



# Value for Money

## Guatemala's Forest Landscape Restoration

Julien Colomer, Alejandro A. Imbach, Leander Raes, Ursula Parrilla,  
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International Union for Conservation of Nature





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# Foreword

Over the last decade nature-based solutions to major societal challenges such as climate change, food security and disaster risk reduction have gained increased recognition, not least as a contribution to the implementation of the Sustainable Development Goals. The advantage that nature-based solutions bring is that by harnessing the multiple benefits that flow from well-managed or restored agro-ecological systems, various societal challenges can simultaneously be addressed. Forest landscape restoration (FLR) was one of the first purpose-designed frameworks for the application of nature-based solutions in the 21<sup>st</sup> century.

While many FLR initiatives are designed in response to land degradation and deforestation, some of the most tangible benefits include: climate change mitigation and adaptation, better land productivity, rural job creation, and improvements in the availability and quality of water. While the uptake and commitment to FLR has outpaced what was thought possible only seven years ago (already governments, the private sector and civil society have committed to restore over 160 million hectares), this success begs significant new questions that are critical to answer when it comes to implementing restoration at scale. Chief among these is whether FLR interventions are cost effective or whether the same results can be achieved through alternative approaches.

It is important to answer this question as many policy makers want to make sure that landscape restoration neither costs too much nor requires long lead-in times before there is a tangible return on investment. To test the strength of evidence surrounding this question, we

examined the actual experience of FLR interventions in Guatemala by quantifying the expected return on investment as a means to understanding the associated policies and programmes in terms of “value for money”.

This assessment is more than just an interesting analytical exercise. In an era where there is, rightfully, an increasing demand for accountability and transparency on how public sector resources are allocated, there is a responsibility to justify claims of how efficient and effective (or inefficient and ineffective) specific approaches and interventions actually are. This Value for Money study of FLR begins modestly by looking exclusively at financial returns on investment. However, as the application of Value for Money assessments to FLR evolves, our next step will be to factor in the value of ancillary benefits such as carbon sequestration, improved agricultural productivity and enhanced social welfare.

This Value for Money assessment builds on the learning generated through the DFID KNOWFOR programme. IUCN would like to thank DFID along with our two KNOWFOR delivery partners – CIFOR and PROFOR – for their input, support and guidance over the lifetime of the initiative. IUCN is now committed to further and systematically incorporate the Value for Money assessment framework into the monitoring and evaluation of its FLR portfolio as part of our culture of learning, transparency and accountability.

– Stewart Maginnis, Global Director of  
Nature-based Solutions Group, IUCN



# Executive summary

For every dollar invested in IUCN's support of Forest Landscape Restoration (FLR) processes in Guatemala during the period 2012-2016, an expected return on investment in 35 years of US\$ 56 was calculated using a cost-benefit calculation modified to recognise the uncertainty inherent in many social investments.

A participatory, evidence-based expert workshop was run with Guatemala's National Forest Landscape Restoration Roundtable to quantify contributions to Guatemala's FLR policy processes in the period 2012-2016 culminating in the PROBOSQUE law. IUCN's overall contribution to Guatemala's FLR policy processes in this period was 12%. The most significant contribution came from Government (45%), while FAO (11%) and the private sector (5%) were also well represented. Other actors, including the Association of Non-Government Organizations for the Environment and Natural Resources of Guatemala, and academia accounted for 27%.

The IUCN-supported Restoration Opportunity Assessment Methodology was used to calculate the potential benefits of landscape restoration in Guatemala with and without PROBOSQUE incentives. Using the available PROBOSQUE budget for incentives as the factor limiting restoration uptake, the

marginal net present value of landscape restoration in Guatemala is US\$ 712,052,318 over a 35 year period with a 12% discount rate. IUCN FLR-related costs in Guatemala over the period 2012-2016 total US\$ 1,537,134 when adjusted for inflation.

IUCN's contribution typology to Guatemala's FLR policy formulation processes was identified as Convening (31%), Technical support (25%), and Funding (20%). Advocacy and Political leadership were less significant contributions. The IUCN contribution typology is different from other actors assessed, and adds evidence to the hypothesis that IUCN used its unique combination of linkage to members, knowledge brokering, technical analysis and convening attributes to play a critical role in the development and growth of FLR.

The value for money approach used is exploratory, contains important assumptions, and the final estimated return on investment value of US\$ 56 should be interpreted with caution. Within identified uncertainty parameters and the limitations of the EROI model used however, the authors are confident in the findings that IUCN's work in Guatemala delivered value, since even after discounting; the estimated return greatly exceeded the investment.

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# Acronyms

AFS	Agroforestry system
ARNPG	Asociación De Reservas Naturales Privadas De Guatemala
ASOREMA	Association of Non-Government Organizations for the Environment and Natural Resources of Guatemala
CALMECAC	Fundación para el Desarrollo Integral del Hombre y su Entorno
CIFOR	Center for International Forestry Research
CONAP	National Council for Protected Areas
DFID	Department for International Development
DGIS	Directorate-General for International Cooperation
ENRPF	National Forest Landscape Restoration Strategy
EROI	Expected Return on Investment
FAO	Food and Agriculture Organization of the United Nations
FLR	Forest Landscape Restoration
FUNDAECO	Fundación para el Ecodesarrollo y la Conservación
GCI	Inter-Institutional Coordination Group
INAB	Guatemala National Forest Institute
IUCN	International Union for Conservation of Nature
KNOWFOR	Improving the way knowledge on forests is understood and used internationally
LLS	Livelihoods and Landscapes Strategy
MAGA	Ministerio de Agricultura, Ganadería y Alimentación
MARN	Ministerio de Ambiente y Recursos Naturales
Masl	Metres above sea level
MNRPF	National Forest Landscape Restoration Roundtable
NGO	Non-Governmental Organization
Norad	Norwegian Agency for Development Cooperation
NPV	Net Present Value
ODI	Overseas Development Institute
OECD	Organisation for Economic Co-operation and Development
ORMACC	IUCN's Regional Office for Mexico, Central America and the Caribbean
PINFOR	Programa de Incentivos Forestales
PINPEP	Programa de incentivos forestales para poseedores de pequeñas extensiones de tierra de vocación forestal o agroforestal

PNDRI	National Policy of Integral Rural Development
PROBOSQUE	Ley de fomento al establecimiento, recuperación, restauración, manejo, producción y protección de bosques en Guatemala
PROFOR	World Bank Programme on Forests
PV	Present Value
REDD+	Reduce Emissions from Deforestation and forest Degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks
ROAM	Restoration Opportunities Assessment Methodology
TEV	Total Economic Value
USAID	United States Agency for International Development
USVC	US Voluntary Contribution
VfM	Value for Money

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# 1. Background

## Objective

The primary objective of this assessment is to determine the value for money (VfM) of the International Union for Conservation of Nature's (IUCN) contribution to Guatemala's Forest Landscape Restoration (FLR) policy formulation processes during the period 2012-2016.

The process and findings described in this VfM assessment are intended to stimulate discussion within IUCN and beyond on how to (1) systematically reflect on experiences and capture lessons about what works in delivering value, and (2) share that learning about value delivery to influence policy, investment, decisions and actions.

## Value for Money assessment context

This VfM assessment was developed as part of a partner-led evaluation of a United Kingdom (UK) Department for International Development (DFID)-funded programme called KNOWFOR. KNOWFOR was a £38 million knowledge programme that formed part of the UK International Climate Fund forests portfolio from 2012 to 2017. It was a partnership between the International Union for Conservation of Nature (IUCN), the Center for International Forestry Research (CIFOR), and the World Bank Programme on Forests (PROFOR). KNOWFOR, titled 'Improving the way knowledge on forests is understood and used internationally', sought to address the disjuncture



between the supply and uptake of knowledge by practitioners and decision makers in the forestry sector. The programme brought together three significant and complementary organisations in the international forestry development sector to leverage their comparative strengths and networks to improve the uptake of relevant knowledge.

KNOWFOR aimed to increase the interaction of policy makers and forestry practitioners with relevant knowledge, tools, and capacity building activities through improved planning for knowledge use and more deliberate learning and reflection. KNOWFOR's programme outcome was "equipping policymakers and practitioners in developing countries with strategic knowledge, comparable evidence, reliable tools and systematic analysis on forests, trees and climate."<sup>1</sup> This outcome would then contribute to broader impacts on poverty reduction, biodiversity conservation, protection of climate and other ecosystem services through improved management of forests and trees (Clear Horizon, 2017).

The KNOWFOR programme was evaluated through a partner-led approach over the period 2012-2016. The evaluation sought to understand the extent to which KNOWFOR contributed to equipping decision makers and intermediaries, and what lessons could be drawn from KNOWFOR's approach. During the final KNOWFOR evaluation summit and following a request by DFID to explicitly consider the programme's value for money, IUCN, CIFOR and PROFOR agreed to each develop one VfM assessment. This VfM assessment builds on the *IUCN value for money case – Guatemala Forest Landscape Restoration*<sup>2</sup> and IUCN's episode study *Exploring IUCN's contribution to Guatemala's FLR processes* (Allemant, 2017), two key evaluative studies developed for the KNOWFOR evaluation. It also draws from the Guatemala Restoration Opportunities Assessment Methodology (ROAM) process (IUCN and WRI, 2014).

KNOWFOR's theory of change makes it explicit that KNOWFOR partners are responsible for achieving policy influence by effectively planning for knowledge

DFID's perspective on assessing value for money:<sup>3</sup> Increasingly, complex programmes in DFID are including significant components that focus on lesson learning from implementation, knowledge generation and how knowledge influences policy and practice. In an increasingly resource constrained environment which seeks VfM, and one which demands convincing narratives and tangible results, it is difficult for knowledge programmes to demonstrate their impact. The evaluation of KNOWFOR is important for this reason since it will provide evidence of whether investment in this type of intervention is effective and therefore constitutes good VfM.

DFID also wants to see whether the investment has resulted in systemic changes within the partner institutions in terms of how they design, monitor, evaluate and learn from knowledge generation and translation.

The evaluation is not following a conventional process of hiring an independent team of external evaluators to review the work of IUCN, CIFOR and PROFOR. By adopting a partner led approach that more closely aligns with the collegiate partnership approach taken throughout the implementation of KNOWFOR, we are hoping to ensure ownership of the outcome and a greater likelihood of adopting any recommendations that come out of the process.

DFID hopes to have a better understanding of the advantages and disadvantages of such an approach and what it can offer to evaluations in DFID. This is an important learning opportunity for DFID and we intend to socialise the process followed widely within the organisation.

1. The concept of "equipped" recognises that policy makers and practitioners need access to high-quality, evidence-based knowledge and information, but that decision making and action are also driven by ideology, influence and the institutional context. KNOWFOR partners have primary mandates for knowledge creation and knowledge translation, with deliberate and explicit attention to the broader context to encourage and support the use of knowledge for better environmental and social outcomes.
2. IUCN originally developed a standalone VfM case for submission to the KNOWFOR evaluation process. This VfM assessment builds on the original version and integrates relevant aspects of the episode study.
3. Gaia Allison, personal communication, 14 February 2017

uptake. The final KNOWFOR evaluation report establishes a large and multi-layered evidence base to support the conclusion that IUCN, CIFOR and PROFOR achieved that objective<sup>4</sup>. This VfM

assessment builds a causal argument that extends beyond policy and practice change, into longer-term impacts (Figure 1).

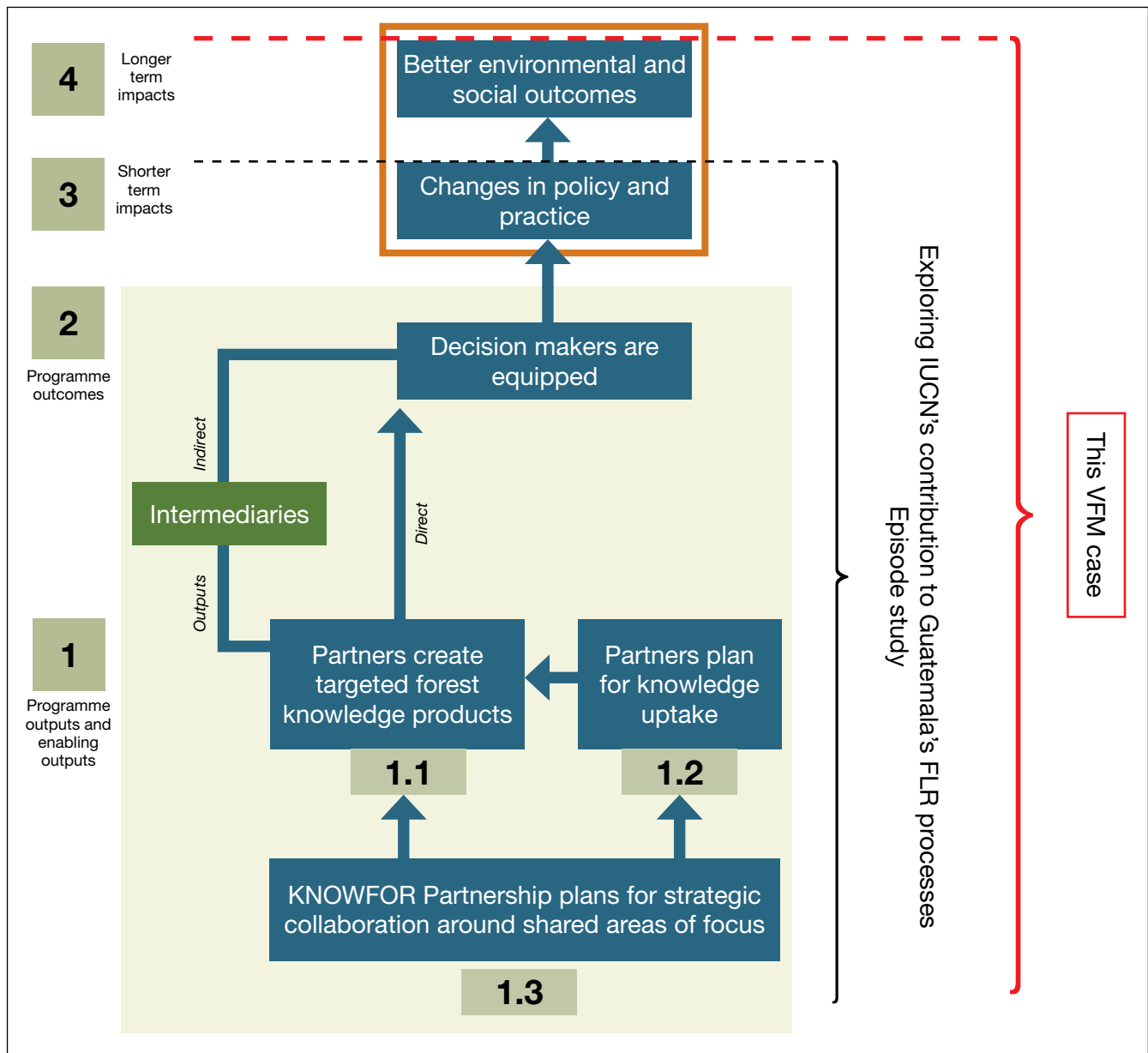


Figure 1. KNOWFOR theory of change

4. The KNOWFOR evaluation report and all supporting materials are available from <https://devtracker.dfid.gov.uk/projects/GB-1-203034/documents>



## 2. Value for Money

VfM has multiple definitions, and “despite reiteration of the importance of VfM, a uniform definition of the concept is yet to be pronounced. This appears to have generated a culture of confusion among NGOs on how they should tackle this question” (Emmi, 2011). The Organisation for Economic Co-operation and Development (OECD) notes that the “concept of value for money in the context of development cooperation has given rise to debate and, in turn, confusion” (Jackson, 2012). While definitions differ, OECD and others focus on economy, efficiency and effectiveness (the three E’s) as key components of VfM. The UK Independent Commission for Aid Impact adds ‘equity’ to the three E’s, and integrates these elements into an overall VfM framework (Independent Commission for Aid Impact, 2011).

IUCN has not adopted any particular definition of VfM. A VfM assessment included in the 2012 evaluation of an IUCN Livelihoods and Landscapes Strategy (LLS) project, defined VfM as “the optimal use of resources to achieve an intended outcome. It is about achieving the right balance between effectiveness, efficiency and economy” (McShane, 2012).

### IUCN and Value for Money

IUCN has limited experience in assessing the VfM of its interventions. While external reviews of IUCN have called for IUCN to improve its impact reporting (Universalis, 2015), this assessment represents the second known example of an IUCN VfM assessment. The other IUCN VfM assessment conducted was part of an evaluation of the Directorate-General for International Cooperation (DGIS)-funded LLS programme in 2012. That VfM assessment made it clear that “like many conservation and development programmes LLS was not developed with a view towards assessing the programme using Value for Money” (McShane, 2012). Likewise, despite a strong focus on VfM in the KNOWFOR business case

(Department for International Development, 2012) and assessing VfM being one of the main objectives of the KNOWFOR evaluation, the KNOWFOR programme was not purposefully implemented in a way that would facilitate a VfM assessment. It was at the tail end of the KNOWFOR programme evaluation that VfM considerations were raised by the donor, DFID. It is therefore important to view this VfM as a proof of concept that IUCN will build on and improve over time.

Key factors that enabled this VfM assessment to be developed, and which may contribute to future VfM assessments include:

- A clear mandate and/or incentive to report on VfM: The DFID KNOWFOR programme is recognised as having contributed to IUCN’s FLR programme, country-level and global success (Blomley, 2017). DFID tasked KNOWFOR partners (IUCN, CIFOR, PROFOR) with developing a VfM case under the KNOWFOR evaluation, creating a strong mandate within IUCN. Funding and staff time were allocated to the initiative, and the short deadline (3 months) set by DFID to complete the task helped IUCN prioritise development of the VfM case.
- Flexible funding to allocate to a VfM assessment: When projects are designed, implemented and evaluated with VfM explicitly in mind, project funding can cover VfM assessments. Currently, funding for VfM assessments needs to come from flexible funding. In recent years the proportion of IUCN’s unrestricted funding has shrunk, while the proportion of project-tied funding has grown, meaning that unrestricted funding is limited. Based on the DFID mandate to develop a VfM case, a small sum of flexible, programmatic funding was allocated to develop this VfM assessment.

# 3. Approach

## Impact framework

The impact framework used for this VfM assessment allows for both causal inference (looking back) and simulation modelling (looking forward). The impact framework was used to explore linkages between what happened in the past, expressed as a contribution to change, and the potential future benefits of that change taking place (Figure 2).

The impact framework has five main components, described below:

1. The main element of the impact framework is a defined change process. This could take many forms, such as a policy formulation or decision-making process, a change in social network dynamics, or a change in land use trends in a landscape.
2. At a defined moment in the change process, a line is drawn. It is the fulcrum between the past (what happened until this moment) and the future (what might happen from this moment). This moment is denoted as time zero ( $t_0$ ).
3. Looking back, a period of ex post enquiry is defined ( $t_{\text{Start}}$  to  $t_0$ ). Relevant contextual indicators at  $t_{\text{Start}}$  (baseline) can be compared to those at  $t_0$ . A range of methods can be applied in this space to explore and understand causal linkages between events, people, and behaviours. By analysing contributions, it is possible to quantify who contributed what.
4. Looking forward, a period of ex ante enquiry is defined ( $t_0$  to  $t_{\text{End}}$ ). Trajectories, costs, benefit accrual and scenarios can be modelled. The difference between the business as usual and intervention scenarios is the impact.<sup>5</sup>
5. Evidence from past cases can be used to validate findings.

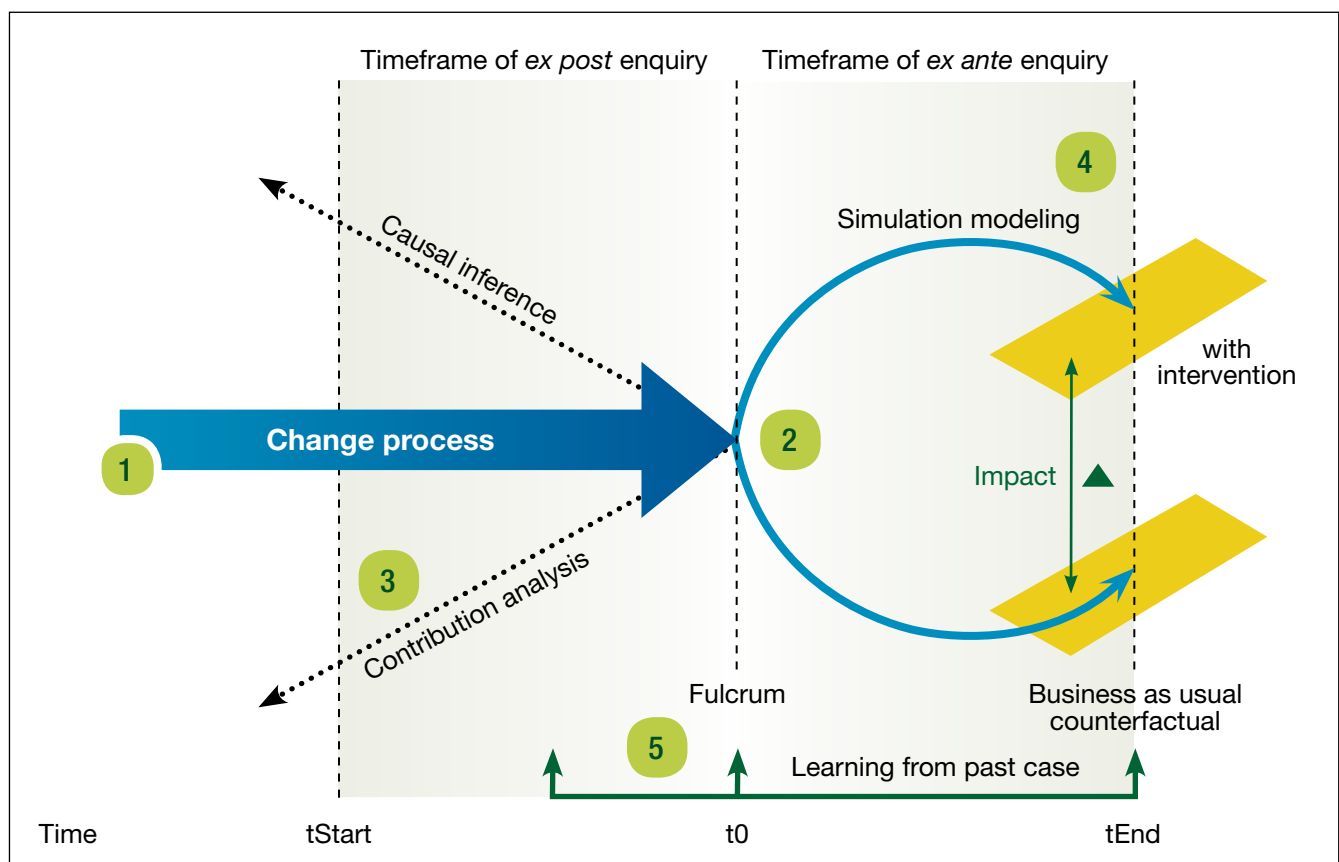


Figure 2. Impact framework (a simple linear representation of a dynamic, complex and non-linear reality)

5. In this assessment we only consider benefits from  $t_0$  to  $t_{\text{End}}$ , though it is clear that benefits also accrue from  $t_{\text{Start}}$  to  $t_0$ . Incorporating other types of benefits will form the subject of future VfM assessments.

Using the impact framework as the underlying model for this VfM assessment, the change process was defined as the formulation of Guatemala’s FLR policies.

As part of the DFID KNOWFOR programme evaluation, IUCN, CIFOR and PROFOR were each required to develop three in-depth case studies to examine the extent to which the KNOWFOR programme had contributed to targeted decision makers being equipped with relevant forest-related knowledge. IUCN commissioned an episode study, which takes a defined policy change process as the starting point for retrospective enquiry (Start & Hovland, 2004), to explore IUCN’s contribution to Guatemala’s FLR processes during the period 2012-2016, aligned with the duration of the KNOWFOR programme evaluation, and using the enactment of the PROBOSQUE forest management incentive policy as the starting point for the retrospective enquiry. It was commended for its strength of evidence and methodological rigour by the Overseas Development Institute (ODI), and earned high marks in the final KNOWFOR evaluation report. *Exploring IUCN’s contribution to Guatemala’s FLR processes* (Allemant, 2017) is a qualitative study based on document review and in-country interviews with members of Guatemala’s National Forest Landscape Restoration Roundtable. It found that IUCN had made significant contributions to the formulation of Guatemala’s FLR policies but did not quantify those contributions.

## Cost-benefit analysis

Following the DFID request to develop a VFM case, ODI as the external quality assurance provider to the partner-led evaluation process, recommended using the Redstone Strategy’s cost-benefit analysis

approach as a useful starting point for the VfM assessment. It consists of a simple cost-benefit calculation modified to recognise the uncertainty inherent in many social investments (Equation 1) (Redstone Strategy Group, 2013).

As noted by Emmi (2011), “most VfM approaches are based on variations of the social cost benefit analysis, an approach for quantifying and comparing as many of the costs and benefits of an intervention as feasible.” Cost benefit analysis is “a method to evaluate the net economic impact of a project. Expected benefits are estimated and monetised with inflation accounted for, and offset against project costs” (Jackson, 2012). The current VfM assessment nuances the quantitative cost benefit aspect by including a qualitative description of IUCN’s contribution to change.

Having identified that the cost-benefit calculation and impact framework were compatible, IUCN selected its contribution to Guatemala’s FLR processes as the basis for a VfM assessment. In order to quantify IUCN’s contribution to the change process, 19 members of Guatemala’s National Forest Landscape Restoration Roundtable contributed to a workshop on 1-2 June 2017. IUCN’s contribution to the change process was quantified and its contribution typology was defined by participants.

The benefits were calculated using Guatemala’s ROAM, a government-led, IUCN-supported process to identify and prioritise restoration in support of Guatemala’s pledge to the Bonn Challenge, a global FLR effort. IUCN’s costs were defined as all project-related expenditure in Guatemala during the period 2012-2016 relevant to FLR. Finally, a literature review was commissioned to explore evidence of benefits derived from FLR.

$$\text{Expected Return on Investment (EROI)} = \frac{\text{“Contribution”}}{\text{Cost}}$$

$$\text{Expected Return on Investment (EROI)} = \frac{\text{Likelihood of success} \times \text{Contribution to likelihood of success} \times \text{Benefit}}{\text{Cost}}$$

Equation 1. Expected Return on Investment (Redstone Strategy Group, 2013)

## 4. The change

### Guatemala's forest management context

Guatemala is one of the poorest countries in Central America and income inequality is widespread. According to the Economic Commission for Latin America and the Caribbean (ECLAC), the country had a Gini coefficient of 0.55 for 2014 and 67.7% of households in Guatemala were considered poor. Poverty is exacerbated in rural areas where the rate reaches 77.2% (Economic Commission for Latin America and the Caribbean, 2017) (Figure 3). With an average Human Development Index (HDI) of 0.628 for 2014 (UNDP, 2014), Guatemala ranked 125th out of 187 countries worldwide, above Haiti, Honduras and Nicaragua (Cabrera, 2015).

The country has one of the highest rates of deforestation in Latin America. Forest loss increased from 93,127 ha/year in 1991–2001 to 132,138 ha/year in 2006–2010. Net deforestation for this last period was estimated at about 44,000 ha with a net annual loss rate of 1.0% forest coverage. The forest lost is mainly due to conversion of forests into agricultural land (Sales, 2016). Guatemala ranks among the 10 countries most vulnerable to extreme climate change-related events such as floods and droughts (Kreft, et al., 2014) making the protection and restoration of

natural infrastructure that can temper the impacts of extreme weather events more important than ever.

### Evolution of Guatemala's forest management policies

The change process being examined in this case is the enhanced adoption of FLR as a forest management approach in Guatemala. Major components of this change process in the period 2011–2016 are recognised as including: the formation of the National Forest Landscape Restoration Roundtable, the development of the National Strategy for Forest Landscape Restoration (ENRPF), and the passing of the PROBOSQUE law (Sales, 2016). Before describing these elements in more detail, it is important to consider the historical processes that are foundational to the period of interest.

