

# Making conservation incentives work for Indigenous Peoples and local communities

## Insights and recommendations from Peru

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### Key messages

- Achieving global climate goals requires mutually beneficial partnerships between states, Indigenous Peoples and local communities (IP&LCs).
- Conservation incentives present implementation challenges and can result in potential conflicts, injustices, gender inequality, and loss of cultural values for IP&LCs.
- Peru's Conditional Direct Transfers illustrate the risks and benefits that come with incentive programmes for IP&LCs, with some best practice lessons for those implementing similar programmes.
- Participatory decision making, supporting community administrative capacity, data sharing, and inclusion strategies will facilitate transparent, mutually beneficial partnerships with IP&LCs.
- An effective integrated approach requires collaboration between different institutions, government offices, and local, regional, and national experts.

### Introduction

Conservation incentives have become a popular strategy for deforestation prevention worldwide. In tropical forests, engaging Indigenous Peoples and local communities (IP&LCs) as partners increases the likelihood of both conservation and equity (IPBES 2019). However, programmes that target forests on communal and Indigenous land risk generating conflicts over resource use restrictions, administrative roles, and uneven distribution of benefits and responsibilities (Nkhata et al. 2012). Despite the increasing investments in nature-based solutions – including a recent USD 12 billion pledge from governments in support of the Glasgow Leaders' Declaration on Forests and Land Use to address tropical deforestation – incentives are being deployed without clear guidelines and best practices (UN 2022).

This brief presents research findings on Peru's Conditional Direct Transfers (TDCs in Spanish) to highlight best practices for partnerships between IP&LCs and incentive programme implementers. TDCs are a financial incentive mechanism for conservation; financial incentives are offered to native communities<sup>4</sup> with title or formal rights to forested land by Peru's National Forest Conservation Programme for Climate Change Mitigation (PNCB in Spanish). Unlike payments for ecosystem services (PES) and carbon programmes that compensate for carbon additionality or measured environmental services, TDCs are a flat rate payment to communities based on maintenance of forests.

To enrol, communities agree to protect an area of their forest against deforestation. They then receive a payment of 10 Peruvian soles (~USD 2.82) per hectare per year for up to five years. Funds must be budgeted according to a Plan of Investment developed by each community; this plan includes forest management (e.g., signage, boundary markers, patrolling), sustainable business activities (e.g., agroforestry, craft production, ecotourism), and community activities (e.g., training, welfare, administration). The mechanism does not provide incentives for communities without formal land rights or migrating populations outside of recognized communities. Drawing on perspectives from native communities and multiple state and private organizations, this brief recommends 10 strategies for mutually beneficial partnerships.

### Methods

Recommendations presented below are based on a large, mixed methods study conducted from 2021 to 2023 focused on conditions for TDCs' scalable success. The analysis referenced includes demographic data on all 274 TDC-enrolled communities between 2010 and 2020; review of PNCB's written policies, implementation guides, legal agreements, and reports; and interviews. The 58 institutional interviews included actors from Peru's ministries, non-governmental organizations (NGOs), regional government offices, and Indigenous federations (Table 1). Individuals were chosen based on their direct role and were asked about implementing or observing forest conservation initiatives in communities.

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<sup>4</sup> *Comunidad nativa* (native community) is an official designation in Peru.

**Table 1. Institution interviews**

Type of institution	Description	Number of interviews
Central government (Ministry of the Environment)	Peru's Forest Programme (PNCB), National Forestry and Wildlife Service (SERFOR), National Service of Natural Areas Protected by the State (SERNANP)	14
Central government (other)	Other ministries (e.g., Culture, Agriculture, Women and Vulnerable Populations)	12
Regional government	E.g., Offices of Natural Resources, Economic Development, Social Development	20
Non-governmental organizations	E.g., Rainforest Alliance, Forest People's Programme, Rainforest Foundation	7
Indigenous federations	E.g., FERIAAM, ORPIO, CODEPISAN, ORAU	5
<b>Total</b>		<b>58</b>

**Table 2. Field sites and community interviews**

Region of Peru	Community	Programme participation status	Number of interviews
San Martín	Shimpiyacu	Active*	14
	Chirikyacu	Graduated	16
	Alto Mayo	Suspended	15
	Huascayacu	Ineligible (lack of forest cover)	7
Madre de Dios	Infierno	Active*	14
	Shipetiari	Graduated (nearly)	14
	Diamante	Suspended	14
	Shintuya	Declined to receive TDCs	14
<b>Total</b>			<b>108<sup>5</sup></b>

\*Active during field work in 2022; no longer active due to non-compliance or governance changes.

