsaw in 2013, technical items that were based on the Cancun Agreement were discussed. A set of seven decisions related to REDD+, called the Warsaw Framework for REDD+, were agreed upon. The decisions comprised (1) modalities of a national forest monitoring system;

(2) the timing and frequency of presentations of information on safeguards; (3) guidelines and procedures for the technical assessment of submissions from parties on proposed forest reference emission levels and forest reference levels; (4) ways of measuring, reporting, and verifying; (5) identification of the drivers of deforestation and forest degradation; (6) a work program on results-based finance, including requests to the GCF to channel adequate and predictable results-based finance and a decision to establish an information hub on the REDD Web Platform (which was opened as the Lima REDD+ information hub in 2014); and (7) coordination of support for the implementation of activities in relation to mitigation actions in the forest sector by developing countries (UNFCCC, 2013). The Warsaw Framework for REDD+ developed concrete technical rules for REDD+ so that the program was ready to start from a technical perspective.

The Paris Agreement

In the Paris Agreement of COP21 in 2015, the parties were encouraged to take action to implement and support the existing framework and decisions; this framework had already been agreed upon under the UNFCCC that addressed policy approaches and incentives for activities relating to REDD+ (UNFCCC, 2015a). In addition, all who attended recognized the importance of adequate and predictable financial resources for the implementation of policy approaches and incentives for REDD+ (UNFCCC, 2015b). At this time, ten years after the first proposal at COP11 (held in 2005) to avoid deforestation, the process of building the REDD+ program was concluded under the UNFCCC.

Various REDD+ Schemes

In parallel with the progress of REDD+ negotiations under the UNFCCC, various private and public schemes and financing plans for REDD+ have been proposed and constructed, including multilateral and bilateral schemes. Multilateral public schemes include the Forest Carbon Partnership Facility (FCPF) of the World Bank, UN-REDD by the FAO, the United Nations Development Programme, the United Nations Environment Programme, the Amazon Fund, and the Congo Basin Forest Fund. Bilateral public schemes include Norway's International Climate Forest Initiative, Germany's International Climate

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Initiative, Australia's International Forest Carbon Initiative, and the UK's International Climate Fund (Well and Carrapatoso, 2016). The Joint Crediting Mechanism (JCM) is a bilateral scheme proposed by Japan, which includes a plan to include REDD+ projects in developing countries in the near future (JCM, 2016). An example of a major private scheme is the Voluntary Carbon Standard (VCS). Presently, many of these programs are moving forward with activities parallel to REDD+ under the UNFCCC.

THE REDD+ FRAMEWORK

The step-by-step development at the different COPs of the institutional and technical elements of REDD+ has made it difficult for many to understand the overarching REDD+ rules. Here, I interpret the major elements of REDD+ in simpler terms that respect the intent of the COP agreements regarding REDD+

Aim and Definition

The Cancun Agreement determined that the aim of REDD+ is to slow, halt, and reverse the loss of forest cover and carbon (UNFCCC, 2010). REDD+ activities were defined to be (1) reduction of emissions from deforestation, (2) reduction of emissions from forest degradation, (3) conservation of forest carbon stocks, (4) sustainable management of forests, and (5) enhancement of forest carbon stocks.

Requests to Developing Countries

The Cancun Agreement requested that developing countries develop (1) a national strategy or action plan, (2) a national forest reference emission level or forest reference level, (3) a national forest monitoring system, and (4) a system for providing information on safeguards (UNFCCC, 2010).

Phased Approach

The Cancun Agreement stressed phased implementation of REDD+ activities in developing countries according to each country's conditions and capacities. In this phased approach, the activities undertaken by parties should be implemented in three stages. First, each country should develop national strategies or action plans, policies and measures, and capacity-building. Second, each country should implement their national policies and measures, with potential scope for further capacity-building, technology development and transfer, and introduction of results-based management. Third, the implemented strategies should lead to the

development of results-based actions that can be definitively measured, reported, and verified (UNFCCC, 2010).

National Forest Monitoring Systems

The Cancun Agreement requests developing countries to develop their national forest monitoring systems (UNFCCC 2010). These systems estimate forest-related GHG emissions source and estimate removals by sinks, forest carbon stocks, and forest area changes. Each system should be either a robust and transparent national monitoring system or a sub-national system that forms part of a national monitoring system. In addition, each system should use a combination of remote sensing and ground-based forest carbon inventory approaches to estimate emissions and sinks, using the most recent IPCC guidance and guidelines (UNFCCC, 2009b).

