



Strengthening the Social Impacts of Sustainable Landscapes Programs

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A practitioner's guidebook to strengthen and monitor human well-being outcomes

Supin Wongbusarakum
Erin Myers Madeira
Herlina Hartanto

The Nature
Conservancy



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Legend for boxes, tables and figures



Berau Case Study Examples: The Berau Forest Carbon Program (BFCP) is used as an example throughout this guide. Tables, boxes and figures that refer to the experiences of BFCP have this blue house icon.



REDD+ information: We expect this guide to be especially useful to REDD+ practitioners. Boxes that contain information specific to REDD+ issues are labeled with an “R” and have this blue tree icon.



Chapter 1: INTRODUCTION

Chapter 1: INTRODUCTION

1.1 Introduction

An estimated 1.6 billion people around the world depend on forests for their livelihoods. Three hundred fifty million of these people, including 60 million indigenous peoples, live in or adjacent to forests and are almost wholly dependent on forests for their subsistence and income needs (World Bank 2004). Each year, tens of millions of acres of forests, grasslands and other important habitats are cleared for agriculture and other development. In many of these places, people whose lives are inextricably linked to the lands and waters around them will face unprecedented changes that threaten their livelihoods and well-being.

In order for any conservation work to succeed in these regions, it must focus on developing **sustainable landscapes** that benefit people as well as nature. Such projects must conserve critical ecosystems, align with existing development plans, contribute to economic opportunities, address the large-scale drivers of habitat loss and improve the well-being of people who feel the day-to-day impacts of any land-use program. Some of these strategies will focus on the large-scale drivers operating in the landscapes, like incentives to clear primary forests for palm oil or cattle ranching, while others will focus on interventions on the ground where conservation outcomes directly affect the people living in an area. Successful sustainable landscapes programs will look at the complete picture, addressing both market and policy drivers as well as the local needs of communities for sustainable development alternatives that align with conservation goals.



BOX R.1.1: Using this guide for REDD+ programs

Currently, approximately 15% of global green house gas (GHG) emissions come from tropical deforestation and degradation. The main drivers include timber production and the conversion of forests to plantations and farms for pulp and paper, soy, beef and palm oil. In many areas, limited opportunities for economic development are also an underlying driver (Geist and Lambin 2002).

In tropical countries around the world, programs are being implemented to reduce emissions from deforestation and degradation, and to contribute to conservation, sustainable management of forests, and enhancement of carbon stocks – commonly called REDD+*. A REDD+ program in a country or political jurisdiction will employ multiple complementary strategies to reduce emissions, conserve critical ecosystems, and improve the well-being of people living in and near forests.

Because of these expectations of REDD+ to deliver both climate and human well-being outcomes, we expect this guide will be especially relevant to those practitioners developing and implementing REDD+ programs. As a result, we pay particular attention to REDD+ policy issues that would influence how strategies and monitoring and evaluation plans are developed. Additionally, the Berau Forest Carbon Program, a 2.2 M ha REDD+ program in Indonesia is the case study used to provide examples of how the elements of the guide have been implemented. Considerations specific for REDD+ programs are found in “R-numbered” text boxes and displaying this blue tree icon.

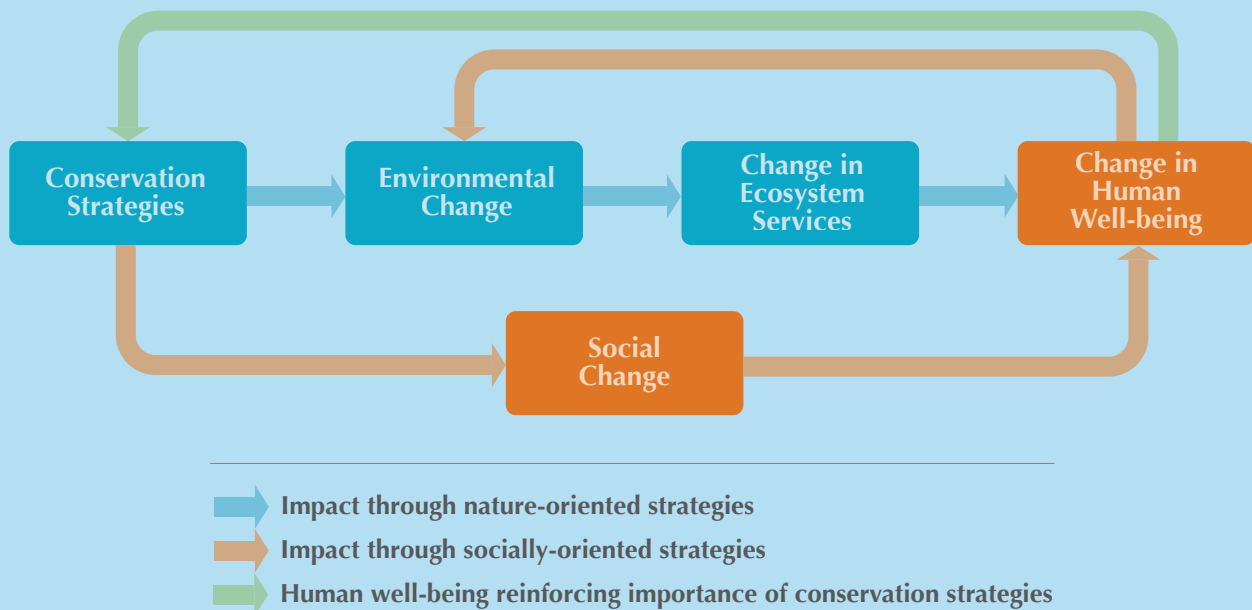
* This definition is from UNFCCC Decision 2/CP.13-11

This guide focuses on how to strengthen the social outcomes of sustainable landscapes programs through their design, implementation and monitoring plans, with an emphasis on direct interventions that affect people living in or adjacent to the project area.

KEY CONCEPT:

Linking social objectives to overall sustainable landscapes goals

Sustainable landscapes programs are envisioned to support sustainable rural development while achieving environmental goals. However, not all rural development projects will advance the environmental goals of the sustainable landscapes program. A theory of change is a helpful tool for understanding the relationship between socially-oriented strategies and a project's environmental goals. The figure below illustrates the interdependency among changes in the environment and human well-being. Conventional conservation strategies focus on creating environmental changes that positively alter ecosystem services, which can in turn indirectly impact human well-being (in blue). For example, restoring upstream forests results in improved downstream water quality that in turn enhances riverine fishing and the health of downstream human communities. Other conservation strategies may focus directly on improving human well-being as a pathway to positive impacts on environmental conditions (in orange). For example, improving income opportunities on degraded or cleared land can reduce pressure to clear forests and deliver well-being (improved income) benefits as well as environmental (less forest clearing) benefits. This pathway to well-being and environmental benefits can be seen in a strategy focused on developing cacao production on degraded land as an income-generating alternative to extensive, low-productivity cattle ranching. Further, when conservation initiatives result in improvements in people's lives, local support for conservation can be enhanced because affected communities perceive the importance of conservation strategies to their well-being (green arrow). This can become a self-reinforcing cycle.



Practitioners must evaluate how their intended strategies advance overall conservation goals in addition to human well-being goals. If a conservation action has a positive impact on human well-being but does not contribute to the project's environmental goals, it may not be appropriate to implement as part of a sustainable landscapes program*. Creating clear theories of change (see Chapter 5) will help reveal which conservation strategies advance both human well-being and environmental goals.

* TNC is developing a tool called RSET to help practitioners assess the carbon benefits of different proposed strategies. This tool is in development. Contact Peter Ellis pellis@tnc.org or Bronson Griscom bgriscom@tnc.org for more information on the tool.

1.2 Human well-being

The term human well-being refers to people's ability to live a life they value. Human well-being is a collection of factors that can include cultural heritage, health, education, access to ecosystem services, legally recognized rights, as well as tangible assets such as material wealth and income-generating opportunities. What constitutes human well-being differs for each group and will reflect its history, local culture and norms, political and socio-economic conditions, geography and ecological circumstances.

Many sustainable landscapes programs share the goal of improving the long-term well-being of people in the program area. But to understand how this is defined at each site, programs must go through the process of engaging key stakeholders – community members, local businesses, and other people or organizations with a vested interest in the project – to define human well-being objectives that are meaningful to them. From there, a program can determine how a project can work to enhance the well-being of a community while also realizing meaningful conservation outcomes.

Any sustainable landscapes program has a limited scope, based on the goals and types of strategies it will undertake, so it will not be able to address all human well-being issues. This guide proposes steps that can be taken to identify the issues that are most important to the success of the program, that can realistically be influenced by the planned interventions, and that are relevant to target stakeholder groups. This guide considers both what human well-being factors are related to the success of the program as well as how a program may positively or negatively affect the well-being of stakeholders.



photo credit: © Ami Vitale

1.3 Purpose of the guide

This guide was developed to assist practitioners in strengthening the social components of sustainable landscapes programs by providing practical approaches to:

- Develop strategies that improve human well-being as a pathway to advancing the goals of reducing habitat loss;
- Avoid or minimize unintended negative impacts on human well-being from sustainable landscapes strategies; and
- Design plans to monitor and evaluate human well-being changes during the lifetime of the project, while taking into account the program's context, capacity and resources, risks, and audience.

This guide was designed to be flexible and applicable to projects both in the initial design phase and the ongoing implementation phases. Figure 1.1 shows possible entry points depending on the current phase of the project. The guide will be most helpful during strategic planning and monitoring design phases. We expect that NGO, government and private sector representatives implementing REDD+ programs will find this guide particularly useful, as illustrated in Box R.1.1.

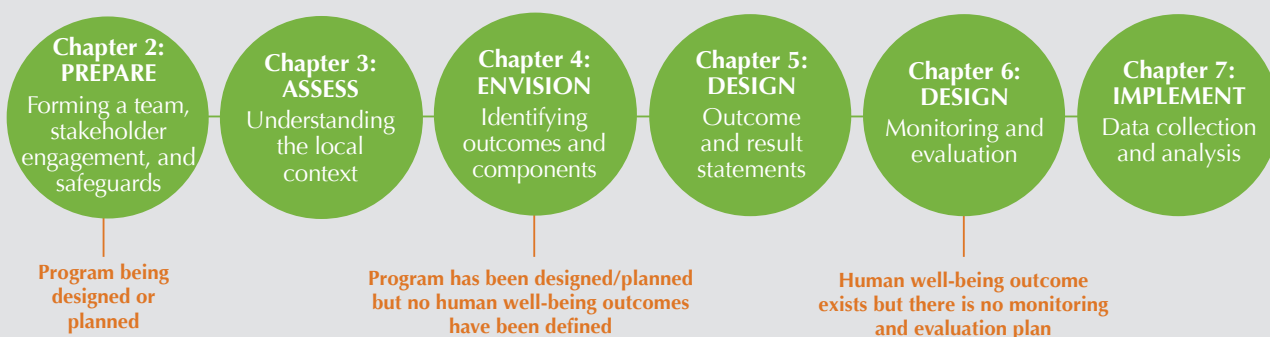
This guide was developed to fill a gap perceived among practitioners that existing materials focus on a specific process or standard, or are too academic and not practical enough. It is complemented by a rich literature focused on monitoring social impacts¹.

Nature Conservancy users will find this guide largely consistent with the Conservation Business Planning² approach, while also providing greater detail on the processes of identifying human well-being objectives, designing strategies, and monitoring results.

1.4 Structure of this guide

Each chapter starts with an introduction of its main topics, followed by key terms in the chapter and guiding social safeguard questions relevant to the activities and processes in that chapter. Examples from the Berau Forest Carbon Program are provided throughout, along with questions to help practitioners facilitate the suggested activities.

Figure 1.1: Possible entry points to the guidebook based on program maturity



¹ We have drawn from the CCBA's "Social and Biodiversity Impact Assessment Manual for REDD+ Projects" (Richards and Panfil 2011), CIFOR's "Guide to Learning about Livelihood Impacts of REDD+ Projects" (Jaggar et al. 2010), and "Methods for Assessing and Evaluating Social Impacts of Program-Level REDD+" (Lawlor et al. 2013)

² Conservation Business Planning Guidance: <http://www.conservationgateway.org/ConservationPlanning/BusinessPlanning/Pages/cbp.aspx>

A practitioner may choose to jump ahead to a chapter depending on the program's maturity and their specific needs. For programs in the planning phase, this guide will help practitioners assess and identify potential impacts on human well-being. For these programs, we suggest starting in Chapter 2 PREPARE or Chapter 3 ASSESS. If programs have already been designed, but human well-being goals have not been clearly defined, practitioners may want to start with Chapter 4 ENVISION, which can be used to refine the program's outcome statements and intermediate result statements. For those programs with well-defined human well-being goals and outcomes, but no monitoring and evaluation plan, Chapter 6 DESIGN is a good place to start, and will help practitioners develop programs to identify actual changes in well-being and analyze causal relationships with the program intervention. Chapter 8 CONCLUSIONS provides guidance on how to use the results of monitoring and evaluation to improve the social outcomes of sustainable landscapes strategies.

Chapter 2: PREPARE

This chapter provides guidance on how to form a core team to lead the process. Ideally the development of human well-being outcomes, strategies and monitoring programs is integrated into the larger conservation business planning process. But if not—because conservation goals and strategies were already developed, for example—the core team should include the parties involved in the process of establishing conservation goals and strategies to ensure alignment and complementarity.

This chapter also provides guidance on stakeholder participation, which is essential in developing social objectives and assessing impacts.

Finally, we explain how this guide is relevant to social safeguards, and identify the safeguard principles relevant to the issues covered in this guide.



photo credit: © Bridget Besaw

Chapter 3: ASSESS

This chapter provides guidance on how to assess the local context to understand stakeholders' interests, vulnerabilities, and relationships to natural resources. Understanding different stakeholders' roles in driving forest loss, supporting forest conservation and regrowth, and influencing decisions about land use form the basis for developing conservation and well-being goals and strategies, and may reveal opportunities where indigenous or local knowledge and values could contribute to conservation goals. In this chapter, suggestions are made about how to use situation analysis, stakeholder analysis and conceptual diagrams to assess the local context. The chapter also introduces a stakeholder-identification method using a tool called "Who Counts Matrix" to help identify and select a subset of stakeholder groups the program would want to focus on.

Chapter 4: ENVISION

Because the priorities of human well-being components differ among stakeholder groups, improvements in well-being cannot be monitored until they have been defined for a specific context. This chapter helps the practitioner identify the broad focal areas of well-being, such as economic or cultural well-being, and more specific components such as "material assets owned" or "savings" that are most relevant to the sustainable landscapes program and target stakeholder groups. It also introduces a theory of change as a tool to establish a causal link, clearly articulating how a strategy with its planned action would lead to the different human well-being outcomes.

Chapter 5: DESIGN human well-being outcomes and indicators

This chapter provides guidance on how to develop human well-being outcome and intermediate result statements based on what the sustainable landscapes program is trying to achieve. Further, this chapter offers suggestions on developing and assessing indicators that can be monitored along the different points of the theory of change. We include a section on how to identify the potential social impacts of strategies that do not have an explicit emphasis on human well-being. Some strategies may need to be redesigned to minimize or mitigate possible negative impacts.

Chapter 6: DESIGN monitoring and evaluation

This chapter helps practitioners understand different monitoring and evaluation options that take into consideration several factors of the project context (including risks, leverage, and project maturity), interests of data users, and capacity and resources of the program.

Chapter 7: IMPLEMENT

This chapter discusses how to implement the monitoring and evaluation program, including how to use secondary data, an overview of data collection methods and sampling design. Basic information is provided on data analysis.

Chapter 8: CONCLUSIONS

This final chapter discusses how to use the results of monitoring and evaluation to strengthen social outcomes.

1.5 Using the Berau Forest Carbon Program (BFCP) as an example

The Berau Forest Carbon Program (BFCP) will be used as an example throughout this guide. The Nature Conservancy helped design the program and has been supporting the Berau government in implementing its key strategies. A core principle underlying the program is that BFCP should improve the well-being of local communities, especially forest-dependent communities. TNC has led efforts with communities and local

partners to define outcomes and objectives, and develop strategies that contribute to both the communities' priorities for improved well-being and BFCP's forest conservation and emission reduction goals. The processes and the lessons generated for BFCP can serve as an example for others undertaking similar initiatives.

BFCP is an integrated jurisdictional approach to support sustainable economic development in the district of Berau, East Kalimantan province, while protecting forests and reducing annual greenhouse gas emissions. In some ways, the district of Berau is a microcosm of Indonesia, with a wide diversity of economic activities, forest types, and threats. Berau is at a critical point in its development. Forests still cover about 75% of its 2.2 million hectares. However, logging, clearing for oil palm and timber plantations, and expanding coal-mining operations are estimated to result in the degradation of 50,000 hectares of forest per year. Berau is home to around 180,000 people spread among 13 sub-districts and 107 villages. Local communities, especially those living in and around the forests, have limited livelihood opportunities, limited access to basic services such as schools, drinking water, health services, and are struggling to maintain their control over forest resources. BFCP is applying a set of low-carbon development strategies that include strengthening the enabling conditions for success (improved planning, governance, stakeholder engagement, and finance), and site-based investments in key areas (community development, timber management, forest protection and conservation, and oil palm). BFCP will advance these strategies through targeted technical assistance and support to government institutions, private concessionaires, and communities—the lead actors affecting land use in Berau.

By implementing those strategies, BFCP aims to:

- Achieve effective management of at least 800,000 hectares of forest designated for protection, timber production and non-forest uses;
- Provide substantial co-benefits, including habitat for key species and the provision of drinking water on at least 400,000 hectares under improved management;
- Reduce emissions by at least 10 million tons of carbon dioxide over five years;
- Secure legal tenure and management rights for communities in at least 20,000 hectares of forest; and
- Provide better income, livelihood options, and access to basic services to at least 50% of all households in the participating villages.

The BFCP team piloted many of the approaches and tools presented in this guide, and have helped ensure the guide addresses the needs of practitioners on the ground. Throughout the guide, you will find boxes, tables, and figures that offer examples of how the BFCP team undertook different steps and approaches described in the guide. These examples from BFCP are indicated by a blue house icon.

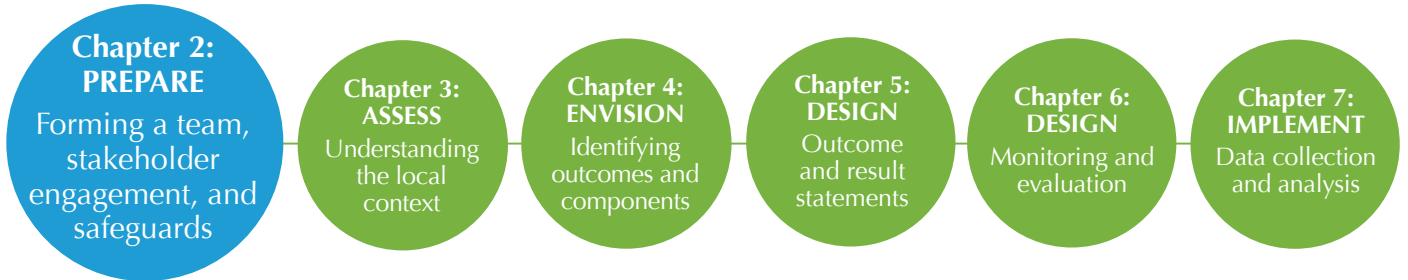


Chapter 2: PREPARE

Forming a team, stakeholder engagement,
and safeguards

Chapter 2: PREPARE

Forming a team, stakeholder engagement, and safeguards



This chapter identifies issues that should be considered at the earliest stages of project design and provides suggestions for how to set up the process you will follow to develop human well-being outcomes and social monitoring activities. It proposes the types of members to include when a core team is set up. It also provides some suggestions on engaging stakeholders, and highlights the social safeguards that should be considered when implementing the activities described in this guide.



Key terms:

Stakeholders: Any individual, group, or institution who has a vested interest in the natural resources of the project area and/or who potentially will be affected by project activities and have something to gain or lose if conditions change or stay the same.

Stakeholder engagement: Process by which groups of people who have an interest in the outcomes of conservation efforts are drawn into active participation in planning, decision-making and implementation.

Social safeguards: Principles, standards, policies, criteria, tools, systems, and operational guidance that help ensure that project design and implementation avoid, mitigate, minimize, or compensate for negative social impacts. More recently the term has been extended to include positive contributions to people's well-being.



Questions to guide the application of social safeguard principles when setting up a team and engaging stakeholders

- ✓ Do we have good representation on our team of the relevant stakeholder and rights holder groups or at least people who have worked with them and have good insights about them?
- ✓ Does the process allow all team members to participate fully and effectively?



Questions to guide the application of social safeguard principles when setting up a team and engaging stakeholders (Cont.)

- √ Are we giving adequate attention to vulnerable populations or sub-groups, including those of different ethnicities and gender?
- √ Do we have an understanding of the local context and sociocultural norms and protocols about how to engage local stakeholders effectively and appropriately?
- √ Are we sharing information about our program and plans in a way that is transparent and locally appropriate?
- √ Are the values of different stakeholder groups being respected during the process?

The following process recommendations may be useful for your program in preparation for identifying human well-being outcomes and social monitoring activities. The team should not limit itself to the recommendations below, but instead focus on questions about what they need to prepare to facilitate the successful implementation of their planned activities.

- Define the site and gather preliminary data about stakeholders and the local situation. Guidance on how to do a more in-depth assessment of stakeholders and the local situation is found in Chapter 3: Assess.
- Make a preliminary identification of key stakeholder groups who should be engaged at different stages in the project.
- Identify advisors and local experts who have expert knowledge.
- Form a core team.
- Make a preliminary assessment of opportunities, constraints, and risks your program faces in achieving human well-being outcomes and social monitoring activities.
- Identify resources and support (human, financial, capacity) within your program and organization. Start thinking about fundraising that will be needed to monitor and evaluate human well-being outcomes.
- Examine existing and potential partner organizations for collaborative possibilities. Consider joint fundraising and technical exchange.
- Map out risks to success, and how the program will minimize those risks.
- Map out enabling conditions for success and how the program can enhance these conditions.
- Examine similar programs to help better prepare for both planning and implementation of activities.
- Identify relevant social safeguard frameworks.

Note that these actions should be revisited throughout the process when more information is collected and the context is better understood, for example after situation and stakeholder analyses are conducted.

The following three sections provide greater details on forming a core team, engaging stakeholders and social safeguards.

2.1 Forming a core team

A diverse team with a range of skill sets and backgrounds is needed to facilitate the process of identifying human well-being outcomes and indicators that are relevant to both the project and stakeholder interests.

The core team will also oversee the monitoring and evaluation, and should include people who are in a position to commit resources (money, people's time) to monitoring and evaluation. Ideally a project has a single core team developing and integrating the conservation and human well-being components; however, this is not always realistic because human well-being components are sometimes developed after a project has already taken shape. If human well-being components are developed later, a core team should be convened specifically to develop these components, and should include people who can facilitate integration with other program components.

Table 2.1 describes the basic members of a core team focused on human well-being components, their roles and responsibilities. Core team members should be committed to provide the necessary time to engage throughout the process. Sub-teams may be set up later to fit your specific needs and capacities that come up during the process. Sub-teams may be convened for a limited term and require a lesser commitment.

Table 2.1: Team members and roles

Type of team member	Main role in identifying human well-being outcomes	Main role in monitoring and evaluating social impact
Project staff with local knowledge	Provide understanding of links between conservation and local situation	Help to collect data for some indicators; arrange logistics; determine who can help with monitoring
Project decision-makers (senior project manager or director)	Direct and lead the team; approve outcomes, strategies, and indicators; mobilize resources for implementation	Mobilize resources for implementation; use monitoring and evaluation results in decision-making
Social scientists	Assess relationship between human well-being outcome and strategies; assess relationship between land use conditions and human activities; contribute their knowledge of local social systems, relationships, and cultural elements	Determine appropriate indicators to be used; design monitoring and evaluation system (including types of data collection and analysis); train field researchers; collect and analyze data; summarize key findings
People with local expertise	Provide knowledge of local situation and stakeholders; provide understanding of links between conservation activities and local situation; knowledge of questions and issues of interest to stakeholder groups	Validate appropriateness of indicators and feasibility of data collecting methods; advise on logistical arrangements and local protocol; potential role in data collection; share results of monitoring and evaluation with stakeholder groups
People who can represent interests of stakeholder groups	Provide knowledge of local situation and stakeholders; provide understanding of links between conservation activities and local situation; knowledge of questions and areas of inquiry of interest to stakeholder groups	Validate appropriateness of indicators and feasibility of data collecting methods; advise on logistical arrangements and local protocol; potential role in data collection; share results of monitoring and evaluation with stakeholder groups
Facilitators	Fairly engage all parties effectively and facilitate the process of identifying objectives or outcomes; manage internal power dynamics that can silence marginalized groups	Fairly engage all parties and facilitate the process of identifying indicators and methods to monitor and evaluate; manage internal power dynamics that can silence marginalized groups



2.2 Engaging stakeholders

Each stakeholder group will be impacted in different ways by a sustainable landscapes project and will have different interests in the design and implementation of the project. Engaging stakeholder groups is important to understand the potential impacts on different groups of people, explore the knowledge they hold that may affect the success or failure of the project, and ensure the project delivers multiple benefits, equitably and sustainably (Richards 2011).

However, there is usually a wide range of stakeholder groups, all with different stakes, interests, rights and vulnerabilities. It is frequently not practical to engage all these stakeholder groups equally, nor is it appropriate since some groups will have much greater potential to be affected by the project or have specific rights related to the project. The team initiating the project and putting together the core team will need to identify stakeholder groups that require special attention and different levels of engagement. Chapter 3 provides guidance on how to determine the different stakeholder groups that will be influenced by the project and the appropriate levels of engagement and consideration for these groups. The core team may evolve as different key stakeholder groups are identified. Some stakeholder groups may not be part of the core team, but will be engaged at specific stages of the project.

The project needs to define a good process of engagement, and stakeholders need to understand why their engagement is crucial to a process that will, in return, benefit them. While many tools exist for engaging stakeholders (Resources 1), the emphasis should be on how they are implemented. A good process requires:

1. Understanding the local situation, intra-stakeholder dynamics, and sociocultural norms;
2. Engagement approaches that are socially and culturally appropriate for the setting;
3. Clear objectives that are agreed upon from the outset, preferably with the stakeholders, for their engagement and participation;

4. Ensuring that participants have been provided and have access to relevant information;
5. Ensuring that participants have the power to influence decisions and the knowledge and technical ability to engage them effectively;
6. Acknowledgement that tradeoffs based on competing interests are likely and need to be clarified through a well-facilitated participatory process that respects different values;
7. A skilled facilitator who is able to engage diverse stakeholder groups to reach decisions perceived as satisfactory and equitable by all.

Note that stakeholder engagement is an important part of REDD+ safeguard principles. While stakeholder engagement may be emphasized more in REDD+ projects than other sustainable landscapes projects, integrating the principles of stakeholder engagement can strengthen any project. The point of a stakeholder engagement strategy is to look at all the stakeholder groups, identify their interests, influence and power and how they will be affected by the project. This can improve program design, ensure that programs build support for conservation, enhance project sustainability, and promote adaptive management. Stakeholder engagement creates transparency and contributes to free, prior and informed consent (FPIC) of the local forest dependent communities. In the REDD+ Social and Environmental Standards, full and effective participation is defined as meaningful influence by all relevant rights holders and stakeholders throughout the process.

2.3 Social safeguards and conservation

Any land use project that impacts access, use, and management of natural resources has the potential to impact people directly or indirectly, especially vulnerable populations that depend on nature for most aspects of their well-being. Safeguards and sustainability policies were initially put in place for multilateral development banks (MDBs, like the World Bank or the Asian Development Bank) to prevent or mitigate adverse impacts of projects on people and the environment. Given the scope of this guide, we focus on social safeguards. Social safeguards were developed to help ensure that the design and implementation of land use projects avoid, mitigate, minimize, or compensate for social impacts resulting from project activities. Although social safeguards began with this principle of “do no harm” they have evolved to include obligations to contribute to the well-being of people affected by the project.



BOX 2.1: Engaging communities in Berau

In implementing the Berau Forest Carbon Program, The Nature Conservancy developed an approach to actively engage local communities in designing conservation activities and deciding how natural resources will be used. Through this approach, communities lead the development of project activities, negotiate the payment terms, and design the benefit sharing arrangement.

Communities that decide to participate in the program begin with a visioning step, envisioning ideal conditions that they would like to achieve. With facilitators, they then develop a plan that details mitigation and other natural resource management activities they would like to undertake, livelihood projects they would like to develop, and capacity-building or other enabling conditions that need to be created. They also identify which activities are within the scope of BFCP and can be supported through programmatic funding, as well as potential funding sources for those activities outside the scope of BFCP. The community receives financial support to carry out the plan based on its performance in implementation. The community and funding institutions together decide on the payment terms. Community members also decide themselves how benefits should be shared within the village, and establish a system for transparent financial accounting. After signing the incentive agreement, communities receive start-up funds, with subsequent funds based on performance.

Moss and Nussbaum (2011) provide a helpful definition of safeguards, *“The term ‘safeguards’ refers to the need to protect against social and/or environmental damage or harm. It is often used in reference to measures, such as policies or procedures, designed to prevent undesirable outcomes of actions or programmes. Safeguards can be an effective risk management policy. They ensure that environmental and social issues are evaluated in decision making, help assess and reduce the risks, and provide a mechanism for consultation and disclosure of information.”*



BOX R.2.2 Safeguards and REDD+

REDD+ activities have the potential to deliver significant social and environmental co-benefits; however they also may pose serious risks, particularly for Indigenous Peoples and local communities. In recognition of the potential impacts that REDD+ can have on people, safeguard principles have been articulated in international REDD+ policy and domestic safeguard systems are being developed.

Internationally, the United Nations Framework Convention on Climate Change Cancun agreements* identify four safeguard principles related to social issues. These are summarized below:

- Transparent and effective national forest governance structures;
- Respect for the knowledge and rights of indigenous peoples and members of local communities;
- The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities;
- Enhancement of other social benefits.

Additionally, the UNFCCC Durban Agreement requires information to be provided on how REDD+ safeguards are being addressed and respected in countries developing REDD+ programs.

Both of these agreements leave considerable flexibility for how countries will develop their domestic safeguard mechanisms and safeguard information systems (SIS) to monitor and report on safeguards. Practitioners involved in developing and implementing REDD+ projects and programs should expect to adhere to and report on safeguards, and make sure that they are consistent with any REDD+ safeguard mechanisms being developed domestically.

Because the international safeguard language is so broad, multiple frameworks have been created to provide operational guidance on how to implement safeguards. The REDD+ Social and Environmental Standards are designed for government-led REDD+ programs implemented at national, state, provincial, or other jurisdictional levels and are relevant to designing, implementing and monitoring REDD+ programs that include both policy reforms and direct interventions on the ground. The Forest Carbon Partnership Facility and the UN-REDD+ program have also developed guidance on how to apply safeguards to these types of jurisdictional REDD+ programs, and require adherence to these guidelines for programs receiving their funding.

The Climate Community and Biodiversity Standards focus on site-level interventions and provide guidance on how to integrate best practices and multiple-benefit approaches into the design and implementation of climate-related projects.

This guide does not seek to replicate the guidance available on implementing specific safeguard mechanisms. A number of these resources can be found in Resources 1.

* See UNFCCC Decision 1/CP.16 for full text

Different public funding agencies have different safeguards that they require grantees to adhere to. Further, different types of projects are required to adhere to different safeguards. For example, safeguard principles for REDD+ programs have been agreed to in the United Nations Framework Convention on Climate Change, and multiple REDD+ safeguard frameworks have been developed to help practitioners apply safeguards to REDD+ program design and implementation. Box R.2.2 discusses safeguards in the REDD+ context. There are many resources on adhering to or applying social safeguards, and this guide does not replicate that existing body of work. A selection of safeguard resources can be found in Resources 2. This guide does identify when safeguards should be taken into consideration in the design, implementation and monitoring of sustainable landscapes programs. Further, it provides suggestions on the safeguards that are most relevant to different stages in the process and questions that the team can ask themselves to help them evaluate if they are adhering to safeguard principles.

