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# Designing REDD+ benefit-sharing mechanisms

## From policy to practice

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# 1 Introduction

In recent years, developing benefit-sharing mechanisms has been a key national priority for many REDD+ (Reducing Emissions from Deforestation and forest Degradation, and enhancement of forest carbon stocks) countries as REDD+ policies and projects seek to incentivize forest owners to change their forest management practices in the forests they depend on for their livelihoods, and to ensure both environmental and social justice. Discussions around benefit-sharing often start with how much should be paid or what percentages derived from total payment should be channelled to beneficiaries. However, this is not as simple as it sounds, as forest owners use, manage and protect forests for other reasons beyond economic gain.

Policymakers can create a range of benefit-sharing options, but it is important to determine who a programme should reach; define what it should achieve; and consider the various factors that influence the forest practices of local communities, forest managers and government agencies at local to national levels. This might seem self-evident, but in the context of a programme like REDD+, which is subject to a range of competing agendas, the specific objectives of a particular initiative need to be explicit.

The purpose of this document is to support the design and implementation of payment distribution mechanisms under REDD+. We aim to assist and inform the development of guidelines by providing a review of lessons learned on the ground. This document is the text version of the online “**Knowledge tree on REDD+ benefit-sharing**” (<https://www.cifor-icraf.org/gcs/knowledge-tree/>). The knowledge tree was initially funded by the European Union and developed by members of the project ‘Opportunities and Challenges in Implementing REDD+ Benefit Sharing in Developing Countries (2012–2016)’ including Grace Wong, Cecilia Luttrell, Anne Larson, Annie Yang, Adinda Hassan, and Michelle Kovacevic. Since then the global and national policies and projects on REDD+ benefit-sharing mechanisms have significantly changed, with new rules and discourses on how payments and benefits should be distributed. The emergence of a large number of REDD+ projects piloted since 2016 has also offered more insightful lessons learned on what must and can be done to achieve effective, efficient, and equitable benefit-sharing mechanisms. This document provides up-to-date case studies and lessons learned on REDD+ benefit-sharing mechanisms from 2018 to today, with financial support from the Norwegian Agency for Development Cooperation (Norad) through CIFOR’s Global Comparative Study on REDD+ (GCS REDD+) Phase 4: Knowledge for action to protect tropical forests and enhance rights (2021–2023). This version of the Knowledge tree on REDD+ benefit-sharing was updated by Pham Thu Thuy, Isabela Valencia and Grace Wong, and is based on a review of updated literature on REDD+ benefit-sharing mechanisms in Brazil, Indonesia, DRC, Peru and Vietnam – the focus countries for GCS-REDD+ Phase 4.

We adopted the following selection criteria for the updated case studies:

- Available case studies published during 2015–2022.
- Case studies from Indonesia, Vietnam, DRC, Brazil and Peru were prioritized, as these are countries where CIFOR is focusing its work in GCS-REDD+ Phase 4.

For each section, we tried to find case studies showcasing programme success as well as examples of programme challenges or failures. Presenting the duality of program outcomes allows us to identify the supporting – or, conversely, hindering – factors that can help shape the benefit-sharing outcomes of a REDD+ programme.

## Targeted users

Our targeted users are policymakers and practitioners who are actually involved in designing and implementing REDD+ payment distribution mechanisms as donors, civil society organizations (CSOs) and international organizations supporting the implementation of REDD+.

This document is divided into three parts:

- Part 1 introduces the concept, principles and analytical framework that underpin payment distribution scheme development, and provides a useful resource for those seeking an overview. It also provides overarching questions that need to be considered and answered before developing appropriate payment distribution mechanisms.
- Part 2 provides more detailed advice for those designing and implementing REDD+ payment distribution mechanisms on what they need to consider during each step of the design and implementation process.
- Part 3 introduces a framework to assess different benefit-sharing mechanism options.

This document also provides illustrative examples on how countries, projects and programmes have taken these factors in account.

## 2 Understanding contextual factors

To be effective, benefit-sharing mechanisms (BSMs) must also take context into account. As a relatively new policy, REDD+ is coloured by a lot of other policies that already exist. In some cases, instead of changing practices or changing the system, the policy may just reinforce the status quo.

### Economics of forests / land value in REDD+ areas

*The value assigned to forests and land is highly unequal across a given country due to variation in characteristics such as geophysical features (soil, biodiversity, remoteness) and markets (demand for specific timber species, competition to convert to other land uses).*

#### Conversion of carbon-rich ecosystems to plantations in Kalimantan, Indonesia [Case Study]

Liu et al. (2020) conducted a study comparing carbon sequestration in rubber and oil palm plantations in Kalimantan, Indonesia. The authors found that carbon sequestration from plantations affects the value of opportunity costs less than social discount rates due to the long time it takes for plantations to offset the carbon released from conversion of natural forest to agricultural plantations.

The researchers found that the opportunity cost in Kalimantan, Indonesia, ranges from 3.5 t CO<sub>2</sub><sup>-1</sup> to 19.6 t CO<sub>2</sub><sup>-1</sup>, depending on different social discount rates, with an average value of USD 8.56 t CO<sub>2</sub><sup>-1</sup>. In increasing or decreasing plantation area by approximately 10% or 20% of the original value, they found that, without consideration of carbon in plantations, the change in incremental opportunity cost is only approximately 6% when the oil palm plantation area increases by 10%. When the oil palm plantation area increases by 20%, the opportunity cost increases from 13.3% to 51.6%. Rubber plantations show the same trend: the opportunity cost increases from 3% to 13.3% for the 10% case and from 7.5% to 25.5% in the 20% case. When compared with the first scenario, the opportunity cost decreases by 2.3% when oil palm plantation area increases by 20%. The values for individual oil palm plantations are always larger than those of rubber plantations, and the researchers concluded that the opportunity cost increases faster in oil palm plantations than in rubber plantations.

As the conversion of high-carbon ecosystems to agricultural plantations puts carbon-rich ecosystems at risk and further contributes to climate change, REDD+ payments should adequately cover the opportunity costs that landowners face in not developing the land. Evaluating the impacts of plantation carbon sequestration can help local policymakers design financially attractive and effective carbon sequestration REDD+ programmes in other tropical forests<sup>1</sup>.

1 Liu G, Liu Q, Song M, Chen J, Zhang C, Meng X, Zhao J and Lu H. 2020. Costs and Carbon Sequestration Assessment for REDD+ in Indonesia. *Forests* 11(7):770. <https://doi.org/10.3390/f11070770>



## 2.1 Rights and tenure arrangements

### 2.1.1 Range of forest tenure: State, communal, private, traditional

What is the perception of land ownership?

*In many cases, the perception of ownership is different depending on who you talk to.*

#### The important role of local people in forest management in Indonesia [Case Study]

In 1984, boundary markers were established for the Bukit Baka-Bukit Raya National Park in Kalimantan, Indonesia. There are varying accounts of how consultation with local villages was carried out, with the most likely scenario being that a meeting was held in 1985 in the district capital of Nanga Pinoh. Heads of villages were invited to this meeting and told that a nature reserve would protect the forest against logging concessions and illegal logging, which were expanding rapidly at the time. While the government has documentation showing the signatures of village heads, respondents from the villages report that they were not properly informed about the park and did not consent to it.

Today, villagers believe that the enforced park boundaries cut into their rubber plantation lands and compromise their access to natural resources. To respond to villagers' complaints about the park, the government has offered monetary payments to compensate for lost economic opportunities. However, villagers are largely opposed to accepting them, believing that taking such monetary benefits would legitimize the park's existence, which they reject in the first place. Instead, they want recognition of their customary land claims.

The decentralization process in Indonesia has largely left national parks centrally controlled by the Ministry of Environment and Forestry. As a result, district and subdistrict governments, which are more directly accountable to the local populations that elect them, are not sufficiently empowered to present such local customary claims to higher authorities. In the absence of formal government representation of these claims, including the rejection of the proposed benefit-sharing arrangement, villagers have turned to Indigenous rights non-government organizations (NGOs) to advance their claims and achieve their desired outcomes<sup>2</sup>.

#### Unclear laws on social forestry and village ownership of forests in Indonesia [Case Study]

In Indonesia, a new law on village governance (Law No. 6/2014) gives villages autonomy to manage their assets, including village-owned forests. However, the Forestry Law sets state authority over all forests at national level, and it is unclear to what extent a state forest within a village area is a village asset. In practice, the rights of a village to the exclusive use of major forest products from forests in its vicinity have usually been recognized as the de facto standard. The plethora and complexity of laws and contradictory regulations pertaining to local land use are issues, and the difficulty in following the process reduces forest administrators' motivation to improve the governance of forests and empower local people<sup>3</sup>.

2 Myers R and Muhajir M. 2015. Searching for Justice: Rights vs "Benefits" in Bukit Baka Bukit Raya National Park, Indonesia. *Conservation & Society* 13(4):370-381

3 Moeliono M, Pham TT, Bong IW, Wong GY and Brockhaus M. 2017. Social Forestry - why and for whom? A comparison of policies in Vietnam and Indonesia. *Forest and Society* 1(2):78-97. doi: [10.24259/fs.v1i2.2484](https://doi.org/10.24259/fs.v1i2.2484).

## 2.1.2 Rights and tenure reforms: What are the legal issues that need resolving?

### The legal issues surrounding forest rights and tenure are many, varied and complex

Establishing a clear and secure tenure foundation is essential for fulfilling the climate change mitigation goals of REDD+ and for protecting the livelihoods and rights of its stakeholders. Although there has been notable progress towards creating this foundation, much remains to be done. A binding global climate change agreement through the United Nations Framework Convention on Climate Change (UNFCCC) would provide a strong motivation for making progress on tenure. There are steps in the right direction: the Leaders' Declaration on Forests and Land Use, which publicly recognized indigenous peoples and local communities (IPLCs) as best placed to preserve forests and biodiversity, involves a USD 19.2 billion pledge to protect and restore forests, USD 1.7 billion of which is aimed at supporting IPLCs. Given the long lead time in resolving forest tenure issues, it is imperative that countries continue pushing forward. Such actions could include the following:

- Forest tenure reform;
- Linkage of forest tenure and grievance redress mechanism;
- Institutionalization of participatory mapping in national land-use decision making;
- Resolution of longstanding contestation between customary and statutory forest land claims;
- Review of existing and planned industrial forest land concessions considering concurrent plans for forest conservation, afforestation, reforestation and REDD+;
- Clarification of forest carbon rights.

#### **The need for forest tenure reform in Cat Tien National Park, Vietnam [Case Study]**

Although Vietnam's Payment for Forest Environmental Services (PFES) programme has brought many benefits to the poor and to ethnic minorities, some ethnic Kinh people have deemed the current PFES programme unfair and discriminatory because the existing guidelines present barriers to their participation. Under the current policy, the Vietnamese government prioritizes allocating forest land and forest-related benefits to Indigenous Peoples. According to interviews with stakeholders, this makes it difficult for ethnic Kinh to participate in and benefit from PFES. Kinh people have also revealed that while they do not benefit from the current policy, they are still mobilized to protect the village forest when it burns or is encroached upon by outsiders. Participants in most focus group discussion meetings indicated that they do not feel strongly committed to the protection of the forests because they lack formal land ownership, with many admitting that they only patrol forests on days for which they are paid, and claiming that it is the authorities' responsibility to protect and patrol them on remaining days. This suggests that while the PFES programme in Vietnam has brought positive economic and social impacts to many participants, the programme's focus on only one vulnerable group has undermined and reduced the incentives for other social groups to join. Forest tenure reform that expands land ownership to those responsible for protecting forests could mobilize greater resources and support towards forest protection<sup>4</sup>.

4 Pham TT, Nguyen TD, Dao CTL, Hoang LT, Pham LH, Nguyen LT and Tran BK. 2021. Impacts of Payment for Forest Environmental Services in Cat Tien National Park. *Forests* 12(7):921. <https://doi.org/10.3390/f12070921>

### Enforceable rights of exclusion [Case Study]

The forests that REDD+ aims to protect are under threat not just from local stakeholders, but also, in many cases, from external claimants on local forests. These external claimants can be neighbouring villagers, seasonal migrants, colonists, ranchers and industrial enterprises of various kinds (e.g., soy in Brazil and oil palm in Indonesia).

Research from the Center for International Forestry Research's Global Comparative Study on REDD+ (GCS REDD+) looked at 71 villages at sites in five countries. It found that in almost two-thirds of the villages there was ongoing external use of local forests, with almost a fifth of villages unsuccessful in their efforts to exclude outsiders.

It is essential to have enforceable rights of exclusion because the whole idea of REDD+ rests on not only incentives but also the legal means to protect forests from outsiders. These rights of exclusion are also essential for protecting local livelihoods. Rights of exclusion can be sought through such instruments as legal title for smallholders and through tenure categories, such as *hutan desa* (village forest) and Ecosystem Restoration Concessions in Indonesia, and can be used to deflect industrial claims<sup>5</sup>.

### Vietnam's improved social forestry law [Case Study]

Vietnam's Forest Protection and Development Law 2004 was replaced by the new Forestry Law of 2017, which enhances the role, authority, obligation and responsibility of all Vietnamese government agencies for forest management. Under the new law, there is a stronger emphasis on the need to protect natural forests and, for the first time, an acknowledgement of religious and customary forests and the need to respect them. The 2017 law also promotes prioritizes the participation of local people and ethnic minorities, households, individuals and communities of people with customs, traditions, culture, beliefs and traditions attached to forests. The new legislation is a step towards establishing a clear and secure tenure foundation by providing better clarification of forest ownership<sup>6</sup>.

## 2.2 Cultural, social and livelihood characteristics: Identifying socioeconomic and environmental priorities

### Successful REDD+ programmes will be carefully tailored to maximize community buy-in and support

REDD+ project proponents should consider the culture, social and livelihood characteristics and priorities of communities involved, and tailor their approaches to promoting REDD+ benefits. As beneficiaries and proponents often face trade-offs between socioeconomic and environmental outcomes, identifying the key benefits to prioritize based on the community's characteristics can help increase the likelihood that beneficiaries will perceive compensation as equitable, be motivated to participate in the scheme, and support the delivery of desired outcomes.

5 Sunderlin WD, Larson AM, Duchelle AE, Resosudarmo IA, Huynh TB, Awono A and Dokken T. 2014. How are REDD+ proponents addressing tenure problems? Evidence from Brazil, Cameroon, Tanzania, Indonesia, and Vietnam. *World Development* 55:37-52. <https://doi.org/10.1016/j.worlddev.2013.01>.

6 Pham TT, Hoang TL, Nguyen DT, Dao TLC, Ngo HC and Pham VH. 2019. *The context of REDD+ in Vietnam: Drivers, agents and institutions 2<sup>nd</sup> edition*. Occasional Paper 196. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/007402>

### **Social and political relationships play a role in Vietnamese villagers' perceptions of the PFES programme [Case Study]**

Studies of Vietnam's PFES programme in communities have revealed that levels of trust in the authorities and local interpretations of equity have a significant influence over expressed preferences regarding how PFES benefits should be distributed. In contexts where there is little trust, villagers perceive direct cash payments divided equally between all participants to be most equitable, even though the payments are likely to be minimal. In contrast, where there is trust, villagers are more likely to express preferences for co-benefits such as local infrastructure and social services<sup>7</sup>. Different community contexts can lead to different preferences among villagers, so REDD+ projects should be adjusted accordingly to maximize programme buy-in.

### **Communities in poorer areas of Nepal require additional support to combat high economic and livelihood trade-offs from engaging in forest protection [Case Study]**

A study in Nepal highlights the importance of recognizing and identifying communities that will need more programme support than others to succeed. In Nepal, placing forests under community control has led to reduced deforestation and poverty while simultaneously contributing to positive environmental and socioeconomic outcomes<sup>8</sup>. While the community forestry system has allowed users to generally experience positive outcomes, such as greater control of their forest resources, improved livelihoods and enhanced climate resilience, the impacts are weaker in areas with higher poverty rates. Poorer communities face greater trade-offs between socioeconomic and environmental outcomes and struggle to avoid forest degradation and deforestation when economic and livelihood needs become pressing. These communities may require additional support to minimize the trade-offs they face when they support forest protection<sup>9</sup>.

### **The role of culture: Tailoring approaches to promoting perceived REDD+ benefits based on forest management regimes and community priorities in Kalimantan, Indonesia [Case Study]**

A study comparing private, public and community-based forest management regimes in Kalimantan, Indonesia highlights the importance of adopting different approaches in promoting REDD+, depending on the forest regime. The study compared those living in different forest management regimes and found differences in perceived REDD+ benefits. Respondents in private and government regimes perceived higher economic benefits than those in a community regime, while respondents in the community regime perceived higher environmental benefits than the other regimes. As different communities will vary in the types of benefits they prioritize and seek out, REDD+ project proponents should tailor their approaches to promoting REDD+ benefits by carefully considering the forest regime involved<sup>10</sup>. Ensuring that a programme is aligned with a community's priorities increases the likelihood that beneficiaries will perceive compensation as equitable and be more motivated to participate in the programme.

7 Pham TT, Moeliono M, Brockhaus M, Le DN, Wong G and Le TM. 2014. Local preferences and strategies for effective, efficient, and equitable distribution of PES revenues in Vietnam: Lessons for REDD+. *Human Ecology* 42(6): 885–899.

8 Oldekop JA, Sims KR, Karna BK, Whittingham MJ and Agrawal A. 2019. Reductions in deforestation and poverty from decentralized forest management in Nepal. *Nature Sustainability* 2(5):421–428. <https://doi.org/10.1038/s41893-019-0277-3>

9 NYDF Assessment Partners. 2021. *Taking stock of national climate action for forests*. Amsterdam: Climate Focus. Accessed 11 Jun 2023. <https://climatefocus.com/publications/taking-stock-national-climate-action-forests-goal-7-progress-report/>

10 Rakatama A, Iftekhhar MS and Pandit R. 2020. Perceived benefits and costs of REDD+ projects under different forest management regimes in Indonesia. *Climate and Development* 12(5):481–493. <https://doi.org/10.1080/17565529.2019.1642178>

## 2.3 Governance and policy

### 2.3.1 Authority of governing institution

#### It is important to consider and coordinate the authorities of governing institutions

Clarifying roles, responsibilities and decision-making mandates across different forms of forest governance can enhance the accountability, transparency and legitimacy of a REDD+ initiative.

#### Central and subnational governments both play important roles, but their capacities and interests are not always matched

Subnational governments may find it difficult to successfully implement REDD+ programmes if there is a lack of synergy with the central government. Different levels of government need to coordinate, ensure that policies are aligned, and properly delegate powers and responsibilities so that drivers of deforestation can be addressed.

#### Subnational governments: Less power more responsibility?

Subnational governments in forested countries vary in the degree of influence they have to manage and govern land. In some cases, the granting of titles and the issuing of permits remains largely in the purview of national agencies. In others, these powers vary between levels depending on the sector.

#### Who has power of land use in Vietnam?

In 1986, Vietnam started to launch a policy reform known as “*Doi Moi*”, which signified a shift to decentralized decision making. As part of the policy reform, the legal system has gradually been revised, with the power to manage land and forests transferred to different “lower” levels of government. This has led to a clearer classification of power and mandates that has given local governments more power to manage land and forests. But while Vietnam has made great progress in the decentralization of land and forest management, the decentralization process has also been inefficient and has been associated with certain shortcomings due to a lack of financial and labour resources, despite the lower levels of government being given increased responsibilities and mandates<sup>11</sup>. This is because although decentralization in Vietnam has given more decision-making power over land-use negotiations to provincial governments, the real power still lies with the central government. While district governments and communes have discretionary power to promote local relevance, in reality, they lack the power, financial resources and competence to make key decisions<sup>12</sup>. The decentralization process needs to pay more attention to the authority of local governments to decide on appropriate resources for implementing assigned tasks and responsibilities. Decentralization should clarify the powers and resources required of leaders and individuals at lower levels of government to support effective programme implementation at the local level.

11 Pham TT, Hoang TL, Nguyen DT, Dao TLC, Ngo HC and Pham VH. 2019. *The context of REDD+ in Vietnam: Drivers, agents and institutions 2<sup>nd</sup> edition*. Occasional Paper 196. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/007402>

12 Yang A, Tien ND, Phuong VT, Trung LQ, Thuy TP, Larson AM and Ravikumar A. 2016. *Analyzing multilevel governance in Vietnam: Lessons for REDD+ from the study of land-use change and benefit sharing in Nghe An and Dien Bien provinces*. Working Paper 218. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/006392>

### Aligning sub-national and national priorities in Brazil [Case Study]

The subnational government of Acre in Brazil has Forest Reference Emission Level and safeguard information systems that are aligned and compatible with the REDD+ programme at the national level<sup>13</sup>. The state of Acre in Brazil developed the world's first jurisdictional REDD+ programme through its 2010 System of Incentives for Environmental Services law, with support from the German government's REDD+ Early Movers programme from 2012. Since then, the subnational government has created space for political participation, leveraged state policies and programmes to attend to constituents' needs, and supported Indigenous Peoples' self-determination<sup>14</sup>. Subnational governments such as Acre's have legal and political power in decentralized systems and are closer to the communities making land use decisions. Subnational governments that are strongly aligned with the national REDD+ programme can have a strong influence on the success of REDD+ projects on the ground and can promote national REDD+ goals.

### Challenges for Indonesian subnational governments towards the Rio Branco pledge [Case Study]

A study evaluating the progress of Indonesian subnational governments towards their goals for the Rio Branco Declaration – a pledge signed between 2014 and 2018 by jurisdictions, including some in Indonesia, committing to reduce deforestation by 80% by 2020 – failed to find strong progress towards the Declaration's goal. Among the Indonesian provinces, only one (West Kalimantan) out of the four studied had a measurable and time-bound deforestation reduction target in its Provincial REDD+ Strategy and Action Plan. Indonesia engaged in a decentralization process in the 1990s, which transferred authority over natural resource management from the central government to subnational units that created the issue of provinces acquiring authority over forest protection and management, but not over the drivers of deforestation. However, this decentralization process was not supported by aligned laws. Contradictory laws, regulations and priorities at national, provincial and local levels create inconsistencies for REDD+ governance at the provincial level in Indonesia. Different levels of government need to coordinate so that the right levels of government have the proper authorization over forest management<sup>15</sup>.

13 Duchelle AE, Seymour F, Brockhaus M, Angelsen A, Larson A, Moira M, Wong GY, Pham TT and Martius C. 2019. *Forest-based climate mitigation: Lessons from REDD+ implementation*. Issue Brief. Washington DC, USA: WRI. <https://www.wri.org/research/forest-based-climate-mitigation-lessons-redd-implementation>

14 DiGiano M, Mendoza E, Ochoa M, Ardila J, Oliveira de Lima F and Nepstad D. 2018. *The Twenty-Year-Old Partnership Between Indigenous Peoples and the Government of Acre, Brazil: Lessons for realizing climate change mitigation and social justice in tropical forest regions through partnerships between subnational governments and Indigenous peoples*. San Francisco, USA: Earth Innovation Institute (EII). DOI:10.13140/RG.2.2.34535.29609

15 Stickler C, David O, Chan C, Ardila JP and Bezerra T. 2020. The Rio Branco Declaration: Assessing progress toward a near-term voluntary deforestation reduction target in subnational jurisdictions across the tropics. *Frontiers in Forests and Global Change* 3:50. <https://doi.org/10.3389/ffgc.2020.00050>

### Expanding state policy to federal policy: Cadastro Ambiental Rural from Mato Grosso [Case Study]

The Cadastro Ambiental Rural (CAR) or Rural Environmental Registry of Brazil is a public policy innovation that was an important breakthrough of the Native Vegetation Protection Law for environmental monitoring in Brazil. Under CAR, owners must provide georeferenced delimitation of their property's boundaries and legally protected areas. The policy originated from and was tested in the state of Mato Grosso before being expanded as a federal law. The successful implementation of CAR and its incorporation into federal law and policy is the result of the country's commitment to building a strong network of tools, programmes and policies to monitor and control deforestation over the past three decades<sup>16</sup>. Forestry laws can be tested on a smaller scale at the subnational level and, if found successful, can be scaled up to the national level.

## 2.3.2 Capacity of governing institutions: Skills and capacity in REDD+ readiness

### Forest management plans and MRV

Forest management planning is a process that helps identify the resources and opportunities available in a given piece of forest. Forest management plans normally include long-term goals and objectives, a detailed forest inventory, a list of management recommendations and an activity schedule. Results-based mechanisms, such as REDD+, require reliable monitoring, reporting and verification (MRV) systems to measure performance. This involves measuring changes in forest carbon stocks and/or flows, reporting those changes in a transparent and timely manner, and verifying estimates through an independent third party. To achieve carbon-related objectives through REDD+, a proper management plan and MRV system are prerequisites. If stakeholders lack the capacity to implement the plan, additional support will be needed to equip them with the proper training and skills.

### Ensuring coordination within a national forestry inventory: Discrepancies in Vietnam's two land use classification systems [Case Study]

In Vietnam, the country's two separate databases on land classification and administration were compared, and discrepancies in forestry data were found. The first database, maintained by the Ministry of Natural Resources and Environment, contains information on land management, including land area and land-use planning. The second database, managed by the Ministry of Agriculture and Rural Development, defines categories of forest and forest land and contains data on the extent of forest coverage<sup>17</sup>. The existence of two land-use classification systems complicates national forestry monitoring and reporting efforts; assessments are based on changes in forest cover over time, whereas REDD+ benefit-sharing depends on land use registration data<sup>18</sup>. Further resources may be needed to coordinate national data systems to improve overall accountability. Consolidating Vietnam's two databases into one would help ensure that the national forest inventory is accurate and would improve the nation's forest management planning.

16 Roitman I, Vieira LC, Jacobson TK, da Cunha Bustamante MM, Marcondes NJ, Cury K, Estevam LS, da Costa Ribeiro RJ, Ribeiro V, Stabile MC and de Miranda Filho RJ. 2018. Rural Environmental Registry: An innovative model for land-use and environmental policies. *Land use policy* 76:95-102. <https://doi.org/10.1016/j.landusepol.2018.04.037>

17 Pham TT, Moeliono M, Nguyen TH, Nguyen HT and Vu TH. 2012. *The context of REDD+ in Vietnam: Drivers, agents and institutions*. Occasional Paper 75. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/003737>

18 Loft, L., Le, D.N., Pham, T.T., Yang, A.L., Tjajadi, J.S. and Wong, G.Y., 2017. Whose equity matters? National to local equity perceptions in Vietnam's payments for forest ecosystem services scheme. *Ecological Economics*, 135, pp.164-175.

### **Bosques Amazonicas project [Case Study]**

In the Bosques Amazonicas project, technicians from the Federation of Brazil nut producers offer assistance with various forest management plans required to legally harvest or sell Brazil nuts.

Bosques Amazonicos (BAM) is a private company that has partnered with the Federation of Brazil nut producers of Madre de Dios (FEPROCAMD) to improve the lives of Brazil nut producers and provide incentives to maintain their forests, which are currently under threat from migrant agriculture and illegal logging. Brazil nuts are only produced by trees that grow in native forests with an intact forest canopy. Thus, the forest must be protected to ensure Brazil nut production. In addition to measuring, reporting, certifying and selling carbon, BAM has promised local communities that a Brazil nut processing plant, legal and technical assistance as well as a rapid response system to address illegal land invasions will eventually be implemented throughout the Brazil nut concession area. The initiative provides an innovative example of approaches to REDD+ involving the private sector and forest producers in a threatened, biodiverse region.