National forest monitoring systems are built upon existing systems, enable the assessment of different types of forest in each country, and are flexible enough to allow for improvement; this flexibility reflects the phased approach. Forest monitoring systems should provide data and information that are transparent and consistent over time. They should also be suitable for measuring, reporting, and verifying both emissions by source and removals by sinks, forest carbon stocks, and changes in forest carbon stocks and forest area result from implemented REDD+ activities (UNFCCC, 2013).

National Forest Reference Emission Levels and Forest Reference Levels

The Cancun Agreement also requests developing countries to develop national forest reference emission levels and/or forest reference levels, hereafter referred to as reference levels for simplicity (UNFCCC, 2010). These levels are to be developed transparently, taking into account historical data and adjusting for national circumstances (UNFCCC, 2009b). They should be expressed in tones of carbon dioxide equivalent per year and are considered benchmarks for assessing each country's performance in implementing REDD+ activities. The decision state that reference levels are to be established to maintain consistency with emissions by source and removals by sinks according to each country's GHG inventories (UNFCCC, 2011).

With respect to reference level information, each party should include (1) historical data; (2) methods used at the time the reference levels were set; and (3) a description of datasets, approaches,

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methods, models, assumptions, relevant policies and plans, and changes from previously submitted information (UNFCCC, 2011). Reference levels may be technically assessed in the context of results-based payments. This technical assessment assesses the degree to which information provided by parties is in accordance with the submission guidelines for information on reference levels; it also offers a facilitative, non-intrusive, technical exchange of information to assist with the setting of reference levels (UNFCCC, 2013).

Safeguards

Safeguards aim to avoid potential risks of social and environmental damage that may result from activities. They also aim to ensure social and environmental benefits from activities and the adoption of good practices (REDD+ Social & Environmental Standards, 2017). Although safeguards may seem complicated and difficult, they are an important feature of the REDD+ framework that differs from other mitigation measures. The Cancun Agreement states that seven safeguards should be promoted and supported (UNFCCC 2010). First, actions must complement or be consistent with the objectives of national forest programs, relevant international conventions, and agreements. Second, national forest governance structures must be transparent and effective and take into account national legislation and sovereignty. Third, actions must respect the knowledge and rights of indigenous peoples and members of local communities. Fourth, relevant stakeholders, in particular indigenous peoples and local communities, must be full and effective participants. Fifth, actions must be consistent with the conservation of natural forests and biological diversity. Sixth, actions must address the risks of reversals. Seventh, actions must reduce the displacement of emissions.

To receive results-based payments, developing countries should provide information on how safeguards have been addressed and respected. Systems should be put in place to communicate to all stakeholders how the safeguards provide transparent and consistent information and how they are being addressed and respected (UNFCCC, 2011). Developing country parties should also provide summary information in their national communications, including via the web platform of the UNFCCC, when REDD+ activities are commenced. Furthermore, subsequent summary information should be provided at frequent intervals that are

consistent with the provisions for other voluntary national communications via the web platform (UNFCCC, 2013).

Measurement, Reporting, and Verification (MRV)

Measurement, Reporting, and Verification (MRV) allows for the evaluation of implemented mitigation actions and commitments in general; MRV is required as part of the REDD+ framework. Rules related to MRV are shown in the Warsaw Framework for REDD+ and can be summarized as follows (UNFCCC, 2013):

- (1) Data and information used in the estimation of emissions by source and removals by sinks, forest carbon stocks, and changes in forest carbon stocks and forest area should be transparent; they should also be consistent over time and with the established reference levels.
- (2) The results of implemented activities, measured against the reference levels, should be expressed in tonnes of carbon dioxide equivalent per year.
- (3) Data and information should be provided through biennial update reports.
- (4) Developing country parties that are seeking payments for results-based actions should supply a technical annex to the biennial update reports.
- (5) A technical team of experts shall then analyze the extent of the consistency, transparency, completeness, and accuracy of the technical annex. The parties should provide the team with any required clarifications and/or additional information to facilitate the analysis; the team's report will be published via the web platform on the UNFCCC website (UNFCCC, 2013).

Finance

The concept of positive incentives and results-based payments characterizes the finance of REDD+. Results-based actions should be fully measured, reported, and verified. Developing country parties should address all of the elements referred to in the Cancun Agreement, which are explicitly listed in the previous section, "Requests to Developing Countries." In addition, developing countries seeking results-based payments must provide a recent summary of how all of the safeguards have been addressed and respected before they can receive payments (UNFCCC, 2013).

A recent decision related to the Paris Agreement recognizes that adequate and predictable financial resources, including for results-based payments, are important for successfully implementing policy approaches and positive incentives for REDD+. It also encourages support to be coordinated from public and private bilateral and multilateral sources, such as the GCF, as well as alternative sources (UNFCCC, 2015b). Although multiple schemes and financing sources support finance of REDD+, as described in the previous section, the GCF is the main funding source for REDD+ under the UNFCCC. Notably, the rules regulating GCF REDD+ finance are still under discussion.

