



Improving conservation payments: Targeting and accountability in Liberia

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- **Conservation payment programmes can fall short in practice, both in reducing deforestation and in sharing benefits fairly.** Payments may go to communities that would not have cleared forests anyway, raising concerns about the additionality of emissions reductions. At the same time, benefits may be captured by local elites rather than reaching those who depend on forest land.
- **A new programme in Liberia tests two practical solutions: better targeting and stronger accountability.** As Liberia develops rules for forest-carbon transactions, the Targeting Incentives for Environmental Stewardship (TIES) programme shows how payments can be directed to high-risk communities while testing accountable community-level processes for benefit-sharing and safeguards.
- **A large-scale randomised trial compares two approaches.** Across 190 communities, the programme tests a standard conservation payment scheme against an enhanced model that includes community monitoring of how funds are used.
- **The enhanced model aims to reduce the misuse of funds and increase cooperation.** Giving community members a voice in assessing fairness may improve both compliance with conservation rules and trust in local leaders.
- **The findings will inform how donors and governments design conservation programmes.** Results (expected in 2027) will show whether combining financial incentives with simple accountability tools can deliver better environmental and social outcomes.

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Why do conservation payment programmes struggle to deliver?

A central challenge is how to reduce deforestation without imposing undue costs on poor, forest-dependent households. Payment for ecosystem services (PES) programmes have emerged as a promising tool, offering financial incentives for conservation. However, their effectiveness depends critically on two factors:

- **Accurate targeting:** Conservation payments are only cost-effective if directed toward communities and households that would otherwise engage in deforestation (Calel et al., 2021; Jayachandran et al., 2017). In many rural settings, limited data and weak administrative capacity make it difficult to identify where deforestation risk is highest and who bears the costs of conservation (Scott, 1998). Poor targeting can result in wasted resources, minimal environmental impact, and, in forest-carbon programmes, less credible claims of avoided forest loss.
- **Equitable distribution of payments:** In contexts where land is communally managed, local leaders often control access to land and resources and are best positioned to allocate payments. However, these leaders may not be fully accountable to community members and may distribute benefits inequitably (Christensen et al., 2021).

These challenges create uncertainty about whether PES programmes can work at scale. Without reliable targeting and safeguards against elite capture, PES programmes may fail to achieve intended environmental and social outcomes.

Liberia as a test case: High conservation value, weak governance

Lofa and Gbarpolu counties in Liberia are a globally significant biodiversity hotspot where rural communities depend heavily on forest resources for their livelihoods (de Sousa et al., 2023). Deforestation in the region is driven primarily by slash-and-burn agriculture, in which households clear forest land for farming (Global Forest Watch, 2024). This practice is labour-intensive and seasonal, and households' dependence on forest clearing varies based on access to land and alternative livelihoods.

Land tenure is communal rather than individual, with local leaders (such as town chiefs and quarter chiefs) responsible for allocating land use rights. These leaders possess detailed knowledge of which households are most likely to

clear the forest. However, they are not democratically elected and may face limited accountability, creating potential risks of unequal benefit distribution (Christensen et al., 2021). This matters for forest-carbon policy because future carbon programmes will need to operate through existing customary land and forest governance systems, where consent, incentives, accountability, and benefit-sharing are negotiated in practice. This institutional context creates a central tension for policy design:

- Local leaders' knowledge can improve targeting and implementation.
- Weak accountability increases the risk of elite capture and inequity.

Liberia provides a critical test case for whether innovative PES designs can overcome implementation challenges in settings characterised by communal land tenure, high deforestation pressure, and weak formal governance.