Although each sustainable land use project will need to determine whether specific safeguard frameworks are applicable, there are some general safeguard principles that should be considered during the design of any sustainable landscapes project and the development of monitoring and evaluation programs. Below is a description of the Conservation Initiative on Human Rights (CIHR) and six safeguard principles that should be taken into consideration when designing any sustainable landscapes project.



photo credit: © Bridget Besaw



Conservation Initiative on Human Rights (CIHR)

The Conservation Initiative on Human Rights (CIHR) is a consortium of international conservation organizations that seeks to improve the practice of conservation by promoting integration of human rights into conservation policy and practice. CIHR members share a common interest in promoting positive links between conservation and rights of people to secure their livelihoods, enjoy healthy and productive environments and live with dignity. The members include: The Nature Conservancy, Birdlife International, Conservation International, Fauna and Flora International, IUCN, Wetlands International, Wildlife Conservation Society, and World Wildlife Fund. The members have signed on to the CIHR Framework. This Framework commits these organizations to:

1. Respect human rights
2. Promote human rights within conservation programs
3. Protect the vulnerable
4. Encourage good governance

These eight organizations are developing principles and measures on how to integrate this framework into organizational operational guidance, and how specifically to address conservation-human rights links in design, implementation and monitoring of programs, which includes impact assessment and accountability measures. Project staff from these organizations should be aware of this framework and consider how this framework applies to the project they work on. See Appendix 1 for the CIHR Framework.

The objective of integrating rights-based approaches into conservation programs is to harmonize conservation activities with respect for people's rights, and in particular, human rights. Taking this approach can improve the understanding of "rights" by explaining the different sources of rights, the interdependence of rights and duties, and the importance of both substantive and procedural rights, as well as practical

aspects of their implementation within the environmental context. An additional advantage of integrating rights-based approaches into conservation is that a rights-based approach may improve conservation outcomes by facilitating positive synergies and generally improving the governance of natural resources. It can demonstrate the positive contribution that conserving a safe and healthy environment makes to people's rights and conversely, it can increase awareness of the negative impact on people's rights of failing to protect critical natural resources and biodiversity (Greiber, 2009). Practitioners may want to look at the USAID/WCS Translinks project for more resources on integrating rights-based approaches into conservation³ (Svadlenak-Gomez 2007).

Six Social Safeguards Principles

This list of six safeguards is summarized from existing safeguard frameworks and includes the safeguard principles that most commonly occur⁴. Funding organizations expect these principles will be integrated into project design and implementation, and that project documents will report on adherence to these principles. Because these principles are important to ensuring sustainable landscapes projects deliver positive human well-being outcomes, and because donors expect to see these principles reflected in the projects they fund, guiding questions are listed at the beginning of each chapter that the core team can use to figure out how to integrate these principles into the different phases of project design and implementation. Chapter 3 will help the core team determine which stakeholder groups these safeguard principles apply to.

Proposed social safeguard principles:

1. Respect for local cultures, formal and customary rights of their members, and indigenous groups to own, manage, access, and use land and resources that are vital to sustaining their livelihoods and human development that is socially and culturally appropriate;
2. Obtaining the free, prior, and informed consent (FPIC) of indigenous peoples and local forest-dependent communities, for any activities affecting lands and resources they have traditionally occupied and/or used;
3. Assessing potential social impacts of sustainable landscapes strategies and monitoring the actual social benefits, costs and risks to ensure that a project has clear and equitable social benefits for target beneficiary groups while causing no harm to the other groups;
4. Ensuring full, effective stakeholder participation in program design and implementation wherever possible and appropriate, with special attention to groups that lack influence in land-use decisions, such as indigenous people, forest-dependent communities, women, and ethnic minorities;
5. Employing grievance mechanisms for stakeholders to share concerns and file complaints, with a transparent and accountable system to address and redress disputes and grievances and monitor the effectiveness of corrective actions;
6. Supporting transparency and accountability in forest governance, disclosing and sharing information with stakeholders in a locally appropriate manner.

³Karin Svadlenak-Gomez's "Integrating Human Rights in Conservation Programming" provides a general introduction on human rights concepts and how they have evolved over time, and then raises some of the human rights issues that may be of concern in conservation programs. It can be found here: http://s3.amazonaws.com/WCSResources/file_20110518_073559_Report_HumanRightsAndConservation_ZJFsnd.pdf

⁴This guide draws on the United Nations Declaration on the Rights of Indigenous Peoples, the REDD+ Social and Environmental Standards (REDD+ SES), the UNFCCC Safeguards in the Cancun Agreement, the UN-REDD/Forest Carbon Partnership Facility (FCPF) guidelines on stakeholder engagement, and the World Bank's Strategic Environmental and Social Assessment and Environmental and Social Management Framework that apply to the FCPF. investments. Based on the scope of this guide and the consistent themes in these safeguards frameworks, we propose practitioners use the six social safeguard principles in section 2.3 to guide the development, implementation and monitoring of their programs.

Safeguard 3 refers to ensuring the project delivers benefits and does no harm. The core team will have to determine the resolution at which they will monitor whether the project has delivered benefits or done no harm. There are tradeoffs in measuring benefits and harm at a very fine (i.e. individual) or very coarse (i.e. whole population) level. The CCB Standards takes an approach of net benefits to all sub-groups and defines sub-groups as those “that derive similar income, livelihood and cultural value from the project area that is different from other groups” (CCBA 2013)

KEY CONCEPT:

Socially-oriented strategies and non-socially-oriented strategies must all adhere to safeguards

Some sustainable landscapes strategies will explicitly focus on improving human well-being as a means to achieve environmental goals. An example would be a strategy aimed at improving people's income from agroforestry and poultry farming as an alternative to clearing forests for palm oil. Other REDD+ strategies may not have an obvious link to human well-being, such as a strategy aimed at reducing emissions from timber operations. While this strategy may focus on working with timber concessionaires to adopt new practices, it might also have unintended consequences on other stakeholder groups, such as restricting communities' access to non-timber forest products. All strategies should be assessed to ensure they adhere to relevant social safeguard principles, and avoid and mitigate potential negative impacts on stakeholder well-being. Throughout the project lifetime, all strategies should be monitored to ensure the work is not causing harm. Chapter 5 provides guidance on assessing strategies and interventions that do not have intentional links to human well-being, and how to minimize any unintended negative impacts.



BOX 2.3 Understanding Free Prior Informed Consent (FPIC)

The principle of free, prior and informed consent (FPIC) is often mentioned when referring to sustainable landscapes projects and REDD+. FPIC is a key component of stakeholder engagement and consultation and refers to the right to choose what does or does not happen to one's property (land) (UN-REDD, 2013). Originally FPIC was seen as a collective right for indigenous people. In many recent cases, it has seemed sensible to extend the right of FPIC to local communities in countries where governance is weak and democratic processes are not sufficiently representative of different stakeholder groups (Mackenzie 2012).

FPIC helps reverse the historical pattern of excluding indigenous people and forest-dependent communities from decision-making. It can help avoid the imposition of important decisions on these peoples, allowing them to participate in decisions and to continue to live as distinct communities on lands to which their cultures remain attached.

Free refers to a consent given voluntarily and absent of “coercion, intimidation or manipulation.” Free refers to a process that is self-directed by the community from whom consent is being sought, unencumbered by coercion, expectations or timelines that are externally imposed

Prior means “consent is sought sufficiently in advance of any authorization or commencement of activities.” Prior refers to a period of time in advance of an activity or process when consent should be sought, as well as the period between when consent is sought and when consent is given or withheld.

Informed refers to the nature of the engagement and type of information that should be provided prior to seeking consent and also as part of the ongoing consent process. For instance, information should be accessible, clear, consistent, accurate, constant and transparent, and delivered in appropriate language and culturally appropriate format.

Consent refers to the collective decision made by the rights-holders and reached through the customary decision-making processes of the affected peoples or communities. Consent must be sought and granted or withheld according to the unique formal or informal political-administrative dynamic of each community. While the objective of consultation processes shall be to reach an agreement (consent) between the relevant parties, this does not mean that all FPIC processes will lead to the consent of and approval by the rights-holders in question.

FPIC should be viewed as a process, not a one-time event. As programs are implemented, indigenous people and forest-dependent communities need to be continually informed and able to freely give their consent at different stages.

See Appendix 2 for more information on FPIC.

Derived from UN-REDD Programme Guidelines on Free, Prior and Informed Consent, UNDP, 2013.

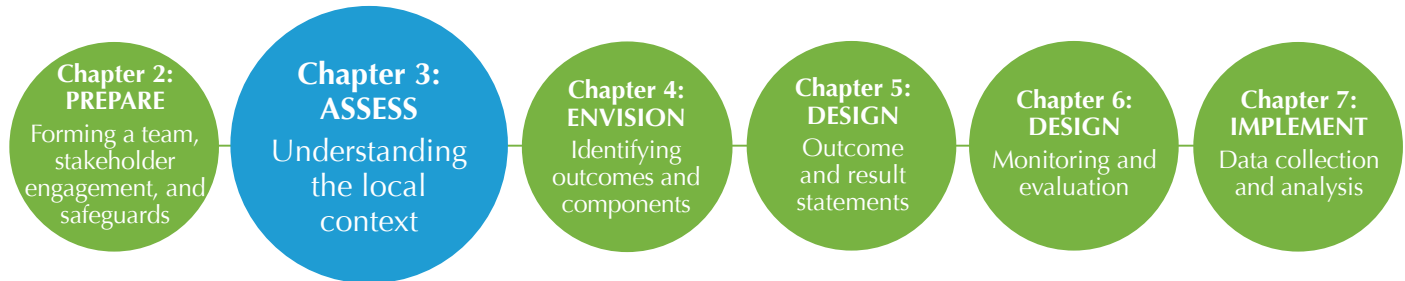


Chapter 3: ASSESS

Understanding the local context

Chapter 3: ASSESS

Understanding the local context



In this chapter, we suggest using situation analysis and stakeholder analysis as tools to gain an understanding of the local context so that the social scale and scope of the program can be set. These analyses result in a visual model and/or a brief narrative summary of local contexts. We also introduce a method to help identify and select the target stakeholder groups to focus on.



Key terms:

Social scope of a program: Total range of stakeholder groups influenced by a program's interventions.

Social target groups: Selected stakeholder groups that the program focuses on. They usually include target beneficiary groups deemed most likely to receive sociocultural or economic benefits from program interventions. They may also include target groups to whom the program wants to make sure it causes no harm.

Social scale of an intervention: Level of impact, or resolution, on individuals or groups (such as households, communities, countries or demographic groups).

Situation analysis: An analysis that identifies how political, socioeconomic, institutional, and ecological factors interact to drive change and provide opportunities for conservation intervention. It identifies root causes of change relative to a problem or place, and how those changes impact nature and people and specifically, a program's interests and those of important actors and stakeholders (CBP 2013).

Stakeholder analysis: A crucial component of situation analysis. Stakeholder analysis identifies the key stakeholders and their interests (positive or negative) in the project. It also assesses the influence and importance of each stakeholder as well as the potential impact of the project upon each stakeholder (Golder and Gawler 2005).



Questions to guide the application of social safeguard principles when conducting situation and stakeholder analyses

- √ How do we ensure that relevant stakeholder groups are fully and effectively participating in the analysis whenever appropriate? Do we have input from those who will be impacted, to ensure that we understand their situation and perspectives? How do we ensure that the results of an analysis represent their perspectives?



Questions to guide the application of social safeguard principles when conducting situation and stakeholder analyses (Cont.)

- √ Are we paying adequate attention to vulnerable (lacking assets and capacity) and marginalized (lacking influence and often excluded) populations or sub-groups?
- √ How do we ensure that the rights and values of different stakeholder groups are respected during the process?
- √ Do we understand customary and formal rights, use, spatial understanding and management of land and forest resources among the local communities and indigenous peoples? Do we adequately include these issues in the analysis?
- √ To what extent do the process and products of analysis take into consideration local history, cultures, and socially and culturally appropriate human development options?
- √ Are there mechanisms or processes in place for stakeholders to dispute the validity of stakeholder and situation analysis?

3.1 Assessing social context

The program's social scope and scale are determined by the types of strategies and interventions a program undertakes. Understanding the social context is particularly important to define human well-being outcomes that are linked to forest use and conservation. Situation analysis and stakeholder analysis can help identify the social scope and scale of the program by systematically analyzing a complex situation to develop a common understanding and agreement on critical issues. Situation analysis focuses on understanding the local context surrounding the stakeholders, including interactions among political, socioeconomic, institutional, and ecological factors. It may incorporate the use and management of land and forest at a project site, and related factors such as resource rights and access, socioeconomic conditions that drive land use, and causes of forest loss and environmental degradation.

Stakeholder analysis is a crucial component of situation analysis. It indicates who is important, influential, and vulnerable, the power relationships among these stakeholder groups, and how they can be involved in the program (Golder and Gawler 2005). Some common stakeholder groups in a sustainable landscapes program include indigenous peoples, forest-dependent communities, land owners, farmers, governments, concessionaires and private corporations, and non-governmental organizations. They may reside within the boundary of the program site or not, but they have some influence or feel some impact from changes at the program site. Since the stakeholder analysis could become quite complex, it is important to focus on the following objectives during the analysis: 1) understanding the stakeholders and their relationship to each other and to land and forest resources; 2) assessing opportunities, challenges, and risks to stakeholders that could result from program interventions; and 3) identifying target beneficiaries and groups that require special attention. The questions in Box 3.1 can be used to facilitate the process. Products of a stakeholder analysis might include a matrix that shows stakeholder groups' level of interest, influence on, and potential impacts from project intervention; maps of stakeholder relationships; and narrative description.

As a result of the stakeholder and situation analyses, practitioners can identify the main threats to conservation and human well-being, and how conservation initiatives could affect different stakeholder groups. This creates the foundation upon which a theory of change is built and program goals and outcome statements are developed. Additionally, these analyses can help identify entry points for working with different stakeholder groups and engendering their support by recognizing and reinforcing their values and priorities. Stakeholder analysis and situation analysis usually involve an iterative process. Because situations change over time, you will most likely need to revisit and update your products several times throughout the life of the project.

BOX 3.1: Questions guiding a stakeholder and situation analyses

- Who are the stakeholders?
- What are their basic characteristics? These may include demographics, shared histories, culture and identity; livelihoods and economic systems, living conditions and employment; customary and formal governance practices and institutions that involve land and forest resources; access to social resources (such as education, health, infrastructure, transportation, information, and other public services).
 - What are their relationships with forest, land, and related natural resources?
 - What are their ownership, tenure, or use/access rights?
 - How have they used and managed forests?
 - What are the social and power dynamics among stakeholders in regard to these resources, including conflicts?
 - What are the types, boundaries, and levels of economic dependency on forest and land resources?
- How would changing or maintaining access and use affect their well-being?
- Who and what could affect our ability to achieve forest conservation*?
- What kinds of sociocultural, economic, political and institutional drivers and stressors are influencing land and forest use, including those associated with forest degradation?
- Who are the key stakeholders linked to each of these factors and what motivates them?
- Who are the groups most likely to benefit from the program, in which areas of human well-being, and why? What are the key issues they face in terms of improving their well-being?
- Which of the groups have shared goals or a history of collaboration, and how healthy are these relationships?
- What are the local “enabling conditions”? What key elements need to exist to improve the human well-being focal areas identified above? Would the intervention contribute to these conditions? Could any major social problems or development constraints hinder the intervention?
- Could our intervention negatively impact any group? How could this be mitigated or compensated?
- What structures and processes influence change, particularly on those key issues, in the lives of target groups and those that need special attention? How can we ensure that they are not harmed?
- Will any groups be affected by removal of opportunities for future development?

* These are complicated questions that require understanding the interactions among stakeholder groups, their surrounding environment, and different sociocultural, economic, political and institutional factors. Potential additional questions to understand these relationships are: Who owns the forest or land? What are the boundaries? Are there traditional uses of trees or forests (sacred areas or important species)? What institutions allocate land and manage the land? Who makes decisions about the use of the land or forest? Who is allowed to use the forest and for what purpose? Are the rules different for certain types of forest (near the river, on the mountain, coastal mangrove, etc.)? Do people plant trees? Do people protect trees or ecosystems? What types of trees or ecosystems are planted or protected? Do men, women, or certain groups in the community plant or protect different types of trees? Does the community (or certain community members) manage or protect the forest or landscape? Are there local rules about fire management, limited or restricted access? Are there forest guards, or groups with specific roles to play in forest management? How does forest or tree use vary at different times of the year (wet and dry season)? Are there rules about where people can cultivate land? For how many years are plots farmed and are they rotated, and some left fallow? Are the areas of permanent cultivation expanding or declining?

Tools and methods have been developed to facilitate situation and stakeholder analyses for conservation planning. See Resources 3 for a list of these tools and methods. These include reviewing existing knowledge and holding focus groups and semi-structured interviews with key informants representing different stakeholder groups, conceptual modeling with stakeholders, or a combination of these methods. Products of situation analysis may come in the form of a brief summary description of important factors and stakeholders, their relationship with resources, and their interest and possible impacts of a program on them. They might also result in a visual representation that documents information in a succinct conceptual model.⁵ Figure 3.1 shows the BFCP conceptual model.

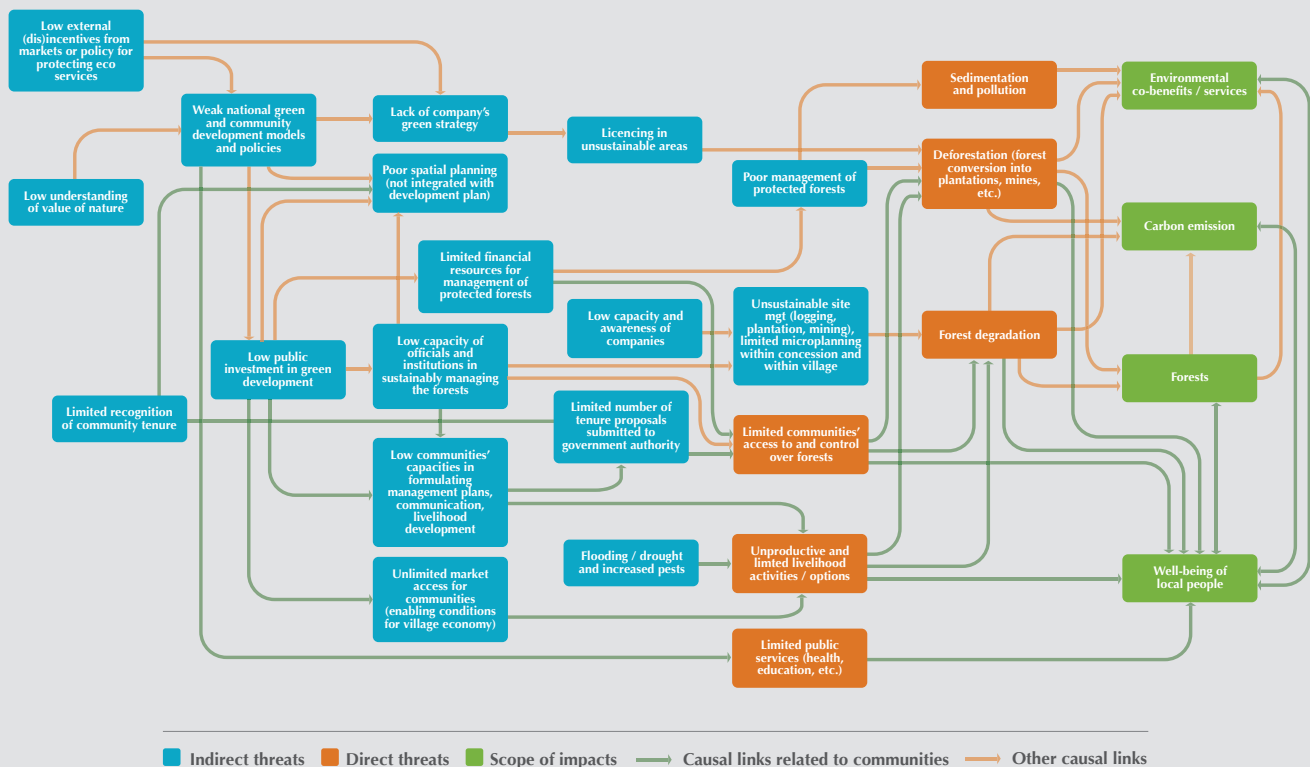
3.2 Identify social target groups

Any project site will have multiple stakeholder groups, with different relevance to the project, making it necessary to identify primary social target groups. The target groups usually include target beneficiaries (those who are expected to benefit from project interventions) and groups with particular vulnerabilities to project interventions because their well-being and land use management decisions are intimately intertwined.



Figure 3.1: BFCP conceptual model

The Berau Forest Carbon Program visual model summarizes all the important factors, including direct and indirect threats that influence conservation and human well-being outcomes, and their linkages. The diagram uses a series of boxes and arrows to represent causal relationships among biological and social factors that are believed to impact one or more conservation goals and human well-being. This model serves as the foundation upon which the BFCP team builds a theory of change (illustrated in Chapter 5) to define how conservation strategies will achieve their outcomes.



See Appendix 5 for a larger version of this figure.

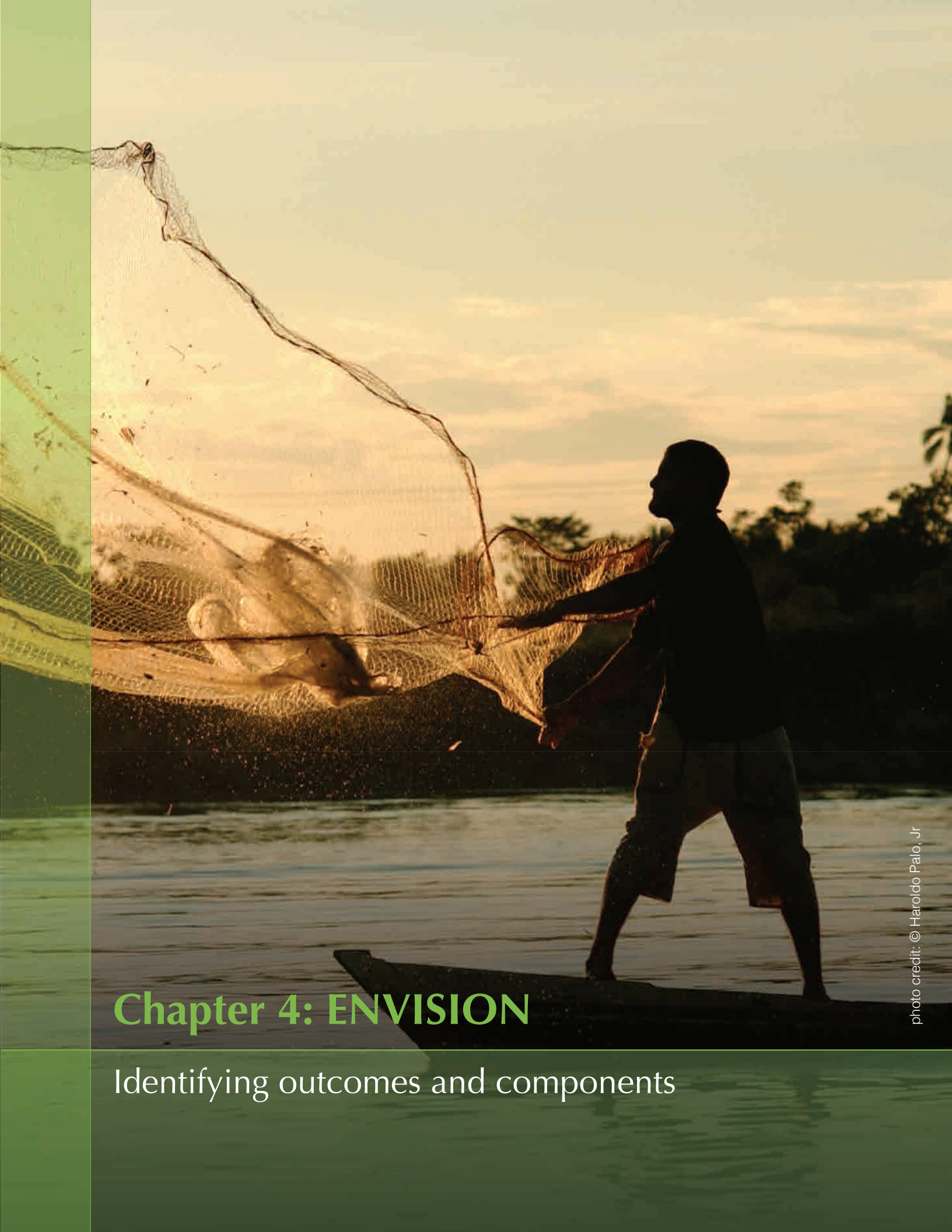
⁵ The Open Standards for the Practice of Conservation outlines a specific approach for developing a conceptual model based on situation and stakeholder analyses. This approach can be found at the following link: <http://www.conservationmeasures.org/wp-content/uploads/2013/05/CMP-OS-V3-0-Final.pdf>

One tool found helpful by practitioners to help identify social target groups is Colfer's "Who Counts Most?" tool, developed by The Center for International Forestry Research (CIFOR) (Colfer et al 1999). This tool identifies seven dimensions by which target groups can be differentiated from other stakeholder groups, and a simple scoring technique to determine which groups "count most" and should be given greater consideration. Lower scores indicate stakeholder groups who count more. Figure 3.2 shows an example of a "Who Counts" matrix. Practitioners may want to use this tool as is, or identify additional/different dimensions based on their project. More information on the dimensions and the tool can be found in Colfer et al. 1999.⁶

Table 3.1: Example of target group selection in a Brazilian project using "Who Counts" Matrix (Colfer et al 1999). By using this tool, male and female colonists were identified as target stakeholder groups.

Dimensions	Colonist Male	Colonist Female	Cattle Rancher	Logging Co. Owner	Logger Trucker	IBAMA Agents	INORA Agents
Proximity	1	1	3	3	3	3	3
Pre-Existing Rights	1	1	2	3	3	3	3
Dependency	1	1	2	3	3	3	3
Poverty	2	2	3	3	3	3	3
Indigenous Knowledge	1	1	2	3	3	3	3
Culture / Forest Integration	2	3	3	3	3	3	3
Power Deficit	2	2	3	3	3	3	3
MEAN VALUE	1.43	1.57	2.57	3.00	3.00	3.00	3.00

⁶ In the "Who Counts Matrix" the top row contains possible stakeholder groups initially identified as being relevant for the intervention, based on knowledge from the situation and stakeholder analyses. Along the left hand side are listed the dimensions by which to assess these groups. A score (3 = low, 2 = medium, 1 = high) is given to each of group for each dimension. The scoring process involves making estimates based on the knowledge from situation and stakeholder analyses, and other expert input. According to Colfer et al (1999) the cutoff point for defining who counts has been a score of < 2. The results may be discussed in focus groups before a final selection of the social target stakeholders is made. Additional resources can be found on CIFOR's Adaptive Collaborative Management website for the Lives in Forests project: http://www.cifor.org/livesinforessts/_ref/methods/acm/

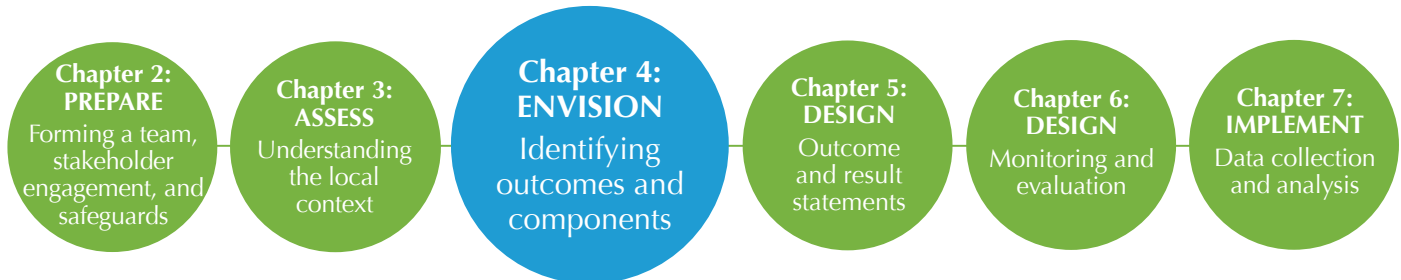


Chapter 4: ENVISION

Identifying outcomes and components

Chapter 4: ENVISION

Identifying outcomes and components



Based on the situation and stakeholder analyses, the major program goals can be developed. This chapter helps practitioners identify the human well-being focal areas most relevant to the overall program goals. This chapter goes on to provide guidance on how to specify the components and human well-being outcomes that are relevant to both target stakeholder groups and conservation goals. A theory of change is introduced as a tool to help determine which of the desirable outcomes could potentially be achieved by the strategies of the program.



Key terms:

Human well-being focal areas: General areas of human well-being that provide a broad compass for orienting and focusing the social benefits of a program. Examples include economic well-being, education, health, cultural and spiritual well-being, and security.

Human well-being components: More specific aspects of human well-being focal areas that are relevant to the local context. For example, if economic well-being was identified as a focal area, the component might be “material assets owned”. Human well-being components are within the scope of influence of the project. They are the foundation for human well-being outcome statements.

Human well-being outcomes: Major measurable results of project strategies related to human well-being components achieved within the scope and time frame of a project.

Theory of change: A description of how an intervention is supposed to deliver the desired outcomes. It describes the causal logic of how and why a particular project, program, or policy will reach its intended outcomes (Gertler et al 2011). A theory of change includes a human well-being strategy, activities, intermediate results and outcome (which is based on the human well-being component).

Human well-being related strategies: A broad course of action with a common focus designed (either alone or with other strategies) to achieve the human well-being outcomes and related intermediate results. It can be achieved through socially-oriented pathways that are designed to directly improve human well-being or through nature-oriented pathways that create changes in ecosystem services that in turn impact human well-being.



Questions guiding the application of social safeguard principles when identifying human well-being focal areas, components, and developing outcomes:

- ✓ Do we appropriately engage stakeholder groups that will be impacted by the project to ensure that we understand which human well-being components are relevant to them?
- ✓ Are we paying adequate attention to vulnerable (lacking assets and capacity) and marginalized (lacking influence and often excluded) populations or sub-groups?
- ✓ How do we ensure that the rights and values of different stakeholder groups are respected during the process?

Table 4.1 provides a list of human well-being focal areas described in conservation literature (Smith et al 2013, Leisher et al. 2013, WRI 2003), in global development literature (GNH, Biedenweg in review), and used by sustainable landscapes programs. For each focal area, the table lists some examples of components. Because components are determined by the local context, two projects might share the same focal area, but have very different components. The list is not exhaustive and is meant to provide practitioners with illustrative examples. Each team should define for itself which focal areas and components are most appropriate for its project. Sections 4.1 and 4.2 explain in greater detail how to identify appropriate human well-being focal areas and components.

Table 4.1: Examples of human well-being focal areas and components

Human well-being focal area examples	Component examples
Opportunities for wealth creation* and material living standards	Income; Employment; Material assets owned; Savings; Basic infrastructure (electricity, water, telecommunication and transportation)
Security*/Safety	Land tenure; Forest management rights; Access to land and forest resources; Land and boundary conflicts; Food and water security
Governance and Empowerment*	Participation in decision-making related to the resources one is dependent on; Control over decisions related to natural resource use and management; Accountability; Justice; Transparency; Maintenance of customary forest resource governing system; Governance-related skills (analysis, negotiation, conflict management, public speaking, etc)
Health	Physical health; Access to health care; Nutrition; Occurrence of diseases
Education	Access to school; Access to training and other informal education; Livelihood skills; Traditional ecological knowledge
Social or community wellness	Social cohesion; Pride in community; Ability to work together on matters important for the community (community productivity); Social resilience to disturbances or shocks
Psychological, emotional and spiritual well-being	Life satisfaction; Mental well-being supported by recreational value of forest; Spiritual freedom and experience; Aesthetics

Culture**	Cultural and traditional values of forest to the community; Sense of home; Cultural identity and heritage
Equity	Benefits across generations, genders and stakeholder groups; Rights of women and marginalized groups in accessing forest and land resources; Inclusion of women and marginalized groups in decision-making on resource management

* Some REDD+ programs are adapting the World Bank's 'Attacking Poverty' framework, which uses the three focal areas: opportunities for wealth creation, security and empowerment. Other projects may decide that some of the components listed for security in table 4.1 fall under the governance focal area for their project. See Box R.4.1 for more information about the 'Attacking Poverty' framework.

** Culture is a particularly important focal area for programs with indigenous groups as one of their stakeholders. Culture here refers to the set of distinctive spiritual, material, intellectual and emotional features of a society or social group, including but not limited to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs. (Source: UNESCO, Universal Declaration on Cultural Diversity (2001) http://portal.unesco.org/en/ev.php-URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html)

4.1 Identifying human well-being focal areas

Human well-being is comprised of multiple dimensions that, collectively, provide people with a feeling of doing well and the opportunities to lead a life that they value (adapted from Stephanson and Mascia 2009). The ingredients of human well-being are situation-dependent, reflecting local culture, values, priorities, geography, and ecological circumstances. A sustainable landscapes program has a limited scope, and may only be relevant to a sub-set of the well-being issues that are important to different stakeholder groups. This section helps practitioners identify the most relevant human well-being focal areas.

Figure 4.1: Steps to identifying relevant and appropriate human well-being focal areas

Question 1. Which human well-being focal areas are of major concern to target stakeholders? See Table 4.1 for a list of possibilities.

