



Transformative Change in Tropical Forest Landscape Initiatives

FINAL Report

**THE FOREIGN, COMMONWEALTH & DEVELOPMENT OFFICE (FCDO) AND
THE DEPARTMENT FOR BUSINESS, STRATEGY AND INDUSTRIAL STRATEGY (BEIS)**

JULY 2021

LTS International Limited, part of the NIRAS Group (NIRAS-LTS), in consortium with Natural Resources Institute, University of Greenwich and Aidenvironment, the Evaluation Manager (EM) would like to thank FCDO, BEIS and P4F for the collaborative relationship that has supported the evaluation and the development of this paper.

The EM would also like to acknowledge the contribution of our dedicated evaluation team (V. Nelson, J. J. Kessler, J. W. Molenaar, D. Smith, H. Betts, E. E. K. Damayanti, W. Hasyim, A. Baquero, A. Martins, J. Butz, S. Spratt) for their research and evaluative work over the past five years, in particular Valerie Nelson, the lead author on this report.

CITATION: V. Nelson, J. J. Kessler, J. W. Molenaar, D. Smith, H. Betts, E. E. K. Damayanti, W. Hasyim, A. Baquero, A. Martins. (2021). *Transformative Change in Tropical Forest Landscape Initiatives*. NIRAS.

Contents

1	INTRODUCTION.....	1
1.1	BACKGROUND	1
1.2	TRANSFORMATIVE CHANGE	1
2	DEFINING TRANSFORMATIVE CHANGE AND TARGET SYSTEMS	2
3	TRANSFORMATIVE CHANGE IN FOREST-LANDSCAPES AND SECTORS.....	4
4	TRANSFORMATIVE CHANGE FRAMEWORK	7
5	EVALUATION OF TRANSFORMATIVE CHANGE	12
6	A METHODOLOGY FOR ASSESSING TRANSFORMATIVE CHANGE	13
	STEP 1: PROGRAMME ARTICULATION OF TRANSFORMATIVE CHANGE	13
	STEP 2: EVALUATIVE SCALES AND INDICATORS	14
	STEP 3: COLLECT DATA	14
	STEP 4: ANALYSE TRANSFORMATIVE CHANGE POTENTIAL IN DESIGNS BASED ON EMERGING EVIDENCE	14
	STEP 5: COMMUNICATION OF FINDINGS., REGULAR LEARNING LOOPS AND ADAPTIVE MANAGEMENT (IF GOVERNANCE ALLOWS)	15
7	LEARNING FROM EXPERIENCE.....	17
	7.1.1 <i>Integrated landscape programme, Indonesia</i>	18
	7.1.2 <i>Non-Timber Forest Products (NTFPs), Latin America</i>	23
	7.1.3 <i>Cocoa Landscape Initiatives, Ghana</i>	32
	7.1.4 <i>Palm Oil, West Africa</i>	34
8	CONCLUSIONS.....	37

Acronyms

Acronym	Name
AAER	Adoption, Adaptation, Expansion and Response
ADP	Amsterdam Declarations Partnership
APOI	The African Palm Oil Initiative
BEIS	UK Department for Business, Energy and Industrial Strategy
CFI	Cocoa and Forests Initiative
COCOBOD	Ghana Cocoa Board
CREMA	Community Resource Management Areas
DCED	Donor Committee on Enterprise Development
DSM	Demand Side Conditions
EC	Enabling Conditions
ERC	Ecosystem Restoration Concession
FCDO	UK Foreign Commonwealth and Development Office
FPIC	Free, Prior and Informed Consent
GSNR	Global Platform for Sustainable Natural Rubber
HIA	Hotspot Intervention Area
LBC	Licensed Buying Company
NFMS	National Forest Monitoring System
NTFP	Non-Timber Forest Products
PES	Payments for Environmental Services
P4F	Partnerships for Forests
REA	Regional Environmental Authorities
RSCs	Rural Service Centres
RSPO	Roundtable on Sustainable Palm Oil
SDM	Service Delivery Model
SMART	Spatial, Monitoring and Reporting Tool
Sub-HIA	Sub-Hotspot Intervention Area
TCDA	Tree Crop Development Authority
WCA	Wildlife Conservation Area

1 Introduction

1.1 Background

The UK Government-funded Partnerships for Forests (P4F) programme seeks to support partnerships and increase private investment that delivers on commitments for deforestation-free commodities, reduced pressure on forests, and improved livelihoods by 2020. It is designed to create market-ready Forest Partnerships (FPs) and support enabling conditions (EC) and demand side measures (DSM), with the intention of mobilising investment, principally from the private sector.

LTS International Limited, part of the NIRAS Group, in consortium with Natural Resources Institute, Greenwich University and Aidenvironment, is the Evaluation Manager of P4F, contracted by one of the P4F donors; the UK Foreign Commonwealth and Development Office (FCDO). The UK Department for Business, Energy and Industrial Strategy (BEIS) supports P4F work in Latin America. An evaluative learning approach was employed to generate lessons and inform the P4F programme in its adaptive management, as well as to inform the UK Government on lessons learned. Thematic case studies were conducted and generated insights and lessons that have been shared with P4F, and which form the basis for a series of more in-depth evaluative case studies.

1.2 Transformative change

This paper explores the transformative change within a specific donor programme (P4F), providing a pragmatic framework to support learning to inform adaptive management through a series of learning loops.

Development actor ambitions increasingly seek to catalyse transformative change, to achieve more sustainable and inclusive change. To respond to growing climate, sustainability, and livelihood challenges in forest and land use sectors, development agencies have increasing ambitions for their programmes to achieve transformative not just incremental change and increasingly seek to engage the private sector to leverage scarce aid resources to catalyse 'more inclusive growth across whole sectors'.¹

There are differing perspectives on and definitions of what constitutes transformative change, depending on knowledge, values, and perspective. For some, transforming markets towards environmental sustainability is the ambition; arguably others, such as those in the social and solidarity economy movement, seek deeper changes in the fundamentals of the economy. Practical approaches for assessing transformative change are needed by programme managers and donors.

P4F seeks to catalyse investment in business models for sustainable forests and land use. It has transformative ambitions: *'We're delivering significant results across our portfolio, contributing to a growing evidence base for our approach to creating transformational change within the forests and land use sector.'*² An independent evaluative-learning team is providing the P4F programme with guidance on how to define, evaluate and learn about transformative change in forest-landscapes and sectors.

This report delves into how transformative change (i.e. change that is systemic in nature) is anticipated to occur due to programme interventions and draws on evaluative learning study findings (2019 to 2021) using a Transformative Change Framework. It explores what transformative change is and how to assess it, providing a methodology and empirical insights. The paper aims to inform the P4F programme, and also the UK Government (FCDO and BEIS), as well as the wider sustainable commodities and landscapes communities of practice. It provides an update on an initial briefing of 2020 based on baseline studies, to present the Transformative Change Framework, plus the findings from recent final assessments.

¹ Ripley, M. (2019) 'Systemic Change: Walking the Talk?' ILO Lab. Available at: wcms_718091.pdf (ilo.org)

² <https://partnershipsforforests.com/>

2 Defining transformative change and target systems

Definitions vary, but transformative change essentially involves a fundamental shift in the functioning and dynamics of a socio-ecological system. System transformation requires a combined (synchronous or appropriately sequenced and evolving over time) set of interventions to change the 'rules of the game' and the capacity and motivation of sets of actors, leading to behaviour change towards a desired new system state. Layers of contextual factors shape human reasoning and the exertion of agency, hence it is important to understand those layers of context, and to learn how they shape human perspectives and lived experiences, while recognising that individuals and groups have agency and power which they can employ (although power imbalances are common).

Transformative change involves shifts in visible system conditions, such as policies, practices, and resource flows, but also in semi-visible relationships, connections, and power dynamics, and initially in invisible mindsets and norms.³ The latter have been neglected in the past, but they are crucial to facilitating transformative change because understanding human motivation and reasoning is of central importance. Transformative interventions seek to bring about deep, systemic changes, by changing the conditions that 'hold a problem in place'⁴:

- within visible policies, practices, and resource flows;
- through semi-visible relationships, connections, and power dynamics; and
- through invisible mindsets and norms.

These components and their changes are all inter-connected, being part of one larger system and need to be considered and understood when seeking to work in a transformative manner – not least to pick up **unintended impacts**, as well as how to course correct to have a greater change of **transformative success – from diverse stakeholder perspectives**.

Change could be understood as occurring along a spectrum, with differing levels of change from the highly incremental to highly transformative. A relatively simple distinction was identified by the evaluation manager team for the P4F programme distinguishing between incremental versus transformative change, but more distinctions can be drawn (refer to the academic literature).⁵ For the P4F programme, a differentiation was made between:

- *Incremental approaches*: these focus on individual actors or single segments of a system only, with limited ambition in terms of the changes sought and addressing symptoms rather than underlying causes;
- *Transformative change* has depth, greater magnitude, and addresses all relevant system components.

The background to the P4F programme is the shifts that have been occurring in land use in tropical forest regions in recent decades; control of territories by nation states and local communities has shifted to governance by extra-territorial actors, such as companies and investors in distant countries.⁶ Instead of focusing on place-based governance only, flow-based governance arrangements become important to understand, in which the governance of one system should consider its relationships to other systems including the flows between them.

The focus on different scales at which processes occur and root causes reside is neatly captured⁷ with the concept of 'telecoupling'; this refers to the connections between different systems, and the flows between them, in terms of the movement of materials, people, energy, organisms, capital and/or information. Reasons for the flows relate to the underlying causes – socioeconomic, environmental, cultural, and other factors. Flows may also induce feedbacks between the systems which have an amplifying or dampening effect. Flows are facilitated by agents – people and environments and generate socio-economic and environmental impacts.). Growing demand for agro-commodities such as beef, soya, oil palm, cocoa has driven deforestation in tele-coupled forest-landscapes. This complexity of land use and global trade means that interventions need to comprise multiple, combined interventions. However, change can be hard to predict, especially for ambitious transformative change of sectors,

3 Kania, J., M. Kramer, P. Senge (2018) 'The Water of Systems Change'. FSG. Available at: The Water of Systems Change | FSG. Accessed on 29.07.2021

4 Kania et al (ibid)

5 Pelling, (2009) 'Adaptation to Climate Change: From Resilience to Transformation'. Routledge - as applied by Nelson and Phillips, 2014.

6 Sikor, T., G. Auld, A. Bebbington, B.S. Gentry, C. Hunsberger, A.M. Izac, M. E. Margulis, T. Plieninger, H. Schroeder, C. Upton (2013) 'Global land governance: From Territory to Flow'. Vol. 5, Issue 5, October 2013, pp522-527.

7 Lui et al (2019 'Telecoupling'. Palgrave. Chapter_2_2019_Book_Telecoupling.pdf (msu.edu)

landscapes, or rural territories overall⁸. For this reason, transformative designs of interventions need to be implemented and accompanied by ongoing gathering of evidence to support learning and to understand how change is evolving within the targeted system. They also need to consider interventions at different scales to influence mindsets, power relations and policies, resource flows and practices considering both vertical dimensions of the value chain, territorial governance in specific places and broader governance systems and political economy (See Figure 1).

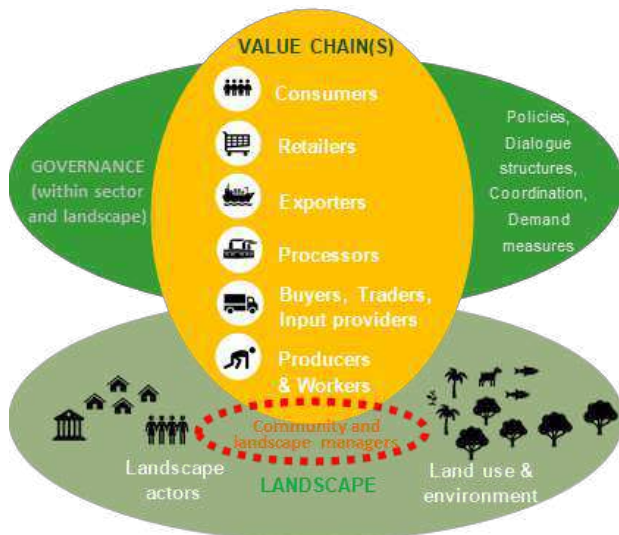


Figure 1: Value Chains, Sectors & Landscape Governance
(Kessler and Nelson, 2018)

⁸ Nelson, V. and D. Phillips (2014) 'Sector, Landscape or Rural Transformations? Exploring the limits and potential of agricultural sustainability initiatives through a cocoa case study'. Business Strategy and the Environment.

3 Transformative change in forest-landscapes and sectors

Transformative approaches involve tackling root cause challenges to shift the internal dynamics and relations of a system, leading to a crossing of multiple social and environmental tipping points to achieve a new system state (e.g. sustainable forest and land use in an area). However, whether and when a system will cross **multiple tipping points and thresholds** to a new state is often unpredictable, and data demands are significant and data gaps widespread. Tipping points relate to ecological factors, and thresholds to social ones, but both can be hard to predict, and irreversible shifts are also possible.⁹

To tackle forest degradation and deforestation, and to promote restoration and livelihood development, there are growing numbers of initiatives which have transformative ambitions (i.e. they seek to move beyond incremental changes as might have been targeted in the past). A transformative **design** seeks to tackle the root causes of challenges in the system and addresses all components, ideally in a synchronous manner or in an appropriate sequence and, importantly, in an adaptive manner (i.e. making changes to evolve the interventions in response to the changing context). Often there are different actors seeking to effect change, hence the importance of **collaborative governance and participatory processes to resolve competing interests**. A clear understanding of the transformative vision and anticipated path to achieving it is essential. Specifically, for forest-landscapes, the aim should be to achieve progressive shifts along forest transition curves (i.e. to restore degraded forests, achieve improved management, protection, and restoration in farm-forest frontiers, and to protect intact forests more effectively than in the past). Positive livelihood and community empowerment outcome shifts are equally crucial as part of the transformative change process.

A **sustainable landscape approach** is based on the idea of shared, collaborative governance to manage competing and shared stakeholder interests in a specific territory. The landscape may or may not be dominated by agro-commodities such as cocoa or palm oil or may include a diverse mix of land uses and biodiversity. The boundaries of a target landscape may include biophysical characteristics, shared socio-cultural identities and governmental jurisdictions – but the agency of actors is shaped by layers of contextual conditions influencing individual and collective reasoning, linked to people's capacities, motivations, and opportunities.¹⁰ In addition, landscapes are influenced by broader power relationships and structures, because companies and investors are extra-territorial. **Sector transformations** similarly can involve shared visions, coordination, and collaboration amongst multiple stakeholders, with the aim of achieving sustainable practices and trade in a specific commodity or industry. Market systems change involves engaging the private sector, but also the 'supporting functions and rules carried out by a wide range of market players, from businesses, financial institutions, trade associations, regulators, central and local government to civil society and communities...After all, modern markets are increasingly pluralistic; their functioning relies on a complex mix of public and private interactions'.¹¹

P4F seeks to facilitate such sustainable forest and land use transformations. The evaluation team has worked with the P4F programme to develop the **programme theory of change**, which includes actions to promote public-private-civil society partnerships in key landscapes and sectors and multi-scale enabling conditions and demand side measures. Combined, these measures are anticipated to catalyse transformative change across sets of actors (e.g. harvesters, producers, communities, companies and service providers, landscape governance and national actors) and appropriate institutions and rules. This theory of change is visualised in Figure 2, with additional blue boxes showing how relevance of the design in relation to systemic challenges and effectiveness can be tracked. For each of the system components (i.e. the five impact pathways embedded in the theory of change), it is possible to analyse how far designs have incremental or transformative potential.