Stepping back to 1977, a Tax Incentive Programme was initiated in Guatemala. By the end of the programme in 1997, 18,742 ha of forests had been reforested. In 1989, the Protected Areas Law was approved, and this was accompanied by the creation of the National Council for Protected Areas (CONAP). This governmental entity manages and coordinates Guatemala's Protected Areas System. PINFOR (Programa de Incentivos Forestales) was

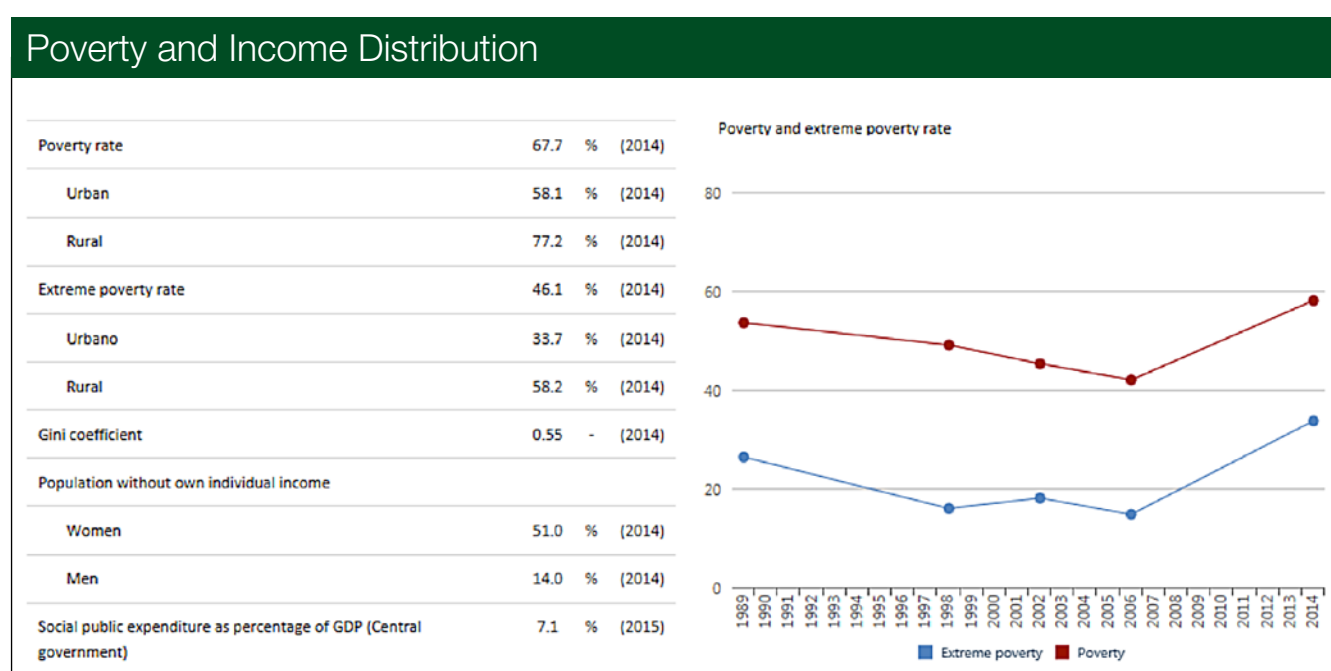


Figure 3. Poverty and Income distribution in Guatemala (Economic Commission for Latin American and the Caribbean, 2017)

created in 1996 and concluded in 2016. It replaced the Tax Incentive Programme as the primary forest management mechanism. In 2002 the Support Programme for the Reconversion of Food and Agriculture Production (PARPA) was designed with the support of the Inter-American Development Bank. This Programme was also linked to the Pilot Programme for Direct Forest Support (PPAFD).

In the period of 1996-1997, the Forest Law created the National Forest Institute (INAB) as a public decentralised entity, with autonomy, legal standing, its own assets and administrative independence. INAB is the designated administrator of forestry matters outside of designated protected areas. This effectively transferred management responsibility for forests from the Ministry of Agriculture and Livestock, who administrated forested territory since 1920, to INAB. In 2009, the country developed a National Policy of Integral Rural Development (PNDRI). This public policy instrument was approved after negotiations with three consecutive governments. The PNDRI defined the forestry sector as one of the main strategic entry points for rural development.

PINPEP (Programa de incentivos forestales para poseedores de pequeñas extensiones de tierra de vocación forestal o agroforestal) was developed in 2010. It is the forest incentive programme targeted at smallholders, and emerged in response to PINFOR. The main difference to highlight between PINFOR and PINPEP is that PINPEP allows access to incentives for people without formal land tenure, but who can

prove that they legally occupy the land. PINFOR did not allow this, thereby excluding many smallholders from incentives. Figure 4 summarizes key foundational milestones of enhanced FLR in Guatemala from 1977-2010 (Allemant, 2017).

## IUCN contribution 2012-2016

Following the launch of the Bonn Challenge in 2011, IUCN actively supported the enhanced adoption of FLR in Guatemala's policy processes (Blomley, 2017). Evidence demonstrates that IUCN played a significant role in encouraging the adoption of FLR as an approach to sustainable forest management in Guatemala by:

- providing technical knowledge and tools;
- strengthening democratic participation of different sectors in the design of the PROBOSQUE Law;
- funding national institutions and key advocacy processes;
- supporting the creation of the National Forest Landscape Restoration Roundtable (MNRPF);
- supporting collaborative research efforts to improve the FLR evidence base; and
- developing local initiatives with high impact at the national level (Allemant, 2017).

## Creation and promotion of National FLR Roundtable

The MNRPF was formed in 2013. It was created by INAB with direct support from IUCN and the Food

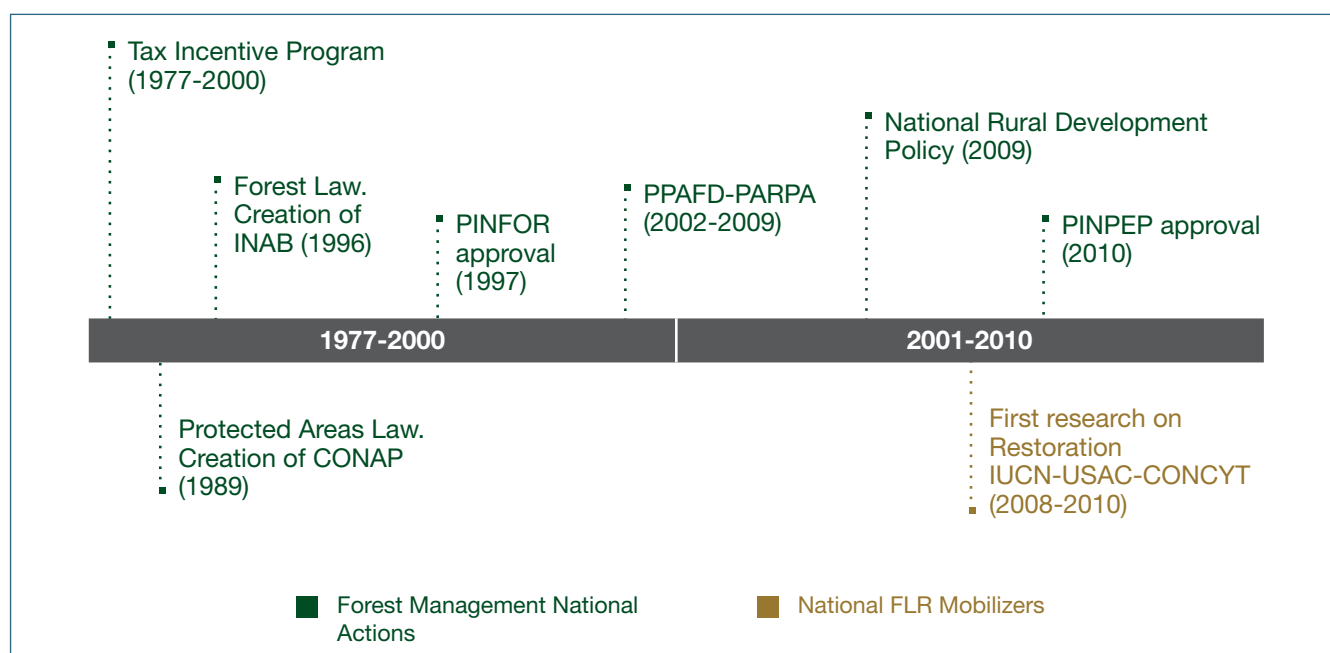


Figure 4. Foundational forest management milestones





and Agriculture Organisation of the United Nations (FAO) to promote national dialogue and institutional articulation of FLR. At the time, the PROBOSQUE Law design process was about to finish and this represented an important opportunity to convene the institutions around restoration. IUCN directly contributed to linking the PROBOSQUE Law with the establishment of the FLR Roundtable.

*“IUCN was part of the Technical Committee for the design of the PROBOSQUE Law. When the group began to talk more strongly about the subject of restoration, IUCN made the case for this issue to be taken as a specific incentive modality in the law. To facilitate this, IUCN began to spread awareness on the Bonn Challenge that led to the convening of the MNRPF. First we started working on the map of potentialities.” (E107)<sup>6</sup>*

This same issue is recognised in the NGO sector. *“With the work of the PROBOSQUE Technical Committee we began to know more about restoration. When this process concluded, we were invited to the MNRPF. We saw it as a follow up on the topic. That’s why we started participating.” (E112)*

National actors valued IUCN’s role in the functioning of the Roundtable. *“IUCN helped to ensure a good relationship between the technical group and the General Assembly. The Technical Committee is multi-sectoral, with the participation of technicians from INAB, CONAP, FAO, IUCN, FUNDAECO, CALMECAC, MARN, MAGA, ANAM, ICC, etc. In the small committee we discussed and produced hard technical knowledge. IUCN did something very interesting: they hired some methodologists. To hear from a psychologist and a pedagogue talk about the issues that we as technicians were producing was something new for me. For the General Assembly this was an important translation and interpretation of knowledge. Something that was clear to us, was not necessarily for someone coming from another professional background.” (E117)*

### FLR Roundtable success factors

The MNRPF’s General Assembly includes around 50 institutional members, representing a wide range of actors, all of whom have equal standing: government, community organisations, indigenous peoples’ organisations, the private sector, NGOs, academia,

6. Interviews are referenced with a coding system that maintains interviewee anonymity while demonstrating a link back to one or more of the interviews conducted. Interviews are numerically coded with the prefix [I##], or [E##], where “I” refers to an internal source (internal to IUCN) and “E” refers to an external source, outside IUCN. The coding key has been kept separately from this document.

municipalities, and international cooperation agencies. All organisations have an equal right to participate and to have their voice heard. INAB and IUCN act as the technical Secretariat for the Roundtable.

*“One of the most important achievements has been the fact that there is a table that brings together, if not the whole sector, a good part of those who are going to be involved in the PROBOSQUE projects and the issue of restoration. We talk here about NGOs, the State, academia, farmer organisations... and also entrepreneurs. They are there and that’s good, that’s a big step.” (E113)*

The most important challenge the Roundtable had to cope with in the first years of operation was to confront divisions between the environment and forestry sectors, especially in the Technical Committee. As part of the Secretariat, IUCN facilitated discussions, supported by technical knowledge products, leading to better understanding and joint solution development from these and other sectors. Thanks to the technical, methodological and philosophical debate within the Roundtable, agreements were reached between the sectors.

*“That was a rather complex subject. What was most convincing about FLR was the livelihoods issue. Several actors made the effort to open up, especially*

*biologists, in order to understand restoration beyond regeneration or conservation.” (E111)*

The Roundtable contributed to strengthening the technical-political link between intermediaries and decision-makers. The Inter-institutional Coordination Group (GCI) provided political endorsement to the technical progress made by the Roundtable. IUCN worked with partners to facilitate knowledge flow between members of the Roundtable and decision makers in the GCI. *“In the GCI meetings, technicians used to present products of what was being advanced in the Roundtable. I remember that the Forest Restoration Map of Guatemala was key. I myself had to take it to the working groups with the Central American Integration System (SICA).” (E104)*

Through the Roundtable, a strong linkage around restoration was therefore made between technical champions and decision-makers, and institutions recognised the importance of national participation in the Roundtable. *“The people who come to the FLR Roundtable are middle managers of the institutions; they are people who later talk to a director, a minister, a manager.” (E116)*

The first MNRPF action was to create a plan to develop the National Forest Landscape Restoration Strategy, more commonly known by the actors as



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the Roadmap. This instrument describes all the stages of the strategic planning process, as well as the administrative, organisational, logistics and public relations activities to achieve the objective. The Roadmap has been identified as a key element of the Roundtable's success.

### Translation of knowledge and technical tools for advocacy and decision-making

The production and of high quality knowledge products was identified as a powerful mechanism to facilitate technical discussion with decision makers and to support inter-sectoral coordination, especially within political bodies such as INAB's Board of Directors or the GCI during the process of drafting the PROBOSQUE Law and the National Forest Landscape Restoration Strategy. The outputs of ROAM were the main source for these knowledge products. Specifically, the *Map of Potential Areas* and *Map of Priority Areas for Restoration* contributed to the development of the ENRPF.

The knowledge base developed with the support of IUCN and partners included the Normative Analysis and Legal Framework linked to the Restoration, the National Diagnosis on Restoration, the Systematisation of Restoration Experiences and the Basic Concepts Manual. The knowledge products informed the creation of the National Forest Landscape Restoration Strategy, which was endorsed by the GCI and ratified in 2016 as a public policy instrument.

*"At some point, the [FLR] Law and the Strategy were parallel processes. Thanks to the Roundtable, there were adequate inputs and timely technical language to develop what was the PROBOSQUE Law. Then we decided that FLR was something very big because it had environmental and agricultural implications ... we could manage it as INAB and CONAP, but we decided to expand it and take it to ministries so that it would have greater technical and political weight."* (E103)

### Political support for the approval of PROBOSQUE

Equipping decision-makers with fit for purpose knowledge in the Guatemalan context required providing political advice to INAB to get the Law passed. *"I think the approval was quite difficult. The PROBOSQUE Law was very noble but, with the political crisis,<sup>7</sup> a scenario was foreseen in which it*

*was impossible to approve a decree. That is why it was very important to carry out the law creation process correctly, step by step; knowing the procedures for approval."* (Luis Eduardo López, legislative director of the Congress of the Republic of Guatemala)

### Facilitating community participation in the design of PROBOSQUE

Community involvement in the elaboration of PROBOSQUE was significant. IUCN and partners facilitated community participation, including them in major political advocacy initiatives. In Guatemala, the participation of indigenous peoples and local communities in national dialogue processes has been limited by the dispute of interests between actors as well as the lack of recognition of indigenous and local voices as valid speakers within political and technical processes. Particularly relevant was the financial, methodological and political support from IUCN and its member organisations during the PROBOSQUE consultation process. IUCN Members such as CALMECAC (Fundación para el Desarrollo Integral del Hombre y su Entorno) and FundaLachuá played a key role by promoting dialogue with excluded sectors. *"They have promoted more awareness and participation and have managed not to legislate just for a group."* (Carlos Chavarria, Congressman)

### Management of local Forest Landscape Restoration initiatives

In 2012, IUCN and its partners began developing local FLR projects. The San Marcos experience was the first FLR project built around research and knowledge management. The Lachuá project demonstrated that FLR strengthens local livelihoods with nature-based solutions, and provided input to the National Cacao Strategy. The Xayá Pixcayá project demonstrated the importance of private involvement and investment in FLR. The experience gained through these local FLR initiatives contributed to the overall FLR approach at a national level in different ways.

### Forest Landscape Restoration in San Marcos

In 2008, IUCN and the University of San Carlos de Guatemala (USAC) initiated a research project on ecological restoration around areas with Pinabete (*Abies guatemalensis Rehder*, endemic in CITES). The research was undertaken in the upper parts of the Coatan and Suchiate River basins in the department

7. Lopez refers to a corruption scandal that had its highest point three weeks before the PROBOSQUE Law was passed. In early September 2015, President Otto Molina resigned and was jailed after being involved with his vice-president in a corruption scandal.

of San Marcos. By the end of 2012, when the first discussions on the new forest incentive law were initiated, INAB and other actors visited these pilot sites. Following the visit, *“INAB’s manager expressed his willingness to have forest restoration included in the new forest incentive programme”* (IUCN, 2012).

### Cacao in the Lachuá Ecoregion, Las Verapaces

At the end of 2016, the Ministry of Agriculture and Livestock presented the Strategic Plan of the Guatemalan Cacao Agro-chain (PEDAC 2016-2025), an instrument to operationalise the National Strategy of the Guatemalan Cacao Agro-chain (Ministerio de Agricultura, Ganadería y Alimentación, 2016). This national public policy instrument took as reference the project, *Development of the Cacao production chain to improve livelihoods and preserve the biological corridors in the Lachuá Ecoregion*, implemented five years earlier by IUCN and member organisation FundaLachuá, due to evidence that FLR strengthened local livelihoods with nature-based solutions. *“The opening of communities to accept these new practices is linked to income. They have already seen that it is possible to receive more money. National decision makers are now aware of that.”*(E203)

### FLR and Basin Management in Xayá Pixcayá

The sub-basins of the Xayá and Pixcayá rivers are essential to Guatemala City, contributing up to 50%

of the daily volume of water of superficial origin that is consumed, amounting to more than 85 million litres of water per day. Water resources increasingly show high pollution and a reduction of flows, which represents a potential danger for the water supply of the local communities and for the inhabitants of the country’s capital city.

*“Some of the causes have been forest fires, deforestation, the advance of the agricultural frontier, lack of basic environmental sanitation, poor agricultural practices, lack of policies and regulations, among other things. As a result, The International Union for Conservation of Nature implemented the project Consolidation of Nature-Based Solutions for Urban Problems: Promotion of Forest Landscape Restoration in the Xayá and Pixcayá River Sub-basins for Community Adaptation to Climate Change.”* (Carlos Rosal, IUCN Technical Officer)

The Minister of Environment and Natural Resources of Guatemala, Mr. Sydney A. Samuels, during his visit to the project area commented, *“The Ministry of Environment and Natural resources is part of the Xayá-Pixcayá Environmental Alliance and therefore acknowledges that both sub-basins are of great strategic importance as the main source of surface water for Guatemala City, and for this reason it is required that more and more institutions, municipalities and the private sector join forces to contribute to the forest restoration of the same way to maintain water supply for future generations”* (IUCN, 2017).

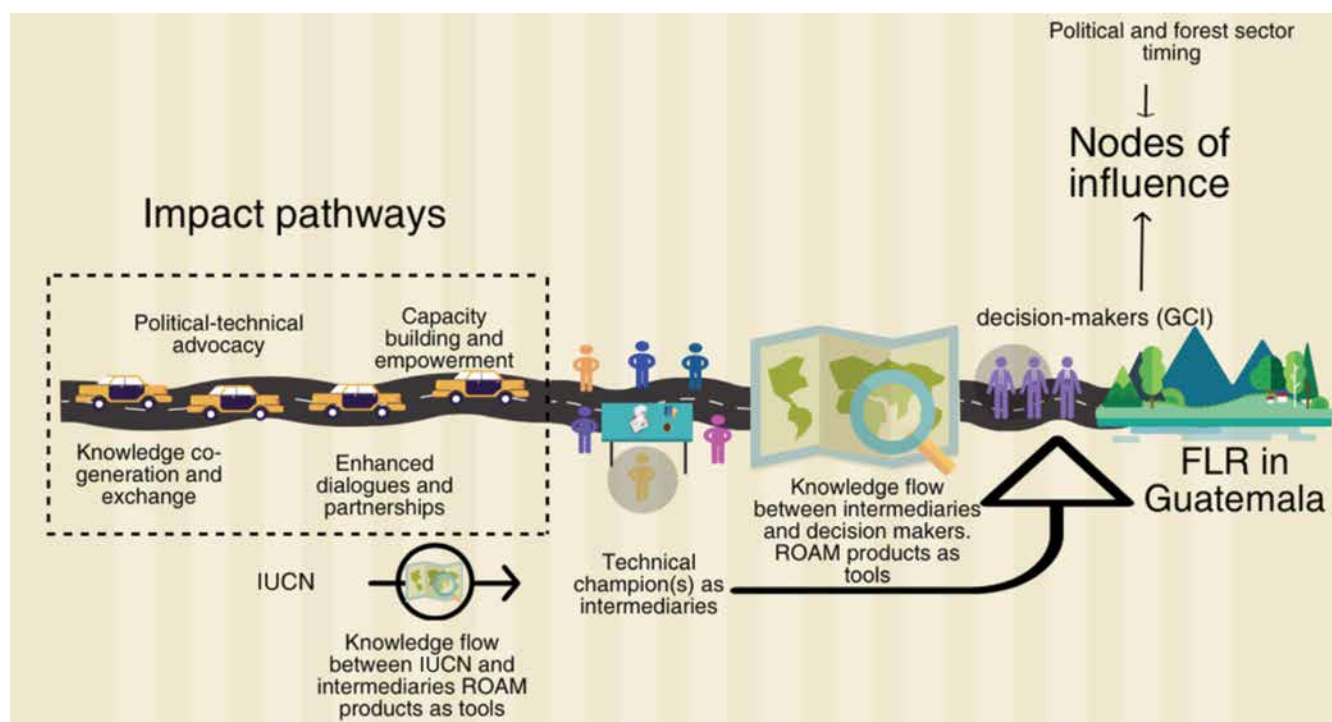


Figure 5. Impact pathways and IUCN contribution to enhanced FLR processes in Guatemala 2012-2016

The evidence compiled highlights several important impact pathways for change, represented in Figure 5.

This set of interlinked FLR-related processes culminated in the development and passing of the new Forest Incentive Programme in 2015: PROBOSQUE (Ley de fomento al establecimiento, recuperación, restauración, manejo, producción y protección de bosques en Guatemala - Decreto número 2-2015) (MARN, 2015). Figure 6 highlights the main differences between PROBOSQUE and the legislation it replaces, PINFOR.

PROBOSQUE will invest in protection, production and recovery activities for forest ecosystems and plantations. It will help recover tree cover and generate 20,000 direct jobs and 60,000 indirect jobs per year (UNDP, 2016). Through PROBOSQUE, the government will make a minimum annual investment of US\$ 39 million, in addition to the US\$ 76 million expected from the private sector to support reforestation, restoration and sustainable forest management (IUCN, 2016).

Funding is expected to be invested in one of the following:

- a. Establishing and maintaining forest plantations with industrial aims.
- b. Establishing and maintaining forest plantations to fulfill energy needs.
- c. Establishing and maintaining agroforestry systems.
- d. Managing natural forests with production aims. Includes natural forests to produce forest tree seeds.
- e. Managing natural forests to protect and provide environmental services. This modality includes projects to protect forest water sources, biological diversity conservation, ecotourism, germplasm conservation, and protection of sacred sites, among other places labeled as protected forests by INAB.
- f. Restoration of degraded forest lands (El Congreso de la Republica de Guatemala, 2015).

PINFOR	PROBOSQUE
<ul style="list-style-type: none"> <li>▪ Owners Only</li> <li>▪ Project size restricted to 1%</li> <li>▪ Duration: 20 years</li> <li>▪ 2 approaches are specified: plantations and natural forest</li> <li>▪ Evaluation criteria guided towards survival</li> <li>▪ No options to promote compensations due to local PSA arrangements are contemplated</li> <li>▪ Lacks a fundraising mechanism to provide beneficiaries with support services</li> <li>▪ Distribution of incentives through the 80:20 modality</li> </ul>	<ul style="list-style-type: none"> <li>▪ Owners, tenants in nation's reserves, cooperatives, indigenous communities and communal tenure (lands of special administration)</li> <li>▪ Maximum project size: 3% of resources availability</li> <li>▪ Duration: 30 years</li> <li>▪ 5 approaches are specified: natural forest (production/protection), plantations, agroforestry systems, and forest restoration</li> <li>▪ Criteria guided towards quality (species/site, geography)</li> <li>▪ Promotes compensation for eco-systemic and environmental services associated to forest management and protection</li> <li>▪ Defines a fundraising and management mechanism (Fonabosque)</li> <li>▪ Distribution by modality is subject to demand</li> </ul>

Figure 6. PINFOR and PROBOSQUE (INAB, 2015)

# 5. Quantifying contributions

Available evidence demonstrated that IUCN was a significant contributor to Guatemala's FLR policy formulation processes, however quantifying the significance of IUCN's contribution was required for the estimated return on investment (EROI) formula (Equation 1). IUCN designed and ran a participatory, evidence-based process to quantify IUCN's contribution to Guatemala's FLR policy formulation processes, and triangulated findings wherever possible.

Nineteen members<sup>8</sup> of Guatemala's MNRPF, including IUCN members,<sup>9</sup> were invited to participate in a 1.5 day workshop in Antigua, Guatemala on 1-2 June 2017. Participants represented government, Indigenous, civil society, NGO, academic and private sector stakeholders. They have subject matter expertise, and have been involved with Guatemala's FLR policy formulation processes over many years. The two objectives of the workshop were to:

1. Develop a validated timeline of Guatemala's FLR policy formulation processes, and
2. Quantify key actor contributions to those processes.

These objectives align with the most common elements of theories of change – developing a causal chain, exploring dimensions of influence, and understanding the role of different actors and their behaviours (Jones, 2011).

## Timeline development and validation

A validated timeline of Guatemala's FLR policy formulation processes did not exist. Before the workshop, IUCN identified 18 key FLR-related

milestones or processes from the evidence base. Participants were split into two large groups and allocated nine key milestones/processes. The two groups built on these to collaboratively develop and validate an FLR policy formulation process timeline consisting of 43 milestones/processes (Figure 7). The validated timeline was cross-checked and the existence and timing of nearly all identified milestones/processes was confirmed<sup>10</sup> (Figure 8). Blue cells represent pre-2012 milestones/processes, green cells represent 2012-2016 milestone/processes, and highlighted cells represent the prioritised milestones/processes (see below for the prioritisation process).

### Selecting priority milestones/processes

The 43 milestones/processes needed to be reduced to a manageable total. To focus the analysis, participants were split into four small groups and allocated a limited number of weighted votes. Participants were asked to vote on the most important milestones/processes in the period 2012-2016 of the timeline; this being the period of interest for this value for money case (aligned with the KNOWFOR evaluation timeframe). The small groups cast their weighted votes, totals were tallied up in plenary, and eight priority milestones/processes were selected and agreed to by participants.<sup>11</sup> These are highlighted in Figure 8. These eight priority milestones/processes were assumed to represent all contributions to Guatemala's FLR policy formulation processes, specifically PROBOSQUE.

### Defining key actors per priority milestone/process

Participants split into four small self-selected groups. Each of the four groups was allocated two priority milestones/processes and asked to list key



Figure 7. Timeline as developed in workshop

8. Annex 1 Participant list

9. MARN, CALMECAC, FUNDAECO, ARNPG, Fundación Defensores de la Naturaleza

10. Annex 2 Timeline evidence

11. One of the milestones/processes started in 2010 but continued into the period 2012-2016 and was considered so critical to the process that it was included in the final list of 8 priority milestones/processes.