### **Capacity building opportunities in MRV during Covid-19 [Case Study]**

Partner institutions of the Global Forest Observations Initiative (GFOI), with funding from the World Bank's Forest Carbon Partnership Facility, organized four workshops and a webinar series with the aim of building capacity in countries to use Earth Observation Remote Sensing data to monitor changes in forest cover and measure emissions reductions for REDD+ results-based payments. The four regional workshops – held in parts of Asia, South America and Africa and in three languages – trained 59 participants from 43 countries. The webinars and workshops covered a variety of relevant tools and methods. Researchers found both webinars and workshops to be clear and relevant, with the latter being the preferred choice of participants. The researchers suggest that the best results might be achieved by implementing traditional and e-learning systems together. A hybrid approach should continue to be considered for future initiatives, as the effectiveness of both in-person and online capacity building can guide the development of future initiatives – especially when financial resources are limited – and help to continue fostering relationships between stakeholders developed during in-person meetings and to promote greater information sharing that can inform forest management plans globally<sup>19</sup>.

19 Carter S, Herold M, Jonckheere IGC, Espejo AB, Green C and Wilson S. 2021. Capacity Development for Use of Remote Sensing for REDD+ MRV Using Online and Offline Activities: Impacts and Lessons Learned. *Remote Sensing* 13(11):2172. <https://doi.org/10.3390/rs13112172>



### Promising gender equity initiatives in Vietnam impeded by lack of institutional capacity [Case Study]

The Ministry of Agriculture and Rural Development (MARD), the lead agency for REDD+ in Vietnam, had its own gender strategy for 2011–2015 that included measures to ensure gender equality, and clearly defined the roles of leaders of its units and departments. Vietnam's National Forest Strategy (2006–2020) provided a promising platform for mainstreaming gender, as it acknowledged the need to develop the capacity of forestry officials to address gender issues, establish a full-time gender focal unit to institutionalize gender mainstreaming, and promote gender-sensitive research and monitoring. However, a lack of institutional capacity, including human and financial resources, as well as contradictory institutional procedures and practices, have impeded these efforts. For instance, training is provided to only a few members of the Committee for Advancement of Women and has not been mainstreamed throughout MARD<sup>20</sup>. These issues increase the risk of gender equity being deprioritized within REDD+ projects. Recommendations for future forest plans include: detailed guidance on how gender mainstreaming should be carried out at the provincial, district and community levels; clear monitoring of government commitments to the increased participation of women in decision-making positions; increasing the target number for women's representation in leadership roles and on management boards; policies, measures and incentives structures inside the institutions to encourage true participation of women; and at the village and commune levels, REDD+ and payments for ecosystem services (PES) programmes that increase their access to information and resources<sup>21</sup>.

### Uneven technical capacities in MRV across jurisdictions in Indonesia [Case Study]

In Indonesia, the MRV system for REDD+ projects has been designed as a top-down system<sup>22</sup>. While there are efforts to build up local or provincial governments' capacities to engage in forest MRV for REDD+ projects, the technical capacity across jurisdictions varies<sup>23</sup>. For example, the East Kalimantan project under the Forest Carbon Partnership Facility's Carbon Fund scheme has been quite advanced, as the jurisdiction has been equipped with training and capacity building, with intermediaries such as elected NGOs, government institutions, banking institutions, non-bank financial institutions and other legal institutions used to support communities that lack the technical capacity to develop reports<sup>24</sup>. Yet this is not the norm, with overall provincial MRV across the country being underdeveloped<sup>25</sup>. This suggests there are ample opportunities to develop the capacity of local people to engage in MRV activities within forest management plans.

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- 20 Pham TT, Mai YH, Moeliono M and Brockhaus M. 2016. Women's participation in REDD+ national decision-making in Vietnam. *International Forestry Review* 18(3):334-44. <https://doi.org/10.1505/146554816819501691>
- 21 Pham TT and Brockhaus M. 2015. *Gender mainstreaming in REDD+ and PES: Lessons learned from Vietnam*. Gender Brief 5. Bogor, Indonesia: CIFOR. <https://www.cifor.org/knowledge/publication/5900/>
- 22 Ochieng RM, Visseren-Hamakers IJ, Arts B, Brockhaus M and Herold M. Institutional effectiveness of REDD+ MRV: Countries progress in implementing technical guidelines and good governance requirements. *Environmental Science & Policy* 61:42-52. <https://doi.org/10.1016/j.envsci.2016.03.018>
- 23 Ochieng RM, Arts B, Brockhaus M and Visseren-Hamakers IJ. 2018. Institutionalization of REDD+ MRV in Indonesia, Peru, and Tanzania. *Ecology and Society* 23(2):8. <https://doi.org/10.5751/ES-09967-230208>
- 24 The Ministry of Environmental and Forestry and The Provincial Government of East Kalimantan. 2020. *Benefit Sharing Plan East Kalimantan Jurisdictional Emissions Reduction, INDONESIA [Draft 1.6]*. Bogor, Indonesia: P3SEKPI. [http://simlit.puspjajak.org/files/other/FCPF\\_Benefit\\_Sharing\\_Plan\\_draft1\\_6\\_FINAL\\_GoI\\_29042020.pdf](http://simlit.puspjajak.org/files/other/FCPF_Benefit_Sharing_Plan_draft1_6_FINAL_GoI_29042020.pdf)
- 25 Bhomia RK, Nofyanza S, Thüerer T, O'Connell E and Murdiyarto D. 2021. *Global Comparative Study on REDD+ story of change: CIFOR's science on wetlands for Indonesian measurement, reporting and verification and forest reference emission level development*. Info Brief 328. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/008048>

### The politicization of data collection, presentation and analysis in Son La, Vietnam [Case Study]

A study examining the environmental, social and economic impacts of Payment for Forest Environmental Services (PFES) in Son La province in Vietnam – the longest standing implementation of a PFES scheme in the country – found that data collection is politicized to serve central, provincial and district government interests. As PFES relates to forest status, violation cases, PFES payments and payment distribution, three different government agencies have been collecting national and provincial data on PFES since the programme's commencement in 2009, but not on socioeconomic indicators. Consequently, a lack of available data on forest cover and household incomes before and after PFES makes it difficult to fully confirm PFES additionality, and the absence of available baseline data on PFES undermines the accuracy and rigour of PFES impact assessments. The three government agencies also collect data using different approaches and reporting timelines. For example, the Son La Forest Protection and Development Fund needs to report on forests in December, the Son La Forest Protection Department in February, and the Son La Statistics Department in June. Different reporting timelines result in different conclusions about PFES impacts. Even when data are available, politics can influence data collection approaches, processes and outcomes. This highlights the need to have transparent, inclusive and independent mechanisms, such as independent monitoring and evaluation systems, to enhance data accountability and transparency<sup>26</sup>.

### Measurement, Reporting and Verification (MRV) for REDD+: The DRC and Indonesia [Case Study]

The participation of local communities in the measurement, reporting and verification (MRV) of changes in forest cover has been promoted as a strategy that lowers the cost of MRV efforts and increases community members' engagement with REDD+<sup>27</sup>.

Involving local communities in mapping and other carbon estimation activities is a new approach that could lead to more effective, long-term community participation in REDD+ MRV. Currently, community-based management is not a big focal point of the Democratic Republic of the Congo (DRC) national REDD+ strategy. However, a study has found that there could be full and active community participation if local community-based monitoring systems were to become nested within the national forest monitoring system<sup>28</sup>. Similarly, in West Kalimantan and Central Java, Indonesia, a study piloting participatory mapping found that community members were able to provide complementary information for remotely sensed maps, as well as identify drivers of land use and land cover change. Participatory MRV could allow community members to develop a more robust understanding of REDD+ by serving as a forum for discussion<sup>29</sup>.

Despite the potential benefits of participatory MRV (PMRV), research is limited. Claims that PMRV supports REDD+ social outcomes that affect local communities directly, such as increased

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- 26 Pham TT, Ngo HC, Dao TLC, Hoang TL and Fisher MR. 2020. The politics of numbers and additionality governing the national Payment for Forest Environmental Services scheme in Vietnam: A case study from Son La province. *Forest and Society* 4(2):379-404. <https://doi.org/10.24259/fs.v4i2.10891>
- 27 Hawthorne S, Boissière M, Felker ME and Atmadja S. 2016. Assessing the claims of participatory measurement, reporting and verification (PMRV) in achieving REDD+ outcomes: a systematic review. *PLOS ONE* 11(11): e0157826. <https://doi.org/10.1371/journal.pone.0157826>
- 28 Schmitt CB and Mukungu J. 2019. How to Achieve Effective Participation of Communities in the Monitoring of REDD+ Projects: A Case Study in the Democratic Republic of Congo (DRC). *Forests* 10(9):794. <https://doi.org/10.3390/f10090794>
- 29 Beaudoin G, Rafanoharana S, Boissière M, Wijaya A and Wardhana W. 2016. Completing the Picture: Importance of Considering Participatory Mapping for REDD+ Measurement, Reporting and Verification (MRV). *PLOS ONE* 11(12): e0166592. <https://doi.org/10.1371/journal.pone.0166592>

environmental awareness and equity in benefit-sharing, have been supported with less empirical evidence than REDD+ technical outcomes. Future studies should include assessment of past PMRV experiences, formalization of PMRV, and full-scale testing on the ground by integrating future PMRV studies into local REDD+ implementations<sup>30</sup>.

## Territory surveillance

***Many REDD+ countries have large skill gaps in forest-carbon monitoring between what is required for REDD+ monitoring under national circumstances and their current capacities.***

Some countries face challenges in terms of institutions, human resources and technical infrastructure, like poor internet connection and poor remote sensing coverage. International efforts could improve satellite data coverage by investing in better data acquisition facilities. For other countries, the issue is not a matter of technology but law enforcement.

### **Brazil's deforestation tracking system is advanced but needs to be supported by enforcement and safeguards [Case Study]**

Brazil's deforestation tracking system – properly enforced – is highly advanced and is a key reason for the dramatic reduction in Amazon deforestation over the past decade.

Brazil's equivalent of NASA – the National Institute for Space Research (INPE) – has been using a satellite monitoring system since 2004 to record deforestation in the Brazilian Amazon in real time.

Higher resolution annual data from the program dedicated to monitoring deforestation in the Amazon region (PRODES) have been complemented by real-time monitoring with the lower resolution data from the Deforestation Detection in Real Time (DETER), available for download by state and civil society organizations. The police and army have been mobilized to carry out control operations in municipalities throughout the “arc of deforestation”.

Enforcement continues to be an issue, and small producers are usually those harmed by the increased monitoring, while larger producers are not affected due to their ability to defend themselves procedurally against fines during the administrative process. The Brazilian case highlights how the development of robust data tracking systems is crucial in establishing strong monitoring efforts, but must still be supported by enforcement and safeguards<sup>31</sup>.

### **Guyana's efforts to increase the amount and accuracy of deforestation data [Case Study]**

Over the past few years, Guyana has made an effort to address its lack of reliable deforestation data. Guyana's national forest monitoring system, known as the Monitoring, Reporting, and Verification System (MRVS), has historically struggled with a lack of data in measuring forest

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30 Boissière M, Herold M, Atmadja S and Sheil D. 2017. The feasibility of local participation in Measuring, Reporting and Verification (PMRV) for REDD+. PLOS ONE 12(5): e0176897. <https://doi.org/10.1371/journal.pone.0176897>

31 May PH, Gebara MF, Barcellos LM, Rizek M and Millikan B. 2016. *The context of REDD+ in Brazil: Drivers, actors and institutions – 3<sup>rd</sup> Edition*. Occasional Paper 160. Bogor, Indonesia: CIFOR. DOI: [10.17528/cifor/006338](https://doi.org/10.17528/cifor/006338)

cover and deforestation. As more than half of Guyana's forests are inaccessible by roads and rivers, collecting ground data is challenging. As part of an effort to address this issue, Guyana has implemented an independent accuracy assessment process to accompany the national reporting system. To mitigate the risk of underestimating the rate of deforestation, the system is built upon the principle of conservativeness, whereby decreases in emissions are underestimated. The Guyana Forestry Commission (GFC) has also increased the verifiable accuracy of deforestation data for Guyana through methodological improvements. Finally, independent third-party verification has also verified interim indicators for REDD+ performance in Guyana related to emissions resulting from: i) forest management (i.e., selective logging) activities in natural or semi-natural forests; and ii) illegal logging activities. Countries that similarly struggle with a lack of reliable data can learn from the Guyanese about how a variety of approaches can be taken, such as implementing an independent accuracy assessment, adopting a principle of conservativeness and methodological improvements, and engaging in independent third-party verification<sup>32</sup>.

### **The importance of robust surveillance systems in identifying and stopping illegal land use: the Surui people, Pará, Brazil [Case Study]**

The Surui Forest Carbon Project was the first Indigenous-led conservation project financed through the sale of carbon offsets. It dramatically reduced deforestation within the territory during its first five years of operation (2009–2014) and funded six self-sufficient community development initiatives, despite the lack of demand for compliance carbon market, a lack of law enforcement, and the presence of criminal enterprises and ideologues intent on undermining the project by sowing conflict. The project also contributed to the building of technical capacity of local project developers and other stakeholders in Indigenous communities, with some private companies purchasing carbon offsets in support of the project<sup>33</sup>. However, the project was suspended in 2018 after the discovery of large gold deposits in the territory sparked a surge in deforestation, with some members of the Paiter community working with outsiders who had entered the territory illegally, with several instances of illegal alluvial mining. Deforestation accelerated in 2016 and 2017, as Paiter members who colluded with miners used the resulting income to purchase cattle and clear forest for pasturelands. The forest loss forced the Paiter to put the carbon project on hold, and the new mining and agriculture ventures also contributed to friction in the community due to income discrepancies among members<sup>34</sup>. The project was undermined by a small contingent of loggers, miners, missionaries and colluders, but increased territory and surveillance capabilities could have helped prevent some of the instances of illegal use. The project highlights the importance of robust surveillance systems in identifying and stopping illegal land use before it spirals out of control.

### **Barriers to providing information to local people to understand REDD+ benefit-sharing mechanisms**

There are persistent barriers to providing information to local people that prevent them from clearly understanding both the risks and benefits associated with benefit-sharing mechanisms such as REDD+.

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32 Benn V, Pham TT, Moeliono M, Maharani C, Thomas R, Chesney P, Dwisatrio B, Ha CN. 2020. *The context of REDD+ in Guyana: Drivers, agents and institutions*. Occasional Paper 201. Bogor, Indonesia: CIFOR. DOI: [10.17528/cifor/007627](https://doi.org/10.17528/cifor/007627)

33 Garcia B, Rimmer L, Vieira LC and Mackey B. 2021. REDD+ and forest protection on Indigenous lands in the Amazon. *RECIEL* 30: 207–219. <https://doi.org/10.1111/reel.12389>

34 Zwick S. 2019. *The Story of the Surui Forest Carbon Project*. Washington DC, USA: Forest Trends. Accessed 11 February 2022. <https://www.forest-trends.org/blog/the-story-of-the-surui-forest-carbon-project/>

Barriers can include the technical language, literacy levels, and the language itself. Among stakeholders, there can be asymmetries between access to information and resources that can create imbalances between capabilities and distort participation. Left unaddressed, these barriers to understanding REDD+ benefit-sharing mechanisms can lead to unclear expectations of when costs and benefits are likely to accrue. Project proponents might also withhold information from local populations to avoid generating false expectations or confusion, but this approach should be avoided. While avoiding the risk of raising false expectations about carbon revenues is valid, it can still be frustrating for communities to be given piecemeal information.

Enhancing information dissemination, availability and transparency about payment conditionality and distribution can support effective decision making on resource use of REDD+.

### **The long process in setting up payment infrastructure and lack of information details about fund allocation in Indonesia lead to confusion and dampened enthusiasm for REDD+ [Case Study]**

In 2019 and 2020, results-based REDD+ finance to subnational jurisdictions was approved for East Kalimantan province, Indonesia. While there was much initial enthusiasm, delays in setting up the national infrastructure to receive and allocate REDD+ payments have since dampened participants' excitement. The financial mechanism needed to intermediate the transfer of funds from international climate finance to domestic uses – the Environment Fund Management Agency or Badan Pengelola Dana Lingkungan Hidup (BPDLH) – was finally established in September 2019 after years of delay<sup>35</sup>.

Key information about how the new mechanism allocates and disburses funds to participants has not been disclosed, which has contributed to uncertainty over which subnational jurisdictions will share in the proceeds from international payments<sup>36</sup>. Delays or poor timing should be avoided as much as possible, as should withholding information, as they can lead to confusion surrounding REDD+ initiatives and weaken incentives for participation.

### **2.3.3 Multilevel governance issues**

**Many have argued that a multilevel approach with multiple actors improves “differentiation and specialization” in policy design and implementation and creates adaptive policy that can meet diverse territorial needs.**

For both REDD+ and many benefit-sharing mechanisms, a complex interplay of actors is required to achieve a programme's multiple, integrated objectives. These interact both vertically (international to local) and horizontally (e.g., across communities, households, etc.).

Achieving cross-sectoral and multilevel coordination requires a deep understanding of the underlying dynamics among actors to find solutions that challenge business-as-usual trajectories and address effectiveness and equity goals.

35 Arumingtyas L. 2019. Pemerintah Bentuk Badan Pengelola Dana Lingkungan. Menlo Park, USA: Monga Bay. Accessed 11 February 2022. <https://www.mongabay.co.id/2019/10/13/pemerintah-bentuk-badan-pengelola-dana-lingkungan/>

36 Seymour FJ, Aurora L and Arif J. 2020. The jurisdictional approach in Indonesia: Incentives, actions, and facilitating connections. *Frontiers in Forests and Global Change* 3:124. <https://doi.org/10.3389/ffgc.2020.503326>

## Supporting the flow of information across levels and sectors

If interests among stakeholders are already well aligned, the focus will be on coordination to ensure the availability and flow of information across levels and sectors, which can be fostered by independent information brokers and neutral and accountable intermediaries. Government, NGOs, and donors should improve the organization and distribution of responsibilities, such as by governments setting clear mandates for cross-sectoral coordination. REDD+ funders can also act towards improving collaboration; the World Bank and UN-REDD have different rules regarding free, prior and informed consent (FPIC) for REDD+, but funds also overlap for the same activities. Alignment will improve efficiency.

## Political negotiations and procedural justice to align interests and address power imbalances

Aligning interests will often require a political negotiation and including a wider range of actors in collaborative processes. Multistakeholder processes also need to address the power imbalances between the different stakeholders through procedural justice. Addressing power imbalances could involve empowering representatives of communities or women with skills and capacity, or the inclusion of the participation of local actors throughout an initiative. It will also be crucial to clarify rights, whether through physical georeferenced maps, and to assure robust safeguards and redress mechanisms to facilitate negotiations<sup>37</sup>.

### Lessons from other sectors: Meaningful collaboration in the EU Rural development Policy? [Case Study]

The European Rural Development Policy (RDP) is an EU-wide programme that aims to address environmental, social and economic challenges across 27 European Union (EU) member states.

Decentralization is determined not only by institutional arrangements but, more importantly, by the degree to which local authorities and institutions are empowered. Therefore, to improve governance, rural development policy approaches need to consider the roles of, and dynamics between, actors, institutions, networks, social capital and administrative capability.

LEADER is an EU-funded programme to support activities — such as advice, training, mentoring, support to develop a business plan and the allocation of capital funding — that improve quality of life in rural areas. When it was carried out in France, despite the presence of both government and non-government actors, the politically elite (i.e., mayors and councilors), were the primary decision-makers and did not allow a system of wider representation. Thus, decentralization was used as a tool for power and leveraged to gain control over local decisions. LEADER has also increasingly been used as a tool for collective local action. For example in Finland, the program saw increases in knowledge and interest in cross-sectoral rural development, inclusivity, cooperation and capacity<sup>37</sup>.

37 Larson AM, Sarmiento Barletti JP, Ravikumar A and Korhonen-Kurki K. 2018. Multi-level governance: Some coordination problems cannot be solved through coordination. In Angelsen A, Martius C, De Sy V, Duchelle AE, Larson AM and Pham TT, eds. *Transforming REDD+: Lessons and new directions*. Bogor, Indonesia: CIFOR. 81–91

### **Despite the Vietnamese government's political commitment to improving decision making, limited capacity among stakeholders has led to waning participation [Case Study]**

Vietnam has also adopted a legal framework on REDD+ to provide an inclusive political space for actors to engage in REDD+ decision making. Yet, despite the country's demonstrated political commitment to inclusive decision making, momentum in stakeholder interest has waned. Initially, there was high motivation for various actors to get involved. Reasons included becoming visible to donors, learning and obtaining knowledge, and seeking funding opportunities.

Yet participation in meetings waned over the years due to limited capacity (knowledge, skills, time and money) among various stakeholders<sup>38</sup>. To ensure inclusive REDD+ decision making in Vietnam, understanding the political context, addressing underlying power dynamics in the existing government regime, building up coalitions for change among political elites and civil society, and fostering sustainable political will and commitment are all essential.

### **Despite the DRC government's efforts for inclusive decision making, new institutional arrangements do not guarantee greater inclusion [Case Study]**

In the Democratic Republic of the Congo, despite actors' initial interest in REDD+, enthusiasm has waned over time due to stakeholder concerns rarely being taken into account in decision-making processes. There continues to be a weak civil society and Indigenous group presence, while international organizations continue to dominate. Further, government agencies can easily manipulate REDD+ participation in the DRC to serve their own purposes (for example, by belatedly involving civil society organizations just to meet participation requirements set by donors), thereby failing to address the underlying problem of power and politics. If stakeholders' concerns are not incorporated in current policies and project outcomes, actors will lose interest and choose not to participate. Therefore, even with government efforts to increase the inclusiveness of decision making, simply creating new institutional arrangements will not guarantee greater inclusion in policymaking as there need to be changes in the nature of power and the political space<sup>39</sup>.

### **The role of civil society organizations in Siak district, Indonesia [Case Study]**

In Siak district in Indonesia, a large area of deep peat that a private company had returned to government control was almost distributed to smallholders under the national agrarian reform programme, despite a moratorium on new development on peatland. The resolution of this policy incoherence was helped by civil society organizations, which facilitated connections between jurisdictions and national government agencies. Through coordination by local and national civil society networks in support of the district government, 4,000 hectares (ha) of the area are now under communal management<sup>40</sup>. The involvement of civil society networks in projects should not be disregarded, as they can help coordinate and assist with issues that may arise across different levels of government.

38 Pham TT, Ngo HC, Dao TL, Hoang TL and Moeliono M. Participation and influence of REDD+ actors in Vietnam, 2011–2019. *Global Environmental Change* 68:102249. <https://doi.org/10.1016/j.gloenvcha.2021.102249>

39 Pham TT, Kengoum F, Moeliono M and Dwisatrio B. 2021. Forest governance in DRC: an analysis from actors' participation in REDD+ policy development. *International Forestry Review* 23(1):79–89. <https://doi.org/10.1505/146554821832140394>

40 Seymour FJ, Aurora L and Arif J. 2020. The jurisdictional approach in Indonesia: Incentives, actions, and facilitating connections. *Frontiers in Forests and Global Change* 3:124. <https://doi.org/10.3389/ffgc.2020.503326>

## Horizontal integration

In Nomedjoh village in Cameroon, information sharing and transparency were not issues with the REDD+ project, in large part due to the efforts of local authority figures, who helped with the disclosure of information about project activities during the Free Prior Informed and Consent (FPIC) process. Interviewees praised the pastor for helping to bridge information gaps and for enhancing local residents' rights and advancing the goals of the project. This case study highlights the important role that local authority figures can play in helping disseminate information about REDD+ projects to the broader community, particularly in populations with low literacy rates<sup>41</sup>.

## REDD+ jurisdictional approaches in Indonesia [Case Study]

As a platform linking leaders from 38 states and provinces around the world, the Governors' Climate and Forests Task Force (GCFTF) has served as a source of knowledge and inspiration for several jurisdictional initiatives in Indonesia, which have sent governors and senior staff to annual meetings of the Task Force. The horizontal facilitation functions played by the GCFTF and Lingkar Temu Kabupaten Lestari (LTKL) – a districts organization that supports jurisdictional approaches in Indonesia – in similar ways: both offer a peer group in which member jurisdictions can gauge their progress, along with supplying technical assistance to member jurisdictions in areas such as planning and monitoring across member jurisdictions. For example, LTKL provides a platform linking districts committed to green development. Meetings facilitated by LTKL have helped district heads and their staff to identify common interests and challenges, and have provided a platform to learn from each other's experiences. Furthermore, the LTKL Secretariat has helped member districts by mobilizing technical assistance and offering programmes such as a Masterclass series to build the districts' capacity to develop investment portfolios, while its Festival Kabupaten Lestari or Sustainable District Festival provides an opportunity for the exchange of lessons learned between member districts<sup>42</sup>.

## Co-management partnerships between Indigenous federations and government authorities in Peru [Case Study]

A study suggests that the emergence of a co-management partnership between the Peruvian government's National Forest Conservation Programme (PNCB) – a conditional payment scheme aiming to encourage sustainable forest management – and Indigenous representative group Native Federation of Madre de Dios (FENAMAD) could have several positive impacts. Co-management at the regional scale supports the inclusion of local political considerations in government-led climate change mitigation programmes designed at the national scale. Furthermore, the partnership addresses vertical institutional gaps by bolstering the regional presence of PNCB and strengthening the conditional payment scheme's territorial presence, as FENAMAD is a permanent regional institution. Finally, the partnership helps strengthen the monitoring and implementation of the conservation payment scheme<sup>43</sup>.

41 Tegegne YT, Palmer C, Wunder S, Moustapha NM, Fobissie K and Moro E. 2021. REDD+ and equity outcomes: Two cases from Cameroon. *Environmental Science & Policy* 124:324-35. <https://doi.org/10.1016/j.envsci.2021.07.003>

42 Seymour FJ, Aurora L and Arif J. 2020. The jurisdictional approach in Indonesia: Incentives, actions, and facilitating connections. *Frontiers in Forests and Global Change* 3:124. <https://doi.org/10.3389/ffgc.2020.503326>

43 Dupuits E and Cronkleton P. 2020. Indigenous tenure security and local participation in climate mitigation programs: Exploring the institutional gaps of REDD+ implementation in the Peruvian Amazon. *Environmental Policy and Governance* 30(4):209-20. <https://doi.org/10.1002/eet.1888>



### 2.3.4 Degree of decentralization (fiscal and otherwise): Fiscal decentralization

#### Government rights to revenue and budgetary transfers from central government

*Intergovernmental fiscal transfers are a common practice used to distribute public revenues from national to lower levels of government.*

Distributing a share of national government revenues to subnational governments (vertical revenue sharing) can help correct variations in the provision of public services between different geographic regions in a country, (e.g., impacts from a dam upstream to communities downstream) (horizontal revenue sharing).

#### How are forest revenues distributed in Cameroon? [Case Study]

In Cameroon, forests are valued by the hectare and fees must be paid to the central government. The annual forestry fee decreed in 1998 is CFA Franc 1,500/ha (USD 2.40/ha) for forest concessions and CFA Franc 2,500/ha (USD 4.05) for the exploitation. Some countries, despite decentralization attempts, lower levels of sales of standing volume.

Forest revenue redistribution for local development is one of Cameroon's policy priority areas. In 2012, the Cameroonian government decentralized forest and wildlife revenue to municipal councils and local communities.