Challenges for Advancing Redd+

Considering the historical background, rule structure, and present conditions, I discuss the challenges for advancing REDD+ in the future with a particular focus on financial aspects.

Finance Framework

Agreements under UNFCCC (described above) show that financial features characterize important parts of the REDD+ mechanism; such financial features include the use of incentives and results-based payments. However, before the Warsaw Framework for REDD+ in 2013, discussions primarily focused on the technical aspects of REDD+, such as national forest monitoring systems, reference levels, and MRV. The Warsaw Framework recognized the key role that the GCF would play in channeling financial resources to developing countries and catalyzing climate finance; thus, the Framework requested methodological guidance, consistent with REDD+-related decisions to the GCF (UNFCCC, 2013).

Discussions on the financial framework for REDD+ are still ongoing since the Warsaw Framework in 2013; the financial framework is still not completely settled, so stakeholders will need to continue monitoring the progress of the financial framework under the GCF. Notably, the rules agreed upon for the GCF are not always applicable under the UNFCCC.

Eventually, the financial framework must be fair, mobile, and effective, not only at the national level but also at the local level where REDD+ activities are actually carried out. From this perspective, I identify the transfer of results, the timing of payments, and the domestic distribution of financial incentives as major challenges for launching REDD+.

Transfer of Results

Results-based payments in the REDD+ framework can be generally understood as the payments to be made after the required results, e.g., emissions reductions and increased removals, have occurred and are verified (Brockhaus et al., 2012). Under voluntary schemes such as the Verified Carbon Standard (VCS), certified results of reduced emissions and increased removals through proposed activities are tradable as Verified Carbon Units (VCU). The question arises, however, whether these results are transferable under the UNFCCC and the GCF.

Although the decisions and agreements related to REDD+ (as discussed in the previous sections) use terms such as “incentives” and “result-based payments,” they do not mention transfers or trade. Thus, the transferability of the results of REDD+ activities currently appears not to be supported under the UNFCCC and the GCF. Generally, the results of REDD+ activities are regarded as non-transferable (e.g. Streck, 2016).

If the REDD+ results were transferable, the results could be transferred to developed countries that have contributed funds to the GCF to reach their mitigation targets according to their nationally determined contributions (NDCs). This type of scheme would provide great incentives to private companies that have invested in REDD+ activities. At the same time, it might give developing countries disincentives that would limit their REDD+ activities, because allowing transfers might prevent them from achieving their own NDC targets. Notably, a final decision on the transfer of results from REDD+ activities in developing countries mainly depends on the developed countries that have contributed funds to the GCF. Regardless, it seems plausible that results-based payments will remain non-transferable as part of public finance, such as Official Development Assistance, under the UNFCCC and the GCF.

Double Counting

The Paris Agreement indicated that parties, when voluntarily engaging in cooperative approaches involving internationally transferred mitigation outcomes towards NDCs, must promote sustainable development, ensure environmental integrity and transparency, and apply robust accounting to ensure that double counting is avoided (UNFCCC, 2015a). A related decision encouraged support to

be coordinated from public and private bilateral and multilateral sources, as well as alternative sources, in accordance with decisions by the COP (UNFCCC, 2015b). These statements allow the use of voluntary REDD+ schemes to achieve NDC mitigation targets, but they stress that robust accounting and avoiding double counting are both required.

Verified Carbon Standard (VCS), Forest Carbon Partnership Facility (FCPF), and Joint Crediting Mechanism (JCM) are typical examples of voluntary REDD+ schemes outside of the UNFCCC. The VCS is a popular voluntary scheme used by private organizations, and it certified 58% of the total offsets transacted in 2016 (Hamrick et al., 2017). The carbon credits issued through the VCS projects are tradable on a voluntary market. FCPF is a non-governmental scheme run by the World Bank, and 39 developing countries signed up by the end of 2016. The results of REDD+ activities are paid from the FCPF's carbon fund grants (FCPF, 2016). The JCM, which is promoted by the Japanese government, is a crediting mechanism for various sectors, including REDD+, and 16 developing countries signed JCM agreements by the end of 2016 (JCM, 2016).

Although these voluntary schemes are useful and effective for promoting REDD+ activities with private sector finance, they involve two types of risks of double counting. First, if a developing country and a developed country both report the same results of reduced emissions and increased removals from the same project to achieve their respective NDC targets, double counting occurs between countries. To avoid this problem, the results from the voluntary schemes need to be registered in a special table or database so that both countries can identify the overlap and rectify the issue. Second, if the area of a given REDD+ project overlaps the area of another project from a different voluntary scheme, double counting can occur between schemes. The results from any overlapping areas, therefore, need to be either removed from the register of one of the two projects or be proportionally shared in their registers.