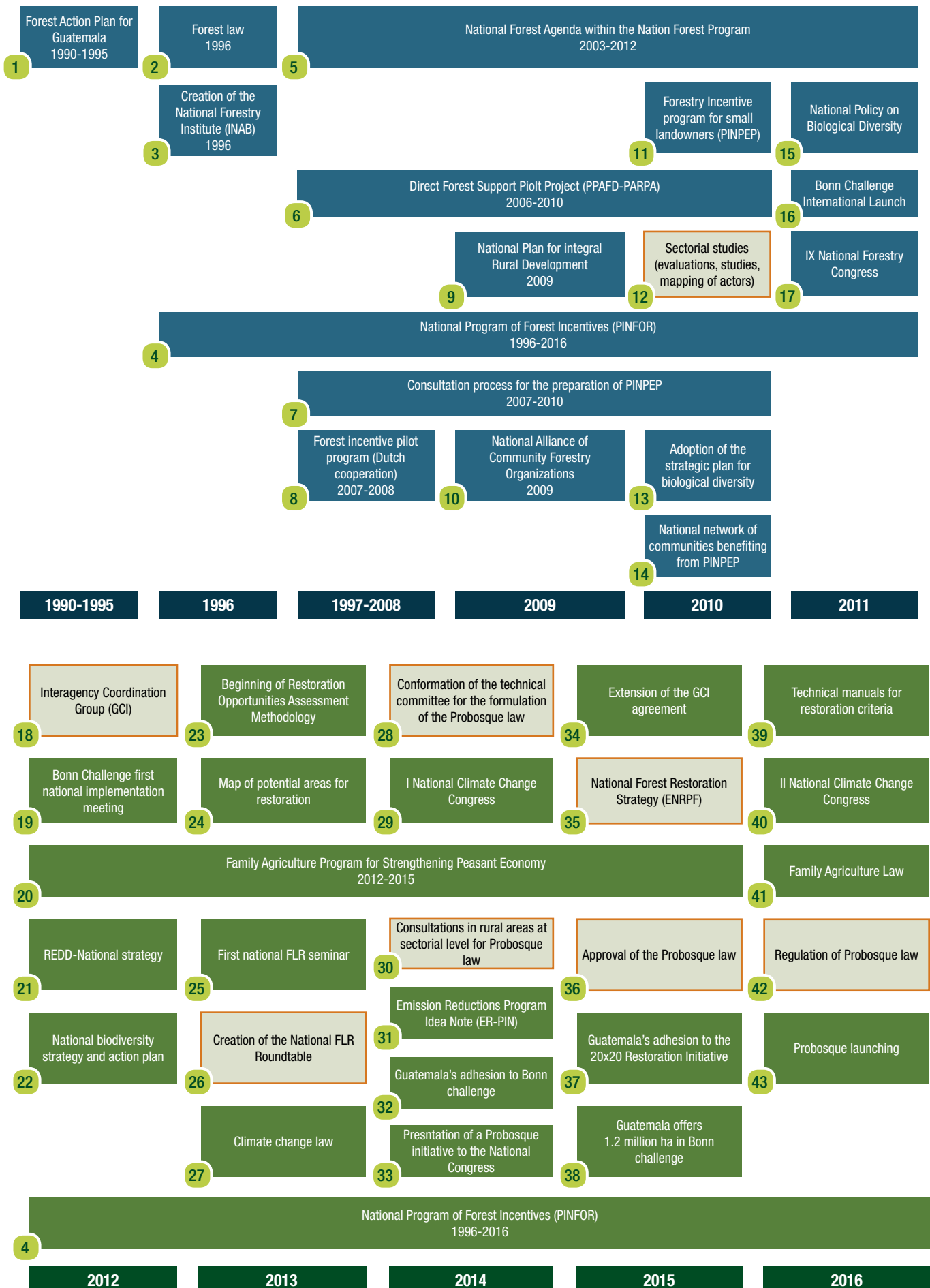


Figure 8. Validated timeline and priority milestones/processes



actors involved in their assigned priority milestones/ processes. The small groups presented their lists back to plenary for validation by the full group, and completion of any missing actors. Some prioritisation of key actors took place, before the lists were agreed to by participants. The actors listed were assumed to be responsible for all contributions to Guatemala's FLR policy formulation processes, specifically PROBOSQUE.

### Defining contribution types

Expert judgement was combined with the findings of the IUCN episode study (Allemant, 2017) to develop an actor contribution typology, following a review of the Redstone Strategy's suggested contribution typology (Redstone Strategy Group, 2013), and policy influence monitoring and evaluation approaches (Tsui, 2014). To differentiate the types of contribution made by actors, five discrete contribution types were defined:

1. **Political leadership:** carry the torch, championing a cause, enabling action, institutional mandate;
2. **Advocacy:** communication, awareness raising, lobbying;

3. **Technical support:** research, knowledge development, specialist input, capacity building;
4. **Funding:** financial support (in-kind contributions were not included in this category); and
5. **Convening:** bringing different actors together, dialogue, conflict resolution.

A 6<sup>th</sup> category 'other' was originally included but it was not used so was removed from the analysis.

### Assigning main contribution types and weights per milestone/process

Participants broke into the same four small groups and defined the main contribution types related to their assigned milestones/processes. They then allocated weights (scores) to the contribution types per milestone/process.<sup>12</sup> Results were presented back to plenary, discussed, and in most cases modifications to contribution types and assigned weights were made during this stage before the weights were agreed to by all participants (Figure 9). Group consensus and validation were assumed to provide more accurate results and minimize individual bias. Note that participants did not deem all contribution types relevant to each milestone.

## Mapping key actors to contribution type per milestone/process & assigning scores

Participants broke into the same four small groups and mapped key actors to the contribution types identified for each priority milestone/process. They then allocated scores to each group of actors per

contribution type.<sup>13</sup> Results were presented to plenary, discussed, and in most cases modifications to actor scores were made during this stage before being agreed to by participants (Figure 10). Again, group agreement and validation were assumed to provide more accurate results and minimised individual bias.

Figure 9. Main contribution types per priority milestone/process

#	Milestone	Political leadership	Advocacy	Technical support	Funding	Convening
35	National Forest Restoration Strategy (ENRPF)	25%	--	40%	10%	25%
42	Regulation of ProBosque law	40%	20%	--	20%	20%
36	Approval of the ProBosque law	40%	35%	--	10%	15%
28	Conformation of the technical committee for the formulation of the Probosque law	25%	25%	15%	10%	25%
26	Creation of the National FRL Roundtable	15%	30%	30%	10%	15%
18	Interagency Coordination Group	50%	--	25%	--	25%
30	Consultations in rural areas at sectorial level for Probosque law	25%	25%	--	10%	40%
12	Sectorial studies (evaluations, studies, mapping of actors)	25%	5%	40%	30%	--

Figure 10. Key actors mapped to contribution type per priority milestone/process

#	Milestone	Contribution type	Government	IUCN	FAO	Gremial Forestal	Other
35	National Forest Restoration Strategy (ENRPF)	1 - Political leadership	80%	10%	0%	0%	10%
35	National Forest Restoration Strategy (ENRPF)	3 - Technical support	38%	28%	0%	3%	31%
35	National Forest Restoration Strategy (ENRPF)	4 - Funding	23%	36%	10%	1%	30%
35	National Forest Restoration Strategy (ENRPF)	5 - Convening	50%	50%	0%	0%	0%
42	Regulation of ProBosque law	1 - Political leadership	45%	7%	1%	15%	32%
42	Regulation of ProBosque law	2 - Advocacy	40%	11%	3%	4%	42%
42	Regulation of ProBosque law	4 - Funding	57%	3%	1%	11%	28%
42	Regulation of ProBosque law	5 - Convening	15%	50%	20%	0%	15%

12. Each set of weighted contributions per milestone/process had to total 100%

13. Each set of scores per contribution type across actors had to total 100%



Figure 10. Key actors mapped to contribution type per priority milestone/process

#	Milestone	Contribution type	Government	IUCN	FAO	Gremial Forestal	Other
36	Approval of the ProBosque law	1 - Political leadership	50%	5%	5%	5%	35%
36	Approval of the Probosque law	2 - Advocacy	40%	5%	5%	5%	45%
36	Approval of the Probosque law	4 - Funding	35%	20%	15%	0%	30%
36	Approval of the Probosque law	5 - Convening	20%	0%	0%	10%	70%
28	Conformation of the technical committee for the formulation of the Probosque law	1 - Political leadership	16%	8%	8%	16%	52%
28	Conformation of the technical committee for the formulation of the Probosque law	2 - Advocacy	20%	0%	80%	0%	0%
28	Conformation of the technical committee for the formulation of the Probosque law	3 - Technical support	0%	0%	75%	0%	25%
28	Conformation of the technical committee for the formulation of the Probosque law	4 - Funding	10%	20%	70%	0%	0%
28	Conformation of the technical committee for the formulation of the Probosque law	5 - Convening	40%	0%	20%	10%	30%
26	Creation of the National FRL Roundtable	1 - Political leadership	75%	0%	0%	0%	25%
26	Creation of the National FRL Roundtable	2 - Advocacy	23%	28%	1%	3%	45%
26	Creation of the National FRL Roundtable	3 - Technical support	11%	28%	1%	3%	57%
26	Creation of the National FRL Roundtable	4 - Funding	15%	60%	15%	0%	10%
26	Creation of the National FRL Roundtable	5 - Convening	75%	25%	0%	0%	0%
18	Interagency Coordination Group	1 - Political leadership	100%	0%	0%	0%	0%
18	Interagency Coordination Group	3 - Technical support	80%	0%	20%	0%	0%
18	Interagency Coordination Group	5 - Convening	100%	0%	0%	0%	0%
30	Consultations in rural areas at sectorial level for Probosque law	1 - Political leadership	80%	0%	0%	0%	20%
30	Consultations in rural areas at sectorial level for Probosque law	2 - Advocacy	40%	0%	0%	20%	40%
30	Consultations in rural areas at sectorial level for Probosque law	4 - Funding	7%	18%	18%	3%	54%
30	Consultations in rural areas at sectorial level for Probosque law	5 - Convening	30%	0%	0%	15%	55%
12	Sectorial studies (evaluations, studies, mapping of actors)	1 - Political leadership	70%	0%	0%	0%	30%
12	Sectorial studies (evaluations, studies, mapping of actors)	2 - Advocacy	40%	20%	20%	0%	20%
12	Sectorial studies (evaluations, studies, mapping of actors)	3 - Technical support	40%	10%	20%	0%	30%
12	Sectorial studies (evaluations, studies, mapping of actors)	4 - Funding	20%	15%	60%	0%	5%

$$IUCN_{contribution} = \sum_{m=1}^8 \sum_{c=1}^5 W_m * w_{m,c} * u_{m,c}$$

Equation 2. Quantified contribution

The workshop results (Annex 3) were used to calculate IUCN's contribution to Guatemala's FLR policy formulation processes during the period 2012-2016, using Equation 2.

Where:

- $W$  is the relative weight given to a milestone  $m$  (milestones 1 to 8),
- $w$  is the relative weight given to a contribution type  $c$  (contribution types from 1 to 5) for a given milestone  $m$ , and
- $u$  is the contribution percentage assigned to IUCN (as an actor) on a given contribution type  $c$  for a given milestone  $m$

IUCN's overall contribution to Guatemala's FLR policy formulation processes in this period was found to be 12%<sup>14</sup>. The most significant contribution came from Government (45%). FAO (11%) and the Private sector (5%) were well represented. Twenty-five other actors, including the Association of Non-Government

Organizations for the Environment and Natural Resources of Guatemala (ASOREMA) and academia<sup>15</sup> accounted for 27% (Figure 11).

The validity of the contribution values relies primarily on the knowledge and experience of the MNRPF experts, who were key stakeholders in Guatemala's national restoration process, as well as the step-wise approach that we followed to identify each partner's contribution to the FLR policy formulation processes. The results were reinforced by triangulation with IUCN's episode study *Exploring IUCN's contribution to Guatemala's FLR processes*, technical project reports from six relevant IUCN projects that contributed to FLR policy formulation processes during the period 2012-2016,<sup>16</sup> a review of this VfM case and its results by workshop participants, and available literature. While the exact percentage of contribution values per partner are clearly open for debate, the authors are satisfied that 12% is representative of IUCN support to a partner-led process.

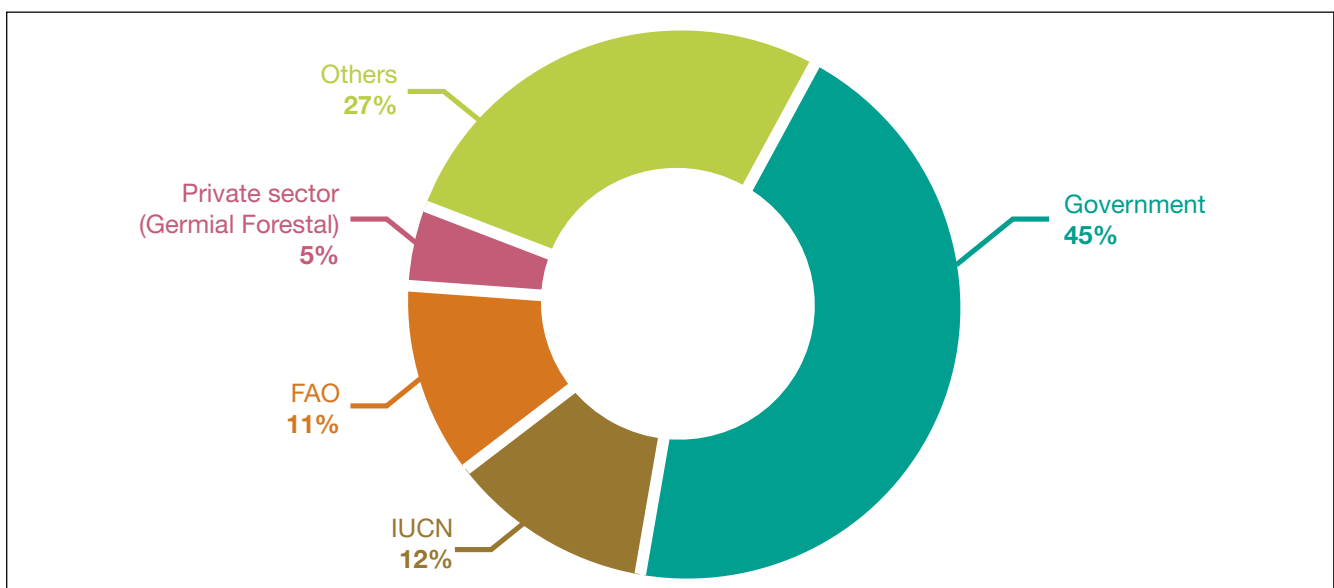


Figure 11. FLR process contribution by actor

14. Annex 4 IUCN contribution calculation

15. Annex 5 Actor grouping

16. Annex 6 Results chart

## 6. The benefit

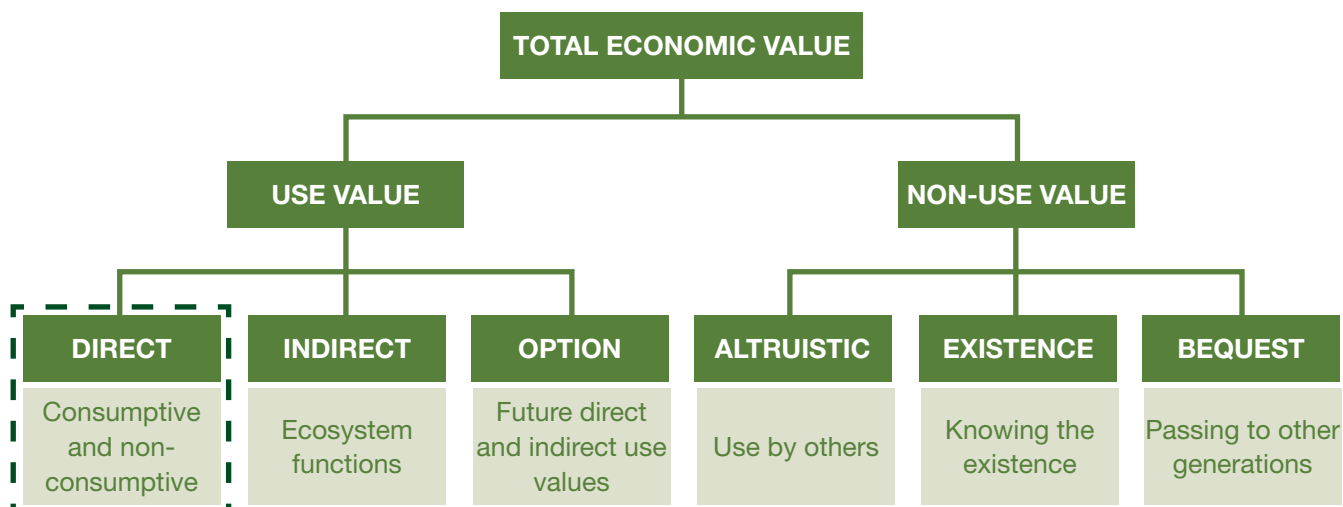


Figure 12. Components of Total Economic Value (TEEB, 2010)

This study aims to capture the share of benefits (for specific beneficiaries on the basis of market values) derived from US\$ 1 invested in the contribution of one specific actor (IUCN) to Guatemala's FLR processes. The benefit was defined as the estimate of the potential financial benefit of landscape restoration in Guatemala (marginal Net Present Value

with PROBOSQUE incentives). This definition of the benefit fits within the 'Direct Use Value' of the Total Economic Value (Figure 12) and is a critical element of planned restoration efforts, as described by ROAM (Figure 13). **Other values were not considered** due to time, resource and data quality limitations.

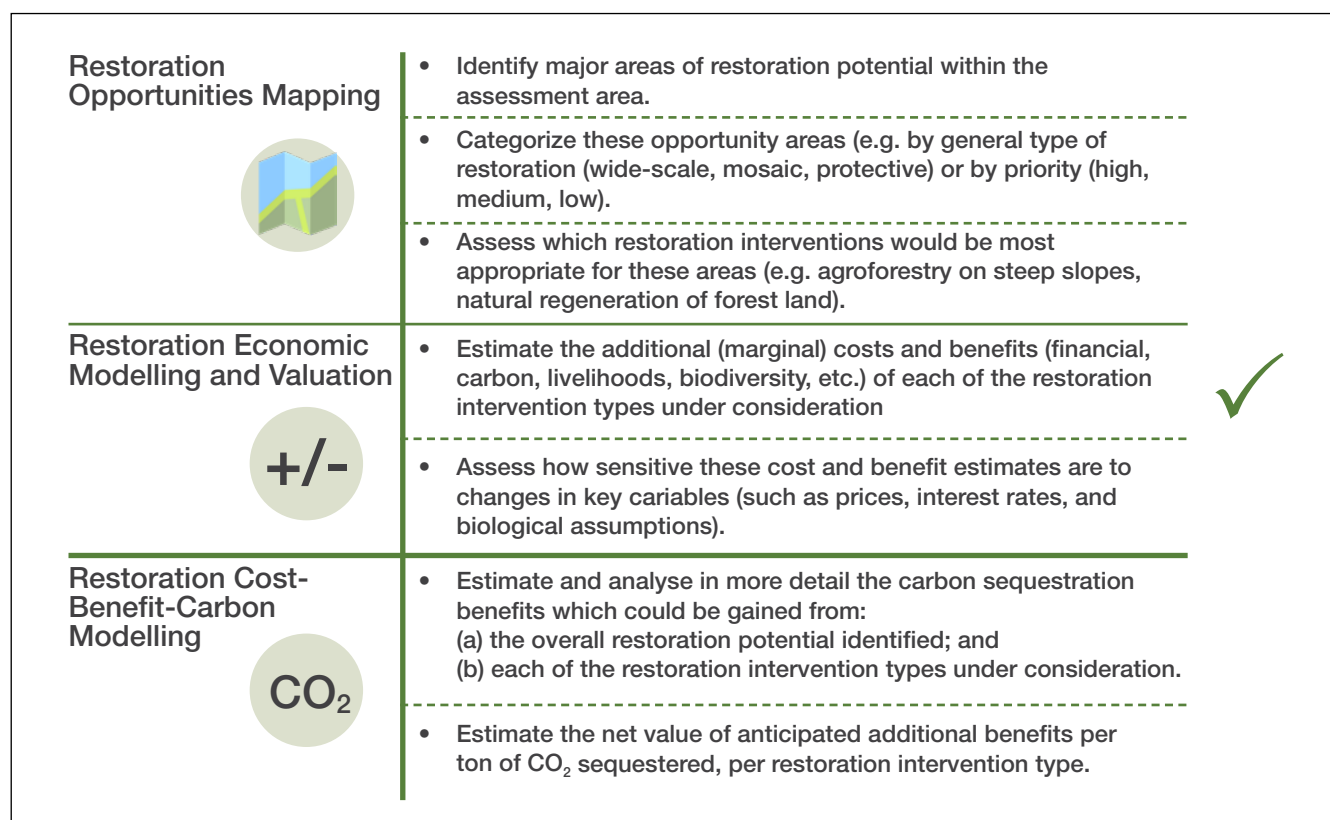


Figure 13. Restoration economic modelling and valuation (IUCN and WRI, 2014)

Key transitions in Guatemala were identified during the implementation of the ROAM through the following steps: (1) creation of Guatemala's map of restoration potential; (2) creation of a new map overlaying the

map of restoration potential with Guatemala's land use map (Figure 14); and (3) collaborative selection of the transitions considered the most important by Guatemala's MNRPF.

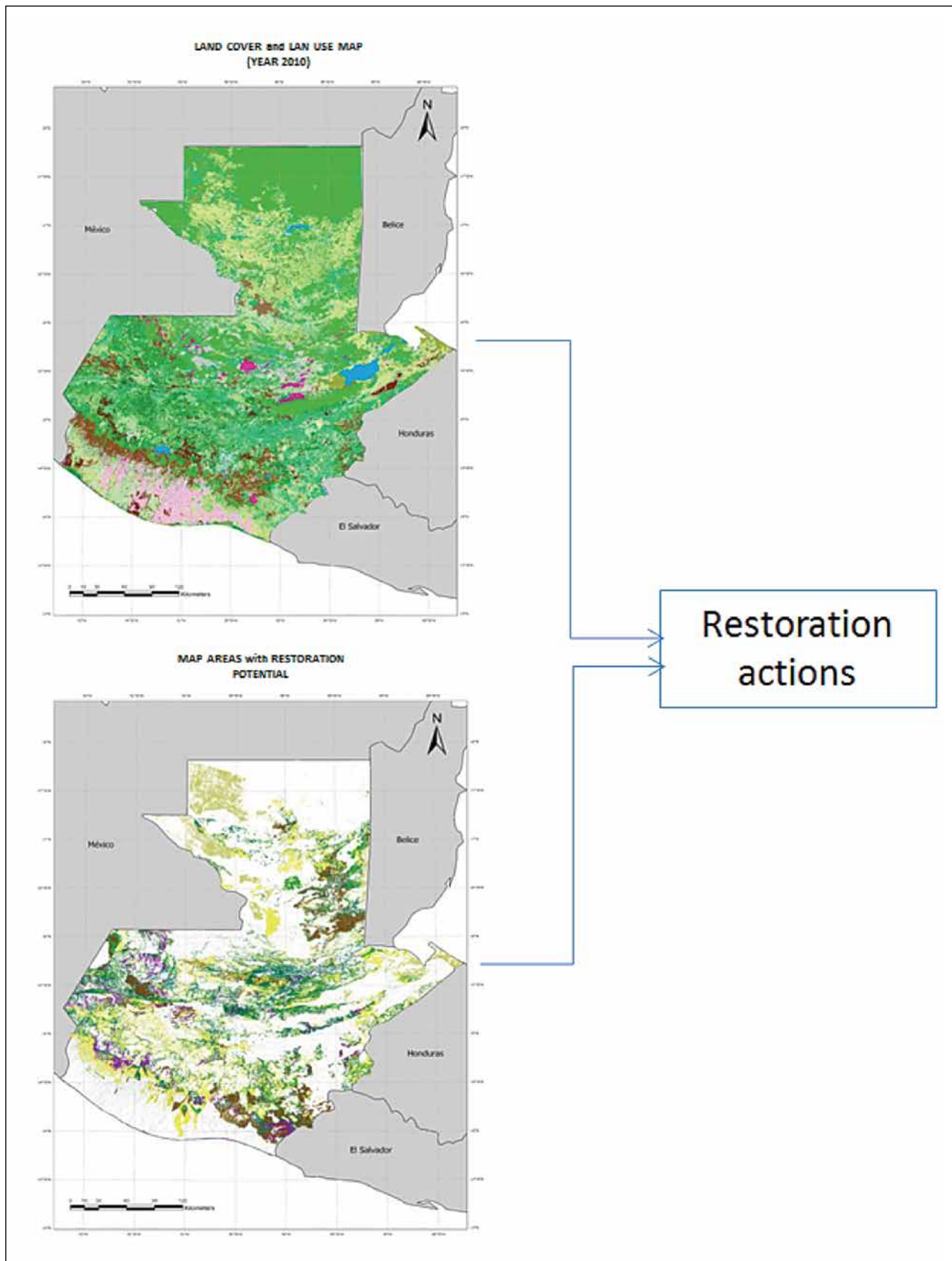


Figure 14. Guatemala's current land use and restoration potential maps

Table 1. Broad transition categories and area (hectares)

Current Land Use	Transition (General)	Area (ha)	Area (ha) < 1,500 masl	Area (ha) > 1,500 masl
Pasture	Timber plantations	73,753	59,015	14,739
	Agroforestry system with perennial crops	44,653		
	Agroforestry systems with annual crops	68,720	55,922	12,798
	Silvopastoral systems	79,565		
Shrub Vegetation	Riparian forest (50%) and timber plantations (50%)	51,875	42,502	9,373
	Protection forest	47,503		
	Production forests	251,964		
	Agroforestry systems with perennial crops	88,868		
Staple Grains	Agroforestry systems with annual crops	159,853	74,313	85,540
<b>Total area</b>		<b>866,754</b>		

Table 1 provides an overview of these general transition categories that were identified as priorities and the current land uses and areas (ha) on which they should be implemented.

The total estimated potential financial benefit of landscape restoration actions in Guatemala was calculated based on the following concept:

$$\text{Total Value} = (\text{NPV}_i \times \text{Area}_i) + \dots + (\text{NPV}_9 \times \text{Area}_9)$$

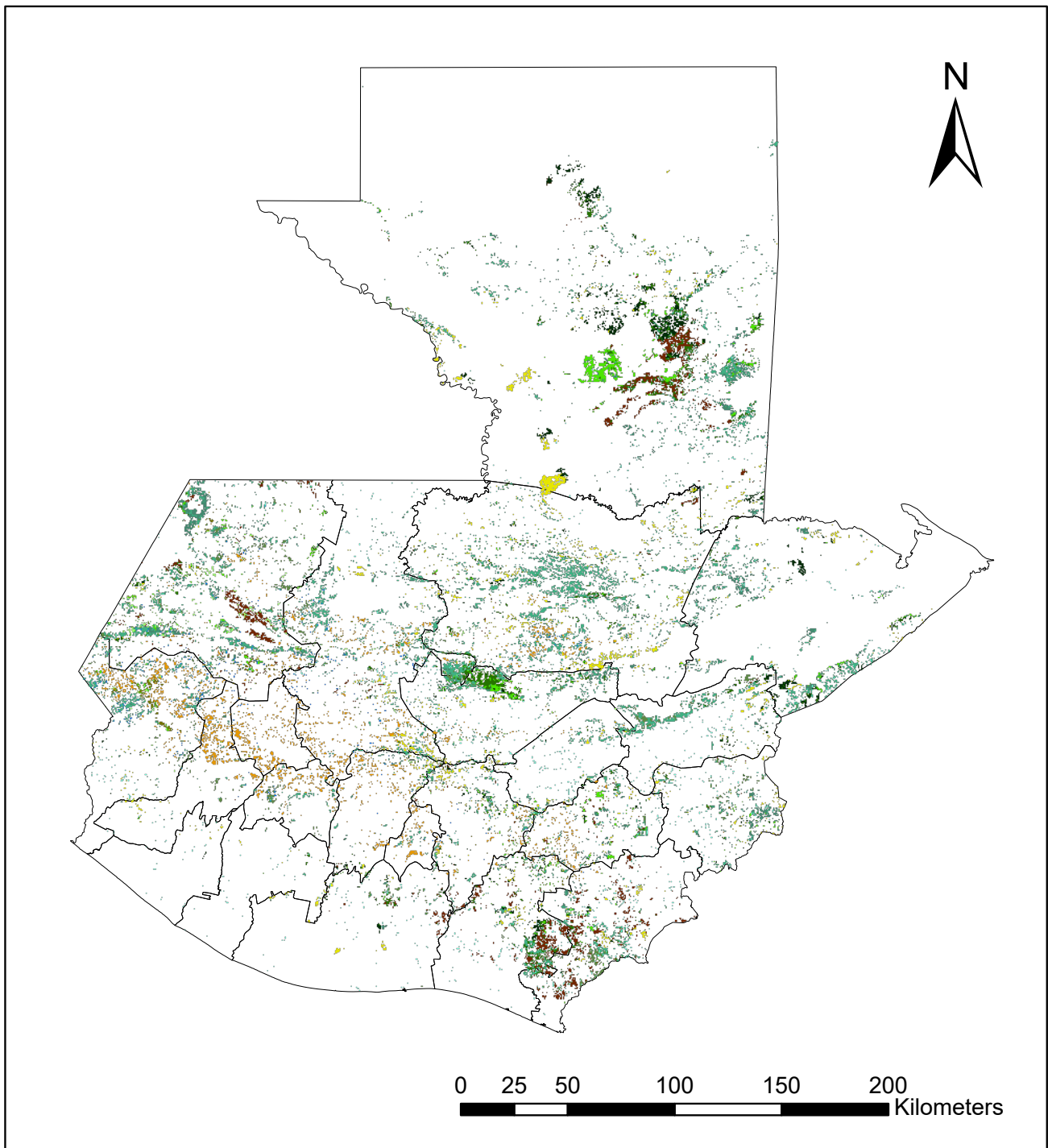
Equation 3. Total estimated potential financial benefit

Where  $\text{NPV}_i$  is the Net Present Value for transition  $i$  ( $i=1:9$ ), and  $\text{Area}_i$  is the potential area corresponding to each transition.