Question 2. What are the goals and scope of influence of the conservation activity?

Question 3. Which human well-being focal areas have a strong link with conservation goals? (i.e. Which human well-being focal areas are in the realm of what could be influenced by the Sustainable Landscapes project?)



Human well-being focal areas range from monetary benefits (e.g. wealth) and factors crucial for human and social development (e.g. health and education) to non-monetary benefits (e.g. social wellness, security, cultural integrity and good governance). Examples are listed in Table 4.1. These different focal areas of human well-being can be interdependent or mutually reinforcing. For example, the presence of jobs and physical health can influence household and community well-being; and good governance can result in security and access to livelihood resources, which in turn enhance economic well-being.

In this stage, the insights gained from stakeholder and situation analyses are used to select human well-being focal areas. Focal areas should be both important to target beneficiaries and strongly linked to conservation goals.



BOX R.4.1: Using the World Bank's Attacking Poverty framework to identify focal areas

Some Sustainable Landscapes programs that TNC is supporting are using the the World Bank and Oxford University's 'Attacking Poverty' framework because the three focal areas fit well with their local contexts and program and stakeholder goals. The framework is based on the idea that lasting improvements in well-being require opportunities for wealth creation, security, and empowerment. These focal areas are mutually reinforcing, and pathways to sustainable livelihoods and poverty alleviation require investments in all three focal areas. In the context of REDD+, programs can contribute to these three pathways by:

- (1) creating **material opportunities for wealth creation** and well-being, such as jobs, revenue streams, infrastructure, and improved educational conditions;
- (2) enhancing populations' **security**, including tenure security; health, food, and water security; livelihood security; and adaptability to climate change; and
- (3) facilitating the **empowerment** of individuals and communities to participate in decisions affecting local land-use and development.*

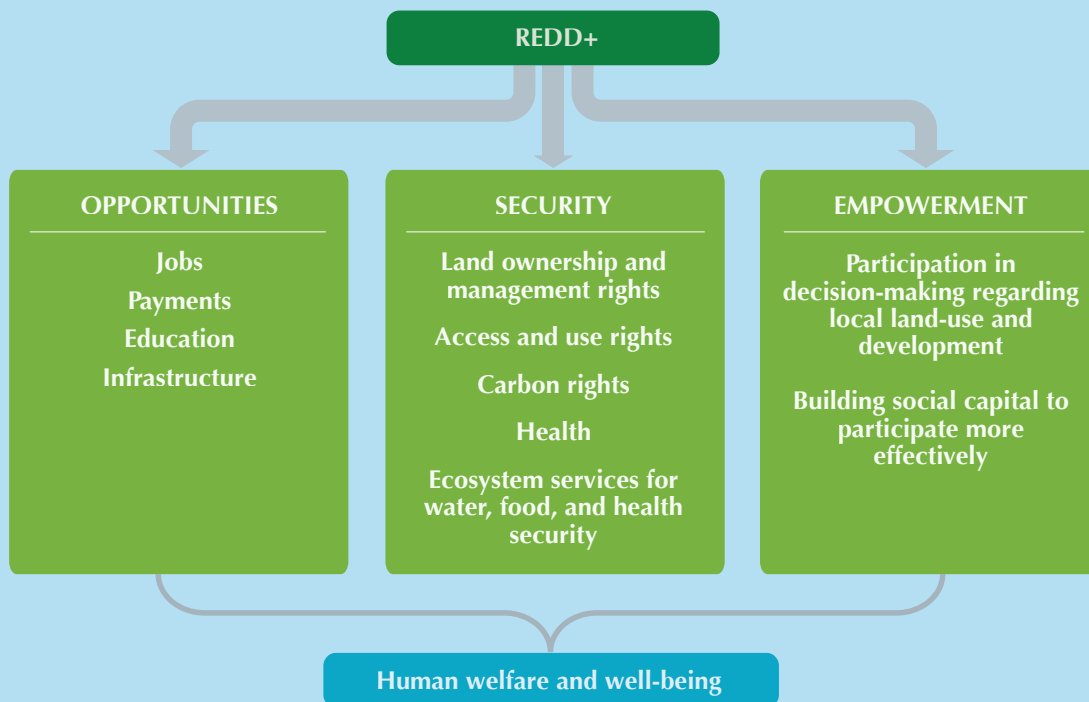


Figure adapted from Lawlor et al. 2013

* For more information about how this framework can be adapted to REDD+ and sustainable landscapes programs, please see Lawlor et al. (2013) Community Participation and Benefits in REDD+: A Review of Initial Outcomes and Lessons.

Figure 4.1 is a tool that can help identify which human well-being focal areas are most relevant to the program. It illustrates the steps taken to identify the focal areas that your program may pursue. This process emphasizes the link between your program's conservation goals and stakeholder interests, priorities and vulnerabilities (collectively referred to as priorities). Where there is no link between conservation activities and stakeholder priorities, the program may want to drop the focal area unless there is a significant reason not to. Those focal areas may be better addressed by other programs or organizations.

Specific components of the focal areas identified in this chapter will form the foundation for developing outcome statements, intermediate results, strategies, activities, and indicators in the following chapters.

4.2 Identify human well-being components

Once you have decided on the focal areas, the next step is to figure out the most relevant **human well-being components**. These components will serve as foundation for developing human well-being outcomes. The components are context-specific, so the findings of situation and stakeholder analyses will be useful in identifying components that are appropriate for a particular project because they are both important to stakeholders' well-being and within the scope of influence of the project. For the focal area "security," for example, the most important component at one site might be "food security based on forest resources," while at another site it might be "forest management rights by the communities." In the case of "governance," "participation in land use decisions" may be most relevant in one local context. Other projects where governance is important might identify a different component, such as "transparency in financial allocations." Table 4.1 gives examples for different focal areas and components. It is not exhaustive, and a project may include components not considered here.



BOX 4.2: Identification of human well-being focal areas and components for BFCP

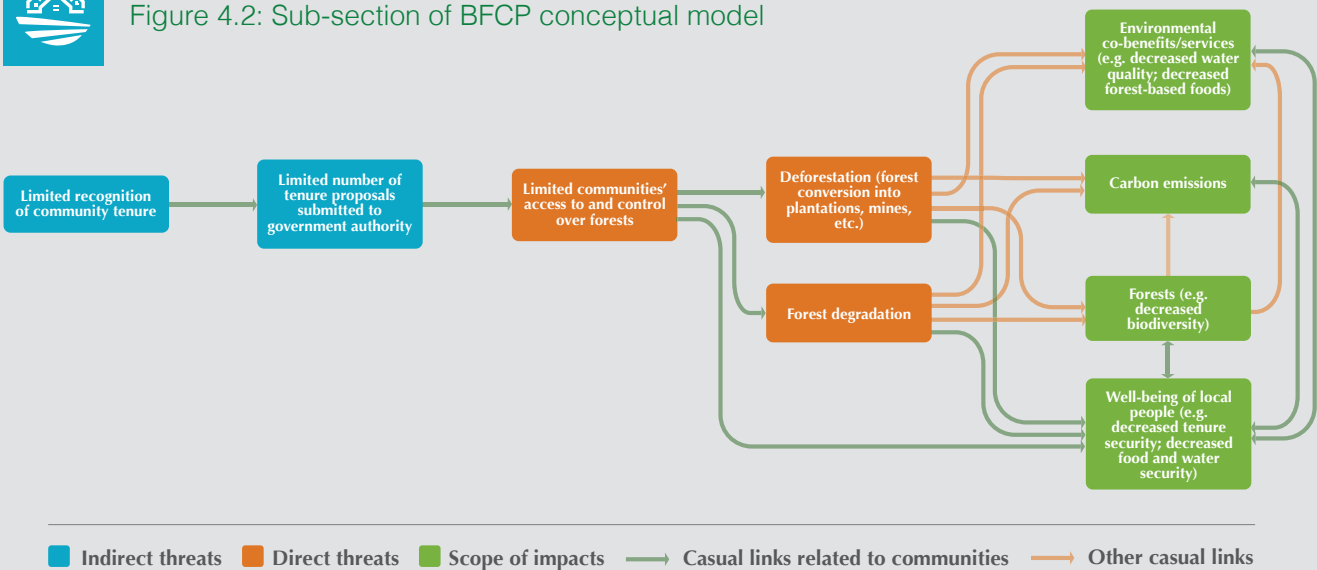
When the Berau Forest Carbon Program went through the exercise of linking conservation goals and local communities' human well-being priorities, the team recognized that many of the conservation goals were related to human well-being priorities. Using an existing development framework "Attacking Poverty" (The World Bank and Oxford University 2001), the BFCP program selected as program focal areas "opportunities for economic well-being and basic social services," "empowerment in land use decisions," and "security" in relation to forest resources.

Through work with the community it became apparent that access to education and health care are both part of the local definition of "opportunities for economic well-being and basic social services," in addition to some of the common components for economic well-being found in table 4.1. Remote villages had very limited access to health and education services, and as a result had to send their children to other villages for school and medical needs. To obtain cash to pay for related educational and health services villagers engaged in activities that harmed forests. By improving villagers' access to health services and education, it would increase their well-being and alleviate the pressure on forests. This was validated by focus group conversations and community meetings, as well as by benchmarking with other NGOs working in similar contexts in Kalimantan. Similarly, the team recognized that cultural and spiritual well-being are part of the local definition of "security", and as a result were identified as components.

If a conceptual model was created as a result of the situation and stakeholder analyses in the previous step, it will be helpful to refer back to this to identify the relevant human well-being focal areas and components. In the Berau example above, recall that limited recognition of community tenure results in limited community access to and control over forests. This is a direct threat to human and environmental well-being, and causes forest degradation, deforestation, and ultimately negative impacts on forests, carbon emissions, ecosystem services and human well-being. As a result, security can be identified as a relevant focal area, and secure forest management rights for local communities as a component. Figure 4.2 shows this section of the



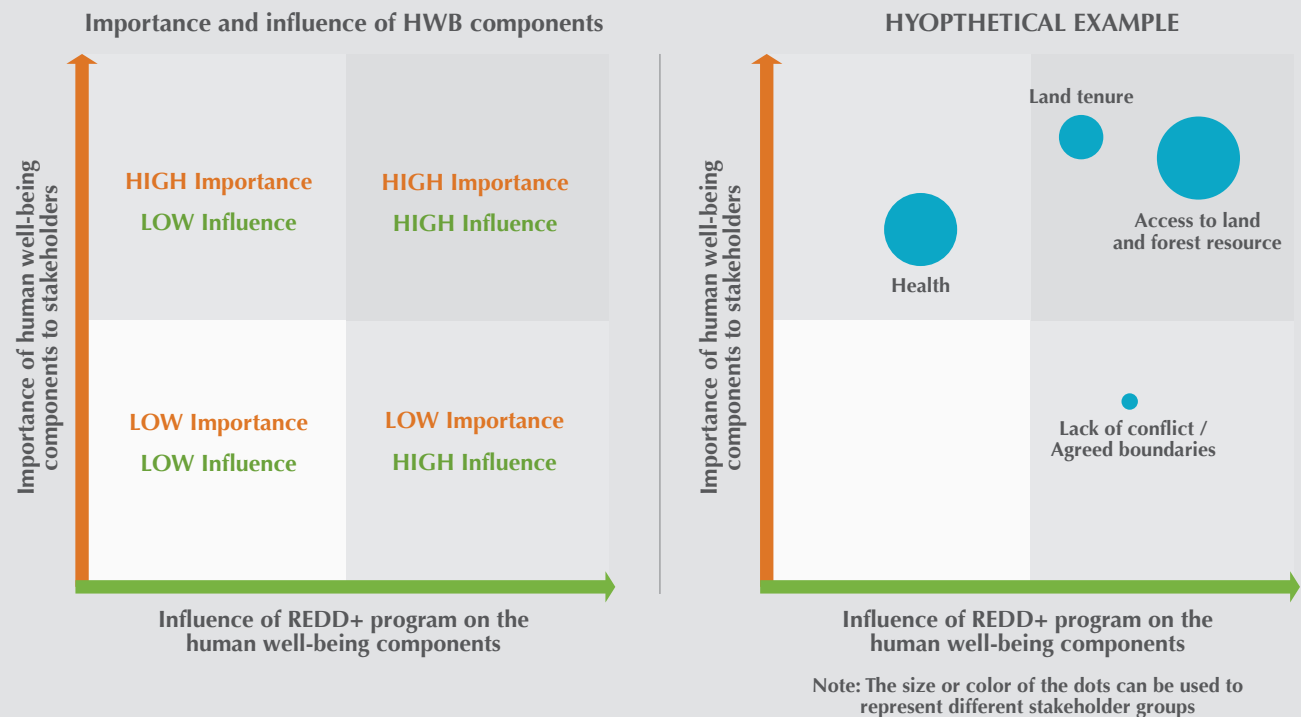
Figure 4.2: Sub-section of BFCP conceptual model



See Appendix 5 for a larger version of this figure.

conceptual diagram. Note that the conceptual diagram is a visual representation of the situation analysis; the focal areas and components are not part of the conceptual diagram, but can be inferred from the conceptual diagram. Strong human well-being components can be reasonably influenced by the sustainable landscapes project and are of importance to target stakeholder groups. The conceptual diagram helps determine whether the component is within the scope of influence, and consultation with local experts and validation in field interviews helps determine importance to target stakeholder groups.

Figure 4.3: Human well-being component selection tool





BOX 4.3: Process of identifying human well-being components, BFCP

Multiple steps were taken to identify the human well-being components for BFCP. They included developing a conceptual diagram, consultative workshops, and field validation with the key stakeholder groups. The **conceptual model**, shown in figure 3.1, was developed by the team leads and helped them understand the complex causal relationships and how direct and indirect threats impact environmental and human well-being outcomes and the linkages between these different outcomes. The team then held a **consultative workshop** to understand and identify human well-being components of the key stakeholder groups in Berau. The workshop participants consisted of NGO, governmental agency, TNC, and BFCP staff. All had strong knowledge of the local situation in Berau. Results were presented, discussed, and agreed upon. The TNC team then **went into the field to validate** the components with village leaders and prominent figures. Focus groups and semi-structured interviews were conducted with different demographic groups and individuals, including young men, old men, women, bird nest collectors, and farmers.

For the focal area “opportunities,” the most important components were “livelihood (income and subsistence)” and “basic social services (health and education).” For the focal area “security,” the most important components were “formal forest management right by community” and “cultural or traditional values of forest to community.” During the field visit, initial indicators also were generated for each component.

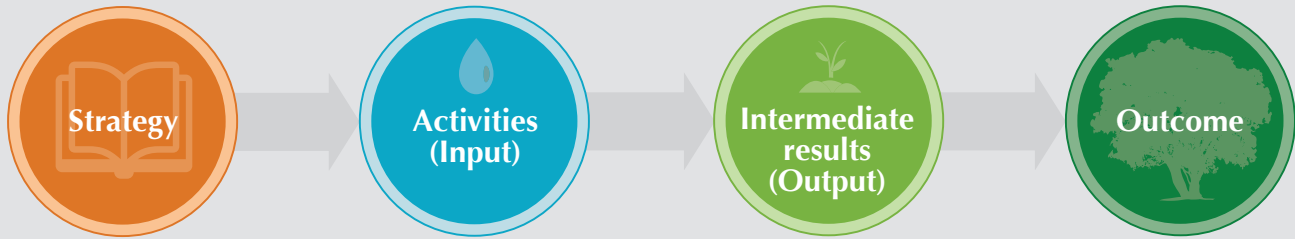
Note that “formal forest management rights by community” could be identified using the conceptual model. “Cultural or traditional values of forest to community” was not obviously from the conceptual model that resulted from the situation and stakeholder analyses, and stakeholder engagement activities were critical in identifying this important component that otherwise would have been omitted.

Despite the fact that the BFCP team followed certain steps to identify human well-being components, the process during these steps was iterative and the team regularly checked whether the components and program objectives were indeed good fits and whether they are mutually reinforcing (See question 3 of Figure 4.1 above). Through this process, the team determined that “cultural or traditional values of forests to community” were within the scope of BFCP because in Berau improving forest management rights for communities can protect against the erosion of cultural and traditional values of forests, and when the communities’ cultural and traditional values of forests are maintained or strengthened, they support actions to achieve conservation outcomes.

If the core team is having a hard time deciding among different potential human well-being components, try creating a matrix like the one in figure 4.3. Plot the component on the vertical axis based on how important it is to the target stakeholder groups. Plot the component on the horizontal axis based on the extent to which it is within the scope of influence of the sustainable landscapes program. The core team can also use the size or color of the dots to represent different stakeholder groups, keeping in mind that the team may value the perspectives of some stakeholder groups above others.

The example illustrates how the human well-being focal area “security” could be narrowed down to specific components that are most important to target beneficiaries and within the realm of influence of the sustainable landscapes program. In this hypothetical example, potential components of “security” are health, land tenure, access to land and forest resources, lack of conflict/agreed boundaries. By plotting these potential components in the matrix, land tenure and access to land and water resources can be identified as the best components of human well-being to focus on.

Figure 4.4: Theory of change



BOX 4.4: Some recommended actions to consider when developing a theory of change and selecting strategies

- Encourage participants to think critically and openly discuss their assumptions about the impacts of forest management on people. You might ask the following questions:
 - Who and what (individuals, groups, organizations, structures, processes, and factors) need to change to achieve our outcomes?
 - What types of inputs (preconditions and activities) need to happen to enable desired outputs and outcomes?
- Quality-test whether our assumptions about strategies and inputs will work by seeking out different sources and perspectives:
 - Knowledge among stakeholders, partners, and beneficiaries. Does the causal relationship make sense to them?
 - Other analytical perspectives, such as from people outside the core team.
 - Realistic time frames and trajectories of change, given the context.
 - Learning and evidence from multiple sources (qualitative and quantitative).
- Pay special attention to potentially negative changes on stakeholder groups. How would we prevent or mitigate them? What are the costs and benefits, from their point of view? What are the risks to them if they do not participate in our program?
- Plausible strategies -- use any of the following criteria to help select which strategy to pursue. (For more details on generating and selecting strategies, see Design: Strategy Selection, Conservation Business Planning Guidance 2013.):
 - Likelihood of success and outcome performance levels
 - Investment and other financial considerations
 - Leverage and funding potentials
 - Resource requirements
 - Feasibility
- Periodically revisit strategies and theory of change results to ensure that they are still working well under current situations

4.3 Using theory of change to link human-related strategies and outcomes

The components identified in 4.2 become the foundation for human well-being outcomes, which are major measurable results of program strategies achieved within the scope and time frame of a program. A theory of change (ToC) can be used to help determine how a strategy can result in desired outcomes. A theory

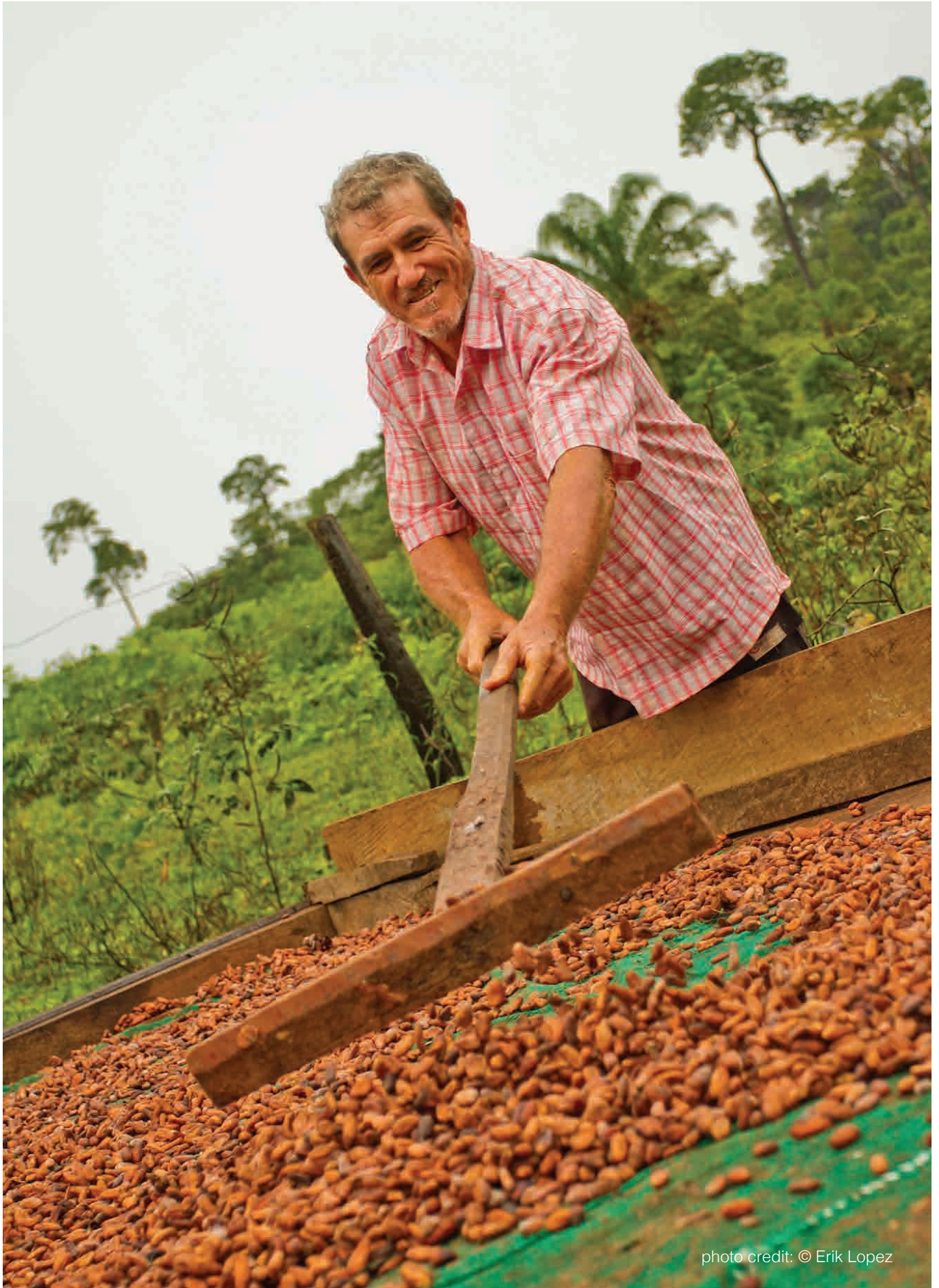


photo credit: © Erik Lopez

of change (ToC) is a hypothesis about how an outcome will be achieved through a series of activities and results, and draws on the information from situation and stakeholder analyses (Chapter 3). Causal pathways or linkages between cause-effect relationships are established among possible strategies, activities (input), intermediate results (output), and outcomes (Figure 4.4). The ToC starts with a human well-being related strategy and explains what types of activities need to happen and intermediate results achieved to realize the desired outcome. A theory of change can be articulated by starting with a strategy and working through a series of if/then linkages to arrive at the desired outcome, asking what results (i.e. intermediate results) need to be achieved along the way and what activities are needed to realize those results. A ToC can also help ensure that strategies and activities do not cause harm to stakeholder groups.

To the extent possible, the assumptions made about causal relationships should be validated by experts and local stakeholder.

The theory of change will contain a number of results that tend to be nearer term and are stepping stones along the pathway to the final outcome. Some of these results will be particularly important milestones that are necessary precursors to achieving desired outcomes. These small number of absolutely essential results are called intermediary results and are articulated in greater detail than other results. Intermediate results may also serve important purposes, including defining key decision-points, delineating phases, and articulating important early results for partners and donors. Intermediate results are described in greater detail in the following chapter.

It is important to note that the process of defining outcomes and developing ToCs is iterative. Documented theories of change and visual diagrams are used as evolving frameworks to validate the cause-effect relationship between a strategy and an outcome, and to guide implementation and evaluation. ToCs work under certain pre-conditions and assumptions, and sometimes these change. This requires a ToC to be revisited, and strategies and activities may need to be adapted. Additional tools (such as Participatory Impact Assessment (PIA) (see CCBA Part 2) and Contribution Analysis (Mayne 2008)) can help the team understand factors contributing to changes that are not related to project intervention.

4.4 Addressing capacity gaps

A theory of change will identify the activities and intermediate results needed to achieve a desired outcome. Once this pathway is laid out, it may become apparent that the conservation practitioners and other members of the core team do not have the experience or expertise needed to carry out the strategy. As sustainable landscapes projects increasingly incorporate environmental and human well-being goals, it is likely that the breadth of expertise needed will exceed the capacity of those who initiated the project. As a result, partners and expert contractors may need to be brought into the process. When more actors are engaged in implementation, it will be important to be clear on the roles of different actors and reassess whether the core team should be expanded because of the especially substantial or strategic role played by a new partner. Table 4.2 shows the partners that the BFCP program engaged after assessing what was needed to achieve the intermediate results and outcomes in the theory of change.



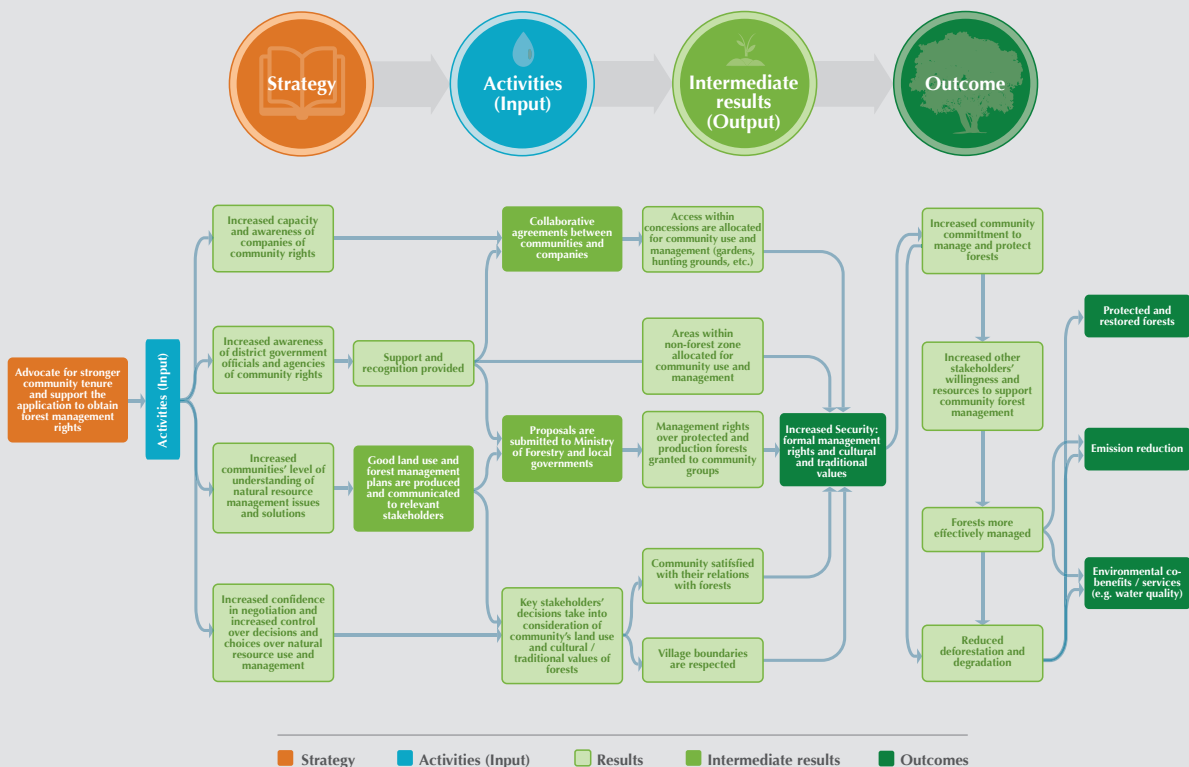
Table 4.2: List of partners engaged to implement project activities for BFCP. Project implementers are listed according to the group of intermediate results that they will help achieve.

Human well-being intermediate results	Project implementers
Management rights over protection forests, production forests, and non-forest uses granted to community groups	TNC, MENAPAK (NGO)
Areas within logging concessions allocated for community use and management (gardens, hunting ground, etc.)	TNC, Forum Kampung Hulu Kelay (community group), LIKOS (NGO), FORCLIME (donor government)
Income and livelihood options increased	TNC, MENAPAK, FORCLIME
Communities in participating villages have increased level of understanding of natural resource management issues and solutions	TNC, YAKOBI (NGO), KANOPI (NGO)



Figure 4.5: A theory of change by BFCP for a community forest management rights strategy

This example illustrates how BFCP used a theory of change to map out how a program's strategy could contribute to "formal forest management rights by community" and "cultural or traditional values of forest to community", the two most important component identified for the focal area "security". The BFCP team developed a strategy to strengthen community tenure, and support community forest management rights in Berau.



See Appendix 5 for a larger version of this figure.

Through situation analysis, the TNC team recognized that the villages in Berau were located in different landscapes, some within areas designated for logging concessions and plantations (where forest management rights were in the hands of concessionaires), others within protection forests and areas designated for non-forestry activities. These designations determined levels of community access and control, as well as the kinds of agreements that communities could enter into.

The first important question that the team asked was what key elements are needed to strengthen community tenure. The answers, listed below, are adapted to become specific intermediate results in the figure above

- Awareness among companies and district agencies of community rights to access forest resources within concessions;
- Willingness of companies and district agencies to formalize community access rights arrangements;
- Communities' understanding of natural resource management issues, and their capacity to negotiate with other stakeholders;
- Community land use and forest management plans, which provide useful information on how forest and land resources are used by communities.

The next question the team asked was how human well-being outcomes related to "increased security" were relevant to forests, carbon emission, and ecosystem services. As shown in the right of the above figure, the team determined that increased security would increase communities' commitment to manage and protect forests, which would increase other stakeholders' willingness to support forest management initiatives, resulting in more effective forest management, which would have a positive impact on forests, carbon emissions, and ecosystem services. These ecosystem services, like improved water quality would, in turn, further improve human well-being.



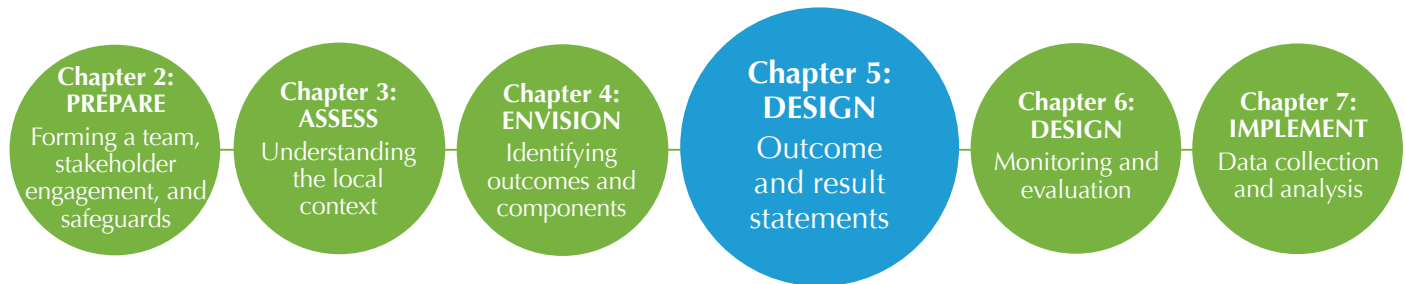
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Chapter 5: DESIGN

Outcome and result statements

Chapter 5: DESIGN

Outcome and result statements



Based on the human well-being components identified in Chapter 4, this chapter will help you develop human well-being outcome and intermediate result statements. Theory of change is used again in this chapter to help develop indicators at different points along the causal pathway. Suggestions are provided on how to develop and assess indicators. We also provide examples of human well-being indicators and implementation indicators that may be relevant to a sustainable landscapes program. This chapter also focuses on assessing strategies and interventions that do not have intentional links to human well-being, and provides guidance on how to minimize unintended negative impacts.



Key terms:

Human well-being outcome statements: Statements that describe the major human well-being results to be achieved through a program's strategies and within its social scope and scale. These are the final results found at the right-hand side of the theory of change. Outcome statements describe desirable changes related to human well-being components in specific, measurable terms.

Human well-being intermediate result statements: Statements that describe either direct social benefits or other changes brought about by project activities in the short term. These statements are based on human well-being components and share the same characteristics as the outcome statement. The intermediate results occur along the pathway to the final outcomes and are particularly important milestones that are necessary precursors to achieving desired outcomes.

Human well-being indicators: Quantitative or qualitative factors or variables that provide simple, precise and reliable means to establish baselines in an assessment, and to measure changes in aspects of human wellbeing related to a project's interventions (adapted from Church and Rogers 2006, and OECD 2010). Indicators can be identified for intermediate results or final outcomes.

Implementation/process/performance indicators: Similar to human well-being indicators, but focusing instead on program performance, the ways activities are implemented, and the processes involved in achieving social benefits. These indicators are also used to gauge the degree to which social safeguard principles are being followed.