However, the 2015 Finance Law proposes that 50% of the annual forestry fee be distributed to the state and 50% for councils. This would cancel the 10% allocated to local communities, taking away some of the financial and political autonomy of local people. This could be seen as tentative recentralization by the continue to be highly dependent on national government<sup>44</sup>.

#### Lessons from other sectors: The Rural European Development Policy [Case Study]

The European Rural Development Policy (RDP) is an EU-wide programme that aims to address environmental, social and economic challenges across 27 European Union (EU) member states.

Decentralization has been identified as an effective way of targeting environmental objectives, as decision making moves closer to the local level. This means that policy can be better informed by context. Thus, many EU countries have regionalized their national rural development policy approaches. Scotland's RDP is developed and implemented nationally, but in 2007–2013, regional decision-making groups were selected to develop rural priorities and deliver policy. Yet, in practice, power failed to transfer from central government to the regional groups, due to a lack of capacity<sup>45</sup>.

44 Assembe-Mvondo S, Wong G, Loft L and Tjajadi JS. 2015. Comparative assessment of forest revenue redistribution mechanisms in Cameroon: Lessons for REDD+ benefit sharing. Working Paper 190. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/005738>

45 Yang AL, Wong G and Loft L. 2015. What can REDD+ benefit sharing mechanisms learn from the European Rural Development Policy? Info Brief 126. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/005745>

### **Decentralization in Vietnam: Do subnational governments have the power to distribute REDD+ payments? [Case Study]**

In Vietnam, the State Budget Law 2004 requested formally mandated fiscal decentralization, granting local governments, including those at the provincial level, even more power to make decisions on resource allocation within their provinces<sup>46</sup>. Given the trend toward decentralization, in the future it might be possible to apply the national Payments for Forest Environmental Services (PFES) benefit-sharing mechanism to REDD+ payment distribution. Under this mechanism, the central PFES Fund—which would include the REDD+ Fund—managed by Ministry of Agriculture and Rural Development would distribute land use funding such as REDD+ to provincial governments, allowing each province to distribute funds to its own environmental service providers<sup>47</sup>.

### **Despite decentralization attempt, Myanmar continues to be highly centralized due to a lack of capacity at the regional levels [Case Study]**

In Myanmar, the decentralization process has led to some devolution of administrative responsibilities, yet the lower levels of government continue to be highly dependent on national government due to uneven capacities. State and regional governments have a constrained revenue base and continue to rely on transfers from the union level. Myanmar continues to be a centralized country due to the small size and central oversight of budgets, and restrictions on political autonomy<sup>48</sup>.

### **In the DRC, continued support by the central government to the provinces is necessary despite a decentralization law [Case Study]**

Under the DRC's Constitution and law, decentralized government units have separate finances to ensure the financial autonomy of decentralized territorial entities. Certain costs previously borne by the central government have been transferred to the provinces, such as the responsibility to ensure revenues from natural resources effectively contribute to provincial development. As a result of this change, the most financially endowed provinces are those that existed under the previous structure of provinces, while newly-created provinces often lack the infrastructure and resources to generate the income needed to support their development. The Mai-Ndomebe REDD+ Jurisdictional Project also highlights why support to the provinces is necessary: provinces need to maintain full ownership over the forest emissions reduction programme for REDD+ to be effective, as they will receive some of the payments resulting from emissions reductions made within the provinces.

To address inequalities arising from the development of provinces and decentralized territorial entities, the DRC Constitution stipulates that 40% of national revenue is withheld at source and put into a national equalization fund for redistribution. This national equalization fund could help improve the capacity of subnational governments to generate their own income from various sources, including

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- 46 Morgan PJ and Trinh LQ. 2016. *Fiscal Decentralization and Local Budget Deficits in Viet Nam: An Empirical Analysis*. ADBI Working Paper 613. Tokyo: Asian Development Bank Institute. Accessed 11 July 2022. <https://www.adb.org/publications/fiscal-decentralization-local-budgetdeficits-viet-nam>
- 47 Pham TT, Ngo HC, Dao TL, Hoang TL and Moeliono M. 2021. Participation and influence of REDD+ actors in Vietnam, 2011–2019. *Global Environmental Change* 68:102249. <https://doi.org/10.1016/j.gloenvcha.2021.102249>
- 48 Oo TN, Hlaing EES, Aye YY, Chan N, Maung NL, Phyo SS, Thu P, Thuy PT, Maharani C, Moeliono M, Gangga A, Dwisatrio B, Kyi MKM and San SM. 2020. *The context of REDD+ in Myanmar: Drivers, agents and institutions*. Occasional Paper 202. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/007556>

the exploitation of natural resources, However, the functioning of this fund is unclear, and it is difficult to determine the real contribution it could bring to the development of the new provinces<sup>49</sup>

## Payments to local government based on performance

*Providing performance-based payments to reduce emissions from deforestation and forest degradation will require setting aside additional forest areas that will compete with other land uses.*

These payments could be channelled to local governments that have the appropriate level mandate to manage forest and land use.

### Rewarding Brazil's local governments for promoting conservation [Case Study]

Starting in 1991, the Brazilian state of Paraná collected taxes from the sale of goods, transport and communication services, using the funds to protect biodiverse areas. Called the Imposto sobre Circulação de Mercadorias e Serviços – Ecológico (or ICMS-E), this “ecological” value-added tax accounts for over 90% of the fiscal revenues of state governments in Brazil.

Part of the tax proceeds are reallocated back to municipal governments as compensation for revenues lost from protected areas. The ICMS-E is intended both as a compensating mechanism and as an incentive, encouraging not only better management of existing protected areas, but also the designation of new conservation areas.

Some studies have shown a direct correlation between the ecological tax and increase in protected areas: total protected areas in Paraná state have increased by 164% since 1991. However, quality indicators for monitoring environmental effectiveness are lacking.

Brazil's ecological tax leverages existing state administration and can create political buy-in via a bottom-up approach to forest conservation. But it does require transparency in the distribution of revenues<sup>50</sup>.

### Environmental fiscal transfers in China contribute to improved environmental quality [Case Study]

In China, the system of intergovernmental fiscal transfers includes three types of ecological fiscal transfers (EFTs), with the most important type being the general-purpose fiscal transfer payments for National Key Ecological Function Areas (NKEFAs), established nationwide in 2010 to compensate county-level governments for their expenditures and to stimulate them to promote nature conservation in areas with vulnerable biodiversity. The central government transferred approximately USD 11.4 billion via the NKEFA scheme in 2020. The EFT distributes around 0.95% of the transfer from the central government to local governments to those counties that have

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49 Kengoum F, Pham TT, Moeliono M, Dwisatrio B and Sonwa DJ. 2020. *The context of REDD+ in the Democratic Republic of Congo: Drivers, agents and institutions*. 2<sup>nd</sup> edition. Occasional Paper 207. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/007793>

50 Loft L, Gebara MF and Wong GY. 2016. *The experience of ecological fiscal transfers: Lessons for REDD+ benefit sharing*. Occasional Paper 154. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/006168>

NKEFAs based on an allocation formula that includes multiple elements related to ecosystem quality (for example, biological richness, vegetation coverage, water network density, land stress, pollution load and environmental restrictions). The transfer scheme also includes bonus payments for local governments that perform well, and fines for local governments that perform poorly, based in part on an ecological index. Several studies have found China's NKEFA payments to have had a positive effect on some aspects of environmental quality. For example, quasi-experimental studies found that transfer payments reduced pollution-intensive activity in the Yangtze River Basin and improved environmental quality in Guangdong Province, while panel regressions across Chinese provinces found that transfer payments reduced pollution and that payments improved water quality and quantity. This suggests that EFTs have improved some aspects of environmental quality in China<sup>51</sup>.

### India compensates states that protect forests for their foregone tax revenue [Case Study]

India's Finance Commission is responsible for deciding every five years how much tax revenue is distributed from the national government to state governments, as well as for the formula for how this revenue is distributed between states. India's ecological fiscal transfer programme began in 2015 when the 14<sup>th</sup> Finance Commission included areas of high- or moderate-density forest as 7.5% of the distribution formula. This was done to compensate states for the "fiscal disability" of their foregone tax revenue due to maintaining or protecting forest cover, and to recognize forests' substantial ecological benefits. In the first five years of the EFT, more than USD 37 billion was transferred to states based on forest cover. The introduction of ecological fiscal transfers was concurrent with a substantial increase in transfers to states, as the amount of money distributed from the national government to state governments increased from 32% to 42% of tax revenue, boosting confidence in state governments that increases in forest cover could be rewarded with increases in funding<sup>52</sup>. This is just one example of how the national government can compensate subnational governments for the revenue lost from protecting forest areas that they would otherwise have received from development.

### Cameroon's land tax [Case Study]

Land tax laws have been in place in Cameroon since the mid-1970s. Yet until recently there have been no evaluations of how well they were working.

CIFOR researchers have studied five subsidiaries of multinationals operating in Cameroon's oil palm, rubber, banana and sugarcane sectors. Only an oil palm and a sugarcane corporation had operations on "national" lands (i.e., land that was not already privately or publicly owned), and they were thus required to pay land taxes to councils and communities.

Most councils use land rents to meet current needs, such as paying salaries, rather than investing them in sustainable development. But even those councils that do invest in community projects have not reduced poverty at the household level.

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- 51 Busch J, Ring I, Akullo M, Amarjargal O, Borie M, Cassola RS, Cruz-Trinidad A, Droste N, Haryanto JT, Kasymov U and Kotenko NV. 2021. A global review of ecological fiscal transfers. *Nature Sustainability* 4(9):756-65. <https://doi.org/10.1038/s41893-021-00728-0>
- 52 Busch J, Ring I, Akullo M, Amarjargal O, Borie M, Cassola RS, Cruz-Trinidad A, Droste N, Haryanto JT, Kasymov U and Kotenko NV. 2021. A global review of ecological fiscal transfers. *Nature Sustainability* 4(9):756-65. <https://doi.org/10.1038/s41893-021-00728-0>

“Revenue from land fees is not used differently than forest royalties,” said Samuel Assembe-Mvondo, the study’s principal author. “It is not meaningfully invested in health, electricity, water or education.”

To improve sharing of rents on national land, the study recommended:

- Carrying out a systematic inventory of national lands occupied or granted/leased
- Ensuring all operators pay land rents as required by law
- Launching competitive bids for national lands open to investment
- Ensuring all information related to occupation/use of national lands is published.

Adapted from Results of Cameroon land-fee study hold lessons for REDD+<sup>53</sup>

## How have royalties / taxation been set for timber and other sectorsa

### *The rent of land has been source of public revenue for near a thousand years*

Land taxes are most famously associated with American political economist, Henry George, who argued since the value of locations is created by communities and public works, the economic rent of land is the most logical source of public revenue.

The price paid for a standing tree is called the “stumpage” or “royalty.” Royalties are based on the value of the product at the mill door minus the cost of harvesting and transport.

REDD+ payments, whether they come from land rents or royalties, could be jeopardized if the mechanism is not set up effectively, efficiently and equitably. The following case studies demonstrate this issue.

### **Globally, taxes and fees are set too low to account for the environmental externalities of production [Case Study]**

It is estimated that only between 3% and 30% of the potential economic rent from timber is collected by governments globally<sup>54</sup>. For example, Indonesia collects around USD 272 million annually in forest sector fees, 70% of which comes from a fee schedule that does not consider market prices and has remained unchanged since 1999<sup>55</sup>. Similarly, in 2016, Indonesian authorities collected only 52% of potential timber royalty revenues<sup>56</sup>. The issue reinforces itself in that weak governance impedes the collection of revenues, and the lost revenue cannot be reinvested into enforcement and retaining good staff<sup>57</sup>. Fees from negative environmental externalities must be set higher to effectively deter environmentally damaging behaviour.

53 Assembe-Mvondo S, Brockhaus M and Lescuyer G. 2013. Assessment of the effectiveness, efficiency and equity of benefit-sharing schemes under large-scale agriculture: Lessons from land fees in Cameroon. *The European Journal of Development Research* 25(4):641-56. <https://doi.org/10.1057/ejdr.2013.27>

54 Heine D, Hayde E, and Faure MG. 2021. Letting commodity tax rates vary with the sustainability of production. In World Bank Group, eds. *Designing fiscal instruments for sustainable forests*. Washington DC, USA: The World Bank. 145-171

55 Corruption Eradication Commission (KPK). 2015. Preventing state losses in Indonesia’s forestry sector. Indonesia: KPK. Accessed 11 July 2022 <https://acch.kpk.go.id/images/tema/litbang/pengkajian/pdf/Preventing-State-Losses-in-Indonesia-Forestry-Sector-KPK.pdf>

56 Mumbunan S and Wahyudi R. 2016. Revenue loss from legal timber in Indonesia. *Forest Policy and Economics* 71:115-23. <https://doi.org/10.1016/j.forpol.2016.06.025>

57 Verhoeven M, Magrath W, Robbins A and Kallaur E. 2019. Mobilizing and Managing Public Forestry Revenue. Governance Discussion Paper No 1. Washington DC, USA: The World Bank. <http://hdl.handle.net/10986/33086>

### 2.3.5 Enforcement

Law enforcement needs to be strong to ensure the effectiveness of that protect forests from illegal deforestation and forest degradation. Weak law enforcement often stems from a lack of capacity among law enforcers, poor coordination among stakeholders, land tenure issues and confusion or competing claims, and the inability of governments to execute policies and enforce their rules/laws clearly and transparently. Corruption can also be an issue, as collusion between large groups that are drivers of deforestation and those in power can be a strong force against changes to business-as-usual practices. Addressing these challenges will entail increasing investment in capacity-building activities, enhancing data transparency and improving coordination between stakeholders and policies.

#### **In Vietnam, anti-corruption activities are a step towards promoting law enforcement [Case Study]**

A study in Vietnam found aspects of participatory approaches introduced by international organizations in collaboration with governmental and domestic non-governmental actors were deemed to reduce certain corruption risks. The types of anti-corruption activities being implemented, including social safeguards, and grievance and fund management mechanisms, reveal attempts to strengthen principal-agent type interventions and promote participation as a norm within policymaking processes, and support law enforcement efforts. Yet lobbying at the interface between the private sector and politicians at provincial level, as well as limited involvement of local citizens in certain stakeholder processes, point to competing pro-corruption social norms and the relative superficiality of some REDD+ consultations. While anti-corruption activities can have positive effects and should continue to be pursued, project implementers must be vigilant in guarding against corruption to ensure laws are properly enforced<sup>58</sup>.

#### **Weak law enforcement in the forest sector is partly due to a lack of political will and means among politicians and bureaucrats [Case Study]**

In the DRC, deforestation is partly driven by the inconsistency of the Forest Code and weak enforcement leading to ineffective forest management. Interviews with officials from the Ministry of Environment revealed that low wages and insufficient resources for monitoring contribute to weak law enforcement. These explanations are interlinked with the unwillingness of both the central government and local officials to enforce laws and monitor logging activities. This is clearly demonstrated via the allocation of artisanal logging permits and mechanisms of enforcing the laws at the local level. These processes are driven by vested interests and rent-seeking behaviour of the administrative authorities, while ecological concerns regarding forests are undermined<sup>59</sup>.

58 Williams DA and Dupuy KE. 2019. Will REDD+ safeguards mitigate corruption? Qualitative evidence from Southeast Asia. *The Journal of Development Studies* 55(10):2129-2144. <https://doi.org/10.1080/00220388.2018.1510118>

59 Samndong RA, Bush G, Vatn A and Chapman M. 2018. Institutional analysis of causes of deforestation in REDD+ pilot sites in the Equateur province: Implication for REDD+ in the Democratic Republic of Congo. *Land Use Policy* 76:664-674. <https://doi.org/10.1016/j.landusepol.2018.02.048>

### **The development of village-level institutions, “social fencing” and a shared future through equal REDD+ payments influence levels of compliance in villages in Tanzania [Case Study]**

Generally, when REDD+ is implemented at the group level, a mechanism is needed to ensure that individual villagers comply with restrictions in order for conditionality to be met. Explicit enforcement, which can be measured, primarily relies on patrols and punishments for those caught perpetrating illegal activities within a REDD+ forest. Yet, in some successful REDD+ pilot projects in Tanzanian villages, the villagers do not allocate any funds to this type of protection. One explanation for this lack of enforcement funding is that there has been considerable effort within these villages to build institutions. Experience with such institutions may reflect a tacit assumption that “social fencing” – a sense of collective responsibility to protect a commonly held and used resource – is sufficient to protect the REDD+ forests. Social fencing may ensure compliance by influencing “insiders” to adhere to village-level regulations. However, outsiders who are not part of the village and do not share in any REDD+ payment are unlikely to be subject to such pressures; as they do not have a stake in the REDD+ forest, they are not affected by REDD+ payments or a shared sense of future<sup>60</sup>. Even without a formal mechanism for law enforcement, a strong sense of collective responsibility over a public good may be enough to generate compliance.

### **Weak law enforcement in Dak Lak province in Vietnam due to low payments and poor equipment for law enforcers [Case Study]**

In Vietnam’s Dak Lak province, illegal deforestation continues to be widespread, partly due to weak law enforcement in areas of forest managed by state forest authorities and state-owned companies. Service providers are paid to conduct patrols and take other measures to protect forests, but community-led patrolling is challenging. The payments people receive are deemed too low for the time and effort they expend traversing harsh craggy mountains. Community patrol teams are unable to impose fines and lack the means to protect themselves, in part because villagers lack proper uniforms, personal protective equipment and other facilities. In contrast, violators are increasingly aggressive and better equipped. The fragmented and remote nature of forests also makes their protection even more challenging. Natural forest in Dak Lak continues to be cut down illegally and encroached upon, while forest owners fail to take adequate measures to prevent the situation, and often shift the responsibility to others. Challenges in addressing violations include poor facilities and resources for those responsible for enforcing forestry laws, as well as an unclear monitoring and evaluation system framework<sup>61</sup>.

60 Robinson EJZ, Albers HJ, Lokina R and Meshack C. 2016. Allocating Group-Level Payments for Ecosystem Services: Experiences from a REDD+ Pilot in Tanzania. *Resources* 5(4):43. <https://doi.org/10.3390/resources5040043>

61 Pham TT, Le TTT, Tuyet HNK, Pham VT, Tran PHNK, Tran TD, Tran NMH, Nguyen TTA and Nguyen TVA. 2021. Impacts of Payment for Forest Ecosystem Services in Protecting Forests in Dak Lak Province, Vietnam. *Forests* 12(10):1383. <https://doi.org/10.3390/f12101383>

### In Brazil, weak law enforcement due to understaffing [Case Study]

In Brazil, law enforcement is weak at both federal and state levels, and environmental agencies at all levels are understaffed. Data show that some state governments in the Brazilian Amazon have played a key role in creating protected areas (PAs) since 2003, which helped decrease deforestation rates. Although Brazil made remarkable progress in creating PAs in the subsequent eight years, with considerable participation by the state governments, the future protection of forests cannot be taken for granted. Encroachments on PAs and Indigenous lands are frequent, and deforestation rates remain high and vulnerable to market forces. Brazil and the Amazonian states should not wait for REDD+ money to solve these problems. Rather, they should immediately increase their investment in institutional capacity building to ensure they are ready to manage REDD+ money when (or if) it becomes available. Similarly, the federal government should consider REDD+ as just one part of an overall strategy to reduce carbon emissions<sup>62</sup>.

### Addressing land tenure issues in Indonesia with more transparent land data through the One Map Policy geoportal [Case Study]

Launched in 2018, Indonesia's One Map Policy geoportal aims to create one integrated map hosted on a geoportal database by harmonizing data across 19 ministries and government agencies. The government has found that 40 percent of the country's land mass is disputed<sup>63</sup>. Since then, the policy has helped address some land tenure issues by increasing transparency and open data. The initiative is a step towards addressing the disputes and overlapping land claims resulting from inconsistent demarcation of land from different state institutions as well as identifying the scale of overlapping tenure<sup>64</sup>.

There is some progress to be made by improving overall accessibility. Concern exists among civil society and Indigenous Peoples and local communities (IPLCs) around the inclusion of traditional customary land, which has historically been excluded in government geospatial planning documents – the main dataset of this integrated map. Furthermore, the One Map Policy geoportal is only fully accessible to key government ministers and departments. Strengthening the One Map Policy by incorporating participatory maps that cover customary lands and forests and providing public access to the map could help reduce the threat of land grabbing and conversion<sup>65</sup>.

## 2.3.6 Supporting policy instruments

A variety of policies can support the success of REDD+ projects, namely, land-use policies that are strategically aligned, commitments from the private sector, and the promotion of sustainable agriculture and reforestation.

**Strategic alignment of land-use policies:** REDD+ is included in many countries' Nationally Determined Contributions (NDCs) and climate change policies, but drivers of deforestation and

62 Toni F. 2011. Decentralization and REDD+ in Brazil. *Forests* 2(1):66-85. <https://doi.org/10.3390/f2010066>

63 Aqil AMI. 2020. Concerns of transparency, inclusivity raised as One Map nears completion. Jakarta, Indonesia: The Jakarta Post. Accessed 11 July 2022. <https://www.thejakartapost.com/news/2020/09/04/concerns-of-transparency-inclusivity-raised-as-one-map-nears-completion.html>

64 Umali T. 2020. Completion of One Map Policy targeted for end of 2020. Singapore: OpenGov Asia. Accessed 11 July 2022. <https://opengovasia.com/completion-of-one-map-policy-targeted-for-end-of-2020/>

65 NYDF Assessment Partners. 2021. *Taking stock of national climate action for forests*. Amsterdam: Climate Focus. Accessed 11 Jun 2023. <https://climatefocus.com/publications/taking-stock-national-climate-action-forests-goal-7-progress-report/>



forest degradation are not fully acknowledged. Clear land-use policies and measures that tackle drivers of deforestation and forest degradation, along with transparent monitoring and evaluation frameworks, are needed to ensure that NDCs are effective in achieving their intended outcomes. Improvements can also be made in existing policies relating to land-use planning, tenure, extension services and financing schemes<sup>66</sup>.

**Private sector commitments:** Commercial agriculture is a big driver of deforestation. Actors in the private sector can create sustainability commitments aimed at producing and sourcing commodities to reduce risks to forests, but the implementation of zero deforestation pledges by the private sector need to be accelerated and transparent to show real results and progress. Companies can also adopt certification of management and production standards, undergo auditing and verification, and participate in chain of custody assurance. Suppliers can enhance their traceability and monitoring and verification efforts<sup>67</sup>.

**Sustainable intensification of agricultural production:** Sustainable intensification involves increasing agricultural yields without the conversion of additional non-agricultural land to raise productivity and farm incomes; enhancing climate change adaptation and resilience; and reducing greenhouse gas (GHG) emissions from agriculture. However, higher yields may provide incentives to expand agricultural land into forests, so policies need to incorporate forest-specific measures to ensure land-sparing outcomes. Farmers must have the capacity, labour and inputs to intensify agriculture, while not using these resources to expand agricultural land and not violating forest governance and conservation policies<sup>68</sup>.

**Forest restoration:** Initiatives that aim to restore degraded forests and landscapes are growing in popularity, particularly in the Latin American region, where forest restoration projects aim to increase vegetation cover and re-establish ecological processes and biodiversity. For these projects to directly address the causes of degradation, incentive structures need to promote sustainable land stewardship and restoration of degraded lands, and include monitoring activities to track forest carbon impacts<sup>69</sup>.

### Companies committing to a deforestation-free cocoa supply chain are working with Cote d'Ivoire and Ghana for the role cocoa plays in their NDCs and REDD+ strategies [Case Study]

Cocoa is an important driver of forest change in sub-Saharan Africa (SSA). A recent study of commodity crop-related deforestation found that cocoa production in SSA accounted for 57% of global cocoa expansion between 2000 and 2013. In an effort to reverse the cocoa-deforestation trend, the two main cocoa-producing countries in SSA – Cote d'Ivoire and Ghana – have given cocoa a central role in their NDCs and REDD+ strategies, incentivizing companies committed to a deforestation-free supply chain to work with these two countries. On the ground, an integrated approach to agroforestry that considers the entire cocoa value chain will be central to these

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- 66 Pham TT, Moeliono M, Angelsen A, Brockhaus M, Gallo P, Hoang TL, Dao TLC, Ochoa C and Bocanegra K. 2018. Strategic alignment: Integrating REDD+ in NDCs and national climate policies. In Angelsen A, Martius C, De Sy V, Duchelle AE, Larson AM and Pham TT, eds. *Transforming REDD+: Lessons and new directions*. Bogor, Indonesia: CIFOR. 69-80
- 67 Pacheco P, Bakhtary H, Camargo M, Donofrio S, Drigo I and Mithöfer D. 2018. The private sector: Can zero deforestation commitments save tropical forests? In Angelsen A, Martius C, De Sy V, Duchelle AE, Larson AM and Pham TT, eds. *Transforming REDD+: Lessons and new directions*. Bogor, Indonesia: CIFOR. 161-173
- 68 Ngoma H, Angelsen A, Carter S and Roman-Cuesta RM. 2018. Climatesmart agriculture: Will higher yields lead to lower deforestation? In Angelsen A, Martius C, De Sy V, Duchelle AE, Larson AM and Pham TT, eds. *Transforming REDD+: Lessons and new directions*. Bogor, Indonesia: CIFOR. 175-187
- 69 Verchot L, De Sy V, Romijn E, Herold M and Coppus R. Forest restoration: Getting serious about the 'plus' in REDD+. 2018. Introduction: REDD+ enters its second decade. In Angelsen A, Martius C, De Sy V, Duchelle AE, Larson AM and Pham TT, eds. *Transforming REDD+: Lessons and new directions*. Bogor, Indonesia: CIFOR. 189-202

REDD+ efforts<sup>70</sup>. This case is an example of the growing rise in private sector commitments aimed at sustainable ingredient sourcing and deforestation-free supply chains.

However, the work for cocoa CSR and deforestation supply chains is far from over. A study evaluating corporate signatories for zero-deforestation commitments like the Cocoa and Forests Initiative (CFI) in Côte d'Ivoire and Ghana found several issues, such as consumer-facing and high-brand-value firms pronouncing less stringent zero-deforestation commitments than their upstream partners, a lack of clarity on definitions and timelines, the neglect of indirect supply chains, and unclear geospatial precision<sup>71</sup>

### Forest landscape restoration in Ethiopia [Case Study]

Ethiopia's bold forest restoration efforts can help meet REDD+ goals. The country has committed to restoring 22 million ha of degraded forests and agricultural lands by 2030. By conserving natural forests and establishing new ones, forests are expected to play a significant role in the socioeconomic development of the country, to account for 50% of the national emissions reduction potential, and to contribute to building a carbon-neutral economy by 2030. Between 2016 and 2020, Ethiopia aimed to put 2 million ha of natural forests under participatory forest management while identifying and demarcating 4.5 million ha of degraded land for restoration, afforestation and reforestation. In addition, the country's Environment, Forest and Climate Change Commission has identified tree-based restoration options for improving tree cover in different landscapes, such as lakesides and riverbanks, buffer zones of natural forests, rangelands and agricultural landscapes. Yet despite the country's bold national restoration commitment, the lack of political will and capacity at state and lower levels of government could pose implementation problems. Additionally, outcomes for the participatory forest schemes in different communities have been mixed overall, pointing to the need to take into account factors such as formation of cooperatives, the wealth endowment of the community, ethnic homogeneity, distance to the nearest market, and the interaction of the district environmental protection office with cooperatives<sup>72,73</sup>.