Specific restored land use systems were proposed for the financial analysis. For example an agroforestry system of cacao with plantain and mahogany trees is a specific system within the category of agroforestry systems with perennial crops. For this VfM assessment, of the restoration actions considered within the financial analysis of the ROAM application in Guatemala, the following specific transitions were considered (Figure15).

- Timber plantation of mahogany and semi-precious timber species on pastures below 1,500 meters above sea level (masl)
- Timber plantation of pine trees on pastures above 1,500 masl
- Agroforestry system of maize-beans with mahogany and secondary trees on pastures below 1,500 masl
- Agroforestry system of maize-beans with pine trees on pastures above 1,500 masl
- Agroforestry system of cacao with mahogany and plantain (first years) on pastures
- Silvopastoral system on pastures
- Riparian forest (50%) and a timber plantation of mahogany and secondary timber species (50%) on riparian land with shrub vegetation below 1,500 masl
- Riparian forest (50%) and a timber plantation of pine trees (50%) on riparian land with shrub vegetation above 1,500 masl
- Natural regeneration towards protected forest of shrub vegetation
- Timber plantation through enrichment planting in shrub vegetation
- Agroforestry system of cacao with mahogany and plantain (first years) on land with shrub vegetation
- Agroforestry system of maize-beans with mahogany and secondary trees on land with staple grains (maize and beans) below 1,500 masl
- Agroforestry system of maize-beans with pine trees on land with staple grains (maize and beans) above 1,500 masl.<sup>17</sup>

17. These restoration actions are based on the map of restoration potential of Guatemala. Based on this map, a technical committee of Guatemalan experts proposed a series of transitions on specific land uses. See INAB for further detail on the creation of Guatemala's map of restoration potential.



Creation: Guillermo Putzeys, 2017

**Legend:**

**Restoration Actions:**

	Protected riparian forest		Agroforestry system staple grains and pine on staple grains
	Protected riparian forest and precious timber plantation on shrub vegetation		Pine plantation on pastures
	Protected forest on shrub vegetation		Agroforestry system cacao-plantain-mahogany on pastures
	Timber plantation on shrub vegetation		Mahogany plantation and semi-precious timber trees on pasture
	Agroforestry system cacao-plantain-mahogany on shrub vegetation		Agroforestry system staple grains with mahogany on pastures
	Agroforestry system staple grains with mahogany on staple grains		Agroforestry system staple grains and pine on pastures
			Silvopastoral system on pastures
			Guatemala Departments

Figure 15. Potential areas for the implementation of each restoration action





For each of these transitions, and for the current land uses, a cost-benefit model was developed. These models considered for both the current land uses and transitions the different types of costs such as implementation costs, production costs and maintenance costs. Opportunity costs are also considered to assess the marginal net present value (NPV) of the transitions. In addition, benefits of agricultural crops and timber were considered.<sup>18</sup>

The period considered for the analysis was 35 years based on the harvest cycle of mahogany (*Swietenia macrophylla*), a precious timber species of high importance in Guatemala's forest landscapes. This stems from the interest of INAB and other members of the restoration roundtable in including this species in the financial analysis of the ROAM implementation in Guatemala. All calculations were carried out on a per hectare basis. Given the diversity in farm sizes, no economies of scale were considered.<sup>19</sup>

Originally, analyses were done in quetzals, but converted to US\$ for this report.<sup>20</sup> Figure 16 to Figure 19 present an example of the calculations carried out for a transition from pasture land to an agroforestry system with cacao. Firstly, the costs and benefits of the transition (agroforestry system of cacao on pasture land in the example) are calculated in future value (Figure 16). Secondly, the values are converted to present value, based on the formula (Equation 4)

In Equation 4,  $r$  is the discount rate and  $i$  is the year considered (0 to 34). In this analysis, the discount rate used is 12%.<sup>21</sup> Figure 17 shows the effect of the converting costs and benefits of the pasture to agroforestry system transition to present values. Financial analyses were carried out for the transitions considering benefits with and without the PROBOSQUE incentives. In Figure 16 and Figure 17 the incentives are included. Figure 18 and Figure 19 show the costs and benefits of continuing with the

$$\text{Present Value (PV)} = (\text{Future Value}) / (1+r)^i$$

Equation 4. Present value

18. Prices of agricultural products were based on data from the Ministry of Agriculture of Guatemala (<http://precios.maga.gob.gt/tool/public/#/dataset/granos-basicos> and <http://precios.maga.gob.gt/tool/public/#/dataset/hortalizas>). Prices were based on the average of daily prices for the period 03/01/2012 and 03/06/2016. Yields were based on information reported by Ministry of Agriculture of Guatemala (2014).

19. It was not possible to develop models for all parcel sizes, therefore a per-hectare model was used, which does not consider economies of scale (e.g. lower input costs) that may occur on large parcels.

20. Q 1 = US\$ 0.135921 (<http://www.xe.com/currencyconverter/convert/?Amount=1&From=GTQ&To=USD>, accessed 1 June, 2017)

21. The discount rate was set at 12%, taking into account the local bank lending rate. 12% also aligns with World Bank behavior: "the World Bank traditionally uses a discount rate in the range of 10-12%. It is justified as a notional figure for evaluating Bank-financed projects." from Gollier, C. (unpublished) *Pricing the future: The economics of discounting and sustainable development*. Unpublished manuscript, to appear with Princeton University Press, Princeton, NJ, USA. Due to time and resource constraints sensitivity analysis using a range of discount rates was not incorporated in this assessment, however future VfM assessments will do so.



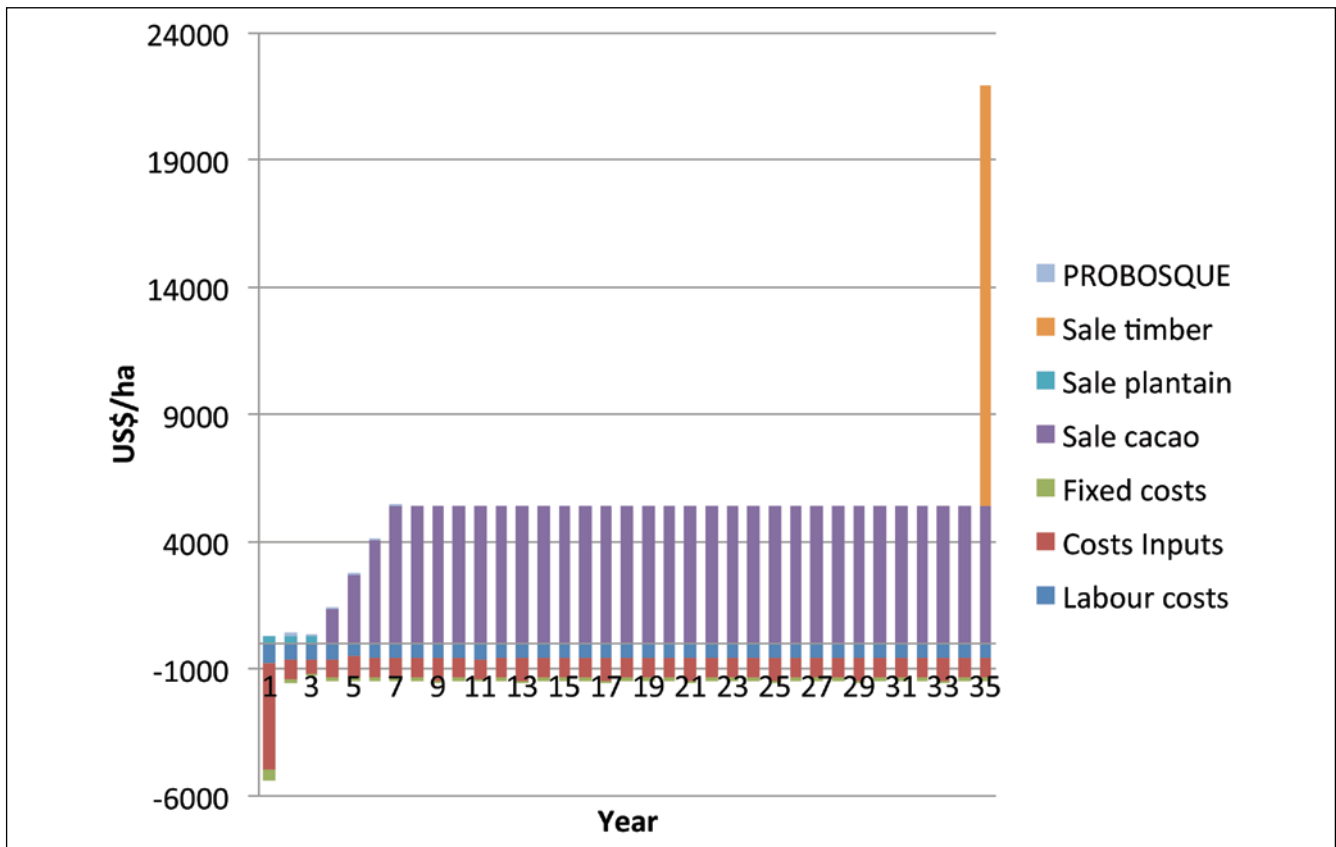
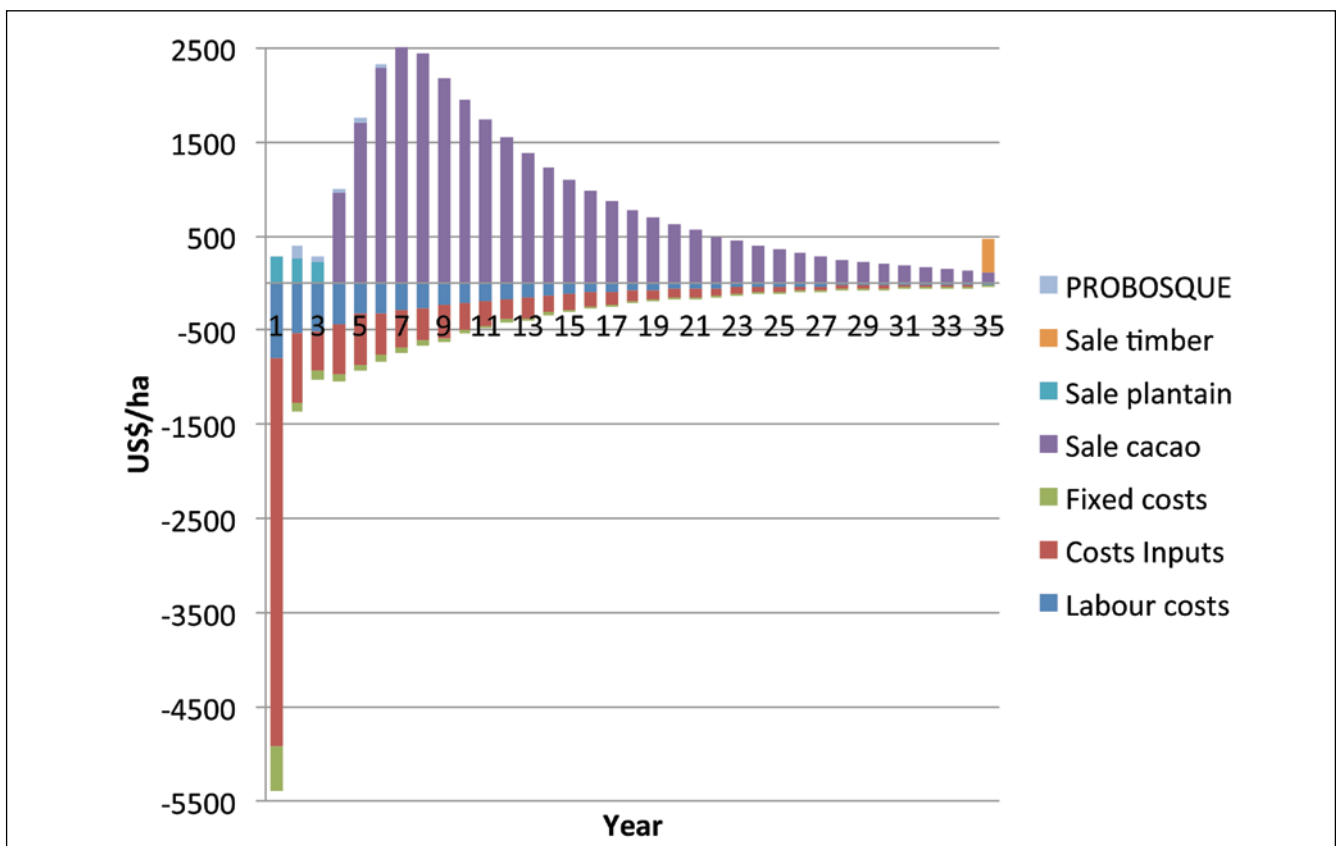


Figure 16. Costs and benefits of agroforestry system of cacao on pastures in future value

Figure 17. Costs and benefits of agroforestry system of cacao on pastures in present value<sup>22</sup>

.....

22. Using 12% discount rate

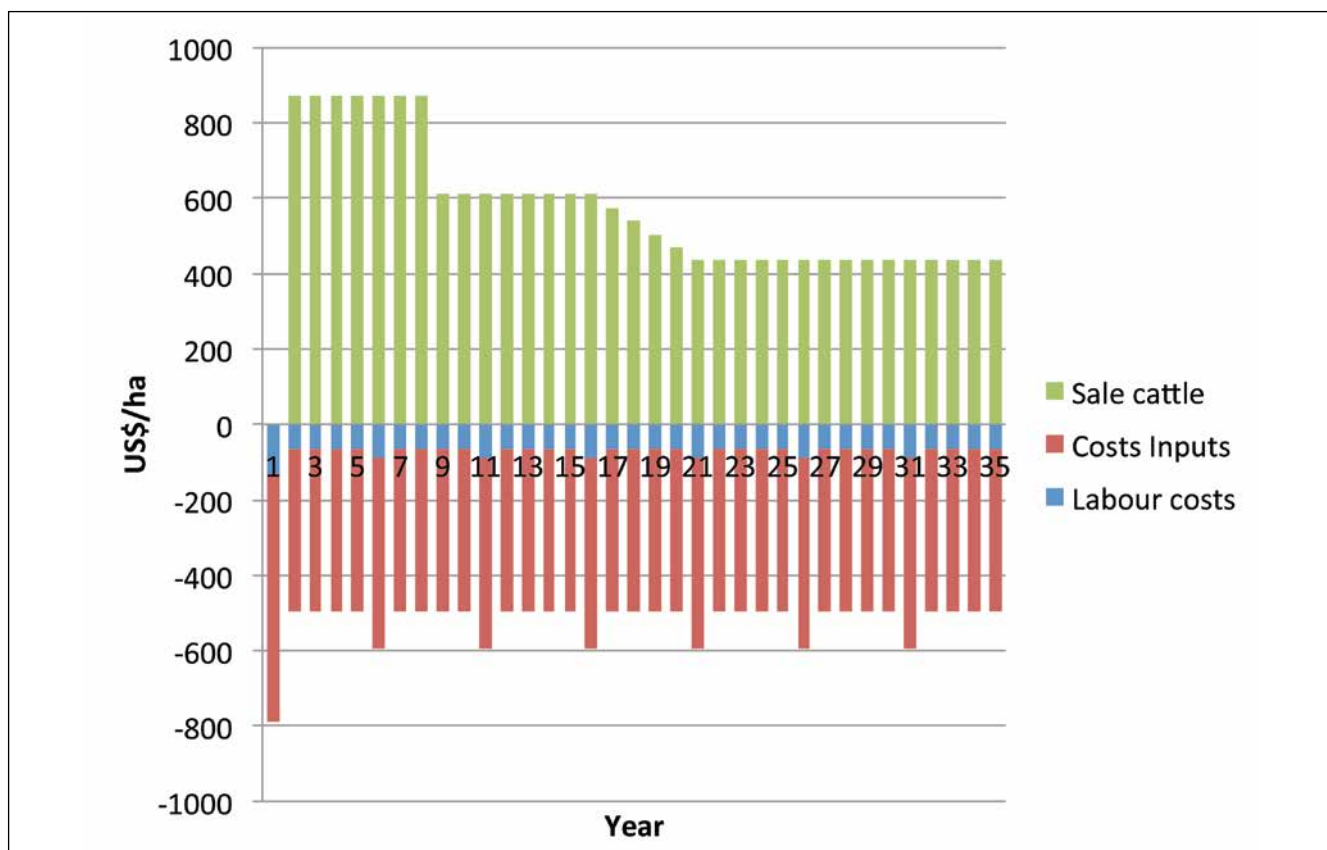


Figure 18. Costs and benefits of the current land use, pastures, in future value

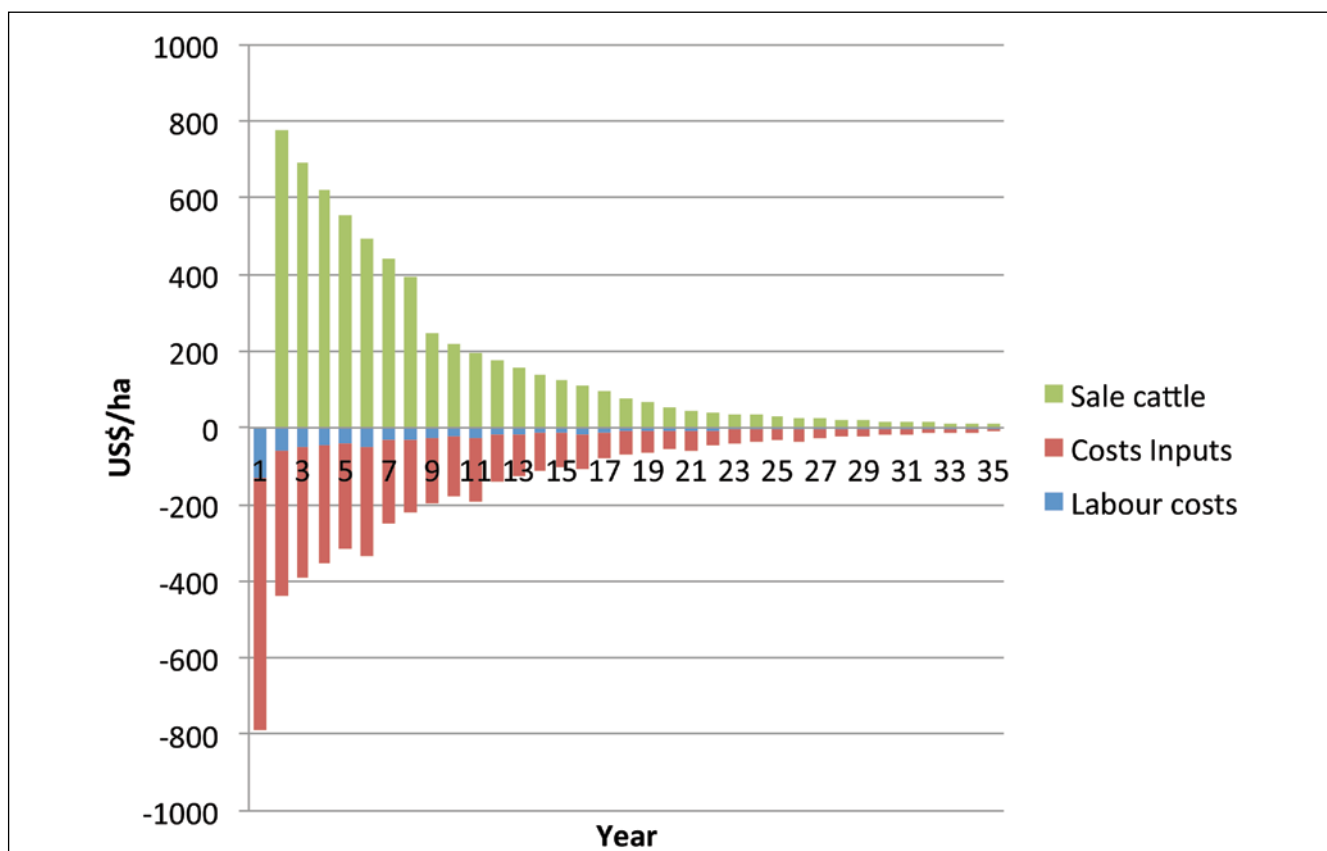


Figure 19. Costs and benefits of the current land use, pastures, in present value

current land use without and with a discount rate respectively. A gradual decline in the weight of cattle is assumed due to the degradation of pastures over time.

The interest in the financial analyses of the transitions within the ROAM application is not only to calculate costs and the benefits, but also the profitability of the transitions and whether this profitability is higher than the profit obtained from the current land use. The first indicator is the NPV, the second is the Marginal NPV. NPV is calculated as follows:

$$NPV = \sum_{i=0}^n \frac{(B_i - C_i)}{(1 + r)^i}$$

Equation 5. Net present value

Where  $B_i$  are the benefits in year  $i$ ,  $C_i$  are the costs in year  $i$ , and  $r$  is the discount rate. The Marginal NPV is the difference between the NPV of the transition and the NPV of the current land use. It shows the increase (or decrease) in the NPV of implementing the restoration action in comparison to the NPV generated by continuing with the current land use. Figure 20 shows the yearly  $NPV_i$  and the yearly marginal  $NPV_i$  for the transition of an agroforestry system (AFS) with cacao on pastures.

The financial analysis of the transition used above as an example provides us with the final per hectare results considering benefits with and without PROBOSQUE incentives:

- NPV AFS Cacao in Pasture without incentives: **US\$ 13,250/ha**
- Marginal NPV AFS Cacao in Pasture without incentives: **US\$ 12,231/ha**
- NPV AFS Cacao in Pasture with incentives: **US\$ 13,636/ha**
- Marginal NPV AFS Cacao in Pasture with incentives: **US\$ 12,616/ha**

Without considering economies of scale and national and global market effects of increasing the supply of agricultural and timber products, the estimate of the NPV of the transition on potentially 44,653 hectares (derived from Table 1) is then the multiplication of the previous results by the total potential area. This gives us the following results:

- NPV AFS Cacao in Pasture without incentives: **US\$ 591,652,250**
- Marginal NPV AFS Cacao in Pasture without incentives: **US\$ 546,150,843**
- NPV AFS Cacao in Pasture with incentives: **US\$ 608,888,308**
- Marginal NPV AFS Cacao in Pasture with incentives: **US\$ 563,342,248**

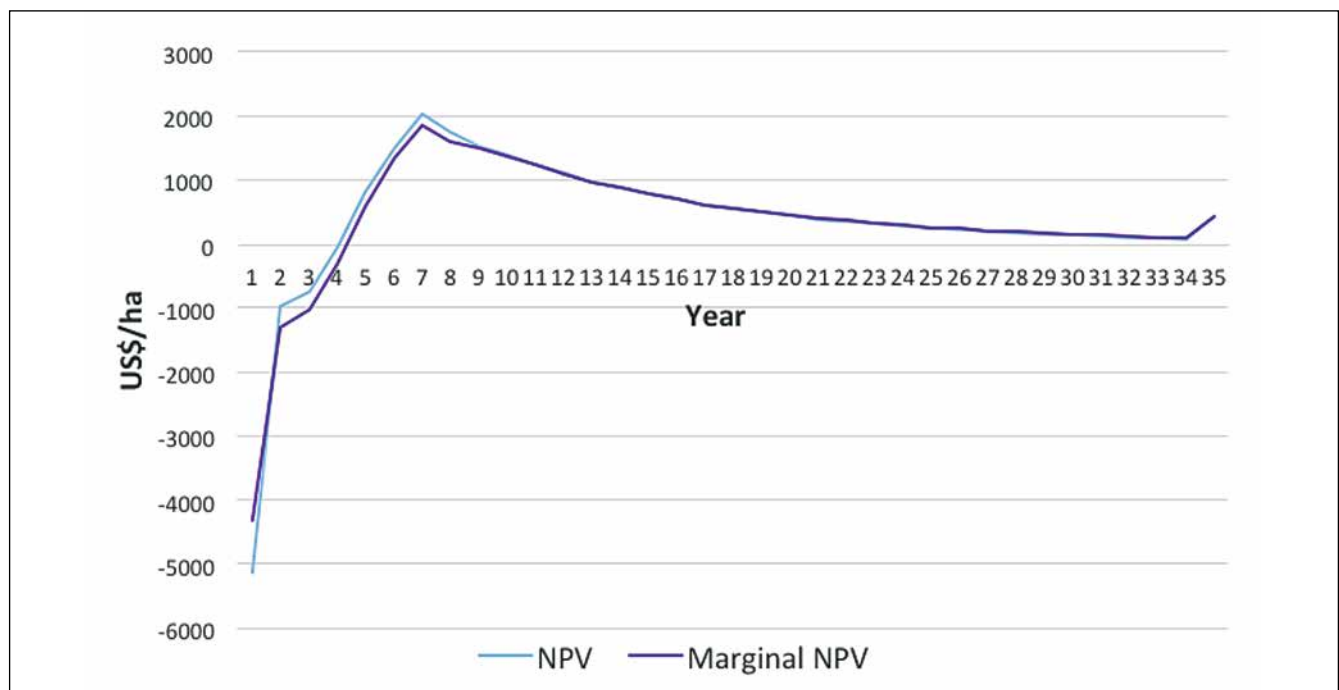


Figure 20. NPV and Marginal NPV of agroforestry system of cacao on pastures

Table 2. NPV and Marginal NPV without and with PROBOSQUE incentives

#	Specific Transition	Without incentives (US\$/ha)		With incentives (US\$/ha)	
		NPV	Marginal NPV	NPV	Marginal NPV
1	Mahogany and semi-precious timber plantation on pastures	-524	-1,543	1,618	588
2	Pine plantation on pastures	-1,432	-2,451	203	-816
3	Agroforestry system maize-beans-mahogany-secondary trees on pastures	8,086	7,067	8,905	7,886
4	Agroforestry system maize-beans-pine trees on pastures	3,950	2,931	4,804	3,785
5	Agroforestry system cacao-mahogany-plantain on pastures	13,250	12,231	13,636	12,616
6	Silvopastoral system on pastures	4,695	3,676	5,080	4,061
7	Riparian forest (50%) and mahogany-secondary timber plantation (50%) on shrub vegetation	-1,528	-3,243	240	-1,474
8	Riparian forest (50%) and pine plantation (50%) on shrub vegetation	-1,911	-3,626	-397	-2,111
9	Protection forest on shrub vegetation	-1,046	-2,761	349	-1,366
10	Timber plantation on shrub vegetation	-1,298	-3,013	337	-1,378
11	Agroforestry system cacao-mahogany-plantain on shrub vegetation	13,194	11,479	13,579	11,864
12	Agroforestry system maize-beans-mahogany-secondary trees on staple grains	7,405	150	8,224	969
13	Agroforestry system maize-beans-pine trees on staple grains	3,617	-3,637	4,436	-2,818

The steps described above were carried out for all the transitions considered. Table 2 provides an overview of these results for the transitions described above.