When discussing double counting, it is important to consider whether or not the results in the schemes are transferable. If the voluntary results are not transferable between countries under the different schemes, the risk of double counting would be avoided under the UNFCCC, because the results could not be used to achieve both countries' NDC targets. Second, the credits from the VCS projects

might be less at risk of double counting as they so far can only be used only in a voluntary transaction. In contrast, the plan of the JCM is to transfer results between countries to achieve Japan's NDC target (JCM, 2016). Thus, appropriate methods must be used to avoid double counting, especially in the REDD+ sector under the JCM scheme. Similar to the GCF situation, the transferability of results under the FCPF has only recently come under debate. Any future decisions on whether results of REDD+ activities can be transferred by the FCPF and the GCF must take double counting into consideration.

Timing of Payments

REDD+ activities are long term projects, and they incur costs not only for the construction of domestic REDD+ institutions but also for continuous management and periodic monitoring. Thus, developing countries and local governments first require enough operating money in advance to prepare and implement REDD+ activities before they can receive results-based payments. Lessons from research, previous projects, and the experience of PES (Payment for Environmental Services) suggest that some level of upfront payment to cover some initial costs is necessary to incentivize participation, particularly of the poor (Wong et al, 2016). The same can be considered on REDD+ projects. Thus, performance-based payments (PBPs) have been discussed. PBPs have generally been defined as the "transfer of money or material goods conditional upon taking a measurable action or achieving a predetermined performance target" (Eichler, 2006; Eldridge et al., 2009). Based on this idea, the FCPF applied a PBP approach that allows advance payments at several steps, well before any final payments based on results; for example, an initial payment may be made at the approval of either an emission reduction project idea note or an emission reduction program document (Wertz-Kanounnikoff and McNeill, 2012; Forest Carbon Partnership Facility, 2013). With respect to ex ante payments for policy performance, Wong et al. (2016) insists that developing a reporting schedule that bases payments on the time profile of costs and performance will be critical. Therefore, the GCF has discussed various approaches for advance payments with respect to results-based payments (Green Climate Fund, 2016a) and has decided that it can support readiness activities (Green Climate Fund, 2016b). Payment programs for REDD+

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activities under the GCF, including PBP, are expected to allow advance payments based on evaluations of performance at various stages of progress. At the same time, the methods used to monitor and evaluate performance must be transparent, and appropriate methods for performance evaluation need to be developed. Wong et al. (2016) asserts that negotiating agreements on performance outputs and outcomes, as well as their indicators, will be critical to ensuring national/local ownership and compliance. The integration of multiple finance schemes that have different targets, purposes, and approaches at different phases could address the issues surrounding the timing of payments.

Domestic Distribution of Funding

GCF funds are transferred to developing countries according to REDD+ results. Part of these funds should be distributed to the local governments and organizations that carried out the local activities, according to their contributions. This discussion is often referred to as benefit sharing (e.g. Wong 2014). Based on previous research, Rakatama et al. (2016) concluded that the distribution of costs and benefits between different layers of government and local people might be one of the critical factors that affects the success (or failure) of REDD+ projects in the future. Appropriate systems for the fair and transparent domestic distribution of funding need to be developed. As with the timing of payments, integrating multiple schemes could address the issue of domestic distribution of finance payments.

CONCLUSION AND SUGGESTION

The framework of REDD+ was constructed in a step-by-step process over 10 years. Based on the Warsaw Framework for REDD+ in 2013 and the Paris Agreement in 2015, REDD+ is now ready to be implemented around the world. Developing countries are making efforts to set up REDD+ institutions, and 15 countries have already submitted their proposed reference levels. Although there are a number of finance schemes at the present, important financial elements under the UNFCCC are still being discussed as part of the GCF. Some financial challenges have been identified for advancing REDD+ in the future, including the creation of a financial framework, the transferability of REDD+ results, the risk of double counting, the timing of payments, and the domestic distribution of funding.

Because the decisions and agreements related to REDD+ and results-based payments do not address transfers or trade of results of REDD+ activities, the transfer of results might give disincentives to developing countries that could limit REDD+ activities; thus, I suggest that the results of reduced emissions and increased removals through REDD+ activities should be non-transferrable through publicly financed programs under the UNFCCC and the GCF. I identified two types of potential double counting between countries and between schemes under the UNFCCC. Although I support the use of advance payments for REDD+ activities under the GCF, including performance-based payments that allow advance payments (based on the evaluation of performance at various stages of progress), appropriate and transparent methods for monitoring and evaluating performance are required, and also methods for such performance evaluations need to be further developed.

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