9 'Ecosystems are capable of exhibiting multiple stable states, each of which can be detailed as steady and persistent in the foreseeable future. Seemingly stable ecosystems are susceptible to abrupt and drastic changes from one state to another. These ecosystem state changes are often termed "tipping points" - analogous to tipping points described in economic and socio-cultural dynamics. A commonly used example of an ecosystem tipping point is the sudden emergence of algae blooms in a small pond or lake by eutrophication, a process which leads to a dramatic decline in both producer and consumer populations...Unexpected tipping points are increasingly more likely to occur as human impacts continue to affect and alter ecosystem dynamics across the biosphere. Ecosystem dynamics both before and after a tipping point are more easy to understand retrospectively....but holds little weight in proactive and efficient socio-cultural decision-making'. Ecological Tipping Points and Warning Signs | Harvard Forest

10 02.09.19_COM-B_and_changing_behaviour_.pdf (social-change.co.uk)

11 ILO (2019) 'Policy Brief: A Systemic Approach to Creating More and Better Jobs'. ILO Lab. wcms_732124.pdf (ilo.org) Page 4.

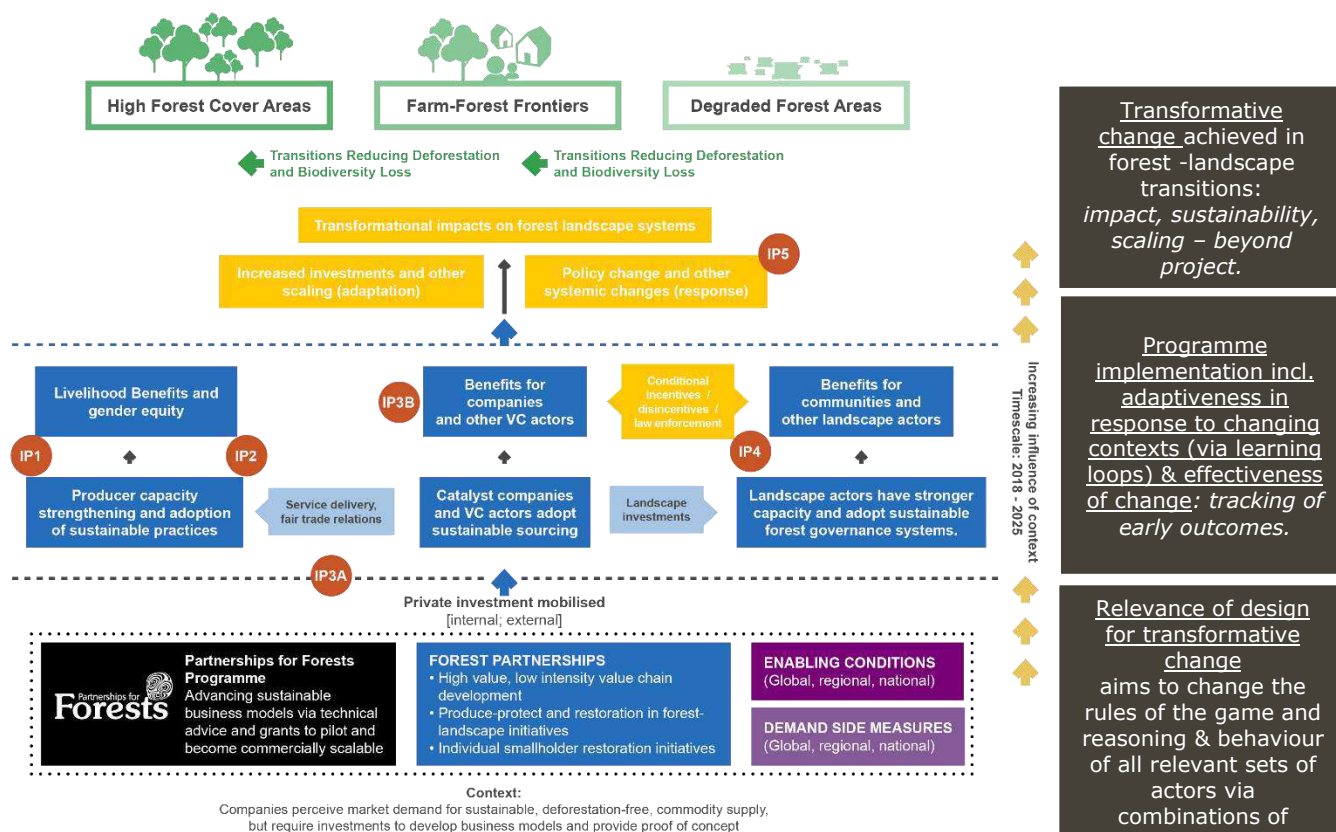


Figure 2: Partnerships for Forests Theory of Change

Similarly, if implementation is underway and data on progress and effectiveness is collected, this can be used to assess the early indications that change is occurring across different sets of actors in the desired manner or whether course corrections are required. Again, the extent of incremental or transformative potential can be assessed. See Table 1 for descriptions of incremental and transformative change across the five impact pathways used to guide such an assessment.

The programme's theory of change comprises five inter-connected Implementation Pathways:

- **Implementation Pathway 1:** Targeted producers' performance and livelihood benefits, with a focus on smallholders and communities;
- **Implementation Pathway 2:** Targeted producers' organisations as viable business units, with a focus on their governance and capacities to access markets and provide services to members;
- **Implementation Pathway 3:** Catalyst companies and other value chain actors and their business benefits, with a focus on their catalyst role, and service providers and their business benefits, with a focus on their capacity to serve producers;
- **Implementation Pathway 4:** Forest/landscape actors and governance systems at different scales, with a focus on their capacities and management systems to protect the forest;
- **Implementation Pathway 5:** Enabling conditions to support scaling and systemic change.

A more detailed description of incremental versus transformative change along the five impact pathways creating a P4F evaluative scale is provided in Table 1 below.

Table 1: Impact Pathways & Transformative Change

Impact Pathway 1: Targeted producer performance and livelihood benefits	
Incremental change	Transformative change
Improved practices and technologies are not fully adopted, or only by some types of farmers. The practices contribute to some extent to the desired impacts (protection, restoration, livelihoods, gender equity). The continuation of practice adoption (sustained use) or evidence of impact is still unsure.	Improved and new practices and technologies are fully adopted, contributing to the establishment of a new farming (or harvesting) system, with benefits for different type of farmers. The practices have clear contributions to the desired impacts (protection, restoration, livelihoods, gender equity). It is likely that these practices will be sustained over time and more widely adopted or adapted by others (scaling).
Impact Pathway 2: Targeted producers' organisations as viable business units	
Incremental change	Transformative change
Producer organisations show enhanced capabilities to improve their performance to meet market demand and assure benefits for at least some of their members. It is not certain whether the capabilities will be sufficient to govern the organization, as a viable and accountable business entity with longer-term resilience. The inclusiveness (to all type of producers), potential scale and replication of the models is limited.	New / enhanced models of producer organisation effectively facilitate service provision, market transactions and voice in landscape or sector governance systems. The organisations have the capabilities to ensure participation, accountability, defending member's interest and commercial viability. This leads to strong incentives for sustainable practices and enhanced and sustained profitability for producers. The models can sustain in a changing context, are replicable and can reach out all type of producers.
Impact Pathway 3: Value chain actors and service providers with business benefits	
Incremental change	Transformative change
Value chain actors have enhanced relationships with producers/ producer organisations and service providers offer more or improved services to producers and value chain actors. The inclusivity, scale and effectiveness of these relationships is limited, and their sustainability is still unclear.	Value chain relationships have transformed into true partnerships with strong incentives for sustainable performance and a fair distribution of value and risks. Service provision models are inclusive, scalable, and effective in supporting sustainable practice adoption. Both value chain and service provision models are based upon sound business models allowing to improve and sustain in a changing context. There is crowding in by other value chain actors and service providers.
Impact Pathway 4: Forest/landscape actors and governance systems	
Incremental change	Transformative change
Capacity building of forest landscape stakeholders and governance system shows improvement in reducing and mitigating deforestation risk. Governance innovations are partial and / or insufficiently linked to root causes of deforestation. The effectiveness of the governance system with respect to is unsure, nor is crowding in of all relevant landscape actors assured.	Forest landscape governance systems are supported by all relevant landscape actors. They are effective in managing and mitigating the causes of deforestation and stimulating forest restoration and sustainable ecosystem management with positive impacts for communities. The systems are based upon good governance principles and have the financial and human capabilities to sustain.
Impact Pathway 5: Enabling conditions to support scaling and systemic change	
Incremental change	Transformative change
Public actors (at local, national /regional /global level) have enhanced capacities and show more commitment to improve existing policies and incentive systems which are supportive of more farming systems, producer organisation, value chain and service provision business models and relations, and forest landscape governance systems that enhance sustainable impact. Measures likely lead to more uptake, but not necessarily system-wide	There is evidence of public policies, laws and regulations that create a level playing field and provide incentives which drive mainstream transformation of farming systems, producer organisations, value chain and service provision and forest landscape governance. These changes contribute to reduced deforestation risk and reversing the trend towards forest restoration

4 Transformative Change Framework

A programme theory of change can identify impact pathways and inter-relationships which can provide a way of dealing with the complexity of change in a targeted tele-coupled system. Differing dimensions of transformative change can be identified which can be used to deepen the analysis of the theory of change and the extent to which intervention designs, implementation and outcomes are transformative in nature. For example, more attention is needed to how mental models can change through different types of interventions, education, social learning, and participatory processes, which can lead to changes in consciousness and attitudes. Deeper shifts in thinking represent 'triple loop learning', whereby major assumptions about the framing of a challenge change, often with significant implications for who and how a problem is framed in the first place. Secondly, semi-visible changes need to be brought to light by appropriate analyses of power relations and how interventions might change such relationships. The introduction of new organisational models, building of new or improved relationships and collaborative arrangements, facilitation of coordination and dialogue, levels of accountability and participation of different stakeholder groups (particularly marginalised social groups) are all critically important to understand in relation to systemic change. Monitoring and learning is also key to power and relationships – not least in terms of whose voice and perspectives are heard in adaptive learning and management processes. The Transformative Change Framework is outlined in Table 2 and presents the system change conditions which need to change – mental models, mindsets, and social norms, power and relationships and policies, resource flows and practices – and the dimensions in which they could be changed, such as business model innovations, accountability and participation, and technological change. Across all of these dimensions for change to happen it is necessary to link this back to the theory of change: processes of capacity change and shifts in enabling conditions, leading to practice change across sets of actors, and in turn catalysing outcomes and impacts (varying in scale, resilience and sustainability). This linkage between the Transformative Change Framework and the theory of change is provided in Table 3, with examples given drawn from across the P4F portfolio. The latter has many different projects and initiatives at different scales – including designs that could be considered as having transformative potential.

Table 1: Transformative Change Framework Dimensions & Indicators

Transformative Change Framework	Transformative change indicators in P4F context
<u>Invisible (Mindsets)</u> <i>Changing mental models, social norms, narratives</i>	Mindset shifts, commitment, and sense of ownership by relevant stakeholders, to implement practice / behavioural changes.
<u>Semi-visible</u> <i>Power and relationships</i>	
New organisational models	Effective organisation of actors (e.g. producers, value chains, public sector), facilitating practice / behavioural changes
Relationship building	Quality of stakeholder relationships and transactions, facilitating practice / behavioural changes
Coordination and dialogue	Coordination and dialogue at sector / landscape level to create new shared visions, strategies, investments and new standards and tools in support of practice / behavioural changes
Accountability participation and	Governance innovations to enable accountability and participation, to support democratic governance (at producer group, value chain, landscape, and sector level)
Monitoring and learning	Mechanisms to support triple loop learning and corresponding adjustments to experiments, evidence and changing conditions
<u>Visible</u> <i>Policies, resource flows, practices</i>	
Business models	Viability of new business models supported by a clear business case (positive sustainability impact and benefits for the 'owner')
Investment models	Viability of new investment propositions demonstrated to investors, with potential to reduce risks and shift investments to more sustainable industry (away from less sustainable, incumbent ones).
Enabling policies	Enabling policy and regulations with potential to mainstream sustainable business models and investment propositions.
Market demand	Mainstream demand for sustainably produced products (replacing less sustainable / incumbent).
Technological innovations	Adoption of more viable, efficient, sustainable and / or inclusive practices, as part of a more sustainable farming system, replacing existing (defunct) practices. Potential of disruptive innovations (e.g. blockchain, AI) to change value chain practice and relationships.
Support services and finance	Effectiveness, viability and accessibility of services and service delivery models, to support and sustain practices / behavioural changes.
Economic incentives linked to goals.	Use of (dis)incentives and effectively linked to goals to support and sustain practice / behavioural changes.

Table 3: Examples of interventions from the P4F portfolio mapped against the Transformative Change Framework

Pre-intervention, baseline Challenges	Transformative Change ¹² components	Theory of Change Assessment (Design & Progress/Effectiveness) EXAMPLES				
		Impact Pathway 1: Producers / Community	Impact Pathway 2: Producer Organisation	Impact Pathway 3: Value Chain actors	Impact Pathway 4: Landscape governance	Impact Pathway 5: Enabling Conditions
e.g. Lack of alternative, sustainable livelihood options leading to illegal timber, cattle ranching, mining practices. Demand for agro-export commodities, leading to deforestation. Lack of business outlook and skills in community-based forest enterprises. Lack of purpose-oriented business models.	Invisible (Mindsets) Changing mental models, social norms Semi-visible (Power and relationships) New organisational models Relationship building Coordination and dialogue Accountability and participation Monitoring and learning	environmental sensitisation, conditional incentives, co-visioning of landscape. measures to ensure representation and voice of marginal groups in multi-stakeholder initiatives for landscapes and sectors. monitoring producer/ community benefits to ensure compliance with 'no deforestation'. establishing revolving funds to increase benefits.	building business outlook for community-based and NGO-supported enterprise staff link producer groups to marketing platforms and groups of ethical buyers. developing new types of community-company partnerships with environmental conditionalities developing new aggregation arrangements for producers to receive services and inputs linked to no deforestation commitments.	facilitate change in mindsets and capacities of companies to appreciate value of 'purpose' as core to business. facilitating enhanced linkages and sales between producers and buyers, especially purpose-driven companies. co-development of fairer trading principles. integrating producer support services to increase productivity, sustainability practices, livelihood diversification, food security, 'no deforestation'. monitoring of value chain relations especially benefits for companies.	co-development of vision / future scenarios exploring trade-offs and synergies for landscape actors. facilitation of trust in multi-stakeholder cross-scale landscape governance systems, including community forest management committees and landscape management boards. capacity strengthening of state forest law enforcement. linking national parks, and large concession holders for joint patrolling and actions. clarifying land tenure and recognising socially legitimate land rights, plus community legal empowerment.	engaging investors, regulators, and policymakers on specific actions facilitating development of sector roadmaps and public-private initiatives setting national sustainable production standards national level 'nature-based solutions' roadmaps. linking buyer country governments in market demand measures

¹² Building on Kania et al (2018) 'Water of Systems Change'.