Assessment: Process that occurs during the program design phase, it consists of assessing potential risks and predicting potential impacts of various strategy options (Lawlor 2013).



Questions guiding the application of social safeguards to the process of identifying human well-being outcome statements, intermediate results, and indicators:

- √ Are the outcome statements and intermediate results compatible with local/traditional social and cultural conditions?
- √ Do the statements respect stakeholder groups' formal and customary rights to own, manage, access, and use land and resources vital to their livelihoods, economic development, culture, and human development?
- √ Do we take into consideration equitable, non-discriminatory and transparent benefit-sharing and distribution systems among relevant stakeholders?
- √ How do we ensure full and effective participation by different stakeholder groups during the process of identifying outcomes and objectives? Do we include those who lack power in land/forest use and development decisions but strongly depend on related resources (such as indigenous peoples, forest-dependent communities, women, ethnic minorities, and economically marginalized people)? Do we ensure that all stakeholder groups, including those who are not target beneficiaries, do not suffer adverse effects related to conservation processes and human well-being objectives and outcomes?
- √ Do the intermediate results and outcomes contribute to good resource governance and augment traditional forest values?
- √ Do the intermediate results comply with applicable local and national laws and international treaties, conventions, and other instruments?
- √ Will the indicators help us understand how well the project is performing in terms of achieving human well-being objectives and causing no harm?

5.1 Developing human well-being outcome statements and intermediate result statements

The human well-being outcomes identified in Chapter 4 are relevant to target stakeholder groups and within the scope of what can be influenced by the project. These outcomes now serve as the basis for human well-being outcome statements and related intermediate result statements. Human well-being outcome statements are descriptions of the intended results of a program's strategies on specific human well-being components. They are time bound, relevant to the local context, and specify the degree of desirable change (Box 5.1).



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BOX 5.1: Example and elements of an outcome statement from BFCP

Outcome statement:

“By 2015, participating communities are more secure as indicated by the increased forest area formally put under their management (at least 5% increase of the area, or approx. 20,000 ha) and the increased level of their satisfaction in maintaining their traditional relations with forests.” To achieve this, the team developed a strategy to strengthen community tenure, and support community forest management rights in Berau.

Elements of the outcome statement:

1. What we are trying to change is described in specific terms (increased forest area managed by community and increased level of their satisfaction in maintaining their traditional relations with forests.)
2. A specific measurable quantity or change (at least 5% increase of the area, or approx. 20,000 ha and the increased level of their satisfaction)
3. Locally relevant context for intended outcome (community management rights and ability to pursue traditional relationships with forest are most important components of improved security for the local communities).
4. Time frame for outcome or portion of an outcome (by 2015).

Intermediate result (or output) statements share the same characteristics as outcome statements. However, they are milestones on the path to human well-being outcomes and often observable in a shorter time frame, providing evidence that overall theory of change is playing out as expected. Intermediate result statements should be developed for the results in the theory of change that are particularly important for achieving the desired outcome or are of special interest to key stakeholders or donors. Examples for a sustainable landscapes program might include the number of people with access to certain social services; number of households with alternative livelihoods that support forest conservation; management plans developed or agreements signed; etc. Because many donors and monitoring standards require reporting within five years of project startup, it may be practical to develop intermediate result statements with these reporting purposes in mind.

Keep in mind that the development of outcome statements, intermediate result statements and strategies are closely linked to one another, and the team should expect this to be an iterative process and plan to make revisions periodically.

The questions in Box 5.2 can help the team revise and finalize outcome and intermediate result statements taking into account sustainability and ensuring that no groups will be negatively impacted.

BOX 5.2: Considerations when revising and refining outcome and intermediate-result statements

Taking into consideration the results of situation analysis, do these outcome statements adequately address wider socioeconomic issues and environmental concerns that are underlying drivers and stressors, so that intervention results are effective and sustainable?

Are the statements compatible with some or all of the safeguards listed at the beginning of this chapter?

Do we have the capacity and resources to develop strategies and activities to reach target groups?

If not, how will we fill the gaps (e.g., through partnership, collaboration, contracting, building internal capacity)? Which partners will contribute, and in what way?

Table 5.1 shows the human well-being components, outcomes, strategies, activities, results and intermediate results for BFCP's Security focal area. Note that the intermediate result statements share the same characteristics as outcome statements and are time bound, relevant to the local context, and specify the degree of desirable change. The results are more general.

Security Focal Area			
Components	Outcome and Strategies	Activities	Results and Intermediate Results (IR)
Formal management rights by communities	<p>Outcome Statement:</p> <p>By 2015, participating communities are more secure, as indicated by increased forest area formally put under their management (at least 5% increase in area, or approx. 20,000 ha) and increased satisfaction in maintaining their traditional relationships with forests.</p> <p>Strategy:</p> <p>Advocate for stronger community tenure and support community forest management rights</p>	<p>Facilitate participatory land-use planning (including survey of agricultural lands and areas of importance for communities) and community support in communicating plans to relevant stakeholders.</p> <p>Build awareness of community rights among district officials and agencies.</p> <p>Support interested communities in obtaining formal management rights through mapping, submitting proposals, and formulating management plans.</p>	<p>By 2014, proposals that give management rights to community groups over protection and production forests are submitted to Ministry of Forestry and local government for a total area of at least 8,000 ha. (IR)</p>
Access to land and forest resources		<p>Build capacity and awareness of community rights among companies.</p> <p>Facilitate collaborative agreements between communities and companies.</p>	<p>By 2014, processes to develop collaborative agreements between communities and companies are initiated in 4 logging concessions. (IR)</p>
Clear village boundaries		<p>Facilitate boundary mapping.</p>	<p>Village boundaries are respected.</p>
Cultural/traditional value of forests for communities maintained		<p>Facilitate participatory land-use planning (including survey of agricultural lands, areas of importance for communities, etc.) and support communities in communicating plans to relevant stakeholders.</p>	<p>By 2013, land use or forest management plans are produced in at least 7 villages and communicated to relevant stakeholders. (IR)</p>
Community knowledge to make informed decisions		<p>Inform communities of policies, laws, and regulations on land use and natural resource management, and of their rights in this context.</p>	<p>Participating communities have increased understanding of natural resource management issues and solutions.</p>
Community capacity to communicate, negotiate, and control decisions over natural resource use and management		<p>Provide training and mentoring to community members in negotiation skills and techniques.</p>	<p>Increased confidence in negotiation, and increased decision-making control over natural resource use and management.</p>

5.2 Understand audience and needs

Before identifying indicators and developing monitoring programs, it is critical to understand the audiences for human well-being information from your project, and what their needs are. Key audiences could include project managers, stakeholder groups, donors, policy-makers, or other practitioners who would benefit from information about the outcomes of your strategies. These audiences will need different types of information; for example, project managers might need feedback on the effectiveness of strategy implementation to make changes to activities, while policy-makers might need information on specific human well-being outcomes that resulted from different strategies to make decision about where to invest in scaling up. Still other audiences may be looking critically at a project to see if safeguard principles were upheld.

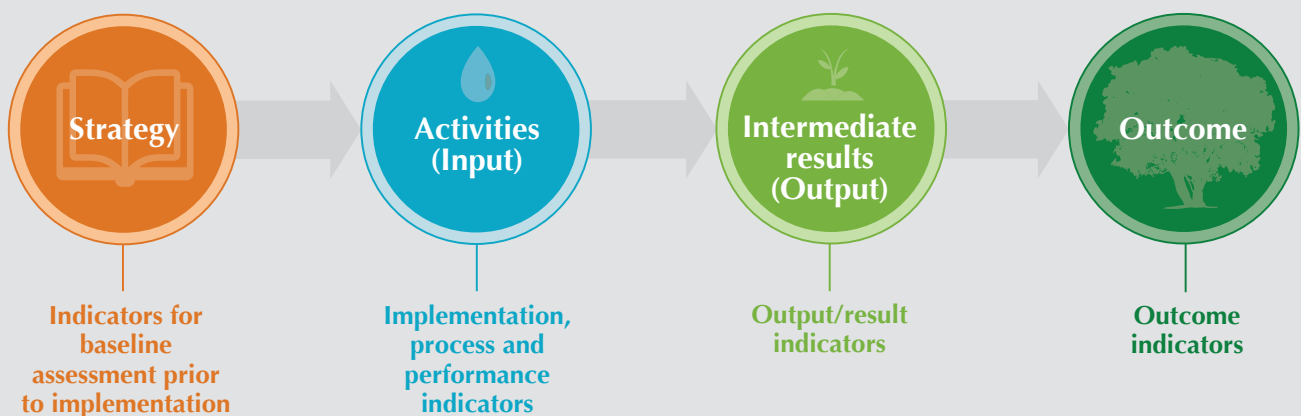
For each key audience, define what they most need to know about project outcomes, intermediate results, activities, and process, and whether there are key decisions that information from the project can inform. Understanding the audience and how they will use information is central to determining what information to collect. Section 5.3 below provides guidance on how to develop indicators based on these audience needs. Chapter 6 provide guidance on how to develop monitoring plans and select data collection methods based on the audience and their needs.

5.3 Developing indicators

Once human well-being intermediate results and outcome statements are finalized, and audiences are identified, relevant indicators can be developed. The theories of change developed in previous steps can provide reference points for identifying a set of measurable indicators at key points along the causal chain of activities, results, intermediate results, and outcomes (Figure 5.1). Indicators provide simple, precise, reliable means of measuring change. Quantitative indicators focus on quantifiable change, while qualitative indicators focus on perceived change that are often (but not always) described in narrative. Some indicators are used to track changes related to intermediate results and outcomes, while others are process or implementation indicators used to monitor implementation and ensure compliance with social safeguards.

Figure 5.1: Indicators along the theory of change

A clearly articulated theory of change provides a useful map for selecting the indicators that will be measured along a causal pathway. These will include indicators used to monitor implementation and performance, as well as progress towards intermediate results and outcomes.



Every sustainable landscapes program needs robust, reliable indicators. Choosing appropriate indicators contributes greatly to the ability of the team to understand the effectiveness of the strategies being implemented as well as whether the expected results and outcomes are achieved. Make sure the team selecting indicators includes technical, substantive, strategic, and local knowledge experts (adapted from Kusek and Rist. 2004). Also make sure that you have adequate time to develop, think through, test and modify your final indicators. Box 5.3 offers tips on how to develop potential indicators.

BOX 5.3: Considerations when developing indicators

1. Note that different audiences may need different information about the same outcome. Sometimes this may require different indicators, but sometimes it will require communicating the information collected differently according to the donor's interests (CBP 2013). For example, a project may have a strategy focused on improving income from alternative livelihood activities, including rubber cultivation, poultry farming, and honey processing. A program director may need to know the mean and median change in income of villagers who adopted each livelihood activity, whereas a donor may want to know how many villagers saw their income improve by at least 25%.
2. The team will want to identify indicators along the theory of change that will allow the team to track implementation/process, intermediate results and outcomes. In doing so, the team will be able to track strategy effectiveness and test the causal logic illustrated in the theory of change as well as determine if changes need to be made.
3. A team will have the capacity to monitor only a limited number of indicators. It will be important to identify the most important points in the theory of change where indicators should be monitored. Keep in mind that the cost-effectiveness of indicators largely depends on the data collection processes used to monitor them. There are usually different approaches to monitor the same indicator based on budget and information needs. It is important at this stage to not let assumptions about the burdens of data collection drive your selection of indicators. Chapter 6 provides guidance on the appropriate level of investment for different indicators based on the audience and the characteristics of the strategy.
4. Before developing new indicators, research indicators that have already been developed to see if any can be used or revised to fit your purpose.
5. Ensure that you have the right people in the process of identifying indicators (Table 2.1, Chapter 2). The team members should include a social scientist who can provide technical guidance and ensure that indicators are valid in measuring relevant changes, program decision-makers who can mobilize resources and approve the plan for collecting data, and representatives from stakeholder groups or program staff who have good insights into local context.
6. Based on expected results in the theory of change established in the previous section, brainstorm what indicators can be used to monitor outcomes, the effectiveness of strategies, and whether the process is in line with social safeguards. Would these indicators tell us how many, how much, or how good?
 - Indicators should be precise, direct, and unambiguous. Where the desired change is concrete, tangible, and directly measurable, that change itself can serve as an indicator. For example, an intermediate result may be that more than 50% of households have access to public health service. The number of households with such access will serve as a direct indicator.
 - When the intended change is more abstract (such as "improvement in local institutions' financial management capabilities"), what are called proxy or indirect indicators help approximate the change. Strive for close approximation and high relevance to the local context. Consult with local stakeholders and experts to ensure the validity of proxy indicators, which may often be a combination of variables. In the example above, availability of receipts and documentation of expenditures might be an appropriate proxy for financial management capabilities.
 - Many human well-being focal areas, such as "security," "spiritual well-being," and "cultural integrity," are difficult to define and measure. Yet they can be central to well-being and potentially highly relevant indicators of success for a sustainable landscapes program. Again, proxy indicators may be appropriate here. Use situation analysis and local consultation to gain insight into proxy indicators that can be used for specific groups and contexts.
7. Decide on appropriate units of measurement, such as land area or number of people adopting a certain practice in agricultural production.
8. Consider potential impacts that fall outside the project's theories of change and goals, and develop indicators to track these. For example, a strategy to sustainably improve a community's livelihood and income might include establishing rubber plantations, because community members can harvest the resin as an alternative to timber production that earns a higher income. In this case, change in income might be used as an indicator. However, more income could lead people to want more forest cleared to expand rubber planting. Indicators that can capture some of these unintended impacts could be equally useful to the program.

Table 5.2: Examples of human well-being indicators for sustainable landscapes projects

Human well-being focal areas	Components	Indicators
Opportunities for wealth creation and material living standards	Income Employment Material assets owned Savings Basic infrastructure (electricity, water, telecommunications and transportation)	Amount earned over a standard time period Amount saved over a standard time period Number/proportion of households with ownership of a standard basket of goods Number/proportion of households with access to different types of basic infrastructure Percent income coming from various sources
Security/Safety	Land tenure Forest management rights Access to land and forest resources Land and boundary conflicts Food and water security	Areas of land with tenure rights Proportion of people with access Number of violent conflicts
Governance and Empowerment	Stakeholder participation in decision-making about resources they depend on Accountability Maintenance of customary forest resource governing systems Justice Transparency Governance-related skills (analysis, negotiation, conflict management, public speaking, etc.)	Number of people participating Number of women participating Satisfaction level of opportunities to participate Quality and accessibility of reports Perception/satisfaction with governing system Satisfaction in ability to negotiate Perception in quality of management Perception of justice Presence/absence of customary systems
Health	Access to health care Access to family planning Nutrition Diseases Physical health	Number of households with access Number of underweight children Occurrence of different diseases Life expectancy Child mortality rate over a standard time period
Education	Access to school or formal education Access to training Livelihood skills Traditional ecological knowledge (TEK)	Percentage of children attending school Number of people with certain skills Number of people with certain type of TEK
Social or community wellness	Social cohesion Ability to work together on matters important for the community (community productivity) Social resilience to disturbances or shocks	Incidence of conflicts Frequency of collective activities Speed of community recovery from shocks Perceptions related to the above
Psychological/emotional/spiritual well-being	Life satisfaction Ability to meet spiritual and emotional needs Self-acceptance	Satisfaction with life Incidence of psychological problems Suicide rate Perception of satisfaction with oneself Frequency or attendance at traditional ceremonies Access to ritual sites

Culture	Cultural and traditional value of forest to the community Sense of identity Integrity of core cultural values Sense of home	Level of satisfaction Number of traditional cultural events Level of self-acknowledgement Level of pride in one's culture Level of attachment to homeland
Equity*	Cross-generational benefits Rights of women to access forest and land resources Equal inclusion of particular groups in decision-making on resource management	Number of beneficiaries in different generational groups Perceived right of women to access Participation by different groups in decision-making meetings
* In addition, equity considerations can apply to any focal area, for example by including consideration of distribution or access across different groups such as men, women, etc.		

5.3.1 Human well-being indicators

Table 5.2 gives examples of types of human well-being indicators. The core team should keep asking themselves whether indicators will provide adequate information to measure desired results, outcomes, and implementation. Indicators should be site-specific, and the examples in Table 5.2 will have to be customized based on the project context, audience, and question it is trying to inform. For example, in the first row, “amount earned over a standard time period” may be customized to “amount of money earned in the past 24 months as a result of forest-friendly livelihood enterprises,” where “forest-friendly” is defined more specifically based on the project activities, such as poultry farming and honey production. In some cases, it may be more meaningful to choose indicators that use percentages or thresholds instead of numbers, for example “percentage of households earning more than \$50 in the past 24 months as a result of forest-friendly livelihood enterprises.” Once customized for a specific project context, indicators should meet criteria for “good indicators”, outlined in section 5.3.3, below.

5.3.2 Process/Implementation/Performance indicators

It is useful to have indicators in place to assess the actions taken toward achieving intermediate and long-term social benefits. The list below provides some types of indicators that focus on the process, implementation and level of performance to achieve human well-being results. Several of these types of indicators can be used to track whether the relevant social safeguard principles are indeed followed.

- Program staff's understanding of local context
- Stakeholder involvement/participation
- Stakeholder consent/buy-in
- Social and cultural appropriateness of program activities
- Ethical practices
- Accountability
- Effectiveness
- Efficiency
- Transparency

As with all indicators, the team should be judicious in identifying the most important indicators and should ask themselves what are the most important questions to answer, so that they don't find themselves with an impractical list of indicators.



Table 5.3: Assessing indicators, example from BFCP

The Berau Forest Carbon Program started the process of identifying indicators at a workshop involving staff from the program and different agencies and organizations working with the community in Berau. This worksheet is for the potential indicators for results related to the focal area: Opportunities for Wealth Creation. After developing a preliminary set of indicators, the team validated them through focus groups with different demographic and professional groups in the field. Finally, the team used criteria to systematically assess each of the resulting indicators. First, each had to meet the prerequisites of being measurable, applicable to different sites in Berau, clear, and addressing a single variable. Then, key program staff rated each indicator according to the assessment criteria on a scale of 1 to 5. Indicators that had the highest total scores were then selected.

After averaging the scores from all team members, “Quality of basic services provided” was eliminated as an indicator.

Assessment Criteria:

Locally appropriate: 1 = very distant proxy for the attribute, 5 = direct indication of what we want to know

Responsive: 1 = very low potential to change during the project time, 5 = very high potential to change.

Scientifically valid: 1 = very low validity, 5 = very high

Feasible: 1 = very low feasibility, 5 = very high

Practical: 1 = very low practicality, 5 = very high

Attributable: 1 = not at all attributable, 5 = highly attributable

The table shows the scoring of one team member:

Indicators	Locally appropriate	Responsive to project timeline	Scientifically valid	Feasible	Practical	Attributable	Total
Number of households with forest protection or REDD+ jobs, and other livelihood opportunities	5	4	5	3	3	5	25
Changes in household income	4	4	5	3	3	4	23
Changes in household assets	4	3	5	3	3	3	21
Amount of savings	4	3	5	5	4	3	24
Number of households with increased access to school, health service, clean drinking water, and electricity	5	4	5	3	3	4	24
Quality of basic service provided	5	3	4	3	3	3	21



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5.3.3 Assessing indicators

Most likely the initial list of possible indicators will be quite long. The following criteria can help narrow and prioritize the list. Keep in mind that efficiency is crucial when it comes to the number of indicators, given the costs, resources and difficulty of tracking a large number of them. The team should aim for the smallest number of indicators needed to answer questions about whether results have been achieved, and how well.

Consider the following criteria in developing good indicators:

Attributable: An indicator can be strongly linked to project intervention. Indicators that can be influenced by factors unrelated to the intervention are less useful.

Scientifically valid: Measures what is intended in a systematic way

Appropriate for project timeframe: Change can be observed within the planned time period of a project.

Feasible and practical: Can be monitored with existing data at reasonable cost, using existing capacity and skills; data collection is sustainable; and the same indicators are used for various types of change

Locally appropriate: The indicator is relevant to the local situation, culturally and socially appropriate

Robust: The indicator provides reliable, repeatable, useful information over a wide range of situations or when project conditions change

User-based: It addresses the needs and interests of multiple audiences

See Resources Group 4 for additional tools and resources on developing and using indicators.

Table 5.4 shows indicators for the Security focal area from the BFCP. Once the indicators were identified, they were customized and made more specific based on the timeframe, context and the specific question the indicator was meant to inform. For proxy indicators, such as “Satisfaction level of communities in maintaining their traditional forest practices,” the team began to identify how these could be measured.



Table 5.4: Human well-being indicators for the BFCP focal area for Security

Security	
Human well-being Component and Result/Intermediate Result	Indicators
<p>Component: Formal forest management rights by the community</p> <p>Intermediate Result: By 2014, proposals that give management rights to community groups over protection and production forests are submitted to Ministry of Forestry and local government for a total area of at least 8,000 ha.</p>	<ul style="list-style-type: none"> • Hectares of forest allocated by governments for community-managed forests • Number of decrees granting management rights to communities • Community perception of the benefits of having formal management rights
<p>Component: Access to land and forest resources</p> <p>Intermediate Result: By 2014, processes to develop collaborative agreements between communities and companies are initiated in 4 logging concessions.</p>	<ul style="list-style-type: none"> • Percentage production forests in Berau under management of timber companies that communities gained access rights to
<p>Component: Clear village boundaries</p> <p>Result: Village boundaries respected.</p>	<ul style="list-style-type: none"> • Perception by communities that agreed-upon boundaries have been observed

<p>Component: Cultural and traditional value of forest for communities</p> <p>Intermediate Result: By 2013, land use or forest management plans are produced in at least 7 villages and communicated to relevant stakeholders.</p>	<ul style="list-style-type: none"> • Satisfaction level of communities in maintaining their traditional forest practices
<p>Component: Community knowledge to make informed decisions</p> <p>Result: Participating communities have increased understanding of natural resource management issues and solutions.</p>	<ul style="list-style-type: none"> • Level of community access to information (laws, regulations, policies) on land use and natural resource management
<p>Component: Community capacity to communicate, negotiate, and control decisions over natural resource use and management</p> <p>Result: Increased confidence in negotiation, and increased decision-making control over natural resource use and management</p>	<ul style="list-style-type: none"> • Confidence level of communities in negotiating with other stakeholders • Satisfaction level of communities in controlling decisions and choices governing natural resource use and management

5.4 Predicting human well-being impacts of non-socially oriented strategies

A sustainable landscapes program will include multiple strategies to address the drivers of forest loss. While some strategies will focus explicitly on improving human well-being (reducing poverty, securing tenure or empowering land-use decision-making), other strategies will focus on drivers that may appear unrelated (improving timber management) or focus on broad policy reform, but actually pose a risk (or benefit) to the well-being of local communities. The design phase should identify and minimize potential negative impacts on human well-being.

Box 5.4 provides questions that can help identify possible negative impacts of strategies, grouped according to safeguard principles from Chapter 2. The questions are relevant to both the assessment phase of program planning and the design phase. Some questions may be answered by the program team, while others will require expert input, stakeholder analysis, or quantitative and qualitative studies (see methods in Chapter 6).



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BOX 5.4: Questions guiding the identification of potential negative impacts of sustainable landscapes strategies

1. Respect for local cultures and rights
 - Have the stakeholders been engaged in program design? How have cultural uniqueness and diversity been considered in the engagement process?
 - To what extent are program strategies and activities compatible with social and cultural norms at the project site?
 - To what extent could the strategies benefit or harm long-term livelihood security, and the economic and sociocultural well-being of stakeholders?
 - Are intergenerational issues taken into consideration? Would the strategies negatively impact opportunities, rights and access to resources of the future generations to pursue a quality of life? Would they support sustainability development and benefit the future generations?
2. Free, prior and informed consent (FPIC)
 - To what extent are affected communities consulted in program design and implementation?
 - Has adequate information been provided to ensure the free, prior and informed consent of all affected stakeholder groups?
 - Do the strategies have the consent of potentially impacted stakeholder groups?
 - Has the participation or non-participation of stakeholder groups been voluntary?
3. Assessing and monitoring to ensure social benefits and causing no harm
 - Would strategic activities harm or compromise stakeholder rights to land and resources prior to project intervention?
 - Are assessment and monitoring plans in place to measure the impact of changes on local stakeholders?
4. Broad, full and effective stakeholder participation (especially by indigenous and local communities)
 - Has the program team identified all possible stakeholder groups?
 - To what extent has the well-being of the following groups been taken into consideration during program design and implementation?
 - indigenous peoples
 - local communities
 - marginalized groups
 - elders and the young
 - women
 - What are these groups' perspectives on the intervention?
 - Is local knowledge incorporated in decision-making during project planning and management?
 - How are any tradeoffs among different groups perceived by those who are disadvantaged?
5. Grievance mechanisms
 - Are mechanisms in place for stakeholders who are negatively affected to share concerns and file complaints?
 - Is there a transparent and accountable system to address or redress disputes and grievances? Are the results monitored?
6. Transparency and accountability of forest governance
 - Are the processes of program design and implementation transparent to all stakeholder groups?
 - To what extent is the program team accountable for its strategies and changes?
 - How has the program contributed to the transparency and accountability of forest governance?



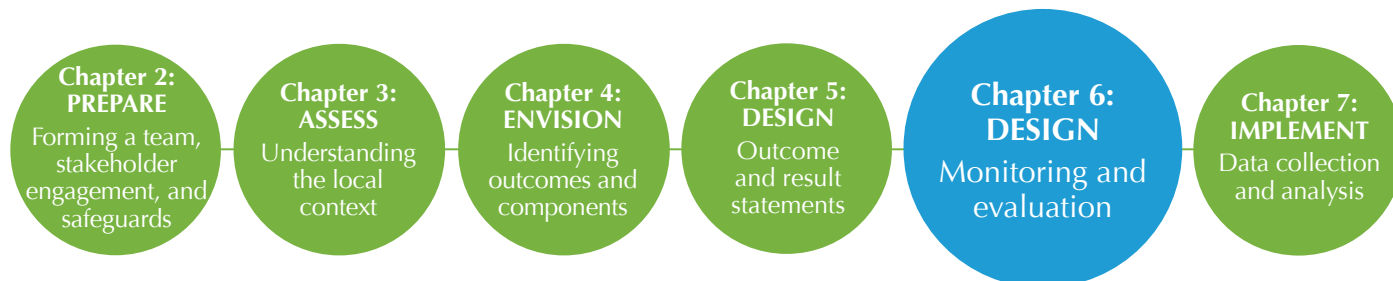
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Chapter 6: DESIGN

Monitoring and evaluation

Chapter 6: DESIGN

Monitoring and evaluation



This chapter helps practitioners design monitoring and impact evaluation programs. We provide several options based on programs' varying resources, audiences, differing needs for levels of confidence in the data, and whether monitoring and evaluation happens before or after the intervention has begun.



Key terms:

Human well-being baseline: This is the state of a population or stakeholder group before the intervention is implemented.

Without-project scenario: This is the counterfactual, or the prediction of what would happen to human well-being in the absence of the intervention. As a program is implemented, success is determined by measuring well-being and comparing it to the without-project scenario. For many sustainable landscapes projects, a without-project land use scenario is created to predict what would happen to environmental conditions in the absence of an intervention. This without-project thinking should also be applied to social conditions.

Monitoring: A continuous process that provides information enabling you to track changes according to the program's theories of change. It helps ensure that planned activities are well executed, and that intended intermediate results are produced and result in desired outcomes. Monitoring provides management and key stakeholders with indications of how much progress and achievement are being made toward objectives and outcomes. It provides feedback on areas of success and where improvement may be needed.

Evaluation: In this guidebook, evaluation refers to cause-and-effect (or impact) evaluation, which seeks to identify whether an outcome is directly attributable to the program intervention. A counterfactual analysis is conducted to rule out rival explanations.

Intervention: These are activities implemented as part of a sustainable landscapes strategy.



Questions guiding the application of social safeguard principles during monitoring and evaluation design:

- √ To what extent do stakeholders participate in monitoring and evaluation design? How do we incorporate their experiences and opinions? Do they help determine which questions the process will address? Do we give sufficient attention to groups besides target beneficiaries, and make sure that we have their input?
- √ What do we need to do to understand the social benefits, risks, and potential impacts (positive and negative) of our conservation strategies on different stakeholder groups?
- √ Do we take into consideration social issues associated with the drivers and causes of degradation of natural resources?
- √ Do we have measures to ensure transparency and accountability during the process?
- √ How do we apply free, prior, and informed consent (FPIC) of local stakeholders, including indigenous peoples and local communities, as well as the three best practices for ethical monitoring and evaluation with human subjects: (1) respect for and protection of the participants, (2) do good and no harm, (3) justice (equitably distribute costs and benefits of research)?

Both monitoring and evaluation help show how the program has brought about change, and support evidence-based decision-making. Testable hypotheses based on the theory of change and indicators developed in Chapter 5 can be used to determine the goals of monitoring and evaluation. When developing monitoring and evaluations plans, it is important to keep in mind the key audiences that were identified in Chapter 5. Getting clarity on the audience and their needs will help determine the type of monitoring and evaluation that will be needed.

6.1 Monitoring and evaluation

Selecting a monitoring and evaluation plan is a management decision, and should match the information that key audiences want to understand and the kinds of statements that project managers want to be able to make (CBP 2013).

Monitoring allows programs to track changes and program performance against expected results to assess progress towards key milestones, inform adaptive management, and check whether activities have been implemented as planned. Monitoring provides early signs of change and feedback on interventions so adjustments can be made if necessary. Monitoring plans should be developed keeping in mind the intended audience and their needs. An internal audience of program implementers, a donor audience expecting to see specific changes in human well-being, a stakeholder audience interested in understanding the specific changes occurring in their community will each have different expectations of the types of information a monitoring plan will yield.

When combined with a theory of change, monitoring will reveal whether expected changes occur. If a program seeks to measure the extent to which human well-being outcomes can be definitively attributed to the program's strategies, as opposed to some other cause, impact evaluation needs to be conducted. Here the focus is on whether there is a causal relationship between the interventions and the observed changes. If a program seeks to determine this level of attribution, impact evaluation is necessary. Figure 6.1 illustrates the difference between monitoring and evaluation in terms of when they are conducted.

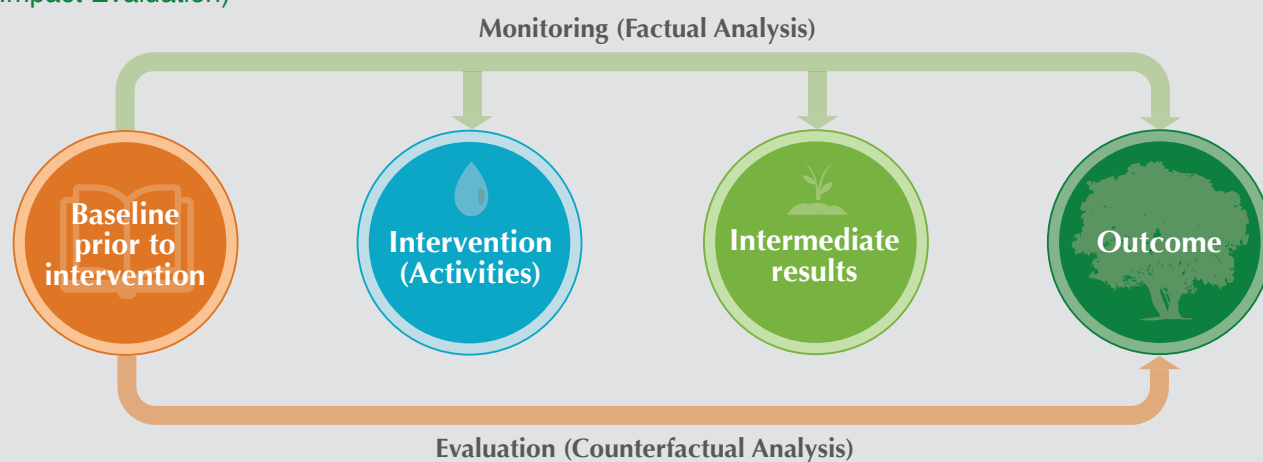
Whether a program should conduct an impact evaluation in addition to monitoring will depend on its needs, resources, and capacity.

A primary consideration in developing the monitoring and impact evaluation plan is the level of certainty project stakeholders need to have in the statements they make about a project's impact and the causes of that impact. A statement with high certainty about the cause of an impact will likely also require the greatest investment in monitoring and evaluation. CBP (2013) offers examples of statements with different levels of certainty:

- Statement with high certainty: This project has resulted in cleaner water for 5 million people. (This statement requires rigorous impact evaluation and counterfactual analysis.)
- Statement with medium certainty: Water quality is improving for 5 million people, and this project operates in the source area. (This statement requires a medium level of investment and does not seek to establish a cause-effect relationship between the project activities and observed impacts. By integrating data about changes in human well-being with a theory of change and qualitative approaches to validation, you can get a sense of where there appears to be a link between an intervention and outcome, but in the absence of impact evaluation you cannot make a definitive statement about causality.)
- Statement with low certainty: Some people in rural communities say their water quality is improving...they believe it is tied to the project's work. (This statement requires a lower level of investment, and is anecdotal. It does not provide information on the scale of the impact or the cause.)