A total of 108 community interviews took place during field visits in late 2021 and early 2022 in eight communities across two key regions of Peru (Table 2). San Martín and Madre de Dios were selected because of differences in community size, parcel size, and degree and type of deforestation pressure (e.g., San Martín has more deforestation and smaller parcels). In contrast with studies where similar communities were sampled (e.g., Kowler et al. 2020), we selected communities to reflect a range of programme participation status (active, graduated, suspended, and declined or ineligible).

In communities that received TDCs, interviews were conducted with 87 individuals, including four to five in each community with leaders, participants in TDC-funded activities (e.g., sustainable businesses, forest monitoring), and residents not directly engaged. In communities without TDCs, 21 interviews were conducted with leaders and residents. Data collected included interviews with self-identified migrants and communities facing territory encroachment. Analysis incorporated qualitative coding of interviews in Atlas.ti, statistical analysis of Likert responses and community characteristics (R version 4.2.2), as well as descriptive document analysis for each community.

The research results reflect varied outcomes due to complex interaction among governance arrangements, social impacts, participation patterns and economic drivers. In this brief, we highlight common challenges and emphasize implementation strategies that support synergistic partnerships ultimately benefitting forest conservation and community-state relationships. The 10 recommendations for implementing conservation incentives with IP&LCs are described below, accompanied by relevant qualitative and quantitative evidence.

### Establish quality interactions between incentive programme implementers and participants

Communication is essential for initiating projects, gaining informed consent, and establishing commitments. *Quality interactions* are communications from implementers that community members can understand, rely on, and benefit from. Quality interactions ensure implementers build trust and coordinate effectively. High levels of community comprehension also strengthen consensus and increase the viability of achieving collective action for conservation.

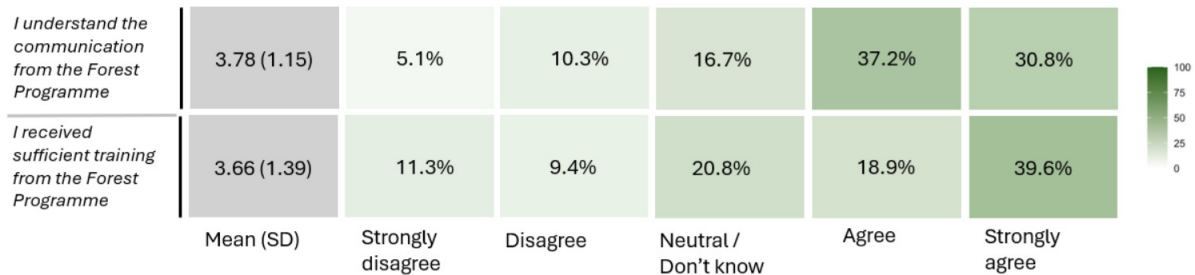
In TDC-recipient communities, 68% of interviewees strongly agreed or agreed that they understood the communication from PNCB (Figure 1). However, there was weaker agreement with the prompt, "I received sufficient training" (only 58.5% agreed or strongly agreed). Qualitative interviews revealed that staff visits from PNCB were too short and infrequent to discuss, resolve doubts, and build widespread trust. Communication was sometimes so technical that community members remarked that they could "hardly understand the Spanish they speak," and that the "technical talk" put them to sleep.<sup>6</sup> An additional barrier was language, as staff presented information in Spanish, while Indigenous languages are spoken at rates of 59% across native communities.<sup>7</sup>

Although most respondents demonstrated some understanding, community-based incentive programmes require widespread and robust understanding. Negative outcomes from communication problems included low awareness of contracts, internal conflicts, perceptions of corruption, and deforestation. In one community, an unaware community member deforested in the protected zone, leading to expulsion from the programme for the entire community.