### 2.3.7 Linkages with other sectoral policies

Deforestation and forest degradation cannot be framed as simply forestry problems given that other sectors, such as commercial timber exploitation, industrial agricultural development, shifting cultivation and infrastructure expansion, also play a role. Competing or contradictory laws in other sectors can hinder the success of REDD+ programmes. And as improved forest and land use also involves social, environmental and economic aspects, such as rural poverty, land tenure, environmental services and financial and market issues, REDD+ requires a cross-sectoral response to achieve transformational change<sup>74</sup>.

70 Ngoma H, Angelsen A, Carter S and Roman-Cuesta RM. 2018. Climatesmart agriculture: Will higher yields lead to lower deforestation? In Angelsen A, Martius C, De Sy V, Duchelle AE, Larson AM and Pham TT, eds. *Transforming REDD+: Lessons and new directions*. Bogor, Indonesia: CIFOR. 175–187

71 Carodenuto S and Buluran M. 2021. The effect of supply chain position on zero-deforestation commitments: evidence from the cocoa industry. *Journal of Environmental Policy & Planning* 23, 716–731. <https://doi.org/10.1080/1523908X.2021.1910020>

72 Walle Y and Nayak D. 2020. How can participatory forest management cooperatives be successful in forest resources conservation? An evidence from Ethiopia. *Journal of Sustainable Forestry* 39(7):655–73. <https://doi.org/10.1080/10549811.2019.1684950>

73 Ngoma H, Angelsen A, Carter S and Roman-Cuesta RM. 2018. Climatesmart agriculture: Will higher yields lead to lower deforestation? In Angelsen A, Martius C, De Sy V, Duchelle AE, Larson AM and Pham TT, eds. *Transforming REDD+: Lessons and new directions*. Bogor, Indonesia: CIFOR. 175–187

74 Brockhaus M, Di Gregorio M and Mardiah S. 2014 Governing the design of national REDD+: An analysis of the power of agency. *Forest Policy and Economics*. 49:23–33. <https://doi.org/10.1016/j.forpol.2013.07.003>

Coordination among different policy actors participating in decision-making processes is crucial. For REDD+ institutional arrangements to respond to the wider scope of the problems to be solved, there needs to be representation and interaction of actors across sector boundaries and diverse knowledge and values. REDD+ programmes should also be linked with other sectors (forestry, environmental and financial) and land use policies to ensure their success.

Yet, representation of state actors from different policy sectors alone does not necessarily ensure improved policy coordination. Embedded political interests, power relations and historical institutional path dependencies could undermine the effectiveness of institutional arrangements in policy outcomes. There needs to be support for those who are affected by REDD+ to ensure that their voices can be heard in decision-making processes<sup>75</sup>.

### Cross-sectoral linkages and policy impacts in Brazil [Case Study]

In Brazil, development paradigms from the mid-1970s were increasingly centred on the promotion of private enterprises through generous credit and fiscal incentives, with particular attention on the ranching, timber and mining sectors; this increased pressures on forests. While there have been measures to reduce deforestation, forest conversion continues to be facilitated by contradictory policies, particularly within the infrastructure, agribusiness and mining sectors. More work needs to be done across the various industries with ties to deforestation to ensure there is greater intersectoral policy coordination on forestry laws<sup>76</sup>.

### Developing draft REDD+ standards for extractive industries in the DRC [Case Study]

Extractive industries and associated infrastructure are among the chief causes of reduction of intact forest landscapes globally, ranking as the fourth driver of deforestation after industrial logging, agricultural expansion and wildfires. Extractive industries mostly do not explicitly mention REDD+ in their sustainability reports or initiatives, but they often have relevant environmental and social policies in place that offer practical linkages to REDD+ objectives.

One study found that there are opportunities for extractive industries to contribute to REDD+ objectives, using insights gained from developing REDD+ standards for extractives in the DRC. The DRC's national REDD+ Strategy Framework adopted in 2014 specifies measures to mitigate negative impacts and optimize benefits from private sector investments in general as well as in the oil and mining sector, namely:

- The development and implementation of ambitious land governance to optimize land use and natural resources;
- The revision of the legal framework for extractive sectors;
- Strengthening law enforcement regarding social and environmental safeguards;
- Supporting research on the impacts of extractive industries on forests (both large-scale and small-scale) together with mitigation and compensation measures;
- Supporting mitigation and rehabilitation plans of sites with the participation of civil society and local communities to limit damage to forests.

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75 Fujisaki T, Hyakumura K, Scheyvens H and Cadman T. 2016. Does REDD+ Ensure Sectoral Coordination and Stakeholder Participation? A Comparative Analysis of REDD+ National Governance Structures in Countries of Asia-Pacific Region. *Forests* 7(9):195. <https://doi.org/10.3390/f7090195>

76 May PH, Gebara MF, Barcellos LM, Rizek M and Millikan B. 2016. *The context of REDD+ in Brazil: Drivers, actors and institutions – 3rd Edition*. Occasional Paper 160. Bogor, Indonesia: CIFOR. DOI: [10.17528/cifor/006338](https://doi.org/10.17528/cifor/006338)

The DRC's draft REDD+ Standards for extractive industries aim to guide all extractive activities in forest zones with the purpose of avoiding, mitigating or compensating for their impacts on forest cover. The Standards are founded on basic principles of REDD+, including permanence of the achieved reductions, additionality of these reductions compared to reference expectations, safeguard measures regarding livelihood options for local populations, and avoidance of any leakage effects from displacement of activities to other forest areas. The draft Standards state a clear goal of zero net-deforestation and contain explicit requirements for the incorporation of direct and indirect deforestation and forest degradation within environmental management systems.

Successful REDD+ interventions for the extractives sector need to overcome a number of prevailing risks in order to achieve effective, efficient and equitable REDD+ outcomes, such as limitations and difficulties with inter-sectoral planning, and vested interests in oil and mineral exploitation. Overall, the Draft REDD+ Standards for extractive industries are an example of how developing REDD+ policy can influence the extractives sector and broaden the perspective on how the sector can contribute to achieving REDD+ objectives<sup>77</sup>.

## Forestry sector policies

### *Policy mixes have become a field of growing interest among the international community*

Policy instruments tend to be analysed in isolation, but in reality, a mix of policies or interventions are applied. Their combined effects may be quite different to each of their effects in isolation.

The implementation of REDD+ will necessarily involve a mix of various policy instruments aimed at tackling the drivers of deforestation and forest degradation.

Some of these policy mixes include:

- Incentive-based policy instruments to encourage forest conservation, such as Payment for Environmental Services (PES) or subsidies (often called “carrots”);
- Disincentive-based policies to discourage deforestation and forest degradation, such as stronger enforcement and penalties (often call “sticks”);
- Policies to change enabling institutional conditions (e.g., the restructuring of ministerial responsibilities or decentralization of authorities), that prepare the ground for incentives and disincentives to work better.

While an incentive-disincentive policy mix is necessary, multiple policy objectives cannot simply be achieved by a single policy instrument. This is particularly true when deforestation and forest degradation are caused by multiple reinforcing factors.

Evaluations of these policy mixes will need to consider elements of economic efficiency, environmental effectiveness and social well-being related to incomes.

Trade-offs will depend on deforestation patterns and pressures, conservation opportunity, and enforcement and compliance costs. The effectiveness of law enforcement is key to any policy's efficiency.

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77 Hund K, Schure JM and van der Goes A. 2017. Extractive industries in forest landscapes: Options for synergy with REDD+ and development of standards in the Democratic Republic of Congo. *Resources Policy* 54:97-108. <https://doi.org/10.1016/j.resourpol.2017.09.011>

### The policy mix that led to Brazil's deforestation slow-down [Case Study]

In terms of combatting deforestation, Brazil's success is unsurpassed and is attributed largely to a mix of policies.

In 2012, deforestation in Brazil was 13,750 square kilometers lower than the historical average and roughly 700 square kilometers below the ambitious national policy target for the 2011–2015 period.

This success has been attributed largely to command-and-control measures such as:

- Blacklisting regions or districts with high annual forest loss
- Real-time deforestation monitoring so criminals can be caught quickly
- Effective law enforcement

However, to balance costs, benefits and social equity, governments are starting to realize the importance of introducing incentives into the enforcement policy mix. These can include compensating farmers for conserving natural vegetation on their properties as well as performance-based payments for environmental service conservation (PES).

Designing effective policy mixes can be challenging in practice and comes with trade-offs. A 2015 study found that it will be challenging to align incentives with disincentives in order to make conservation socially acceptable and cost-effective.

On a purely monetary basis of government spending, the most cost-effective mix is dominated by command-and-control measures, with more than 30 hectares of forest conserved per BRL 1,000 (about USD 345) invested in the policy.

This type of policy could achieve conservation gains at enforcement costs of only BRL 0.03 (less than one US cent) per hectare of forest conserved. However, the opportunity costs borne by land users in this scenario would be large. For the reduction in deforestation that occurred between 2004 and 2012, these costs could have exceeded BRL 2 billion (about USD 700 million) annually.

Carrots without sticks, meanwhile, reduce cost-effectiveness by more than 98%, the study found, although carrots helped to ensure a more equal sharing of costs and benefits, thus making conservation politically more palatable.

"The rationale is that you compensate land users for at least some of the losses that occur when they increase their compliance with the law. But of course, that comes at a significant cost to the state, which has to provide a larger budget," said Jan Börner, lead author of the study.

Adapted from: Mind the 'stick': How 'carrots' can make conservation fairer in Brazil's Amazon<sup>78</sup>

78 Börner J, Marinho E and Wunder S .2015. Mixing Carrots and Sticks to Conserve Forests in the Brazilian Amazon: A Spatial Probabilistic Modeling Approach. PLOS ONE 10(2): e0116846. <https://doi.org/10.1371/journal.pone.0116846>

### Forestry and Indigenous rights legislation land tenure to Indigenous Peoples in Acre [Case Study]

In 1976, Brazil's National Indian Foundation (FUNAI) began work in the state of Acre establishing the first contact between the state and Indigenous Peoples to demarcate Indigenous lands. The demarcation of "Indigenous territories" as a legal land category was significant in that it granted Indigenous Peoples their land rights. In addition, Brazil's 1988 Constitution reinforced the rights of Indigenous Peoples, and importantly, removed the mandate that Indigenous Peoples should assimilate into Brazilian society. Demarcation, in conjunction with constitutional legislation recognizing and reinforcing the rights of Indigenous Peoples, contributed to land tenure. Since 1976, 717 Indigenous territories have been delineated nationwide<sup>79</sup>.

### New policies in Brazil to avoid and offset-related emissions [Case Study]

In the Brazilian Amazon, where government initiatives and international pressure helped reduce emissions from deforestation, emissions from forest fires and edge effects increased between 2005 and 2015. Effective policies to curb deforestation do not directly address forest degradation; addressing human-induced degradation requires going beyond identifying and quantifying the different types of disturbance to creating new strategies. Some of the new policies that could be established – and eventually incorporated into national policies and international agreements – include ones aimed at avoiding and offsetting related emissions, including the sustainable use of forest resources, restoring old-growth forests and protecting of secondary-growth forest<sup>80</sup>.

However, such 'new' policies can easily be dismantled and reinvented by political interests. Bolsonaro has introduced policies that have authorized the commercial production of agricultural and forestry products on Indigenous territories, resulting in territorial dispossession reminiscent of past phases of settler colonial development<sup>81</sup>.

### Payments to local communities from logging companies in parallel with improved forest transparency in Ghana [Case Study]

In Ghana, reforms to the system of Social Responsibility Agreements that entitle local communities to payments from logging companies have increased transparency and improved disbursements to communities, thereby improving the collection and use of forest revenues<sup>82</sup>. Other positive outcomes include improved transparency in forest-sector revenues, more equitable processes for negotiating Social Responsibility Agreements, better monitoring of their implementation by the government, and an overall positive impact on the management of the forestry sector in the country.

79 DiGiano M, Mendoza E, Ochoa M, Ardila J, Oliveira de Lima F and Nepstad D. 2018. *The Twenty-Year-Old Partnership Between Indigenous Peoples and the Government of Acre, Brazil: Lessons for realizing climate change mitigation and social justice in tropical forest regions through partnerships between subnational governments and indigenous peoples*. San Francisco, USA: Earth Innovation Institute (EII). DOI:[10.13140/RG.2.2.34535.29609](https://doi.org/10.13140/RG.2.2.34535.29609)

80 Silva Junior CH, Carvalho NS, Pessôa A, Reis JB, Pontes-Lopes A, Doblaz J, Heinrich V, Campanharo W, Alencar A, Silva C and Lapola DM. 2021. Amazonian forest degradation must be incorporated into the COP26 agenda. *Nature Geoscience* 14(9):634-5. <https://doi.org/10.1038/s41561-021-00823-z>

81 Urzedo D and Chatterjee P. 2021. The Colonial Reproduction of Deforestation in the Brazilian Amazon: Violence Against Indigenous Peoples for Land Development. *Journal of Genocide Research* 23(2): 302-324, DOI:[10.1080/14623528.2021.1905758](https://doi.org/10.1080/14623528.2021.1905758)

82 Hoare A, Young D, Uehara T, Seidu MK, Birikorang G, Soh LW and Kamga JK. 2020. *Forest sector accountability in Cameroon and Ghana*. Research Paper. London, UK: Chatham House. Accessed 11 July 2022. <https://www.chathamhouse.org/2020/10/forest-sector-accountability-cameroon-and-ghana/about-authors#block-mainnavigation>

# 3 Designing REDD+ benefit-sharing mechanisms

## 3.1 Basic description/typology

### 3.1.1 Mechanism objectives

#### Targeting

**An incentive programme for ecosystem services is most effective when specific groups are targeted based on the programme's objectives.**

REDD+ programmes can involve targeting of benefit-sharing mechanisms to ensure that the bulk of the benefits are experienced by a specific group. How the target group is characterized depends on the project and its priorities, but groups that are typically prioritized are communities that involve disadvantaged, vulnerable or marginalized members.

Rationales that are used to justify the distribution and targeting of benefits include the following:

- Benefits should go to actors with legal rights (“legal rights” rationale);
- Benefits should go to those actors achieving emission reductions (“emission reductions” rationale);
- Benefits should go to low-emitting forest stewards (“stewardship” rationale);
- Those actors incurring costs should be compensated (“cost compensation” rationale);
- Benefits should go to effective facilitators of REDD+ implementation (“facilitation” rationale);
- Benefits should go to the poorest (“pro-poor” rationale).

It is important to legitimize the process of designing mechanisms as there can be various objectives and interest groups in a project. Having clearly defined principles and objectives can protect against small and unrepresentative interest groups exerting disproportionately strong influence over the design of REDD+ benefit-sharing<sup>83</sup>.

Different targeting approaches and eligibility criteria will involve trade-offs in costs and additionality, with more sophisticated and restrictive eligibility criteria being effective in achieving impacts and additionality, but also higher costs to implement. There is also a possibility of conflicts in certain societies when a few, but not all members of a community receive benefits. How the target group is characterized (e.g., how are the poor and vulnerable defined?) and the availability of data, funds and institutional capacity to implement such criteria would have to be considered.

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83 Luttrell C, Loft L, Gebara MF, Kweka D, Brockhaus M, Angelsen A and Sunderlin WD. 2013. Who should benefit from REDD+? Rationales and realities. *Ecology and Society* 18(4): 52. <http://dx.doi.org/10.5751/ES-05834-180452>

### Land users meeting Vietnam's FLA programme criteria secure tenure [Case Study]

Vietnam's Forest Land Allocation (FLA) programme provides tenure security for forest land users and is aimed at devolving forest rights to local communities to encourage local forest protection and development. This is a pro-poor focused programme as poor communities and individuals based in rural forested regions are prioritized, and it grants forest owners the qualification they need to be able to receive Payments for Forest Environmental Services (PFES)<sup>84</sup> and eligibility for REDD+<sup>85</sup>, with the targeting approach aimed at reaching the poorest and most vulnerable groups in rural communities.

### Targeting households and villages in Vietnam's PFES programme in Cat Tien [Case Study]

In the Cat Tien region of Vietnam, staff running the Payment for Forestry Environmental Services (PFES) programme selected participating communities using criteria such as villages being close to borders with other provinces, areas having high risks of illegal logging, villages showing good forest protection performance in the past, and communities not being involved in other state forest protection programmes. Although the programme did show some good practices in its targeting criteria for benefit-sharing, there was room for improvement. For example, the household selection process should not have involved consultation with village heads, but programme staff sought the opinions of village heads, and this may have biased the selection of households targeted for the programme. To ensure equity in the future, programme staff said they would try to rotate PFES recipient villages every few years, and villages not performing their PFES duties effectively would be removed from the programme and replaced with others. Efforts to increase equity should be considered carefully in all efforts to target REDD+ projects<sup>86</sup>.

## 3.1.2 Types of benefits

### Direct cash based on performance

*Direct monetary benefits have been rare in REDD+. Until a global or national carbon price is reliably established, REDD+ and other low emissions development initiatives are unlikely to promise direct monetary benefits to communities.*

### Not based on performance

*It is not uncommon for projects to pay seed funding or start-up costs, enabling landholders to cover the large up-front labour and opportunity costs of land-use change.*

84 Pham TT, Le TTT, Tuyet HNK, Pham VT, Tran PHNK, Tran TD, Tran NMH, Nguyen TTA and Nguyen TVA. 2021. Impacts of Payment for Forest Ecosystem Services in Protecting Forests in Dak Lak Province, Vietnam. *Forests* 12(10):1383. <https://doi.org/10.3390/f12101383>

85 Wong GY, Loft L, Brockhaus M, Yang AL, Pham TT, Assembe-Mvondo S and Luttrell C. 2017. An assessment framework for benefit sharing mechanisms to reduce emissions from deforestation and forest degradation within a forest policy mix. *Environmental Policy and Governance* 27(5):436-52. <https://doi.org/10.1002/eet.1771>

86 Pham TT, Nguyen TD, Dao CTL, Hoang LT, Pham LH, Nguyen LT and Tran BK. 2021. Impacts of Payment for Forest Environmental Services in Cat Tien National Park. *Forests* 12(7):921. <https://doi.org/10.3390/f12070921>



### Covering up-front costs: Experiences from a REDD+ pilot in Tanzania [Case Study]

A REDD+ pilot introduced a performance-based village-level PES system in the Tanzanian districts of Kilosa and Lindi. Villagers were required to reduce or eliminate conversion of REDD+ forest areas for other land uses, and to incur the set-up costs of a REDD+ PES scheme before a verified reduction in forest loss had been achieved, and before a truly conditional REDD+ payment could be made. Recognizing these up-front costs, and in common with other documented PES-type initiatives, the first REDD+ payments were made to the villages before any measured reduction in forest loss. Organizing the initial payment was challenging because no performance had been achieved, but it was necessary to create incentives for future management. The first round of payments was based on villages' historical baseline and the percentages of forest they decided to put into village forest reserves. This project involved balancing conditionality with the need to make some up-front payments to defer the initial costs imposed on households.

These pre-payments may be criticized as negating the conditionality in true PES, but without them, such approaches to resource management could fail in the early years, or not be accepted at the proposal stage. This is especially the case in lower-income countries, where people rely heavily on forests for their livelihoods. As REDD+ implementation will differ from PES in a country with well-functioning property institutions, it is worth considering the possibility of paying up-front costs, and the impact that doing so will have in helping facilitate the success of a project<sup>87</sup>.

### Payments to be provided in advance for the Mai-Ndombe programme in the DRC [Case Study]

For the Mai-Ndombe REDD+ project in the DRC, a minimum of USD 5.3 million is planned to be provided in advance of Emission Reduction Program Agreement (ERPA) payments (independently of the project's performance), to assist with meeting start-up costs. In addition to this up-front payment, up to USD 1.9 million will be added in case of performance of the emissions reduction (ER) programme. The pay-outs are aimed at contributing to ER programme management, development and governance, and activities to engage with stakeholders. For countries such as the DRC which might not otherwise be able to participate in REDD+ schemes without outside support, start-up funding from donors can help get a REDD+ programme established, ensuring that cost is not a prohibitive barrier for countries that express an interest in participating in REDD+<sup>88</sup>.

### Covering part of the implementation costs for the FCPF programme in Vietnam [Case Study]

In Vietnam, of the total expected net payment of USD 48 million, 3.2% – equivalent to an expected USD 1.42 million – is allocated directly towards activities aimed at strengthening enabling conditions. These activities include strengthening and implementing policies controlling conversion of natural forests; the adoption of a legal framework to reduce deforestation and forest

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87 Robinson EJZ, Albers HJ, Lokina R and Meshack C. 2016. Allocating Group-Level Payments for Ecosystem Services: Experiences from a REDD+ Pilot in Tanzania. *Resources* 5(4):43. <https://doi.org/10.3390/resources5040043>

88 The Forest Carbon Partnership Facility (FCPF). 2018. *Advanced Draft Benefit Sharing Plan for the Mai-Ndombe Emission Reductions Program in the Democratic Republic of Congo* [Draft]. Accessed 11 July 2022. [https://www.forestcarbonpartnership.org/system/files/documents/BSP%20ER%20program%20Mai%20Ndombe\\_15%20June%202018\\_CLEAN.pdf](https://www.forestcarbonpartnership.org/system/files/documents/BSP%20ER%20program%20Mai%20Ndombe_15%20June%202018_CLEAN.pdf)

degradation of natural forests; managing natural forest resources sustainably and developing sustainable plantations in the North Central Region; strengthening law enforcement and monitoring compliance with safeguards policies (50% of the total amount allocated to the central level); the development and dissemination of regulations and guidelines; and encouraging private sector, local community and ethnic minority engagement to effectively contribute to ER targets (50% of the total amount allocated to the central level). The remaining 96.8% of total net payments (about USD 46.58 million) are performance-based and will be allocated to provinces<sup>89</sup>.

## Non-cash/In-kind

***Unless REDD+ delivers livelihoods, infrastructure, tenure security, biodiversity and any ecosystem service benefits (often labelled “co-benefits” or “non-carbon benefits”), carbon goals are unlikely to be met. Most of the benefits generated and distributed by REDD+ so far have been non-monetary.***

### Leveraging forest monitoring skills training for livelihood opportunities [Case Study]

Monitoring subcommittee members of Puerto Ocopa, Peru, are not compensated monetarily for their work, but they do receive training from the REDD+ programme on forest monitoring technologies and techniques, namely, training on Global Positioning System (GPS) use, mapping and reading coordinates, conservation topics, and how to respond to circumstances identified during monitoring (i.e., how to report issues regarding illegal logging, encroachment and other environmental crimes). Some members have used their new forest monitoring technologies and techniques to expand their livelihood opportunities or to earn additional income, such as being paid by small-scale farmers and neighbours to delimit their plots with GPS coordinates<sup>90</sup>.

### Employing local people leads to several co-benefits in Madagascar [Case Study]

In Madagascar, a local non-governmental organization (NGO) called Eden utilizes a development model that employs locals to plant trees with the aim of enhancing income, increasing adaptive capacity and stopping deforestation. Eden employs over 100 permanent workers per village to carry out mangrove planting, and over the course of ten years this has provided job stability, which has resulted in new skills learned and career development opportunities. Community beneficiaries have been able to diversify their livelihoods thanks to their improved saving capacity. In addition, their enhanced income allows an increasing number of primary and secondary needs to be met, like improved access to education, strengthened social organization and the creation of a sense of community and trust<sup>91</sup>.

89 [MARD] Ministry of Agriculture and Rural Development Vietnam and [FCPF] The Forest Carbon Partnership Facility. 2019. *Benefit sharing plan of the program on emissions reductions in north central region of Viet Nam for the period 2019-2024*. Washington DC, USA: The World Bank. Accessed 11 July 2022. <https://documents1.worldbank.org/curated/pt/676631550223032222/Advanced-Draft-Benefit-Sharing-Plan-for-Vietnams-North-Central-Region.docx>

90 F. Kowler L, Kumar Pratihast A, Pérez Ojeda del Arco A, Larson AM, Braun C and Herold M. 2020. Aiming for Sustainability and Scalability: Community Engagement in Forest Payment Schemes. *Forests* 11(4):444. <https://doi.org/10.3390/f11040444>

91 Favretto N, Afionis S, Stringer LC, Dougill AJ, Quinn CH and Ranarijaona HL. 2020. Delivering climate-development co-benefits through multi-stakeholder forestry projects in Madagascar: Opportunities and challenges. *Land* 9(5):157. <https://doi.org/10.3390/land9050157>

### Mixed non-carbon REDD+ benefits in Kalimantan, Indonesia [Case Study]

REDD+ has the potential to deliver both carbon and non-carbon (i.e., social and environmental) benefits such as biodiversity conservation, the provision of food, fuel and fibre, and contributions to local livelihoods. However, it can be difficult to extract the type and extent of co-benefits a given REDD+ project can produce in a community, and it is possible that REDD+ projects can have negative impacts on a community. A study from Indonesia using publicly available secondary data on tenure and well-being indicators in 2,242 villages in 18 REDD+ project sites in Kalimantan found relatively positive outcomes for tenure, but potentially negative effects on welfare. The authors promote more robust data collection and monitoring systems to evaluate social impacts of REDD+ projects over time<sup>92</sup>.

### Indigenous Agroforestry Agents programme builds Indigenous Peoples of Acre's education and capacity [Case Study]

In the state of Acre, Brazil, Indigenous leaders engaging in the Indigenous Agroforestry Agents (IAA) programme to become rural extension agents also become educators and liaisons between community and government. For many IAAs, the training programme provided the necessary skills and transformative experiences outside of their communities to engage with broader society on equal terms. For many, the IAA training was their first exposure to Portuguese and was thus where they acquired reading and writing skills. By 2018, 59 IAAs had completed secondary or technical education, and in addition to their work in their communities, several of these graduates had other professional roles in government and civil society, including as the Secretary of Indigenous Affairs for the Acre state government. The IAA programme helped to reinforce and value Indigenous Peoples' cultures, knowledge and agency in decision making within their communities and broader state-level processes, while simultaneously promoting forest protection<sup>93</sup>.

## 3.1.3 Types of finance

REDD+ can be funded in a variety of ways. These include conditional and unconditional cash transfers, separate environmental funds, PES systems, up-front and interim payments, and land or forest tax redistribution systems.

At the global level, REDD+ finance has largely been allocated for REDD+ institution- and capacity-building activities, development of national REDD+ strategies, and to a lesser extent, for policy reforms. Identifying and defining unambiguous indicators for REDD+ performance will be a negotiated process.

92 Jagger P and Rana P. 2017. Using publicly available social and spatial data to evaluate progress on REDD+ social safeguards in Indonesia. *Environmental Science & Policy* 76:59-69. <https://doi.org/10.1016/j.envsci.2017.06.006>

93 DiGiano M, Mendoza E, Ochoa M, Ardila J, Oliveira de Lima F and Nepstad D. 2018. *The Twenty-Year-Old Partnership Between Indigenous Peoples and the Government of Acre, Brazil: Lessons for realizing climate change mitigation and social justice in tropical forest regions through partnerships between subnational governments and indigenous peoples*. San Francisco, USA: Earth Innovation Institute (EII). DOI:[10.13140/RG.2.2.34535.29609](https://doi.org/10.13140/RG.2.2.34535.29609)

### A dedicated forestry fund: Brazil's Amazon Fund [Case Study]

The Amazon Fund is one of the largest and most experienced Result based payment instruments worldwide, with over a decade of operational activity, up to USD 2 billion in donation pledges, and an approved disbursement of over USD 707 million for the support of 100 projects. International donors, primarily Norway and Germany, have made payments into the Amazon Fund based on Brazil's reduced emissions from lowered deforestation rates<sup>94</sup>.