Box 6.1 provides some guidance on how to determine if an impact evaluation should be conducted. Bear in mind that even if an impact evaluation is conducted, it will still be important to carry out a monitoring plan to track implementation, process, and performance indicators to assess progress. Without indicators along the theory of change, impact evaluation will only identify whether predicted outcomes materialized, not how (Gertler et al 2011), and it will be too late to make changes to refine strategies and improve the program.

Figure 6.1: When monitoring and evaluation are conducted (adapted from International Initiative for Impact Evaluation)



6.2 Baseline data

If the program is at the design stage or a very early stage of implementation, there is opportunity to obtain baseline social data, either from secondary sources or from field data collection. This baseline data is helpful in understanding the “starting conditions” – or the situation before the intervention begins. If baseline data is available, it can be used to help construct the without-project scenario.

Baseline data can also assist in the situation and stakeholder analyses that were discussed in Chapter 3. Because baseline data is important to understanding the starting conditions and creating the without-

project scenario, it is recommended to collect baseline data, when possible. However, projects will often begin without baseline data. In these cases, it can be obtained retrospectively by researching pre-existing secondary data or by implementing the recall method with household/group respondents.

Counterfactual or without-project scenario

While the baseline will reveal the starting conditions before the intervention, conditions are always changing and it cannot be assumed that in the absence of the project, the baseline conditions would continue. A counterfactual or without-project scenario is constructed to predict what would have happened in the absence of the intervention or strategy.

In REDD+ programs, the reference level for carbon emissions is the counterfactual that states what would happen to carbon emissions if the program wasn't implemented; goals for emissions reductions are set based on lowering emissions compared to the reference level. This same kind of counterfactual thinking can be applied to human well-being conditions. Counterfactuals/without-project scenarios should be constructed for both monitoring and impact evaluation. There are different ways to construct counterfactuals that require different levels of investment; some are based on participatory methods, while others rely on quantitative approaches and statistical analysis. Counterfactuals can be constructed even if data was not collected until after the project began. The appropriate approach to constructing a counterfactual should be determined by the design of the monitoring plan or impact evaluation and the level of certainty that is required in understanding changes in human well-being.

BOX 6.1: Should impact evaluation be conducted?

Impact evaluations are required to determine the causal relationship between program interventions and impacts; however, they can be costly. They are suggested for cases where time, funds, and/or capacity are available and the potential for social impact or risk is high (Lawlor 2013, Montambault and Groves 2011). Gertler et al (2010) suggested 2 questions to ask before deciding whether impact evaluation should be conducted. The first question is related to risk, "what are the stakes of the program?" This can include the budget and costs to a program, the number of people potentially affected, and the magnitude of risks and/or expected benefits? If the stakes are high, the second question is whether any evidence exists to show the program works. If the interventions are controversial or poorly understood, it is more likely that the results of impact evaluations will be used to inform decision makers. This is especially true if the interventions will be replicated in other areas.

Specifically, Gertler et al. (2010) advise that in order to justify the time and expense of conducting an impact evaluation, the program should be:

Innovative – It is testing a promising new approach.

Replicable – The program can be scaled up or applied in a different setting.

Strategically relevant – The program is a flagship initiative; requires substantial resources; covers, or could be expanded to cover, a large number of people; or could generate substantial savings.

Untested – Little is known about the effectiveness of the program, globally or in a particular context.

Influential – The results will be used to inform key policy decisions.

In some cases, an impact evaluation may be carried out for a strategy or sub-set of strategies that have particularly high potential for social impact, ability to be replicated, or risk; monitoring plans may be sufficient for other strategies in the project.

For REDD+ programs, the requirements of pay-for-performance mechanisms or benefit sharing arrangements may require an evaluation of well-being impacts or at least proof that the programs have not made people worse off. Requirements will be different based on the specific financial mechanism. REDD+ implementers will have to determine the requirements for their project and design monitoring and impact evaluation plans accordingly.



photo credit: © Ami Vitale

6.3 Determining the level of resources needed for monitoring and evaluation

The next step is to design the monitoring or evaluation program. Even if it is decided not to conduct impact evaluation, monitoring plans can be developed that result in different levels of certainty and require different levels of resources. The following criteria will help the team understand the level of resources needed. Although there are exceptions, investment in monitoring and evaluation tends to be highly correlated with validity and usefulness of data. We thus assume that the more resources invested in monitoring and evaluation, the higher confidence we can have in data accuracy, and the more certain we can be in attributing outcomes to program activities.

Table 6.1 presents key decision-making criteria that can determine the level of investment needed to conduct effective monitoring and evaluation. The greater the number of criteria that rate high/difficult, the more resources you will need to monitor or evaluate effectively. The low, medium, and high level of resources in Table 6.1 are used as the basis for options for monitoring plan design presented in Figure 6.1. The colored and numbered boxes at the bottom of Figure 6.1 correspond to the colored and numbered columns in Table 6.1. The design options in Figure 6.1 for both monitoring and evaluation are based on two key factors: 1) the project's life cycle (whether monitoring and evaluation are conducted before or after implementation has begun), and 2) the desirable level of certainty in determining the causal relationship between activities and impacts. The monitoring and evaluation designs listed in Figure 6.1 are not exhaustive, but are the ones that are used most. Some monitoring and evaluation designs require the use of control groups to construct the counterfactual. Control groups are individuals, households or communities that do not participate in the intervention, but share similar characteristics to those who do participate in the intervention. As a result, control groups provide a good comparison of what would have happened in the absence of the intervention. Appendix 3 provides some guidelines on how to select good controls.

Table 6.1: Decision-support tool for level of investment in monitoring and evaluation

For each decision-making criterion in the left hand column, select the appropriate level based on your project context and audience interests. For example, if the project does not present significant risks, select "low" from the right-hand columns. Based on the selections in the first two sections, you can determine the level of resources and expertise needed. Alternatively, you may choose to start with the level of resources available and work your way up the table to determine the level of certainty you can have in statements you make about relationships between project interventions and well-being.

Decision-making criteria	Level		
	Low (1)	Medium (2)	High (3)
Project context			
Risk (social, financial, legal, reputational, organizational, etc.)	Low	Medium	High
Leverage (potential to replicate)	Low	Medium	High
Degree of social impacts*	Low	Medium	High
Logistic arrangement for field work	Easy	Moderate	Difficult
Stakeholders' trust in project staff**	Well established	Moderate	Needs to be built
Interests of data users			
Desire for high confidence in accuracy of monitoring and evaluation	Low	Medium	High
Desire to understand causal relationship with great certainty	Low	Medium	High
Level of innovativeness (Low means there is existing evidence about the impact of this approach)	Low	Medium	High

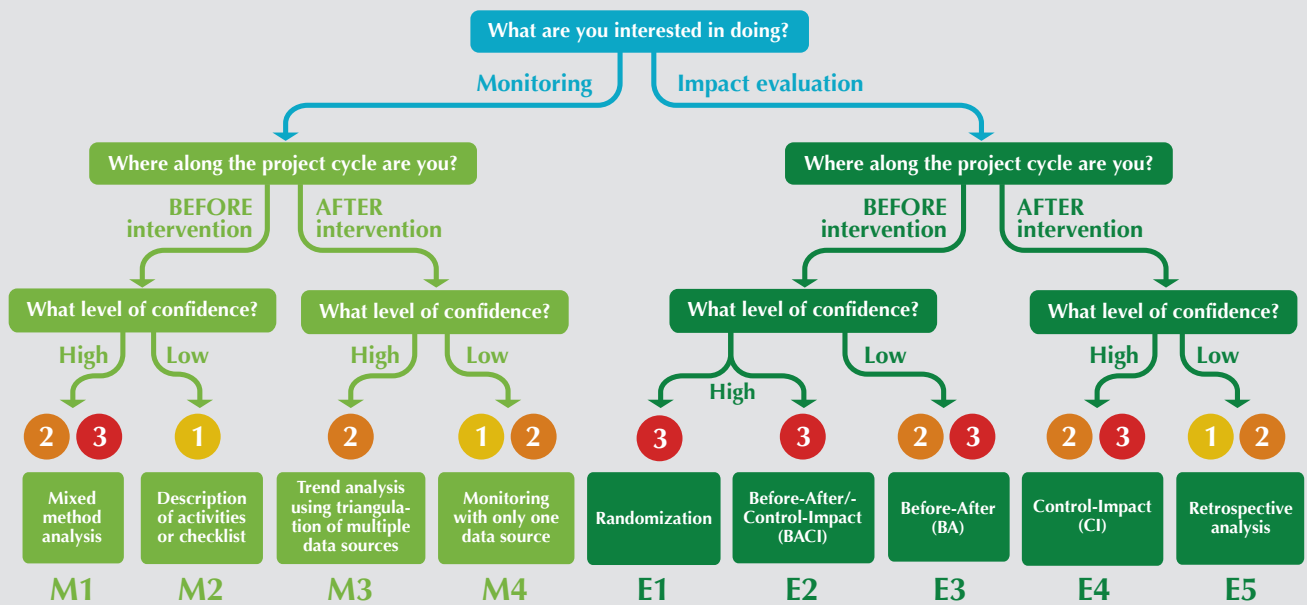
Based on the selections in the above two section, the following levels of expertise and resources are recommended:

Expertise level	Minimal training and experience with monitoring and evaluation. Program staff, core team members or stakeholders may be able to carry out with little to no training.	Formally trained, workshop experience in monitoring and evaluating. Program staff, core team members or stakeholders may be able to carry out with training.	Expert. Probably need to bring in experts from outside the program staff, core team and stakeholder groups.
Budget/resources needed	Low	Medium	High

* The predicted level of social impacts (low-medium-high), the direction of the impact (negative or positive), and which stakeholder groups are expected to be impacted should all be considered. For example, if there is the potential that highly vulnerable or impoverished stakeholder groups will be negatively impacted, even if at a low level, it may be more important to conduct more rigorous monitoring and evaluation than if there is potential that relatively well-off stakeholder groups will have a medium positive impact.

** At certain sites, local factors such as relationship with project staff or logistical arrangements for conducting studies could also serve as critical factors in deciding how to monitor or evaluate. If trust needs to be build, it might make sense to invest in more rigorous analysis to build an understanding of how the project impacts local stakeholders and to create a sense of trust among stakeholders and project staff.

Figure 6.2: Options for monitoring and evaluation design plans. The red, orange and yellow circles refer to the level of expertise and resources needed, from table 6.1. The types of monitoring and evaluation designs found in boxes M1-M4 and E1-E5 are discussed in the following sections



Developed in collaboration with Yuta Masuda and Heather Tallis. A similar figure is found in CBP 2014.

6.4 Monitoring designs

Options for monitoring designs are suggested below corresponding to the illustration in Figure 6.1. These descriptions are meant to help familiarize practitioners with the different types of monitoring design. In some cases, program staff and stakeholders will be able to carry out the monitoring plan with appropriate training and support to develop the plan. In other cases, the team may seek external support to both design and carry out the monitoring plan. These descriptions below should help the core team better engage with outside experts to create the monitoring plan that best meets their needs and decide how to implement it. Different monitoring designs might be used to track different outcomes and indicators based on the audiences for different information. Details about data collection methods can be found in Chapter 7. See Resources Group 5 for additional information on monitoring and impact evaluation.

M1: Mixed method analysis

If the intervention has not begun, and the program would like a high level of certainty, or confidence, in the accuracy of its monitoring results, we suggest mixed method analysis. Mixed methods uses quantitative methods (e.g. surveys) and qualitative methods (e.g. individual and/or group interviews) to track program progress along the theory of change. The plan starts with collecting baseline data for identified indicators and has a continuous monitoring process in place along different points in the theory of change. This method provides opportunities to quantify changes, as well as stories that help explain successes and challenges that may be difficult to quantify. Mixed methods approaches require medium or high levels of resources and expertise.

M2: Description of activities, or checklist

This is also an option that can be used before an intervention begins, where the program does not need a high level of certainty/confidence, or has limited resources for monitoring. This plan requires minimal effort and provides a simple checklist of process, intermediate outcomes, and description of program progress. It makes use of rapid qualitative methods to gather information, such as participatory and rapid rural appraisal, ongoing consultations, focus group discussions with affected populations, and expert interviews.

M3: Retrospective analysis with mixed method triangulation

This design is used for programs where interventions have already begun, but would like to achieve high certainty/confidence in monitoring results. It uses mixed methods to construct a retrospective baseline (e.g. from perception survey and secondary data sources) and to collect data. The retrospective data should come from the period immediately preceding the intervention. As there are different sources of recall errors when collecting retrospective data (e.g. memory decay with time), techniques should be used to help mitigate recall errors (see Beckett et al 2001 in Resources Group 5). Additionally recall data should be triangulated with different sources of data when possible. The mixed method not only helps improve the reliability and validity of data, but also quantifies changes and provides information on program activities, success, and challenges to process and intermediate results.

M4: Monitoring with one data source

This plan utilizes only one data source to produce a quick report on the progress of program activities, implementation, and intermediate results. While this may be more convenient and yield faster results, the lack of triangulation from more sources make it impossible to validate the collected data and the credibility of the results may be questioned. This approach is the least rigorous, and should be undertaken only as a last resort.

6.5 Impact evaluation design

As explained above, impact evaluation is necessary if you want to know whether changes in human well-being were caused by a specific strategy or intervention. The purpose of impact evaluation is to understand this cause-effect relationship. Conducting an impact evaluation requires someone with specific expertise and training. And unlike monitoring, which is carried out throughout the course of implementing a project,

data collection for impact evaluation is carried out at specific intervals in the project timeline. As a result, it is likely a team will bring in outside expertise to conduct an impact evaluation. In this section, we provide an overview of different types of impact evaluation to help practitioners and the core team better understand the tradeoffs of different types of impact evaluation and better engage with outside experts that they bring in. Resources 6 provides guidance documents developed specifically for impact evaluation.

Impact evaluation requires counterfactual analysis, which is an estimate of what would happen in the absence of the intervention or strategy. Table 6.2 provides a description of how the counterfactual is constructed for the different types of impact evaluations discussed below.

Table 6.2: Evaluation design and counterfactual construction (from Jagger et al 2010)

Impact Evaluation Design	Construct Counterfactuals by...
Randomization	Random assignment of project and control sites
Before-After-Control-Impact	Observation data at control sites before and after intervention
Before-After (BA) + Project Counterfactual	Models, often based on historical trends
Matched Control-Intervention (CI)	Observational (and often recall) data at control sites after intervention
Reflective or Retrospective	Estimated 'changes due to project' based on perceptions and/or recall data

E1: Randomization

Randomization randomly assigns individuals, households, or communities (depending on the project's scale of impact) into impact groups (groups that will receive the intervention), and control groups (groups that form the basis for creating the counterfactual/without-project scenario) groups. Randomization is often considered the gold standard for evaluating interventions because everyone has an equal chance to be randomly included in either impact or control groups, which allows a robust counterfactual to be created and statistical analysis conducted. It is used when interventions are deemed high risk and users want high levels of confidence/certainty in understanding the causal relationship. While randomization is frequently used in the health sector, it is difficult to employ in the conservation field because most intervention sites are selected because they are particularly promising and differ from the general population or landscape. Randomization could be used in the conservation field in programs where there are plans for a phased roll-outs of an intervention. Randomization requires significant up-front planning, and evaluators and program staff would have to work together to design the roll-out in a way to facilitate impact evaluation. First, the program staff or core team would identify communities or jurisdictions where they would like to implement an intervention over a period of time (e.g. the next 5 years), then the evaluators would randomly select which receive the intervention first and which receive it later. Those receiving the intervention later would serve as the controls.

E2: Before-After/Control-Impact (BACI)

If an impact evaluation is designed before the intervention has started, a Before-After/Control-Impact (BACI) impact evaluation design can be used. This can be a highly rigorous approach to evaluating causality. Matching methods are used to identify a valid control group with the same characteristics as the program participants, except for the fact that they do not receive the intervention. Data is collected from the impact groups and the control group at specific intervals in the project timeline. The control group is used to create the counterfactual/without-project scenario. In some cases, it can be difficult to identify appropriate control groups. With BACI impact evaluations, there must be resources to collect and analyze data at both control and impact sites.



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E3: Before-After (BA)

The Before-After (BA) impact evaluation design is an option if it is not possible to include a control group. Using data from at least two time periods, baseline data are compared with data collected after program implementation. Because controls are not used, counterfactuals have to be estimated by extrapolating from historical trends to predict what would happen in the future in the absence of the project intervention.

Because this method employs no control group, statements about causality are considered less robust than those that can be made from randomization and BACI. However, a program that carefully monitors program implementation and regularly consults stakeholders will likely be able to establish a causal story and confirm the theory of change without a control group, especially when consultation is genuinely participatory and open-ended. This qualitative data can provide complementary information that may be helpful in ruling out rival explanations for observed changes in well-being, and can help uncover different causal pathways, or unintended impacts outside a program's theory of change. Of course, conducting in-depth exercises with stakeholders becomes more challenging the larger and more varied the scope of the program.

Box 6.2 provides more information on how a counterfactual can be constructed using a BA impact evaluation. For REDD+ projects, the approach described in Box 6.2 is a close parallel to how reference levels for carbon emissions from deforestation and degradation are often constructed, and is consistent with many VCS methodologies. Control groups outside the project area are frequently not used when constructing the reference level (or counterfactual) for emissions reductions.

E4: Control-Impact (CI)

Control-Impact (CI) design compares program participants in an impact group to a control group after program implementation. Starting conditions are not established because there is no baseline data, so differences observed between the groups cannot confidently be determined to be caused by the intervention. However, if control and impact sites are well-matched, CI impact evaluations can overcome

some of the typical weaknesses of not having before data. Matching control and intervention sites based on characteristics that affect both i) whether the group participates in the intervention, and ii) the human well-being outcomes that are being evaluated can significantly improve the accuracy of a CI analysis (Jagger et al 2010). Control-impact is a common quasi-experimental method for evaluating the impact of conservation interventions, and is used by the Global Environment Facility (GEF) and the International Initiative for Impact Evaluation (3IE), among others.

BOX 6.2: Creating a counterfactual for a before-after impact evaluation design

If a project aims to increase household income and food security, for example, we would likely collect data on household reports of those components, then compare indicators before and after to gauge program impact. However, this simple before-after difference may also reflect changes caused by other factors. For example, unexpected changes in rainfall may affect crop harvests, causing household incomes and food security to fall. In this case, the observed decrease in income and food security would have little to do with the project implementation, and the starting condition data are not a good basis for establishing the counterfactual.

A modified approach is proposed by Jagger et al (2010) to create a more robust counterfactual for before-after impact evaluation designs. This approach is a close parallel to many VCS methodologies for constructing deforestation baselines for REDD+ projects.

Step 1: Collect data that describe starting conditions at the project site.

Step 2: Use this 'before' data and other sources to estimate what would have happened in the absence of the project. The counterfactual can be estimated by predicting future trends using statistical models or the perceptions of local experts, including local resource users, or by extrapolating historical trends into the future.

Step 3: Collect a second round of 'after' data.

Step 4: Compare the observed change between 'after' conditions and the counterfactual created in Step 2.

E5: Retrospective data and analysis

This is the least rigorous design for impact evaluation, and should be pursued only as a last resort. It involves collecting only 'after' data and only at the intervention site. Program impacts are estimated by constructing baseline data retrospectively (see Beckett et al in Resources Group 5). Sources of retrospective data include secondary data for the period immediately before the intervention, data collected from interviewing experts, and a recall questionnaire given to program participants about pre-project conditions and perceived changes. Data is also collected through group and/or participatory methods, which can provide built-in triangulation across group members to improve accuracy.



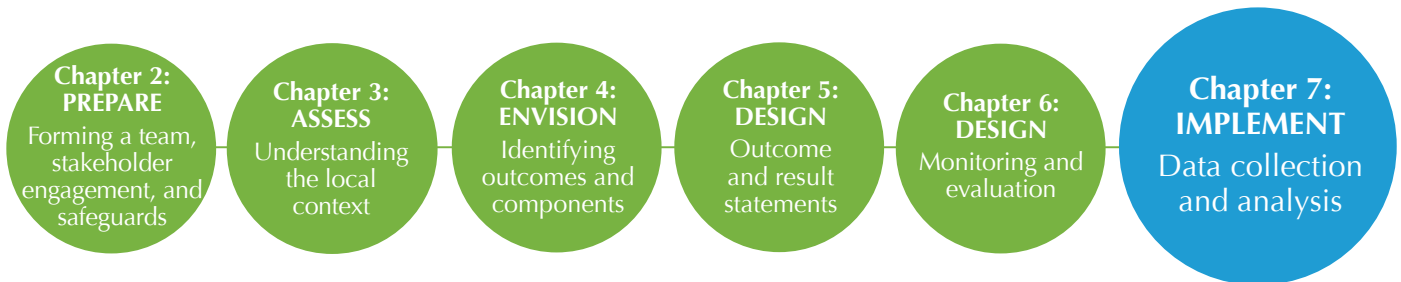
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Chapter 7: IMPLEMENT

Data collection and analysis

Chapter 7: IMPLEMENT

Data collection and analysis



This chapter provides a brief overview of qualitative and quantitative data collection methods and related sampling designs commonly used to assess and evaluate social impacts.



Key terms:

Secondary data: Existing data, generated by another party or for another purpose, unlike primary data, which is observed or collected directly from first-hand sources.

Qualitative data collection: Collection of data that can be observed, described, and recorded, but not measured in numeric terms. Common methods include semi-structured interviews, participant and direct observation, and focus groups.

Quantitative data collection: Collection of data that can be counted or expressed numerically, and thus manipulated and analyzed statistically. Surveys with questionnaires and structured interviews are commonly used to collect data from a sample.

Data analysis: Process of making sense out of qualitative and quantitative data.



Questions guiding the application of social safeguard principles during data collection, data analysis, and use of data:

- ✓ Have subjects been informed about the purposes, methods, and intended use of monitoring and evaluation results? Do we use a local language that the participants understand?
- ✓ Is participants' involvement in monitoring and evaluation entirely voluntary? Do we formally ask for their consent from the beginning? Are they free to discontinue their participation at any time?
- ✓ Are data collection methods and approaches in compliance with local protocols, and do they show respect for the social and cultural practices of the community?



Questions guiding the application of social safeguard principles during data collection, data analysis, and use of data (Cont.):

- ✓ How do we avoid any risk of physical, psychological, social, or other potential harm? Are ethics compromised in the name of scientific quality?
- ✓ How do we ensure confidentiality and respect privacy when data are analyzed or used?
- ✓ Does the sampling design guide how samples should be selected? Are sampling principles compromised for the sake of convenience, or manipulated unfairly?
- ✓ Do we follow other requirements or protocols from organizations and local governments related to best practices for studies with human subjects?

7.1 Using secondary data

Before planning to collect data in the field, consider investigating whether secondary data is available for the indicators and time periods of interest, and their quality (Box 7.1). Secondary data may provide data that are difficult to collect, such as historical information from before the start of intervention, or in cases where it is difficult to access sources. Examples include publicly available databases, published peer-reviewed literature and reports, monitoring data from surveys or interviews, and unpublished research results. Using secondary data can save substantial time and money, especially when it involves data sets that are collected regularly in a reliable way. Be cautious about using data whose quality cannot be assessed. The example from Berau in Box 7.2 shows how The Nature Conservancy used secondary data from various sources and collaborated with a partner in data sharing.

BOX 7.1: Considerations when using secondary data

- Does it provide data relevant to the indicators, and that meet the purposes of monitoring and evaluation?
- Is it collected at the right scale for the project impact to be identifiable? E.g. much census data will be available only at the aggregate census block scale, while we care about households, etc.
- Was it generated by a well-designed study? Were the methods of data collection and analysis sound and valid? How were potential errors (such as sample bias, non-response, measurement) accounted for?
- Is the source of data reputable? Who collected it and why?
- Does it cover the period of program interest? Has it been collected regularly, and will it continue to be so in the future?
- Are there complementary data that can help triangulate on the real situation when data sources are suspect?
- Is the sample size large enough and otherwise qualified to represent target populations of interest?

7.2 Deciding on methods of field data collection

If existing secondary data are not adequate, consider collecting your own primary data for the identified indicators. The timing and frequency of data collection should be informed by the project timeline for milestones, expected intermediate results, and outcomes. Decisions on which methods or tools are most appropriate hinge on several considerations, including:

- Indicators and types of questions used in monitoring and evaluation
- Audience and purposes of results
- Level of accuracy and precision of data
- Cost-effectiveness
- Availability of skills and resources
- Local appropriateness and feasibility
- Desired level of local participation
- Sustainability of continued data collection, if long time series is required



BOX 7.2: BFCP use of secondary data and collaboration with CIFOR

Having limited resources, The Nature Conservancy used secondary data from various sources for the following indicators.

- **Savings:** It was not possible to obtain this culturally sensitive data directly from villagers. In this case, because a majority of villagers participate in the Credit Union, TNC used the annual data collected by this financial organization.
- **Access to production forests:** TNC used data collected by the Berau Forestry Agency to find the proportion of production forests where logging companies and communities negotiated an agreement for community use. Since TNC supported logging concessions' use of best management practices, including providing community access, TNC was able to verify some of this data with data from the concessions.
- **Household income and livelihood:** TNC used data from a Global Comparative Study of REDD+ programs conducted by the Center for International Forestry Research (CIFOR). Based on a Memorandum of Cooperation signed in 2011, both parties agreed to share data to better understand the socioeconomic impacts of BFCP strategies on communities in Berau. TNC shared its data and information to help CIFOR select its control and intervention villages. TNC also helped facilitate CIFOR entry into Berau, introducing team members to key stakeholders and providing logistical and administrative advice. TNC used CIFOR data to assess the number of households benefitting from increased income and livelihood options; changes in household income; and changes in household assets.

Regardless of which primary data collecting methods are used, it is important the principles in Box 7.3 are followed throughout field data collection.

7.2.1 Qualitative or quantitative approach?

To what extent qualitative or quantitative approaches should be used depends on the type of information you want monitoring and evaluation to provide. Qualitative and quantitative methods each have their own strengths and limitations. They should complement, instead of replace, each other to generate the most useful information. Where possible, a mixed approach should be used so results can be quantified and explanation obtained on the “why” and “how” of results. In some cases, members of the core team or program staff will be able to engage in primary data collection, while in other cases it will be better to bring in an expert. Whether the program plans to do data collection internally or externally, the following sections will help you understand the types of data collection techniques you might need. Additional resources can be found in Resources Group 6.

Qualitative methods

Qualitative methods focus on non-numerical indications of change. They are used to describe and understand human perceptions of project implementation and outcomes. Commonly qualitative approaches are used in local consultation processes to gain understanding through answers of participants to open-ended questions. Generally, qualitative data provide in-depth answers to “why,” “how,” and “what else” questions. Additionally, they can identify unexpected results. Unlike the quantitative approach, where the people who designed a survey questionnaire usually are not involved in collecting data, it is quite common that a qualitative researcher is actively involved in data collection and analysis. The insights obtained from data immediately direct the next phase of data collection or next set of questions in an interview. The most common qualitative methods are interviews with individuals or groups selected for their knowledge or other criteria, life histories that can provide a longitudinal view of relevant issues, and participant observation⁷ and analysis to ascertain patterns of behavior and belief. The resulting data might include responses to open-ended survey questions; quotations from interviewees; descriptions of activity or behaviors observed; and excerpts from various types of documents.

BOX 7.3: Guiding principles for field data collection (adapted from “Thirteen Good Principles” from Sunderlin et al 2010 and Bunce et al 2000)

- Show courtesy and respect toward stakeholders and communities.
- Be clear about objectives of the study, have clear questions and know who is most appropriate to provide data. Follow ethical principles for studies involving human subjects, including FPIC, beneficence (do no harm and equitably maximize benefits), justice (see Appendix 4, Ethical principles for studies with human subjects)
- Develop interactive, two-way communication between the team and stakeholders.
- Recognize the limitations of information due to the short period of data collection.
- Recognize possible biases, to address and minimize them, whether related to individual perceptions, gender preference, ease of access to site locations, comfort with certain types of respondents or informants, language preference, or disciplinary/academic background.
- Thoroughly and accurately record responses in writing and take notes to share important information with the team.
- Monitor the process of data collection and cross-check data whenever possible.
- Create opportunities to reflect on what has been learned.
- Recognize when to stop gathering information, bearing in mind that an assessment will be judged on the relevance of findings, not on the amount.
- Show appreciation for subjects’ participation with an appropriate token of good will.
- Make sure data collecting objectives are achieved before leaving the field.
- Make sure participant expectations are clear with regard to information sharing and next steps. Take care not to create false expectations.

⁷ Proper participant observation requires long-term involvement and a mindset that sets aside one’s pre-existing assumptions about how social life operates (insofar as possible), and that sets aside judgments about people’s behavior in the attempt to understand the rules that govern/affect it locally.

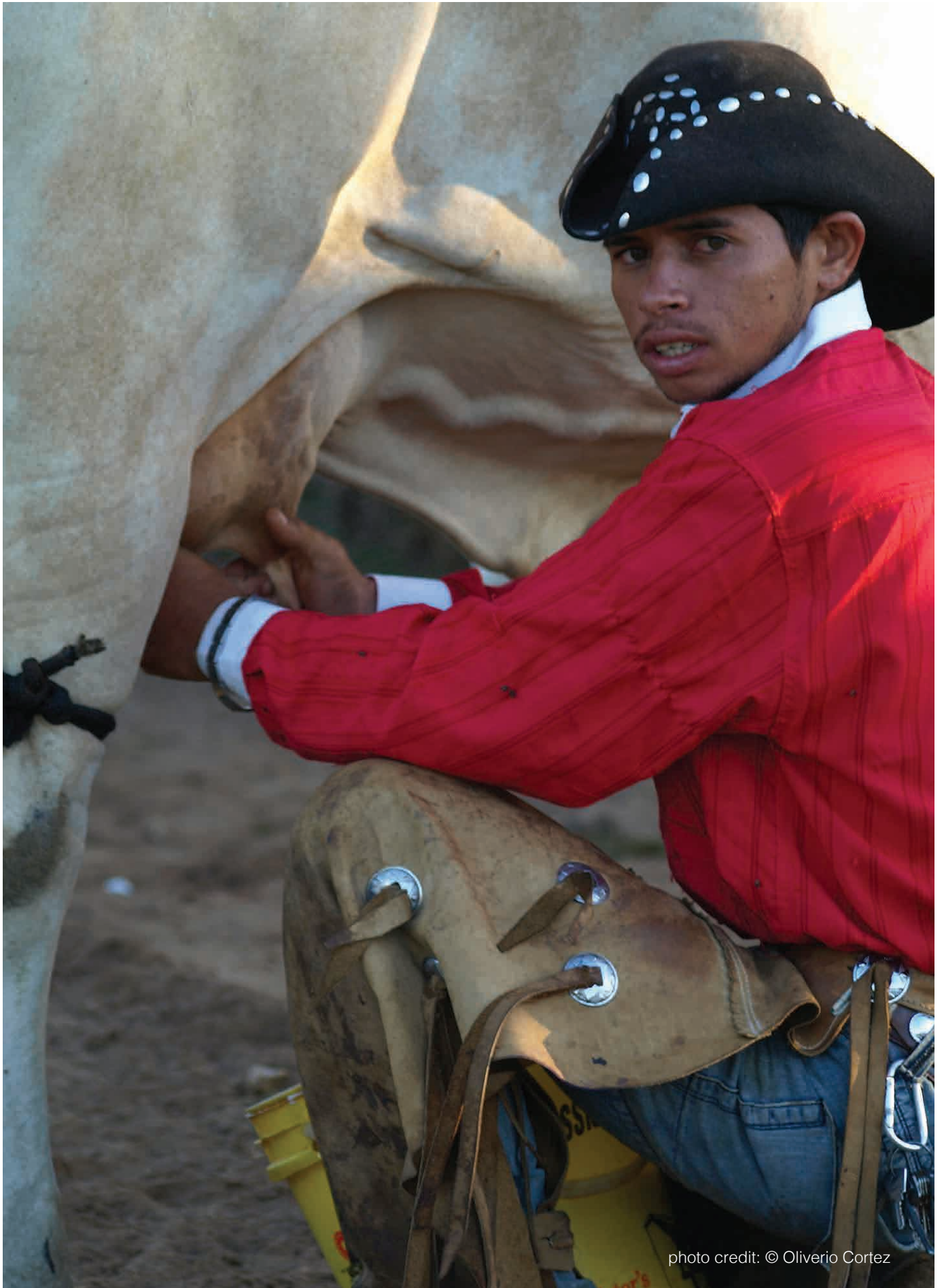


photo credit: © Oliverio Cortez

Compared to quantitative research, in qualitative studies, sample sizes tend to be small and are seldom predetermined. Data collection stops when resources are exhausted or efforts yield diminishing returns with respect to new information. The result is a richly descriptive text that can provide a thorough view of how and why the intervention has progressed or achieved its human well-being results and outcomes. Anecdotes and quotes are often used to help the audience quickly understand the key findings. The results of qualitative data can be used to help design a quantitative study, to develop questions and choices in a survey questionnaire, or to explain quantitative findings, especially in complex situations.