5 Likert tables display responses from TDC-recipient communities (n=87).

6 All quotes are from interviews and have been translated from Spanish.

7 Public data from Peru's Ministry of Culture 2023.



**Figure 1. Community member levels of agreement that “I understand the communication from the Forest Programme (PNCB)” and “I received sufficient training from the Forest Programme (PNCB)”**

PNCB staff were aware of these issues but were constrained by their workload and poorly distributed responsibilities. Several had difficulties accessing community-wide meetings, and, as one remarked, “meeting only with leaders is not enough for transparency.” Best practices for quality interactions are to:

- Allocate sufficient staff time to establish trust, gain consent, and clarify mutual obligations.
- Allocate staff responsibilities according to the labour required, acknowledging variable needs due to territory size, distance, etc.
- Train staff to use interactive modules and participatory methods (e.g., Corbett 2009; Sarmiento Barletti et al. 2020) with visuals that reflect local culture and ecologies.
- Convey key messages in local language(s) and offer an Ombudsman process.

### Align the programme with existing community plans

For Indigenous Peoples, self-determination is a collective right, especially regarding communally-managed territory (UN General Assembly 2007; IACHR 2021). Existing community development plans, budgets, and governance statutes are important points of reference for implementers, indicating the process for collective decision-making, and existing priorities (Van Dam 2011).

While native communities in Peru typically create ‘Life Plans’ (a written communal development plan, see Wali et al. 2017), only 55% of the survey respondents agreed or strongly agreed that TDC budgets aligned well with the existing community statutes or Life Plan; 27.5% were unsure, and 14.3% disagreed. Interviews revealed community members felt rushed, unclear, or critical about how TDC funds were spent, and perceived unjust benefit distributions. Reviewing community plans and governing statutes before initiating a new conservation strategy would support long-term community goals, avoid confusion, and manage community expectations. Best practices for aligning with existing plans are to:

- Request and reference existing planning and mapping documents previously developed and approved by the community.
- Analyse communal statutes and land-use rules to see if there are conflicts in internal governance that create hurdles.
- If relevant, propose modifications to agreements, plans, or statutes.

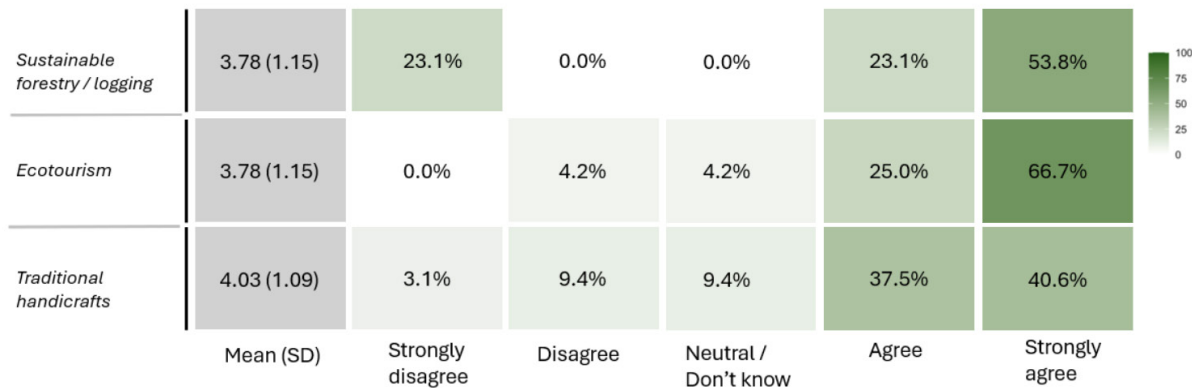
### Coordinate with other inventions to multiply impacts and ensure strategic alliances

NGOs, state agencies, and businesses often offer outreach, training, and financial support for conservation activities, but each come with their own objectives that do not necessarily match community priorities. These multiple competing initiatives can confuse community members, yet they also contain opportunities to align activities in support of community-defined goals. While coordination among these efforts is challenging, it reinforces sustainable development (Wood and Morais 2022) and promoting communication among actors can overcome coordination barriers (Polge and Torre 2018). This research illustrates how coordination among institutions can increase positive impacts. One Madre de Dios community combined TDC funds with two other opportunities – an ecotourism collaboration and a carbon credit programme – increasing their overall budget for sustained forest vigilance. Partnerships were also beneficial when TDC funding ended. A San Martín community invested in cacao, which had only just matured by the end of the TDC funding; AGRO RURAL, a programme within Peru’s Ministry of Agrarian Development and Irrigation, provided vital support after PNCB retreated. Overall, synergistic, streamlined coordination among institutions led to better support for communities. Best practices for coordinating with other interventions are to:

- Identify relevant opportunities and review their plans, timelines, and goals – especially if targeting the same communities.
- Contact NGOs and local state offices to inquire if they can establish complementary agreements or co-support conservation activities.
- Ensure participating communities have accurate information on nearby organizations and their offerings (e.g., training, investments, technical support).