The Amazon Fund holds many lessons for the implementation and operationalization of results-based finance in Brazil, but also in other countries wanting to undertake similar efforts. For example, there is the question of whether and to what extent financial transfers should be provided for past emissions reductions. While Brazil emphasizes that it deserves a reward of USD 21 billion for results achieved between 2006 and 2016, donor countries have indicated an interest in paying only for most recent results as a way to incentivize further reductions. There is also some concern that the performance of the Amazon Fund projects in generating further reductions has not been measured in a rigorous manner, so donor countries may consider making changes to current Results-Based Financing (RBF) mechanisms or getting involved in new forms of finance.

Overall, environmental funds are financing mechanisms that provide a variety of options for structure, operation and funding mechanisms, and assure that each fund can adapt to the context of national and local laws and conditions. On the financial side, they can provide long-term sources of finance for conservation and sustainable development, tools for leveraging additional resources, and cost-effective instruments for managing funds. On the environmental side, these funds are seen as a way to finance national environmental strategies and strengthen the capacity of local environmental organizations<sup>95</sup>.

### Vietnam's national Payment for Forest Environmental Services (PFES) scheme [Case Study]

In 2004, Vietnam became the first country in Asia to lay the foundations for a nationwide programme of Payment for Forest Environmental Services (PFES). The basic idea of payment for environmental services, or PES, is to create incentives for individuals and communities to protect environmental services by compensating them for any costs incurred in managing and providing those services. The Government of Vietnam first piloted the PFES scheme in two provinces: Son La and Lam Dong in 2008, and since 2010 has scaled-up the programme to the national level, becoming the first country in Southeast Asia to introduce a nationwide PES scheme.

Vietnam's PFES is based largely on the PES premise, although the programme has some distinctive characteristics:

- Decree No. 99/2010/ND-CP defines buyers as water supply companies, hydropower plants, tourism companies and aquaculture businesses, and sellers as forest owners (organizations, households or individuals) with forests allocated or leased by the state for stable and permanent use for forestry purposes.
- Participation in the scheme is mandatory, as buyers and sellers are identified by law and must take part in the programme.

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94 Amazon Fund. n.d. Accessed 11 July 2020. <http://www.amazonfund.gov.br/en/home/>

95 Van der Hoff R, Rajão R and Leroy P. 2018. Clashing interpretations of REDD+ "results" in the Amazon Fund. *Climatic Change* 150: 433–445. <https://doi.org/10.1007/s10584-018-2288-x>

- The government sets the level of payment, and the Vietnam Forest Protection and Development Fund signs contracts with buyers that set out the amounts they must pay for ecosystem services.
- Payments are disbursed for the maintenance of existing forest cover as a proxy for ecosystem services.
- Provincial Forest Protection and Development Funds sign contracts with service buyers and collect payments for services supplied within the province.
- The funds prepare payment plans, monitor and release payments to service suppliers and submit periodic reports to the Vietnam Forest Protection and Development Fund<sup>96</sup>

## 3.2 Design features

Even within the same financing structure, there can be differences stemming from variations in legal, financial and governance features. Finance can be allocated based on reduced emissions to the national level, and there can be national-to-local reallocation for interim targets (e.g., based on monitoring and planning). Finance can be provided conditionally or unconditionally, and can be provided up front or in instalments. REDD+ project finance designs should align with the needs and desires of the donor and the recipient country and have institutional arrangements that specify the actors involved and the rules applicable to their operation.

### 3.2.1 Types of activities involved

Many REDD+ pilot initiatives have focused on forest conservation activities involving poor smallholders with up-front livelihood and social welfare activities<sup>97</sup>, but the targeting of poor smallholders and forest communities raises the question of effectiveness, if these are the actors driving deforestation and forest degradation.

A review of REDD+ country strategies highlights that most tend to focus on activities to reduce forest degradation and enhance forest carbon stocks, rather than on tackling deforestation typically caused by large commercial actors<sup>98</sup>. Proposed interventions should focus not only on activities to reduce deforestation, but also on other forest-related REDD+ activities such as sustainable forest management, which reduce forest degradation and enhance forest carbon stocks<sup>99</sup>.

#### Swidden agriculture in Indonesia and the need to address plantation and mining expansion as drivers of forest conversion [Case Study]

Swidden agriculture, also known as shifting cultivation with fire, has historically been one of the most widespread land uses in upland Southeast Asia. In two villages in Berau district, East Kalimantan province, Indonesia, where a jurisdictional REDD+ programme called the Berau Forest Carbon Program (BFCP) has been launched, villagers feel pressured by competing land uses driven directly and indirectly by the plantation and mining sectors. As rapid expansion of mining

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96 Le ND, Loft L, Tjajadi JS, Pham TT and Wong GY. 2016. *Being equitable is not always fair: An assessment of PFES implementation in Dien Bien, Vietnam*. Working Paper 205. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/006167>

97 Lin L, Sills E and Cheshire H. 2014. Targeting areas for reducing emissions from deforestation and forest degradation (REDD+) projects in Tanzania. *Global Environmental Change* 24:277-286. <https://doi.org/10.1016/j.gloenvcha.2013.12.003>

98 Salvini G, Herold M, De Sy V, Kissinger G, Brockhaus M and Skutsch M. 2014. How countries link REDD+ interventions to drivers in their readiness plans: implications for monitoring systems. *Environmental Research Letters* 9(7):074004. <https://doi.org/10.1088/1748-9326/9/7/074004>

99 Wong GY, Luttrell C, Loft L, Yang A, Pham TT, Naito D, Assembe-Mvondo S and Brockhaus M. Narratives in REDD+ benefit sharing: Examining evidence within and beyond the forest sector. *Climate Policy* 19(8):1038-1051. <https://doi.org/10.1080/14693062.2019.1618786>

and oil palm concessions heightens perceptions of tenure insecurity among villagers, there has been speculative and contentious land clearing.

At the village and district levels, control of swidden agriculture has become a focus for the development of forest governance by external stakeholders, such as governments, companies and conservation groups, which have sought to control or eliminate shifting cultivation. Efforts by these actors to limit swidden clearing and promote alternative livelihoods aim to define and minimize community agricultural area and eliminate contentious land change. Community initiatives and sustainable logging initiatives are present, such as the provision of support for logging companies to adopt reduced-impact logging methods and achieve sustainability certification. Yet, the limitation of swidden agriculture plays an instrumental role in clearing space for industrial land uses (logging and oil palm concessions). REDD+ projects have failed to engage with major corporate actors. The government has issued a series of policies in support of REDD+, among others Presidential Instruction no 98/2021 on carbon economic value but implementation remains slow. There is virtually no participation in BFCP by oil palm or tree fibre plantation companies or the mining sector. The omission of these industrial land uses from the forest governance regime undercuts efforts to limit contentious clearing and results in the failure to reduce district-level deforestation. Preventing and reducing contentious land change and deforestation will not be possible until plantation and mining expansion are addressed. This case highlights that targeting local communities is perhaps politically easier than tackling powerful large-scale drivers of deforestation that are often tied to national growth ambitions<sup>100</sup>.

### 3.2.2 Conditionality for payments

Conditionality in REDD+ programmes refers to the idea that payments are disbursed to recipients based on their performance in achieving REDD+ goals. This results-based approach is gaining traction among REDD+ programmes and is particularly appealing to donors as development budgets contract. While conditionality is often a lauded feature of REDD+, there is ongoing debate over whether conditionality is always required for achieving programme objectives.

For example, conditional cash transfers can be more effective than unconditional cash transfers, though the latter are more equitable, but payment schemes not based on conditions can still be effective if they are perceived as equitable. Furthermore, unconditional cash transfers are also viewed as more equitable than conditional cash transfers. Finally, there are also efficiency implications to consider as more defined conditionality criteria to increase effectiveness or more complex eligibility criteria to ensure equity outcomes will entail higher costs to implement and to monitor<sup>101</sup>.

#### **Conditional payments lead to slightly more environmentally efficient outcomes than unconditional payments [Case Study]**

The design of a payment scheme affects beneficiaries' perceptions of effort and equity. There is some support for the idea that conditionality leads to better outcomes. An experiment assessing individual perceptions of conservation efforts and community-level equity under four different PES designs across eight villages in north-western Vietnam found that two types of conditional payments – those based on compensation only, and those based on the actual provision of ecosystem services – led to slightly higher environmental effectiveness than unconditional, differentiated payments. A design with differentiated payments conditional only on individuals' contributions of effort was perceived as being the most equitable and more effective than other designs in motivating conservation efforts.

*Continued on next page*

100 Thaler GM and Anandi CA. 2017. Shifting cultivation, contentious land change and forest governance: the politics of swidden in East Kalimantan. *The Journal of Peasant Studies* 44(5):1066-1087. <https://doi.org/10.1080/03066150.2016.1243531>

101 Loft L, Gehrig S, Le DN and Rommel J. 2019. Effectiveness and equity of Payments for Ecosystem Services: Real-effort experiments with Vietnamese land users. *Land Use Policy* 86:218-28. <https://doi.org/10.1016/j.landusepol.2019.05.010>

Meanwhile, conservation effort under unconditional, undifferentiated payments (egalitarian payments) was perceived as not being significantly different from under any of the other designs. Overall, this supports the idea that PES design equity and effectiveness are affected by the differentiation and conditionality of payments, with conditional payments being slightly more effective and viewed as more equitable than unconditional payments. More promisingly, it suggests that equitable and effective PES designs can coincide<sup>102</sup>.

### 3.2.3 Timing of payments or benefits: When are benefits distributed?

*The timing of benefit distribution – at the beginning of a project, at agreed intervals of the project or based on adequate performance (e.g., number of tons of carbon saved) is crucial to the success of REDD+.*

There are discussions on whether payments should be provided in interims or in full. Evidence from PES and certification and standards programmes suggests that up-front payments that are not results-based can be effective at the local level, as up-front payments have enabled wider participation in the programmes, including among poorer stakeholders, and helped to mitigate some of the risks and costs involved<sup>103,104</sup>; Tjajadi, Yang, Naito and Arwida 2015<sup>105</sup>). There is also support for the idea that regular payments based on agreed performance benchmarks or interims can motivate participants to maintain their commitment to programme objectives. While this approach will increase the overall costs, one might also argue that it is better to pay twice for a result than to pay once for no result<sup>106</sup>. If payments are not carefully considered and phased in accordance with the aim and lifetime of a project, payments may still risk jeopardizing the expected project results.

#### **Support for programmes matching Mexican community members' preference for timing of benefit distribution [Case Study]**

In the Xmabén and La Mancolon communities in Campeche, Mexico, the payments for REDD+ programmes were planned as incentives disbursed ex-ante to cover incremental costs. REDD+ activities were not supposed to provide further net economic benefits to local people, except those that would potentially be accrued from their implementation, such as timber, non-timber forest products, water quality and wild meat. While the local people preferred individual monetary benefits disbursed ex-post in a single annual instalment, they were also willing to accept in-kind benefits disbursed ex-ante, but only as a means of supporting individual agricultural activities. Still, the community's support for another programme, one that includes individual monetary support disbursed monthly, suggests that there would have been greater support for the REDD+ programmes had the timing of the distribution of benefits aligned with that of the participants' preferences<sup>107</sup>.

102 Loft L, Gehrig S, Le DN and Rommel J. 2019. Effectiveness and equity of Payments for Ecosystem Services: Real-effort experiments with Vietnamese land users. *Land Use Policy* 86:218-28. <https://doi.org/10.1016/j.landusepol.2019.05.010>

103 Loft L, Thuy PT and Luttrell C. 2014 *Lessons from payments for ecosystem services for REDD+ benefit-sharing mechanisms*. Infor Brief No 68. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/004488>

104 Angelsen A. 2017. REDD+ as result-based aid: General lessons and bilateral agreements of Norway. *Review of Development Economics* 21(2):237-64. <https://doi.org/10.1111/rode.12271>

105 Tjajadi, J.S., Yang, A.L., Naito, D., Arwida, A.L., 2015. Lessons from environmental and social sustainability certification standards for equitable REDD+ benefit-sharing mechanisms. Center for International Forestry Research (CIFOR). <https://doi.org/10.17528/cifor/005587>

106 Angelsen A. 2017. REDD+ as result-based aid: General lessons and bilateral agreements of Norway. *Review of Development Economics* 21(2):237-64. <https://doi.org/10.1111/rode.12271>

107 Špirić J, Reyes AE, Rodríguez ML and Ramírez MI. 2021. Impacts of REDD+ in Mexico: Experiences of Two Local Communities in Campeche. *Sociedad y Ambiente* (24):1-33. <https://doi.org/10.31840/sya.vi24.2387>

### 3.2.4 Who are the beneficiaries and how are they identified?

#### Performance-based criteria

As REDD+ involves performance-based payments, criteria to determine the eligibility of target groups could depend on factors such as forest stewardship practices or a role in facilitating or enabling REDD+ implementation.

#### Eligibility criteria backfiring with good forest stewards in Vietnam [Case Study]

Under Vietnam's national Payment for Forest Ecosystem Services (PFES) implementation, those who have had forests for the last 20 years are ineligible to receive PES, as there is little or no additionality from the business-as-usual activities of low-emitting actors<sup>108</sup>. Because this neglects good forest stewards' efforts in forest conservation, it creates a perverse incentive for actors to carry out emitting activities, as only then would they be eligible for REDD+ benefits. So, instead of protecting forests, these groups are now the main actors behind deforestation and forest degradation. A REDD+ approach based too much on effectiveness and efficiency ignores equity considerations. Programmes should not prioritize emissions reductions to the point of inequitable criteria for meeting and obtaining benefits, since in many countries, populations in isolated areas have played crucial roles in forest protection<sup>109</sup>.

#### Who actually benefits?

*With benefits from REDD+ flowing into a country, a fairly central question centres around who should receive those benefits.*

Analysis of current practices and debates on sharing benefits from REDD+ identified six rationales for choosing beneficiaries, namely:

- Those with legal rights related to carbon emissions reductions;
- Those who reduce emissions;
- Forest stewards;
- Those incurring costs;
- Effective facilitators of REDD+ implementation;
- The poor.

These groups are not mutually exclusive, and any REDD+ project could benefit multiple groups.

#### Those with legal rights to carbon emissions reductions [Case Study]

**WHO:** Those with a legal claim or right, whether statutory or customary, to any benefits associated with reduced carbon emissions.

**WHY:** Based on theories of libertarian justice, i.e., first-come, first-served, natural resources should be appropriated by those who discover them, claim them, or provide labour inputs.

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108 Pham TT, Di Gregorio M, Carmenta R, Brockhaus M and Le DN. 2014. The REDD+ policy arena in Vietnam: participation of policy actors. *Ecology and Society* 19(2): 22. <http://dx.doi.org/10.5751/ES-06389-190222>

109 Loft L, Le DN, Pham TT, Yang AL, Tjajadi JS and Wong GY. 2017. Whose equity matters? National to local equity perceptions in Vietnam's payments for forest ecosystem services scheme. *Ecological Economics* 135:164-75. <https://doi.org/10.1016/j.ecolecon.2017.01.016>



**WHERE:** This sentiment is strongly felt in Tanzania and Brazil, perhaps a reflection that land and forest resource rights are more clearly defined in these countries.

**CHALLENGES/IMPLICATIONS:** If carbon and/or land rights are uncertain (as they are in many REDD+ countries) then it may be unclear who is legally entitled. Benefits based on legal rights can also further disadvantage poor forest users, who seldom possess legally recognized rights to land and/or forest products, often because of the high costs of getting legal recognition<sup>110</sup>.

### Those who reduce emissions [Case Study]

**WHO:** Forest managers, local people and companies.

**WHY:** Merit-based rewards should be distributed to those who have done the work.

**WHERE:** When asked in a survey whether “REDD benefits should reward large-scale industries/ companies for reducing forest emissions”, many Brazilian Indigenous and traditional groups fear that “criminals” would be rewarded, given that much of the deforestation is carried out by large private landowners who do not comply with the National Forest Code or do not have proper land titles. In Indonesia, on the other hand, this statement received strong support among government and private sector respondents, but only around half of NGO/research respondents agreed with it.

**CHALLENGES/IMPLICATIONS:** In some contexts, the largest emissions reductions may be achieved by large companies (which are also, paradoxically, the dominant emitters in many contexts). Does that mean we are rewarding them for their past poor environmental performance?<sup>111</sup>.

### Forest stewards [Case Study]

**WHO:** Indigenous groups or other forest users that have a record of responsible forest management. In this view, REDD+ serves to recognize both past and current efforts, and to encourage the continued protection of forests.

**WHY:** To reward a virtuous pattern of behaviour (merit-based) benefits should be distributed equally among all providers of a service regardless of the level of service provision (egalitarian) as well as support marginalized forest dwellers (needs-based).

**WHERE:** In Peru and Brazil, benefits are being distributed to people not directly involved in deforestation. This is done as a means of encouraging collaboration and creating incentives for forest protection. Elsewhere, this rationale factors little in the design of benefit-sharing systems at the project level.

**CHALLENGES/IMPLICATIONS:** In low-emission situations, it is difficult to prove and therefore reward a reduction in emissions per se. However, it can be argued that emissions are likely to increase in the future, therefore, continued conservation could be considered to reduce potential future emissions<sup>112</sup>.

110 Luttrell C, Loft L, Gebara MF, Kweka D, Brockhaus M, Angelsen A and Sunderlin WD. 2013. Who should benefit from REDD+? Rationales and realities. *Ecology and Society* 18(4): 52. <http://dx.doi.org/10.5751/ES-05834-180452>

111 Luttrell C, Loft L, Gebara MF, Kweka D, Brockhaus M, Angelsen A and Sunderlin WD. 2013. Who should benefit from REDD+? Rationales and realities. *Ecology and Society* 18(4): 52. <http://dx.doi.org/10.5751/ES-05834-180452>

112 Luttrell C, Loft L, Gebara MF, Kweka D, Brockhaus M, Angelsen A and Sunderlin WD. 2013. Who should benefit from REDD+? Rationales and realities. *Ecology and Society* 18(4): 52. <http://dx.doi.org/10.5751/ES-05834-180452>

### Those incurring costs [Case Study]

**WHO:** Can be both project proponents and beneficiaries.

**WHY:** Merit-based, i.e., benefits should be proportional to inputs so that people and/or companies shouldering implementation, transaction and opportunity costs are compensated regardless of the emissions reductions for which they are directly responsible. Also, most REDD+ projects are in the early stages of implementation and recognize the need to give actors incentives for getting involved.

**WHERE:** In Tanzania, many REDD+ projects are combining up-front funding as compensation for early inputs, with plans to shift to payments based on performance. However, the financial incentives have raised expectations. A forthcoming study shows that initial payments were based on villagers' minimal efforts and/or interest, so do not guarantee long-term behavioural change. Without a sustained supply of payments, village conservation efforts may cease.

**CHALLENGES/IMPLICATIONS:** This approach does not necessarily allow for a direct link between payments and reductions in deforestation and forest degradation. If people are rewarded regardless of outcomes, they have little incentive to perform well. It also ignores differences in opportunity costs. This is because, for example, there tend to be more valuable economic opportunities in areas where forests have higher carbon content, so communities in these (predominantly highland) areas will incur greater potential livelihood losses than communities in low-carbon forests<sup>113</sup>.

### Effective facilitators of REDD+ implementation [Case Study]

**WHO:** Private sector proponents, NGO project proponents, or central or local governments, i.e., those that are not necessarily forest based, but are essential for the implementation of REDD+.

**WHY:** Companies and governments should be compensated for running costs, such as setting up systems for monitoring, reporting and verification, and for enforcement.

**WHERE:** Private sector project developers in Indonesia are negotiating to provide constructive inputs to the national policy on setting benefit-sharing rules, arguing that project developers require adequate compensation to cover the implementation and transaction costs incurred as a result of REDD+ readiness activities. In Tanzania, the level of administration fees that should accrue to the facilitating organization is a key issue in negotiations with communities.

**CHALLENGES/IMPLICATIONS:** The need to balance between providing incentives to those facilitating the implementation of REDD+ to achieve effective implementation, but also to guard against windfall profits<sup>114</sup>.

113 Luttrell C, Loft L, Gebara MF, Kweka D, Brockhaus M, Angelsen A and Sunderlin WD. 2013. Who should benefit from REDD+? Rationales and realities. *Ecology and Society* 18(4): 52. <http://dx.doi.org/10.5751/ES-05834-180452>

114 Luttrell C, Loft L, Gebara MF, Kweka D, Brockhaus M, Angelsen A and Sunderlin WD. 2013. Who should benefit from REDD+? Rationales and realities. *Ecology and Society* 18(4): 52. <http://dx.doi.org/10.5751/ES-05834-180452>

### The poor [Case Study]

WHO: Excluded and vulnerable members of a community (or areas in a region).

WHY: Needs-based, i.e., those with the greatest need should receive a greater reward. Focusing on carbon emissions and compensation of costs could mean rewarding wealthy actors for reducing their illegal behaviour, which entrenches inequality and undermines the moral and political legitimacy of REDD+.

WHERE: Many of those interviewed in studies in Brazil and Indonesia very strongly agreed with the idea that REDD+ should mainly reward local people for emissions reduction activities.

CHALLENGES/IMPLICATIONS: Without involvement of local people in their implementation, REDD+ projects are unlikely to be effective<sup>115</sup>.

### Different views on who REDD+ programme beneficiaries should be are political, driven by economic considerations at the national level, and largely determined by governments [Case Study]

Despite general agreement that REDD+ benefits should be shared among different stakeholders, there are also diverse views on who REDD+ beneficiaries should be, and how they should be paid. A paper examining the perceptions of REDD+ stakeholders in Brazil, Indonesia and Vietnam on different aspects of financing; namely who should finance REDD+ and who should receive REDD+ benefits for what, finds that these issues are political, driven by considerations at the national level and, despite the narrative of inclusive participatory decision making, are largely determined by governments. Six main beneficiaries were identified and examined: actors with legal rights; actors that actually reduce emissions; forest stewards; actors that bear the cost; effective facilitators for implementation; and the poor and marginalized. Across Brazil, Indonesia and Vietnam, most interviewees agreed that actors who actually reduce emissions should be prioritized to receive REDD+ benefits, with growing consensus that the poor as well as actors who have legal rights should receive REDD+ benefits.

Yet, across the three countries, there are differences in how actors perceive different issues related to REDD+ financing. In Vietnam, most respondents believed benefits should be allocated to actors who actually reduce emissions, with many stakeholders advocating for more attention to be placed on distributing benefits to the poor, with fewer benefits being channelled to facilitators. In contrast, in Indonesia and Brazil, respondents became less certain that results-based payment was the way forward. In Brazil, many stakeholders believed facilitators should also receive benefits due to the active role they play in REDD+ programmes in the country.

As public perceptions and policies are not always aligned, and political interests determine how REDD+ finance and benefit-sharing mechanisms are designed and implemented, addressing funding gaps and improving benefit-sharing mechanisms alone will not solve the problem. Resolving the problem also requires addressing weak coordination between sectors and government agencies, unclear tenure and weak law enforcement; recognizing and addressing powerful drivers of deforestation; and better alignment between national development goals without compromising forests<sup>116</sup>.

115 Luttrell C, Loft L, Gebara MF, Kweka D, Brockhaus M, Angelsen A and Sunderlin WD. 2013. Who should benefit from REDD+? Rationales and realities. *Ecology and Society* 18(4): 52. <http://dx.doi.org/10.5751/ES-05834-180452>

116 Pham TT, Moeliono M, Yuwono J, Dwisatrio B and Gallo P. 2021. REDD+ finance in Brazil, Indonesia and Vietnam: Stakeholder perspectives between 2009-2019. *Global Environmental Change* 70:102330. <https://doi.org/10.1016/j.gloenvcha.2021.102330>

### Indigenous and traditional peoples as the main beneficiaries of the Acre REDD Early Movers (REM) program [Case Study]

Under the REM program in Acre, Brazil, 70% to 90% of German funds go directly to local actors, most of whom are Indigenous Peoples and traditional communities that act as conservation stewards, and to farmers and cattle ranchers, who are reducing deforestation along the agrarian frontier<sup>117</sup>. Lessons from these benefit-sharing experiences can be used to identify and mitigate risks of inequitable outcomes<sup>118</sup>. Indigenous communities and traditional populations were proactively consulted and their participation in collaboration with the authorities helped to ensure that no squatting or irregular settlements came with new road access. The programme also had a strong focus on strengthening the cultural identities of populations through the preparation of an inventory of traditional cultures and the dissemination of this research through five centres of cultural dissemination aimed at upholding the value of cultural identity of the 12 recognized Indigenous ethnic groups. Ultimately, these efforts had a positive impact on implementation of the programme by creating a political and social force working daily to achieve a tangible result and social inclusion, while simultaneously valuing the forest<sup>119</sup>.

### Regional variations in land tenure affect the extent of financial benefits received in Vietnam [Case Study]

Vietnam's Payment for Forest Ecosystem Services (PFES) programme is largely considered a success for its financial impact on its beneficiaries. However, environmental and social outcomes among funding recipients are mixed, largely due to land tenure context. For example, in the northern region of Vietnam where people are allocated less than one hectare of forest, PFES payments contribute less than one percent of their incomes<sup>120</sup>. However, in the southern region where people have at least 30 hectares of allocated forests, PFES can contribute up to 74% of household income<sup>121</sup>. This disparity in outcomes, largely due to differences in tenure, suggests that even within a country, variations in regional contexts should be considered during programme design to identify the primary programme beneficiaries.

## 3.2.5 What types of costs, to whom, and who bears liability for failure? What are the costs and burdens?

### For beneficiaries

***The types of burdens experienced by REDD+ project beneficiaries (normally local communities) are often high costs (including opportunity costs and increased inequity through elite capture) and rights.***

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- 117 KfW Development Bank. 2017. REDD+ in the State of Acre, Brazil: Rewarding a pioneer in forest protection and sustainable livelihood development. Fact Sheet. Frankfurt: Germany: KfW. Accessed 11 July 2022. <https://www.kfw-entwicklungsbank.de/PDF/Entwicklungsfinanzierung/Themen-NEU/REDD-Early-Movers-Acre-Fact-Sheet.pdf>
- 118 Duchelle AE, Seymour F, Brockhaus M, Angelsen A, Larson A, Moira M, Wong GY, Pham TT and Martius C. 2019. Forest-based climate mitigation: Lessons from REDD+ implementation. Issue Brief. Washington DC, USA: WRI. <https://www.wri.org/research/forest-based-climate-mitigation-lessons-redd-implementation>
- 119 Dengel C and Horton J. 2011. Lessons Learned from Implementing the Sustainable Development Program in the State of Acre in Brazil. Washington DC: Inter-American Development Bank. <https://publications.iadb.org/en/publication/11614/lessons-learned-implementing-sustainable-development-program-state-acre-brazil>
- 120 Pham TT, Ngo HC, Dao TLC, Hoang TL and Fisher MR. 2020. The politics of numbers and additionality governing the national Payment for Forest Environmental Services scheme in Vietnam: A case study from Son La province. *Forest and Society* 4(2):379-404. <https://doi.org/10.24259/fs.v4i2.10891>
- 121 Pham TT, Nguyen TD, Dao CTL, Hoang LT, Pham LH, Nguyen LT and Tran BK. 2021. Impacts of Payment for Forest Environmental Services in Cat Tien National Park. *Forests* 12(7):921. <https://doi.org/10.3390/f12070921>

An opportunity cost is the loss of other alternative sources of income when one is selected. As there tend to be more valuable economic opportunities in areas where forests have higher carbon content, communities that implement REDD+ may find it more difficult to generate alternative sources of income than communities implementing REDD+ in low-carbon forests where those lucrative opportunities were never available. Expectations of women's of participation in REDD+ programmes – while well-intended and aimed at increasing inclusivity – can also place additional burdens on their time. Close consultation with project beneficiaries can help inform the planning process to mitigate against imposing unnecessary burdens on participants.