Table 7.1 provides a quick comparison between qualitative and quantitative approaches.

	Qualitative	Quantitative
General characteristics	<ul style="list-style-type: none"> • Guided by general research questions, hypothesis or theory of change • Data can be textual, audio, and visual, with rich description or stories common • Contextual understanding, in-depth information about certain issues • Used to understand new and unexplored areas, processes, perspectives and motivations • Evolving, emergent, semi-structured and developmental design • Small, purposeful sample • Generates or formulates hypothesis • Cannot be used to measure cause-and-effect in quantitative terms • Emphasis on participants' view • Researchers are often in the field as primary data collectors, and require a high level of interviewing skills • Both inductive (data are gathered to build concepts and hypotheses) and deductive, and often subjective and interpretive 	<ul style="list-style-type: none"> • Guided by hypothesis or theory of change • Data are numerical and often involve statistical analysis • Aims for generalizable (with external validity) understanding of population • Assumes variables can be identified and relationships measured • Predetermined, highly structured design • Ideally large, random, representative sample • Tests hypotheses • Can be used to estimate cause-and-effect relationships and predict future outcomes • Emphasis on researchers' view • Researchers can be distant and removed from the site, with little training needed to collect data • Deductive (data are collected to test hypotheses) and often objective
Analysis and considerations for rigor	<ul style="list-style-type: none"> • Data collection and analysis occur simultaneously • Trustworthiness, credibility, consistency, confirmability, and defensibility; rigor derives from the nature of interaction between researcher and participants, and triangulation of data 	<ul style="list-style-type: none"> • Analysis usually occurs after data collection • Statistical significance and power • Survey design and sample selection are critical for reliable results
Main tools	<ul style="list-style-type: none"> • Key informant interview and focus groups using semi-structured questionnaires, participant observation, field notes based on observation 	<ul style="list-style-type: none"> • Surveys (e.g. households or special interest groups) with highly structured and closed questionnaires

Types of analysis	<ul style="list-style-type: none"> Content, pattern, comparative analysis, categorical and thematic construction, grounded theory, ethnographic analysis 	<ul style="list-style-type: none"> Numerous statistical analyses for descriptive and inferential statistics; hypothesis testing
Reported findings	<ul style="list-style-type: none"> Narrative report with contextual, comprehensive, rich descriptions of experiences, patterns, quotations, and stories 	<ul style="list-style-type: none"> Descriptive statistics, figures and graphs, and tables of results from statistical analysis

Quantitative methods

Quantitative methods focus on generating numeric data from large samples, often using a survey questionnaire, and results can be used to generalize to the whole sampled population. Quantitative approaches using robust survey methods can also be used to estimate the impacts of programs, as they allow for testing and validating well-constructed hypotheses according to a theory of change. Quantitative methods are also useful for predicting future outcomes, and have greater credibility with certain audiences. Quantitative data analysis is commonly done using software data analysis tools, which make analyzing large samples manageable and fast.

Table 7.2: Levels of expertise and recommended resources^a for quantitative and qualitative approaches, with possible data collection tools. The estimates are likely to vary dramatically depending on local labor costs, study size, and time period. Projects that cover entire jurisdictions are likely to be more costly due to the need to travel long distances for data collection.

Level of confidence in data accuracy ^b	Low (1)	Medium (2)	High (3)
Risk and leverage			
Expertise	Basic training (minimal experience with monitoring and evaluation)	Trained (formal training and experience monitoring and evaluating programs)	Expert (PhD level, highly experienced in M&E standards)
Quantitative			
Sampling design	Nonprobability sampling (e.g., convenience, purposive)	Probability sampling (simple random, stratified, etc.)	Probability sampling (simple random, stratified, propensity score matching, regression discontinuity design, etc.)
Size/scope ^c	~30-100	Medium confidence ^d in the precision of the mean estimate (~101-300 ^e)	High confidence ^d in the precision of the mean estimate (~301+ ^e)
Annual cost ^e (primary data)	<\$7,000	~\$7,000-\$50,000	~\$30,000+
Annual costs ^e (secondary data)	-	\$1,000-\$15,000	\$1,000-\$15,000

Potential tools	Household surveys, interest group surveys, direct observation	Household surveys, mail/phone surveys, technology-assisted instruments, other large sample survey tools	Household surveys, mail/phone surveys, phone interviews, technology-assisted instrument, other large sample survey tools, other technology and tools that an expert will be able to utilize
Qualitative			
Sampling design	Convenience sampling	Purposive sampling	Purposive or snowball sampling
Size/scope ^{c,f}	Limited numbers (maybe fewer than 10 cases)	Multiple cases: e.g. many focus groups or more in-depth interviews	Multiple cases, with data collected until interviews yield no further useful information ^f
Cost ^e (primary data)	<\$500	\$501-\$5,000	\$1,001-\$20,000
Cost (secondary data)	<\$500	<\$1,000	<\$2,000
Potential tools	Rapid rural appraisal, direct observation	Key informant interviews, focus groups, case studies, content analysis, direct observation, participatory rural appraisal	Key informant interviews, focus groups, case studies, content analysis, direct observation, participatory rural appraisal, other technology and tools that an expert will be able to utilize

^a The table assumes primary data collection to estimate costs.

^b Although not universally true, rigor is highly correlated with financial investment and expertise in monitoring and evaluation programs. As a result, we assume that the more resources are available, the higher likelihood of a high level of confidence in the results of monitoring and evaluation.

^c The unit of analysis used for data collection. This can be individuals, households, communities, or other units appropriate to the monitoring or evaluation plan.

^d Confidence, measured in percentage, that sample results represent the whole population.

^e These figures are dependent on the scope of the program (the larger or more diverse the project site, the larger the sample size will need to be), where it is being implemented (local wages, logistics), time spent in the field, types of indicators measured, data collection tools and methods, and many other factors. It is very difficult to generalize, but these numbers offer a ballpark of what the core team should expect to budget for.

^f Ensuring reliability is a key component of qualitative methods. The number of cases required can vary substantially based on factors such as data collection methodology and purpose. Morgan et al. (2002) found that with mental models, for example, no more than 20 cases might be needed to determine the variation in beliefs among a population.

Table adapted from CBP 2013

Figure 7.1: Decision tree for primary data collecting methods

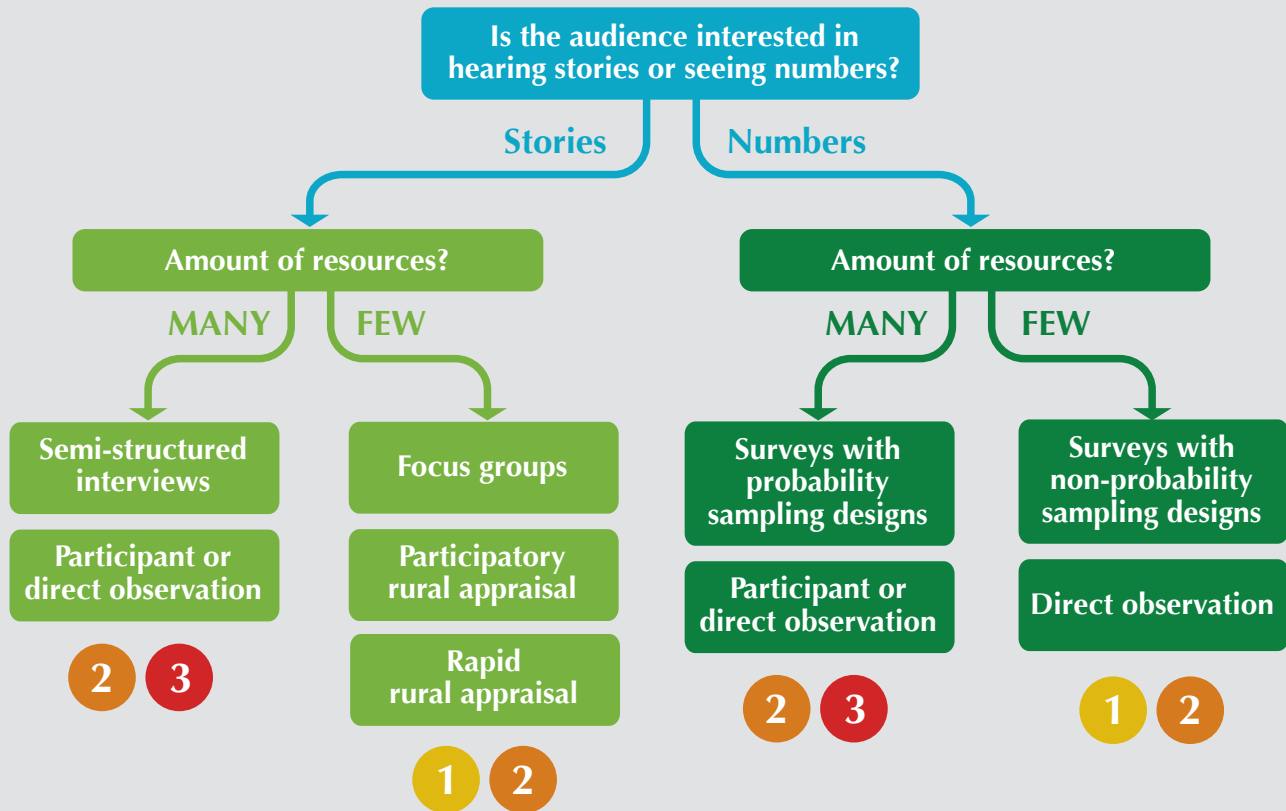


Figure 7.1 suggests methods for collecting primary data. Decisions are based on what type of information the audience is seeking (stories or numbers, or both), and the amount of resources available. The qualitative and quantitative methods suggested are discussed in Sections 7.3 and 7.4. Note that each method or a combination of different methods could be done using low, medium, or high levels of resources. The color-coded numbers in Figure 7.1 refer to the levels 1-3 of recommended resources described in Tables 6.1 and 7.2 and Figure 6.1. Keep in mind that whenever possible an integrated approach with both quantitative (numbers) and qualitative (stories) methods should be considered, and will give the most complete understanding of the results and how they were achieved.

7.3 Qualitative data collection methods

With all qualitative methods, because the person who gathers data can greatly influence its quality, it is critical that s/he have the skill set required to gather qualitative data. This often involves a combination of communication and “people” skills, including interviewing, probing, listening, recording, and synthesizing. The interaction between interviewers and participants plays a critical role, so factors such as trust, show of respect, and comfortable environment are important considerations. Additionally, it is important that the researcher set aside their assumptions about the nature of the social world (e.g., that men are farmers and women are homemakers; or that shifting cultivators are nomadic), and set aside judgments about the behavior of local people because their values and norms are likely to differ significantly from those of the researchers. As a best practice, getting a diverse sample and using more than one method to triangulate data will provide more robust evidence.

The following sections describe some of the more commonly used methods. Greatest attention is paid to key informant interviews and focus group discussions because the authors have found that these are both some of the most commonly used methods, and methods frequently used by program staff.

7.3.1. Key informant interviews or semi-structured interviews

In this guide book, these are loosely structured conversations with people who have specialized knowledge about the topic you wish to understand. Often these people serve as representatives of target groups, such as village leaders; members who have profound knowledge of land and forest uses, including village elders (of both genders); land and forest managers; concession managers; and community facilitators. It is important to interview men and women as well as people who are engaged in the project and those who are less so in order to understand how the project impacts different types of stakeholders. Interview topics might relate to how the project is being implemented; perceived results or outcomes; or reasons for success, failure, or challenges of certain interventions. Questions are usually open-ended and semi-structured, allowing interviewers to adjust and probe for details during the interview. Key informants can provide in-depth information and help identify underlying causes and interrelationships among complex issues pertinent to different stages of a theory of change. Interviews are often recorded and transcribed prior to analysis.

When to conduct key informant interviews

- To study things that cannot be observed or past events that are impossible to replicate, or when it is best to get the needed data from a small number of people
- Explore a subject in depth
- Uncover and understand issues that might not be clear to researchers; explore topics for further research
- Emphasis on interviewees' perspectives and understanding the topics in their own terms
- Gather information in sociocultural settings where a survey or focus groups are not appropriate
- Clarify findings from quantitative research; explain the “why” and “how”

Guidelines for key informant interviews

- How to choose key informants:
 - Purposive sampling design guided by the type of information needed
 - Consult local stakeholders to find individuals who can provide information
 - Find trustworthy key informants who are observant, reflective, articulate, and willing to share information
 - Make sure that the informants selected will not prevent you from gaining access to other important informants
 - Make sure informants represent the diversity of the population (e.g. men, women, those actively engaged in project activities; those less engaged)
- Prepare an agenda and a list of topics. Have an interview guide that includes issues to be explored and a mix of more of less structured interview questions
- Ensure respect for local cultural practices and protocols
- Arrange a time and place for the interview where the key informant will feel at ease
- Introduce yourself, the background and purpose of the interview
- If recording is used, get consent from the interviewee first
- Present the general topics or themes to be covered. Explain how the results will be used.

- Be a good listener: provide feedback and confirm information regularly, and ask for clarification whenever needed
- Take notes, if appropriate, and write up the interview as soon as possible while it is still fresh. Note, some interviewees may not be comfortable with note taking during the interview.
- Express thanks
- Be clear with informants on how the data will be used and avoid creating false expectations.

Advantages of key informant interviews	Disadvantages of key informant interviews
<ul style="list-style-type: none"> ● Flexible, respond to interviewee, explore significant issues that emerge during interview ● Provide local context in local terms ● Can be done early in the process to provide information that can improve research design ● Greater depth and detailed information ● Can build confidence in the interviewees' value of local knowledge 	<ul style="list-style-type: none"> ● Interviewer-induced bias, different interviewers may get different results ● Can give misleading or biased information ● Require strong interviewing skills ● Does not provide statistical validity

BOX 7.4: Asking good questions

The key to getting useful information from interviewing is to ask good questions. This requires skills and takes practice. Also, pre-testing can be helpful to determine which questions work best. Here are a few tips:

- Questions asked have to be clear to the people being interviewed. Terms and language used need to be easily understood. Questions need to be meaningful in the specific context.
- Phrase questions so that they are open-ended and yield descriptive data or stories. Don't ask just yes-or-no questions.
- Start with simple questions that require description. Then move on to more complex questions (saving controversial questions until the end).
- Use the six question words (what, what if, who, when, where, how, why) as much as possible.
- Prompt, probe, or follow up, to make sure information is complete.
- Avoid the following: multiple questions at once, leading questions. Instead of "Do you burn forest?" ask, "How do you prepare land for planting?"
- Avoid questions that listeners might interpret differently. Instead of, "Do people mine often in the river?" ask, "How often do people go to the river to mine?"
- Use indirect questions for sensitive issues such as income or illegal activity. Instead of, "How much money do you make when you collect honey?" ask, "Do you know the range of income a honey collector can make for each harvest?" Instead of, "Do you burn forest?" ask, "Do you know if uncontrolled forest burning methods have occurred?"
- Be supportive and non-judgmental.

7.3.2. Focus group discussion

A focus group is an interview on a topic with a small group of people (usually 4 to 10) with relevant background, knowledge, or experience. They are invited to discuss and explore together issues of interest in depth. The process depends on group dynamics - people respond to and argue with other participants' comments. While some focus groups involve participants with a variety of views, others focus on those with similar characteristics. Both can be useful depending on your research questions and purposes. Examples of focus groups might be men or women (young and old) who use forest resources or participate in the program activities. A highly skilled moderator or facilitator is required to guide the group and lead the discussion, handle group dynamics, identify differences of opinion and explore with participants the factors that might lie behind them.

When to use a focus group (adapted from Bryman 2008 Social Research Methods)

- Study ways in which individuals collectively make sense (through interaction and discussion with each other) of phenomena and their meaning.
- Get a realistic account of what people think, as group discussion allows for arguing and challenging each other's ideas.
- Reveal group's interpretation, reason, view, or agreement through the discussion process.
- Bring forth issues that participants agree are important and significant (similar to key informant interview).

Guidelines for focus group discussion

Use the same guidelines as for key informant interviews, plus:

- Have a skilled facilitator
- Make sure that everyone has a chance to speak. Avoid speaking to only the most vocal participants - attempt to draw out less vocal community members. Be aware that community leaders may not represent the perspectives of all stakeholder groups and sub-groups.
- Be supportive and non-judgmental
- Have a note taker and show the main points to the group to get confirmation. When there are differences, get agreement/consensus from the group that the different opinions were understood.

Advantages of focus group discussion

- Effective at uncovering areas of agreement, especially where there are conflicting views, and/or different but consistent views among a group of people with related background and experience
- Allow for in-depth investigation of a topic from multiple people simultaneously
- Allow topics to be discussed on participants' terms

Disadvantages of focus group discussion

- Not easy to organize and ensure turnout
- Require highly skilled facilitator/moderators
- Researcher has little control over proceedings
- Group dynamics can be challenging/problematic
- Difficult to record interactions among participants
- Time-consuming and challenging transcription process
- Data are difficult to analyze, as both content and group interaction have to be taken into account

7.3.3. Participatory rural appraisals (PRA) and rapid rural appraisals (RRA)

PRA and RRA are used in action research, a type of applied research aimed at addressing a specific problem and finding practical solutions within a specific setting. Both generate information to guide action within a short period of time. Their rapid nature and lack of emphasis on rigorous systematic design put limits on the application of data in scientific contexts. Triangulation is essential to increase the accuracy of findings. Both PRA and RRA are largely qualitative methods that employ a multidisciplinary team to explore a range of issues and capture local perspectives by engaging with community members and other key stakeholders. Both methods share a wide range of tools, including brainstorming, focus groups, resource mapping, wealth ranking, trend and constraints analysis, and Venn diagrams (Resources 6), among others. Methods used need to be especially sensitive to local contexts. PRA emphasizes stakeholder participation and is often used to engage communities to participate actively in addressing issues, to share and learn together, and to work toward solutions. It has often been used as a tool to empower local communities to act on their perceived problems.

7.3.4. Participant and direct observation

These methods provide qualitative descriptions of what a team member sees, and are obtained by watching attentively and recording observations. Counts that generate numeric data can also be conducted. In direct observation, the researcher watches the subjects of the study without intruding on them or their activities. In participant observation, the researcher actively participates in subjects' activity, as by taking part in and recording the practice of a customary village land clearing ceremony for planting, or observing certain traditional livelihoods based on harvesting non-timber forest resources. In both participant observation and direct observation, one learns things one did not know to ask about. In seeing people do things, and in experiencing a local action, one grasps things difficult to get by asking questions, perhaps because one asked the wrong question, did not ask a relevant question, or observed things that cannot be easily understood by asking questions. The team learns firsthand about complex activities and is able to describe them in detail or with a specific focus. Often the behavior involved is learned non-verbally, by observing and doing, so that the people involved find it difficult to describe. For example, it is difficult for a honey harvester to describe all that he does during the activity, or for local community members to explain what they have always practiced and lived without thinking about it. Observation may be directed or continuous. During directed observation, the team member looks at a specific activity, such as river mining, or tries to answer a specific question, such as, 'How are co-operative meetings conducted?' During continuous observation, the investigator seeks a broader understanding of activities and observes them throughout the day and night. Directed and continuous observations are not mutually exclusive. Observations are conducted throughout field data collection, though observations at the start are particularly useful in preparing interview and survey questions. Opportunities for observation often arise during semi-structured interviews. The trust of the community and proper observance of local protocol is usually required for observations to be successful. Results from direct observation are subject to interpretation and can vary dependent on the observer.

7.4 Quantitative data collection methods

7.4.1. Survey

This is the most popular method of collecting data from a sample usually drawn from a relatively large group of people who are randomly selected to represent the target population. A highly structured questionnaire is used, with mostly closed questions. There are different types of surveys, such as household surveys and special interest group surveys (fishers, farmers, indigenous groups, park rangers, etc.). Surveys may be conducted in person (by interview or self-completion), by phone, mail, or Internet. Answers may be recorded on paper or using technology, then entered manually or automatically into a data analysis program. It is important that surveys are well-designed and do not lead the interviewee towards a particular answers. As a result, it is good to get expert input into the design of the survey, when possible.

When to use a survey

- Researcher has clearly specified questions
- Quantitative data are required
- Topics are relatively simple/straightforward
- Need to understand perceptions, attitudes, opinions, knowledge and/or demographics of a large group of people
- To generate data that are statistically representative of the larger population
- To compare across groups and examine correlation among variables

Advantages of a survey

- Can cover large population in short time
- Researchers have control
- Precision through standardized questions and interview process
- Statistical significance
- Generate short answers that can be coded and analyzed quickly and easily using statistical software programs

Disadvantages of a survey

- Inflexible, does not allow for further exploration of a topic that may come up
- Does not uncover information that researchers are unaware of and that may be important to the interviewee
- Does not provide deeper context and is not appropriate for complex topics
- Can be perceived as artificial
- Respondents are interviewed only once (unless the study is longitudinal)



photo credit: © Bridget Besaw



Table 7.3: Example of data collecting methods from selected indicators, BFCP

In Berau, The Nature Conservancy used a mixed methods approach. TNC collected data for monitoring and evaluation by first identifying and collaborating with other institutions that had the interest and resources to collect social data for their own purposes, in this case, the Center for International Forestry Research (CIFOR). CIFOR used a household survey to collect data from 33 households in each village, so TNC did not need to survey household data and could focus its efforts on selecting and analyzing the most relevant data.

Second, TNC used key informant interviews to generate data for indicators related to security and empowerment. Since TNC had been working with the communities for a number of years, field staff and community organizers were interviewed to get information on the confidence level of community members in negotiating with other stakeholders and in the quality of financial and natural resource management plans. Based on their inputs, TNC identified reliable village leaders who could provide information on the amount of funding received in the last few years and the number of village leaders with the skills to mobilize external resources.

Finally, TNC used focus group discussions to collect information on, for example, communities' satisfaction with maintaining traditional relationships to the forest, their level of access, and laws or policies related to land use and natural resource management. Since the discussions were facilitated by TNC field staff who were familiar with the local situation, they were able to take place openly. Field staff were able to explain the guiding questions, facilitate the discussion, and generate the information needed.

Key informant interviews and focus group discussions were also used to collect data that should have been collected by survey but had not been, due to limited resources and capacity during the data collection period.

The following table shows the data collecting methods used to monitor indicators of the human well-being results, intermediate results and outcomes in the BFCP program. (Because this is for illustrative purposes, indicators and data collection methods are shown for all results, intermediate results and outcomes for the Security focal area; only a subset are shown for the Opportunities focal area; Empowerment focal area is not included in this table)

Focal Area: Security				
Components	Outcome and strategies	Results and Intermediate results	Indicators	Data collection methods
Formal management rights by the community		By 2014, proposals that give management rights to community groups over protection and production forests are submitted to Ministry of Forestry and local government for a total area of at least 8,000 ha.	Hectares of forests allocated by the government for community managed forests	Secondary data: <ul style="list-style-type: none"> • Berau Forestry Agency (for forest area) • Berau Land Agency (for non-forest area)
			Number of decrees granting management rights to communities	
			Community perception of the benefits of having formal forest management rights	Focus group discussion

Access to land and forest resources	<p>Outcome Statement: By 2015, participating communities are more secure, as indicated by the increased forest area formally put under their management (at least 5% increase, or approx. 20,000 ha) and their increased level of satisfaction in maintaining their traditional relations with forests.</p> <p>Strategy: Advocate for stronger community tenure and support the application to obtain forest management rights by the community.</p>	By 2014, processes to develop collaborative agreements between communities and companies are initiated in 4 logging concessions	Percentage of production forest in Berau under management of timber companies that communities gained access rights	Secondary: Berau Forestry Agency
Clear village boundaries		By 2013, land use or forest management plans are produced in at least 7 villages and communicated to relevant stakeholders	Satisfaction level of communities in maintaining their traditional forest practices	Focus group discussion
Community knowledge to make informed decisions		Participating communities have increased understanding of natural resource management issues and solutions	Level of community access to information (laws, regulations, policies) on land use and natural resource management	Focus group discussion
Community capacity to communicate, negotiate, and control decisions over natural resource use and management		Increased confidence in negotiation and increased decision-making control over natural resource use and management	Confidence level of communities in negotiating with other stakeholders	Key informant interview with community organizers
	Satisfaction level of community in controlling decisions and choices governing natural resource use and management		Focus group discussion	

Focal Area: Opportunity

Components	Outcome and strategies	Results and Intermediate results	Indicators	Data collection methods
Income and livelihood options	<p>Outcome Statement: By 2015, at least 50% of households in participating communities have better opportunities, as indicated by increased income, livelihood options, and access to basic services.</p>	Income and livelihood options increased	<p>Number of households benefiting from:</p> <ul style="list-style-type: none"> • Employment in forest protection and REDD+ related activities • Intensification of agricultural and agroforestry • Poultry farming • Honey production • Nursery development • NTFP (rattan) commercialization • Smallholder rubber harvest • Fishpond/fish pen development (aquaculture) 	Household survey

Ability of community and village government to mobilize financial and human resources	Strategy: Support communities in undertaking mitigation activities, and develop more diverse livelihood options that are commensurate with their commitments to sustainably manage forest and natural resources.	Human and financial resources mobilized	Changes in household income	Household survey
			Changes in household assets, such as land, livestock, vehicles, etc.	Household survey
			Savings made by the communities through the Credit Union	Secondary data with the Credit Union
			Percentage increase in funding from different sources secured by villages to support forest friendly activities (mitigation, NRM, livelihood, etc.).	Key informant interview with village leaders
			Number of villagers with enhanced skills and knowledge of resource mobilization to support activities in the village	Key informant interview with village leaders

Whichever data collecting methods are used, it is critical that good principles are followed (Box 7.3). A monitoring plan will include a brief document to guide data collectors and ensure standardized methods. It should contain plans for collecting data, including agreed-upon methods for selected indicators and different methods, Free, Prior and Informed Consent and information on local protocols, and other technical procedures involved (see example in Sunderlin's 2010 Technical Guidelines for Research on REDD+ Project sites). This document will also be useful to inform other interested parties and provide information on methodology at a later date.

7.5 Sampling Methods

In most cases, it will be impossible to collect data from every single person, household or village affected by the project. As a result, the researchers will have to select a sample group from which to collect data. The sample group should represent the diversity of the overall population that will be affected by the project. The size of the sample group will depend on how much variance there is in the population, the size of the project, and the desired level of confidence that the results from data analysis will precisely represent the overall population. Sampling designs differ based on qualitative or quantitative methods. In both approaches, sampling criteria are systematically applied when gathering data. A sampling design is selected based on monitoring and evaluation objectives, types of data and validity needed, practicality/feasibility, cost-effectiveness, and available resources. The team conducting the data collection should document the process so that it is transparent and accessible to interested audiences. Below is an overview of the two different types of sampling methods. In many cases, the core team and program staff will want to bring in experts to help them design the monitoring plan, including the sampling method and data collection methods. Because the design of the sample group can significantly affect how much confidence someone can have in the results of the data analysis – especially for quantitative methods – we recommend consulting with experts if the team has any doubts. The descriptions below should help the core team and program staff in their discussions with these experts.

Qualitative methods rely mostly on non-probability sampling, such as in purposive (selecting individuals who meet particular criteria) and snowball (interviewing one or more individuals and asking them at the end for suggestions about who to interview next about the same subject) sampling. This approach may

not require much in the way of resources, as it does not rely on a well-defined population. But because the informants are strategically selected, rather than chosen at random from a clearly defined group, the resulting data is not statistically representative of the population and should not be used for generalization. In a community with a diverse population, it is important to ensure good representation from different groups so that the breadth of perspectives is assessed. One of the ways to ensure this is through local consultation and input on whom would be best to interview for the kind of information that are sought. At the very least, four demographic groups should be represented: young men, young women, older women, and older men. Groups might also be based on occupation or types of relationship with land and forests, such as landowners, small-scale farmers, and indigenous groups.

Quantitative methods rely mostly on probability sampling to ensure that the sample group represents the target population. Random selection is used to select the sample group. This means that all people/households/etc. in the target population that is being researched (e.g. small scale farmer participating in the project) have an equal probability of being selected into the sample. Data is collected only from those in the sample group, and statistical techniques are used to analyze the data. The appropriate sample size is determined according to the population, desired confidence interval (or error level), estimates of variances in the population, and confidence level.

7.6 Data Analysis

Data analysis is the process of making sense out of data. Different types of analysis are used for qualitative and quantitative data. Since data analysis requires a high degree of technical skill and experience, the objective of this section is not to guide how to analyze the data, but rather to simply provide a basic understanding of the principles of good data analysis and resources for further information.

7.6.1 Qualitative data analysis

Qualitative data may come from answers to open-ended questions in survey interviews, from researchers' descriptive notes taken while observing activities or behaviors, or from secondary data sources such as excerpts or quotations extracted from various types of documents. It can also take the form of pictures and other sources.

Examples of qualitative data include responses to the following:

- How did people adjust their way of living when this became a sustainable landscapes project area?
- What do they think about the benefits of the sustainable landscapes program to their household?
- How does this project influence the way they think about land and forest resources?
- Why did it take much longer than expected for the community to participate in alternative livelihood options, despite the financial incentives provided by the program?

Qualitative data analysis involves making sense of what people have said and what the researchers have observed, read, or taken notes about. Initial qualitative data analysis happens simultaneously with data collection. Analysis is ongoing, and emerging insights help direct subsequent phases of data collection. Qualitative data analysis techniques can involve the creation of categories and typologies; extracting meaning from text and interviews; and ultimately synthesizing, interpreting, and explaining in writing. Analytical coding and qualitative data analysis software can be useful in sorting the data. Communicating the results depends heavily on the presentation of selected anecdotes and quotes that capture the results of data analysis. The validity of qualitative data depends on whether the conclusions being drawn are credible, defensible, warranted, and able to withstand alternative explanations.

7.6.2. Quantitative data analysis

Quantitative data analysis is a process of making sense out of numbers. It involves statistics, which is the practice or science of collecting and analyzing numerical data in large quantities, especially for the purpose of describing or inferring certain aspects of populations based a sample group.

There are two main types of quantitative data analysis.

- **Descriptive analysis** is used to summarize data and identify useful/interesting findings to report and communicate. Descriptive statistics describe or display data in a meaningful way, usually by measuring central tendencies (including mean, median, mode, and dispersion or variability). Descriptive statistics does not involve hypothesis testing. Example: the mean income of households in Hakuna Matata village is \$50/month.
- **Inferential statistics** draw generalizable conclusions about a population based on a sample. The reliability of the generalization will depend on the degree to which the sample is representative of the population. In inferential statistics, hypothesis testing is performed to see whether there are differences among groups or variables. Example: Households in participating villages earned an average of \$10/month more from community forest management than households in non-participating villages.

See Resources 7 for additional tools and resources.



Chapter 8: CONCLUSIONS

Chapter 8: CONCLUSIONS

8.1 Using Monitoring and Evaluation Results

The results of monitoring and evaluation do not speak for themselves. Every audience needs contextual information to understand what the results are telling them and why it matters. How you communicate the results depends on the audience and the how, where, when and why they will use it. In the process of selecting indicators and developing a monitoring plan, the core team identified their audiences, the key information that they need to know, and when they need to know it. Once the core team has the results of monitoring and evaluation, it is a good time to review the needs of the key audience. Results should be presented based on what they need to know, what they would do or not do as a result of having this information, and when they need it to inform their decision-making. The results need to be communicated in a way that is relevant to the different audiences' interests and needs.

Results from monitoring and evaluation are important inputs to refine strategies and inform ongoing policy development. Further, it is important to share these results with all stakeholders to enable informed decision-making and good governance in the sustainable landscapes program. Below is a discussion of how results from monitoring and evaluation can be used. The monitoring and evaluation plan should be designed based on the expected use of the results.

8.1.1 Using results for adaptive management

Monitoring data should provide the information needed to say whether you have achieved your expected intermediate results, and whether you are on track to achieve long-term goals and objectives. They provide an opportunity to see whether the core assumptions laid out in the planning steps hold true in reality. By testing core assumptions, you are in a better position to adapt and change your project activities as needed.

Collecting and analyzing data as part of routine monitoring tells you how effective your interventions are, and what adjustments you may need to make to reach your goals and objectives more efficiently.