Testing solutions: Targeting, incentives, and accountability

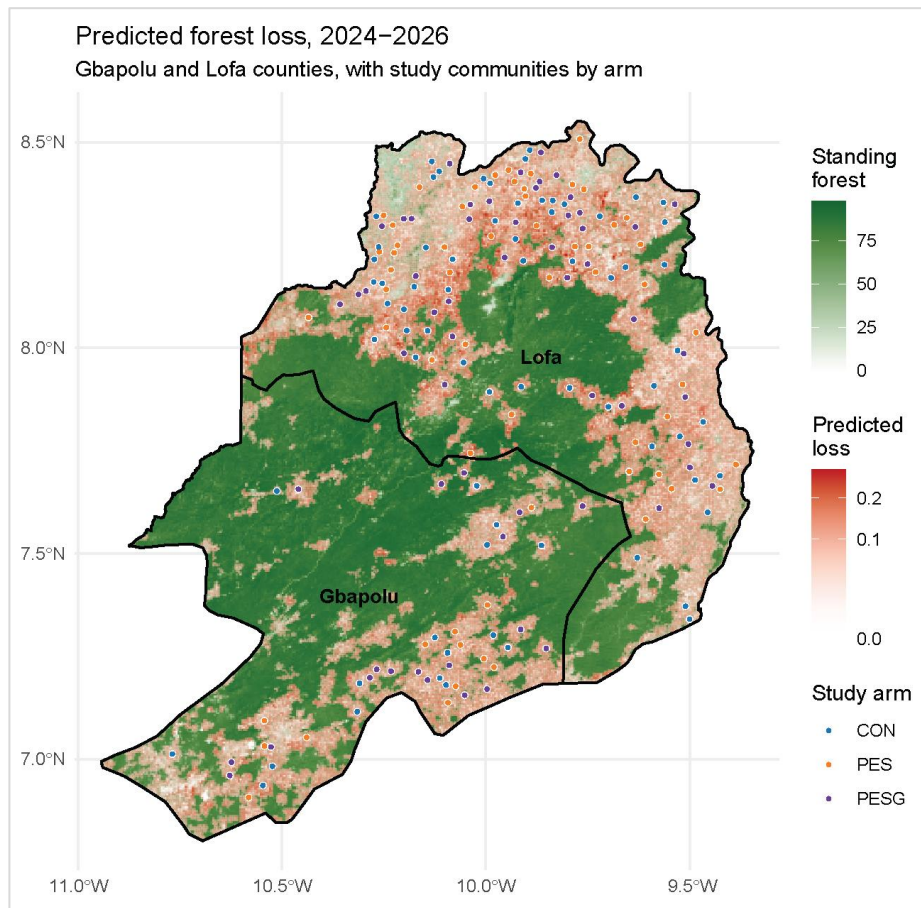
The Targeting Incentives for Environmental Stewardship (TIES) programme tests potential solutions to these challenges using a randomised trial across 190 communities. Communities are assigned to one of three groups:

- A control group receiving information only;
- A standard PES contract requiring no forest clearing;
- A PES+ contract, which includes both the no-clearing condition and a fairness requirement for payment distribution.

Three key elements of the programme are designed to improve the targeting of conservation payments and ensure they are distributed fairly:

- **Improved targeting through data and technology:** A machine learning model predicts future deforestation risk using historical satellite data and geographic features. This allows TIES to target communities where payments are most likely to change behaviour and reduce deforestation.
- **Community-level payment structures:** Payments are distributed at the community level, with local leaders responsible for allocating funds among households. This reflects existing land tenure systems but introduces potential risks related to accountability.
- **Accountability through participatory monitoring (PES+):** This treatment allows community members to assess whether payments are distributed fairly, creating incentives for more equitable allocation and increasing trust and compliance.

Figure 1: Predicted forest loss, 2024-2026



Predicted forest loss across Lofa and Gbarpolu counties, highlighting variation in deforestation risk and the location of study communities in the TIES programme.

These components allow the study to test whether combining technological innovation (targeting) with institutional design (accountability) can improve the effectiveness of PES programmes. The study assesses the effectiveness of these approaches across three key outcomes:

- **Deforestation** is measured using a combination of satellite-based forest loss data and on-the-ground assessments of land clearing.
- **Welfare outcomes**, including changes in material wellbeing, food security, and household economic conditions.
- **Governance outcomes**, including perceptions of fairness, trust in leaders, and the accountability of local institutions.

What this study could mean for policy design

This study is currently ongoing and is expected to conclude at the end of 2027, following two full agricultural seasons. The design of the study and the questions it seeks to answer point to several potential lessons for policymakers:

- **How much targeting matters for cost-effectiveness:** Whether targeting high-risk communities improves environmental impact and cost-effectiveness.
- **Whether accountability mechanisms reduce elite capture:** Whether community monitoring reduces elite capture and improves the distribution of payments. This would improve both equity and programme legitimacy.
- **The role of institutions in shaping programme success:** Whether the effectiveness of PES programmes depends not only on the size of payments, but also on how those payments are governed and distributed. For Liberia's emerging forest-carbon framework, this suggests that market architecture alone will not determine success. Jurisdictional, nested, or project-based approaches will all require credible local systems for targeting incentives, monitoring land-use behaviour, distributing benefits, and maintaining community trust.

The study highlights the complexity of designing conservation interventions in contexts with communal land tenure and weak governance. Even well-designed financial incentives may fail if they are not paired with mechanisms that ensure equitable distribution and local legitimacy. Effective solutions must address both the economic incentives driving deforestation and the governance structures that shape how resources are allocated within communities.

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