Corruption and elite capture can also burden the intended project beneficiaries. Various forms of illegality are prevalent in the global forestry sector, and forest governance is weak in many REDD+ countries, as corruption by government officials in commercial forestry is commonplace. Corruption occurs most commonly during administration of revenues, or from the misallocation of funds for the targeted recipients. REDD+ can also be compromised, particularly if substantial amounts of money are to flow through new, untested financial markets and mechanisms. Combatting corruption and elite capture might involve bolstering law enforcement, improving monitoring and verification efforts, and enhancing communication and coordination between stakeholders.

### **In Vietnam, REDD+ compensation is too low to effectively compete with opportunity costs [Case Study]**

In Vietnam, local people see REDD+ forest land allocation programme monitoring as a burden due to REDD+ payments being too low to compete with the high opportunity costs of deforestation drivers such as the expansion of hydropower plants and large-scale agriculture. Consequently, they see REDD+ incentives as unable to keep forests standing. In contrast, those who compare REDD+ incentives with those of the national Payment for Forest Environmental Services (PFES) scheme perceive PFES to be much more important and effective in forest protection and development in Vietnam<sup>122</sup>. This suggests that REDD+ programme payments should be high enough to compete with the opportunity costs of drivers of deforestation and forest degradation<sup>123</sup>.

### **Risk of double burden on women in Vietnam [Case Study]**

Policies and approaches designed to address climate change can inadvertently increase gender inequalities and undermine women's rights if they end up increasing women's care burden. In Vietnam, social discourse revolves around the important traditional roles of females in the family, but the government also encourages women to take a more active role in REDD+ processes in office work and social development. This mixed messaging has led to a double burden for Vietnamese women. Strides in women's rights and welfare cannot be made without examining the dynamics of gender relations in family and work life, which requires attitudinal and behavioural changes by men, and policies that reduce the burden on women<sup>124</sup>.

122 Pham TT, Ngoc TB, Thüner T, O'Connell E. 2021. *Payments for Forest Environmental Services in Viet Nam: Strengthening effectiveness through monitoring and evaluation*. Info Brief No 327. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/008028>

123 Wong GY, Loft L, Brockhaus M, Yang AL, Pham TT, Assembe-Mvondo S and Luttrell C. 2017. An assessment framework for benefit sharing mechanisms to reduce emissions from deforestation and forest degradation within a forest policy mix. *Environmental Policy and Governance* 27(5):436-52. <https://doi.org/10.1002/eet.1771>

124 Pham TT, Mai YH, Moeliono M, Brockhaus M. 2016. Women's participation in REDD+ national decision-making in Vietnam. *International Forestry Review*. 18(3):334-344. <https://doi.org/10.1505/146554816819501691>

### **Taking up positions of authority for REDD+ projects is viewed as a burden by members of the Peruvian Asháninka Indigenous community [Case Study]**

A study looking into a REDD+ project found that members of the Asháninka Indigenous community in Peru viewed the assumption of an authority position as a burden. In the Asháninka community, decisions regarding land and resource management and engagement with outsiders are primarily mediated through the president, who is elected every two years. However, there is a perception among members of the community that taking up an administrative authority position can be burdensome. In addition to their everyday tasks, authorities must manage administrative procedures that often demand traveling over several days. These trips often involve out-of-pocket expenses or, as is a common approach among members of the community, loans from timber companies. The combination of these challenges translates into poorly engaged leaders of the REDD+ project, who quickly relieve themselves of responsibility over affairs once their mandates are over. Leaders and figures of authority with power over land use issues who are unmotivated or poorly selected can undermine the success of REDD+ projects. REDD+ projects should be carefully designed so that motivated and skilled project proponents are selected as leaders<sup>125</sup>.

### **Combatting corruption in Cambodia through information and communications technology [Case Study]**

One way to increase transparency and accountability and avoid corruption is to use information and communications technology (ICT) to register beneficiaries, reconcile financial transfers and document impacts for monitoring and evaluation.

The use of smartphones for data collection has opened up new opportunities for communities wishing to engage in community-based monitoring in Prey Lang, Cambodia. A workshop was held with the Prey Lang Community Network to identify the resources and illegal activities to be monitored, and a smartphone app was subsequently developed with 36 community members trained in its use. The community members were able to collect large amounts of data, regardless of their gender or age, and made 10,842 entries of data on illegal logging and forest resources. The cost of monitoring resembled other community-based monitoring programmes but was notably less than for monitoring by professional foresters. The documentation collected was highly valuable, but software and hardware maintenance, along with the digital data validation process, will continue to require external support. The study suggests that local communities with little formal education are able to monitor forest crimes and forest resources cost-effectively using ICT, and that ICT can help systematize data collection<sup>126</sup>.

## **For project proponents**

Proponents of subnational initiatives bear implementation costs both for activities to reduce deforestation and forest degradation, and for the transaction cost of obtaining carbon funding. Lack of clarity around cost drivers, along with the recognition that REDD+ is more complex and more expensive than initially thought, has been a barrier to scaling up REDD+.

125 Barletti JP, Begert B and Loza MA. 2021. Is the Formalization of Collective Tenure Rights Supporting Sustainable Indigenous Livelihoods? Insights from Comunidades Nativas in the Peruvian Amazon. *International Journal of the Commons*. 15(1): 381–394. DOI: <http://doi.org/10.5334/ijc.1126>

126 Brofeldt S, Argyriou D, Turreira-García N, Meilby H, Danielsen F, Theilade I. 2018. Community-based monitoring of tropical forest crimes and forest resources using information and communication technology—experiences from Prey Lang, Cambodia. *Citizen Science: Theory and Practice* 3(2):4. DOI: <http://doi.org/10.5334/cstp.129>

### Administrative costs and less control for donors of the Amazon Fund

For Amazon Fund donor countries such as Norway and Germany, donating to an environmental fund does not come without administrative costs. Environmental funds add another management layer between financing organizations and beneficiaries, while the independence of separate environmental funds can mean less control for the donor over the allocation of resources.

For example, there was tension over spending of the financial resources from donations, with donor organizations complaining that by December 2012, the fund had approved only 36 projects and disbursed USD 55 million; less than half of the amount donated. Part of the reason involved the demanding guidelines and criteria for the approval of project proposals, for which the Brazilian Development Bank (BNDES) requires the availability of financial resources for the entire project lifespan. As a result, donor countries transferred USD 16 million in only five donations and pressured BNDES to accelerate the project approval procedures. The issue was eventually resolved by both sides, and donor countries were able to make up for the delay and transferred USD 654 million in 2013. Still, the case highlights how administrative tensions can mount and be a cause of frustration for donor countries if they feel that their conditions are not being met.

## 3.2.6 Institutional financing structures

### Separate fund

Finance can be channelled through an independently managed fund, attracting both public and private sector funding earmarked for specific purposes.

Such funds have better outcomes if they have specific allocation policies and a multistakeholder board that decides programming.

Indeed, climate finance mechanisms may benefit from being subject to the functional internal audit institutions of the state.

### CAUTION

Some funds have implemented rigorous safeguard strategies to avoid conflicts of interest. However, the stringency of the requirements may result in restrictions in the participation of Indigenous Peoples, which can negatively impact the legitimacy of decision making in the distribution of benefits.

### Lack of private sector interest in investing in forest conservation in Mexican states, possibly due to continued support of industry drivers of deforestation [Case Study]

In the Mexican states of Jalisco and Chiapas, competing interests could explain the low international interest in financing conservation efforts. Jalisco's REDD+ programme specifies inter-institutional coordination, including cooperation agreements to promote sustainable development as part of the state's strategy for reducing deforestation. While such agreements have been developed and implemented, measures have been insufficient in driving reductions in deforestation or controlling leakage. Similarly, in Chiapas, most emissions are from the expansion of the agricultural frontier for the beef, palm oil and coffee sectors, with the lack of regulation playing a role. The state of Chiapas' efforts to address deforestation have been limited by low multisectoral coordination and continued interest by the national and state governments in investing in the state's cattle ranching and agriculture sectors, which diverts financial resources

away from environmental programmes. The competing interests to conservation in both Jalisco and Chiapas likely contribute to the low interest of international donors and investors in the jurisdictions for REDD+ programmes<sup>127</sup>.

## Through government budgets

*A key question in the design of the sharing of REDD+ benefits concerns the ways in which REDD+ revenues will be allocated by governments.*

There are two main scenarios in which this question becomes relevant to REDD+:

- When central governments receive payments from international sources, and decisions need to be made on how they should be distributed to subnational levels;
- When central governments obtain taxes and fees collected from REDD+ activities, and decisions need to be made on how to redistribute them to subnational levels.

An advantage of using existing budget systems is that doing so fosters increased government ownership and minimizes transaction costs. However, there is a risk that monitoring is only nominally independent.

### Lessons from other sectors: revenue allocation in extractive resources [Case Study]

The extractive industries sector provides key lessons on revenue allocation that can be useful for REDD+ projects. The idea of revenue redistribution is generally accepted in the extractive industries sector (mining, oil and gas), but the way it should be done less so. The relevant questions for redistribution involve how central governments share the revenues from extractive industries with different levels of subnational government and how governments distribute revenues across extractive and non-extractive localities.

There are two main justifications used for the design of revenue redistribution: “fairness” and “equality.” In the case of fairness:

#### **1a. Some countries allocate revenues in proportion to the localities’ level of production**

**(derivation):** In the case of REDD+, this would translate into revenues being allocated according to the level of carbon emissions reduction and would thus correspond to a performance-based approach, which rewards the efforts of that locality.

**1b. Some countries allocate revenues to compensate for negative impacts:** In the case of extractive resources this is often framed in terms of environmental compensation and will therefore vary depending on the nature of the resource. Some examples: in Peru, communities in mining areas compete with companies for resources and are directly impacted, while in Chile most mining occurs in sparsely populated areas. In Brazil, most extractive resources are located offshore. In the case of REDD+, such revenue could be framed around the compensation of both opportunity and implementation costs.

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127 Stickler C, David O, Chan C, Ardila JP and Bezerra T. 2020. The Rio Branco Declaration: Assessing progress toward a near-term voluntary deforestation reduction target in subnational jurisdictions across the tropics. *Frontiers in Forests and Global Change* 3:50. <https://doi.org/10.3389/ffgc.2020.00050>



**Pros:**

- Helps ensure stability of revenue sources for local governments and provides some degree of flexibility on how the funds can be spent at the local level;
- Compensates for costs incurred;
- Reduces resentment by the producing locality;
- Acts as an incentive for production.

**Cons:**

- Can increase inequalities across a nation and lead to resentment from non-producing localities about regional imbalances;
- Provides an opportunity for discretionary allocation by central government and can lead to local “resource curse” in the case of large volumes of revenue;
- Decisions on what is a “fair share” require complex political settlements;
- Special agreements can reduce legitimacy of central government.

**2. Some countries allocate revenues equally across localities based on development indicators.**

In the Philippines, for instance, 40% of national revenue collections are distributed to local governments based on indicators such as size of population or land area.

Countries where extractive resources are a large share of the budget (e.g., Nigeria, Bolivia, Indonesia and Mexico) are more likely to redistribute revenues more equally among regions. According to evidence from case studies of Peru and Bolivia, centralized management and allocation of revenues from extractive sectors brings better social outcome indicators, and extreme devolution leads to rent seeking and conflict. However, it is not completely clear from the evidence which redistribution formula has the best outcomes.

**Pros:**

- Revenues can be allocated in line with government development and planning goals and can thus be easily integrated into budgets and/or assigned to priority sectors.

**Cons:**

- Tensions can arise over the scale of the locality that should receive the revenues and where the boundaries should be located.

From: Luttrell and Betteridge (2017)<sup>128</sup>.

**India’s domestic ecological fiscal transfers suggest future scope for state governments to protect and restore forests [Case Study]**

In 2014, India created one of the first ecological fiscal transfers (EFTs) in the world for forests by including forest cover in the formula to determine how much tax revenue the central government would distribute to its 29 states annually. The level of funding at stake was estimated at USD 6.9 billion to USD 12 billion annually between 2015 to 2019<sup>129</sup>. While research suggests that the introduction of EFTs has not yet led states to increase their forestry budgets, India recently increased the share of revenue states receive from forests from 7.5% to 10%, and this has boosted confidence in state governments that increases in forest cover could be rewarded with increases

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128 Luttrell C and Betteridge B. 2017. *Lessons for multi-level REDD+ benefit-sharing from revenue distribution in extractive resource sectors (oil, gas and mining)*. Occasional Paper 166. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/006385>

129 Busch J and Mukherjee A. 2018. Encouraging State Governments to protect and restore forests using ecological fiscal transfers: India’s tax revenue distribution reform. *Conservation Letters* 11(2):e12416. <https://doi.org/10.1111/conl.12416>

in funding<sup>130</sup>. Ultimately, there is scope for state governments to protect and restore forests as an investment in future state revenues.

### Room for improved federal and state coordination in Brazil [Case Study]

In Brazil, while the promotion of economic development by the federal government has contributed to an increased rate of deforestation, subnational governments continue to demonstrate interest in working towards REDD+ funding<sup>131</sup>. This misalignment in priorities and interest in REDD+ has led to a lack of coherency between federal and state policies, with several Brazilian states having developed their REDD+ policies before the federal government. There needs to be more efficient and less bureaucratic structures to attract investments and facilitate access to financial resources, especially by local communities and smallholders applying for projects within official REDD+ frameworks such as the Amazon Fund<sup>132</sup>.

## 3.2.7 Decision-making processes in design and implementation

*Benefit-sharing mechanisms should ensure that decision-making processes have ample stakeholders, are transparent, and offer grievance mechanisms.*

The legitimacy of REDD+ benefit-sharing arrangements is compromised when there is a lack of inclusive consultation with, and participation of, groups that consider themselves to be stakeholders, such as local institutions and actors, customary authorities and Indigenous leaders. A comparative study found that women's participation in, and basic understanding of, REDD+ in five countries (Peru, Brazil, Indonesia, Vietnam and Cameroon) was limited to attending meetings and training, while the male-dominated forest user groups engaged with, and participated in decision making, monitoring and rule enforcement activities<sup>133</sup>. Local elites in many rural and forest communities also hold power of access to information and exert influence over local decision-making processes to capture a disproportionately larger share of the benefits, constraining equity in decision making. Top-down processes often result in sessions to disseminate information or decisions rather than meaningful engagement of local groups in decision making, and can undermine conservation efforts.

### High participation among community members, despite agenda setting and withholding of information in Kondoa, Tanzania [Case Study]

A study investigating how actors participated in decision making in a REDD+ pilot project in Kondoa, Tanzania, reveals how participation may not lead to empowerment if the structures and processes of participation reinforce underlying power differentials among the actors. Therefore, it is crucial that global and national policies ensure that the structure of REDD+ governance accounts for the variation in power wielded by actors operating at different levels.

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- 130 Busch J, Ring I, Akullo M, Amarjargal O, Borie M, Cassola RS, Cruz-Trinidad A, Droste N, Haryanto JT, Kasymov U and Kotenko NV. 2021. A global review of ecological fiscal transfers. *Nature Sustainability* 4(9):756-65. <https://doi.org/10.1038/s41893-021-00728-0>
- 131 Santiago I. 2020. REDD+ RORAIMA | Denarium lança política que possibilita a captação de recursos financeiros pela valorização de ativos ambientais. Roraima, Brazil: Roraima government. Accessed 1 November 2020. <http://portal.rr.gov.br/index.php/component/k2/item/2550-redd-roraima-d>
- 132 Pham TT, Moeliono M, Yuwono J, Dwisatrio B and Gallo P. 2021. REDD+ finance in Brazil, Indonesia and Vietnam: Stakeholder perspectives between 2009-2019. *Global Environmental Change* 70:102330. <https://doi.org/10.1016/j.gloenvcha.2021.102330>
- 133 Larson AM, Dokken T, Duchelle AE, Atmadja S, Resosudarmo IA, Cronkleton P, Cromberg M, Sunderlin W, Awono A and Selaya G. 2015. The role of women in early REDD+ implementation: lessons for future engagement. *International Forestry Review* 17(1):43-65. <https://doi.org/10.1505/146554815814725031>

The REDD+ pilot project featured a high level of community participation due to specific interventions, including seeking the consent of participating communities, land-use planning, making payments and deciding on benefit-sharing arrangements. Locals participated in a series of separate meetings for making decisions related to each of these processes, enabling villagers to gain some control over most decisions and receive information. The overall attitudes to the project and the decision-making processes were positive due to the high level of engagement of communities in decision making. Yet there was also evidence of agenda setting among some village leaders, and REDD+ project implementers and district officials creating barriers against discussion of certain issues concerning REDD+. Some leaders used their mandate to convene meetings to deliver information in line with their interests, or refused to call meetings entirely. Project implementers and district officials were mandated to provide information, but had flexibility concerning the type of information that they would disclose to local people. While there were suggestions from the African Wildlife Foundation (AWF) and public officers of an 80% share of benefits for communities, these suggestions were not discussed during the village general meetings. Instead, the focus during payment meetings or indeed with community leaders was on devising criteria for making payments and on how to allocate the money to the various community projects.

The REDD+ in Kondoia exemplifies how structures at international and national levels of governance can influence decision making at the local level. Decentralization systems in Tanzania helped locals to counter some of the power by higher-level actors by enabling them to decide on their preferred rules and generally how the REDD+ programme should be organized. The challenge, however, was that participatory forest management and decentralization did not effectively deal with the underlying power dynamics, with the result that local people did not gain as much genuine control over decisions as they could have<sup>134</sup>

### **Decision-making space in Vietnam dominated by government agencies: Not enough space for non-state actors**

A study found that in Vietnam, the dominant role of government agencies in REDD+ policymaking leaves limited political space for non-state actors, e.g., NGOs and civil society organizations (CSOs), to exert an influence on final policy outputs. But even in this highly centralized context, evidence was found to suggest that some political space in decision making is given to non-state actors, who were able to propose alternative policy options.

Important stakeholders were absent from key REDD+ discussions, namely, actors associated with major drivers of deforestation and forest degradation in Vietnam, including large-scale agriculture producers, e.g., the Vietnam Coffee and Tea Association, the Fishery Association and large-scale timber and furniture companies. Without considering the interests of these groups, REDD+ policies will not be able to address these drivers effectively. Second, no representatives of vulnerable groups such as Indigenous Peoples and the poor were included in the consultation processes. Mass organizations, such as women's unions or farmers associations, were also notably absent from REDD+ decision making. Grassroots interests are meant to be represented via mass organizations, but often this does not occur in practice.

The issue is not only the absence of NGOs, but rather the non-representative nature of the processes; some voices (most notably, state actors) are given more weight than others (e.g., NGOs). Consultation meetings, as a tool to fulfil the requirements of participation, seemed largely ineffective and inadequate for incorporating the suggestions and opinions of international NGOs, and for

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134 Nantongo M, Vatn A. Estimating transaction costs of REDD+. *Ecological economics* 156:01-11. <https://doi.org/10.1016/j.ecolecon.2018.08.014>

generating serious feedback. According to most interviewees, governments and donors have adopted participatory governance processes primarily to comply with international requirements. This weak motivation may be contributing to the ineffectiveness of consultations, which provide little incentive for stakeholders to maintain their engagement in the political process. Ensuring inclusive decision making and accountability requires a shift in current governance from traditional top-down approaches to a more participatory form of decision making<sup>135</sup>.

### 3.2.8 Safeguards and monitoring

#### How are people safeguarded from harm?

REDD+ activities can have direct impacts at the local level, e.g., land tenure conflict, access to resources and insufficient payments. Hence, it is essential to have a legitimate and effective dispute resolution mechanism to resolve disagreements between stakeholders and to improve outcomes. Some funds have implemented rigorous safeguard strategies to avoid conflicts of interest. While important, stringent safeguards may result in restrictions in the participation of certain groups, such as Indigenous Peoples, which can negatively impact the legitimacy of decision making in the distribution of benefits.

#### How to resolve disputes: Lessons from certification standards [Case Study]

Various social and environmental certification standards (e.g., Fairtrade, Plan Vivo) have entities embedded in communities, such as producers' organizations or project managers. As well the recently issued and implementation of Job Creation (Omnibus) Law in Indonesia confirms new standards for benefit sharing. These receive, respond to, and resolve disputes informally at the initial implementation stages. Dispute resolution processes can be conducted through regular, informal meetings. The most common disagreements relate to payment, product quality issues and failure to keep agreements.

Traditional methods local stakeholders use to mediate and solve their disputes hold a lesson for REDD+: disputes can be more effectively managed through traditional or customary conflict-resolution mechanisms when courts have a limited capacity to process claims or are unable to enforce their orders.

The Forestry Stewardship Council (FSC) provides a formal, independent and well-structured dispute resolution mechanism that could potentially be adopted at various levels of REDD+.

Stakeholders with concerns about a certificate holder should contact the certificate holder directly. If the problem cannot be solved, the stakeholder can contact the certification body, FSC or Accreditation Services International (an independent body that authorizes and monitors the certification body and FSC).

FSC has established a time-bound dispute resolution procedure and a web-based mechanism so stakeholders can submit and track complaints and appeals as a way of facilitating transparency.

From case studies in Brazil, Indonesia and Malaysia, it seems dispute resolution procedures involving forest operators and local communities also lead to clearer land tenure rights.

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135 Pham TT, Di Gregorio M, Carmenta R, Brockhaus M, Le DN. 2014. The REDD+ policy arena in Vietnam: participation of policy actors. *Ecology and Society* 19(2): 22. <http://dx.doi.org/10.5751/ES-06389-190222>

**CAUTION**

Formal procedures may act as a barrier to local and Indigenous groups. The role of intermediaries is important to ensure that complaints, irrespective of stakeholders' circumstances, can be received by management. REDD+ initiatives should avoid complex legal procedures (i.e., using legal terms, cross-referred clauses, etc.) to make the process more accessible to non-experts and especially to local individuals and small organizations<sup>136</sup>.

**Ensuring REDD+ activities “do no harm” to women [Case Study]**

There continues to be a growing concern globally that if REDD+ is not implemented in a socially sensitive manner, it may risk reinforcing the societal and institutional structures that are already marginalizing women. Although the Indonesian government has considered gender equity in all sectors, including in REDD+, the historically entrenched male-dominated nature of the forestry sector, growing commercial pressures on forest land, and embedded social and cultural norms and religious interpretations might risk exacerbating gender inequalities in rural communities. The growing calls for “mainstreaming gender in REDD+” in Indonesia are for activities to “do no harm” to women and to benefit both women and men in an equitable manner.

Enabling conditions for gender mainstreaming in REDD+ policies include legal recognition of human rights, financial and technical support for gender mainstreaming, active presence and participation of state and non-state actors and women's organizations, and donor requirements on gender equality making. Challenges for mainstreaming gender in REDD+ include weak national legal frameworks on gender equality, weak coordination among actors, uncertain and limited funding devoted to mainstreaming gender into the REDD+ process, social and cultural norms on gender, weak law enforcement on gender, non-inclusive decision-making processes, and lack of women champions and gender expertise. Mainstreaming gender in REDD+ requires not only political commitment but also dedicated funding; a recognition of existing social and cultural norms, politics and power asymmetry; and interventions to address the power dynamics that are embedded into existing political and social structures. While external pressure and funding can help countries take their first steps in mainstreaming gender into REDD+, coalitions for change that include influential government agencies able to make binding decisions, and the active presence of civil society, are also required to translate policy into practice on the ground and maintain gender as a political priority<sup>137</sup>.

**Environmental rollbacks and systematic suppression of rights in key forest countries during Covid-19 weaken IPLC protection [Case Study]**

The Covid-19 pandemic, has led governments in the key forest countries of Brazil, Colombia, the DRC, Indonesia and Peru to focus on recovery and economic resilience but in the process weakened or removed legal and policy protections for Indigenous Peoples' rights. Policies and practices that violate the rights of Indigenous Peoples include legislative and regulatory change; the exclusion of Indigenous Peoples from decision-making processes; the expansion of industrial activities; increased land grabbing, illegal mining and illegal logging in or near

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136 Tjajadi JS, Yang AL, Naito D and Arwida SD. 2015. Lessons from environmental and social sustainability certification standards for equitable REDD+ benefit-sharing mechanisms. Infor Brief No 119. Bogor, Indonesia: CIFOR. <https://doi.org/10.17528/cifor/005587>

137 Pham TT, Tran NLD, Nong NKN and Nguyen DT. 2021. Mainstreaming gender in REDD+ policies and projects in 17 countries. *Journal of Environmental Policy & Planning* 23(6): 701-715. DOI: [10.1080/1523908X.2021.1903408](https://doi.org/10.1080/1523908X.2021.1903408)

Indigenous territories; and an alarming growth in the criminalization of, and violence against Indigenous human rights defenders. This process of deregulation and associated rights-violating policies and practices is likely to get worse if governments continue to favour economic recovery over human rights and the environment. Donor governments and international development institutions should encourage the governments of highly forested tropical countries to provide, protect and fund systems of Indigenous participation, while organizations must enhance their due diligence and related social and environmental safeguard systems, monitor rigorously, and provide accessible and effective grievance mechanisms to ensure that social and environmental safeguards are fully implemented<sup>138</sup>.

## How are performance and finance monitored?

### Fiscal accountability

Accountability is the acceptance of responsibility for actions.

It is also the ability of citizens to hold their government responsible for the actions it has taken on behalf of society. An actor can be said to be accountable if they are willing to be transparent about their actions, be monitored and questioned by others, and accept criticism if warranted. However, many individuals or institutions do not wish to be accountable, possibly because of pressure from interest groups, because they are pursuing individual objectives, because they do not share basic beliefs about the role of government, or because they have insufficient resources or knowledge of how to be transparent.

REDD+ demands accountability mechanisms, such as systematic audits and independent monitoring and compliance protocols, so that funds are channelled to where they are intended.

### Forest and wildlife revenue redistribution in Cameroon largely perceived as ineffective [Case Study]

Fiscal accountability is a crucial factor in a policy instrument's effectiveness. The forest and wildlife revenue redistribution mechanism in Cameroon is largely perceived as ineffective in achieving its policy objectives due to high transaction costs, complex and opaque bureaucratic processes, and a lack of transparency in the fiscal transfers from national to local levels.

The legitimacy of the wildlife revenue redistribution mechanism as a policy tool could be improved through the establishment of participative financial monitoring, reporting and verification systems with multistakeholder oversight, such as that being applied by the Extractive Industries Transparency Initiative (EITI).

The EITI is a global standard for transparency and accountability in government revenues obtained from the extractives sector, including oil, gas, minerals and coal. Formed by a coalition of governments, companies, CSOs, investors and international organizations, the standard has developed a straightforward and flexible methodology for monitoring and reconciling company payments and government revenues.