Considering these results and the potential areas presented in Table 1, estimates are provided of the potential benefits of landscape restoration in Guatemala with and without the PROBOSQUE incentives on 866,754 ha (derived from Table 1). These estimates are:

- NPV without incentives: US\$ 2,679,170,550
- Marginal NPV without incentives: US\$ 1,113,448,764
- NPV with incentives: US\$ 3,596,816,874
- Marginal NPV with incentives: US\$ 2,031,095,087

The Marginal NPV with incentives (US\$ 2,031,095,087) was used as the input to calculate the total benefit. Before moving to this step, however, the likelihood of success (see equation 1) needs to be considered.

## Likelihood of success

According to Article 6 of Guatemala's decree No. 50 of 2016 the total budget for PROBOSQUE's first year is US\$ 33,183,617 (El Congreso de la Republica de Guatemala, 2016), with US\$ 8,295,938 for administration and the remaining US\$ 24,887,679 available to allocate to the first year's incentives.

In the absence of budget allocation detail, the same percentage of the annual budget available for incentives was assumed to be allocated to each of the 13 transition types,<sup>23</sup> meaning that 7.7% of the PROBOSQUE budget is allocated to each restoration action. PROBOSQUE defines different incentive rates for different restoration actions and these are detailed in Table 3. Figure 21 explains the different steps in this process for the first three years.

23. 100%/13 transitions = 7.7% of the budget per transition

Table 3. PROBOSQUE incentives per transition type in dollars per ha per year

Year	Pine plantations	Mahogany plantations	Forest protection	Pine-riparian forest <sup>a</sup>	Mahogany riparian forest <sup>a</sup>	Agroforestry system with annual crops <sup>b</sup>	Agroforestry system with perennial crops, and silvopastoral systems <sup>b</sup>
1	761	883	476	618	680	340	163
2	408	544	204	306	374	150	68
3	340	449	204	272	326	150	68
4	272	408	204	238	306	150	68
5	258	408	204	231	306	150	68
6	136	217	204	170	211	217	109
7	-	-	204	102	102	-	-
8	-	-	204	102	102	-	-
9	-	-	204	102	102	-	-
10	-	-	204	102	102	-	-

<sup>a</sup> Restoration action consisting of 50% conservation and natural regeneration of riparian forest, and 50% timber plantation (mahogany or pine). Per hectare incentives are thus 50% of those for forest protection on a per hectare basis, and 50% of the incentives for pine or mahogany plantations.

<sup>b</sup> Increase in final year incentive rates for these two transition types offsets drop in other restoration actions and explains the stable "Incentives start year 1" allocation in Years 5 and 6 in Figure 22.

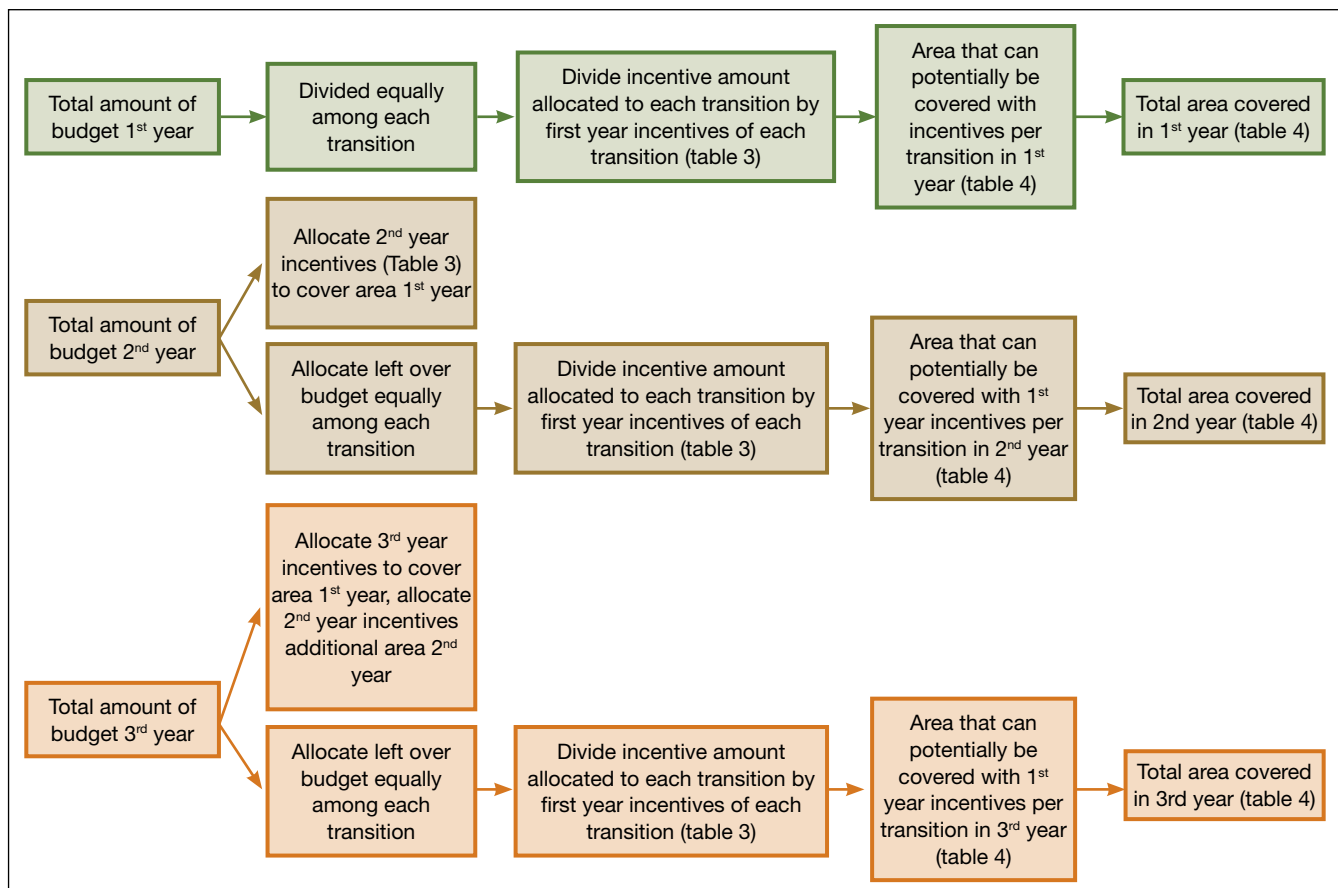


Figure 21. PROBOSQUE budget allocation process flowchart



Table 4. Area per restoration actions considered per year

Restoration actions	Area Year 1	Area Year 2	Area Year 3	Area Year 4	Area Year 5	Area Year 6	Total
Mahogany plantation and semi-precious timber trees on pastures	2,167	1,138	667	438	435	109	4,955
Pine plantation on pastures	2,515	1,321	774	508	505	127	5,751
Agroforestry System Staple Grains and Mahogany on pastures	5,634	2,960	1,733	1,139	1,132	284	12,882
Agroforestry System Staple Grains and pine on pastures	5,634	2,960	1,733	1,139	1,132	284	12,882
Agroforestry System Cacao-Plantain-Mahogany on pastures	11,737	6,167	3,611	2,372	2,358	592	26,837
Silvopastoral System of live fences on pastures	11,737	6,167	3,611	2,372	2,358	592	26,837
Protected riparian forest and precious timber plantation on shrub vegetation	2,817	1,480	867	569	566	142	6,441
Protected riparian forest and pine plantation on shrub vegetation	3,096	1,626	952	626	622	156	7,078
Protected forest on shrub vegetation	4,024	2,114	1,238	813	808	203	9,201
Timber plantation on shrub vegetation	2,515	1,321	774	508	505	127	5,751
Agroforestry System Cacao-Plantain-Mahogany on shrub vegetation	11,737	6,167	3,611	2,372	2,358	592	26,837
Agroforestry System Staple Grains and Mahogany on staple grains	5,634	2,960	1,733	1,139	1,132	284	12,882
Agroforestry System Staple Grains and pine on staple grains	5,634	2,960	1,733	1,139	1,132	284	12,882
Total	74,882	39,343	23,039	15,133	15,044	3,775	171,215
% of total potential area	8.6	4.5	2.7	1.7	1.7	0.4	19.8
Incremental %	8.6	13.2	15.8	17.6	19.3	19.8	

This would allow the restoration of 74,882 hectares in the first year (Table 4). Incentives available for year 1 transitions are lower in the second year. In the second year of PROBOSQUE budget allocation to incentives, considering that the same overall PROBOSQUE budget will be available, 'leftover' budget will therefore be available to allocate to new transition areas. For the third year, the available budget is that part that is not allocated to restoration actions that started in the first year (receiving third year incentives) and the second year (receiving second year incentives). This calculation has been carried out for the first six years as most incentives, with the exception of those for conservation, are paid for a period of six years (Figure 22).

Instead of implementing restoration actions on 100% of the potential area in the first year, only 8.6% of the potential area would be restored in the first year, 13.2% in the second, 15.8% in the third, 17.6% in the fourth, 19.3% in the fifth, and 19.8% in the sixth year.

Considering the potential areas presented in Table 1, estimates are provided of the potential benefits of landscape restoration in Guatemala with and without the PROBOSQUE incentives on 171,215 ha – considering that the second year benefits include only 34 years and start in the second year, the third year only 33 years, and so on. These estimates are:

- NPV without incentives: US\$ 929,279,038
- Marginal NPV without incentives: US\$ 592,371,026
- NPV with incentives: US\$ 1,037,652,798
- Marginal NPV with incentives: US\$ 712,052,318

By applying the PROBOSQUE budget as the limiting factor for uptake, a final marginal NPV with incentives of US\$ 712,052,318 is used as the benefit for calculating the expected return on investment.

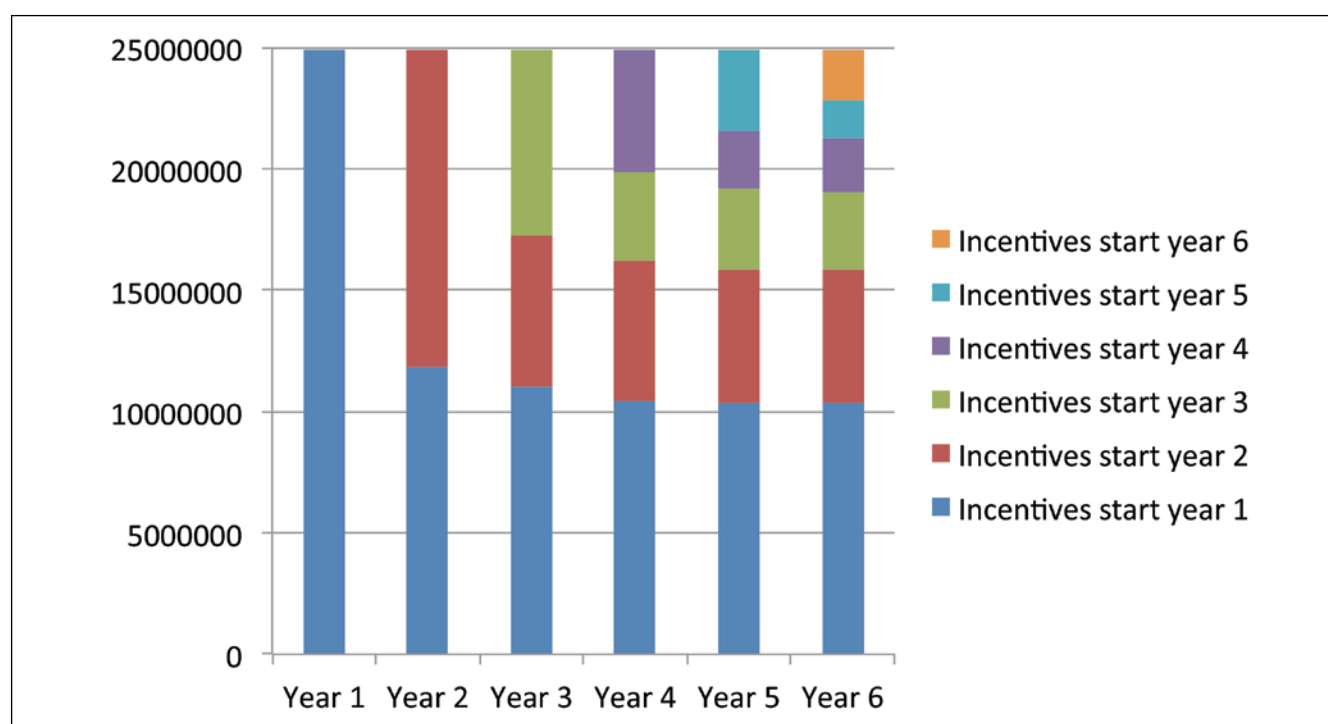


Figure 22. PROBOSQUE incentives over six years

## Counterfactual

The Organisation for Economic Co-operation and Development (OECD) defines the counterfactual as “the situation or condition which hypothetically may prevail for individuals, organizations, or groups were there no development intervention.” (OECD, 2010)

For the purpose of this case study, the counterfactual can be estimated by calculating the NPV of maintaining the current land use in the potential areas for restoration, meaning no transitions take place at all. Given the figures above, this can be estimated following Box 1

For this estimation, it was assumed that the FLR advocacy and promotion process that took place in Guatemala encouraged transitions and convinced people of the actual financial benefit of FLR to them. The counterfactual can thus be estimated as NPV of ‘business as it is today’ which would not include any increased income from FLR transitions or PROBOSQUE incentives (Figure 23).

## Attribution

OECD defines attribution as, “the ascription of a causal link between observed (or expected to be observed) changes and a specific intervention” (OECD, 2010).

Box 1

Counterfactual = NPV with incentives – marginal NPV with incentives

Counterfactual = US\$ 1,037,652,798 – US\$ 712,052,318

Counterfactual = US\$ 325,600,480

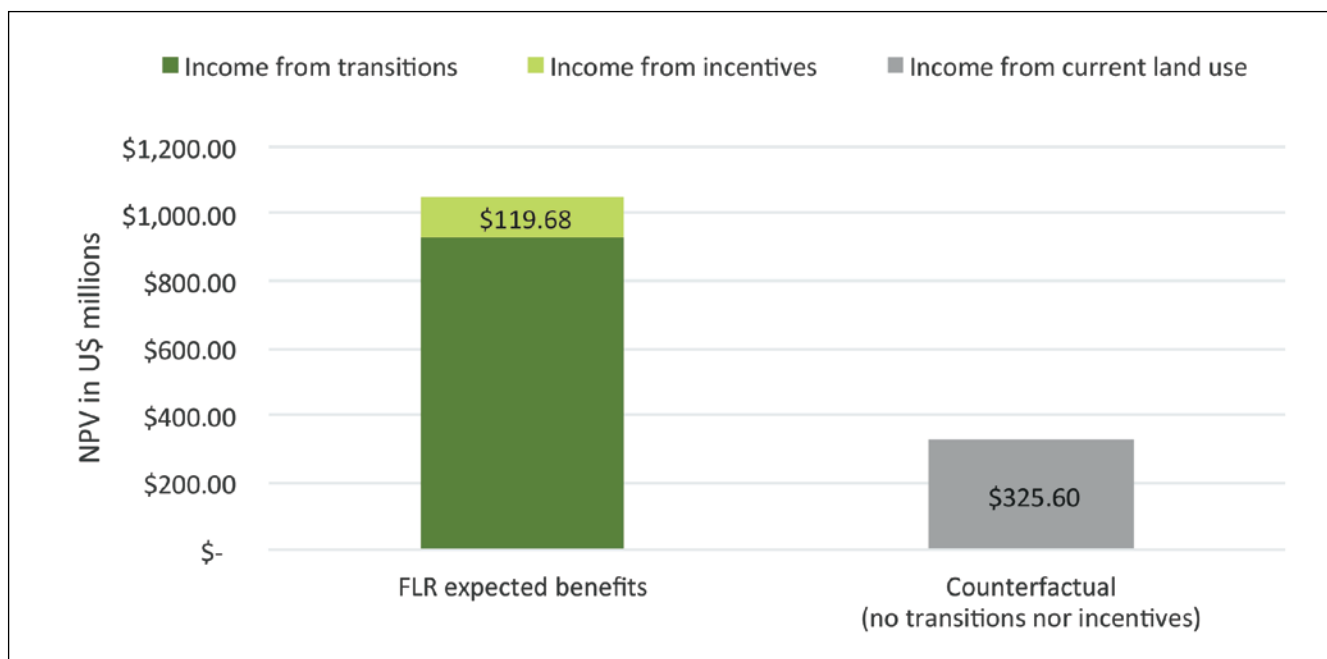


Figure 23. Counterfactual

According to this definition, attribution refers to “that which is to be credited for the observed changes or results achieved. It represents the extent to which observed development effects can be attributed to a specific intervention.”

For the purpose of this study, two attribution scenarios were considered for Guatemala’s FLR process:

- a. Direct attribution: New FLR processes in Guatemala are attributed to the formulation and passing of the PROBOSQUE law, including the economic incentives for FLR transitions. In this case the estimated benefit would only include the incentives (See Box 2).

- b. Compound attribution: Through the promotion of FLR (policy advocacy), the creation of economic incentives (reflected in the new PROBOSQUE law) and the implementation of new institutional mechanisms (such as the new FLR component of MAGA’s agricultural extension programme) current land uses will transition to more sustainable and profitable options. In this scenario attribution includes the PROBOSQUE law (and its incentives) plus the actual FLR transitions in Guatemala. The estimated benefit for this scenario would be the marginal NPV with incentives (US\$ 712,052,318).

In order to be consistent with the assumptions used in this assessment, scenario b was selected.

BOX 2

Benefit = Marginal NPV with incentives – Marginal NPV without incentives  
 Benefit = US\$ 712,052,318 - US\$ 592,371,026  
 Benefit = US\$ 119,681,292

## 7. The cost

Guatemala is part of IUCN's Mexico, Central America and the Caribbean (ORMACC) region, which is recognised in IUCN as being one of the most advanced in applying the programmatic approach, enabling complementary lines of work and ongoing technical support to key institutions in Central American countries (in particular Guatemala, Honduras, Costa Rica and El Salvador). In ORMACC, multiple donors contribute to common goals through programmatically aligned projects. In calculating IUCN's FLR-related costs in Guatemala, six relevant projects with FLR-related expenditure during the period 2012-2016 were identified.<sup>24</sup> The cost is US\$ 1,499,606 (Figure 24), with KNOWFOR (phases 1 & 2) representing 4% of this amount. When adjusted for inflation (see below) the total cost is **US\$ 1,537,134**.

Cost data from 2013 to 2016 were used (no expenditure in 2012). These past costs need to be expressed in

present value. The present value is the year 2016 in this study. To convert past values to present values the data are corrected for the annual inflation, based on Equation 6.

Where  $i_{\text{year}}$  is the inflation rate for a particular year (e.g. to convert cost data from year 2013 to values of 2014, cost data of year 2013 are multiplied by the inflation rate of year 2013). As funds were spent in Guatemala, but came from a diversity of international sources in different currencies, we use the average international inflation rate of consumer prices<sup>25</sup> for the years 2013 to 2015.<sup>26</sup> During the 2012-2016 period, the major FLR-related IUCN donors in Guatemala were the Norwegian Agency for Development Cooperation (Norad), DFID, and the United States Agency for International Development (USAID).

$$\text{Present Value of Costs Year 2013 (PVC}_{2013}) = \text{Cost}_{2013} * (1+i_{2013}) * (1+i_{2014}) * (1+i_{2015})$$

Equation 6. Inflation adjusted cost

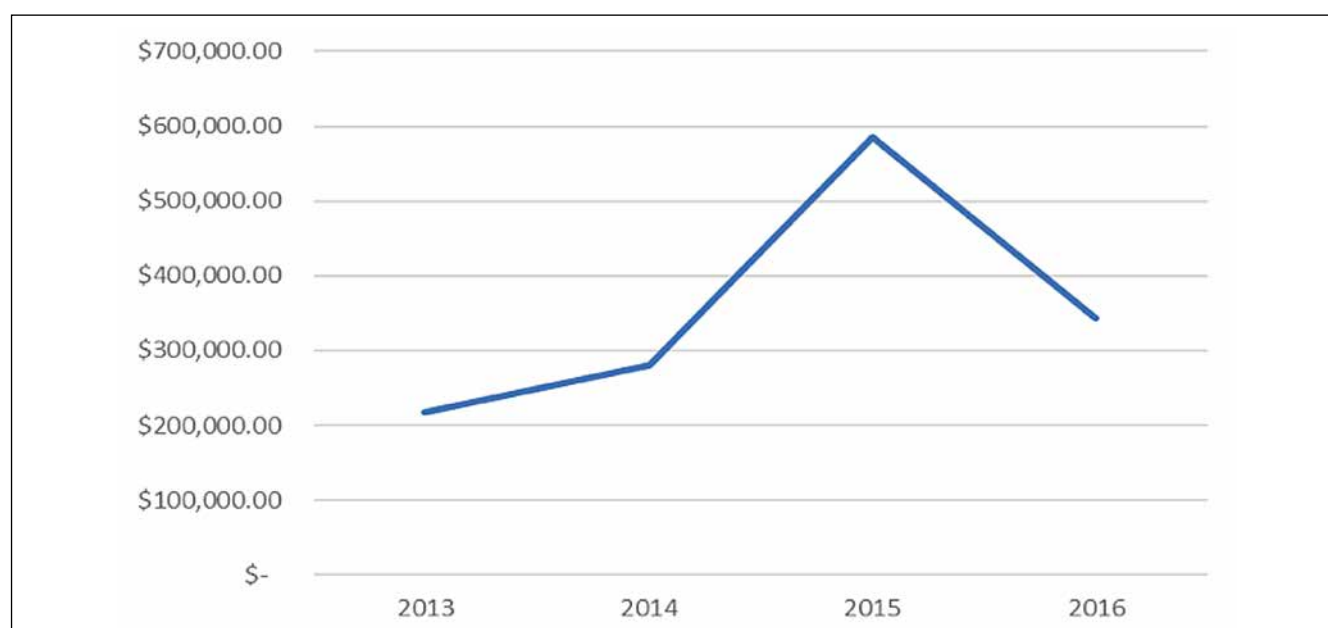


Figure 24. IUCN FLR-related costs in Guatemala

24. Annex 6 Results chart

25. Available at <http://data.worldbank.org/indicator/FP.CPI.TOTL.ZG> (accessed 21 June, 2017)

26. The inflation rate of 2016 is not considered as this is the year in which values are expressed.

# 8. Key findings

## Expected Return on Investment

For every dollar invested in IUCN’s support of FLR processes in Guatemala during the period 2012-2016, there is an expected return on investment (EROI) in 35 years of US\$ 56 (Equation 7).

This EROI result should be interpreted with caution due to the assumptions made in this assessment. However it can be considered representative of the scale of EROI from IUCN’s contribution to FLR policy formulation processes in Guatemala.

## Contribution typology

The contribution typology used allowed us to determine the relative importance of different types of contributions to Guatemala’s FLR policy formulation processes during the period 2012-2016, as well as define each actor’s contribution type. Political leadership was found to be the key contributing factor in Guatemala’s FLR processes, followed by Convening, Technical support and Advocacy. Funding was the least significant contributing factor (Figure 25).

US\$ 56

Expected Return on Investment (EROI)

=

12%

Contribution

X

US\$ 712, 502, 318

Benefit

US\$ 1,537,134

Cost

Equation 7. Result of expected return on investment calculation

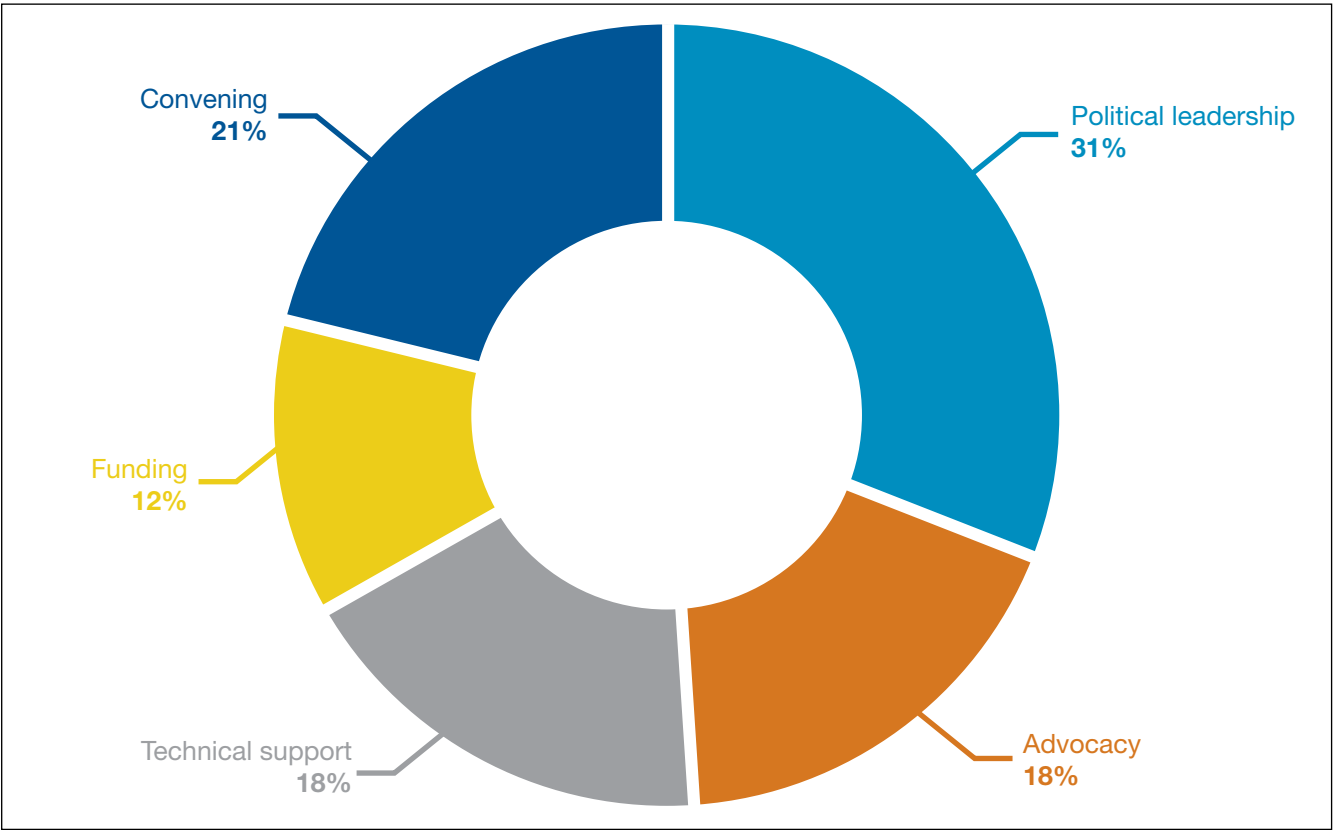


Figure 25. Contributions to Guatemala’s FLR processes 2012-2016



This information, combined with the key actor contribution scores allows us to identify the type and scale of contribution made by key actors, with Government clearly playing the most significant role (Figure 26). This figure demonstrates that FLR processes in Guatemala in the period 2012-2016 were government-led and were inclusive of a large number of different types of organisations, ranging from Indigenous peoples groups, NGOs and academia (included in the 'Other' group), private sector companies, and international organisations (IUCN and FAO). This aligns well with other descriptions of the inclusive nature of Guatemala's FLR processes (e.g. Sales, 2016).