### Prioritize conservation over commodity production for external markets

Numerous conservation programmes combine conservation incentives with development goals (Wunder et al. 2020). Peru’s TDCs exemplify this trend, as they require investments in sustainable business activities like ecotourism, crafts, and agroforestry. The theory is that this reduces poverty; however, income-enhancement strategies are not always appropriate or effective for reducing deforestation (Porro et al. 2014). How incentives are invested can undermine conservation goals by



**Figure 2. Community member levels of agreement that “(activities) funded by TDCs help to limit deforestation”**

creating or exacerbating risks, a well-documented phenomenon (Geist and Lambin 2001). Yet the deforestation risk incurred by TDC-related commodity production is not well understood by implementers or community participants. When asked if TDC-funded activities helped to limit deforestation, most (91.7%) agreed ecotourism did (Figure 2), but less (78.1%) agreed that traditional handicrafts helped. Sustainable timber was contentious; 76.9% felt it did, but this activity also had the strongest disagreement (23.1%).

When conservation is the priority, investment strategies must be evaluated to reduce tensions between market activities (as drivers of deforestation) and conservation goals in IP&LCs. Best practices for prioritizing conservation are to:

- Offer results-based payments (like TDCs, PES, or carbon payments) *without* additional requirements to produce commodities for external markets. Instead, establish ‘success’ markers based on conservation results and with community input, emphasizing the economic value of forest protection itself (i.e., environmental services or subsistence resources).
- Increase the environmental sustainability of existing economic activities when possible. New production activities should be carefully evaluated by programme implementers and community members for potentially negative impacts.
- Support existing conservationist practices with complementary technical training. Identify which existing practices and production activities positively impact conservation outcomes and promote them.

## Incorporate traditional ecological knowledges and local community values

Traditional Indigenous and local ecological knowledge systems support sustainable forest management (Haq et al. 2023). Incorporating Indigenous knowledge into conservation initiatives also honours (bio)cultural heritage and an “Indigenous economy” of exchange important to well-being, but not supported by cash economies (Huambachano and Cooper 2021; Ravikumar et al. 2023). Conversely, increasing reliance on external markets risks eroding sustainable practices and causing deforestation over time (Van Vliet et al. 2013). Activities also have distinctive cultural impacts, another consideration for evaluation. As a signatory of ILO 169, Peru has passed laws to protect Indigenous rights and

traditional knowledge.<sup>8</sup> However, the cultural impacts of TDCs are not monitored by the state. TDCs and other conservation incentive programmes risk eroding relevant environmental knowledges and values in the absence of a conscientious plan to strengthen them. Interviewed community members generally considered TDCs to be helpful in protecting culture (71.8% agreed or strongly agreed) (Figure 3). However, reactions depended on the type of activity. Craft production prompted the strongest agreement around cultural alignment (97.5%), while sustainable timber and ecotourism showed high levels of disagreement (31.6% and 26.3%, respectively) (Figure 4).

Interviews revealed exchanges of traditional goods and services via barter, trade, and reciprocity are disrupted by external markets, compensated labour, and cash crops. These shifts have introduced dietary changes, and interviewees described farming for income instead of subsistence, thus “forgetting about the plants or good fruits we planted in the past.” However, respondents also praised the economic improvements that came with new crops. Overall, TDC investments missed opportunities to support self-sufficiency and cultural continuity. Best practices for incorporating traditional ecological knowledges and values are to:

- Leverage participatory processes so communities can make informed, reflexive decisions about activities that could cause cultural change and, if necessary, develop mitigation plans.
- Engage diverse community members in a reflection process to identify and integrate traditional, Indigenous, and local ecological knowledges and practices that complement or enhance conservation goals, and allocate funds for these activities.
- Support subsistence activities like native crops and ancestral food practices to ensure food security and cultural survival alongside conservation.