Companies are required to report payments to the government in the form of taxes and royalties, as well as payments in-kind. At the same time, government is required to report revenues derived

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138 Forest Peoples Programme (FPP). 2021. Rolling back social and environmental safeguards in the time of COVID-19. Report. England: FPP. <https://www.forestpeoples.org/en/rolling-back-safeguards/global>

from extractive companies. The reports include subnational or social and/or community payments and non-production-related transactions. These two reports are then compared and reconciled by an independent auditor and published in a public report.

The EITI also involves the development of a multistakeholder oversight mechanism to ensure sound and timely implementation of the process in each country, and to stimulate greater public debate about how limited and finite revenues are spent (Assembe-Mvondo et al. 2015<sup>139</sup>).

### Importance of perceptions of equity - Vietnam [Case Study]

In many Vietnamese provinces, provincial Forest Protection and Development Funds (FPDFs) set up and lead district-, commune- and village-level Payment for Forest Ecosystem Services (PFES) programme management units to distribute PFES payments and monitor forests. However, in practice, lower levels of government are often excluded from decision-making processes, and so it is unclear to them how to adhere to regulations that have been established at a higher political level. There is not much guidance on how communities or village management boards can spend PFES revenues. Similarly, at the community level, ecosystem services providers are rarely included in spending decisions by management boards as there are no established processes to communicate concerns that arise during implementation to provincial funds. Multilevel PFES implementation is designed as a top-down process across all levels. Simultaneously, attempts to gain more information on roles and responsibilities often fail due to ineffective communication channels, and this affects the general provision of information and advice, as well as the processes of signing contracts and distributing payments. Overall, the absence of bottom-up participation can lead to negative experiences during the process of meeting and improving PFES rules<sup>140</sup>.

## Transparency

*In the past few decades, many high-profile initiatives have highlighted increasing unease with secretive, closed-door decision making.*

The disclosure of more information brings several benefits to the implementation of REDD+ policy decisions. These include:

- Demands for open and transparent government as a means of cracking down on corruption, especially in resource-rich countries;
- Transparency is also critical to achieving public policy efficacy and efficiency;
- Transparent decision making is critical for informed consent – the essence of representative democracy.

139 Assembe-Mvondo, S., Wong, G., Loft, L. and Tjajadi, J.S., 2015. Comparative assessment of forest revenue redistribution mechanisms in Cameroon: Lessons for REDD+ benefit sharing (Vol. 190). CIFOR.

140 Loft L, Pham TT, Wong GY, Brockhaus M, Le DN, Tjajadi JS, Luttrell C. 2017. Risks to REDD+: potential pitfalls for policy design and implementation. *Environmental Conservation*. 44(1):44-55. doi:[10.1017/S0376892916000412](https://doi.org/10.1017/S0376892916000412)

## Reaffirming the importance of transparency in monitoring deforestation: Brazil's INPE [Case Study]

Brazil's deforestation tracking system – properly enforced – is often cited as a key reason for the dramatic reduction in Amazon deforestation over the past decade.

Brazil's equivalent of NASA – the National Institute for Space Research (INPE) – has been using a satellite monitoring system since 2004 to record deforestation in the Brazilian Amazon in real time. Called DETER, the system identifies new forest clearing and alerts authorities to possible illegal deforestation. Although the system does not identify causes of deforestation, other studies show the vast majority are illegal, and carried out by ranchers, loggers, miners and land grabbers who seek to profit from public forest lands. The system delivers data to Brazil's environmental law enforcement agency every two weeks, and the agency can send teams to stop illegal deforestation and fine perpetrators in a matter of days. The names of people found to be deforesting illegally are entered into a public list online, and slaughterhouses can check the list to make sure livestock are not inadvertently sourced from a banned area, and banks may refuse credit to those charged with illegal deforestation. Other monitoring systems include the Brazilian Amazonian Satellite Forest Deforestation Monitoring Program (PRODES) and the Amazon Deforestation Satellite Monitoring Project, a higher-resolution system also operated by INPE that produces Brazil's official deforestation data. INPE has been involved in workshops in Africa, Asia and in other Amazonian countries, sharing software and training people on how to set up their own forest monitoring programmes.

In 2019, INPE's monitoring efforts came under fire when President Bolsonaro attacked the PRODES programme for worrisome estimates that indicated rising levels of deforestation, and fired INPE's director, Ricardo Galvão. But pressured by public opinion and investors concerned about sustainability, Bolsonaro has taken some steps to protect the forest, namely establishing the Amazon Council to oversee sustainable development of the region and the authorization of the deployment of the armed forces to combat environmental crimes in the Amazon<sup>141</sup>.

Though the political climate in Brazil has been unfriendly to the national satellite monitoring system, maintaining INPE's environmental monitoring systems with transparency and autonomy is crucial to supporting decisions on land-use management in the country. INPE also helps ensure compliance with national forest laws, creates confidence in the country in international trade agreements, and helps respect the character and autonomy of institutions so as not to give in to the interests of special groups. This case study underscores the need for social responsibility by scientists and full transparency of public data<sup>142</sup>.

141 Escobar H. 2020. Deforestation in the Brazilian Amazon is still rising sharply. *SCIENCE* 369(6504): 613. DOI: [10.1126/science.369.6504.613](https://doi.org/10.1126/science.369.6504.613)

142 Araújo R, Guimarães Vieira IC. 2019. Deforestation and the ideologies of the frontier expansion: the case of criticism of the Brazilian Amazon monitoring program. *Sustainability in Debate/Sustentabilidade em Debate* 10(3): 354–378. <https://doi.org/10.18472/SustDeb.v10n3.2019.27258>



## Who monitors?

### Indonesia's timber legality auditing system [Case Study]

Since 2011, the European Union has been negotiating bilateral trade agreements with various timber-exporting countries. Inherent in the agreements is a legal system designed to identify, monitor and license legally produced timber, reducing European demand for illegal timber. To satisfy EU requirements, a country must pass several steps.

In Indonesia, for example, independent verification bodies, approved by the Ministry of Forestry, audit all operators within the supply chain: from forest to point of export. A legality license is issued at the point of export only if all operators in the supply chain are verifiably compliant. Civil society actors have been formally integrated into the system as independent observers. This process has become mandatory for all timber production in Indonesia.

The Indonesian Ministry of Forestry is not directly involved in either accreditation or auditing of legal compliance and has no authority to sign off on compliance. On the one hand, this distance can increase the credibility of the system, bypassing potential corruption or uncertainties about implementation. On the other, when companies take over an excessive amount of auditing and verification, they may not be subject to routine public-interest oversight, such as by state audits.

The verification is executed by a verification/certification body accredited by the National Accreditation Committee, with independent monitoring bodies formally instituted to oversee the timber legality system through the monitoring of practices by forest concessions/industries, and accreditation and verification processes. For example, there are administrative and technical requirements that limit the participation of wider civil society, and a ministerial decree prohibits international observers from being involved in monitoring. Consequently, independent monitoring can only be conducted by members of registered independent monitoring bodies. Overall, the existence and roles of independent monitoring bodies within the timber legality system are not yet fully understood, and are often questioned by other stakeholders. Also, there has been some degree of scepticism about their impartiality. Thus, even independent auditing may not be enough to compensate for strong political or commercial pressures on the process. It is important to develop checks and balances that work with existing systems of government and public accountability, such as sharing monitoring among NGOs, governments and industries<sup>143</sup>.

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143 Hasyim Z, Laraswati D, Purwanto RH, Pratama AA, Maryudi A. 2020. Challenges facing independent monitoring networks in the Indonesian timber legality assurance system. *Forest Policy and Economics* 111:102025. <https://doi.org/10.1016/j.forpol.2019.102025>

# 4 Criteria for assessing outcomes

## 4.1 Effectiveness

### In achieving the objective

***The effectiveness of a REDD+ programme can be gauged by examining the extent to which a project successfully achieves its goals.***

Some examples of goals include the reduction of deforestation and forest degradation, the reduction of fires, and the improvement of social safeguards.

For projects to be effective, selected activities should address the root drivers of deforestation, whether that means targeting the actors who are driving deforestation, or programmes to areas facing the highest deforestation and degradation risk.

#### **REDD+ projects in Indonesia located in areas of high biodiversity benefits, but not necessarily in areas with the greatest deforestation risk [Case Study]**

In Indonesia, first-generation REDD+ projects are located where they are most likely to deliver biodiversity benefits, although these areas are not necessarily the ones facing the highest deforestation threat, despite the key REDD+ objective of reducing deforestation. A study exploring the spatial overlaps between carbon stocks, biodiversity and projected deforestation threats found that most REDD+ projects in Indonesia were located in areas with higher total species richness and threatened species richness, but with lower carbon densities than protected areas and unprotected forests. Nearly one-quarter of REDD+ project areas were located where deforestation threat was predicted to be relatively high; possibly due to the prominent role of conservation NGOs in the development of REDD+ projects. Yet, the majority of REDD+ project areas were not in highly threatened forests. This suggests that REDD+ projects in Indonesia could be more effective in achieving programme objectives if they were sited elsewhere.

Not siting first-generation REDD+ projects in areas facing the highest deforestation threats limits the opportunity to achieve the greatest benefits for both emissions reductions and biodiversity conservation. If REDD+ is to deliver additional gains for climate and biodiversity, projects will need to focus on forests with the highest deforestation threats. This will have cost implications for future REDD+ implementation, and future research should explicitly assess the costs associated with locating REDD+ projects in forests that are most important for biodiversity. Biodiversity conservation in the context of REDD+ is likely to require additional investment<sup>144</sup>.

144 Murray JP, Grenyer R, Wunder S, Raes N, Jones JP. 2015. Spatial patterns of carbon, biodiversity, deforestation threat, and REDD+ projects in Indonesia. *Conservation Biology*. 29(5):1434-1445. <https://doi.org/10.1111/cobi.12500>

## In delivering the benefits

***Effectiveness in delivering the benefits concerns how and to what extent the beneficiaries are impacted.***

### **Benefits to project proponents in Peru do not adequately cover opportunity costs [Case Study]**

Peru's Conditional Direct Transfer Programme does not provide direct monetary compensation to members of the monitoring subcommittee for their efforts; rather, the funds that are allocated to communities for conservation are used by members of the monitoring subcommittee for their field trips. A study found that in one community, the monitoring subcommittee members expressed dissatisfaction with the benefits (monetary, food and supplies) that they depend on and use for their field visits, for three reasons: the lack of monetary compensation for their time; frequent delays in the disbursement of funds for monitoring activities; and insufficient resources for fulfilling their monitoring responsibilities. All interviewed members also expressed that they should receive monetary compensation for their work as their involvement in monitoring activities involves significant time away from their families and income-earning activities. Furthermore, there are often delays in the disbursement of funds for forest monitoring. The low level of benefits and the challenges in disbursement have negatively affected local subcommittee members' satisfaction, perceptions of benefits – and possibly trust in the REDD+ programme. For REDD+ programmes to be effective, the benefits should adequately satisfy and compensate project proponents and beneficiaries for the opportunity costs they face from supporting REDD+ initiatives<sup>145</sup>.

## In achieving any co-benefits

***Effectiveness in achieving co-benefits can be impacted by project location or geographic focus.***

### **Tanzanian villagers' perceptions of non-carbon benefits as an incentive to join REDD+ [Case Study]**

In the Kilosa district of Tanzania, one REDD+ initiative provided a significant amount of non-carbon benefits. Village Participatory Land Use Plans (VPLUPs) helped facilitate the implementation of the REDD+ programme, which the majority (95.4%) of respondents believed had facilitated the implementation of the REDD+ initiative. Villagers emphasized the co-benefits they received from the REDD+ programme, such as alternative income-generating activities, environmental education, and better cooking stoves. For example, a loan scheme was cited by villagers as one of the top co-benefits, as it opened new avenues for access to loans and credit that could be used to start up small businesses and increase their income. Villagers could acquire the necessary financial capital and equipment to start or expand their enterprise, satisfy basic needs for their families and repay the loans when they sold agricultural products during the harvesting period.

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145 F. Kowler L, Kumar Pratihast A, Pérez Ojeda del Arco A, Larson AM, Braun C, Herold M. 2020. Aiming for Sustainability and Scalability: Community Engagement in Forest Payment Schemes. *Forests* 11(4):444. <https://doi.org/10.3390/f11040444>

Despite overall support for the REDD+ project and the non-carbon benefits it provided, the future availability of the co-benefits was a concern. Villagers expressed fear of the possible lack of availability of non-carbon benefits, suggesting the need to increase the future availability of REDD+ funding to sustain the availability of co-benefits. For example, in the context of improved stoves, the villagers' willingness to embrace the technology needs to be supported with project policies that are enforceable and that promote improved stoves. Unless other tranches of carbon funding are provided to sustain the REDD+ programme, people may become disillusioned.

Overall, the study underscores the need to consider co-benefits in the planning, design and implementation of REDD+. This inclusiveness of non-carbon benefits in REDD+ would partly ensure its acceptance by the host communities. Understanding the synergy between VPLUPs and REDD+ with its associated non-carbon benefits could lead to better planning, design and implementation of this initiative.

## Measuring policy effectiveness

*REDD+ is generally one policy instrument with a complex mix of forest and land governance policies that work together to reduce deforestation and forest degradation in a country.*

Measuring policy effectiveness involves identifying ways to achieve more efficient, effective and equitable implementation of national REDD+ schemes. Country-specific contextual conditions and the interactions between existing policies add to the complexity of measuring policy progress in achieving REDD+ objectives.

How will policymakers be able to compare and assess different options for REDD+ instruments such as benefit-sharing? Assessing policy performance and policy options is an emerging and critical area of research. It demands multidisciplinary research at different governance levels and assessment frameworks that are flexible and can generate a common understanding of what needs to be assessed.

### Policy mix success in the Brazilian Amazon [Case Study]

A study evaluating the effectiveness of the policy mix involved with the Projeto Sustainable Settlements in the Amazon (PAS), an early REDD+ project launched along the Trans-Amazon Highway in the Brazilian Amazon, found that a mix of interventions, including incentives, disincentives and enabling measures may comprise a promising strategy to reduce deforestation rates among small Amazonian landowners. Researchers estimate the impact of the project on 350 participants in the state of Para, with their main result – a 50% decrease in deforestation rates – suggesting that these policies working in tandem can be an effective strategy. Researchers also mention that the long-term on-the-ground presence of the project proponent and the context of gradual implementation of command-and-control measures in the most remote areas probably helped to obtain such encouraging results. While this specific mix of policy interventions may not work in other countries, this approach may be applicable to other areas in the Brazilian Amazon hoping to adopt REDD+ projects<sup>146</sup>.

146 Simonet G, Subervie J, Ezzine-de-Blas D, Cromberg M, Duchelle AE. 2019. Effectiveness of a REDD+ project in reducing deforestation in the Brazilian Amazon. *American Journal of Agricultural Economics* 101(1):211-29. <https://doi.org/10.1093/ajae/aay028>

## 4.2 Efficiency (cost-effectiveness)

### Efficiency refers to the relative costs of options to achieve the outcome.

Given project resource and budget constraints, achieving efficiency requires that the selected activities to support progress towards achieving REDD+ goals are implemented in a timely and cost-effective manner. Actions should reduce transaction costs and operational costs at both policy and project levels, such as by targeting benefits to the objective of the benefit-sharing mechanism or by using spatial geographic systems to site REDD+ projects in geographic areas with the highest potential for positive impacts.

#### **A spatial targeting approach for optimizing the efficiency of REDD+ in Tanzania [Case Study]**

In Tanzania, REDD+ projects are not necessarily located in high-suitability areas, which affects the efficiency or cost-effectiveness of meeting REDD+ project objectives. A study using GIS identified potential areas for REDD+ project development incorporating “efficient targeting” criteria by focusing on areas with high forest carbon content, high deforestation risk and low opportunity cost, to areas with high biodiversity and high poverty rates. With REDD+ projects, the main environmental service to consider is the forest carbon stock, or the carbon emissions avoided by not deforesting. The higher the forest carbon density, the higher priority the area is for REDD+, so the objective is to minimize the opportunity costs per unit of avoided forest carbon emissions, where avoided carbon emissions are a function of carbon density and deforestation threat. Identifying areas at high risk of deforestation where the most forest carbon can be protected at the lowest cost, the researchers found that the locations of projects do not match well with the most suitable landscapes for efficient targeting.

One reason many of the existing projects are located outside of the most suitable areas may be that they focus on forest degradation or enhancement of forest carbon stocks rather than deforestation. This could also be because the project proponents have better information on deforestation threats and the possibility of mitigating those threats in specific sites.

Identifying and mapping optimal landscapes for siting REDD+ projects using GIS tools could help policymakers, funders and project proponents to target these projects considering multiple criteria that reflect the multifaceted expectations of REDD+. Encouraging REDD+ projects in areas of high suitability identified using this method could increase the chances that those projects can cost-effectively reduce forest carbon emissions<sup>147</sup>.

#### **Applying a spatially-targeted approach to development plans to increase REDD+ cost-effectiveness in Indonesia [Case Study]**

Across Indonesia, avoiding additional deforestation on peat soils and minimizing forest degradation caused during log harvesting are highly cost-effective opportunities for reducing emissions. A study found that to achieve a low emissions reduction target of 25%, funding should target deforestation in protected areas and oil palm and timber concessions to maximize emissions reductions at the lowest cumulative cost. But to achieve a high emissions reduction

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147 Lin L, Sills E and Cheshire H. 2014. Targeting areas for reducing emissions from deforestation and forest degradation (REDD+) projects in Tanzania. *Global Environmental Change* 24:277-286. <https://doi.org/10.1016/j.gloenvcha.2013.12.003>

target of 75%, the researchers allocated funding across all strategies, finding that no single strategy could reduce emissions cost-effectively across all of Indonesia.

The researchers used spatial analyses to assess the variation in costs and carbon benefits of various REDD+ strategies in Indonesia, and identified the factors that drive the cost-effectiveness of REDD+ strategies for reducing one metric ton of carbon and for achieving emissions targets using maps of carbon stocks, forest cover, peatlands and crop suitability on oil palm, timber and logging permits, protected areas and on degraded land.

By using a spatially-targeted approach to identify high-priority locations for reducing emissions from deforestation and forest degradation, REDD+ resources can be allocated cost-effectively across Indonesia by identifying the cheapest locations for reducing carbon emissions for each REDD+ strategy and targeting these as priority areas for investment. This type of spatial analysis could inform multidisciplinary land-use planning in Indonesia and guide the implementation of national and regional plans towards priority areas for combatting forest carbon loss efficiently through REDD+<sup>148</sup>.

## Production and opportunity costs

***REDD+ projects are usually established in areas of high economic or productive value. To win over stakeholders and achieve project buy-in, project proponents should enhance the acceptability of REDD+ by considering the benefits and costs to participants.***

### High opportunity costs for villagers in the Lindi region of Tanzania [Case Study]

Two REDD+ projects that were located in the Lindi region in Tanzania, called the TFCG/Mjumita “Making REDD work for communities and forest conservation in Tanzania” and the Angai Village Land Forest Reserve (AVLFR) REDD+ project, highlight the difficulty of overcoming opportunity costs and creating successful and sustainable alternative income-generating activities.

The project provided participants with carbon payments, which, despite their high level of popularity among the villagers, were provided at a level too low to significantly impact poverty or vulnerability. Additionally, the opportunity costs for protecting the forests are high for the community members (ranging from USD 10 to USD 20 per metric ton of carbon), and the researchers warn that it could just be a matter of time until villagers go back to converting the forests to agriculture. The pressure on forest protection is exacerbated by the growing demand for agricultural land and increased prices of cash crops, such as sesame and cashew nuts.

Besides carbon payments, project proponents had promised alternative livelihoods as compensation for forest protection, yet the projects struggled to generate alternative livelihood strategies. Efforts to introduce beekeeping, conservation agriculture, butterfly farming, vegetable farming and development of woodlots generally struggled to deliver the expected results. In the TFCG/Mjumita REDD+ project, a number of concerns were expressed by the visited communities on the relevance and quality of support provided for income generation activities, such as

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148 Graham V, Laurance SG, Grech A, Venter O. 2017. Spatially explicit estimates of forest carbon emissions, mitigation costs and REDD+ opportunities in Indonesia. *Environmental Research Letters*. 12(4):044017. <https://doi.org/10.1088/1748-9326/aa6656>

technical support and advisory services on beekeeping and poultry farming, which had very limited success. Poultry keeping was discontinued by the project due to its poor performance and limited links to the broader deforestation objectives. Finally, In both villages, REDD+ projects have failed to sell carbon credits via market exchanges.

Given the high opportunity costs of forest protection, the failure to generate long-term security over performance-based payments, and the projects failing to create alternative income, there is a high likelihood that villagers will revert to previous land use practices<sup>149</sup>.

## Transaction costs

***There can be different kinds of costs associated with implementing REDD+ in a country, whether it be due to bureaucracy (overlapping ministry mandates, contradicting regulations) or differences in priorities of REDD+ objectives.***

### **High REDD+ transaction costs in Indonesia due to bureaucracy and overlapping regulations [Case Study]**

Despite there being many regulations shaping how REDD+ should be implemented, regulations issued by one ministry tend to commit only that ministry and are usually ignored by others. As many ministries are involved, coordination tends to be cumbersome, resulting in high transaction costs. At the national level, the Ministry of Environment and Forestry (MoEF) has established a Directorate General for Climate Change Control, while Bappenas is promoting green development and is in charge of the Nationally Determined Contribution for climate change emissions. Although striving for synergy, the different emphasis constrains effective and efficient implementation of climate change mitigation or adaptation. Meanwhile there is still need to effectively addressing the drivers of deforestation and forest degradation through clarifying roles and collaboration government agencies and private interests in the implementation of market processes<sup>150</sup>.

### **Different REDD+ priorities and contexts can result in different types of transaction costs: RDS Rio Negro, Brazil vs. Kilosa, Tanzania [Case Study]**

A study comparing transaction costs for REDD+ pilots in RDS Rio Negro in the state of Amazonas in Brazil, and Kilosa in Tanzania, found that different governance structures can result in different transaction costs. Unit costs – costs per ton of reduced CO<sub>2</sub> – of establishing the REDD+ governance structures were higher in Kilosa (USD 1.7 to USD 1.9 per ton versus USD 0.5 to USD 0.6 in RDS Rio Negro), while unit costs of using those structures were higher in RDS Rio Negro (between USD 0.9 and USD 6.4 versus USD 0.3 and USD 2.0 per ton of expected CO<sub>2</sub> sequestered in Kilosa).

The cost variations in the two pilots stem from the differences in the types of transactions pursued. For example, distributive equity was a key policy goal for the REDD+ project in Brazil. The state

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149 CIFOR and ICRAF. 2014. Efficiency (cost-effectiveness). CIFOR's Global Comparative Study on REDD+. Accessed January 8, 2023. <https://www.cifor-icraf.org/gcs/knowledge-tree/criteria-for-assessing-outcomes/efficiency-cost-effectiveness/>

150 Boer HJ. 2018. The role of government in operationalising markets for REDD+ in Indonesia. *Forest policy and economics* 86:4-12. <https://doi.org/10.1016/j.forpol.2017.10.004>

government of Amazonas aimed to reverse social underdevelopment among communities in the Amazon, so the programme in RDS Rio Negro was founded mainly as a social development and conservation programme without the goal of trading carbon.

The development focus of the programme, which required a broad human resource base in education, health, forest management and child development, impacted transaction costs. The communities also had to be trained in a broad array of social investments. The result was an increase in the unit costs of using the governance structures in RDS Rio Negro.

In contrast, Kilosa had a narrower focus on carbon, and as such, REDD+ implementation needed a narrower staff base with specific knowledge on carbon measurement, cooperative management and building alternative incomes. These differences lowered the unit costs in Kilosa. As REDD+ in Kilosa was primarily directed at organizing an economic transaction and positioning the pilot as a participant in the global carbon market, effecting the carbon trade demanded political and civil society processes defining who owns the carbon, how performance is to be monitored and verified, and how payments should be made. This required the definition of property rights, the preparation of baselines, and the building of the carbon cooperative, leading to higher unit costs.

### 4.3 Equity

Equity refers to the distributional aspects of costs and benefits and the procedural aspects of decision making within the specific contexts of access, power and capabilities (Angelsen, A. ed., 2009)<sup>151</sup>.

Equity can come in different types:

- Contextual/access
- Procedural/decision-making
- Distribution

#### Contextual/access

#### *Contextual equity refers to social context and abilities*

Obtaining access to benefits from REDD+ requires a process that is often beyond the capacity of local people to access. Contextual equity involves the pre-existing conditions that enable or restrain participation in decision-making processes, the access to resources and the resulting benefits. Policymakers should consider the social and political context at the root cause of inequality when designing REDD+ interventions at the local level.

#### **Surprising findings from Cameroon regarding contextualized equity [Case Study]**

A study assessing two projects with community payments (PES/REDD+) impacting Indigenous Peoples (Baka) relative to the locally dominant ethnic group (Bantu) in south-eastern Cameroon tried to understand the extent to which the projects addressed equity concerns – with some surprising findings. The study, which examined the Nomedjoh–Nkolenyeng PES (Payment for Ecosystem Services) and the Ngoyla–Mintom REDD+ project, found little support for the general tenet that Indigenous Peoples are disadvantaged by the projects compared to the locally

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151 Angelsen, A. ed., 2009. *Realising REDD+: National strategy and policy options*. Bogor, Indonesia: CIFOR.



dominant ethnic group along procedural and distributive equity dimensions. The Indigenous Baka people were more likely than members of the local dominant ethnic group (Bantu) to have participated in and benefited from the Nomedjoh–Nkolenyeng project, while the reverse was true for the Ngoyla–Mintom project. This is partially explained by contextual factors such as low education and a lack of previous experience by the Indigenous Baka in the Nomedjoh–Nkolenyeng contributing to more sensitization meetings, with additional time and effort invested in ensuring villagers understood the project and explaining the benefits of the project and conserving forests.

Additionally, in Nomedjoh–Nkolenyeng, the project was strongly supported by an Indigenous NGO and a “local champion,” who was convinced about the value of the project and hence mobilized time and know-how to advance the project in the Baka village. The Baka village in Ngoyla–Mintom did not have such a “local champion.” The study underscores how contextual factors with respect to technical capabilities, power, gender, level of education, and wealth can determine individuals’ likelihood of participating in and benefiting from projects<sup>152</sup>.

### Contextual equity: Potential distributional outcomes of five different rationales for benefit-sharing for a village in the DRC [Case Study]

A study examining the village of Buya I in the DRC identified important risks for sectors of the population that do not have the contextual features necessary for benefitting from REDD+ implementation. The researchers examined the potential distributional outcomes of five different rationales for benefit-sharing: 1) actors with legal rights; 2) actors achieving emission reductions or removals; 3) low-emitting forest stewards; 4) actors incurring costs; and 5) the poor and vulnerable people (a pro-poor approach).