By normalising contributions, each actor's contribution typology can be more easily understood (Figure 27). Each main actor group provided a degree of political leadership, technical input, funding, convening and advocacy. However, each actor has its own distinct contribution typology, which can be thought of as its comparative advantage in this process.

IUCN's role in Guatemala's FLR processes during this time period is dominated by Convening and Technical support, followed by Funding, Advocacy and Political leadership (Figure 28). MARN has previously acknowledged IUCN and FAO's technical and financial

support to PROBOSQUE-related processes (INAB, 2015). The quantified IUCN typology derived from the workshop aligns well with an external review of IUCN which, "*underlined IUCN's unique ability to convene government and civil society Members, as well as experts, Indigenous peoples' groups and other partners, in pursuit of conservation and sustainable development objectives. This convening role is underpinned and legitimised by IUCN's evidence based scientific work. IUCN harnesses this powerful, dual role – of convening diverse stakeholders and generating conservation knowledge – to further its mission of informing policy choices and other relevant decisions. A trusted knowledge base and reputation for balanced analysis help to cement IUCN's privileged access to policy and decision makers at the global, national and local levels. Similarly, IUCN is able to engage diverse stakeholders both inside and outside the traditional conservation arena*" (IUCN, 2016). The quantified contribution typology developed through this value for money case adds evidence to the KNOWFOR evaluation hypothesis that IUCN used its unique combination of linkage to members, knowledge brokering, technical analysis and convening attributes to play a critical role in the development and growth of FLR.

All other actor contribution typologies can be found in Annex 7.

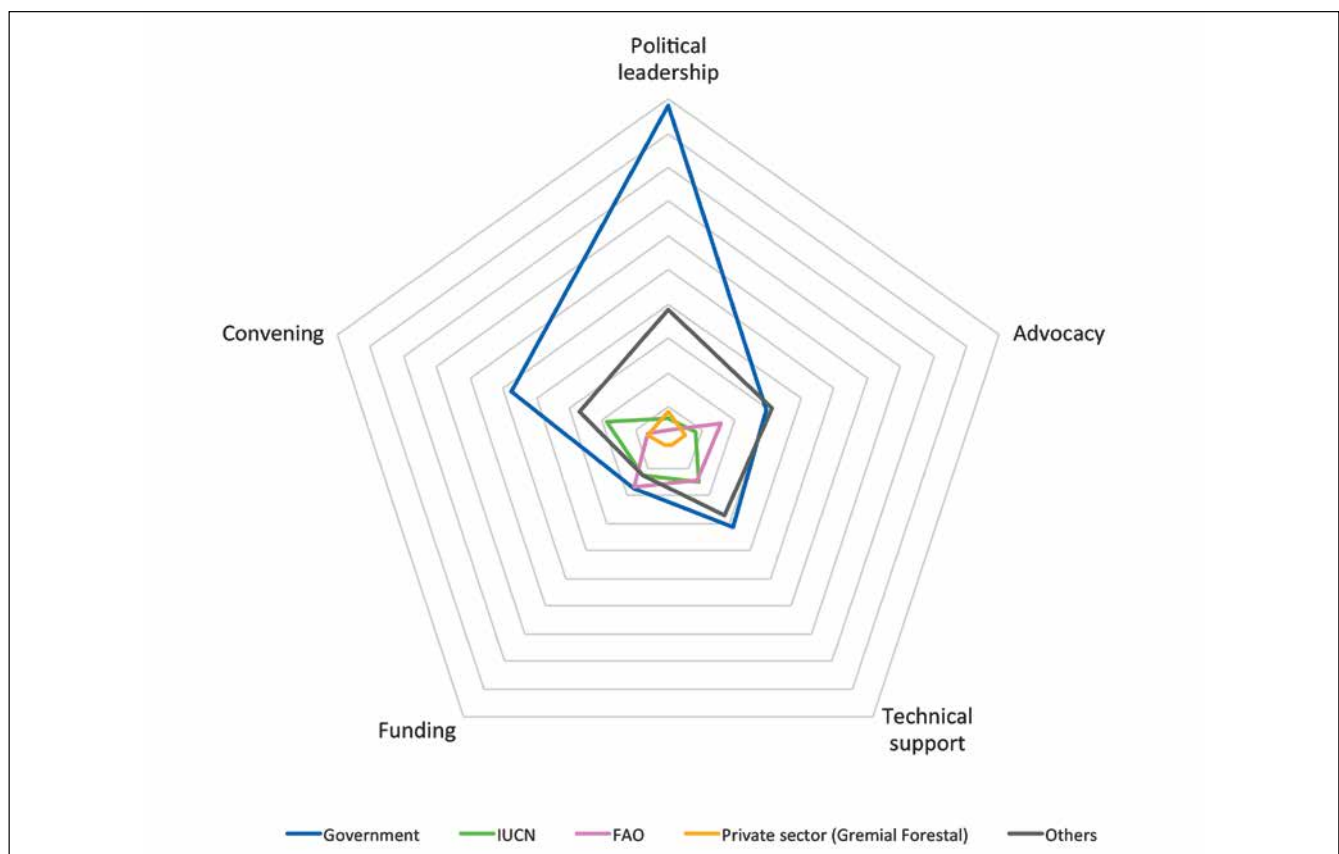


Figure 26. Types of contribution by actor (at scale)

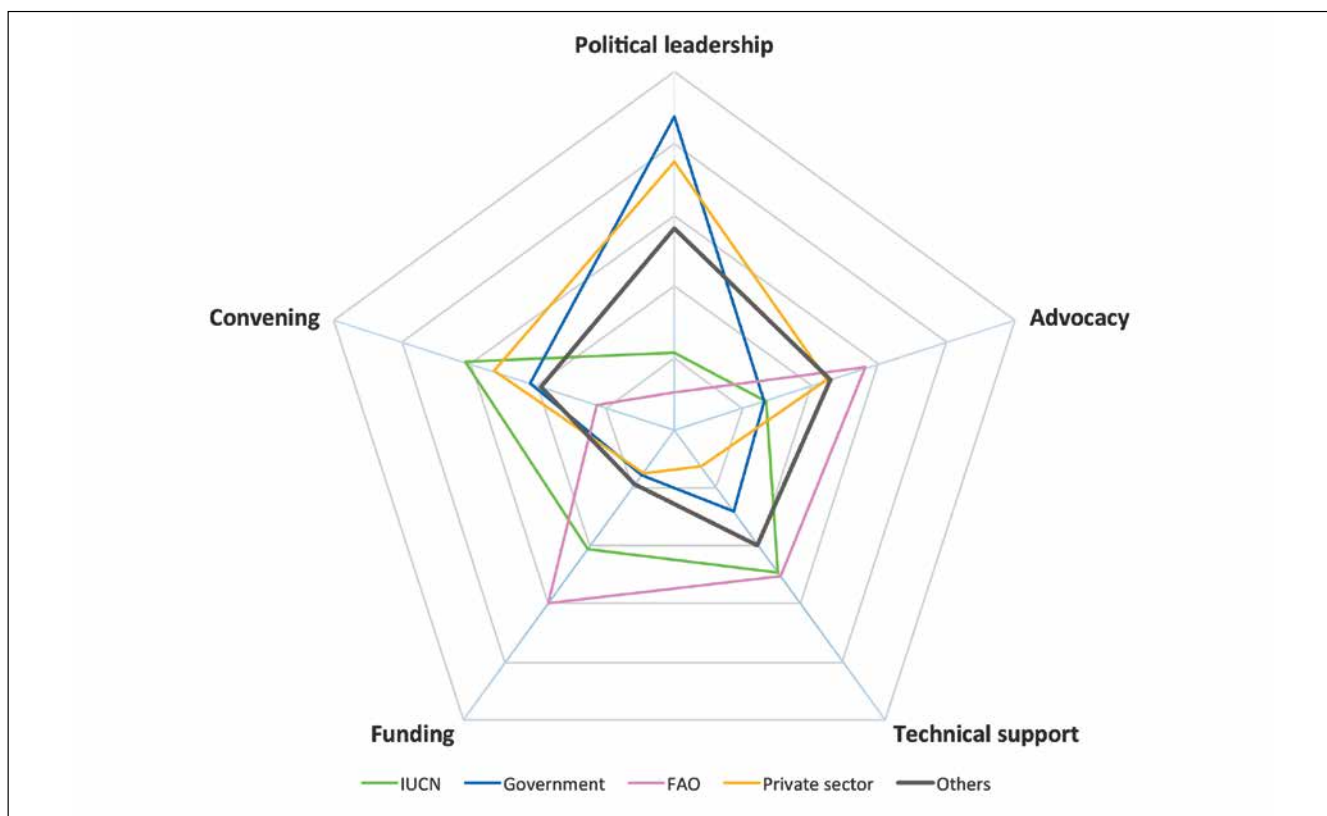


Figure 27. Types of contribution by actor (normalised)

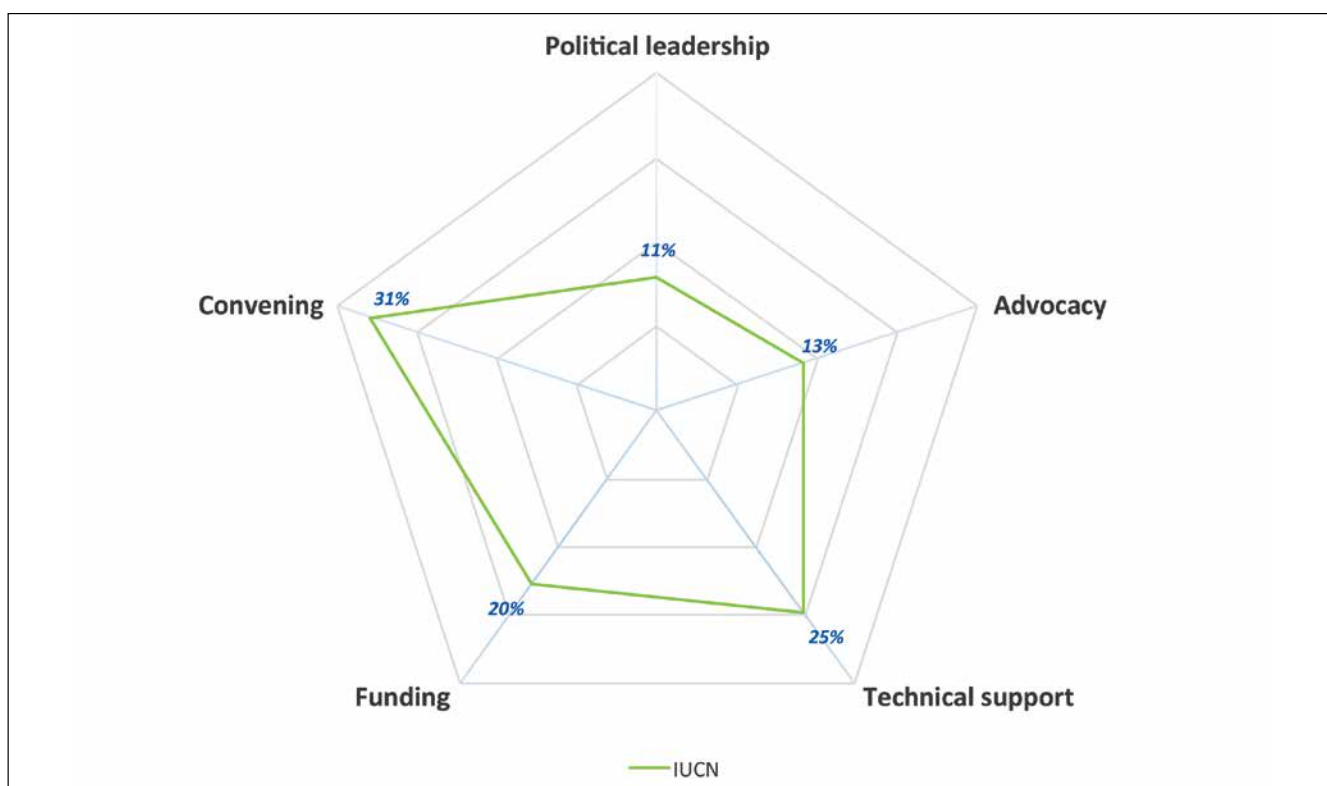


Figure 28. Typology of IUCN contributions to Guatemala's FLR processes 2012-2016

## 9. Discussion

This section explores the relevance of this VfM assessment to the Aichi Targets, DFID Objectives and the IUCN Global Programme. Uncertainty and assumptions are highlighted, and lessons learnt provided for future assessments.

### Contribution to Aichi Targets, DFID objectives, and the IUCN Global Programme

This VfM case builds on and strengthens evidence of how FLR processes in Guatemala contribute to the Aichi targets (Convention on Biological Diversity, 2017), DFID's Single Departmental Plan Objectives (DFID, 2016), and the 2017-2020 IUCN Global Programme objective of 'Impacting Change for a Sustainable Future' and associated targets (IUCN, 2016).

### Aichi Biodiversity Targets

The application of ROAM can help countries identify restoration actions that align with national development goals and the Aichi Biodiversity Targets. This includes the implementation of sustainable land management systems and the identification of areas that are important for biodiversity conservation or that will improve the connectivity among high biodiversity areas (Target 11). A critical component of these restoration assessments is to optimise the positive impacts of restoration on key ecosystem services, including carbon sequestration (Target 15), the provision of the water services, water yield and sediment retention (Target 14), and nutrient retention (Target 8). Understanding the direct monetary

impacts of restoration for landholders (individual or communal), and the impacts on the provision of key ecosystem services are the main outputs for developing restoration incentive instruments (Target 3). Overall restoration assessments serve as input in the development of financial strategies for a variety of restoration programmes (Target 20).

### DFID objectives

This VfM case demonstrates how FLR processes in Guatemala contribute to DFID's Single Departmental Plan Objectives (DFID, 2016):

- a. *Strengthening resilience and response to crisis: Helping manage climate change:* The promotion of, and increase in, landscape restoration in Guatemala will have significant carbon sequestration and other climate change-related benefits.
- b. *Promoting global prosperity: Catalytic investment to create more, better and inclusive jobs and incomes:* According to the Guatemala National Forest Restoration Strategy, it is estimated that restoration efforts will generate over US\$ 43 million of co-benefit through the creation of 600,000 new jobs (INAB, 2015).

### IUCN Programme targets

This VfM case demonstrates how FLR processes in Guatemala contribute to the IUCN Global Programme targets 5, 24, 25, 26, 27, 28 and 29 (IUCN, 2016), as detailed in Table 5.



Table 5. Contribution to IUCN targets

Target	Target description (IUCN, 2016)	Rationale
5	IUCN knowledge, including gender-specific knowledge as appropriate, on the value and conservation of nature is generated and communicated to influence key global, regional and local decisions and actions.	The ROAM process generated key technical knowledge on restoration opportunities used by stakeholders in Guatemala's FLR processes.
24	Key nature-based solutions interventions promoted by IUCN, (e.g. Forest Landscape Restoration, Disaster Risk Reduction, and Mangroves for the Future, river basin management and protected areas) are equipped to systematically assess and monitor the requisite in-country enabling frameworks, including legal, customary, institutional and resourcing mechanisms for implementation.	IUCN provided effective convening, technical input, funding, advocacy, and support to political leadership in Guatemala's FLR processes. This was possible through understanding Guatemala's enabling frameworks (key actors/processes/drivers, etc.).
25	Legal, policy and institutional mechanisms (at the national and sub-national level) that support and reward ecosystem stewardship by local communities and other resource managers for the delivery of societal benefits have been piloted and documented.	PROBOSQUE is recognised as being more inclusive and participatory than previous forest incentive programmes.
26	Mechanisms to facilitate the active participation of women, youth and indigenous peoples as key stakeholders in the design and implementation of nature-based solutions are tested, evaluated and promoted.	The IUCN-supported National Forest Landscape Restoration Roundtable brings together diverse actors and played an important role in PROBOSQUE development.
27	Additional international or national financial mechanisms that encourage the deployment of nature-based solutions are established and /or strengthened.	PROBOSQUE includes significant government financial incentives for enhanced management, which will contribute to longer-term impacts.
28	New national, sub-national or corporate planning and investment frameworks are effectively implemented in productive ecosystems to contribute to biodiversity conservation, sustainably deliver ecosystem goods and services and promote 'land degradation neutrality'.	
29	Restoration processes and methodologies make demonstrable contributions to the restitution of key ecosystem services in degraded landscapes, watersheds and seascapes.	866,754 ha in Guatemala have been identified as priority areas for restoration through the IUCN-supported ROAM.

## Programmatic and project attribution

The programmatic approach is at the core of IUCN's implementation strategy. In this VfM case all relevant IUCN FLR-related costs in Guatemala during the KNOWFOR evaluation period of 2012-2016 were considered. The six projects active during this period, including KNOWFOR, contribute to a shared

set of common goals, as can be seen in Annex 6, where multiple projects report against shared results.

IUCN implements its programme through a mix of different delivery mechanisms or models. All models respect the One Programme approach (IUCN, 2011). FLR is implemented through a programmatically aligned global portfolio approach in which large-scale multi-year programmatic initiatives are implemented by a combination of both global thematic and regional



programmes around a single set of well-defined objectives. Strategic implementation rests with the Secretariat. Global and regional knowledge and policy components are managed by the Secretariat (and appropriate Commissions), and *in-situ* executive roles are undertaken by IUCN regional secretariat and with IUCN Members and partners (IUCN, 2016). FLR largely sits under the “Deploying nature-based solutions to address societal challenges” Programme Area, one of the three Programme Areas in the Programme

2017-2020 (IUCN, 2016). In order to align with IUCN’s programmatic approach, all relevant project funds were grouped in the cost-benefit analysis.

## Uncertainty and assumptions

Each element of this VfM assessment was allocated high, medium, or low confidence, drawing from the KNOWFOR strength of evidence tool<sup>27</sup> (Table 6).

Table 6. Confidence and strength of evidence for each value for money case element (green: high, yellow: medium, red: low)

Value for Money case element	Strength of evidence	Rationale
Timeline	High	The timeline is an evidence-based representation of key events, processes and milestones leading up to and including PROBOSQUE.
IUCN contribution	Medium	Quantifying stakeholder contribution to policy change is recognised as challenging and some claim it is impossible (Tsui, 2014). While the exact percentage of IUCN contribution is clearly open to interpretation, evidence demonstrates that IUCN made a notable contribution to FLR processes in Guatemala during the period 2012-2016. This aligns with the scale and types of IUCN contributions reported in project documents. <sup>28</sup>  In exploring IUCN’s contribution, it is important to recognise that IUCN ORMACC has developed a high-quality working and technical support relationship with Guatemala for more than 25 years. IUCN has a Guatemala country office, and the Guatemalan Ministry of Environment is an IUCN member.
Benefit	Medium	The model used to estimate the potential financial benefits of landscape restoration in Guatemala with and without the PROBOSQUE incentives contains significant assumptions. Key elements of variability such as climate change were not included due to time and cost constraints. The choice of 12% discount rate aligns with World Bank behaviour. Within the parameters of the model used, the potential benefit calculation is robust.
Cost	High	Relevant project contributions were adjusted for inflation.
IUCN contribution typology	High	The type and relative importance of different actor contributions to Guatemala’s FLR policy formulation processes was assessed through the use of the five types of contribution. While the applicability of the five criteria to other contexts will need to be further assessed, the findings provide new evidence and insight into IUCN’s role in change processes. <sup>29</sup>
Attribution	Medium	Although the calculation of the potential benefit derived from FLR transitions (with or without incentives) is robust, quantifying how much of that potential benefit can be attributed to the FLR processes described here remains an open question. For the purpose of this case study several assumptions were made, one of the most significant ones being that through the effective implementation of the PROBOSQUE law all areas with FLR potential in Guatemala will transition to more sustainable (and profitable) land uses, within PROBOSQUE budget limitations, whereas this may not be the case (Wertz, 2017).

27. Annex 8 Strength of evidence tool

28. Annex 6 Results chart

29. No other quantitative assessment of IUCN’s contribution to change exists, as far as we know. We are therefore unable to compare our results to other assessments.



The VfM approach used is experimental, contains important assumptions, and the final EROI value of US\$ 56 should be interpreted with caution. Assessing uncertainty within this VfM case using e.g. Walker's 2003 typology of uncertainty would help pinpoint areas for improvement. Within identified uncertainty parameters and the limitations of the EROI model used, however, the authors are confident in the findings that the work delivered VfM, since – even after various forms of discounting – the estimated return of IUCN's work so greatly exceeded the investment in that work.

The VfM case contains assumptions (Figure 29), which are highlighted here:

#### Assumptions:

1. Combining evidence from the existing IUCN episode study *Exploring IUCN's contribution to Guatemala's FLR processes* (Allemant, 2017) with expert judgement, and triangulating findings with other sources of information would result in an objective representation of: (a) Guatemala's FLR policy formulation processes, and (b) key actor contribution to those processes.
2. The objective representation of Guatemala's FLR policy formulation processes and key

actor contribution to those processes can be attributed with 100% of the FLR process results, i.e. no other drivers. Assigning a score to the 'Other drivers' category was debated, but due to uncertainty, the authors could not define what that score would be.

3. Through the effective implementation of the PROBOSQUE law all areas with FLR potential in Guatemala will transition to more sustainable (and profitable) land uses within PROBOSQUE budget limitations, as this law includes various incentives and active promotion of the FLR transitions (e.g., through agricultural extension programmes).
4. Significant aspects of variability (e.g., market fluctuation, climate change) are not integrated into the benefit model.
5. Only the financial benefit of FLR was included in the EROI calculation, excluding all other benefits.

## Lessons learnt & implications

When designing this VfM case, it was recognised that there would be sensitivities about the attempt to derive an EROI, because it meant ascribing precise scores to organisational contribution and influence.

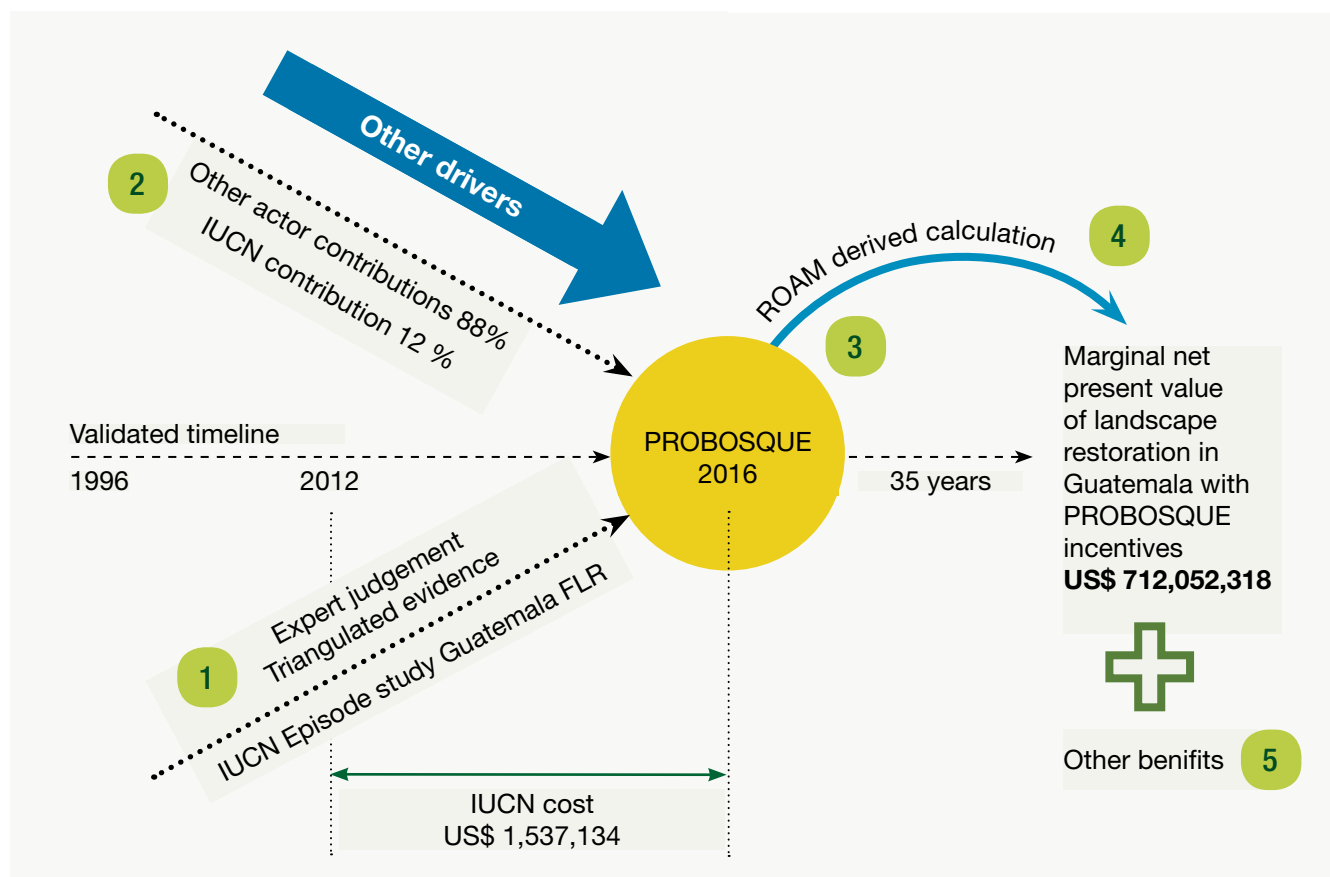


Figure 29. Main assumptions

The authors attempted to address sensitivities and mitigate risk in several ways:

1. Participants in the expert workshop were made aware that DFID was interested in the VfM of the KNOWFOR programme, and that partners including IUCN had been mandated to develop a VfM assessment as part of the KNOWFOR evaluation.
2. The exploratory nature of the exercise was highlighted to workshop participants and they were walked through the approach. Participants were invited to review a Spanish language draft of an earlier version of this report and their comments and feedback were included in the final version.
3. The authors offered to share the approach and key findings with workshop participants, so that by substituting IUCN's contribution percentage and costs with their own organisational scores, they could easily derive their own EROI value.
4. The quantification process was designed to avoid competition between actors, through workshop participants allocating 100% to each key actor between the weighted contribution types per priority milestone/process, rather than having to allocate 100% between key actors.
5. Related government actors were grouped into the Government group and multiple actors with smaller contribution scores were combined into the 'Other' group.

Based on the process, findings and lessons from this VfM assessment, there exists potential for broader applicability of VfM assessments in IUCN. An external review of IUCN in 2015 recommended as the highest strategic priority that IUCN should "more clearly articulate both its activities and its contributions to biodiversity and sustainability outcomes" (Universalia, 2015), also known as impact reporting. This VfM assessment effectively links relatively short-term interventions to longer term potential costs and benefits of those interventions (impact) and should therefore be seen as an initial test case that IUCN and other organisations can build on to more clearly articulate their contributions to biodiversity and sustainability outcomes.

The EROI value of US\$ 56 is hard to compare to other VfM assessments, and it is clear that VfM is not only

about the numbers, as "defining the VfM of a single intervention tells us little about the relative value of this intervention" (Emmi, 2011). There are other values associated with the interventions described in this assessment, and the need for IUCN to better define what it considers 'valuable' is clear. These IUCN-defined values could usefully constitute additional criteria to complement the existing 4 Es (Effectiveness, Economy, Efficiency and Equity) in future VfM assessments. The existence of actualised benefits (e.g. social capital) on the contribution side has not been adequately captured in the current assessment, and could form the subject of further enquiry.

IUCN's role as a convenor is widely acknowledged yet very little is known about the value of that convening power in broader change processes. This VfM assessment demonstrated that the use of a simple contribution typology revealed the comparative advantage of different organisations in a change process, and further work is warranted to better understand how to use that type of information. The role of network analysis as an approach to better define and quantify IUCN's convening power could form the subject of valuable additional research.