## Determine context-appropriate incentives

Without covering opportunity costs for IP&LCs, programmes risk failing to support conservation, even when actors are intrinsically motivated (Giudice and Börner 2021). Yet opportunity costs vary due to household and community heterogeneity, with

<sup>8</sup> See Law 27811 (Presidency of the Republic of Peru, August 10, 2002)

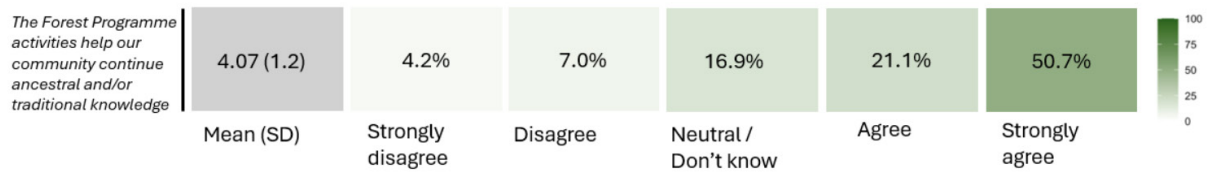


Figure 3. Community member levels of agreement regarding the cultural alignment of market-based activities (overall)

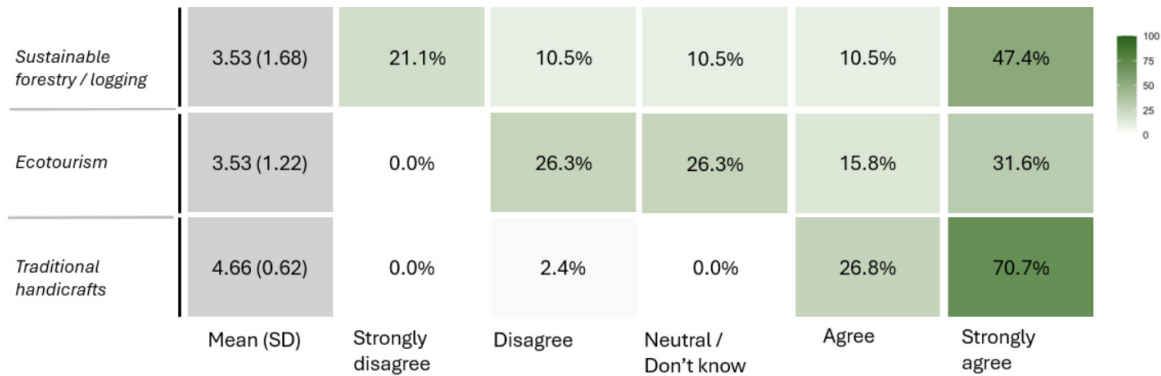


Figure 4. Community member levels of agreement regarding the cultural alignment of specific market-based activities

implications for equity and efficiency of incentive payments (Ickowitz et al. 2017). Participatory processes can help determine the combination of incentive amount and type (flat or diversified, cash or in-kind, business investment or community fund) that fits the context, but many programmes (like the TDCs) experience funding constraints. Payments do not reflect the value that forest protection provides to local, regional, and international communities. Community members, NGO workers, and regional implementers all recognized that the TDC incentive amount is low, at the flat rate of 10 Peruvian soles per hectare per year. In San Martín, land rental earns ~140 soles per hectare per year, while in other high-risk areas of the Amazon opportunity costs have been calculated as high as 700 Peruvian soles, or USD 231 (Armas et al. 2009). While unable to cover opportunity costs, TDCs can be conceptualized as seed funds for sustainable development. Yet some respondents reported the amount was still insufficient as TDCs created a need for hired professionals and bookkeepers. In the frustrated words of one PNCB implementer, “all the incentive goes to the salaries of these technicians.” Best practices for determining context-appropriate incentives are to:

- Create and implement differentiated payments that reflect opportunity costs in different contexts of risk.
- Develop special strategies for high-risk scenarios, like a complementary ‘per capita’ payment for communities with high population density.
- Include an approximate value of environmental services in determining the incentive amount.
- For programmes that cannot afford to cover opportunity costs, pursue sustained funding from international sources - particularly those linked to international climate commitments and trade agreements - to better engage communities in the long term.
- Centre community preferences and values during implementation to enhance non-monetary benefits.