For example, one of the outcome statements for BFCP is that participating communities have better opportunities for wealth creation as indicated by increased income, livelihood options, and access to basic services. Ultimately, we expect to see household income and savings increase as an indicator of better wealth creation opportunities. Some of the activities being implemented to achieve this include working with community groups to develop sustainable village enterprises, such as rubber nurseries, poultry initiatives and fish pens. Routine monitoring can provide feedback on whether the program activities are resulting in the creation of these enterprises, and whether the enterprises are generating income for participating community members. Based on the data analysis, program staff may identify where strategies are on-track, and where they are not progressing as expected. The monitoring and data analysis may not answer the question of "why" things are off track, but it will raise a red flag for program staff and suggest where further investigation is needed, and that they may need to adjust their activities or provide greater support for certain enterprises.

8.1.2 Using results to inform domestic development and environmental policies

Monitoring and evaluation results can play an important role informing the creation of policies and government programs that deliver positive impacts for people, nature and climate. For example, in many

countries with nascent REDD+ programs, activities are being implemented in select demonstration sites before scaling up to broader implementation. Results on the carbon, ecosystem services and well-being impacts of activities in these demonstration sites will be important to inform what activities should be prioritized in the national program.

For example, in some REDD+ programs, community forestry strategies are being developed to provide forest-friendly income generating opportunities as an alternative to clearing land for agriculture. These programs are designed to increase income through sustainable timber enterprises that have much lower impacts on ecosystem services and carbon emissions compared to agriculture. Monitoring and evaluation are important to understand the extent to which community strategies can achieve these goals, and to identify potential tradeoffs. Results from monitoring and evaluation can help governments determine whether they should incorporate community forestry as part of their national climate agenda and create incentives and technical assistance programs to scale up its adoption.

8.1.3 Using results to inform safeguards policies

In tropical forest countries that have made commitments to reduce emissions from deforestation and degradation, REDD+ programs are linked to rural development goals, and are expected to improve the well-being of indigenous people and those living in and near forests. In many countries REDD+ goals are discussed in the context of low emissions development (LED) where sustainable landscape programs are designed to meet dual goals of local sustainable development and reduced emissions. Internationally, REDD+ is seen as both a potential opportunity and potential risk for people who depend on forests for their livelihoods. Most programs are early in their development and implementation phases, and it is not known whether REDD+ programs will live up to expectations or concerns. Data from monitoring and evaluation is critical to determine whether REDD+ programs can achieve the dual goals of reducing emissions and improving human well-being.

Countries and jurisdictions with REDD+ programs must develop safeguard systems to ensure that social risks are minimized and benefits enhanced. Although the policies, laws and regulations that comprise the safeguard systems will be unique to each country, they will inevitably include a principle that the REDD+ program will have clear and equitable social benefits for beneficiary groups while causing no harm to other groups (REDD+ SES, UNFCCC Cancun Agreements FCCC/CP/2010/7/Add.1, FCPF SESA and ESMF). Further, countries must develop safeguard information systems (SIS) to collect and provide information on how safeguards are being addressed and respected. The results from monitoring and evaluation will be crucial inputs to the SIS, and will demonstrate whether countries are adhering to the safeguard and enhancing social benefits.

8.1.4 Using results to enable informed decision-making, good governance and transparency

Sustainable landscapes programs engage multiple stakeholder groups, including local and federal governments, communities, and indigenous people. All play important roles in designing and implementing sustainable landscapes programs. Further, commonly used safeguard principles require the full, effective stakeholder participation in program design and implementation wherever possible and appropriate (REDD+ SES, UNFCCC Cancun Agreements FCCC/CP/2010/7/Add.1, FCPF SESA and ESMF) and that sustainable landscapes programs contribute to good governance (REDD+ SES, UNFCCC Cancun Agreements FCCC/CP/2010/7/Add.1). In order for all of the relevant stakeholders to effectively engage in the development and implementation of a program, they need access to information about the effectiveness of different interventions. It will be important that results from monitoring and evaluation are shared with all relevant stakeholder groups in a timely fashion, in a way they can understand and use to make informed decisions.

8.1.5 Using results to inform The Nature Conservancy's Conservation Impact Measures

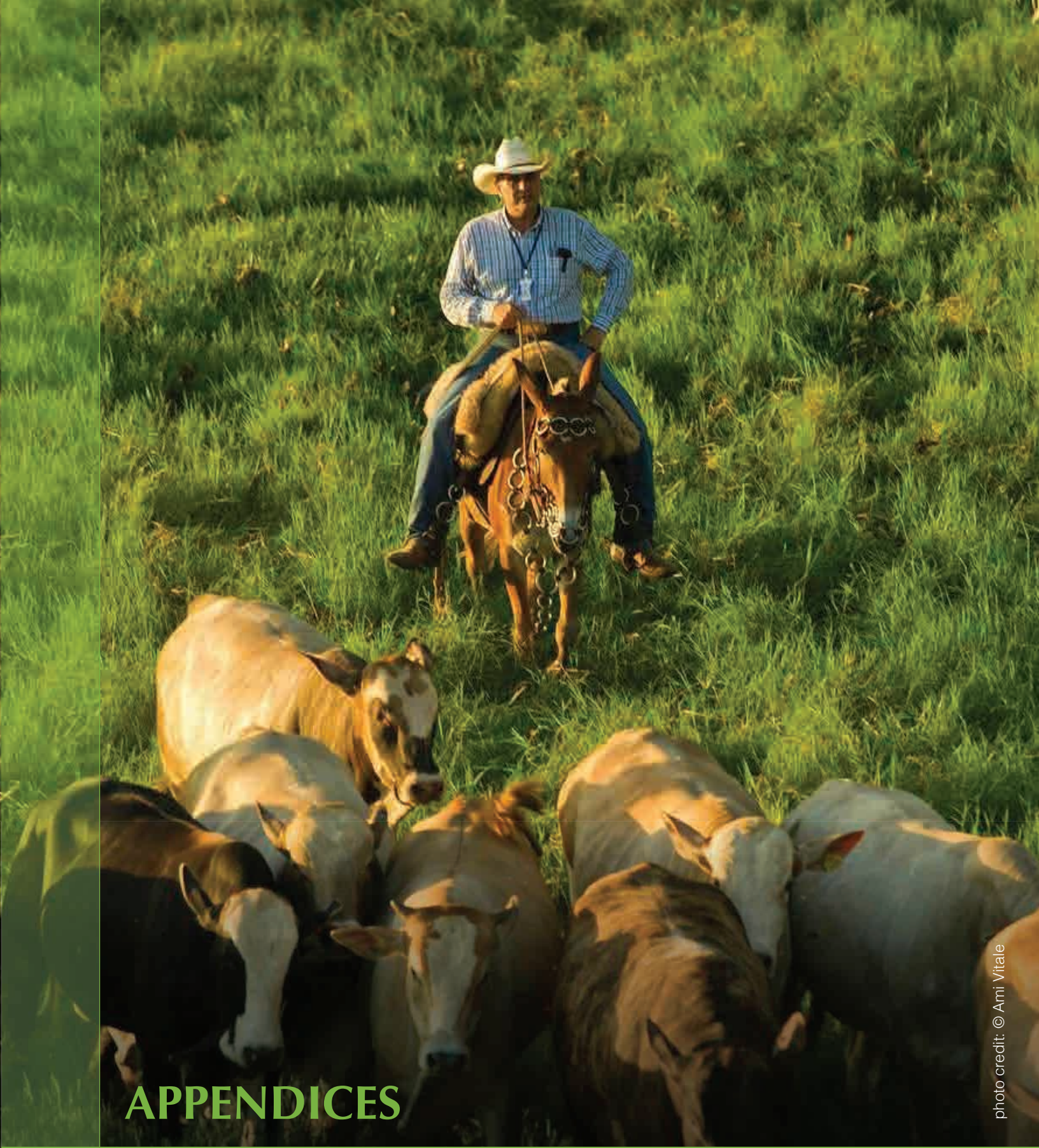
Successful implementation of the Global Challenges, Global Solutions framework requires that The Nature Conservancy is able to measure and monitor the effectiveness of its conservation strategies across various scales and scopes. Two important audiences for these measures are the Executive Team and high-level,

knowledgeable supporters of The Conservancy who are interested in information on progress, lessons learned and opportunities for improving performance. As such, an organization-wide initiative to define Conservation Impact Measures (CIMs) for global and regional priorities is currently underway. These CIMs track the most important conservation outcomes across five areas as derived from Conservation Business Plans, including a category for “People.” The information contained within this guidebook can be used as a framework to develop appropriate Conservation Impact Measures for people and should be viewed as complementary, not separate, processes. The CIMs are targeting a specific audience with specific reporting needs, and the results from the monitoring and evaluation process laid out in this guide can provide the content that gets packaged specifically for the CIMs audience.



8.2 Final thoughts

Improving the well being of people living in and near the forest is crucial to the success of sustainable landscapes programs on the ground. In order to make sure programs are successful in delivering these results, monitoring and evaluation programs are crucial to better understand the impacts of different interventions. The process articulated in this guide is meant to be practical for field practitioners and to provide the evidence needed to make decisions about advancing smart policies and programs.



APPENDICES

photo credit: © Ami Vitale

APPENDIX 1: Conservation Initiative on Human Rights

Actions to conserve nature and natural resources are closely related to the rights of people to secure their livelihoods, enjoy healthy and productive environments and live with dignity. The pursuit of conservation goals can contribute positively to the realization of many human rights, and realization of rights can enable more effective conservation outcomes. However, conservation activities may also generate negative impacts if their links with human rights and well-being are not sufficiently understood or addressed.

The goal of the Conservation Initiative on Human Rights (CIHR) is to improve the practice of conservation by ensuring that the 8 international conservation organizations integrate human rights into their work.

Specific objectives of CIHR are to:

1. Develop and maintain a common set of human right principles as they relate to conservation,
2. Identify and test management practices for implementing these principles and demonstrating compliance with them,
3. Support members in implementing human rights principles and management practices, especially through shared learning among participating organizations, rights-holders, stakeholders and experts,
4. Promote integration of human rights principles in conservation and communicate relevant experience
5. Report on member's activities in putting in place measures for implementation and monitoring of their human rights principles.

The CIHR Framework commits these organizations to:

1. **Respect human rights**, Respect internationally proclaimed human rights⁸; and make sure that we do not contribute to infringements of human rights while pursuing our mission.
2. **Promote human rights within conservation programs**, Support and promote the protection and realization of human rights within the scope of our conservation programs.
3. **Protect the vulnerable**, Make special efforts to avoid harm to those who are vulnerable to infringements of their rights and to support the protection and fulfillment of their rights within the scope of our conservation programs.
4. **Encourage good governance**, Support the improvement of governance systems that can secure the rights of indigenous peoples and local communities in the context of our work on conservation and sustainable natural resource use, including elements such as legal, policy and institutional frameworks, and procedures for equitable participation and accountability.

To implement these principles, according to individual governance structures and operating partnership models, the undersigned organizations commit to work to achieve the following:

5. **Further develop these principles and implementation measures in consultation with our constituencies** Discuss and develop the principles and implementation measures with our constituencies and with support as needed from individuals and networks that have relevant experience and expertise.
6. **Establish relevant institutional policies** Establish our own institutional policies to ensure that these principles are fulfilled; communicate our policies internally and externally and periodically review and revise them as needed.
7. **Ensure implementation capacity is in place** Determine the competencies needed within our organizations to implement these policies and principles and ensure that the necessary capacity is in place.
8. **Address conservation-human rights links in the design, implementation and monitoring of our programmes**, including by: including by:

- **Undertaking impact assessment and consultation in advance of conservation interventions:** Conduct prior evaluation of the scope of proposed conservation policies, programmes, projects and activities, so that the links between human rights and conservation are identified, and ensure that potentially affected persons are informed, properly consulted, and able to participate in decision making about relevant interventions. This includes respect for the right of indigenous peoples and local communities with customary rights to lands and resources to free, prior, informed consent to interventions directly affecting their lands, territories or resources.
 - **Reflecting local concerns in design and implementation:** Ensure that the design and implementation of conservation interventions reflect such prior evaluation and the participatory decisions that were made.
 - **Monitoring and adapting:** Monitor and evaluate interventions and their implications for human rights, as a basis for ongoing improvement.
- 9. Establish accountability measures** Establish processes to monitor and evaluate compliance with our policies and principles on a regular basis, and effective, accessible and, transparent procedures to receive and resolve complaints.
- 10. Apply the policies and principles in agreements with subcontracting organizations and implementing partners** Include appropriate provisions on compliance with these policies and principles in subcontracts, partnership agreements and capacity-building activities with other implementing organizations.

APPENDIX 2: Free, Prior and Informed Consent

Derived from UN-REDD Programme Guidelines on Free, Prior and Informed Consent, UNDP, 2013.

Free refers to a consent given voluntarily and absent of “coercion, intimidation or manipulation. Free refers to a process that is self-directed by the community from whom consent is being sought, unencumbered by coercion, expectations or timelines that are externally imposed:

- Stakeholders determine process, timeline and decision-making structure,
- Information is transparently and objectively offered at stakeholder’s request,
- Process is free from coercion, bias, conditions, bribery or rewards,
- Meetings and decisions take place at locations and times and in languages and formats determined by the stakeholders; and
- All community members are free to participate regardless of gender, age or standing

Prior means “consent is sought sufficiently in advance of any authorization or commencement of activities. Prior refers to a period of time in advance of an activity or process when consent should be sought, as well as the period between when consent is sought and when consent is given or withheld.

- Prior implies that time is provided to understand, access and analyze information on the proposed activity. The amount of time required will depend on the decision-making processes of the rights-holders,
- Information must be provided before activities can be initiated, and
- The decision-making timeline established by the rights-holders must be respected, as it reflects the time needed to understand, analyze, and evaluate the activities under consideration in accordance with their own customs.

Informed refers to the nature of the engagement and type of information that should be provided prior to seeking consent and also as part of the ongoing consent process. Information should:

- Be accessible, clear, consistent, accurate, constant and transparent,
- Be delivered in appropriate language and culturally appropriate format,
- Be objective, covering both the positive and negative potential of the program activities and consequences of giving or withholding consent,
- Be complete, covering the spectrum of potential social, financial, political, cultural, environmental impacts, including scientific information with access to original sources in appropriate language,
- Be delivered in a manner that strengthens and does not erode indigenous or local cultures,
- Be delivered by culturally appropriate personnel, in culturally appropriate locations, and include capacity building of indigenous or local trainers,
- Be delivered with sufficient time to be understood and verified,
- Reach the most remote, rural communities, women and the marginalized, and
- Be provided on an ongoing and continuous basis throughout the FPIC process.

Consent refers to the collective decision made by the rights-holders and reached through the customary decision-making processes of the affected peoples or communities. Consent must be sought and granted or withheld according to the unique formal or informal political-administrative dynamic of each community. Consent is:

- A freely given decision that may be a “yes” or “no,” including the option to reconsider if the proposed activities change or if new information relevant to the proposed activities emerges,
- A collective decision determined by the affected peoples (e.g. consensus, majority, etc.) in accordance with their own customs and traditions,
- The expression of rights (to self-determination, lands, resources and territories, culture), and
- Given or withheld in phases, over specific periods of time for distinct stages or phases of REDD+. It is not a one-off process.

While the objective of consultation processes shall be to reach an agreement (consent) between the relevant parties, this does not mean that all FPIC processes will lead to the consent of and approval by the rights-holders in question. At the core of FPIC is the right of the peoples concerned to choose to engage, negotiate and decide to grant or withhold consent, as well as the acknowledgement that under certain circumstances, it must be accepted that the project will not proceed and/or that engagement must be ceased if the affected peoples decide that they do not want to commence or continue with negotiations or if they decide to withhold their consent to the project.

APPENDIX 3: Characteristics of good control sites

Adopted from Annex 1: Instructions for Village Appraisal Form, CIFOR's Technical Guidelines for Research on REDD+ Project Sites

- No foreseeable possibility to become an impact site
- Are outside the project boundaries and do not receive any possible impact from the intervention (to avoid leakage/spillover effects) but are close enough to the intervention site so that the following characteristics are as similar as possible:
 - Biophysical characteristics (e.g. extent of forest cover in and around village, altitude, ecosystems/biodiversity)
 - Demographic profiles (e.g. population size, household size, ethnicity, education, income level, health condition)
 - Main livelihood profiles

- Types of land and forest use (e.g. high forest dependence), related stressors and drivers (e.g. type of deforestation pressures and rate)
- Forest management (e.g. forest tenure arrangements) and governance systems (e.g. Rules and regulations, and their level of enforcement)
- Infrastructure (distance to main road, types of fuel, electricity, piped water, means of transportation and communication) and proximity to markets (e.g., or main transportation hub, where river transport is more significant)
- Institutional characteristics and network (e.g. forest conservation NGO presence, number of active community groups)
- Types and level of natural shocks (e.g. flood, forest fire)
- Status of conservation projects

The two steps commonly used to identify matched control households are:

1. Using data from secondary sources and key informants, identify control villages that are similar to intervention villages (by coarse hand matching or statistical matching), and
2. After conducting household surveys in those villages, use statistical matching to identify the subset of households interviewed who are best matched to the households interviewed in the impact villages.

Appendix 4: Ethical principles for studies with human subjects

Scientific research has produced substantial social benefits. It has also posed some troubling ethical questions. In response, three principles - or general prescriptive judgments – have emerged that are relevant to research involving human subjects are identified in this statement.

Below is a review of the three basic ethical principles and how these are allied, summarized from the US Government Department of Health and Human Services Belmont Report, <http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html>

Belmont Report Overview

Basic Ethical Principles

Three basic principles, among those generally accepted in our cultural tradition, are particularly relevant to the ethics of research involving human subjects: the principles of respect of persons, beneficence and justice.

- 1. Respect for Persons** - Respect for persons incorporates at least two ethical convictions: first, that individuals should be treated as autonomous agents, and second, that persons with diminished autonomy are entitled to protection. In most cases of research involving human subjects, respect for persons demands that subjects enter into the research voluntarily and with adequate information.
- 2. Beneficence** - Persons are treated in an ethical manner not only by respecting their decisions and protecting them from harm, but also by making efforts to secure their well-being. Such treatment falls under the principle of beneficence. Two general rules have been formulated as complementary expressions of beneficent actions in this sense: Research involving human subjects should (1) do not harm and (2) maximize possible benefits and minimize possible harms.

An example is found in research involving children. Effective ways of treating childhood diseases and fostering healthy development are benefits that serve to justify research involving children -- even when individual research subjects are not direct beneficiaries.

- 3. Justice** - Who ought to receive the benefits of research and bear its burdens? This is a question of justice, in the sense of “fairness in distribution” or “what is deserved.” An injustice occurs when some benefit to which a person is entitled is denied without good reason or when some burden is imposed unduly. Another way of conceiving the principle of justice is that equals ought to be treated equally.

For example, the selection of research subjects needs to be scrutinized in order to determine whether some classes (e.g., welfare patients, particular racial and ethnic minorities, or persons confined to institutions) are being systematically selected simply because of their easy availability, their compromised position, or their manipulability, rather than for reasons directly related to the problem being studied.

Applications

Applications of the general principles to the conduct of research leads to the following requirements: informed consent, risk/benefit assessment, and the selection of subjects of research.

1. **Informed Consent** - Respect for persons requires that subjects, to the degree that they are capable, be given the opportunity to choose what shall or shall not happen to them. There is widespread agreement that the consent process can be analyzed as containing three elements: information, comprehension and voluntariness.

Information. Most codes of research establish specific items for disclosure intended to assure that subjects are given sufficient information. These items generally include: the research procedure, their purposes, risks and anticipated benefits, alternative procedures (where therapy is involved), and a statement offering the subject the opportunity to ask questions and to withdraw at any time from the research.

Comprehension. The manner and context in which information is conveyed is as important as the information itself. For example, presenting information in a disorganized and rapid fashion, allowing too little time for consideration or curtailing opportunities for questioning, all may adversely affect a subject's ability to make an informed choice. It is necessary to adapt the presentation of the information to the subject's cultural and intellectual context.

Voluntariness. An agreement to participate in research constitutes a valid consent only if voluntarily given. This element of informed consent requires conditions free of coercion and undue influence. Coercion occurs when an overt threat of harm is intentionally presented by one person to another in order to obtain compliance. Undue influence, by contrast, occurs through an offer of an excessive, unwarranted, inappropriate or improper reward or other overture in order to obtain compliance.

2. **Assessment of Risks and Benefits** - The assessment of risks and benefits requires a careful array of relevant data, including, in some cases, alternative ways of obtaining the benefits sought in the research. For the investigator, it is a means to examine whether the proposed research is properly designed. For a review committee, it is a method for determining whether the risks that will be presented to subjects are justified. For prospective subjects, the assessment will assist the determination whether or not to participate.

The Nature and Scope of Risks and Benefits. The requirement that research be justified on the basis of a favorable risk/benefit assessment bears a close relation to the principle of beneficence. Risk/benefit assessments are concerned with the probabilities and magnitudes of possible harm and anticipated benefits. Many kinds of possible harms and benefits need to be taken into account. There are, for example, risks of psychological harm, physical harm, legal harm, social harm and economic harm and the corresponding benefits. Risks and benefits of research may affect the individual subjects, the families of the individual subjects, and society at large (or special groups of subjects in society). Beneficence thus requires that we protect against risk of harm to subjects and also that we be concerned about the loss of the substantial benefits that might be gained from research.

The Systematic Assessment of Risks and Benefits. It is commonly said that benefits and risks must be "balanced" and shown to be "in a favorable ratio."

Assessment of the justifiability of research should reflect at least the following considerations: (i) Brutal or inhumane treatment of human subjects is never morally justified. (ii) Risks should be reduced to those necessary to achieve the research objective. It should be determined

whether it is in fact necessary to use human subjects at all. Risk can perhaps never be entirely eliminated, but it can often be reduced by careful attention to alternative procedures. (iii) When research involves significant risk of serious impairment, review committees should be extraordinarily insistent on the justification of the risk. (iv) When vulnerable populations are involved in research, the appropriateness of involving them should itself be demonstrated. A number of variables go into such judgments, including the nature and degree of risk, the condition of the particular population involved, and the nature and level of the anticipated benefits. (v) Relevant risks and benefits must be thoroughly arrayed in documents and procedures used in the informed consent process.

- 3. Selection of Subjects** - The principle of justice gives rise to moral requirements that there be fair procedures and outcomes in the selection of research subjects.

Individual justice in the selection of subjects would require that researchers exhibit fairness: thus, they should not offer potentially beneficial research only to some patients who are in their favor or select only “undesirable” persons for risky research.

Social justice requires that distinction be drawn between classes of subjects that ought, and ought not, to participate in any particular kind of research, based on the ability of members of that class to bear burdens and on the appropriateness of placing further burdens on already burdened persons. Thus, it can be considered a matter of social justice that there is an order of preference in the selection of classes of subjects (e.g., adults before children) and that some classes of potential subjects (e.g., the institutionalized mentally infirm or prisoners) may be involved as research subjects, if at all, only on certain conditions.

Human Subject Research Standard Operating Policies (SOPs)

Most organizations have SOPs for undertaking research involving human subjects. Researchers should adhere to the SOPs of their host organization or donor agency. For staff of the Nature Conservancy, if doing surveys, interviews, focus groups, observation of public behavior or collecting existing personal data, documents or records, you need to have the planned work checked by the Chief Scientist’s office at the Conservancy.

Since September 2013, the Conservancy has had an SOP on Human Subject Research. This is a safeguard for your work and for the organization.

The review process involves filling out several forms and submitting them to the Chief Scientist’s delegated reviewer. It usually takes 48 hours or less to complete the review.

The forms and the details on the SOP can be found here:

<https://connect.tnc.org/Departments/CentralScience/Pages/Human-Subjects-Research.aspx>

An FAQ about the Human Subject Research SOP can be found here:

https://connect.tnc.org/Departments/CentralScience/_layouts/WordViewer.aspx?id=/Departments/CentralScience/Documents/SOP%20FAQs_FINAL.docx&Source=https%3a//connect.tnc.org/Departments/CentralScience/Documents/Forms/AllItems.aspx&DefaultItemOpen=1&DefaultItemOpen=1

An inadequate free, prior, informed consent clause is the most common issue found in the reviews. For an example of an adequate one, see the link here:

<https://connect.tnc.org/Departments/CentralScience/Documents/FPIC%20survey%20statement%20example.docx>

For questions on any of this, email Craig Leisher in Central Science (cleisher@tnc.org).

Figure 3.1: BFCP conceptual model

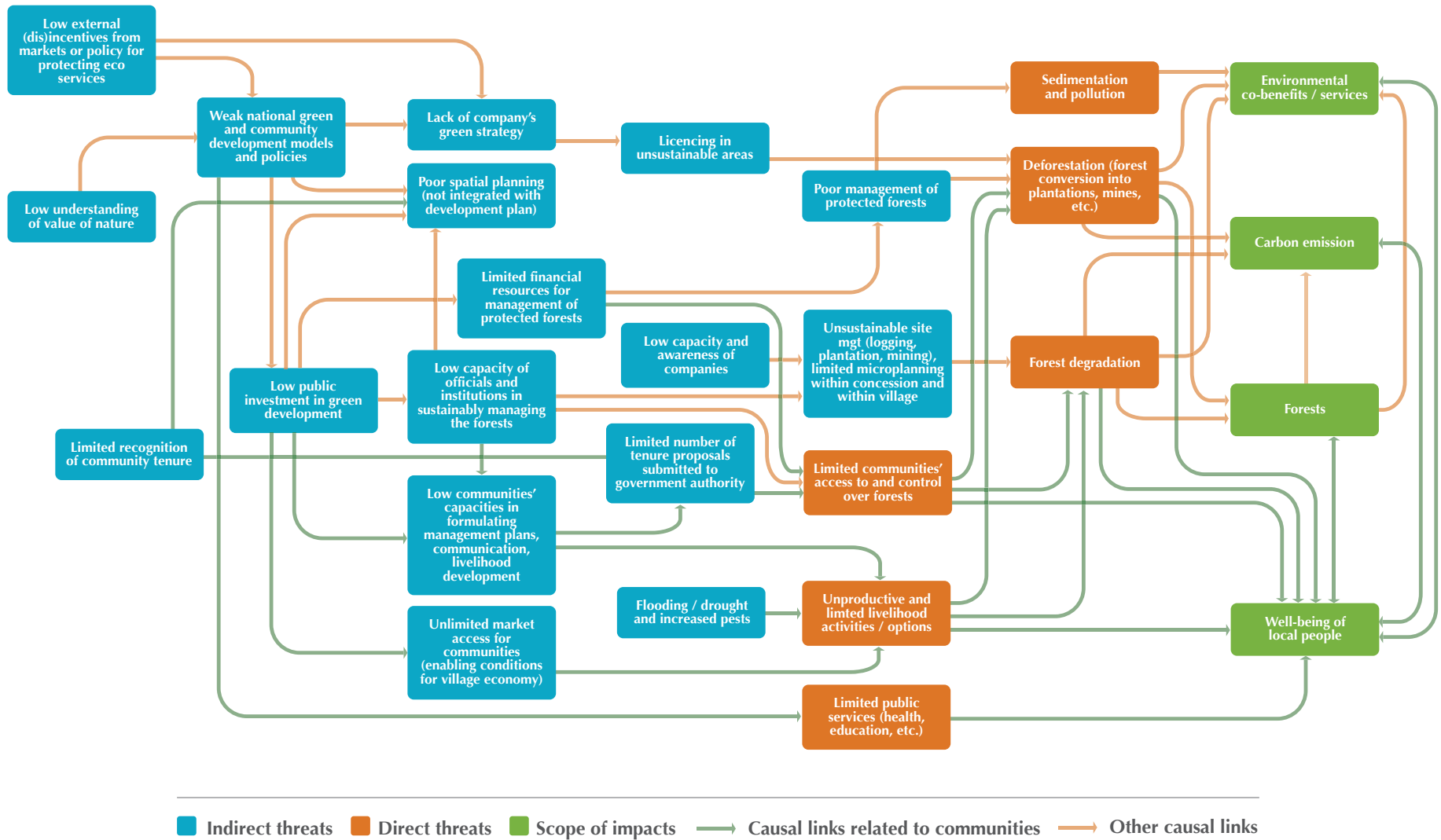


Figure 4.2: Sub-section of BFCP conceptual model

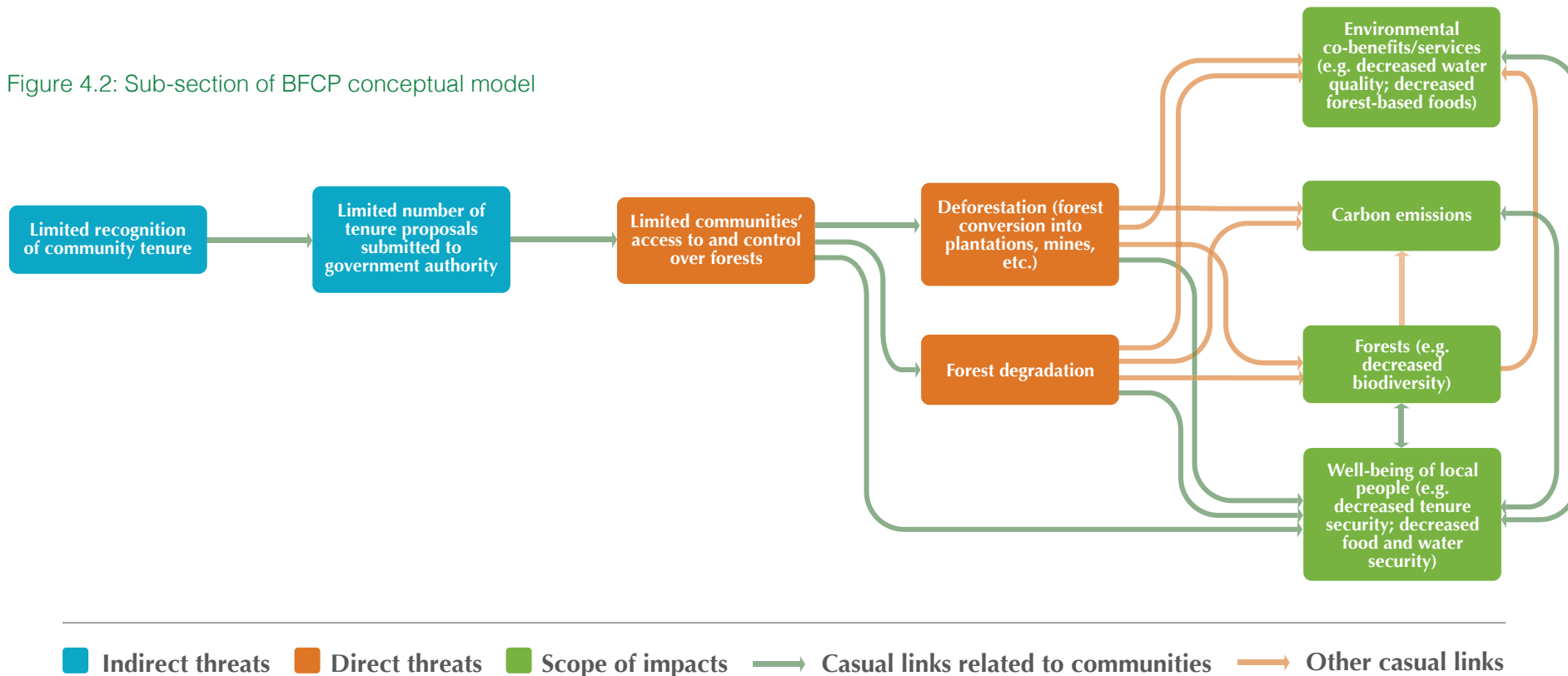
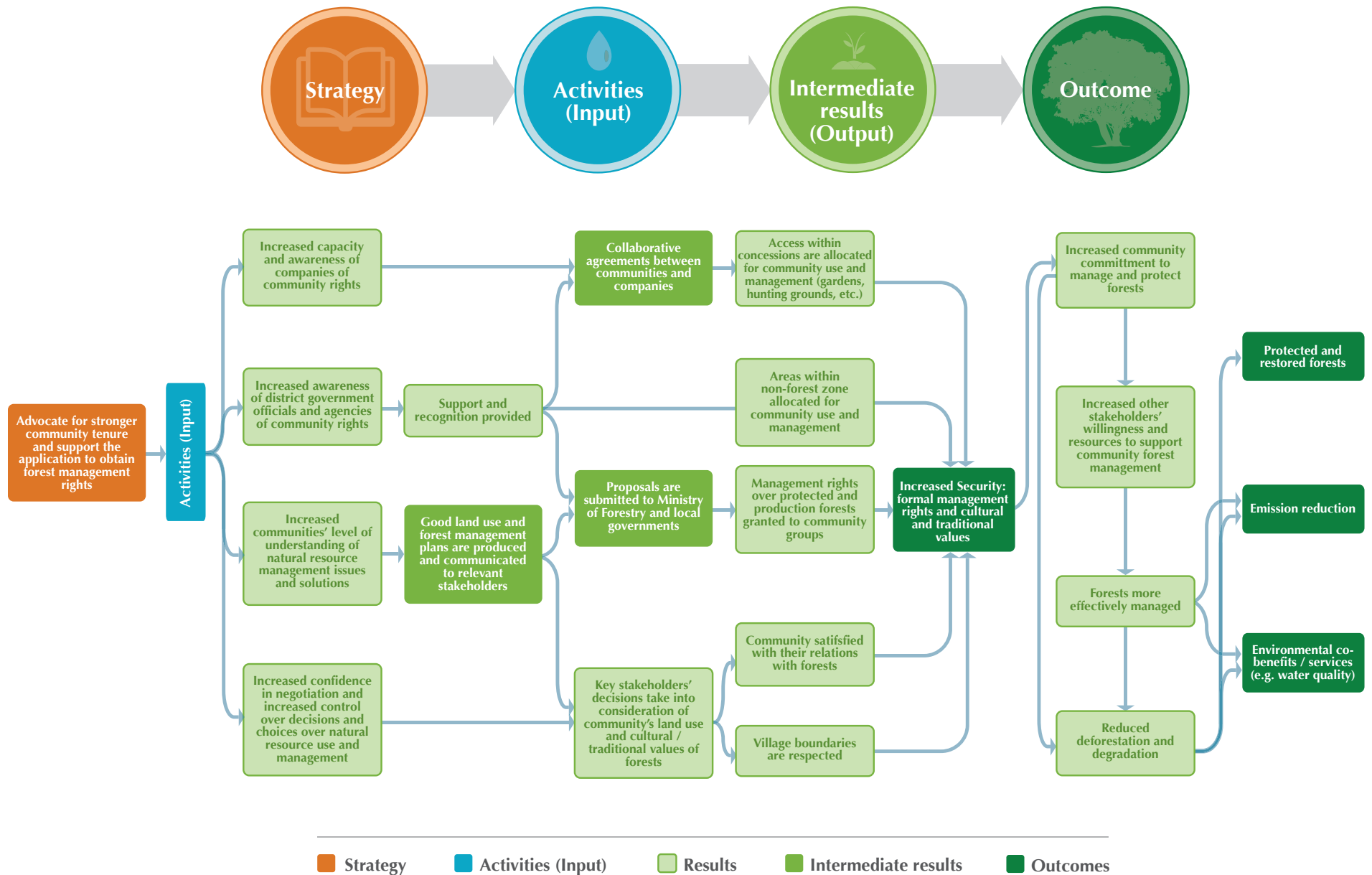


Figure 4.5: A theory of change by BFCP for a community forest management rights strategy





REFERENCES

Additional On-Line Resources

Resources Group 1: Social safeguards and Rights-based approaches

The Climate, Community & Biodiversity Alliance (CCBA) and CARE International. "REDD+ Social and Environmental Standards Version 2" (10 September 2012). REDD+ Social and Environmental Standards (REDD+SES), 2012. http://redd-standards.org/files/REDDSES_Version_2/REDDSES_Version_2_-_10_September_2012.pdf.