There is clear need to enhance the systematic design, monitoring, evaluation and learning from interventions in the context of impact reporting and VfM. As noted, neither of IUCN's two VfM assessments was based on information specifically generated for the purpose of assessing VfM. Instead they were assembled using available evidence, with limited additional data collection and analysis. This is key area for future improvement. Based on this VfM assessment, IUCN has integrated VfM into the design parameters of several new projects.

It is worth noting that this approach falls outside of IUCN's normal operating sphere, in which influence on complex political processes is purposefully not highlighted or promoted. Here a quantitative light was shone on Guatemala's FLR policy formulation processes, running the risk of jeopardising close and effective working relationships between IUCN, its members and partners in Guatemala. The suitability of this kind of VfM assessment will need to be assessed on a case by case basis, and its limitations and risks clarified at different stages of the assessment process with partners.

# 10. Conclusion

“VfM can be useful and relevant to development cooperation, so long as the limitations of the concept are understood and it is applied pragmatically” (Jackson, 2012). For every dollar invested in IUCN’s support of Forest Landscape Restoration processes in Guatemala during the period 2012-2016, an EROI in 35 years of US \$56 was calculated. This was calculated using a cost-benefit calculation modified to recognise the uncertainty inherent in many social investments.

A participatory, evidence-based expert workshop was run with Guatemala’s National Forest Landscape Roundtable to quantify contributions to Guatemala’s FLR policy processes in the period 2012-2016. IUCN’s overall contribution to Guatemala’s FLR policy processes in this period was 12%. The most significant contribution came from Government (45%). FAO (11%) and the private sector (5%) were well represented. Other actors, including the ASOREMA and academia accounted for 27%.

The IUCN-supported Guatemala ROAM was used to calculate the potential benefits of landscape restoration in Guatemala with and without the PROBOSQUE incentives. Using the available PROBOSQUE budget for incentives as the factor limiting restoration uptake, the marginal net present value of landscape restoration in Guatemala is US\$712,052,318 over a 35 year period. Financial records were used to identify IUCN FLR-related costs in Guatemala over the period 2012-2016, which total US\$ 1,537,134 when adjusted for inflation.

IUCN’s contribution typology to Guatemala’s FLR policy formulation processes was identified as Convening (31%), Technical support (25%), and Funding (20%). Advocacy and Political leadership were less significant contributions. The IUCN contribution typology is different from other actors assessed, and adds evidence to the KNOWFOR evaluation hypothesis that IUCN used its unique combination of linkage to members, knowledge brokering, technical analysis and convening attributes to play a critical role in the development and growth of FLR.

The VfM approach used is exploratory, contains important assumptions, and the final EROI value of US\$ 56 should be interpreted with caution. Within identified uncertainty parameters and the limitations of the EROI model used however, the authors are confident in the findings that IUCN’s work in Guatemala delivered VfM, since – even after discounting – the estimated return greatly exceeded the investment.

The approach and findings of this case study open the door to more in-depth enquiry on policy influence quantification and VfM analyses. It offers opportunities to plan for, generate evidence, and learn from different implementation strategies across IUCN at global, regional and national levels under “One Programme”. It is hoped that this case study helps IUCN strengthen its approach to assessing VfM across its portfolio. For partners in Guatemala’s FLR processes, and for other institutions interested in VfM, this report offers a guide to develop their own VfM assessment.

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# Annex 1 | Expert workshop participant list

## Expert input

1. Marta Ayala – CALMECAC (IUCN Member)
2. José David Díaz - TNC
3. Jose Luis Echeverria - CONAP
4. Lili Elias – FUNDAECO (IUCN Member)
5. Francisco Escobedo - GREMIAL FORESTAL
6. Jorge Jimenez - CECON
7. Victor López - Utz'Che
8. Marta María Molina – CALMECAC (IUCN Member)
9. Vicente Martínez - USAC
10. Oscar Medinilla - USAC
11. Andrea Nájera - Independiente
12. Marcel Oseida - INAB
13. Ursula Parrilla - IUCN
14. Orsibal Ramirez – IUCN
15. Edwin Rojas - Cambio Climatico / MAGA
16. Oscar Rojas - RA
17. Kenset Rosales – MARN (IUCN Member)
18. Ebal Sales - PFN-INAB
19. Selvin Santizo - ANAM
20. Martir Vasquez - INAB

## Facilitation, Interpretation & Logistics

21. Sebastian Cabrera
22. Jules Colomer
23. Victoria Hernandez
24. Alejandro A. Imbach
25. Leander Raes

# Annex 2 | Timeline evidence

Years	Milestones/Processes	Source of evidence
1990-95	Forest Action Plan for Guatemala 1990-1995	<a href="http://pdf.usaid.gov/pdf_docs/Pnabh787.pdf">http://pdf.usaid.gov/pdf_docs/Pnabh787.pdf</a>
1996	Forest law	<a href="http://186.151.231.170/inab/images/publicaciones/ley_forestal.PDF">http://186.151.231.170/inab/images/publicaciones/ley_forestal.PDF</a>
	Creation of the National Forestry Institute (INAB)	<a href="http://www.inab.gob.gt/">http://www.inab.gob.gt/</a>
	Beginning of the National Program of Forest Incentives (PINFOR)	<a href="http://186.151.231.167/Paginas%20web/Pinfor.aspx">http://186.151.231.167/Paginas%20web/Pinfor.aspx</a>
2003	National Forest Agenda within the Nation Forest Program 2003-2012	<a href="http://thereddesk.org/sites/default/files/agenda_nacional_forestal_2003-2012_in_framework_of_pfn_1.pdf">http://thereddesk.org/sites/default/files/agenda_nacional_forestal_2003-2012_in_framework_of_pfn_1.pdf</a>
2007-2008	Forest incentive pilot program (Dutch cooperation)	
2006-2010	Direct Forest Support Pilot Project PPAFD – PARPA	<a href="http://web.maga.gob.gt/wp-content/blogs.dir/13/files/2013/widget/public/priorizacion_parpa_250000.pdf">http://web.maga.gob.gt/wp-content/blogs.dir/13/files/2013/widget/public/priorizacion_parpa_250000.pdf</a>
2007-2010	Consultation process for the preparation of PINPEP	
2009	National Plan for Integral Rural Development	<a href="http://www.segeplan.gob.gt/downloads/clearinghouse/politicas_publicas/Desarrollo%20Rural/Pol%C3%ADtica%20Desarrollo%20Rural%20Integral.pdf">http://www.segeplan.gob.gt/downloads/clearinghouse/politicas_publicas/Desarrollo%20Rural/Pol%C3%ADtica%20Desarrollo%20Rural%20Integral.pdf</a>
	National alliance of Community forest organisations	<a href="http://www.alianzamesoamericana.org/alianza-nacional-de-organizaciones-forestales-comunitarias-de-guatemala-alianza-ofc-guatemala/">http://www.alianzamesoamericana.org/alianza-nacional-de-organizaciones-forestales-comunitarias-de-guatemala-alianza-ofc-guatemala/</a>
2010	Forestry incentive program for small landowners (PINPEP)	<a href="http://186.151.231.170/inab/images/publicaciones/Ley%20PINPEP0001.pdf">http://186.151.231.170/inab/images/publicaciones/Ley%20PINPEP0001.pdf</a>
	Sectorial studies (evaluations, studies, mapping of actors)	
	Adoption of the strategic plan for biological diversity	<a href="https://www.cbd.int/doc/decisions/cop-10/cop-10-dec-21-es.pdf">https://www.cbd.int/doc/decisions/cop-10/cop-10-dec-21-es.pdf</a>
	National network of communities benefiting from PINPEP	<a href="https://es-la.facebook.com/red.nacional.pinpep/">https://es-la.facebook.com/red.nacional.pinpep/</a>
2011	National Policy on Biological Diversity	<a href="http://www.marn.gob.gt/Multimedios/422.pdf">http://www.marn.gob.gt/Multimedios/422.pdf</a>
	Bonn Challenge International Launch	<a href="http://www.bonnchallenge.org/content/history-challenge">http://www.bonnchallenge.org/content/history-challenge</a>
	IX National Forestry Congress	<a href="https://coin.fao.org/coin-static/cms/media/11/13294120346510/boletin_fao_guatemala_agosto_2011.pdf">https://coin.fao.org/coin-static/cms/media/11/13294120346510/boletin_fao_guatemala_agosto_2011.pdf</a>
2012	Interagency Coordination Group (GCI)	<a href="http://marnguatemala.blogspot.ch/2012/05/grupo-interinstitucional-de-bosques.html#/2012/05/grupo-interinstitucional-de-bosques.html">http://marnguatemala.blogspot.ch/2012/05/grupo-interinstitucional-de-bosques.html#/2012/05/grupo-interinstitucional-de-bosques.html</a>
	Bonn Challenge first national implementation meeting	
	Family Agriculture Program for Strengthening Peasant Economy 2012-2015	<a href="http://web.maga.gob.gt/wp-content/uploads/pdf/home/programa_agricultura.pdf">http://web.maga.gob.gt/wp-content/uploads/pdf/home/programa_agricultura.pdf</a>
	National biodiversity strategy and action plan	<a href="http://thereddesk.org/sites/default/files/estrategia-nacional-de-diversidad-biologica-y-plan-de-accion-version-hconap_1.pdf">http://thereddesk.org/sites/default/files/estrategia-nacional-de-diversidad-biologica-y-plan-de-accion-version-hconap_1.pdf</a>
	REDD+ National strategy	<a href="http://www.iadb.org/es/proyectos/project-information-page,1303.html?id=GU-T1194">http://www.iadb.org/es/proyectos/project-information-page,1303.html?id=GU-T1194</a>

Years	Milestones/Processes	Source of evidence
2013	Beginning of Restoration Opportunities Assessment Methodology	<a href="https://www.iucn.org/downloads/roam_handbook_lowres_web.pdf">https://www.iucn.org/downloads/roam_handbook_lowres_web.pdf</a>
	Map of potential areas for restoration	<a href="https://www.iucn.org/es/content/primer-taller-para-el-desarrollo-de-la-estrategia-nacional-de-restauraci%C3%B3n-forestal-en">https://www.iucn.org/es/content/primer-taller-para-el-desarrollo-de-la-estrategia-nacional-de-restauraci%C3%B3n-forestal-en</a>
	First national FLR seminar	
	Creation of the National FLR Roundtable	
	Climate change law	<a href="http://www.marn.gob.gt/Multimedios/2682.pdf">http://www.marn.gob.gt/Multimedios/2682.pdf</a>
2014	Conformation of the technical committee for the formulation of the PROBOSQUE law	
	National Climate Change Congress	<a href="http://cambioclimaticogt.org/">http://cambioclimaticogt.org/</a>
	Consultations in rural areas at sectoral level	
	ER-PIN	<a href="https://www.forestcarbonpartnership.org/sites/fcp/files/2014/september/Guatemala%20ER-PIN%20Version%20Sept%202014.pdf">https://www.forestcarbonpartnership.org/sites/fcp/files/2014/september/Guatemala%20ER-PIN%20Version%20Sept%202014.pdf</a>
	Guatemala Bonn Challenge	<a href="http://www.bonnchallenge.org/content/guatemala">http://www.bonnchallenge.org/content/guatemala</a>
	Guatemala offers 1.2 million ha in Bonn challenge	<a href="http://www.bonnchallenge.org/content/guatemala">http://www.bonnchallenge.org/content/guatemala</a>
	Presentation of a PROBOSQUE initiative to the National Congress	<a href="https://drive.google.com/file/d/0B5m0jps_m0dRTkJFdThhdVFyT1U/edit">https://drive.google.com/file/d/0B5m0jps_m0dRTkJFdThhdVFyT1U/edit</a>
2015	Extension of the GCI agreement	
	National Forest Restoration Strategy - ENRPF	<a href="http://www.fao.org/forestry/43244-0d7675c1321e62fbaa45f9e3d339c77c8.pdf">http://www.fao.org/forestry/43244-0d7675c1321e62fbaa45f9e3d339c77c8.pdf</a>
	Approval of the PROBOSQUE law	<a href="http://www.marn.gob.gt/Multimedios/2604.pdf">http://www.marn.gob.gt/Multimedios/2604.pdf</a>
	Guatemala 20x20 Restoration Initiative	<a href="https://www.iucn.org/es/content/pa%C3%ADses-de-latinoam%C3%A9rica-y-el-caribe-lanzan-la-iniciativa-20x20-para-restaurar-20-millones-de">https://www.iucn.org/es/content/pa%C3%ADses-de-latinoam%C3%A9rica-y-el-caribe-lanzan-la-iniciativa-20x20-para-restaurar-20-millones-de</a>
2016	Regulation of PROBOSQUE	<a href="https://www.iucn.org/node/25844">https://www.iucn.org/node/25844</a> <a href="http://cretec.org.gt/wp-content/files_mf/resolucionjd.02.12.2016.pdf">http://cretec.org.gt/wp-content/files_mf/resolucionjd.02.12.2016.pdf</a>
	II National Climate Change Congress	<a href="http://cambioclimaticogt.com/site/">http://cambioclimaticogt.com/site/</a>
	End of PINFOR	<a href="http://www.dca.gob.gt/index.php/section-table-2/item/53728-probosque-por-guatemala-y-nuestros-bosques">http://www.dca.gob.gt/index.php/section-table-2/item/53728-probosque-por-guatemala-y-nuestros-bosques</a>
	Family Agriculture Law	<a href="https://canalantigua.tv/la-ley-de-agricultura-familiar/">https://canalantigua.tv/la-ley-de-agricultura-familiar/</a>
	PROBOSQUE launching	<a href="http://www.gt.undp.org/content/guatemala/es/home/presscenter/articles/2016/03/31/ley-probosque-un-avance-para-el-desarrollo-del-pa-s.html">http://www.gt.undp.org/content/guatemala/es/home/presscenter/articles/2016/03/31/ley-probosque-un-avance-para-el-desarrollo-del-pa-s.html</a>
	Technical Manuals for Restoration Criteria	<a href="http://186.151.231.170/inab/images/descargas/formatosprobosques/Manual%20de%20Criterios%20y%20Par%C3%A1metros%20-%20PROBOSQUE%20-.pdf">http://186.151.231.170/inab/images/descargas/formatosprobosques/Manual%20de%20Criterios%20y%20Par%C3%A1metros%20-%20PROBOSQUE%20-.pdf</a>

# Annex 3 | Workshop results

#	(m) milestone	(W) relative weight given to a milestone m	(c) contribution type	(w) relative weight given to a contribution type c	Contribution percentage assigned to an actor on a given contribution type c for a given milestone m					Contributions per actor per contribution type per milestone				
					(g) Government	(u) IUCN	(f) FAO	(p) Gremial Forestal	(o) Other	W*w*g	W*w*u	W*w*f	W*w*p	W*w*o
35	National Forest Restoration Strategy (ENRPF)	14.7%	1 - Political leadership	25	80.0	10.0	0.0	0.0	10.0	3%	0%	0%	0%	0%
35	National Forest Restoration Strategy (ENRPF)	14.7%	3 - Technical support	40	38.0	28.0	0.0	3.0	31.0	2%	2%	0%	0%	2%
35	National Forest Restoration Strategy (ENRPF)	14.7%	4 - Funding	10	23.0	36.0	10.0	1.0	30.0	0%	1%	0%	0%	0%
35	National Forest Restoration Strategy (ENRPF)	14.7%	5 - Convening	25	50.0	50.0	0.0	0.0	0.0	2%	2%	0%	0%	0%
42	Regulation of PROBOSQUE law	14.7%	1 - Political leadership	40	45.0	7.0	1.0	15.0	32.0	3%	0%	0%	1%	2%
42	Regulation of PROBOSQUE law	14.7%	2 - Advocacy	20	40.0	11.0	3.0	4.0	42.0	1%	0%	0%	0%	1%
42	Regulation of PROBOSQUE law	14.7%	4 - Funding	20	57.0	3.0	1.0	11.0	28.0	2%	0%	0%	0%	1%
42	Regulation of PROBOSQUE law	14.7%	5 - Convening	20	15.0	50.0	20.0	0.0	15.0	0%	1%	1%	0%	0%
36	Approval of the PROBOSQUE law	14.1%	1 - Political leadership	40	50.0	5.0	5.0	5.0	35.0	3%	0%	0%	0%	2%
36	Approval of the PROBOSQUE law	14.1%	2 - Advocacy	35	40.0	5.0	5.0	5.0	45.0	2%	0%	0%	0%	2%

#	(m) milestone	(W) relative weight given to a milestone m	(c) contribution type	(w) relative weight given to a contribution type c	Contribution percentage assigned to an actor on a given contribution type c for a given milestone m					Contributions per actor per contribution type per milestone				
					(g) Government	(u) IUCN	(f) FAO	(p) Gremial Forestal	(o) Other	W*w*g	W*w*u	W*w*f	W*w*p	W*w*o
36	Approval of the PROBOSQUE law	14.1%	4 - Funding	10	35.0	20.0	15.0	0.0	30.0	0%	0%	0%	0%	0%
36	Approval of the PROBOSQUE law	14.1%	5 - Convening	15	20.0	0.0	0.0	10.0	70.0	0%	0%	0%	0%	1%
28	Formation of the technical committee for the formulation of the PROBOSQUE law	13.5%	1 - Political leadership	25	16.0	8.0	8.0	16.0	52.0	1%	0%	0%	1%	2%
28	Formation of the technical committee for the formulation of the PROBOSQUE law	13.5%	2 - Advocacy	25	20.0	0.0	80.0	0.0	0.0	1%	0%	3%	0%	0%
28	Formation of the technical committee for the formulation of the PROBOSQUE law	13.5%	3 - Technical support	15	0.0	0.0	75.0	0.0	25.0	0%	0%	2%	0%	1%
28	Formation of the technical committee for the formulation of the PROBOSQUE law	13.5%	4 - Funding	10	10.0	20.0	70.0	0.0	0.0	0%	0%	1%	0%	0%
28	Formation of the technical committee for the formulation of the PROBOSQUE law	13.5%	5 - Convening	25	40.0	0.0	20.0	10.0	30.0	1%	0%	1%	0%	1%
26	Creation of the National FRL Roundtable	11.7%	1 - Political leadership	15	75.0	0.0	0.0	0.0	25.0	1%	0%	0%	0%	0%
26	Creation of the National FRL Roundtable	11.7%	2 - Advocacy	30	23.0	28.0	1.0	3.0	45.0	1%	1%	0%	0%	2%
26	Creation of the National FRL Roundtable	11.7%	3 - Technical support	30	11.0	28.0	1.0	3.0	57.0	0%	1%	0%	0%	2%



#	(m) milestone	(W) relative weight given to a milestone m	(c) contribution type	(w) relative weight given to a con- tribution type c	Contribution percentage assigned to an actor on a given contribution type c for a given milestone m					Contributions per actor per contribution type per milestone				
					(g) Govern- ment	(u) IUCN	(f) FAO	(p) Gremial Forestral	(o) Other	W*w*g	W*w*u	W*w*f	W*w*p	W*w*o
26	Creation of the National FRL Roundtable	11.7%	4 - Funding	10	15.0	60.0	15.0	0.0	10.0	0%	1%	0%	0%	0%
26	Creation of the National FRL Roundtable	11.7%	5 - Convening	15	75.0	25.0	0.0	0.0	0.0	1%	0%	0%	0%	0%
18	Interagency Coordination Group	11.0%	1 - Political leadership	50	100.0	0.0	0.0	0.0	0.0	6%	0%	0%	0%	0%
18	Interagency Coordination Group	11.0%	3 - Technical support	25	80.0	0.0	20.0	0.0	0.0	2%	0%	1%	0%	0%
18	Interagency Coordination Group	11.0%	5 - Convening	25	100.0	0.0	0.0	0.0	0.0	3%	0%	0%	0%	0%
30	Consultations in rural areas at sectorial level for PROBOSQUE law	11.0%	1 - Political leadership	25	80.0	0.0	0.0	0.0	20.0	2%	0%	0%	0%	1%
30	Consultations in rural areas at sectorial level for PROBOSQUE law	11.0%	2 - Advocacy	25	40.0	0.0	0.0	20.0	40.0	1%	0%	0%	1%	1%
30	Consultations in rural areas at sectorial level for PROBOSQUE law	11.0%	4 - Funding	10	7.0	18.0	18.0	3.0	54.0	0%	0%	0%	0%	1%
30	Consultations in rural areas at sectorial level for PROBOSQUE law	11.0%	5 - Convening	40	30.0	0.0	0.0	15.0	55.0	1%	0%	0%	1%	2%
12	Sectorial studies (evaluations, studies, mapping of actors)	9.2%	1 - Political leadership	25	70.0	0.0	0.0	0.0	30.0	2%	0%	0%	0%	1%
12	Sectorial studies (evaluations, studies, mapping of actors)	9.2%	2 - Advocacy	5	40.0	20.0	20.0	0.0	20.0	0%	0%	0%	0%	0%

#	(m) milestone	(W) relative weight given to a milestone m	(c) contribution type	(w) relative weight given to a con- tribution type c	Contribution percentage assigned to an actor on a given contribution type c for a given milestone m					Contributions per actor per contribution type per milestone				
					(g) Govern- ment	(u) IUCN	(f) FAO	(p) Gremial Forestal	(o) Other	W*w*g	W*w*u	W*w*f	W*w*p	W*w*o
12	Sectorial studies (evaluations, studies, mapping of actors)	9.2%	3 - Technical support	40	40.0	10.0	20.0	0.0	30.0	1%	0%	1%	0%	1%
12	Sectorial studies (evaluations, studies, mapping of actors)	9.2%	4 - Funding	30	20.0	15.0	60.0	0.0	5.0	1%	0%	2%	0%	0%
									TOTALS	45%	12%	11%	5%	27%

# Annex 4 | IUCN contribution calculation

#	m - milestone	W is the relative weight given to a milestone m	c - contribution type	w relative weight given to a contribution type c	u - contribution percentage assigned to IUCN on a given contribution type c for a given milestone m	W * w * u
35	National Forest Restoration Strategy (ENRPF)	14.7%	1 - Political leadership	25	10.0	0.4%
			3 - Technical support	40	28.0	1.6%
			4 - Funding	10	36.0	0.5%
			5 - Convening	25	50.0	1.8%
42	Regulation of PROBOSQUE law	14.7%	1 - Political leadership	40	7.0	0.4%
			2 - Advocacy	20	11.0	0.3%
			4 - Funding	20	3.0	0.1%
			5 - Convening	20	50.0	1.5%
36	Approval of the PROBOSQUE law	14.1%	1 - Political leadership	40	5.0	0.3%
			2 - Advocacy	35	5.0	0.2%
			4 - Funding	10	20.0	0.3%
			5 - Convening	15	0.0	0.0%
28	Formation of the technical committee for the formulation of the PROBOSQUE law	13.5%	1 - Political leadership	25	8.0	0.3%
			2 - Advocacy	25	0.0	0.0%
			3 - Technical support	15	0.0	0.0%
			4 - Funding	10	20.0	0.3%
			5 - Convening	25	0.0	0.0%
26	Creation of the National FRL Roundtable	11.7%	1 - Political leadership	15	0.0	0.0%
			2 - Advocacy	30	28.0	1.0%
			3 - Technical support	30	28.0	1.0%
			4 - Funding	10	60.0	0.7%
			5 - Convening	15	25.0	0.4%

#	m - milestone	W is the relative weight given to a milestone m	c - contribution type	w relative weight given to a contribution type c	u - contribution percentage assigned to IUCN on a given contribution type c for a given milestone m	W * w * u
18	Interagency Coordination Group	11.0%	1 - Political leadership	50	0.0	0.0%
			3 - Technical support	25	0.0	0.0%
			5 - Convening	25	0.0	0.0%
30	Consultations in rural areas at sectorial level for PROBOSQUE law	11.0%	1 - Political leadership	25	0.0	0.0%
			2 - Advocacy	25	0.0	0.0%
			4 - Funding	10	18.0	0.2%
			5 - Convening	40	0.0	0.0%
12	Sectorial studies (evaluations, studies, mapping of actors)	9.2%	1 - Political leadership	25	0.0	0.0%
			2 - Advocacy	5	20.0	0.1%
			3 - Technical support	40	10.0	0.4%
			4 - Funding	30	15.0	0.4%
						12.2%

# Annex 5 | Actor grouping

## Government

- INAB
- MAGA
- MARN
- CONAP
- National Congress

## Private sector

- Gremial forestal (Guatemalan Forestry Board)

## Others

### Academia

- FAUSAC (Faculty of Agronomy of the University of San Carlos)
- IARNA-URL (University Rafael Landívar Institute for Research and Projection on Natural Environment and Society)
- Colegio de agrónomos (School of agronomists)
- ICC (Private Institute for Climate Change Research)

### Local government

- ANAM (National Association of Municipalities)
- Red de autoridades indígenas (Network of indigenous authorities)

### National NGOs

- CALMECAC
- ASOREMA
- UTZ CHE'
- Defensores de la Naturaleza
- FUNDAECO
- SOTZIL
- BALAM

### International NGOs and cooperation (excluding IUCN and FAO)

- Rainforest Alliance
- The Nature Conservancy
- CATIE
- GIZ
- UNDP
- CARE
- IADB (Inter-American Development Bank)

### Civil society organizations in the forestry sector

- Mesas de concertación forestal
- Alianza OFC Guatemala (National Alliance of Community Forestry Organizations of Guatemala)
- REDPINPEP (Network of communities benefiting from PINPEP)
- ACOFOP (Association of Forest Communities from Petén)
- CONESFORGUA (National Council of Sustainable Forest Management Standards for Guatemala)



# Annex 6 | Results chart

Project Reports	Main results and achievements by project	Contribution type (based on initial scan)
<p>DFID KNOWFOR I 2012-2015</p> <p>Final report 2015</p>	<p><b>1. Conduct national and sub-national assessments, including economic analysis</b></p> <ul style="list-style-type: none"> <li>Roadmap to guide the activities required for the formulation of the strategy, it describes all the stages of strategic planning, as well as any administrative, organisational and logistical and public relations as keystones.</li> <li>Map of FLR opportunities, identifying 3.9 million hectares classified into eight categories: riparian forests, mangrove areas, protective forest land, production forest land, agroforestry with perennial crops, annual crops agroforestry, silvopasture systems and protected areas.</li> <li>Analysis of legal framework.</li> <li>Mapping and documentation of FLR initiatives in Guatemala.</li> <li>Formulation of the logic framework for an implementation period of thirty years of the Strategy for Forest Landscape Restoration of Guatemala.</li> </ul> <p><b>2. Support the definition and announcement of Bonn Challenge Pledges</b></p> <ul style="list-style-type: none"> <li>Bonn Challenge Regional meeting conducted</li> </ul> <p><b>3. Support uptake into national REDD+ and other policies through stakeholder consultations, advocacy and others</b></p> <ul style="list-style-type: none"> <li>The Congress approved The PROBOSQUE Law on September 24th, 2015. IUCN facilitated spaces for dialogue between platforms of beneficiary communities, in addition to political lobbying. Moreover, IUCN has supported the creation of 26 municipal advisory councils and 6 departmental advisory councils of the PINPEP Beneficiary Network.</li> <li>IUCN supported the development of Emission Reduction project idea note submitted to FCPF Carbon Fund by Guatemala Government. IUCN provided a cost-benefit analysis for the implementation of REDD + actions, considering policy instruments such as PINFOR, PINPEP and Strategy of Firewood; including carbon monitoring costs of FLR activities.</li> <li>Intended Nationally Determined Contributions (INDCs): The document highlighted initiatives that IUCN have supported and are considered crucial to continue leveraging resources: PROBOSQUE, PINPEP, National Strategy FLR and REDD + Strategy.</li> <li>A first draft of the National REDD+ Safeguards have been developed in a participatory process with civil society This draft was prepared jointly with CARE and the CNCG (Climate, Nature Guatemala Communities). IUCN will continue providing technical advice.</li> <li>IUCN jointly with INAB consolidated a governance platform of the cocoa agro-chain in the two major producing regions in Guatemala.</li> </ul>	<p>Technical support</p> <p>Technical support, Advocacy, Convening</p> <p>Technical support, Advocacy, Convening, Funding</p>

