


# Editorial: REDD+: Protecting Climate, Forests and Livelihoods

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REDD+ is moving beyond readiness and piloting into real implementation, where measured and verified emission reductions can result in payments to countries or subnational governments. At the start of this implementation phase, there are still gaps in our knowledge that may hinder REDD+ from achieving success. These gaps are the focus of this REDD+ Special Issue in *Forests*. In this editorial, these gaps are divided into five categories:

1. **MRV (measurement, reporting and verification), greenhouse gas accounting and REDD+ emission reduction integrity**—MRV is at the core of REDD+. The confidence with which emission reductions from REDD+ can be considered, and equated to emissions from any other source (e.g., smokestacks or tailpipes), relies on accurate numbers that can be independently verified. Countries have been making progress in expanding their systems to include more activities, pools and gases (see, e.g., [1]), but gaps remain in capacity, resources or methods. In this issue, there are four papers focused on MRV, greenhouse gas accounting and REDD+ emission reduction integrity.
  - a Sandker et al. [2] describe the activity data associated with REDD+ accounting and discuss the importance of high-quality remote sensing analysis.
  - b Goslee et al. [1] argue for a pragmatic approach to MRV, as exemplified by the case study of Guyana, balancing the size and scale of emission sources with the complexity (and hence costs) of measurement approaches.
  - c Forest degradation has provided challenges when compared to deforestation in terms of how accurate emissions can be estimated. Brown et al. [3] provide a pragmatic approach in developing a measurement methodology for forest degradation occurring on the edge of existing deforestation—a form of forest degradation often overlooked. The method is piloted with forest degradation around mining sites.
  - d REDD+ emission reductions are subject to comparison with emission reductions from other sectors and are often criticized with regard to the integrity and permanence of emission reductions. Espejo et al. [4] compare REDD+ emission reductions with renewable energy projects and show that many of the same issues exist and that, indeed, REDD+ has unique strengths.
2. **Strategy**—Achieving REDD+ success requires a strategy that can decrease emissions and increase sequestration relative to what is occurring prior to the start of REDD+ implementation. Without a good strategy, there can be no real emission reductions. Five papers in this Special Issue focus directly or indirectly on the REDD+ strategy. These include papers on the perceptions of REDD+ in Brazil (Gebara et al. [5]), benefit sharing in the Amazon (Guerra and Moutinho [6]), policy responses to deforestation driven by rubber and coffee in Vietnam (Kissinger [7]), an assessment of the effectiveness of the REDD+ strategy in the Yucatán peninsula of Mexico (Ellis et al. [8]) and the cost effectiveness of strategies in Indonesia (Liu et al. [9]).
3. **Social and Environmental Safeguards** Social and environmental safeguards ensure that REDD+ programs are not directly or indirectly causing harm to local populations, disadvantaged groups or the environment. In this issue, Rey et al. [10] examine safeguards under the Green Climate Fund's REDD+ investments.



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4. **Cobenefits**—REDD+, while positively impacting the atmosphere, has broad and wide-ranging positive environmental and social cobenefits, which function to add value to every dollar invested in REDD+. In this issue, Dickson et al. [11] describe chimpanzee conservation associated with REDD+ in Tanzania.
5. **Legal**—REDD+ is a legal mechanism implemented by governments. As such, the legal issues are unavoidable. Here, Streck [12] examines carbon rights and entitlements under REDD+.

The papers represent a clear cross-section of REDD+ topics and make a valuable contribution to the understanding of implementers, practitioners, hosting governments and academia.

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