Risks putting off forest investors.

Unfavourable policies and regulations.

Existing interventions risk increasing deforestation, having limited impacts or effects not sustained, not benefitting smallholders.

Visible
(Policies, resource flows, practices)
Business models
Investment models
Enabling policies
Market demand
Technological innovations
Support services
Economic incentives linked to goals.

income benefits from increased productivity, quality and sustainability of production, plus premium and Payments for Ecosystem Services (PES) scheme payments with education on conditionalities, plus monitoring and enforced sanctions

business case analyses for community-based enterprises, sales and marketing capacity strengthening, attracting investment to disrupt markets by proving a new business model which benefits producers.

develop forest-provenance landscape brands.

create landscape buyer coalitions and traceability systems to check for encroachment.

develop funding model for multi-scale landscape governance structures developed.

create forestry partnerships, premium payments, PES schemes to incentivise 'no deforestation' production with sanctions.

prove new business cases for best-in-class plantations or stacked regenerative value chains, plus sharing to promote crowding-in.

digital platforms facilitating consumer-producer direct connections

monitoring of forest cover and human rights

investing forest-based value chain returns to support increased community forest vigilance.

unlocking landscape bonds for longer-term landscape finance.

facilitating buyer coalitions or facilitating direct forest producer-consumer business model innovations.

support for new NTFP regulation to encourage commercialisation.

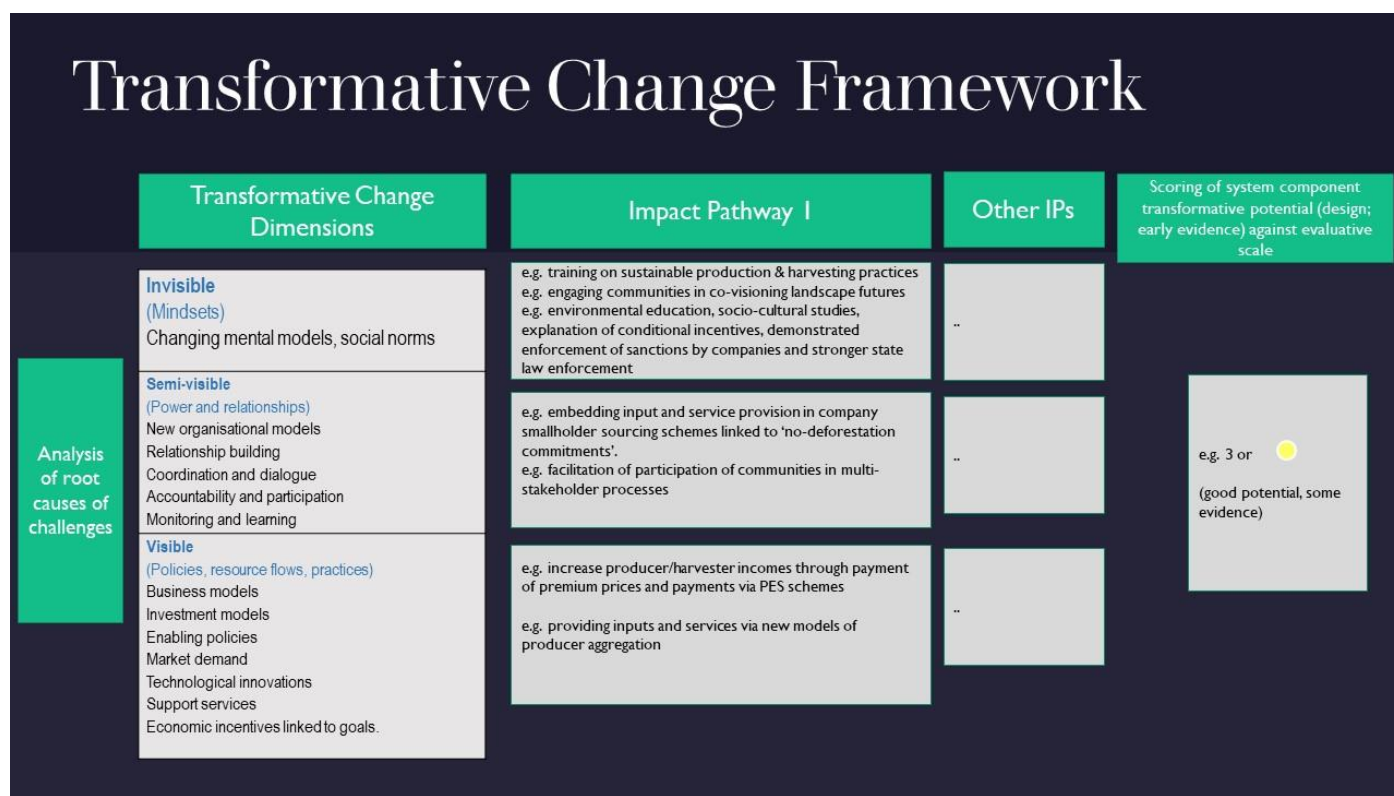
public procurement supporting forest-based production.

engaging buyer country governments to make commitments.

establishing new investment funds and mechanisms, such as sustainable commodity compensation brokerage.

The application of the Transformative Change Framework dimensions to an individual impact pathway is presented in Figure 3, alongside a scoring system.

Figure 3: Transformative Change Framework and an example Impact Pathway



As with any theory of change analysis, it is important not only to map the causal steps but to identify the assumptions between each step in the theory of change. Such assumptions and risks are revealed in the empirical cases discussed in the next section. Identifying such assumptions and monitoring them can help programme managers and implementers to better identify areas in which strategic actions may need to be improved.

5 Evaluation of transformative change

The difficulty of measuring transformative change means that there can be risks that donor programmes and public-private partnerships over-claim on their levels of success, which could in the longer-term could damage confidence in the approach. In addition, a lack of data also makes adaptive management harder. However, much can be learnt from assessments of the extent to which programmes:

- are transformative by design; and
- whether early emerging evidence demonstrates good progress and effectiveness across key system conditions and on root cause issues, indicating high transformative potential in the longer-term, mostly likely post-projects and programmes.

The creation of learning loops in the design of programme management systems, with the use of theory of change, monitoring and reflection points, can ensure that positive synergies can be amplified, while negative or unintended impacts can be addressed through changes in strategy. The extent to which a programme or project can change strategy is highly dependent on the flexibility shown by the donor / funder (in particular, in relationship to project milestones and performance indicators).

Proportionate monitoring and evaluation (M&E) of donor initiatives, including their relative contribution to transformative change, is always important – to maximise positive outcomes and avoid negative unintended impacts. Investing in landscape-sector M&E can help donors to better account for impact and ensure learning from experience, sustaining public support for aid. Learning processes and systems should be part of programme design from the outset – moving beyond success stories, to in depth analysis of cases to support decision-making linked to theory of change thinking. This can instil an ‘impact orientation culture’, and ideally, involves strong stakeholder participation.

6 A methodology for assessing transformative change

To assess transformative change requires actions by both implementers and evaluators – ideally in a collaborative manner. Figure x indicates the five stages of assessment:

1. articulation of transformative change and contribution claim.
2. development of evaluative scales and indicators.
3. collecting qualitative and quantitative data.
4. analysing transformative change potential and emerging evidence against the theory of change.
5. communicate findings using scores and traffic light colour scheme.

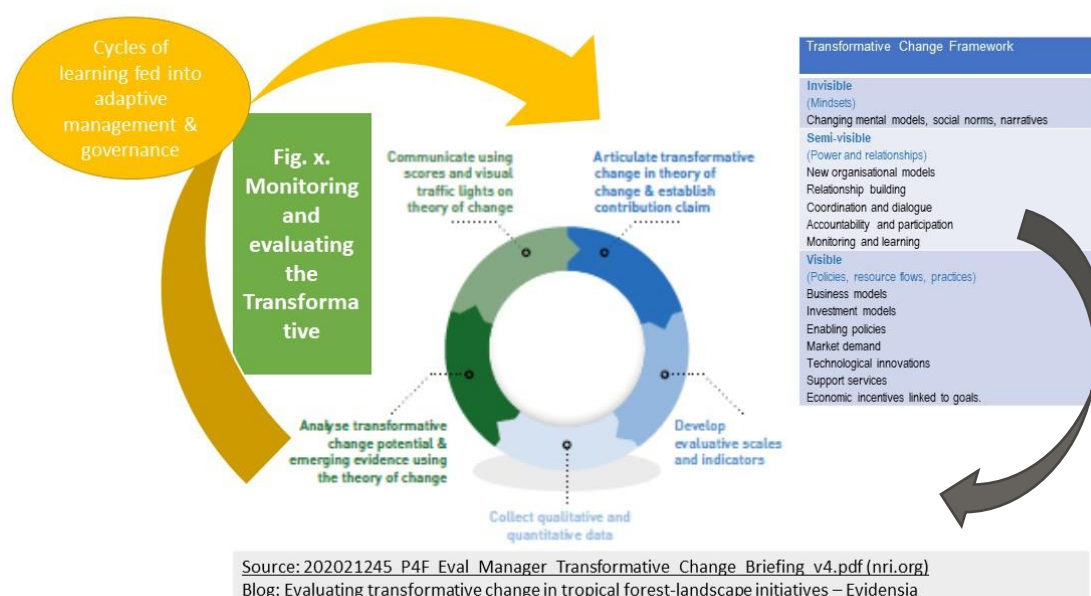


Figure 3: Key Steps in Designing, Assessing, Learning & Responding to Transformative Change

More information on each step in the process is provided below. Importantly, the **learning loop cycles** are also highlighted as there are close linkages between evidence generation, and feedback to enable managers to work adaptively.

It is very important to note that adaptive management, informed by evaluative learning, is not sufficient: adaptive governance is necessary to enable implementers to make changes in response to lessons¹³.

Step 1: Programme articulation of transformative change

Theory of change: Where a project or programme has transformative ambitions, it should firstly analyse what is undesirable in the current situation. This should be based on a detailed diagnosis of the system, including the system conditions (visible, semi-visible, and invisible), the root causes of challenges, and ensuring proper focus

¹³ Adaptive governance is a concept highlighted in a new report by Teskey, G. and L. Tyrell (2021) 'Implementing Adaptive Management: A Frontline Effort? Is there an emerging practice?' The Governance and Development Practice: Working Paper Series. ABTAAssociates.

on mindsets, behaviour drivers and power relations. Then it should explore a desirable future vision involving stakeholders. At this stage, the types of changes required (identified root causes), and appropriate solutions should be diagnosed. Then the programme should set out how transformative change is anticipated to occur in its target systems, by visualising the cause-effect linkages in the theory of change and key assumptions. Such a diagnosis can indicate which system components need to change (i.e. the issues of relevance), which of these can be addressed by the programme or project, and which partners should be sought to address other systemic gaps – recognising that achieving change in entire systems will involve a diversity of actors and multi-year initiatives, including sequenced support from different funders. Where specific collaborative governance innovations are established, these should have a funding model and political support to facilitate their long-term continuation and ensure roles and responsibility for monitoring are clearly defined and resourced. A ‘cluster approach’ is also possible within programmes such as P4F, whereby a range of interventions are supported in a specific sector or landscape to build up synergies. Ideally co-design processes should be facilitated, including strong participation from local stakeholders to build trust and ensure that different values, priorities, and trade-offs are being adequately recognised.

Transformative change contribution claim: the programme claim should be established with respect to the specific target systems, in terms of the components, relationships and dimensions that the project or programme is seeking to tackle. Clear targets should be laid out, but flexibility should also be provided to enable the project or programme to work adaptively, learning from monitoring and evaluative learning insights along the way. Evaluators can support this process. Ideally, local level stakeholders should be centrally involved in such processes, especially landscape visioning and the design of actions.

Step 2: Evaluative scales and indicators

Evaluative scales can be developed to characterise incremental and transformative change in the differing components of the system, (as per impact pathways) and in the overall system (overarching theory of change). See Table 1 above, which describes the state which is achieved if change is incremental or transformative and provides a way of supporting assessment of progress. Change can lie on a spectrum, it is therefore not necessarily incremental or transformative. More stages to the evaluative scale can be articulated. Sets of indicators can be formulated which trace key stages of the theory of change. Qualitative and quantitative datasets can be collected according to these indicators. Ideally, stakeholder participation – especially local producers and communities – should be part of the process of defining transformative change in socio-ecological systems such as a specific forest-landscape, and in monitoring and learning about change. ‘Traffic light’ scoring can be helpful for programmes to communicate progress and findings in a simpler manner.

Step 3: Collect data

Data can be collected through case studies of target landscapes and sectors. Use of the Transformative Change Framework in evaluation can help to generate insights, through comparative case analysis.

Qualitative and quantitative evidence is collected on the indicators tracing the theory of change and association assumptions.

Step 4: Analyse transformative change potential in designs based on emerging evidence

Analysis can be done to inform the design of an intervention or, once it is starting to be implemented, to assess the relevance of the approach and identify potential adaptations to the project/programme strategy. As implementation progresses, it is possible to assemble different pieces of qualitative, quantitative and stakeholder evidence to test progress and effectiveness against the theory of change and to interrogate assumptions (using the Transformative Change Framework) and to assess relative contribution of programme to transformative

change (using a form of Contribution Analysis¹⁴). To the extent feasible, programme and stakeholder feedback should be used to validate evidence.

Step 5: Communication of findings., regular learning loops and adaptive management (if governance allows)

The scoring of transformative change is based on the transformative potential of the design and the progress made along the pathway to the desirable future vision. The strength of the available evidence can also be assessed using evaluative scales. For P4F, these have been combined into an evaluative scorecard (refer to Table x below). The analysis can be conducted at the impact pathway level and/or at the overall theory of change level. This assessment is done in relation to the desired transformative change vision established by the stakeholders, although critical reflection by evaluators is also possible. Traffic light colour schemes and dots can be used to visually communicate the different levels of relevance (with respect to transformative change in the design) and strength of emerging evidence (see Figure 5 Lessons should be fed back to managers of programmes so that they can optimize their strategies to achieve positive impacts and avoid negative ones, but their room for manoeuvre depends on how far their donor is able to provide adaptive governance (e.g. more flexible funding provision, rewards for adaptive decisions taken by implementers, and taking learning themselves into future policies and practices. It is worth noting that donor capacity to operate adaptively is also shaped by government and public perceptions of aid.