### Optimize coordination and data sharing for mutually beneficial forest monitoring

Community-based forest monitoring can enrich national data and inform emissions reporting, providing insights on drivers of forest conversion, identifying land-use change, and detecting illegal activities (Pratihast et al. 2014; Cappello et al. 2022). Communities can also benefit from forest monitoring and are more likely to sustain it if their needs, motivations, and safety are considered (Boissière et al. 2017). Supporting data transparency and information transfer across levels maximizes the mutual benefits of on-the-ground patrolling and remote sensing. Community participants affirmed the value of satellite monitoring data (provided via PNCB) and on-the-ground patrolling. In all, 94.9% agreed or strongly agreed that the information generated by the Forest Programme (PNCB) was useful; and 86.6% agreed or strongly agreed the programme helped the community to monitor forests (Figure 5), with communities asserting the value of monitoring for communal security. Overall, community members were supportive of forest monitoring because it connected to their territorial control priorities, and data were shared both ways. However, some requested that additional information from state sources be shared (e.g., deforestation alerts on neighbouring territories), or that the hardships of patrolling be better addressed (e.g., personal risk, inconveniences to family). Best practices for mutually beneficial forest monitoring are to:

- Ensure community monitoring data are leveraged by regional and national assessments and reported to the international community.
- Develop a structured plan to share forest monitoring data back to communities in a form that both communities and state agencies can access and understand.
- Provide support for effective community patrolling, taking into consideration safety, terrain, illegal activities, or conflicts. Investing in remote technologies (e.g., drones and trail cams) can reduce patrolling on foot and its associated personal risks.

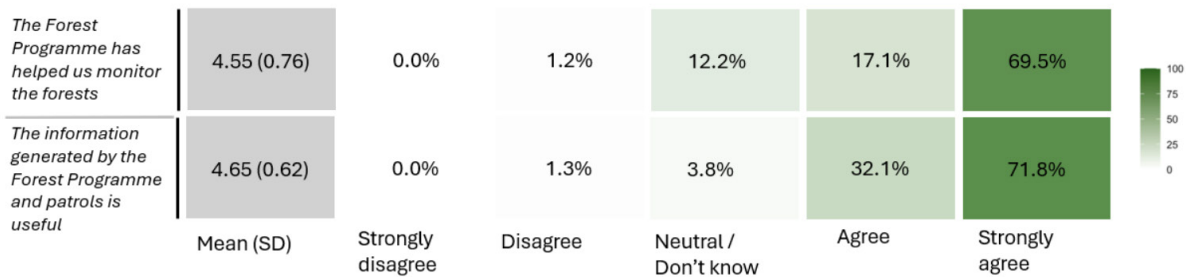


Figure 5. Community member levels of agreement regarding monitoring and patrolling

## Support required leadership and administrative duties in communities

IP&LCs take on new responsibilities to receive conservation incentives. Their success requires strong accountability mechanisms and, in many cases, capacity building (Basurto 2013). Conservation payments have provoked distrust and corruption in comparable contexts (Samii et al. 2014). TDCs put local leaders at an increased risk of similar criticism (Biffi Isla 2021). Without well-defined roles, transparent responsibilities, and sufficient technical support, the risks of conflict, corruption, and lost benefits increase.

Between 2017 and 2020, over a third (~35%) of enrolled communities were suspended, with administrative issues being the primary problem. Analysis of PNCB records showed 47% of suspensions were for failure to submit quarterly reports, while just 17% were for deforestation. Communities successful in forest conservation lose benefits due to administrative technicalities. Yet interviewed community members commented positively about PNCB fiscal supervision, stating “it is better to have all the papers in order” so “community members learn to better manage their economy” with “more responsibility and more seriousness.” Supporting community administration could therefore avoid unnecessary suspensions, while also increasing the community’s internal transparency. Best practices are to:

- Offer technical support and training in accounting and financial management.
- Ensure fair compensation for required management and service roles, following communal decision-making processes that members accept as legitimate.
- Support community efforts to monitor internal corruption and mismanagement.