#### Examining the potential distributional outcomes of five different rationales for benefit-sharing:

- **Actors with legal rights:** Assuming that customary laws are recognized, as specified in the 2006 Constitution, only rights holders would benefit under this rationale, representing about a third of the households in the case study.
- **Actors achieving emission reductions or removals:** Rights holders are those who clear the most area and who could participate in carbon stock enhancement as they hold rights to the land. In this context, this incentive scheme would promote behavioural changes for those who have impacts on land-use decisions.
- **Low-emitting forest stewards:** Benefits for conserving swamp forests around the communities could be equally distributed among village residents. However, since the swamp forests are already conserved under business as usual, there would be no additional environmental benefits. The potential of rice cultivation in swamp forests is still a deforestation threat that should be evaluated.
- **Actors incurring costs:** A careful analysis of the types of costs would be required, with the direct costs more likely to be compensated. Indirect costs such as a decrease in land available for rent by non-rights holders is unlikely to be compensated.
- **The poor and vulnerable people (a pro-poor approach):** This is the only scheme that could potentially address equity issues by creating compensation for non-rights holders as well as Indigenous Peoples, women and migrants.

152 Tegegne YT, Palmer C, Wunder S, Moustapha NM, Fobissie K and Moro E. 2021. REDD+ and equity outcomes: Two cases from Cameroon. *Environmental Science & Policy* 124:324-35. <https://doi.org/10.1016/j.envsci.2021.07.003>

Ultimately, the researchers found that, at least in the DRC, the sector of the population that may benefit the most from REDD+ are customary rights holders – who represent a minority of the total population – due to the social differentiation between gender and ethnic groups. The researchers suggest a flexible adaptive management and equity – conscious approach to incentivize rights holders' behaviour towards carbon stock enhancement and provide development benefits for the majority, including marginalized groups, to lead to a broader distribution of benefits.

Taken from: Pelletier et al. (2018<sup>153</sup>).

## Procedural/decision-making

Procedural equity refers to participation in decision making and negotiation of competing interests. It involves addressing the perceptions of fairness and legitimacy of the political processes that lead to decision making. In the REDD+ context, procedural equity involves the establishment of standards that respect the principle of free, prior and informed consent (FPIC) and the participation of Indigenous and local communities in the design and implementation of REDD+ interventions.

### Complex FPIC process in Cameroon counterintuitively increases procedural inequity [Case Study]

A study focusing on the role of equity comparing two projects – the Nomedjoh–Nkolenyeng PES (Payment for Ecosystem Services) and Ngoyla–Mintom REDD+ projects, in six villages in the Cameroonian Congo Basin – found counterintuitive support for the idea that more complex and time-consuming FPIC processes, which are intended to address and reduce inequities, could actually come to reinforce power imbalances. The Ngoyla–Mintom project had more exposure to the FPIC process than the Nomedjoh–Nkolenyeng project in the form of more information, discussions and training on FPIC processes. Still, the Ngoyla–Mintom project, which had adopted a much more elaborate and time-consuming multi-staged FPIC process, did not demonstrate a marked improvement in the number of women, youth and migrant farmers who indicated that they had been sufficiently engaged in the consent-giving decision process. The researchers suggest a longer and more complex FPIC process might have given locally powerful groups time to exert internal pressure on the process, in turn enabling them to gain the upper hand in struggles over project-related interests.

Overall, FPIC is not a silver bullet, as shown by one project that invested in a much more complex and time-consuming FPIC process than the other, yet having no more clearly equitable outcomes. Even a simple, nascent FPIC process can have some positive impacts on the ground, and might be less vulnerable to influence by locally powerful groups than a more sophisticated and longer one. Going forward, FPIC guidelines should be seen as a set of well-intentioned, externally-designed policy tools that seeks to conserve forest while improving livelihoods using a participatory and inclusive approach. Based on a research-informed local knowledge base, these guidelines should be carefully customized to local contexts and the FPIC processes should be designed to be less susceptible to the demands of dominant groups, with additional efforts made to target those less dominant. Targeted research prior to policy interventions might help implementers to better understand the local political economy and, hence, identify those inequalities that have the potential to be addressed via interventions customized to the local context<sup>154</sup>.

153 Pelletier J, Horning N, Laporte N, Samndong RA, Goetz S. 2018. Anticipating social equity impacts in REDD+ policy design: An example from the Democratic Republic of Congo. *Land Use Policy* 75:102-15. <https://doi.org/10.1016/j.landusepol.2018.03.011>

154 Tegegne YT, Palmer C, Wunder S, Moustapha NM, Fobissie K and Moro E. 2021. REDD+ and equity outcomes: Two cases from Cameroon. *Environmental Science & Policy* 124:324-35. <https://doi.org/10.1016/j.envsci.2021.07.003>

## Distribution

***Distributive equity refers to the allocation of benefits and costs between different stakeholders through the creation of benefit-sharing mechanisms. It focuses on the fairness of the REDD+ outcome.***

REDD+ intervention should be designed to incentivize behavioural change that will address the drivers of deforestation and forest degradation. Different goals and rationales have been proposed about who should benefit from REDD+ and why they should receive incentives, highlighting the perception that equity manifests differently across different actors.

### **Difficulty in achieving distributive equity for Hmong minority communities in Laos [Case Study]**

A REDD+ pilot project called CLIPAD implemented in Huaphan province in the north of Laos in two case study villages, referred to by the researchers as Ban Lao-Khmu and Ban Hmong, highlights how a lack of attention to social inequities can negatively influence justice outcomes and contribute to a lack of support for REDD+ programmes from ethnic minority groups. Despite REDD+ planning meetings being open to all regardless of race and ethnicity, various social barriers contributed to variations in acceptance of REDD+ projects among different ethnic groups. Many Hmong people seemingly protested against the project interventions by choosing not to participate in the meetings, and overall Hmong support for REDD+ projects was low.

Ethnicity, gender and historical relations with the state emerged as critical factors shaping the conditions for procedural, distributional and recognitional justice, as evidenced by the different level of participation, involvement and trust in external actors and their initiatives in the two study villages inhabited by ethnicities with different sociocultural identities and relations to the state. The fact that Hmong people have a distinct history, culture and political engagement was largely ignored in the REDD+ pilot project design and implementation, acting as a barrier for Hmong involvement and contradicting FPIC principles for cultural self-determination

For example, Hmong villagers in Ban Hmong chose not to join the REDD+ planning meetings because they expected that they would not have much say in the final decision, and they feared their presence would be interpreted as consenting to pre-made decisions. The villagers' tactic of refraining or withholding is a strategy of revolt and protesting the non-recognition of their political agency and self-determination. Another obstacle to attendance and effective participation of the Hmong in meetings was the use of the Lao language, which suggests violence against disregard for cultural self-determination. Hmong villagers argued that they were invited to listen to a meeting conducted in a language that most of them did not speak or understand. Finally, the lack of trust in outsiders and their institutional procedures, both the Lao Government and foreigners, also played a major role in villagers choosing to limit their participation in meetings and project activities. This distrust led to people fearing that they would lose the forest to the project and to the government.

The village forest and land use planning processes led to imposition of previously less known formal state policies and rules on top of the existing informal traditional rules and practice. All in all, ethnic Lao reported the highest acceptance of the project, followed by the Khmu in Ban Lao-Khmu, while such acceptance was negligible among the ethnic Hmong in Ban Hmong. The case highlights how a lack of political and cultural self-determination, power asymmetries between state and non-state actors, a lack of local people's empowerment, and a failure to recognize customary and traditional structures and rules can hamper the achievement of distributive equity<sup>155</sup>.

155 Ramcilovic-Suominen S, Carodenuto S, McDermott C, Hiedanpää J. 2021 Environmental justice and REDD+ safeguards in Laos: Lessons from an authoritarian political regime. *Ambio* 50(12):2256-2271. <https://doi.org/10.1007/s13280-021-01618-7>

## 4.4 Legitimacy

### Legitimacy of process

#### ***Consensus and consultation may be needed more than cash to make REDD+ work.***

Research suggests that representative organizations and/or committees of local participants help build legitimacy, in both procedures and outcomes. Commitment by representatives to the creation of a truly representative entity for dialogue, information sharing and thinking creatively about how to select representatives democratically also encourages the legitimacy of these processes. This involves taking care to promote fair and locally legitimate selection processes for representatives, as well as providing guidance to communities on ways to become more transparent and accountable.

#### **Clear communication flows facilitate information sharing [Case Study]**

In the Puerto Ocopa community in Peru, there are clear communication patterns around monitoring activities across different levels. The monitoring subcommittee is expected to maintain frequent communication with the monitoring committee, the community president and the local monitoring entities, with information also shared to the community at large in communal assemblies. For example, in the case of environmental threats, the monitoring subcommittee reports the threats to the community head and then, if necessary, to the Indigenous organization or the relevant government forest institution. This established information channel allows for fluid communication across actors and facilitates information sharing, even in the face of local leadership challenges or changes in leadership<sup>156</sup>.

#### **Women are well represented in Brazil's REDD+ policy processes [Case Study]**

In Brazil, the political commitment to women's representation in REDD+ is strong, with many female representatives in the national REDD+ committee. Brazil's Ministry of Environment has also established a Gender Committee to discuss actions for gender equality in REDD+ projects, while Brazil's National REDD+ Committee ensures gender balance among representatives within all REDD+ Thematic Advisory Boards<sup>157</sup>. While political representation alone is not enough to guarantee true gender equity, the establishment of various committees dedicated to gender equality and balance can help promote an environment where women have many opportunities to express their opinions.

#### **Political representation of women alone is not enough—clear guidance is needed [Case Study]**

Bee and Sijapati Basnett's review of REDD+ programme design in various countries showed gender being understood as 'equal participation' of women and men in REDD+ design as part of

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156 F. Kowler L, Kumar Pratihast A, Pérez Ojeda del Arco A, Larson AM, Braun C and Herold M. 2020. Aiming for Sustainability and Scalability: Community Engagement in Forest Payment Schemes. *Forests* 11(4):444. <https://doi.org/10.3390/f11040444>

157 Pham TT, Tran NLD, Nong NKN and Nguyen DT. 2021. Mainstreaming gender in REDD+ policies and projects in 17 countries. *Journal of Environmental Policy & Planning* 23(6): 701-715. DOI: [10.1080/1523908X.2021.1903408](https://doi.org/10.1080/1523908X.2021.1903408)

the monitoring, reporting and verification requirement; yet without a clear understanding of what that meant or how to achieve meaningful participation for a range of women. There was also an assumption that women's participation would automatically lead to benefit-sharing arrangements that would promote gender equality. As part of the monitoring, reporting and verification process for REDD+, each country involved is required to collect and provide information as to how safeguards, including gender, are being addressed and respected. However, a lack of clear guidance on how to go about doing this has meant that gender is addressed in reductionist ways, with gender running the risk of being rendered a technical or political item to check off<sup>158</sup>.

## Consultation

***Benefit-sharing arrangements function better when they are developed through a process that communities view as legitimate. Overreliance on one or two representatives from a community, rather than meaningful broad consultations, can quickly become problematic and erode a project's legitimacy.***

Free, prior and informed consent (FPIC) is a principle that aims to put power back in forest communities' hands. Prior to large industrial developments (e.g., oil palm, timber plantations or mining on customary lands), investors, companies or governments must agree to informative non-coercive negotiations with local communities. This should ensure the community is aware of the proposed land-use change, and can agree to, modify, or refuse any activities, changes or benefit-sharing arrangements. But even when community consultations are mandated, this seldom translates into complete FPIC. Consultation does not happen, or when it does, it involves only local elites.

### **Indigenous Peoples in Acre represented in REDD+ planning processes [Case Study]**

The Acre State System of Incentives for Environmental Services (SISA), which the state of Acre passed into law in 2010, recognizes the rights of Indigenous Peoples, establishes social and environmental safeguards and commits to equitable benefit-sharing. Prior to being signed into law, Acre's SISA underwent an extensive research and consultation process, involving Indigenous Peoples and other potential beneficiaries, as well as state and federal authorities and civil society. In 2015, following a five-year planning, consultation and verification process, Acre became the first jurisdiction globally to develop and apply REDD+ Social and Environmental Standards as part of the SISA programme. SISA also established important mechanisms for governance, transparency, accountability and oversight, including the State Commission for Validation and Monitoring (CEVA), a multistakeholder commission made up of both public authorities and civil society, as well as the Indigenous Peoples Working Group (GTI), which includes representatives of SISA, the National Indian Foundation, State Secretary of the Environment, Acre's Climate Change Institute, Acre's Secretary of Indigenous Affairs, and 19 Indigenous associations<sup>159</sup>.

158 Bee BA, Sijapati Basnett B. 2017. Engendering social and environmental safeguards in REDD+: lessons from feminist and development research. *Third world quarterly* 38(4):787-804. <https://doi.org/10.1080/01436597.2016.1191342>

159 DiGiano M, Mendoza E, Ochoa M, Ardila J, Oliveira de Lima F and Nepstad D. 2018. *The Twenty-Year-Old Partnership Between Indigenous Peoples and the Government of Acre, Brazil: Lessons for realizing climate change mitigation and social justice in tropical forest regions through partnerships between subnational governments and indigenous peoples*. San Francisco, USA: Earth Innovation Institute (EII). DOI:10.13140/RG.2.2.34535.29609

## Information sharing

***Given the complex and abstract nature of REDD+, many project proponents have been withholding information from local populations to avoid generating false expectations or confusion.***

REDD+ project proponents may withhold information from local populations, given its complex and abstract nature. While project proponents do not intend to raise false expectations about REDD+, it is nevertheless frustrating for communities to be given piecemeal information.

Holding regular workshops that are more accessible to all stakeholders to discuss specific issues related to project design can help ensure that information reaches the broader local population. This approach also prevents a heavy reliance on key local representatives who may fail to transfer knowledge to their communities.

### **Going the extra mile in providing information to gain support for a REDD+ project in Peru [Case Study]**

In the Peruvian Alto Mayo REDD+ project, an NGO partnered with the government to make conservation agreements with local settlers who were occupying a protected area and would otherwise be threatened with expulsion. Local communities initially resisted the deal because they believed their land was being bought up by the NGO and its corporate partner. In response, the NGO carried out a much more far-reaching participatory information sharing process than it had originally planned to ensure that local people understood the project. The efforts of the NGO won over many local people living in the area, who began viewing the process as legitimate and the project as their best option. While some people did not wish to participate in the programme, thereby demonstrating how distribution options have been rejected by those who still believe their land rights should be recognized, for households that did sign on the project signs conservation contracts that are renewed annually and grants technical support to households to improve coffee production in return for zero deforestation<sup>160</sup>. Going the extra mile to ensure that local people understand the project and feel they can sufficiently participate can contribute to the success of a project.

### **Limited information sharing could undermine community members' trust in a REDD+ programme in Peru [Case Study]**

A study examining the Indigenous communities of Loma Linda Laguna and San Pedro de Pichanaz, which were involved in Peru's Conditional Direct Transfer Programme, found a lack of information dissemination between the monitoring subcommittee and those not directly involved with monitoring activities. Monitoring subcommittee members revealed that they withheld information from the community at large to avoid confusion. Additionally, the National Forest Conservation Programme provided learning and training opportunities to members of the monitoring subcommittee only. Consequently, at communal assemblies, monitoring subcommittee non-members were unfamiliar with the environmental terms and concepts used by monitoring subcommittee members. The limited information sharing with the community at large and the closed-off capacity-building opportunities could undermine engagement and trust between Indigenous communities at large and the transfer programme<sup>161</sup>.

160 Myers R, Larson AM, Ravikumar A, Kowler LF, Yang A, Trench T. 2018 Messiness of forest governance: How technical approaches suppress politics in REDD+ and conservation projects. *Global Environmental Change* 50:314-324. <https://doi.org/10.1016/j.gloenvcha.2018.02.015>

161 F. Kowler L, Kumar Pratihast A, Pérez Ojeda del Arco A, Larson AM, Braun C and Herold M. 2020. Aiming for Sustainability and Scalability: Community Engagement in Forest Payment Schemes. *Forests* 11(4):444. <https://doi.org/10.3390/f11040444>

### **Lack of trust among various stakeholder groups in Indonesia hinders jurisdictional approach initiatives [Case Study]**

In Indonesia, a common element of jurisdictional approach initiatives has been the establishment of supportive multistakeholder bodies. While these forums are becoming more common, an obstacle to the effective functioning of several such groups has been the lack of trust between various stakeholders. Often, this is due to the historical legacy of past conflicts over natural resources.

For example, in Riau province, many civil society organizations, academics and even government officials bear some animosity towards the large pulp and paper sector companies that were responsible for large-scale forest and peatland destruction and associated social conflicts until relatively recently. Despite their stated desire to contribute to jurisdictional approach initiatives in the province, those companies were not initially welcomed into the multistakeholder processes now underway. Similarly, in West Papua and Papua provinces, cooperation among civil society groups has been hindered by differences in strategic approaches. Although the Manokwari Declaration commits to protecting both forests and Indigenous rights, conservation groups have tended to prioritize seeking official protection for remaining forest areas to safeguard them from conversion to commercial-scale plantations.

Rights-oriented groups have viewed those efforts with suspicion, insisting that recognition of Indigenous rights to those areas must be secured first. More broadly, this lack of trust among different elements of civil society may have contributed to the limited integration of the Indigenous rights agenda into the practice of jurisdictional approaches in Indonesia<sup>162</sup>. Building groups and forums for stakeholders to interact is only the first step. Building and fostering trust among the different stakeholder groups is crucial to seeing real progress.

## **Multistakeholder collaboration**

### ***Collaboration between government and non-governmental stakeholders is seen as a crucial design element of benefit-sharing mechanisms in REDD+.***

When a process includes many stakeholders, it deepens collaboration and technical input, strengthens mechanisms for communication, supports capacity building and ensures a variety of perspectives are understood, thereby adding oversight.

Multistakeholder processes are also seen as a way of improving equity in terms of participation, as well as ensuring a fair distribution of costs and benefits and that the rights of stakeholders are upheld. Giving stakeholders the ability and power to participate meaningfully in REDD+ programmes and shape their design and outcomes brings increased legitimacy and is important in increasing buy-in to a process.

162 Seymour FJ, Aurora L and Arif J. 2020. The jurisdictional approach in Indonesia: Incentives, actions, and facilitating connections. *Frontiers in Forests and Global Change* 3:124. <https://doi.org/10.3389/ffgc.2020.503326>

## Role of local government

***The closest citizens' representative is their local government, which may exist at multiple levels, such as village, sub-district or district, depending on the country.***

In many contexts, local governments play an important role in people's lives, whether they have substantial legal power or responsibility over forests or land. In democratic countries, these authorities have a mandate to represent and respond to the needs of their constituents. Therefore, they should not be ignored by REDD+ initiatives.

### **Tanzanian law enables greater local participation [Case Study]**

Citizen participation in local government decision making in Tanzania has been enhanced by amendments to the Local Government (District Authorities) Act of 1982. The Act provides for councils to organize public hearings for people to question political leaders. The Act also empowers Councils to establish special kinds of service boards open to all citizens in the area, providing an opportunity to influence service provision. Participatory budget making has been enabled by bottom-up budgeting through ward development committees and has become a means to increase resident participation, with greater village governance through enhanced local participation, accountability and transparency (Kesale, A.M., 2017)<sup>163</sup>. While provisions like these are not uncommon in REDD+ countries, REDD+ initiatives vary widely in their engagement with local governments.

### **“Representative organizations” in Ucayali, Peru not given sufficient power [Case Study]**

In a REDD+ case in Ucayali, Peru, project proponents created a “representative organization” made up of community Indigenous authorities to avoid dealing directly with the broader community. The communities agreed because it would provide them a voice to which the project proponents would listen. The solution was efficient for the project proponents, but hardly effective for communities, as they viewed their input and perspectives being filtered through a small group that had little decision-making power and struggled to communicate technical project information to the local farmers they represented<sup>164</sup>. Representative organizations need to be provided with sufficient decision-making power and capacity training so that they are able to have the means to effect change within a group, especially if the representative organization is part of a marginalized group.

163 Kesale, A.M., 2017. Selected experiences of the use of the village assembly in the governance at the grassroots levels in Ludewa district council in Tanzania. *Journal of Public Administration and Governance*, 7(2), pp.1-11.

164 Myers R, Larson AM, Ravikumar A, Kowler LF, Yang A, Trench T. 2018 Messiness of forest governance: How technical approaches suppress politics in REDD+ and conservation projects. *Global Environmental Change* 50:314-324. <https://doi.org/10.1016/j.gloenvcha.2018.02.015>



### Roundtable for Sustainable Districts: *Lingkar Temu Kabupaten Lestari* (LTKL) in Indonesia

In Indonesia, a new platform for Green Districts emerged in 2017, when eight districts in Sumatra, Kalimantan and Sulawesi came together to establish the Roundtable for Sustainable Districts or *Lingkar Temu Kabupaten Lestari* (LTKL). The purposes of LTKL are to provide a platform to support cross-learning among districts that share a vision for sustainability, and to build a support system to implement that vision. At general assembly events, member districts declare their commitments and share insights and lessons learned on how to further environmental sustainability goals<sup>165</sup>. Because the information sharing occurs among and between districts – the level of governance with the closest access to local communities – these platforms allow for the priorities of local governments and their constituencies to be kept in mind<sup>166</sup>, with constituents' needs addressed more directly than at higher levels of governance (e.g., state, provincial, national).

## Communities involved in design and implementation

### *Consensus and consultation may be needed more than cash to make REDD+ work.*

One of the biggest challenges for countries that wish to implement REDD+ activities is to develop appropriate and institutional structures to distribute both monetary and non-monetary benefits in an effective, efficient and equitable manner. For both REDD+ and PES to be effective, a key question is how benefits can be distributed fairly. Benefit-sharing must be perceived as fair by stakeholders – the number of people that are being compensated for their efforts and how benefits are being distributed – or it will threaten the legitimacy of, and support for a programme. Even when payments are low, people can still feel satisfied if legitimacy has been achieved.

Expanding the involvement of local participants in the design and oversight of REDD+ initiatives can bring increased local support.

165 Boyd WI, Stickler CL, Duchelle AE, Seymour FR, Nepstad DA, Bahar NH, Rodriguez-Ward DA. 2018 *Jurisdictional approaches to REDD+ and low emissions development: Progress and prospects*. Washington, DC: World Resources Institute.

166 Seymour F, Aurora L. 2019. Moving Forward with the Jurisdictional Approach in Indonesia: Update for JA Proponents

### Women's participation in REDD+ stakeholder consultations should be promoted thoughtfully, not just to meet a quota [Case Study]

In Vietnam, although many REDD+ projects and programmes aim to apply a gender-sensitive approach in allocating benefits from REDD+, little effort has been taken to ensure women have a voice in identifying their preferred benefits and how they wish to receive them. A significant number of women have participated in REDD+ processes in Vietnam, but their participation has been limited to consultation and has failed to influence policy output. The involvement of women should be promoted thoughtfully, rather than being a matter of meeting quotas. As Vietnam already has a critical mass of women working on forest issues at the national level, there is now a need to support their empowerment and build their capacity, so that they might become office bearers and instigators of change<sup>167</sup>. Participation should be seen as an ongoing and open-ended process of social change, rather than as a completable outcome.

### Mixed perceptions of Vietnam's Forest Land Allocation programme due to lack of local participation in decision making [Case Study]

Vietnam's Forest Land Allocation (FLA) programme provides tenure security for land users and is aimed at devolving forest rights to local communities and individuals to encourage local forest protection and development in rural forested regions<sup>168</sup>. How the programme is perceived depends on who you talk to. While local governments in Vietnam perceive FLA to be a success in restricting the land use practice of shifting cultivation, local people perceive the programme to be a heavy burden on their livelihoods, while providing insufficient compensation<sup>169</sup>. A lack of local participation in decision making and consensus hampers the programme, and its benefit-sharing distribution overlooks the needs of local people. A study found that although the approach of equal payments meets the local interpretation of "equity," it overlooks other important aspects of what may be deemed fair. Future projects should promote greater involvement of the local population in decision making to include other local interpretations of equity within communities, as this could lead to greater support. Consensus and consultation might lead to project improvements in the form of adjusting payments based on effort, with those engaging in forest protection activities receiving higher payments as compensation; accounting for past achievements made by individual land and forest managers in providing ecosystem services; and respecting the preferences of local populations for equal payments to avoid the possibility of elite capture<sup>170</sup>.

167 Pham TT, Mai YH, Moeliono M and Brockhaus M. 2016. Women's participation in REDD+ national decision-making in Vietnam. *International Forestry Review* 18(3):334-44. <https://doi.org/10.1505/146554816819501691>

168 Trung LQ, Phuong VT, Yang AL and Hai VD. 2015. *The distribution of powers and responsibilities affecting forests, land use, and REDD+ across levels and sectors in Vietnam: A legal study*. Occasional Paper 137. Bogor, Indonesia: CIFOR. DOI: [10.17528/cifor/005743](https://doi.org/10.17528/cifor/005743)

169 Pham TT, Bennet K, Vu TP, Brunner J, Le ND and Nguyen DT. 2013. *Payments for forest environmental services in Vietnam: From policy to practice*. Occasional Paper 93. Bogor, Indonesia: CIFOR.

170 Wong GY, Loft L, Brockhaus M, Yang AL, Pham TT, Assembe-Mvondo S and Luttrell C. 2017. An assessment framework for benefit sharing mechanisms to reduce emissions from deforestation and forest degradation within a forest policy mix. *Environmental Policy and Governance* 27(5):436-52. <https://doi.org/10.1002/eet.1771>

### **Non-discrimination laws alone are not enough to improve the participation of marginalized groups in REDD+ processes [Case Study]**

In Vietnam, when FPIC was applied to increase the participation of women in REDD+ policy processes, little consideration was given to the heterogeneity of communities. This became evident during consultations where discussions were dominated by outspoken older men; participants were persuaded to consent without fully understanding REDD+ and meeting locations and timings were not suitable for many women. Although Vietnam's benefit distribution system mandates non-discrimination towards women and other marginalized groups, including Indigenous Peoples, the system failed to ensure a critical mass of women to accurately represent their views and interests<sup>171</sup>. Care must be taken to consider the heterogeneity among and within communities, as legislation alone proved to be insufficient.

### **Local perceptions of non-carbon benefits shape Mexican community members' willingness to implement REDD+ activities [Case Study]**

In Mexico, a programme introduced in 2018 called *Sembrando Vida* (Planting Life) was highly welcomed by two communities studied. The *Sembrando Vida* programme supports the establishment of agroforestry systems combined with traditional *milpa* cultivation, lasts five years, and includes individual monetary support disbursed monthly (which is perceived as sufficient for covering transaction costs and provides net benefits). In addition, the programme allows for the direct participation of non-rightsholders with usufruct contracts or, indirectly, as day labourers. However, the programme operates independently from the national REDD+ policy as it is run by the Ministry of Welfare and is aimed at achieving social well-being, not necessarily carbon objectives. Still, the positive reception towards this programme suggests that community buy-in is a crucial factor in community members' support and participation in a programme. In comparison, REDD+ programmes that have taken place in the two Mexican communities are not as widely supported by members due to mismatches in timing of benefits and an overemphasis on carbon benefits to the detriment of non-carbon (e.g., income-generating) opportunities<sup>172</sup>.

171 Pham TT, Mai YH, Moeliono M, Brockhaus M. 2016. Women's participation in REDD+ national decision-making in Vietnam. *International Forestry Review*. 18(3):334-344. <https://doi.org/10.1505/146554816819501691>

172 Špirić J, Reyes AE, Rodríguez ML and Ramírez MI. 2021. Impacts of REDD+ in Mexico: Experiences of Two Local Communities in Campeche. *Sociedad y Ambiente* (24):1-33. <https://doi.org/10.31840/sya.vi24.2387>

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Norad



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