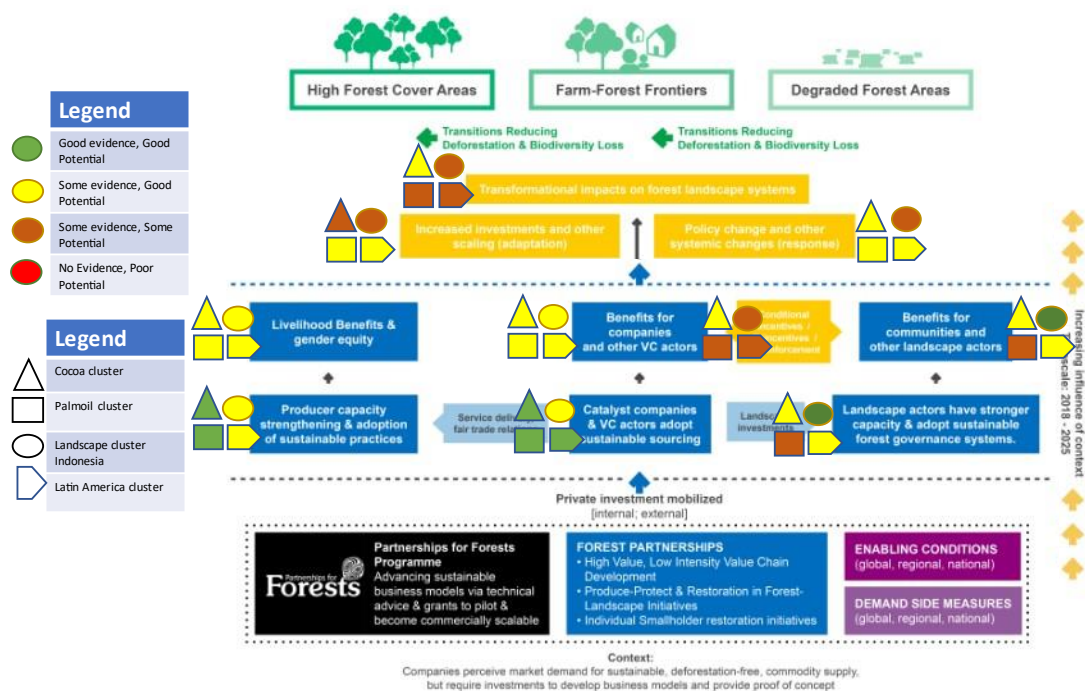







Figure 4: Scorecard Assessment of Transformative Change

¹⁴ Mayne, J (2001). 'Addressing Attribution through Contribution Analysis: Using Performance Measures Sensibly', Canadian Journal of Program Evaluation 16.1: 1–24. Mayne, J (2008). Contribution Analysis: An approach to exploring cause and effect. Brief 16, Institutional Learning and Change (ILAC) Initiative. Mayne, J (2012a). Making Causal Claims. Brief 26, Institutional Learning and Change (ILAC) Initiative. Mayne, J (2012b). 'Special Issue: Contribution Analysis', Evaluation 18.3. See also INTRAC (2017) 'Contribution Analysis'. Available at: [Contribution-analysis.pdf \(intrac.org\)](https://www.intrac.org/publications/contribution-analysis.pdf)

Table 3: Scorecard: Assessment of potential for transformative changes per Impact Pathway

Scorecard: Assessment of potential for transformative changes per IP and theory of change	Traffic Scores	Light
0 = Transformative change unlikely: current state gives no indication of transformative change (impact, durability, scaling)		
1. = Some potential, but no evidence for transformative change: current state partly complies with TC, but no evidence from indicators		
2. = Some potential, and some evidence for transformative change, current state partly complies with TC, some evidence from indicators		
3. = Good potential, and some evidence for transformative change, current state complies with TC, some evidence from indicators		
4. = Good potential, and good evidence for transformative change, current state complies with TC, good evidence from indicators		

7 Learning from experience

The evaluation team have conducted a series of case studies drawn from the P4F portfolio to generate insights on transformative change potential. These included case studies on:

- a set of cocoa interventions in West Africa.
- a set of palm oil interventions, also in West Africa.
- a set of interventions which have recently been integrated into a landscape approach in Sumatra, Indonesia.
- a set of non-timber forest product focused interventions.

All the cases include combinations of Forest Partnerships, enabling conditions initiatives and demand side measures, which P4F has been supporting, with varying levels of intended integration between the components. Across the cases, the evaluative learning team found evidence for mindset changes, relations and power dynamics, and policies, practices, and resources being planned or (partially) realised, although there were variable levels of comprehensiveness and examples of possible gaps and assumptions which still need to be tested. The lessons have been shared with programme managers and the UK Government (refer to Figure 5, and Table 3 below).

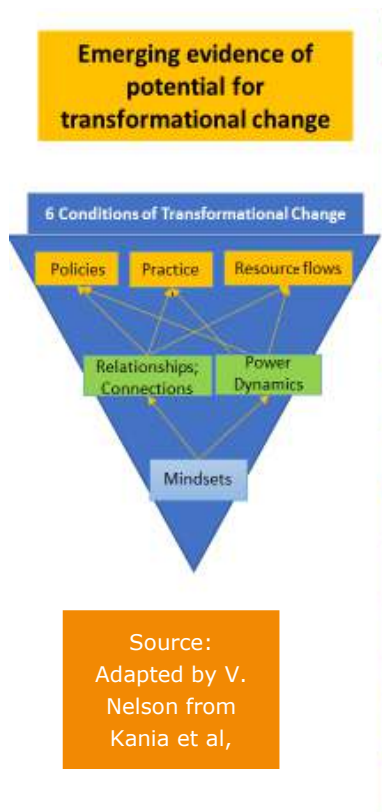


Figure 5: Emerging evidence of potential for transformative change

Table 2: Dimensions of Transformative Change and the P4F Portfolio Case Study Example

Dimension of Transformative Change	Palm oil	Sumatran (multi-sector) landscape	Cocoa	Latin America NTFPs
Mindset, commitment and ownership	Community and company on forest protection	ERC more business oriented. RLU more conservation oriented	Mindset change of farmers related to shade trees	
Relationships and transactions	Company-community relations based on trust		Improved relations between landscape stakeholders	
Coordination and dialogue	National platform and governance body	Landscape Protection Forum	Landscape governance multi-stakeholder board	Strengthened relationships
Organisational models and capabilities	Community Forest Protection Committees		Landscape governance structure	Strengthening of community-oriented business enterprises
Investment Proposition Innovation	Financial models and investment propositions in development			
Business Model Innovation	Sustainable model of oil palm expansion	Ecosystem Restoration Concession regenerative business models	Model of climate smart cocoa	Strengthened business models
Market demand change	Amsterdam Declaration on Sustainable Palm Oil EU		Demand for climate smart cocoa	
Technological innovations	Revolving fund for investments to generate additional incomes	Joint Spatial Monitoring SMART patrols, daytime honey harvesting, traceability	More sustainable farm model with agroforestry model	New sets of more sustainable practices
Supportive services and finance	Fully integrated service model	Integrated where smallholders are part of the model	RSCs as hubs for service delivery	Provided by organisations to their member
Economic (dis)incentives linked to goals	Conditional incentives for forest protection	Conditional incentives and agreements for forest protection	Conditional incentives for forest protection	PES payments
Accountability and Participation	Community-based decision making and role of women		Engaging village chiefs as non-voting members	
Monitoring and adaptive learning	Several adjustments made to create more impact		Several lessons learned and documented	

7.1.1 Integrated landscape programme, Indonesia

Climate, forest and social challenges

P4F is working in a focal forest-landscape in Sumatra, Indonesia. A 400,000 ha area, it includes fragmented areas of Sumatran lowland tropical forest, home to critically endangered Sumatran tigers, elephants, and orangutan, and also includes a National Park. However, landscape deforestation has been severe: 40% of the forest has been lost in the last two decades; poverty is highly prevalent and social dynamics are complex – nomadic, forest-based indigenous communities are being left with no choice but to settle due to deforestation, yet they lack basic farming skills and alternative economic development opportunities. In-migration has been encouraged by external interests, with migrants misled about their chances of obtaining land under an agrarian reform scheme (claims which are invalid when land has already been given out in concessions). In addition, land

speculators have encouraged illegal logging and encroachment in the vacuum left when large concession areas reverted to government control. Forest law enforcement is very weak and illegal logging, encroachment, hunting, forest fires and human-wildlife conflicts continue to occur. In such a highly degraded, contested, and challenging landscape, addressing the root causes of deforestation and degradation is vital. These include the continuing demand for agro-commodities and limits to the effectiveness of certification, weak law enforcement, limited alternative livelihoods for local communities and gaps in landscape governance.

The P4F intervention

In key buffer areas neighbouring the National Park, three key interventions are being supported to reduce pressures on forests:

A 'sustainable' rubber plantation: Intended as a 'best in class' plantation model, a rubber company (joint venture) is mapping land claims and seeking to regain control through conflict mediation and court action. A 9,000 ha area has been set aside for wildlife conservation to help reduce pressures on the neighbouring national park supported by P4F. A variety of partnership agreements are also being developed with local communities, including produce-protect measures. The aim is to create benefits for producers/communities via 'fair' wage jobs, in-grower schemes, off-taking of agroforestry products etc. A pre-P4F Green Landscape Bond is an innovative form of sustainable financing for the joint venture enabling the plantation model, but P4F support for the Wildlife Conservation Area (WCA) is also helping the company attract investors.

Ecosystem restoration concession (ERC): A company gains rights to exploit all the natural resources in a degraded concession area but it must restore it to ecological equilibrium through protection and restoration measures funded from forest product value chains. As well as resolving land disputes, the company is developing agreements with local communities. P4F has provided specific support to build company capacity and to appraise, prioritise and develop regenerative forest value chains for company revenues (wild forest honey, vanilla, payments for environmental services) and support for community-oriented value chains (edible endemic commodities). The Sustainable Commodity Compensation Mechanism (P4F supported) provides linkages between companies with liabilities for forest damage and forest conservation initiatives, such as ERCs, providing conservation outcomes.

Landscape-level interventions: A landscape level technical support programme has emerged in the target Sumatran landscape to provide support to the key concession holders to advance forest protection. A Landscape Protection Forum is being established to bring together large land holders, including the implementing partners and the neighbouring National Park (P4F supported). The aim is to facilitate joint Spatial, Monitoring and Reporting Tool (SMART) patrols, data sharing, and collaborative action on shared protection-problems.

Findings

Overall, change realised so far is more incremental than transformative in nature, although more time is needed for implementation in a complex, forest frontier context with legacy challenges. The P4F programme has limited ambitions with respect to transformative change in the target Sumatran landscape, focusing on a specific set of interventions which build on P4F's expertise in business development and collaborative governance on forest protection activities. There have been several major contextual shocks and stresses affecting the programme and its transformative potential. The programme is an experimental 'light touch' version of a landscape approach, which seeks to find a 'cost-effective' way of transforming the landscape, recognising the intensive costs required in multi-scale, landscape governance arrangements; a fuller landscape approach would include additional elements, and a transformative change analysis suggests this to be the case. More time is needed to monitor and learn how far changes in the enabling conditions (e.g. the new Omnibus Law and other carbon payments schemes, alter incentives for land managers). The rubber company has gained new capacities due to the technical advice provided from P4F and is beginning to change its practices, although more transparency is desirable. The company reports that the collaboration with P4F has been highly valuable, helping it to improve its environmental and social performance. Both the rubber and ecosystem restoration companies will need more time, and likely donor support and financial investment, to achieve necessary capacity and practice changes on the ground for transformative change. A fuller landscape approach would entail more investment in democratic, multi-stakeholder platforms and processes to resolve land use conflicts and pressures. See Table 3.

Table 3: Transformative Change Analysis - Indonesia Landscape Case Study

INVISIBLE [Mindsets]
Mindset, commitment and ownership
<p>(+) Indications of changes in business mindsets at ERC, a social / conservation enterprise. Some increased knowledge on human rights, but not yet clear on community development capacity.</p> <p>(+) Rubber company staff and new recruits indicate major increase in commitment to conservation and forest protection as core part of activities, improved human rights understanding and, via partnership with a responsible business not for profit, better understanding of Free, Prior, Informed Consent (FPIC) processes, although still issues, especially in community development facilitation. Additional scrutiny from auditing linked to Green Bond finance increases rubber company attention to conservation and human rights issues.</p> <p>(+) Protection Forum is increasing the trust of and value that corporate members place on collaboration, but this may not yet translate into financial commitments in the future.</p> <p>(-) Changing mindsets of a wider set of actors is desirable across the landscape to resolve conflicts and build a more shared vision of land use.</p>
SEMI-VISIBLE [Power and Relationships]
Relationships and transactions
<p>(+) Landscape Protection Forum links concession holders and key government agencies; forest protection problem-focused and trust building undertaking joint patrols and data sharing. Some quick wins seem feasible. Rubber company has already signed a memorandum of understanding with the National Park and is conducting joint patrols. The ERC company lacks capacity to participate in a very active manner. New facilitator organisation is well received by local stakeholders. A government initiative – the Essential Ecosystem Area – focuses on elephant conservation via corridors and education etc. It is progressing, and the rubber company has supported this via the construction of an elephant information centre. Electric fencing is planned. Communities have some concerns about human-elephant conflict still and divergent views on the fence placing. Ensuring an elephant habitat as well as just a corridor is important from an ecological perspective, but challenging from a social perspective, because of the influx of migrants when the land management was a vacuum (between commercial land managers the land reverted to forest department control who lacked resources to manage the land resulting in major deforestation).</p> <p>(-) Gap in engaging communities and broader stakeholders in landscape governance (visioning, land use planning and management, new governance structures, monitoring etc). Existing fora have become dormant without donor funding indicating need for a new financing model.</p> <p>(+) Funding being provided for undercover research on illegal forestry crimes is extremely important.</p> <p>(+) National NGOs can play a role as service provider and facilitator of FPIC processes but need to have trust of different parties.</p> <p>(+/-) The rubber company and ERC company are both improving their relationships with local communities through land clarification processes which avoid resettlement, except in the cases of larger land speculators who are taken to court. Varying levels of cooperation and resistance in a complex legacy situation; requires significant investment to rebuild trust and develop new kinds of constructive partnerships. Smallholder rubber in-grower scheme has been relatively successful as a pilot but requires donor support to establish its roll out. Conflict resolution and mediation between the rubber company and local communities (migrant and indigenous) in the Wildlife Conservation Area (WCA) are still at a relatively early stage. Training on human rights for the rubber company has enhanced their capacity, with likely improvements resulting in the FPIC process. Further development of agroforestry value chains and livelihoods in the WCA will take time and depend on the level of investment the company can sustain and the quality of the facilitation to be provided. An outgrower (locally known as 'plasma' scheme has been put on the back burner. Improvements from a gender perspective are however needed. The ERC company has made progress in developing community partnerships via NTFP value chain development, including in an area affected by human-wildlife conflicts and migrant resistance to the ERC. It is important for the ERC to align community and company priorities and to ensure fair and inclusive terms of incorporation, as well as branding and marketing innovations to support the ERC's business model.</p> <p>(-) Relationships have been slightly improved via the Protection Forum but remain a significant barrier – requiring Government of Indonesia support. Some land speculators taken to court by the rubber company. Trends are encouraging on forest loss since 2015, but from a very low base given deforestation that had already occurred.</p> <p>(+/-) Engaging a wider set of stakeholders in a multi-stakeholder process is necessary, especially once critically endangered wildlife and forest areas are more secure, but this will require a longer-term funding mechanism and process. Additionally, partnerships with universities, consultants and NGOs and the land managers are developing. Local communities are likely to need capacity strengthening in terms of sustainable agricultural intensification and nutrition security, especially newly settled indigenous communities who are new to farming.</p>
Coordination and dialogue
<p>(+) The Landscape Protection Forum provides a potential means of coordinating large land managers on protection issues and developing a shared vision and collaborative actions.</p>