## Promote and monitor equity and inclusion

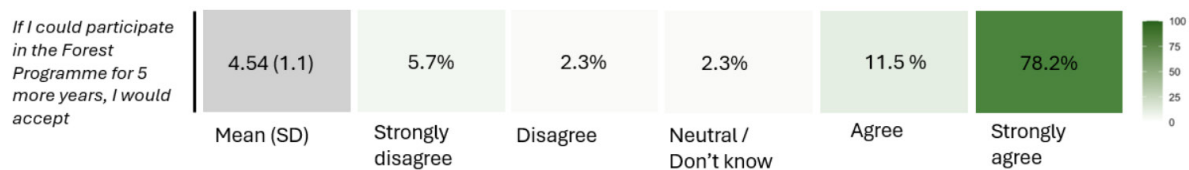
Promoting equity and inclusion through conservation initiatives aligns with the Sustainable Development Goals, and can counteract any detrimental impacts, especially for women (Larson et al. 2018; Arora-Jonsson et al. 2019). Inclusion of multiple generations facilitates traditional knowledge transfer from elders to youth (Opere 2016). Strong inclusion supports conservation success as subgroups and individuals who feel excluded from a collective agreement can undermine it. Conservation incentives can support inclusion if they address contextual power relations while monitoring impacts over time. The TDC mechanism has supported instances of these practices, but women and elders generally face barriers due to stereotypes, patterns of participation, and divisions of labour. Despite this, community surveys showed most (69%) agreed or strongly agreed that “men and women benefit equally in the programme.” Even when disaggregated by gender, 73% of

women agreed or strongly agreed. Another concern was PNCB’s lack of documentation of inclusion impacts, having only begun collecting gender-disaggregated data on incentive distributions in 2020. In some instances, community members living in remote annexes were excluded from key decisions but had direct access to forests, resulting in non-cooperation and community conflict. This highlights the need to ensure that community engagement processes proactively require participation from any underrepresented groups in the community, considering gender, age, and class/caste/status, but also location of residence and other context-relevant categories. Best practices for promoting equity and inclusion are to:

- Train implementers in regionally relevant gender and intercultural topics so they can address power dynamics, negative stereotypes, and unjust divisions of labour.
- Include a diverse participatory process to identify social roles and inequalities in the community, with the aim of reaching broad agreements on what residents perceive as a fair use of the investment.
- Develop and apply protocols to track gender and intergenerational impacts, including participation rates and benefit distributions, using disaggregated methods.
- Proactively include residents of remote areas as they are more likely to be marginalized, despite being pivotal to conservation success if close to vulnerable ecosystems.

## Align incentive programmes with international biodiversity and climate change agreements while supporting the direct engagement of IP&LCs as partners in shaping policy

This last recommendation is directed at both incentive programme implementers and policymakers more broadly. Aligning programmes with international agreements like the Kunming-Montreal Global Biodiversity Framework – approved by 188 countries at COP15 – increases programme legitimacy and prospects for international collaborations. Incorporating the full participation of IP&LCs while recognizing their traditional knowledge has been highlighted as a crucial path forward (WWF and IUCN WCPA 2023). Aligning international agreements with land user priorities is also necessary for democratizing global land-use governance. IP&LCs are critical partners to achieve global objectives and need opportunities to shape solutions, provide input, and receive fair benefits for their contributions. National programmes like Peru’s TDCs present an opportunity to put global agreements and their frameworks into practice, while enhancing the full inclusion and decision-making role of communities in ways that recognize and support their ecological expertise. The TDC mechanism reflects this link



**Figure 6. Community member levels of agreement with continued participation in the Forest Programme**

between major policy targets and the interests of IP&LCs. Most community members (89.7%) agreed they would participate in TDCs again if given the chance, as they perceived benefits despite the limitations (Figure 6). Best practices for mutual alignment between international agreements and IP&LCs are to:

- Explicitly incorporate international frameworks and best practices into national policies.
- Support communities to access complementary funding (e.g., carbon and biodiversity credits), engage as collaborative partners, and influence solutions that reflect their priorities as land users.
- Promote inter-institutional (public and private sector) coordination to achieve international climate change and biodiversity targets.

## Conclusion

While Peru's use of incentives carves a different path than PES or carbon additionality, insights from TDCs are relevant for deforestation and conservation incentive programmes regionally and globally. Evidence reveals that implementers must carefully adjust conservation policy to the cultural, economic, and ecological context of IP&LCs; otherwise, conservation incentives risk perpetuating inequality, conflict, and even future deforestation. The recommendations outlined above reflect key actions to mitigate these issues and support mutually beneficial partnerships with IP&LCs. They also flag specific needs implementers face in terms of staffing, training, time, and resources to build conservation agreements with communities, successfully coordinate with other institutions, and ensure quality policy enactment. An effective integrated approach requires collaboration among different institutions and expertise at local, regional, and national levels. When this is in place, incentives can support community-driven development and improve long-term results for conservation and society.

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