Project Reports	Main results and achievements by project	Contribution type (based on initial scan)
<p>DFID KNOWFOR II 2016-17</p> <p>Annual report 2016</p>	<p><b>1. Policymakers/ practitioners in developing countries are equipped with strategic knowledge, comparable evidence, reliable tools and systematic analysis on forests, trees, and climate</b></p> <ul style="list-style-type: none"> <li>Engagement with key stakeholders: IUCN and key partners convened a national roundtable on FLR. It was essential in driving the development of the ENRPF. The diversity of stakeholders ensured that the strategy is inclusive and answers essential questions on where the action is needed, the evidence backing it and the beneficiaries. Drawing from its experience and knowledge base on FLR in the region to answer the questions of what to do, where, why doing it, what specific actions to undertake, the scope of each practice, and above all who may benefit; were key to this multidisciplinary and inter-agency process.</li> <li>Supporting assessment of restoration opportunities to plan and prioritise FLR interventions: IUCN is currently supporting ROAM in Guatemala to plan and implement restoration interventions. The government is currently reviewing the draft reports of spatial and economic analysis.</li> <li>Mainstreaming FLR by equipping stakeholders with evidence to demonstrate multiple benefits of FLR: Through the implementation of a participatory and community-based planning process in two watersheds. IUCN catalysed the formation of an alliance of governments, civil society organisations, student associations and the private sector focussed on FLR in two major watersheds. Importantly, IUCN ensured that gender perspectives were incorporated into projects. Also, IUCN documented case studies from Guatemala on how restoration, through agro-forestry interventions, contributes to enhancing food security.</li> </ul>	<p>Technical support Convening, Advocacy and Other (piloting)</p>
<p>Argidius Foundation Cacao agroforestry system in Guatemala 2015-2019</p> <p>Annual report 2016</p>	<p><b>Outcome 1. Technical capabilities have been developed, to support the sustainable production of cocoa grains on farms of the region.</b></p> <ul style="list-style-type: none"> <li>Two training guides have been developed and validated for the training and technical assistance process: 13 new field schools have been organized to train 300 producers from 30 communities in the project's area of influence.</li> </ul> <p><b>Outcome 2. Project experiences, results and lessons learned have been projected at national and international level, with key cocoa chain actors.</b></p> <ul style="list-style-type: none"> <li>4 Exchanges have been implemented :2 at the national level and 2 at the international level, to support the development of cocoa in other areas of the country, to integrate more actors and interact with the market.</li> </ul> <p><b>Outcome 3. Small and medium producers are accessing incentives programme (PINPEP-PROBOSQUES) to plant new cocoa areas.</b></p> <ul style="list-style-type: none"> <li>Technical instruments have been created and approved for cocoa farmers to access incentives programs: The regulation of the PROBOSQUE law was approved and includes funding for cocoa agroforestry systems.</li> </ul> <p><b>Outcome 4. A strategic framework for the promotion and development of the cocoa chain has been created and is supported by public and private financing.</b></p> <ul style="list-style-type: none"> <li>An official strategic framework for the promotion and development of the production of cocoa exists. An official strategy framework (national strategy of cocoa agro-chain) has been formulated, socialized and implemented. Eight investment project proposals have been developed for the project's area of influence, one of which has obtained government funding and is under implementation and three more that have been approved in the hope of obtaining financing during 2017.</li> </ul> <p><b>Outcome 5. The region has increased capacity to produce cocoa beans for domestic and international market</b></p> <ul style="list-style-type: none"> <li>The production capacity of cocoa beans has increased by 225 h on the project's area.</li> </ul>	<p>Technical support</p> <p>Convening</p> <p>Technical support and Funding</p> <p>Funding</p> <p>Technical support</p>

Project Reports	Main results and achievements by project	Contribution type (based on initial scan)
<p>Norad Mobilising Private Investment for Community- based, Carbon Intensive Landscape Restoration 2013-2016</p>	<p><b>1. Outcome 1: Assessment and Capacity</b></p> <ul style="list-style-type: none"> <li>Capacities related to forest restoration were strengthened among strategic actors linked to climate change</li> <li>Public-Private-Community partnerships were promoted to encourage forest restoration processes. As a result of the agreements and participation in workshops, the National Forest Landscape Restoration Table, MNRPF, was created and strengthened with more than 40 actors from governmental institutions (MAGA, INAB, CONAP and MARN)</li> <li>A Potential National Forest Landscape Restoration Map of the Republic of Guatemala was developed as an analytical tool for the National Strategy.</li> <li>The creation of a National Forest Landscape Restoration Strategy 2015-2045 (ENRPF) was facilitated including: A mechanism for rural development in Guatemala.</li> </ul>	<p>Technical support and Convening</p>
	<p><b>2. Outcome 2: Piloting and Scaling Up</b></p> <ul style="list-style-type: none"> <li>A pilot for productive restoration with cocoa agroforestry systems in the Lachua Eco Region was conducted.</li> <li>This process served as the basis for the agroforestry system regulation within the PROBOSQUE Act that will have a nationwide coverage.</li> <li>A business model for the productive restoration of the Guatemalan fir (<i>Abies guatemalensis</i>) and for the productive restoration of riparian forests was facilitated.</li> </ul>	<p>Technical support and Other (Piloting)</p>
	<p><b>3. Outcome 3: Learning, Outreach and Uptake</b></p> <ul style="list-style-type: none"> <li>Regulation of the PROBOSQUE law was socialised and validated through facilitating dialogue among key actors from the Guatemalan forestry sector. To achieve this, eight workshops were carried out.</li> <li>A document systematising good practices for the establishment and management of plantations with native species of high commercial value and a proposed business model for production restoration in Guatemala was created.</li> <li>A good practices and protocol manual for the enrichment of secondary forests with high commercial value species, <i>Cedrela odorata</i> and <i>Swietenia macrophylla</i> was created.</li> <li>A guide to good practice for restoring Guatemalan fir productive forests, under the lessons generated by IUCN and the University of San Carlos of Guatemala, USAC, was created in the field.</li> </ul>	<p>Convening and Technical Support</p>

Project Reports	Main results and achievements by project	Contribution type (based on initial scan)
<p>DFID Strengthening local governance systems to improve business climate of the forestry sector 2015-2017</p> <p>Project completion report</p>	<p><b>1. Work stream (WS) 1: Reinforcing forest concessionary process</b></p> <ul style="list-style-type: none"> <li>• 9 Forest Communities that manage 25-year forest concessions in the Maya Biosphere Reserve (RBM) are making good progress in negotiating, through their association ACOFOP and with the National Council of Protected Areas (CONAP), an extension of these concessions for a further 25 years</li> <li>• The concession of two new forest management units has been requested (La Colorada y El Molino) that together sum 34,000 hectares.</li> <li>• Through 25-year agreements, concessionaries gain security in the right of use of forested areas, even while land property rights remain with the State.</li> </ul>	Technical Support
	<p><b>2. WS 2: Policy advocacy for the implementation of a new forestry law</b></p> <ul style="list-style-type: none"> <li>• Guatemala recently approved its new Forest Law, known as “PROBOSQUE.”</li> <li>• Prior to this Law, the approval and implementation of the PINPEP also provided incentives for small-holders under 4 different modalities. To access these incentives, 1,200 management plans were produced and approved, which resulted in the flow of forest incentives to hundreds of communities.</li> </ul>	Advocacy and Technical support
	<p><b>3. WS3: Supporting national FLEGT process in Guatemala</b></p> <ul style="list-style-type: none"> <li>• A new statistics registry system on illegal activities was developed for CONAP, based on their existing Forest Information System of Guatemala.</li> <li>• A methodology for quantifying the volume of wood in lumber or stacked logs was adopted as a means to streamline the measurement processes during transport or storage, thus helping to improve forestry control systems.</li> <li>• INAB’s modernised electronic platform (SEINEF) now allows for on-line (instead of in-person) registration of forest companies and industries. INAB has thus far reported a 10% increase in legal negotiations taking place as a result of the meetings /business fairs.</li> <li>• The National Roundtable for Combating Illegal Logging (a high-level instance) has not been fully operational under the new Guatemalan Government (2016-2020). Nevertheless, early analyses, dialogues and agenda-setting spurred by the project allowed for significant progress in this policy arena, and led to the strengthening of multi-stakeholder forest governance processes.</li> </ul>	Technical support and Convening
	<p><b>4. WS4: Promoting business models for wood products coming from forest concessions.</b></p> <ul style="list-style-type: none"> <li>• Two concrete cases are the successful business deals (i) of the community company Chachaklum in the production of firewood and logs, and (ii) of ACOFOP, in representation of 10 forest-based community enterprises, with 22 agreements formalized with 7 different clients for the purchase of high value tropical forest timber and value added products.</li> </ul>	Technical support
	<p><b>5. WS5: Advocacy for defining an FLR strategy for Guatemala</b></p> <ul style="list-style-type: none"> <li>• Guatemala undertook the commitment to restore 1.2 million hectares of degraded and deforested lands as a contribution to the Bonn Challenge</li> <li>• The “National Restoration Strategy: Mechanism for Rural Development in Guatemala” has been adopted</li> <li>• The National Restoration Strategy has yet to initiate implementation. One of the main challenges was the preparation of FLR business models with the support of the private sector, forest owners and community producers.</li> </ul>	Advocacy

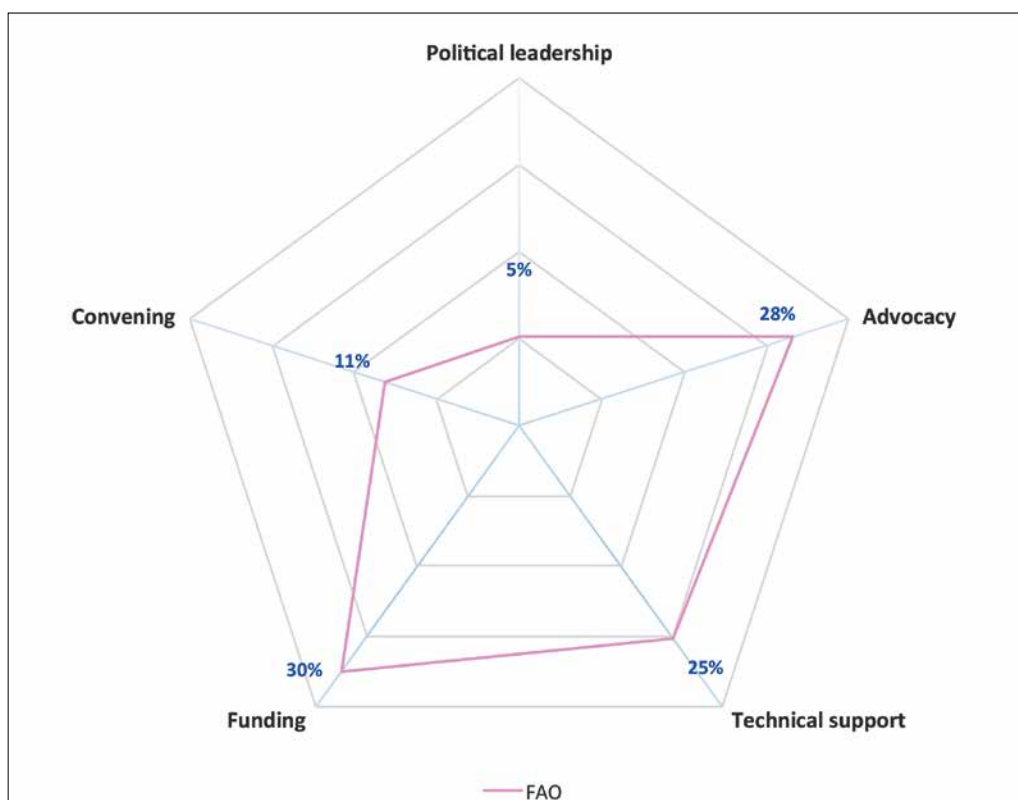
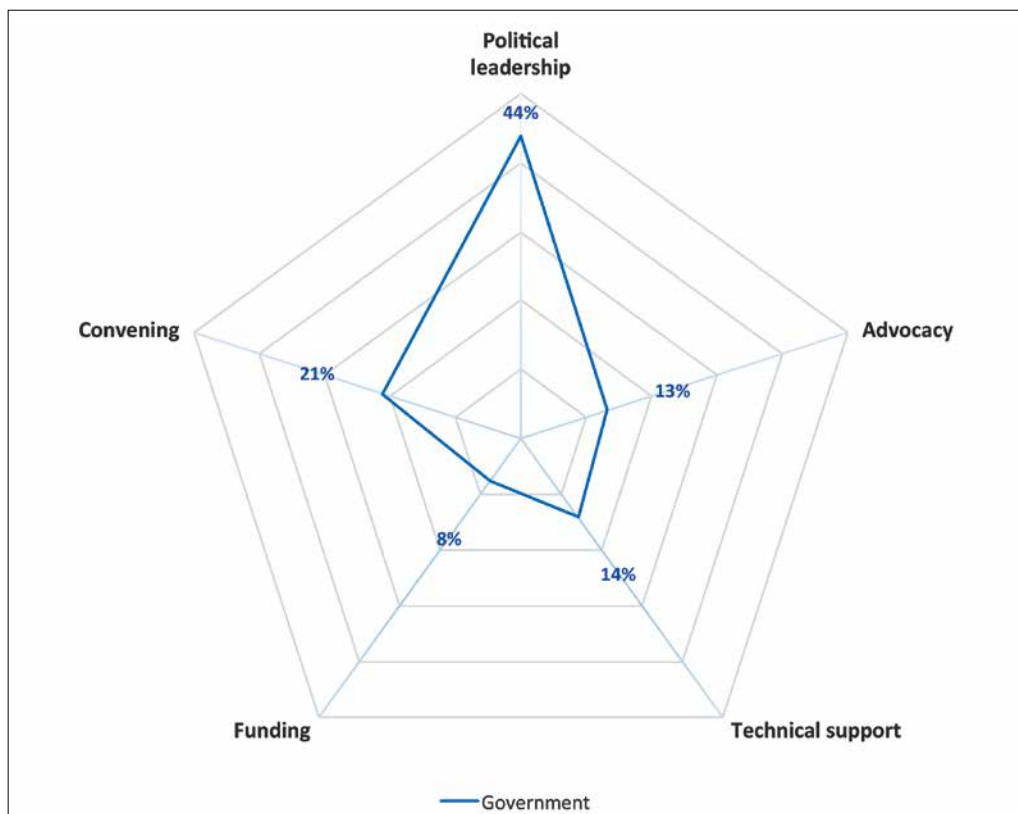
Project Reports	Main results and achievements by project	Contribution type (based on initial scan)
<p>USAID Regional Climate Change Program 2013- 2018</p> <p>Yearly Summary 2015</p>	<p><b>1. ER 1.1 At least three countries have pledged at international forums to sustainably manage, conserve and restore 2 million hectares of forest by 2020.</b></p> <ul style="list-style-type: none"> <li>The goal has been exceeded. Guatemala, Costa Rica and El Salvador (recently Honduras and Panamá) are now under commitment to restore more than 5 million hectares in the framework of the Bonn Challenge.</li> <li>Central America forest landscape restoration initiative socialised at least in three forums at national, regional and international levels with participation of government officials and political key actors.</li> </ul>	Convening
	<p><b>2. ER 1.3 At least four national REDD+ readiness technical-assistance and capacity-building plans defined and implemented in order to reduce barriers to carbon trading.</b></p> <ul style="list-style-type: none"> <li>FLR strategy was socialised to 9 sub regions to promote the adoption of this kind of initiatives at the national level.</li> <li>Financial and technical mechanisms for implementation of restoration strategy designed (pre-feasibility study)</li> <li>Socialisation of PROBOSQUE Law Regulations.</li> </ul>	Technical support, Advocacy and Convening
	<p><b>3. ER 2.1 At least two forest policy instruments harmonised across three countries for no-regret climate change mitigation measures.</b></p> <ul style="list-style-type: none"> <li>National Pact for Legal Timber consolidated and socialised.</li> <li>Updated the Fight Illegal Logging Action Plan in Guatemala.</li> </ul>	Technical support
	<p><b>4. ER 2.4 At least 3 Mitigation Projects designed &amp; implemented</b></p> <ul style="list-style-type: none"> <li>The Strategic Plan of cacao agroforestry systems has been formulated with key stakeholders. It was presented to government authorities</li> <li>Characterisation and selection of cacao genetic material protocol and processing and quality control guide formulated.</li> <li>Formulated production and international trade agendas for Cocoa Agro chain working group at sub regional and national level.</li> <li>Defined legal figure for community beneficiaries to access financial forestry incentives in Guatemala.</li> <li>Community beneficiaries, including municipal councils trained in the use of new PINPEP.</li> </ul>	
	<p><b>5. ER 3.1. At least three local (national or subnational) REDD+ strategies supported and implemented in coordination with national governments and in coordination with similar efforts in adjacent countries.</b></p> <ul style="list-style-type: none"> <li>Roadmap for the incorporation of the gender approach in the National REDD+ Strategy of Guatemala.</li> <li>Ecorregion Lachua published and given to territorial or local government, NGOs and private sector, respectively.</li> </ul>	Technical support and Advocacy
	<p><b>6. ER 5.1 At least one global climate change forum or panel session per year implemented</b></p> <ul style="list-style-type: none"> <li>Forums have been implemented as planned.</li> </ul>	Convening

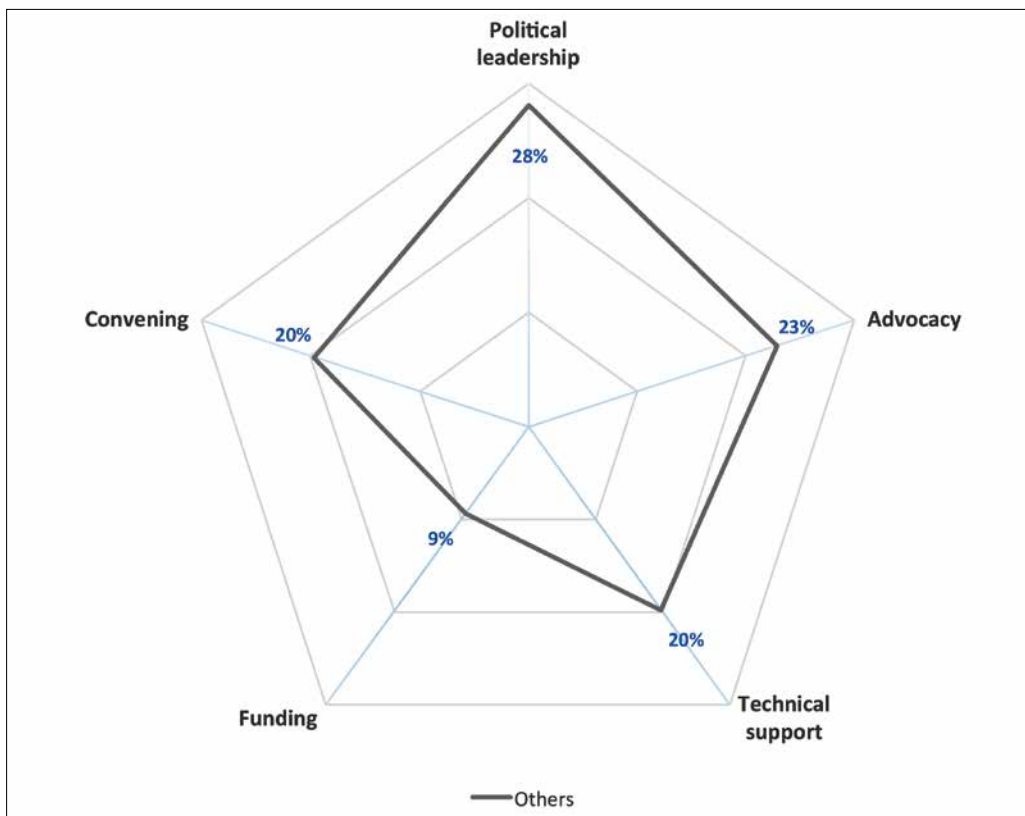
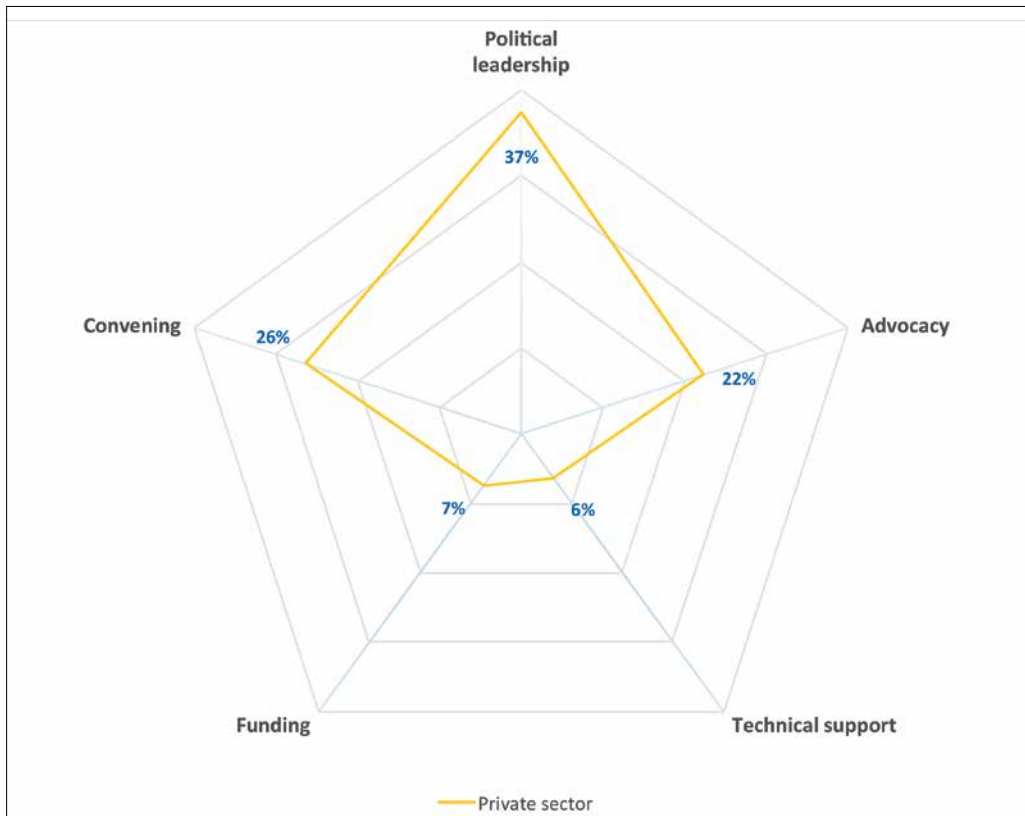


Project Reports	Main results and achievements by project	Contribution type (based on initial scan)
<p>DANIDA Towards Pro poor REDD+ (phase II)</p> <p>Annual Technical Progress report 2016</p>	<p><b>1. Target A 1.1.1: Proposals of livelihood enhancing options emerging from landscape demonstrations including FLR mapping are proposed for consideration</b></p> <ul style="list-style-type: none"> <li>• Pro-Poor REDD+ supported the elaboration of a diagnosis of the state of honey production, and a plan for the improvement thereof, with a view to establish a value chain in the medium term.</li> <li>• Systematisation of the experience of the cocoa and honey value chains in order to extract the achievements and lessons learnt by providing recommendations for follow-up; in each case in accordance with the current circumstances and pointing to the future of each of these two value chains.</li> </ul>	Technical support
	<p><b>2. Target A 1.1.2 Financial mechanisms for large scale support to the implementation of livelihood enhancing actions to reduce deforestation and degradation identified and/or operational</b></p> <ul style="list-style-type: none"> <li>• 3 mechanisms were identified for the provision of resources to enhance the value chains and improve the conditions of producing families as well as to reduce pressure on the forest.</li> </ul>	Funding
	<p><b>3. Target 1.3.2 Proposals of gender enhancing actions formulated, discussed and submitted for consideration within national and landscape REDD+ and forest strategies</b></p> <ul style="list-style-type: none"> <li>• A draft for the roadmap to include gender considerations in the REDD+ strategy was made using inputs obtained in the two workshops with female leaders of community and indigenous organisations related to forest management and REDD+ territorial actions. The roadmap was then presented to the authorities.</li> <li>• IUCN made an analysis to see how the actions proposed in the Roadmap can be linked to a concrete territory, looking into the Lachuá case, and looking into the community's vision. From this vision IUCN provided recommendations on how the roadmap can be implemented in the territories according to the realities and social organisation that exists in them.</li> <li>• Some partners of the REDD+ national process asked that the roadmap document apply the recommendations into the work they are executing related to REDD+ field actions, and in building the REDD+ monitoring system and national consultation process linked to REDD+. This is a positive outcome since, despite the fact that the roadmap has not been formalised by the authorities, other partners recognise it as a working tool to incorporate gender considerations into the different actions in Guatemala's readiness process.</li> </ul>	Technical support, Convening and Political leadership

Project Reports	Main results and achievements by project	Contribution type (based on initial scan)
	<p><b>4. Target B 1.1.1 At least two multi-stakeholder national dialogues per country to consolidate, agree and promote the up-scaling of emerging models from the landscape/ livelihood proposals developed under Output A.1 into low carbon development or REDD+ strategies</b></p> <ul style="list-style-type: none"> <li>FUNDALACHUA's authorities and technical team meetings with Ministry of Agriculture, Livestock and Food has achieved a programme to support the cocoa production chain in the Lachúa Ecoregion and beyond its borders in nearby localities.</li> <li>Experiences generated while building the Gender Roadmap for REDD+ are influencing REDD+ national process as it is being used as a reference to include gender considerations in actions that are being carried out to build a National REDD+ Strategy.</li> <li>A series of workshops were held in coordination with INAB at regional level for the indigenous and community platforms with whom the institution works, to share advances on the Guatemala's REDD+ readiness process and create awareness.</li> <li>40 women were trained on the links between REDD + and gender, and their concerns and needs were collected to build the roadmap for inclusion of gender in the REDD+ national process.</li> <li>Regional exchange was held with community and indigenous leaders, advisor technicians and female leaders of forests-related organisations to discuss the major participation and governance issues in the REDD+ preparation national processes of Central American countries and Mexico.</li> <li>A Training Guide for Trainers on Governance and REDD + was prepared and three workshops were held with community platforms to present the guide and to share with them how to work with it.</li> </ul>	<p>Technical support, Convening, Advocacy and Political leadership</p>

# Annex 7 | Actor contribution typologies





# Annex 8 | DFID KNOWFOR Strength of evidence ranking tool

Rating	Criteria
High strength of evidence	<p>Where the evidence is relevant to the claim and concurs with one of the following criteria:</p> <ul style="list-style-type: none"> <li>• Evidence is provided in the form of a published document available in the public domain that has been peer reviewed.</li> <li>• Evidence is published on an official government website and is directly relevant to the claim.</li> <li>• Evidence is triangulated through 3 different categories of evidence. For example, expert informants concur with this finding, and there are also 2 examples of documented evidence of the finding from different sources.</li> <li>• Where directly relevant testimony / user experience is collected with a statistically representative sample, or with the population.</li> </ul>
Medium strength of evidence	<ul style="list-style-type: none"> <li>• Where directly relevant testimony / user experience is collected using saturation sampling (over 20 participants).</li> <li>• Where highly credible testimony is provided: for example, an email from a government official who is the target of the knowledge product.</li> <li>• Administrative data that is directly relevant to the claim– such as participant records about who attends meetings to comment on reach or evidence about achievement of a report being published.</li> <li>• Where there is triangulation between at least 2 weaker forms of evidence (see below).</li> </ul>
Low strength of evidence	<p>Low strength of evidence is where there is only one of these weaker forms of evidence such as:</p> <ul style="list-style-type: none"> <li>• Evidence that is written in a text provided by a third party.</li> <li>• Evidence that relies on a single respondent's claim.</li> <li>• Evidence that relies only on internally produced documents written by the claim maker.</li> </ul>







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