<p>(-) Coordination between wider landscape stakeholders and development of shared vision and collaboration is currently lacking, with community level representation lacking and complex to achieve given the legacy land claim issues.</p> <p>(+) A multi-stakeholder forum exists but is somewhat dormant. An upcoming, government, conservation driven initiative may reinvigorate wider landscape cooperation.</p>
<p>Organisational models and capabilities</p>
<p>(-) Support for the ERC ended early. Some progress made on individual supply chains, but commercial viability not yet fully proven. Carbon payments are likely to be key to increase revenues for the enterprise.</p> <p>(+/-) Donor support for social forestry groups to access Payments for Environmental Services (PES) (e.g. REDD+, RBP, SCCM) may have equal or higher chances of project success, especially if social outcomes are given greater weight, as well as environmental criteria.</p> <p>(+/-) No focus on producer organisation for political empowerment. In situ rubber smallholder pilots have been successful. Partnerships with migrants and indigenous people still beginning.</p> <p>(+) Protection Forum has expanded membership and building trust between the land managers. Exit strategy needed. Potential for greater community engagement in monitoring. Continued need for more engagement of law enforcement agencies.</p> <p>(-) There are risks associated with all the new models with respect to gender and social difference; non-sensitive approaches risk exacerbating inequalities.</p>
<p>VISIBLE (Policies, Resource Flows, Practices)</p>
<p>Business Model Innovation</p>
<p>(+/-) Overall, the ERC model is a private sector-led approach to restoring a degraded forest area to ecological equilibrium, protecting remaining areas of standing forest and endangered wildlife, and delivering benefits to local communities. Many regenerative business models for products and ecosystem services are being piloted in the ERC; some are innovative (e.g. vanilla is new to the landscape), but not all (e.g. other ERCs are developing wild forest honey). The combined package has the potential to be transformative, but NTFP value chain development involves many challenges and uncertainties. Key elements of the ERC approach with P4F support include: stacking of business models, robust business case analysis and prioritisation and capacity strengthening to enhance the ethos-driven ERC business focus and skills to achieve commercial viability and independence from donors. By 2021, the ERC company's business capacity has been enhanced, although significant capacity gaps remain. The company has encountered some cashflow challenges. It is diversifying beyond priority value chains to more diverse products <i>and</i> markets, identified as revenue streams to have greater resilience given the turbulence of COVID 19 and inherent challenges of NTFP market development. PES have not yet materialized. Vanilla is still promising, but at pilot stage only. Challenges encountered in wild honey commercialisation. The ERC company is still reliant on donor funding and will be for some time to come, but it has a clear vision of how it can become more self-reliant and how to engage communities more fully. Crowding in by other companies is possible due to a change in the law; other concession managers can enter 'multi-business' land management. This means possible competition for the ERC, but opportunities for companies which have monocultural plantations, such as the rubber company in this case, which can diversify.</p> <p>(+/-) The rubber company plantation on Sumatra (part of two geographies in the joint venture) is an effort to develop a sustainable rubber plantation business model. It is seeking further investment; this is challenging due to low rubber market prices, lack of demand and reward for sustainable rubber and a lack of agreement on sustainability standards for rubber, and the perceived high risks of the target Sumatran landscape. P4F's support for the expansion of their in situ smallholder rubber in-grower scheme, will help the company to mobilize new capital, if social conflicts can be resolved and to secure their supply of natural rubber. The company has gained reputational benefits from sustainability concession, despite being a monocultural rubber production, albeit with a set-aside/restoration wildlife area.</p>
<p>Investment Proposition Innovation</p>
<p>(+) The Green Bond is innovative and provides long-term finance. The design of the Wildlife Conservation Area is helping to attract further investment. The extent to which monocultural rubber production can be considered 'sustainable' is debatable, but 'business as usual' would have less positive environmental and social outcomes compared with the rubber company's approach. The rubber company is seeking further investment and must continue to develop their plantation towards business viability, but there continues to be a lack of demand / reward for sustainable rubber. P4F played a catalytic role in enabling RLU to achieve the green bond. The additionality and impacts of such bonds should be transparently appraised and assessed, respectively.</p> <p>(+) P4F has worked with major agribusiness companies to develop two new sustainable finance mechanisms – The Sustainable Commodities Compensation Mechanism and Rimba Collective. Both unlock potentially large amounts of financing for conservation initiatives in Indonesia, with company commitments secured under the latter particularly,</p>

but not yet for the target Sumatran landscape, which may continue to be considered relatively high risk as a sourcing location.

(-) Need for demand side measures to build demand for sustainable rubber, agreed and appropriate etc (e.g. public procurement agreements,

sustainability production standards, mandatory due diligence etc). Joint venture can absorb all the rubber offtake in this vertically integrated model, but no clear rewards for sustainable rubber production, especially agroforestry production as opposed to monocultural production. There is a need to tackle over-consumption of natural rubber for tyre industry globally.

(+/-) Markets review for diverse forest products and capacity strengthening including linking to markets. Demand for honey and vanilla affected by COVID-19; honey quality lower, due to climate change and forest fires affecting bees. Ethical buyer is seeking 'proof of health' benefits instead of sale on premium quality market. New brands launched: Branding and development of NTFP value chains (e.g. wild Sialang honey) linked to Ecosystem Restoration Concession company.

(+/-) No engagement in national policy processes. The new Omnibus Law creates opportunities for multi-business concessions, but there has not yet been time for the rubber company to respond. New Omnibus law creates potential competition for ERCs. Forest law enforcement policies require improved implementation.

(-) Lack of agreement on global rubber sustainability standards. Support for Indonesian smallholder representation in the Global Platform for Sustainable Natural Rubber (GFSNR) platform, a multi-stakeholder initiative developing such standards. Some progress achieved in smallholder representation on the Executive Committee. , but the effects are not likely to be felt in this forest-frontier landscape in the short term. Not yet clear extent agroforestry will be included/required in the standards.

Supportive services and finance

(-) No interventions targeted localised producer organisation beyond aggregation for services and inputs.

Technological innovations

(+/-) Smart patrols: training provided, digital technology introduced, rubber company has integrated into their patrol system and collaborating with National Park and other key government agencies, with collaboration facilitated by the Protection Forum, but ERC company not yet able to participate. Stronger law enforcement needed.

(+/-) Work to advance a new model of wild forest honey harvesting, but some challenges with 'theft' and possibly unintended impacts

Economic (dis)incentives

(+/-) As concession holders, ERC and rubber company LU both have legal control over land use in their concession areas. Both are seeking to exert control over their concessions, but both companies are building relationships with local communities as a pragmatic approach and, at least for the rubber company, as a way of complying with standards and auditing attached to the Green Bond deal. The agreements to be developed underpin these relationships, by clarifying the land tenure situation firstly, and then the aim is to build protection-restoration-community benefit linkages through partnership agreements. Some progress on land clarification process, avoiding land conflicts and giving peace of mind to local groups and setting of Produce-Protect rules. But not all indigenous household groups have agreed and roll out of process still continues of socialisation and partnership development. In the Wildlife Conservation Area (WCA) initial work is happening with some groups to develop agroforestry livelihood activities. Lack of gender equality in consultations and partnership development to date, although some training undertaken. Smallholder rubber scheme in production part of concession has progressed – rollout of pilot with P4F support is beginning, including clear Produce-Protect rules (e.g. not expanding palm oil production beyond 5 ha in exchange for services – training on rubber tapping to improve productivity, higher prices, provision of inputs etc). Extra-territorial forces at work in the landscape (land speculators, illegal loggers etc) and pressures on forest and wildlife may be difficult to reverse. Small number of jobs created by restoration and ranger work. Study could not assess benefits of ERC value chains for local communities. Trends in forest losses are positive and other land managers being brought into the Protection Forum, but not clear if they have the same business case for action (e.g. acacia plantation managers, although they also have forested areas they should protect under the law. Omnibus Law may change incentives for ERCs and rubber companies

7.1.2 Non-Timber Forest Products (NTFPs), Latin America

Climate, forest and social challenges

The Amazon biome in Brazil and Colombia share significant threats as well as some differences and context specific challenges. The Forest Partnerships supported by P4F are all located in areas with deforestation threats and/or significant deforestation impacts, and are affected by multiple, continuing social and economic problems. Indigenous and Afro-descendent communities face specific inequalities and poverty. Some of the Colombian target areas are affected by rising insecurity. The Brazilian Government is promoting unsustainable exploitation of Amazon natural resources, creating a less than favourable policy environment. Each project identifies a specific target area for protection and/or restoration.

Deforestation rates in the Brazilian Amazon remain alarming. In 2020, the Amazon lost 10,851 km² of forest, 7.5% more than in 2019 (INPE, 2021) and 142% higher than the lowest deforestation rate ever recorded since the beginning of measurement (4,570 km² deforested in 2012;^{15,16}). There has been a continuing upward trend in deforestation in 2021, with record-breaking rates of deforestation observable. In April and May 2021, 1,760 km² was deforested, 43% greater than in the respective period of 2020 (INPE, Terra Brasilis, 2021). Deforestation continues to be driven by the expansion of the agricultural frontier, enabled by the continued dismantling of the federal land use surveillance structure, various changes relaxing regulations,¹⁷ and the opportunity identified by the Environment Minister Ricardo Salles to 'run the cattle herd' through the Amazon during the pandemic.¹⁸

In Colombia, during 2020, there has been a resurgence of violent groups in forest fringe areas, particularly in the Amazon region, with increased conflict as different groups seek territorial control and control over illicit coca crop production and drug trafficking. This resurgence - likely exacerbated by the effects of the pandemic (i.e. Colombian Government attention focused on COVID response) has led to some protests and blockages in access to and from these areas, and threats to staff of international organisations. These challenges (along with the continuation of the pandemic itself) have, in some cases, reduced the rate of progress of P4F projects. More details on specific delays can be found under the Progress and Effectiveness Section of this report.

The P4F interventions

This evaluative case study covers nine projects related to NTFPs, including seven Forest Partnerships (FPs): a brazil nut cooperative working with indigenous brazil nut collectors, a native tree seed collector network, an ethical shoe company working with rubber tappers, and Colombian Pacific Açaí and several heart of palm projects and a natural blue food colourant project in Colombia, in Colombia, and two Enabling Conditions Measures - Muvuca, Brazil (closely connected to the native tree seed collector network project), and the Unleashing NTFPs Enabling Conditions project in Colombia, which is linked to all the Colombian FPs. See Table 4 for a summary of the projects and an analysis. See Table 5 below.

Levels of forest fragmentation vary from 'very low' in two cases (two heart of palm projects), to low in one case (a brazil nut cooperative), to 'medium' in two cases (native tree seed collector network, ethical rubber shoe company), and 'high' in two areas (natural blue food colourant; a community-based enterprise). The FP's all have an ambition to increase the amount of land under sustainable land management, although the scale of ambition around this varies: the brazil nut cooperative working with indigenous peoples project is the largest, with a target area for sustainable land management of 1.22m ha and the community-based enterprise is the smallest at 17,760 ha).

15 INPE, 2021 – A taxa consolidada de desmatamento por corte raso para os nove estados da Amazônia Legal em 2020 foi de 10.851km²

16 PRODES – Monitoramento do Desmatamento da Floresta Amazônica Brasileira por Satélite.

17 The scrapping of the institutions of supervision, control and mediation, like ICMBio, IBAMA and FUNAI. IBAMA, the Brazilian Institute of Environment, responsible for monitoring deforestation, is currently employing only 43% of the staff it held in 2009, when the institution had 1,600 employees. In 2019, the Minister of Environment exonerated 21 of the agency's 27 superintendents.

18 <https://news.mongabay.com/2020/05/brazil-minister-advises-using-covid-19-to-distract-from-amazon-deregulation>.

Table 4: LATAM Non-Timber Forest Projects

Project	Project Description	Context
A Pacific Açaí, Colombia	Aims to strengthen the Açaí (heart of palm) value chain in the region by supporting business critical activities while improving forest protection by an increased value of the standing forest, forest vigilance and institutional support for the community in order to revert deforestation in one of Colombia's deforestation hotspots.	Colombia: 56,000 ha, lowland, mangrove target area. Very low, forest fragmentation. High poverty levels. Remote area (river, sea boats to access), close to Pacific port. Illegal mining, logging, coca. Customary community lands / councils.
Brazil nut cooperative and indigenous peoples	Strengthening a brazil nut smallholder cooperative and indigenous/rural group suppliers. Forest preservation strengthening the Brazil nuts production chain.	Brazil: 1,220,000 ha, lowland target area, low forest fragmentation. Illegal logging and cattle ranching on edges of indigenous lands. High poverty levels among marginalised indigenous groups with customary lands. Remote area (no roads).
Smallholder enterprise	A smallholder-based supply chain of palm hearts and Açaí. Scaling up. P4F support for scale-up plan via extension of the wild collection and agroforestry production areas, enhancing supply chain sustainability in time and addressing legal and fiduciary concerns of potential private investors.	Colombia: 17,760 ha, lowland target area. High forest fragmentation. Illegal logging, mining, coca growing. Medium poverty levels. Some indigenous communities / lands. Remote area (distant from roads /ports).
Ethical company innovation	A Colombian company discovered Jagua Blue, the world's first non-acidic and temperature stable, natural blue colouring for the food industry. Jagua Blue is extracted from Jagua fruit (<i>Genipa americana</i>), a native tropical fruit. Project aims to provide additional income, both through the sales of Jagua fruit and Payments for Ecosystem Services as incentives for cattle ranchers and smallholders to protect forests within their lands.	Colombia: 4,222 ha under sustainable management (104ha Jagua trees planted). lowland, mountainous target area, high forest fragmentation. Cattle ranching and domestic wood use. Medium to high poverty levels. Close to Medellin and Bogota.
Afro-Colombian community owned company	Aims to strengthen an Açaí (heart of palm) business model and diversify and expand sales of the Afro-Colombian community owned and managed company, which purchases palm hearts from collectors and processes and sells the product to clients, including a large and popular restaurant chain, while also achieving natural forest protection by displacing logging.	Colombia: 39,810 ha, lowland target area, very low forest fragmentation. Logging and illegal mining. High poverty levels, Remote area (river transport to access plant etc). Afro-Colombian communities with customary lands.
Ethical shoe company sourcing rubber	Increasing wild rubber production in the target area linked to forest protection. The company works with 300 rubber tappers and aimed to increase this to 500 by 2020, working with a rubber tapper cooperative, and to increase productivity from 243 to 300kg per year. Ethical shoe company pays higher prices to rubber tappers for the (native) rubber (80%+) and protocol/monitoring system linked to 'no deforestation' commitments to help disincentivise collectors from engaging in economic activities that contribute to deforestation, such as cattle ranching.	Brazil: 931,500 ha, lowland target area, medium forest fragmentation. Illegal logging and cattle ranching. High poverty levels, remote (lack of roads and infrastructure). Extractive reserve.
Native tree seeds collector network	A native tree seeds collector network enterprise, a registered private not-for profit company, with a network made up of 20 nuclei of indigenous and family farmers totalling 570 registered and 60 associated native seed collectors. Network collectors collect seeds in the North of Mato Grosso state and sell them to buyers to encourage them to undertake Muvuca (a restoration technique that uses a mix of seeds for natural forest regeneration).	Brazil: 2,640,000 ha, ¹⁹ lowland target area, 2,932 ha reforested areas using the networks' seeds. Medium forest fragmentation. Cattle ranching, soy, competing livelihoods. Urban areas: medium poverty levels (and inequality); rural areas: very high poverty levels, especially indigenous groups. Fair access.