Conservation International. "Indigenous Peoples and Conservation – from Rights to Resource Management. Conservation International." http://www.conservation.org/publications/Pages/indigenous_peoples_and_conservation_rights_resource_management.aspx.

Daviet, F. and G. Larsen. "Safeguarding Forests and People: A Framework for Designing a National System to Implement REDD+ Safeguard." Washington DC: WRI, 2012. http://www.wri.org/sites/default/files/pdf/safeguarding_forests_and_people.pdf.

Forest Carbon Partnership Facilities (FCPF). "Forest Carbon Partnership Facility (FCPF) Readiness Fund: Common Approach to Environmental and Social Safeguards for Multiple Delivery Partners." FCPF, 2010. http://www.forestcarbonpartnership.org/sites/forestcarbonpartnership.org/files/Documents/PDF/Nov2011/FCPF%20Readiness%20Fund%20Common%20Approach%20_Final_%2010-Aug-2011_Revised.pdf.

Greiber, Thomas, Melinda Janki, Marcos Orellana, Annalisa Saversi, and Dinah Shelton. "Conservation with Justice: A Rights-based Approach." Gland, Switzerland: IUCN, 2009. <https://portals.iucn.org/library/efiles/edocs/EPLP-071.pdf>.

Murphy, Deborah. "Safeguards and Multiple Benefits in a REDD+ Mechanism." Manitoba, Canada: International Institute for Sustainable Development, 2011. http://www.iisd.org/pdf/2011/redd_safeguards.pdf.

The World Bank. "Operational policies and bank procedures (OP/BP) of the World Bank on Indigenous Peoples (OP/BP 4.10)." The World Bank, 2005. <http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTSAFEPOL/0,,contentMDK:20543990~menuPK:1286666~pagePK:64168445~piPK:64168309~theSitePK:584435,00.html>.

Richards, M. and Panfil, S.N. "Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects: Part 1 – Core Guidance for Project Proponents (SBIA Stage 1: Starting Conditions Study and Stakeholder Identification)." Washington, DC: Climate, Community & Biodiversity Alliance, Forest Trends, Fauna & Flora International, and Rainforest Alliance, 2011. http://www.forest-trends.org/documents/files/doc_2981.pdf.

Svadlenak-Gomez, Karin. "Integrating Human Rights in Conservation Programming." Bronx, NY: Human Rights and Conservation, 2007. http://s3.amazonaws.com/WCSResources/file_20110518_073559_Report_HumanRightsAndConservation_ZJFsnd.pdf.

UN-REDD Programme. "UN-REDD Programme Social and Environmental Principles and Criteria." UN-REDD Programme, 2012. http://www.un-redd.org/multiple_benefits_sepc/tabid/54130/default.aspx.

United Nations. "Resource Kit on Indigenous Peoples Issues." United Nations, New York: Department of Economic and Social Affairs, 2008. http://www.undg.org/docs/10162/resource_kit_indigenous_2008.pdf.

Ethical principles for studies with human subjects

Australia Government. "Human Research Ethics." National Health and Medical Research Council, 2009. <http://www.nhmrc.gov.au/health-ethics/human-research-ethics>.

Anderson, Patrick. "Free, Prior, and Informed Consent in REDD+: Principles and Approaches for Policy and Project Development." Bangkok, Thailand: RECOFTC, IGES and Norad, 2011. http://www.recoftc.org/site/uploads/content/pdf/FPICinREDDManual_127.pdf.

National Institute of Health (NIH). *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. Office of Human Subject Research, 1979. <http://ohsr.od.nih.gov/guidelines/belmont.html>.

U.S. Department of Health and Human Services (HHS), Public Health Services. "Guidelines for the Conduct of Research Involving Human Subjects at the National Institutes of Health." National Institutes of Health, 2004. <http://ohsr.od.nih.gov/guidelines/GrayBooklet82404.pdf>.

Resources Group 2: Tools for engaging stakeholders

Conservation International. "Guidelines for applying Free, Prior and Informed Consent: A Manual for Conservation International." Arlington, VA: Conservation International, 2013. http://www.conservation.org/SiteCollectionDocuments/CI_FPIC-Guidelines-English.pdf.

Edmunds, David and Eva Wollenber. "A Strategic Approach to Multi stakeholder Negotiations." *Development and Change* 23: 231-253. CIFOR, 2001. <http://www.cifor.org/online-library/browse/view-publication/publication/818.html>.

National Audubon Society. "Tools of Engagement: A Toolkit for Engaging People in Conservation." National Audubon Society, 2011. <http://web4.audubon.org/educate/toolkit/>.

UN-REDD Programme. "Guidelines on Free, Prior and Informed Consent." UN-REDD Programme, 2013. http://www.un-redd.org/Launch_of_FPIC_Guidelines/tabid/105976/Default.aspx.

UN-REDD Programme. "Guidelines on Stakeholder Engagement in REDD+ Readiness with a Focus on the Participation of Indigenous Peoples and Other Forest-Dependent Communities." UN-REDD Programme, 2012. [https://www.forestcarbonpartnership.org/sites/fcp/files/2013/May2013/Guidelines%20on%20Stakeholder%20Engagement%20April%2020,%202012%20\(revision%20of%20March%2025th%20version\).pdf](https://www.forestcarbonpartnership.org/sites/fcp/files/2013/May2013/Guidelines%20on%20Stakeholder%20Engagement%20April%2020,%202012%20(revision%20of%20March%2025th%20version).pdf).

Wollenberg, Eva. Jon Anderson and Citlalli López. *Though all things differ: pluralism as a basis for cooperation in forests*. Bogor, Indonesia: CIFOR, 2005. http://www.cifor.org/publications/pdf_files/Books/BWollenberg0501.pdf.

Resources Group 3: Situation and stakeholder analysis

Colfer, C.J.P., Brocklesby, M.A., Diaw, C., Etuge, P., Günter, M., Harwell, E., McDougall, C., Porro, N.M., Porro, R., Prabhu, R., Salim, A., Sardjono, M.A., Tchikangwa, B., Tiani, A.M., Wadley, R.L., Woelfel, J. and Wollenberg, E. "The BAG (Basic Assessment Guide for Human Well-Being), The Criteria & Indicators Toolbox Series" Tool No.5, Part A: Stakeholder Identification." Center for International Forestry Research Jakarta, Indonesia: CIFOR, 1999. http://www.cifor.org/livesinforests/publications/pdf_files/toolbox-5c.pdf.

Foundations of Success. "Using Conceptual Models to Document a Situation Analysis, an FOS How-to Guide." Foundations of Success, 2009. <http://www.fosonline.org/resource/using-conceptual-models-to-document-situation-analysis>.

Golder Bronwen and Meg Gawler. "Cross-Cutting Tool, Stakeholder Analysis, Resources for Implementing the WWF Standards." WWF, 2005. http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCoQFjAA&url=http%3A%2F%2Fwww.panda.org%2Fstandards%2F1_1_stakeholder_analysis%2F&ei=TvcoU7jfBsLxoASYk4CQCQ&usq=AFqjCNGN-OSi2XqAe1oxStjGLZERzI6THQ&sig2=JulLoQQGSK_99x1V92Yzrg&bvm=bv.62922401,d.cGU.

Richards, M. and Panfil, S.N. "Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects: Part 1 – Core Guidance for Project Proponents (SBIA Stage 1: Starting Conditions Study and Stakeholder Identification)." Version 2. Washington, DC :Climate, Community & Biodiversity Alliance, Forest Trends, Fauna & Flora International, and Rainforest Alliance, 2011. http://www.forest-trends.org/documents/files/doc_2981.pdf.

- Richards, M. "Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects: Part 2 – Social Impact Assessment Toolbox, Chapter 4: Stakeholder Analysis." Washington, DC: Climate, Community & Biodiversity Alliance and Forest Trends with Rainforest Alliance and Fauna & Flora International, 2011. http://www.forest-trends.org/documents/files/doc_2997.pdf.
- TNC. "Conservation Action Planning Handbook. Guidance for Step 5: Complete Situation Analysis." Arlington: TNC, 2007. <http://www.conservationgateway.org/Files/Pages/action-planning-cap-handb.aspx>.
- TNC. "Conservation Business Planning Guidance. Assess: Conservation Situation." Arlington, VA: TNC, 2013. <https://connect.tnc.org/sites/ConservationPlanning> and <https://www.conservationgateway.org/ConservationPlanning/BusinessPlanning/Pages/cbp.aspx>.
- UN-REDD Program. "Guidelines on Stakeholder Engagement in REDD+ Readiness with a Focus on the Participation of Indigenous Peoples and Other Forest-Dependent Communities." UN-REDD, 2012. [https://www.forestcarbonpartnership.org/sites/fcp/files/2013/May2013/Guidelines%20on%20Stakeholder%20Engagement%20April%2020,%202012%20\(revision%20of%20March%2025th%20version\).pdf](https://www.forestcarbonpartnership.org/sites/fcp/files/2013/May2013/Guidelines%20on%20Stakeholder%20Engagement%20April%2020,%202012%20(revision%20of%20March%2025th%20version).pdf).
- IUCN. "Situation analysis: An Approach and Method for Analyzing the Context of Projects and Programme." IUCN, http://cmsdata.iucn.org/downloads/approach_and_method.pdf.

Resources Group 4: Indicators

- Church, Cheyanne, Mark Rogers. "Designing for Results: Integrating Monitoring and Evaluation in Conflict Transformation Programs: Chapter 4: Indicators." Washington DC: Search for Common Ground: Washington DC, 2006. <http://www.sfcg.org/Documents/manualintro.pdf>.
- Kusek, Jody Zall and Ray C. Rist. *Ten steps to a results-based monitoring and evaluation system: a handbook for development practitioners*. Washington DC: International Bank for Reconstruction and Development / The World Bank, 2004. <https://openknowledge.worldbank.org/bitstream/handle/10986/14926/296720PAPER0100steps.pdf?sequence=1>.
- Prabhu, R., Colfer, C.J.P. and Dudley, R.G. *Guidelines for Developing, Testing and Selecting Criteria and Indicators for Sustainable Forest Management*. Jakarta, Indonesia: CIFOR, 1999. http://ciifad.cornell.edu/downloads/ME_CIFORtoolbox.pdf.
- Sustainable Forest Management Indicator Knowledge Base. Indicator Category 6: Maintenance and enhancement of socioeconomic benefits, Indicator Category 7: Cultural, Social, Spiritual needs and values, Indicator Category 8: Legal, institutional and economic framework.

Resources Group 5: Impact evaluation

- Bamberger, M., J. Rugh, M. Church, L. Fort. "Shoestring evaluation: Designing impact evaluations under budget, time, and data constraints." *American Journal of Evaluation* 25(1): 5-37, 2004. <http://aje.sagepub.com/content/25/1/5.full.pdf+html>.
- Gertler, P.J., S. Martinez, P. Premand, L.B. Rawlings, C.M.J. Vermeersch. *Impact Evaluation in Practice*. Washington DC: The World Bank, 2011. <https://openknowledge.worldbank.org/bitstream/handle/10986/2550/599980PUB0ID181BLIC1009780821385418.pdf?sequence=1>.
- Jagger, P., E.O. Sills, K. Lawlor, W.D. Sunderlin. *A guide to learning about livelihood impacts of REDD+ projects*. Occasional paper 56. Bogor, Indonesia: CIFOR, 2010. http://www.cifor.org/publications/pdf_files/WPapers/WP56Jagger.pdf.
- Khandker, S.H., G.B. Koolwal, and H.A. Samad. "Handbook on Impact Evaluation: Quantitative Methods and Practices." Washington, D.C: The World Bank, 2010. <https://openknowledge.worldbank.org/bitstream/handle/10986/2693/520990PUB0EPI1101Official0Use0Only1.pdf?sequence=1>.

- Lawlor, K. "Methods for Assessing and Evaluating Social Impacts of Program-Level REDD+." Report for USAID. Forest Carbon, Markets and Communities (FCMC) Program. Arlington, Virginia: TetraTech, 2013. http://www.fcmcglobal.org/documents/LISA_REDD_Methods_Review.pdf.
- Leeuw, F. and Vaessen, J. "Impact evaluations and development: NONIE guidance on impact evaluation." Washington, DC: The World Bank, 2009. http://siteresources.worldbank.org/EXTOED/Resources/nonie_guidance.pdf.
- Richards, M. & Panfil, S.N. "Manual for Social Impact Assessment of Land-Based Carbon Projects." Version 1. Washington, DC: Forest Trends, Climate, Community & Biodiversity Alliance, Rainforest Alliance and Fauna & Flora International, 2010. http://www.forest-trends.org/documents/files/doc_2437.pdf.

Resources Group 6: Data collecting methods

- Beckett, Megan, J. DaVanzo, N, Sastry, C. Panis, C. Peterson. "The quality of retrospective data: An examination of long-term recall in a developing country." Arlington, VA: *The Journal of Human Resources*, Rand, 2001. <http://www.rand.org/content/dam/rand/pubs/reprints/2008/RP956.pdf>.
- Catley, A., J. Burns, D. Adebé, O. Suji. "Participatory impact assessment: A guide for practitioners." Tufts University, Medford, Massachusetts: Feinstein International Center, 2007. http://reliefweb.int/sites/reliefweb.int/files/resources/DF552E1C45A24AFCC12574F600509CDA-Tufts_Oct2008.pdf.
- Chambers, Robert. *Participatory Rural Appraisal: Past, Present and Future*. Forests, Trees and People Newsletter.UK: Institute of Development Studies, (15/16): pp. 4-9, 1992. <http://opendocs.ids.ac.uk/opendocs/handle/123456789/80#.U7GiR5RdVXE>.
- Chambers, R. & Mayoux, L. *Reversing the paradigm: quantification, participatory methods and pro-poor impact assessment*. *Journal of International Development*, 17, pp. 271–298, 2005. <http://onlinelibrary.wiley.com/doi/10.1002/jid.1214/abstract>.
- Creswell, J. *Research design: quantitative, qualitative and mixed methods approaches*. Los Angeles, CA: Sage Publications, 2009.
- Denzin, N. and Y.S. Lincoln. *The SAGE handbook of qualitative research*. Los Angeles, CA: Sage Publications, 2005.
- Family Health International. "Qualitative Research Methods: A Data Collector's Field Guide." Family Health International, 2005. <http://www.ccs.neu.edu/course/is4800sp12/resources/qualmethods.pdf>.
- FAO (Food and Agriculture Organization of The United Nations). "Participatory Rural Appraisal (PRA) Manual" FAO: 2006. http://www.fao.org/alc/file/media/pubs/2006/pr_manual.pdf.
- Jackson, W.J and A.W. Ingles. *Participatory Techniques for Community Forestry: A Field Manual*, IUCN, Gland, Switzerland and Cambridge. Gland, Switzerland: UK and World Wildlife Fund for Nature, 1998.
- Messerschmidt, D.A. *Rapid Rural Appraisal for Community Forestry*. London: IIED, 1995.
- Montambault, J.R and C. Groves. "Making Monitoring work for conservation: Lessons from the Nature Conservancy." *Biodiversity Monitoring in Australia*, 2012.
- PROFOR. "Poverty-Forests Linkages Toolkit, Program on Forests (PROFOR)." Washington DC: World Bank, 2010. <http://www.profor.info/knowledge/poverty-forests-linkages-toolkit>.
- Rea Louis M. and R.A. Parker. *Designing and conducting survey research: A comprehensive guide*. San Francisco: Jossey-Bass, CA, 2005.
- Richards, M. "Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects: Part 2 – Social Impact Assessment Toolbox, Chapter 7: Participatory Impact Assessment (PIA)." Washington, DC: Climate, Community & Biodiversity Alliance and Forest Trends with Rainforest Alliance and Fauna & Flora International, 2011. https://s3.amazonaws.com/CCBA/SBIA_Manual/SBIA_Part_2.pdf.

- Schoonmaker Freudenberger, Karen. "Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA). A manual for CRS (Catholic Relief Services) Field Workers and Partners." Baltimore, MA: Catholic Relief Services. <http://www.crsprogramquality.org/storage/pubs/me/RRAPRA.pdf>.
- Schreckenber, K. et. al. *Social assessment of conservation initiatives: A review of rapid methodologies*. London: International Institute for Environment and Development (IIED), 2010. <http://pubs.iied.org/14589IIED.html?k=social%20assessment%20of%20conservation>.
- Vermeulen, Sonja. *Power Tools: Handbook to tools and resources for policy influence in natural resource management*. London: IIED, 2005.
- Wildlife Conservation Society. "Household surveys: A tool for conservation design, action and monitoring." Technical Manual 4. Bronx, NY: Wildlife Conservation Society Living Landscapes Program, 2006. <http://wclivinglandscapes.com/landscapes/90119/bulletins/manuals.html>.
- The World Bank. 1998. "Participation and Social Assessment: Tools and Technique." Compiled by Jennifer Rietbergen-McCracken and Deepa Narayan. Washington D.C: International Bank for Reconstruction and Development, 1998.

Resources Group 7: Data Analysis

- ELM (TNC): <https://connect.tnc.org/about/learntnc/Lists/Master%20list/DispForm.aspx?ID=136>
- Microsoft: <http://office.microsoft.com/en-us/excel-help/CH010369467.aspx>

Statistics help online

- <http://onlinestatbook.com/>
- <http://www.statsref.com/>

Statistics software

- JMP <http://www.jmp.com/software/jmp10/> For TNC staff, contact tispal@tnc.org for a license
- R <http://www.r-project.org/>
- SPSS <http://www-01.ibm.com/software/analytics/spss/products/statistics/>

References

- Biedenweg, Kelly, Plummer, K., Stiles, K. and Wellman, T. "Understanding Human Wellbeing: A Framework for defining domains, attributes and indicators related to ecosystem health." *Ecology & Society* (In review).
- Borrini-Feyerabend, G. with Buchan, D. (ed.), 1997. *Beyond Fences: Seeking Social Sustainability in Conservation*. Vol. 2. IUCN, Gland, Switzerland and Cambridge, UK. v + 283 pp.
- Braus, Judy (ed.), Ady, J., Ardoin, N., Coleman, J., Ford, M., Grimm, K., Heimlich, J., Hopkins, M., Jeppesen, G., Mann, L., Merrick, C., Miller, F., Petty, B. and Slavin, Z. *Tools of Engagement: A Toolkit for Engaging People in Conservation*. National Audubon Society, 2011. <http://web4.audubon.org/educate/toolkit/pdf/the-toolkit.pdf>.
- Bunce, L., Townsley, P., Pomeroy, R. and Pollnac, R. "Socioeconomic Manual for Coral Reef Management." Townsville, Australia: Australian Institute of Marine Science, 2000.
- Case, D'Arcy Davis. "The community's toolbox: The idea, methods and tools for participatory assessment, monitoring and evaluation in community forestry." Rome: FAO, 1990. <http://www.fao.org/docrep/x5307e/x5307e00.htm>.

- CCBA. "Climate, Community & Biodiversity Standards." Third Edition. Arlington, VA: CCBA, 2013. www.climate-standards.org.
- Chhatre, Ashwini, Lakhanpal, S., Larson, A. M., Nelson, F., Ojha, H. and Rao, J. "Social safeguards and co-benefits in REDD+: a review of the adjacent possible." *Current Opinion in Environmental Sustainability* 6 (2012): 4:654–660.
- Church, Cheyanne and Mark M. Rogers. "Designing for Results: Integrating Monitoring and Evaluation in Conflict Transformation Programs." Washington, DC: Search for Common Ground, 2006. <http://www.sfcg.org/Documents/manualintro.pdf>.
- Colfer, Carol J. Pierce. "CIFOR Working Paper No. 7: Who Counts Most in Sustainable Forest Management?" Bogor, Indonesia: CIFOR, October 1995.
- Colfer, Carol J. Pierce, Prabhu, R., Günter, M., McDougall, C., Porro, N.M. and Porro, R. *Who Counts Most? Assessing Human Well-Being in Sustainable Forest Management*. Jakarta, Indonesia: CIFOR, 1999.
- Colfer, Carol J. Pierce (ed.). *The Equitable Forest: Diversity, Community, and Resource Management*, Washington, DC: RFF Press, 2005.
- Colfer, Carol J. Pierce, Brocklesby M. A., Diaw, C., Etuge, P., Günter, M., Harwell, E., McDougall, C., Miyasaka N., Porro, R., Prabhu, R., Salim, A., Sardjono, M. A., Tchikangwa, B., Tiani, A., Wadley, R., Woelfel J., and Wollenberg, E. The BAG "(Basic Assessment Guide for Human Well-Being), The Criteria & Indicators Toolbox Series, Tool No. 5". Jakarta, Indonesia: CIFOR, 1999.
- Creswell, John W. *Research Design: Quantitative, Qualitative and Mixed Methods Approaches. Fourth Ed.*, Los Angeles: Sage Publications, 2009.
- Denzin, Norman K. and Yvonna S. Lincoln. *The SAGE handbook of qualitative research*. Los Angeles: Sage Publications, 2005.
- Geist, Helmut J. and Eric F. Lambin. "Proximate causes and underlying driving forces of tropical deforestation." *Bioscience* 52 (2002): (2) 143-150.
- Gertler, Paul J., Martinez, S., Premand, P., Rawlings, L. B. and Vermeersch, C. M. J. "Impact Evaluation in Practice." Washington, DC: The International Bank for Reconstruction and Development / The World Bank, 2011.
- Golder, Bronwen and Meg Gawler. "Cross-Cutting Tool Stakeholder Analysis, Resources for Implementing the WWF Standards." WWF, October 2005.
- Kusek, Jody Zall and Ray C. Rist. "Ten steps to a results-based monitoring and evaluation system: a handbook for development practitioners." Washington D.C: The International Bank for Reconstruction and Development / The World Bank, 2011.
- Larsen, Gaia and Florence Daviet. "Safeguarding Forests and People: A Framework for Designing a National System to Implement REDD+ Safeguards." Washington, DC: World Resource Institute, November 2012.
- Lawlor, Kathleen. "Methods for Assessing and Evaluating Social Impacts of Program-Level REDD+. Report for USAID. Forest Carbon, Markets and Communities (FCMC) Program." Publication produced for review by the United States Agency for International Development by FCMC, TetraTech, 2013.
- Lawlor, Kathleen, Madeira, E. M., Blockhus, J. and Ganz, D. J. "Community Participation and Benefits in REDD+: A Review of Initial Outcomes and Lessons." *Forests* 4, (2013): (2) 296-318. doi:10.3390/f4020296.
- Leisher, Craig, Samberg, L. H., Buekering, P. V., and Sanjayan, M. "Focal Areas for Measuring the Human Well-Being Impacts of a Conservation Initiative." *Sustainability* 5 (2013): (5) 997-1010. doi:10.3390/su5030997.

- Mackenzie, Catherine. "Redd+ Social Safeguards and Standards Review Forest Carbon, Markets and Communities (FCMC) Program." Report prepared by Forest Carbon, Markets and Communities Program (FCMC), Tetra Tech, 2012.
- Mayne, John. "Contribution Analysis: An approach to exploring cause and effect." *The Institutional Learning and Change (ILAC) Brief* 16, May 2008. http://www.cgiar-ilac.org/files/publications/briefs/ILAC_Brief16_Contribution_Analysis.pdf.
- McDonald, Miriam Fleming, Arragutainaq, L. and Novalinga, Z. *Voices from the Bay: Traditional Ecological Knowledge of Inuit and Cree in the Hudson Bay Bioregion*. Ontario: Canadian Arctic Resource Committee, Environmental Committee of Municipality of Sanikiluaq, 1997.
- Merriam, Sharan B. *Qualitative Research: A Guide to Design and Implementation*. San Francisco: Jossey-Bass Inc., 2009.
- Montambault, Jensen, R. "*Measures Demystified, Module 3*." The Nature Conservancy Conservation Training Module, n.d. www.conservationtraining.org.
- Montambault, Jensen R, Craig Groves. "Making Monitoring Work for the Conservation: Lessons from the Nature Conservancy." *Biodiversity Monitoring*, 2012.
- Moss, Nicholas, Ruth Nussbaum. "A Review of Three REDD+ Safeguard Initiatives." USA, Forest Carbon Partnership Facility and UN-REDD Programme, 2011. <http://www.forestcarbonasia.org/other-publications/a-review-of-three-redd-safeguard-initiatives/>
- OECD. "Glossary of Key Terms in Evaluation and Results Based Management." France: OECD Publications, 2010. <http://www.oecd.org/development/peer-reviews/2754804.pdf>.
- Prabhu, Ravi, Carol J. P. Colfer and Richard G. Dudley. *Guidelines for Developing, Testing and Selecting Criteria and Indicators for Sustainable Forest Management*. Jakarta: CIFOR, 1999. http://ciifad.cornell.edu/downloads/ME_CIFOR_toolbox.pdf.
- Rea, Louis M. and Richard A. Parker. *Designing and conducting survey research: A comprehensive guide*. San Francisco: Jossey-Bass, 2005.
- Reed, Mark S. "Stakeholder participation for environmental management: A literature review." *Biological Conservation* 141 (2008): 2417-2431.
- Richards, Michael and Steven N. Panfil. "Manual for Social Impact Assessment of Land-Based Carbon Projects. Version 1." Washington, DC: Forest Trends, Climate, Community & Biodiversity Alliance, Rainforest Alliance and Fauna & Flora International, 2010.
- Richards, Michael and Steven Panfil. "Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects: Part 1 – Core Guidance for Project Proponents. Version 2.0." Washington, DC: Climate, Community & Biodiversity Alliance, Forest Trends, Fauna & Flora International, and Rainforest Alliance, 2011.
- Richards, Michael. "Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects: Part 2 – Social Impact Assessment Toolbox." Washington, DC: Climate, Community & Biodiversity Alliance and Forest Trends with Rainforest Alliance and Fauna & Flora International. Washington, DC, 2011.
- Sills, Erin O., Jagger, P., Lawlor, K., Miteva, D. and Pattanayak, S. K. "Building the evidence base for REDD: evaluating the livelihood impacts of forest conservation interventions." (Forthcoming).
- Smith, Lisa M., Case, J. L., Smith, H. M., Harwell, L. C. and Summers, J. K. "Relating ecosystem services to domains of human well-being: Foundation for a U.S. index." *Ecological Indicators* 28 (2013): 79–90.
- Stephanson, S. and M. Mascia. "Measuring Social Well-Being: An approach to spatially assess the social context for large-scale conservation planning and action." Washington, DC: World Wildlife Fund, 2009.

- Sunderlin, William D., Larson, A. M., Duchelle, A., Sills, E. O., Luttrell, C., Jagger, P., Pattanayak, S., Cronkleton, P. and Ekaputri, A. D. "Technical guidelines for research on REDD+ project sites." Bogor, Indonesia: CIFOR, 2010.
- Svadlenak-Gomez, Karin. "Integrating Human Rights in Conservation Programming." *TransLinks, Rights and Conservation*, (2007). http://s3.amazonaws.com/WCSResources/file_20110518_073559_Report_Human-RightsAndConservation_ZJFsnd.pdf.
- Taplin, Dana H. *Facilitator's Source Book: Source Book for Facilitators Leading Theory of Change Development Sessions*. New York: ActKnowledge, 2012.
- The Nature Conservancy (TNC). "Conservation Action Planning Handbook: Developing Strategies, Taking Action and Measuring Success at Any Scale." Arlington: TNC, 2007. <https://www.conservationgateway.org/ConservationPlanning/ActionPlanning/Pages/conservation-action-plann.aspx>
- TNC. "Conservation Business Planning Guidance, Assess: Conservation Situation." Arlington: TNC, 2013. <https://www.conservationgateway.org/ConservationPlanning/BusinessPlanning/Pages/cbp.aspx>
- UN-REDD Program. "Guidelines on Stakeholder Engagement in REDD+ Readiness with a Focus on the Participation of Indigenous Peoples and Other Forest-Dependent Communities." FCPF, 2012.
- Vogel, Isabel. "Review of the use of 'Theory of Change' in International Development." London: Review Report Commissioned by the UK Department of International Development, 2012. http://www.oxfamblogs.org/fp2p/wp-content/uploads/DFID-ToC-Review_VogelV4.pdf.
- Watson, Alan, Glaspell, B., Christensen, N., Lachapelle, P., Sahanatien, V. and Gertsch, F. "Giving Voice to Wildlands Visitors: Selecting Indicators to Protect and Sustain Experiences in the Eastern Arctic of Nunavut. *Environmental Management* (2007): 40:880–888.
- Wikipedia contributors, "Stakeholder Analysis," *Wikipedia: The Free Encyclopedia*, http://en.wikipedia.org/wiki/Stakeholder_analysis#Other_Forms_of_Stakeholder_Analysis (accessed July 16, 2013).
- Wollenberg, Eva, Anderson, J. and López, C. *Though all things differ: pluralism as a basis for cooperation in forests*. Bogor, Indonesia: CIFOR, 2005. http://www.cifor.org/publications/pdf_files/Books/BWollenberg0501.pdf.
- The World Bank. "Sustaining Forests: A Development Strategy." World Bank, Washington, D.C., 2004. <http://siteresources.worldbank.org/INTFORESTS/Resources/SustainingForests.pdf>.
- The World Bank and Oxford University. *World Development Report 2000/2001: Attacking Poverty*. New York: The World Bank and Oxford University Press, 2000. doi:10.1596/978-0-19-521129-0.
- World Resources Institute. "Assessing Access to Information, Participation, and Justice for the Environment: A Guide." Washington DC: WRI, 2003. <http://www.unpei.org/sites/default/files/PDF/awareness-raising/1-assess-access-infor-participn-justice.pdf>.
- World Resources Institute. *Ecosystems and Human Well-Being: A Framework for Assessment*. Washington, DC: Island Press, 2003.