19 (contextual area in which the project is operating, different from the reforested areas using the networks' seeds which is projected at a capacity of 2000ha/year after project intervention)

Findings

The P4F projects have made strong and meaningful progress, overcoming multiple challenges, but more time is required to prove effectiveness and ensure early benefits can be sustained. There are good examples of mindset changes across sets of key actors – producer organisations, companies, and policy-makers – although less known about collectors and producers. Capacity strengthening of producers appears to have been broadly successful. In some cases, value chain development will take longer to fully prove the business model. Progress has been achieved fastest with ethical buyers investing in suppliers where new NTFPs are being developed and in established commodities (brazil nuts, native rubber). Rules of the game changes in Colombia ('unleashing NTFPs' project) and cases of enhanced investments especially for established groups in mature sectors (e.g. brazil nut cooperatives). Market demand has been affected in some cases by COVID 19, and in other cases a company is still awaiting export permissions. Uncertainties and challenges are higher for newer commodities and for restoration markets in Brazil, where government support is lacking. Data needed on whether anticipated practice changes occur in practice and at critical mass scale, and to what extent vis-à-vis forest goals and impacts (intended and unintended). Rates of deforestation remain highly challenging in many of the cases. COVID has understandably had an impact, but projects have responded effectively to the extent possible.

Many of the projects have transformative elements in their designs. More time is needed for implementation and for the impacts of programme achievements, such as influencing the enabling regulatory context in Colombia, to have an effect. More evidence is needed to know if the combined interventions by P4F and other actors are sufficient to change the 'rules of the game' and to tip sets of actors' behaviour beyond key thresholds (e.g. switching from degenerative to regenerative livelihood practices) to achieve desired forest -social transitions. For example, the extent to which producers are incentivised or disincentivised to switch from degenerative activities to regenerative ones; whether value chain actors are attracted by strong sustainable business cases, including disruptive models which change the whole sector, whether investment flows away from unsustainable land use toward supporting sustainable land use in a meaningful and significant enough way to affect deforestation as a whole.

The projects appear to have variable potential for protecting forests and advancing restoration in specific territories, although they can potentially contribute to such shifts, if additional interventions are supported especially focused on enabling conditions changes. Good progress has been made in developing produce-protect mechanisms with associated monitoring systems in several cases, but they need more time for implementation. In other cases, more work needs to be done on establishing territorial governance plans to ensure the link between enhancing livelihoods based on NTFP trade and forest protection. The positive cases can act as examples to other enterprises in the NTFP sector, but similarly, more time is needed to know if crowding in and copying can be achieved. More work needs to be done to share the new innovations and success stories by the programme.

The strong commercial emphasis of P4F in developing forest partnerships is important for sustainability but newer NTFPs clearly take longer to establish markets and have high logistical costs in remote areas, with the magnitude of impacts potentially falling short of desired thresholds by which a critical mass of actors would shift to regenerative practices. In Colombia, the work to change the enabling environment conditions at the national level has begun to bear important fruit which in time may help build market demand. Sustainability potential remains mixed, also requiring more time and resource in many cases. In Brazil, the extremely challenging governance context means that intensity of pressure on forests is increasing, not helped by the level of uncertainties over restoration markets. Nevertheless, the gains in brazil nut and rubber initiatives are likely to be sustained.

The achievement of scaling by development interventions (and the resilience and sustainability of those interventions) is closely linked to whether they are *transformative by design* and in *implementation* (e.g. responsive to changing contextual conditions). Challenges to achieving scale persist (varying in magnitude across the two countries), with some evidence of potential scaling

across the portfolio. Using the Donor Committee on Enterprise Development (DCED) AAER (Adoption, Adaptation, Expansion and Response or AAER) framework on scaling²⁰, for example:

- **Adoption** (i.e. uptake and continued plans by participating competitive actors) is strong in most projects – catalyst companies and partners planning to continue in target locations.
- **Adaptation** (i.e. increased uptake in other value chains and business activities beyond the project targets by the participating companies). Engagement of new producers in value chains (e.g. ethical rubber shoe company, an NTFP company trading in a new natural colourant which they have developed, a community-based enterprise trading Acai). The ethical shoe company is already exploring new sourcing territories via Origens, a Brazilian digital marketplace. The Brazil nut cooperative has secured new investment to expand its trading. Some market uncertainties exist though, with the NTFP company awaiting key permits.
- **Expansion** (i.e. competitor companies and investors copying or crowding in as they perceive a business or investment case). This is being explored in several cases. If restoration markets are favourable, the native tree seed collector network enterprise will support other networks by sharing their new business model and, also providing consultancy services. No other cases yet identified of expansion, but with more time this is entirely feasible.
- **Response** (i.e. a response from non-competing actors which supports institutionalisation). The main example of this is found in Colombia, where the programme has supported consultation on a new decree relating to NTFPs, which will help to build up markets over time, if additional support is provided for capacity strengthening of regional environmental authorities. Building on PES and REDD+ schemes has been valuable in several cases (i.e. building on existing responses of government and international actors to forest, climate, and social challenges). There are no examples in the Brazil portfolio, likely reflecting the challenging context of a less than supportive government with respect to forest conservation. The one Brazil enabling conditions project, promotion of Muvuca, a new tree seed mix seeding technology, has increased the publicity relating to this practice and helped to professionalise the seed networks. COVID has hampered its progress. The native tree seed network has attended only one agribusiness event and a press trip, and had planned to attend more events in person, but the pandemic has prevented this. In future, lessons could be learned from the Colombia 'Unleashing NTFPs' initiative (see Box 1) in terms of building up networks and collaboration through a multi-stakeholder social learning approach. See Table 6.

Box 1: Unleashing NTFPs in Colombia: Multi-Stakeholder Social Learning for Regulatory Change

Challenge: Institutional and legal frameworks for forest management and use in Colombia constrain sustainable NTFP development. Two ministries hold overlapping responsibilities for Colombian forests – the Ministry of Agriculture and the Ministry of Environment – and there is insufficient collaboration between them. NTFPs tend to be neglected as a result, and the wider mentality of cut the forest instead of sustainably harvest remains inadequately challenged. The legal and institutional framework currently renders legal forest exploitation as too expensive. Knowledge of sustainable harvest practices and levels for different products is lacking in certain instances, and the legal framework used by the Environmental Authorities to request forest use and management licences favours timber-related products rather than NTFPs. Capacity challenges include a lack of standards and under resourced Regional Environmental Authorities (REAs) which struggle to assess the use of different species. The Environmental Authorities report that there is a multitude of academic studies documenting the potential of NTFPs, but most have failed in the past because value chain commercialisation involves many uncertainties and challenges, especially when starting from a relatively low existing commercialisation situation. In addition, studies are sometimes missing information on the genetic properties which would enable pharmaceutical or cosmetic applications. The access of genetic resources needs to be added to the list of permits. Companies and landowners in remote areas have limited resources, so there are risks that they still cannot overcome the bottlenecks. To-date, only 500 permits have been issued, 70% of which were for orchids and 18% for one species for use in thatching. A vast majority of products are not exploited or are used illegally. The Ministry of Environment and Sustainable Development (MADS) estimates that the number of permits issued reflects less than 10% of NTFPs commercially exploited.

²⁰ Nippard, D., R. Hitchens, D. Elliot (2014) 'Adopt-Adapt-Expand-Response: a framework for managing and measuring systemic change processes.' Briefing Paper. Available at: [Microsoft Word - Adopt-Adapt-Expand-Respond - Briefing Paper \(beamexchange.org\)](https://beamexchange.org/)

One key difficulty of NTFP products is that there are many possible types of products, and these have different types of impacts upon the trees, species, and forest overall. Using a one-size-fits-all approach to requirements or regulations may compromise the ability of some stakeholders to derive value from the forest. There are many products that could be considered NTFPs including fibres, fruits, seeds, or exudation, with each one of them having a different impact on each plant and species, that are compounded by the fact that plants that produce a similar type of fruit (e.g. Acai), exhibit different harvest cycles or response to ecosystems' changes if they are in the Amazon or if they are located along the pacific coast. Some of the stakeholders interviewed during the process did suggest that the forest management regulations seem to be more in-line with timber extraction requirements than NTFPs.

Opportunity: In the post-conflict context, NTFP commercialisation could provide jobs and livelihoods for residents of former conflict areas. Colombia has 58m ha of native forest. Less than 2% is legally used for timber products, still less for NTFPs. There is no recent data for Colombia, but global bio trade market in 2015 was estimated at £4bn. The National Development Plan recognises biodiversity as a strategic national asset and encourages business development of the bioeconomy, where NTFPs play a significant role. 38m ha of tropical forests are inhabited and managed by indigenous, afro-descendants and other rural populations who hold knowledge of how to use and manage such resources.

Theory of change: MADS plans to update the Forestry Regulation to facilitate and promote NTFPs by introducing licensing processes and requirements better suited to NTFP activities and impacts. The project supported stakeholder consultation in the development of the new regulation and its implementation by strengthening the operational and technical capacity of REAs who process the commercial use permits for flora species through a series of workshops with local authorities, the production of technical guides and development of protocols for prioritised species. Each REA currently applies some proprietary protocols and assessment criteria, although in some cases they will not even respond to license request as they have no process or manpower to do the review. These differences or lack of reply from the REAs discourage potential NTFP producers and enterprises from engaging in production as it becomes costly and risky to apply for a permit. Adopting some common rules, regulations, protocols, and sustainable management standards by which use permits can be accessed will create a new asset class, catalysing investment in NTFP extraction and trade on a sustainable basis (also generating income benefits for local communities) and substituting for degenerative activities, such as cattle ranching, illegal cropping, and logging.

Progress and Effectiveness: Five workshops have been held in different regions of Colombia to facilitate consultations on a normative proposal – the '*decreto para la reglamentación del aprovechamiento de la flora silvestre y de los productos forestales no maderables*', on the use of NTFPs with key stakeholders, especially producers, environmental authorities, and researchers (Humboldt et al, 2020)¹. An additional joint workshop with MADS was held at Bioexpo (October 2019) prior to the five workshops, as a way of reaching Colombian biodiversity product producers. 200+ participants attended the six events with representation from environmental authorities, producers, business, and academia. A report was produced and submitted to MADS synthesising the key recommendations and MADS has provided a formal response. MADS has decided to publish an 'umbrella' decree – passed as of July 2021 - that introduces overarching NTFP-enabling considerations, setting the stage for MADS to subsequently adopt the specific requirements through "*resoluciones*" which will follow this could provide more flexibility for future adjustments to the requirements.

Many issues have emerged from the consultations and other work and look set to inform the Decree. For example, requests for NTFP licenses had no specific timeframes for review and reply; the decree now outlines a maximum timeframe for the authorities to make the decision on the permits. For the EAs to meet these timeframes, the decree clarifies the information required, and the processes to be reviewed for permit requests. Differing requirements are set for permits for different market segments. Coherence and proportionality are requested from MADS with respect to the legal requirements that need to be followed. Recommendations included:

- A unified request process for NTFP schemes that cross many REA jurisdictions;
- Frameworks that facilitate harvesting in protected areas or areas with land tenure issues;
- Training schemes that allow residents of these areas to perform the analysis and monitoring efforts required to obtain and maintain NTFP licenses;
- Transition periods that allow persons of companies that are exploiting NTFPs without the permits, to register and operate with full legality;
- Introduction of a combined scheme that bans the felling of 'unproductive' tree varieties with schemes that promote their NTFP potential;
- Establishing common follow-up and monitoring requirements for these land use management plans;
- Harmonising NTFP requirements with other registries and certifications by other health, sanitary and international trade authorities across Colombia; and
- Introducing safeguards to preserve forest resources of heritage or ancestral value to the adjacent communities, among others.

The National Government is reportedly considering a "two tiered" solution, with a General Decree supported by an 'NTFP specific' resolutions (by the Ministry or the REAs), which should provide greater flexibility to update requirements and regulations. However, it may also impose an additional burden on REAs, as they will not only have to review and process forest use applications but also prepare the specific guidelines for each case. This also raises a question surrounding conflict of interest around managing both adoption and enforcement.

Technical procedures development: Two consultants were funded to develop technical guides and three researchers were commissioned to develop use and management protocols. Six species have been selected. Secondary information has been reviewed, value chain analysis conducted, and potential fieldwork locations identified (P4F Monitoring Report, December 2019). Studies have been conducted by legal and technical consultants on the Decree and recommendations made to MADS (January 2020).

Capacity strengthening: Capacity strengthening of six environmental authorities; support to the development of the first use permit under the new decree. This process is intended to socialise the new decree and the guidelines with the REAs. An international NGO conducted the original diagnostic study.

Regulations being updated only relate to forest management permits: The Colombian regulation considers two types of permits in relation to NTFPs. The first one is the permit to use forests, a permit that is issued by regional REAs and deal with the way in which the forest will be managed to ensure its preservation. A second regulation applies to products that use the genetic content of those forest products, which is the case of cosmetics and pharmaceutical uses, and that require a contract for 'Access to Genetic Resources' to be negotiated and signed with Colombia's National Government through the Ministry of Environment. These contracts define a strict scope of the use to be given to the genetic resource and consider royalties to be paid to the national government as a manager of Colombia's genetic wealth. The efforts being made under this P4F initiative focus on the forest use permit, with no changes being considered for the 'Access to Genetic Resources' contract.

Implementation challenges and anticipated benefits: Updating the regulation is expected to create better conditions for NTFPs, but it may lead to new bottlenecks emerging in the short term that will need to be addressed to deliver the desired change. If the decree is published and implemented with private sector and community perspectives it will allow NTFPs to grow, but this also depends on the landowners / local enterprises having sufficient resources to provide the appropriate documentation. There are 400 species in Colombia which can be used as food, 1,142 that have medicinal uses, and 114 plant species used for handicrafts. The anticipated economic benefits for local producers and communities are likely to be unlocked through this enabling condition, which potentially adds value to the standing forest, although the realisation of these benefits – both livelihood and forest conservation – depend upon several assumptions pointing to the need for additional support.

Social learning and unintended positive effects: The approach is highly relevant and a key potential contribution to transformative change. Unlocking regulatory blockages are critical to catalyse further investment in sustainable NTFP usage to generate value in the standing forest for local communities and value chain actors, shifting economic incentives. The delay in delivering the Decree due to COVID 19 has led to the newly linked NTFP enterprises and other actors coming together to pressure for change. This has built upon the investment in improved dialogue and consultation amongst multiple stakeholders – including civil society, central and district governments and REAs, and importantly diverse private sector organisations and national employers' association and various international bodies. Communication channels created between government, NTFP producers or processing companies and international organisations were previously very limited in scope in terms of the quality and regularity of engagement. New collaborations are emerging and there is an opportunity to further build on this in the future with work on further capacity strengthening and also for shared visioning for the NTFP sector as part of a vibrant bioeconomy, with continued joint framing of challenges and identification of collective solutions. Such approaches go beyond diagnostics to building momentum for change.

The spatial remoteness of NTFP collectors and producers means that it is highly challenging to achieve scale given the costs involved. However, both more established commodities and newer NTFPs require support for value chain development – especially if linked in one landscape to build a landscape bioeconomy. While premiums can be obtained for such forest products in international markets, there are costs and capacity challenges associated with reaching export markets, and it is not clear that such premiums would necessarily be sufficient to deliver returns to local producers/harvesters. It is easier to scale up trade in established commodities, such as brazil nuts and native rubber, which both also require support.

Table 6: Transformative Change Analysis - Latin America Non-Timber Forest Product P4F Portfolio

INVISIBLE [Mindsets]
Mindset, commitment, and ownership <p>(+) Colombia: some NTFP value chain projects beginning to demonstrate to rural communities the potential for more entrepreneurial activities, but more time for implementation necessary to fully secure mindset shifts (e.g. Naidi Palm and Jagua tree initiatives have changed producer attitudes towards these trees and plants, leading to reduced tree cutting and greater protection/planting because of their value).</p> <p>(+) Colombia: At national level greater willingness to collaborate amongst NTFP enterprises in the bioeconomy and with government is very promising.</p> <p>(+/-) Brazil: mindset shifts amongst staff of producer cooperatives. Training of indigenous youth from communities supplying a brazil nut smallholder cooperative is encouraging their participation in brazil nut trading via increased representation in the producer cooperative governance and training, but not clear how far this relates to mindset changes specifically on forest protection.</p> <p>(+) Strong investment in participatory approach by an ethical shoe company has enhanced local rubber tapper commitment to the initiative and to the company, but the full model (productivity training, tools, incentives such as price premiums and conditional PES payments and sanctions underpinned by protocols and monitoring system) still needs to be implemented and tested; there are risks it may not be sufficient to change behaviour with additional uplift of incomes likely required.</p> <p>(+) Brazil: Native tree seed collector network participants report feeling great pride in their activity and its contribution to the environment. Capacity strengthening has increased their understanding of markets and business relationships, increasing organisational capacity and resilience.</p> <p>(-) More evidence needed across all projects on local aspirations, perspectives, and practices with respect to forest protection and conditional (dis)incentives thresholds.</p>
SEMI-VISIBLE [Power and Relationships]
Relationships and transactions <p>(+) Colombia: Key relationships in the NTFP sector / bioeconomy in Colombia improved including linkages to government, enhancing sector governance, although shared vision and roadmaps still lacking.</p> <p>(+/-) Colombia: Various value chain relationships enhanced (e.g. linking of ethical producers to producer groups) but some value chains still in early stages of development.</p> <p>(+) Brazil: New international market linkages created and formalisation of relations between smallholder brazil nut cooperative and indigenous brazil nut collectors helping to clarify terms of incorporation of latter, increasing their representation in cooperative governance with potential to improve the equity of the relationship. Ethical shoe company has invested in participatory new group development and value chain incorporation of rubber tappers.</p>
Coordination and dialogue <p>(+) Colombia: Highly innovative participatory, cross-scale, regulation review process, demonstrating value of such an approach to a) improve the regulation (new insights generated on how to improve the regulation e.g. differences between producer priorities; opportunities identified to harvest trees from government owned lands), which were incorporated into the Decree, b) build linkages between NTFP companies, a national employers' association and government to underpin potential bioeconomy governance improvements, but capacity strengthening of regional environmental authorities and shared vision development, roadmaps and implementation support needed.</p> <p>(+) Colombia: Improvements in value chain coordination, but remoteness remains challenging and still major barriers to overcome for scale-up.</p> <p>(+/-) Brazil: Interventions were not aimed at sector or landscape coordination; two projects cover vast areas, with improvements in stakeholder coordination in both (ethical shoe and native rubber value chain project has strengthened rubber tapper organisations) and brazil nut cooperative-indigenous supplier project has trained and engaged indigenous communities in cooperative governance. Some internal policy improvements in the third project, a tree seed collector project.</p>
Organisational models and capabilities <p>(+/-) Colombia: All the projects are improving value chain linkages and strengthening existing organisational models, rather than completely new innovations. Mixed achievement in terms of capability developments – fastest progress where a 'for purpose' ethical company involved.</p> <p>(+/-) Brazil: Enhancing organisational models, more than completely new innovations, but new elements added focused on produce-protect in some cases:</p> <ul style="list-style-type: none"> ethical shoe and rubber project is comprehensive in terms of the different components - a new protocol and monitoring system will enable the company and rubber tapper cooperatives to engage in monitoring deforestation and track observance of no-deforestation agreements and make payments according to a rating-of-compliance system;

- native tree seed collection project to support forest restoration does not have new organisation models *per se*, but capacity strengthening undertaken (new internal policies to clarify internal roles, training of collectors to support expansion);
- smallholder brazil nut collector cooperative and indigenous supplier project has not introduced new organisational models, but significantly strengthened what is there, enabling expansion of sales. Recognising high levels of women's participation in brazil nut processing, work shift timings were altered to better fit domestic responsibilities.

Accountability and participation

(+/-) Colombia: PES schemes already in place in several cases, linked to management plans, upon which the project has built. In another case, the project is working with private landowners. No other governance innovations for accountability and participation. In one case, there is a strong focus on a community-owned enterprise which has higher potential for retaining profits locally. Many of the value chains are characterised by 'for purpose' relationships. P4F is analysing and monitoring the 'fairness and inclusiveness' of the different projects (using an existing methodology²¹), following the evaluation manager's baseline recommendation (which focused attention on the terms of incorporation of harvesters as well as producers and gender issues, which required stronger attention).

(+/-) Brazil: Ethical rubber shoe company has invested in participatory protocol development and group formation, although risks of producer reliance on company. Some work has been done to strengthen aspects of territorial landscape plans (e.g. Territorial and Environmental Management Plans in the brazil nut case and, to a limited degree, in the rubber tapper project). The native tree seed collector network project sells seeds to restoration projects, hence landscape management is not involved.

Monitoring and adaptive learning

(+/-) Colombia & Brazil: Investment in M&E, but some studies not yet complete due to COVID 19, with some formal adoptions of monitoring systems owned by companies postponed until they gain better financial strength after the pandemic. Overall potential to enhance monitoring data for projects and the portfolio, and some concerns about the future of these 'postponed' M&E systems.

VISIBLE [Policies, resources flows, practices]

Business model innovation

(+/-) Colombia: Mixed performance. Several new business models are being developed, but proof-of-concept not yet fully established in all cases. Some awaiting export approvals, others still need to secure markets to expand.

(+) Brazil: Expansion / strengthening of existing business models based on increasing sales or sourcing of established commodities (brazil nuts, native rubber), rather than introduction of new business models. However, the ethical shoe company has developed a new carbon in-setting²² model. Native tree seed collector network has added in a new component of offering forest restoration consultancy services.

Investment Proposition Innovation

(+/-) Colombia: One positive example of investment secured in Colombia, but two others did not secure anticipated additional investment; in one of the latter cases this was the result of pandemic impacts dampening market demand.

(+) Brazil: Positive examples of investment secured by the large brazil nut cooperative.

Market demand

(+/-) Colombia: Passing of the Decree will improve market demand in the future for NTFPs. Additional market demand efforts are needed, especially in local and sub-regional markets to link remote producers to markets and overcome significant logistical costs, which can still be challenging for niche premium products. One company is still awaiting approvals from key export markets after which it can seek more international buyers. Fastest progress where there is support from very strong and committed downstream value chain partners.

(+/-) Brazil: No specific demand side measure projects in Brazil, except for publicising of a new technology for rapid tree seeding – this publicity may help to increase demand, although wider restoration market is likely to be affected by lack of government support and lack of information available. Increased sales leveraged by the brazil nut cooperative due to better international market linkages facilitated by the project and linking to potential investors. Ethical shoe company sells a luxury shoe item, for which market demand is currently high; the company can assure its offtake of native rubber from rubber tappers and is already exploring sourcing options in other areas via an ethical digital marketplace in Brazil.

Policies and implementation

(+) Colombia: Efforts made to improve regulatory context in Colombia has led to passing of the Decree, but there are capacity deficits for Regional Environmental Authorities. Process has strengthened 'NTFP' sector relationships.

(-) Brazil: No specific policy-related interventions, due to unfavourable context.

²¹ Kent Business School, IIED, Oxfam GB, Unilever (2012) 'Measuring the fairness in supply chain trading relationships: Methodology guide.' Available at: 16042IIED.pdf.

²² a partnership or investment in a GHG emissions-reducing activity within the 'sphere of influence' of a company. This sets an important stage for companies looking to take a broader view of their boundary of responsibility.

Supportive services and finance
<p>(+) Colombia: Several projects providing farmers with access to training, advice, and inputs such as tree seedlings and seeds. In one case, payments from an existing PES scheme have been used to fund farmer tree planting and establishment of agroforestry; however, in Colombia producers are found in such remote areas, with very small local markets, so other support services and financing remain negligible.</p> <p>(+) Brazil: Brazil nut cooperative has secured finance to purchase brazil nuts to meet international orders. No specific additional services for indigenous brazil nut collectors, although training conducted under the project for the latter. Native tree seed collector network has provided training for seed collector members but may need more donor support and strong ethical buyer partners. The ethical rubber company is providing knowledge to rubber tappers to increase yields and provision of some inputs.</p>
Technological innovations
<p>(+) Colombia: Several cases of new sets of sustainable practices being promoted (e.g. agroforestry and silvo-pastoral systems and support for wild harvesting of NTFP products).</p> <p>(+) Brazil: Several new innovations (e.g. native seed collection and Muvuca restoration method). No major change relating to brazil nut collection and processing. However, there are challenges to adoption of technological innovations, due to challenges of spatial remoteness (infrastructure, low levels of literacy and entrepreneurship etc).</p>
Economic (dis)incentives linked to goals
<p>(+) Colombia: PES payments to producers in one case was possible only because these producers already maintained some forest areas within their lands – the producers benefited and could cover the costs of the preparation and planting of new trees. Another NTFP company is incentivising agroforestry production and has revised i agroforestry scheme to double the beneficiaries, halving the area per household compared to initial targets set by the project.</p> <p>(+) Brazil: The ethical shoe company has developed a protocol and monitoring system for 'no deforestation' agreements. This has yet to be tested in practice. No clear (dis)incentives have been set by the brazil nut cooperative (indigenous communities have communal lands). The native tree seed collector network has also not set specific incentives relating to deforestation (the seeds they collect are sold to projects and landowners undertaking restoration).</p>

Key lessons from a transformative change analysis of the Latin America NTFP portfolio include the following:

- **Strong, established value chain partners, particularly for marketing and distribution, are key to the development of viable NTFP value chains**, but this is ideally combined with a 'for purpose' ethical mentality which generates a willingness to invest in the suppliers and patience in supporting the development of chain coordination and producer capacity strengthening etc. Finding ways to support and increase conditions for purpose-driven ethical companies is extremely important for bioeconomy development.
- **Already established enterprises and commodities are easier to scale**; value chain development of newer NTFPs is challenging and takes many years, with uncertainties and a need for ongoing investment. Projects may need further public support beyond the current project period, to ensure that results can be sustained.
- **Local and national markets can be developed** alongside export value chains to increase resilience. **Digital marketplaces** are an important technological innovation with the means of linking producers to consumers to enhance livelihood benefits:
- NTFP value chains are attractive to producers, but competing livelihood activities, such as illegal crops and deforestation remain strong competitors, hence the need for **additional interventions in the same landscape and strong monitoring systems**, which can provide early warning, using satellite data, but also rapid on the ground response capacity.
- It is possible through **participatory national, locally owned, social learning processes** to bring together NTFP enterprises, employers' association, central government and regional government, plus local producers, and communities through a social learning approach to **create pressure for regulatory change and build new linkages as a precursor to stronger bioeconomy governance and vibrancy**.
- **Some root causes lie beyond the national scale and require different types of interventions** (e.g. in the UK, due diligence requirements for traders and buyers, and similar rules for investors are required to catalyse shifts in investment towards sustainable forests and land use).

7.1.3 Cocoa Landscape Initiatives, Ghana

Climate, forest, and social challenges

Cocoa is a typical smallholder crop in West Africa. Average farm sizes of 3-4 ha mean that smallholder farmers are often struggling to earn a living income from this volatile and price elastic commodity. The cocoa value chains in West Africa are characterised by imbalanced relationships between (largely non-organised) producers and a continuum of types of middlemen and exporter organisations, whilst service provision to cocoa farmers and their communities is mixed in its availability, accessibility, and quality. There are clear links between cocoa production and deforestation in both Ghana and Côte d'Ivoire. There is a threat that this trend will continue and lead to the clearing of remaining forests and even spread to other neighbouring cocoa producing countries as increased supply from land use conversion diminishes in the major West African producers. Land use planning and tenure in Ghana and Côte d'Ivoire is often complex and disputed, and while several national level frameworks have been developed and industry regulators are seeking to address some of these landscape level challenges, progress remains inconsistent.

The P4F interventions

P4F supports a series of sustainable landscape initiatives focused upon cocoa in Ghana. All of these were studied by the evaluation manager team, but one specific deep dive study focused on a cocoa landscape initiative in a specific cocoa landscape. The project 'seeks to implement and test monitoring, reporting and verification systems developed to check expansion into forest reserves; operationalise a landscape management board for forest protection and test adoption tracking of national climate-smart cocoa standards developed for improved livelihoods and incomes.'

The landscape governance system has a Hotspot Intervention Area (HIA) Board at landscape-level, which comprises six sub-HIA boards who oversee one or more Community Resource Management Areas (CREMA; the representative institution collectively responsible for managing the areas) to jointly implement the governance activities. For the most part, CREMAs were existing structures in the communities and a useful starting point to build the governance system at community-level. CREMAs established decades ago are seen as legitimate by community members, however there were previous failures of CREMAs and there remain questions over their legitimacy in some instances.

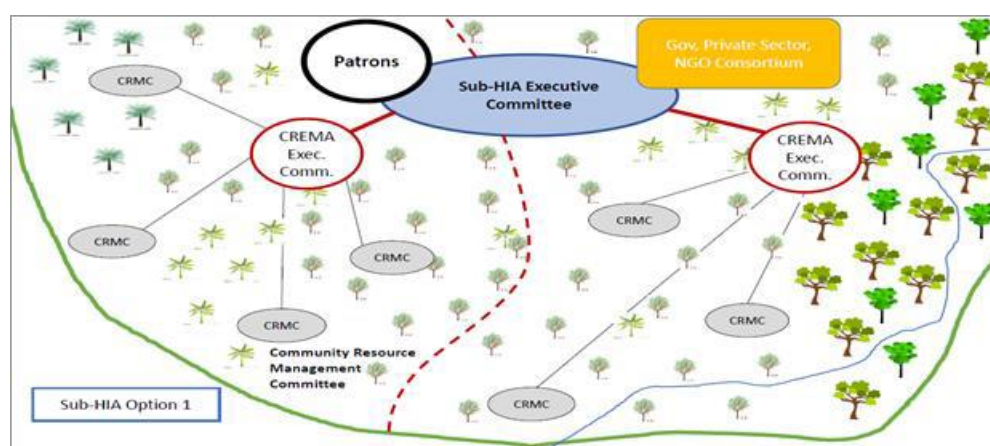


Figure 6: Sub-HIA and CREMA linkages in the cocoa landscape

Source : NCRC et al, 2020²³

23 NCRC, IUCN, WCF, P4F (May 2020) 'Learning about Landscape Approaches: Ghana Guidance Document & Toolbox'

Findings

The P4F supported project has focused mainly on developing the landscape governance system. At the landscape, sub-landscape and community levels, constitutions and/or by-laws were developed²⁴ to define and agree rules, roles, and responsibilities. The landscape governance system was developed quickly compared to previous, similar donor-funded projects. By 2020, the constitutions and by-laws had not yet been gazetted by the District Assembly. By 2020 sub-HIAs two sub-districts developed individual maps, management plans, and draft rules and regulations (bylaws) and were endorsed. The HIA management plan was developed, but not yet finalised. Much has been invested in capacity building of CREMAs, sub-HIAs, HIA management board, chiefs, patrons, and community leaders. Through separate funding by the company and another funder, four more sub-HIAs were formed. The process of developing the HIA management plan was not smooth, but was expected to be finalised by April 2021, and to also include sub-HIA management plans or specifications. In future, a participatory approach, working from the bottom up would be preferable. When developing a landscape management plan, it is better to start at sub-HIA level, carry out the work in a participatory manner, and then aggregate findings towards HIA level. This is a more participatory process that also creates ownership at sub-HIA levels, which is important because these are the actors responsible for implementing the plans.

An environmental and social assessment informed the development of the HIA Management Plan (HIAMP) by identifying appropriate co-benefit enhancement measures that were subsequently integrated into the HIAMP design and highlighted where REDD+ activities could have potentially negative impacts. A deforestation monitoring system for the landscape, based on a National Forest Monitoring System (NFMS), is currently being developed. Support to an M&E system had not been foreseen in the original plan. However, there has not been significant progress, with questions arising as to the source of funding, although P4F has now stepped in. A resettlement plan for farmers in the reserve area is being developed. According to Climate and Forests Initiative (CFI) commitments, cocoa produced in forest reserve areas cannot be marketed. Producers living within gazetted areas therefore need to be resettled. World Bank safeguards state that farmers within reserves should be compensated and moved voluntarily. As a result, the strategy is to motivate farmers living within reserve areas on a voluntary basis. This has been carefully prepared, with a socio-economic survey in accordance with the World Bank safeguard policy. The process takes time and has been done carefully. It is expected by the P4F and company that farmers will be willing to resettle because they know where they are currently based is illegal and, sooner or later, they will need to move, and they are now being provided with an opportunity for alternative land.

It is crucial to have a neutral, third party leading collective action that will allow for non-competitive collaboration, participation, and engagement. This is being done in the World Cocoa Foundation-led landscape level initiative where eight companies have already committed to work together in one landscape, based on shared principles and collective action.

The in-depth study of this cocoa landscape project in Ghana finds that it has strong transformative potential. As of June 2021, the assessment finds progress and effectiveness on a number of impact pathways, including: increased cocoa production, facilitated agroforestry pilots and cocoa rehabilitation, and supported advances in cocoa producer income diversification; organising smallholder cocoa farmers, in multi-scale community and landscape governance; development of the national Ghana Climate-Smart Cocoa Standard; development of a Service Delivery Model (SDM) which provide a bundle of services to smallholders; a boost to the uptake of stakeholder collaboration and the development of a landscape governance system; and the development of a cocoa management model. Beyond the deep dive, a cluster of cocoa landscape and value chain projects supported by the P4F programme have been assessed. In terms of transformative change, the key contributions are outlined in the table 7 below.

24 A constitution is a social contract that operates at HIA and Sub- HIA levels. It sets out: The purpose / vision / goal of the HIA or sub-HIA; The structure of the organisation and role of officers; Agreed rules and procedures that parties will abide by; The defined geographical location of the intervention area; The defined membership; By-laws cover the following aspects: Five thematic areas: hunting/poaching, bushfires, encroachment, mining, water management; Clearly defined limitations and conditions of use on forests and natural resources; Clearly defined sanctions for infractions.

Table 7: Transformative Change Analysis for Cocoa Landscape

INVISIBLE [Mindsets]
Mindset, commitment, and ownership
(+) There is a mindset shift among cocoa producers regarding the importance of shade trees and the need to protect the remaining forest. This has also been triggered by the tree registration process. (+) CREMAs have understood that they are responsible for managing their own resources.
SEMI-VISIBLE [Power and Relationships]
Relationships and transactions
(+) A major transformational impact has been the improved relations and dialogue between all landscape actors. There are improved relations between cocoa farmers and Licensed Buying Companies (LBCs), and between Ghana Cocoa Board (COCOBOD) and Forestry Commission. Many partners mentioned that they now work collaboratively and no longer work on their own.
Coordination and dialogue
(+) Improved dialogue and coordination between public and private actors and other stakeholders have occurred at the landscape-level.
Organisational models and capabilities
(+) At the sub-landscape and landscape -level, the development of the landscape governance structure has been a major achievement of the project, which is applied in other landscapes in Ghana and potentially in other countries.
Governance, accountability, and participation
(+) At the sub- landscape-level, the development of the landscape governance structure with participation by local communities has been a major achievement of the project.
VISIBLE [Policies, resources flows, practices]
Business Model Innovation
(+) Supporting the development of the model of climate smart cocoa including further roll-out of the agroforestry system, which constitutes a more sustainable and productive farming system.
Policies and Implementation
(+) Constitutions and by-laws of the different landscape governance structures were formulated, and currently await ratification by the District Assembly. (+) The new CSC standard, even if though it had not yet been fully adopted by COCOBOD, is being applied in the landscape and beyond.
Supportive services and finance
(+) The Rural Service Centres (RSCs) and other service delivery models acting as service delivery hubs provide examples of viable service delivery models to generate positive and sustainable impact.

7.1.4 Palm Oil, West Africa

Climate, forest, and social challenges

Despite an increasing demand for palm oil, the Ghanaian industry faces challenges to expand production in a sustainable way as there is little unused land available for new plantations. Past efforts in the country to engage with palm oil smallholders in stable relationships have had mixed results and most smallholders continue to underperform in terms of yield, quality, and social and environmental practices. Meanwhile, palm oil production is estimated to have contributed to deforestation in Ghana directly and as well as indirectly (e.g. the conversion of agricultural land for palm oil and low incomes from palm oil can drive people into the forest for other activities). There is a clear need for new models of palm oil intensification and expansion, while risks to the remaining forests are to be mitigated.

The P4F interventions

The P4F projects include:

A 'best in class' palm oil smallholder scheme: The company is developing a 1,500 ha Roundtable for Sustainable Palm Oil certified smallholder scheme on community owned land. It will provide 300 smallholders from three surrounding communities with improved incomes, while community-owned plots will allow for

community investments. Participation of the scheme is linked to community commitments to protect the High Conservation Value areas on the plantation and nearby Forest Reserve.

Additional livelihoods opportunities: the project supports previous land users of the concession area with training and investment on various activities including bakery, piggery, poultry, rabbits, and beekeeping. These activities are offered to provide incomes before the palm oil plantations can offer incomes, they were also selected as they contribute to forest protection commitments. Though the initial investments are fully subsidised by the project, beneficiaries will contribute a part of their earnings to a revolving fund to enable scaling within the communities.

Forest protection: The project engages with a fourth community living next to the Forest Reserve and incentivises them to patrol the forest for illegal activities by supporting them with the additional livelihood options. These forest protection activities are coordinated through a landscape governance board set-up around this project.

Creation of an enabling environment: P4F is supporting the African Palm Oil Initiative, which has the most relevant stakeholders from the private and public sector as member. Through the platform, the stakeholders have influenced the establishment of the Tree Crop Development Authority, which has the mandate to govern the palm oil sector in Ghana. The African Palm Oil Initiative also develops jurisdictional pilots in Ghana.

Findings

At a local level, the sustainable palm oil plantation project is transforming community-company relationships. It also contributes to new livelihood opportunities and improved dynamism within the communities. The complementarity between implementation pathways clearly contributes to this. More importantly, if the project manages to develop a proof of concept of the company's business model with a corresponding investment proposition, then it can potentially transform the oil palm landscape in Ghana and beyond. The likelihood of scaling will also partly depend on the effectiveness of the Tree Crop Development Authority. See Table 8 for more information,

The establishment of the Tree Crop Development Authority implies a fundamental reform which can transform the palm oil sector in Ghana. If effective, it can address many of the systemic issues around national standards, land use zoning, grievance mechanisms, technical assistance, and pricing mechanisms, and mainstreaming the sustainability principles of African Palm Oil Initiative into the yet to be developed Tree Crop Development Authority Regulations.

The Amsterdam Declarations Partnership influenced policies (proposals) in the EU and member countries are setting significantly higher ambitions. They are viewed as 'big steps in the right direction' with potential transformative impact. Whether this will materialise will depend on how these policies are translated into implementation mechanisms - and whether these are enforced.

Table 8: Transformative Change Analysis: Palm Oil, Ghana, Case Study

INVISIBLE [Mindsets]
Mindset, commitment and ownership
(+) Change in mindset among village chiefs and community members regarding the need to protect forests. (+) New insights on how the lead company can achieve commercial, development and forest protection goals and commitment to continue and expand. (+/-) Establishment of the Tree Crop Development Authority demonstrates Ghanaian Government commitment to improving palm oil sector governance, more time is needed to establish levels of commitment.
SEMI-VISIBLE [Power and Relationships]
Relationships and transactions
(+) High levels of trust established between the lead company and the communities underpinned by a strong stakeholder engagement approach, co-investment and long-term commitments.

(+/-) Landscape Governance Board has initiated collaboration on forest protection involving local authorities and communities and the company; to be transformative the Board's mandate needs to be elevated and stakeholder representation increased.
Coordination and dialogue
(+/-) The Landscape Governance Board has created improved coordination between local authorities; although the institutionalisation required for sustainability currently lacks a shared vision, strategy, or monitoring approach to landscape governance. (+/-) The Ghana National Platform has improved sector stakeholder dialogue and coordination especially in advocacy promoting Tree Crop Development Authority establishment, developing common principles, but not yet a sector strategy and its implementation.
Organisational models and capabilities
(+) Community Forest Protection Committees contribute to local empowerment and coordination between communities and lead company, with future potential to facilitate community-based forest protection, but capacities need improvement.
Governance, accountability and participation
(+) At a local level there is a high degree of bottom-up decision making when it comes to the design of the smallholder scheme and forest protection activities. Women have a clear voice. (+/-) The Ghana National Platform has participation of industry, government, and civil society organisations. Accountability of platforms members regarding the follow-up of their commitments is weak. (+) The African Palm Oil Initiative has positively influenced representation of women and smallholders in the Tree Crop Development Authority Board.
Monitoring and adaptive learning
(+) Extensive sharing of experiences within the P4F and the African Palm Oil Initiative constituency. (-) Need for more monitoring of outcomes to inform community, landscape, and sector implementation and to evidence the business case.
VISIBLE [Policies, resources flows, practices]
Business model innovation
(+) Project has donor funding to develop proof of concept for sustainable and inclusive palm oil business model, including conditional incentives for forest protection, with broader relevance across Africa for palm oil companies, and is looking for innovations to make scaling less donor dependent.
Investment proposition innovation
(-) Need for commercial or blended finance for this and similar projects.
Market demand
The Amsterdam Declaration creates an important message to the Ghanaian Government and industry. Its call for both voluntary and mandatory action of importing only sustainable palm oil into the EU strengthens the business case for sustainable palm oil in Ghana and West Africa.
Policies and implementation
(+) The African Palm Oil Initiative has contributed to the establishment of the Tree Crop Development Authority, which has a palm oil sector governance mandate, with future potential to transform the sector, developing national standards, conducting land use zoning, setting up grievance mechanisms, providing technical assistance and setting up pricing mechanisms. Its effectiveness is not yet proven, but the African Palm Oil Initiative will continue its support.
Supportive services and finance
(+/-) Lead company's smallholder scheme includes a fully integrated service model for palm oil producers and is sustaining additional livelihood activities, but a clear financial models and business case still needs to be established, especially for engaging independent smallholder suppliers.
Technological Innovations
(+/-) No development of new innovations, but uptake of good practices in oil palm production and small-scale additional livelihood activities. Community-based, forest patrolling is not innovative <i>per se</i> , but rewards for participation based on support for additional livelihood opportunities is.
Economic Incentives
(+/-) Conditional incentives for forest protection well integrated into project design and should work well for communities participating in a smallholder scheme, but ability of the company to continue and to scale all the incentives (e.g. in return for community forest patrolling) is uncertain, especially where communities and their leaders are highly dependent on illegal forest exploitation in nearby forest. Adaptation of the incentives to independent smallholders is also uncertain.

8 Conclusions

There is growing, urgent demand for solutions to climate, biodiversity and food security challenges that are effective, inclusive, work at scale, and will be sustained over time. Thus, interventions are needed which move beyond incremental objectives, to transformative ones. Funders and implementers are increasingly eager to achieve and claim transformative change and see the private sector as playing a key role to leverage scarce aid resources.

Essentially, transformative change involves a fundamental shift in the functioning and dynamics of forest-landscape systems. To achieve system transformation, deep changes are required, which combine simultaneous or sequenced combinations of interventions across all components/scales of a targeted system. This contrasts with segmented, incremental changes of limited magnitude of traditional programmes. Whereas incremental change is shallow in nature, of limited magnitude, and restricted to individual actors or components, transformative change has depth, greater magnitude, and addresses all system components and relationships. Actors' agency and reasoning is initially shaped by consciousness and awareness, by mental models, mindsets and more broadly by social norms, power relations and inequalities, and structures, policies, resource flows and practices. In the P4F portfolio, the evaluation manager team's research indicates that the strongest potential for transformative change occurs where there is a holistic and shared vision of the desirable future system, root causes of challenges are identified and there is a design that responds to these aspects by integrating all five impact pathways (or ensures that other actors are covering areas beyond the scope of the specific programme's interventions).

In addition, it remains important to recognise the different ways of defining transformative change, which reflect differences in knowledge and values, with implications for outcomes. A rights-based approach to transformation of agriculture and food systems, for example, may look quite different from a market-oriented one. This report explains what may be considered as transformative change, guided by the design and ambitions of the P4F programme itself.

The empirical case studies presented show that a transformative framework approach can help to highlight what are more likely to be transformative designs, and some of the potential assumptions which may still be 'at risk' in terms of achieving transformative change (especially when considering issues of equity, for example). By feeding lessons from such studies back into P4F management and UK government thinking and management of the programmes, there have been opportunities to advance the programmes impact. For example, through greater attention on issues such as fairness and inclusion in NTFP value chain development. Learning loops when implemented in a regular manner are important, but the evaluation team also notes that, for implementers, their room to manoeuvre depends upon the original programme design and whether there are incentives and/or penalties for working adaptively. In addition, programme designers in donor organisations may also be constrained by the ability of their procurement and financial management processes to work in such a manner, especially when there is pressure on aid to deliver results. Transformative change thinking, frameworks and studies can therefore be useful as a discussion tool to support designers, implementers, and evaluators to consider root causes and systemic approaches, which must be accompanied by a supportive, adaptive programme implementation approach to achieve their full potential.