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# Building Forest Carbon Projects

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## Social Impacts Guidance

### *Key Assessment Issues for Forest Carbon Projects*

Michael Richards      Forest Trends

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# Building Forest Carbon Projects



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*John Pilgrim, Jonathan Ekstrom, and Johannes Ebeling*

## Acronyms

AFOLU	Agriculture, Forestry and Other Land Use
AR	Afforestation and reforestation
CCB	Climate, Community & Biodiversity [Alliance or Standards]
CDM	Clean Development Mechanism
FPIC	Free, prior, and informed consent
GHG	Greenhouse gas
IFM	Improved Forest Management
M&E	Monitoring and Evaluation
NGO	Non-governmental organization
NTFP	Non-timber forest product
PDD	Project Design Document
REDD	Reducing Emissions from Deforestation and Forest Degradation
REDD+	Reducing Emissions from Deforestation and Forest Degradation, conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks
SIA	Social Impact Assessment
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard

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# 1. Introduction

As the main emphasis in the early years of forest carbon projects has been on ensuring and demonstrating the integrity of carbon benefits, social and biodiversity “co-benefits” have received much less attention. But the balance is changing, and demands for co-benefits to be, like carbon, real, additional, and measurable have increased. One example of this can be found in the explicit inclusion of social safeguards in the recent decision on REDD+ at the 2010 United Nations Framework Convention on Climate Change (UNFCCC) meeting in Cancun.<sup>1</sup> Another indication is a recent remark by a prominent auditor of multiple-benefit carbon projects that, “Getting the social methodology right is just as important as getting the carbon methodology right.”<sup>2</sup>

Social and biodiversity co-benefits attract many offset buyers to forest carbon projects (see Business Guidance). However, in order to successfully market “multiple-benefit carbon” and hopefully obtain a premium price, project proponents<sup>3</sup> need to be able to meet a set of standards designed to ensure market confidence and project integrity. Most prominent among the multiple-benefit standards are the Climate, Community & Biodiversity (CCB) Standards. For voluntary carbon market buyers and forest carbon investors, the preferred combination that has evolved is CCB and Verified Carbon Standard (VCS) co-validation.

This chapter outlines an approach to ensuring and demonstrating positive social or community impacts of forest carbon projects, while the Biodiversity Impacts Guidance considers biodiversity impacts. Much of this chapter is concerned with how project proponents should design a credible social impact monitoring system and generate evidence of net-positive social impacts to present to external auditors at regular intervals.

A review of SIA methods by Forest Trends identified some useful social monitoring and evaluation (M&E) manuals, most of them advocating participatory methods, but found that there was no clear roadmap for forest carbon project proponents (Richards 2008). Further analysis of current practice in forest carbon projects has revealed that many projects seem unaware or uncertain about what constitutes a credible SIA methodology. This may be partly due to an understandable reluctance to increase transaction costs, but it is also due to a lack of accessible and focused guidance. The latter therefore appears to be a key constraint to the wider adoption of multiple-benefit carbon standards and is addressed by this guidance chapter.

This chapter draws on and distills a more detailed effort by four organizations—Forest Trends, the Climate, Community & Biodiversity Alliance, Rainforest Alliance, and Fauna & Flora International—to provide SIA guidance for forest carbon project developers: Version 1.0 of the *Manual for Social Impact Assessment of Land-Based Carbon Projects*. Following field testing of the 2010 version, Version 2.0 will be published in 2011.

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<sup>1</sup> This states that *inter alia* REDD+ activities “should be implemented in the context of sustainable development and poverty reduction,” and it includes strong wording on the rights, knowledge and “full and effective participation” of indigenous peoples and local communities. The decision also encourages countries to develop “a system for providing information on how the safeguards ... are being addressed and respected” (“Outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action Under the Convention” 2010).

<sup>2</sup> Jeff Hayward, Rainforest Alliance.

<sup>3</sup> In this series, the term “project proponents” is used to refer to those individuals or organizations generally responsible for the overall organization, management, and legal representation of the forest carbon project. “Project developers,” on the other hand, is used to refer specifically to entities tasked with the technical design aspects of the project as required by the carbon and/or co-benefit standard(s).

This chapter is structured around six themes:

- Definitions of “social impacts” and “SIA”;
- SIA requirements of the CCB Standards;
- Key challenges to measuring social impacts;
- The seven stages proposed in the SIA Manual: starting conditions study, social reference scenario, project design and theory of change, negative social impacts and mitigation measures, identification of indicators, developing the community monitoring plan, and data analysis, reporting, and stakeholder verification;
- Cost-effectiveness; and
- Principles of good practice.

Throughout the chapter, key concepts are introduced and discussed with reference to the CCB Standards. However, the benefits of good practice SIA are not confined to achieving CCB (or other standard) validation or providing market accountability. Good practice SIA results in vital information for improved project design by identifying the best

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*Improved project design through analysis and consultations with local communities carried out for SIA can greatly increase the effectiveness of deforestation reduction strategies.*

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combination of activities and outputs for promoting social benefits and encouraging adaptive project management (this is also mentioned in the CCB Standards). SIA should also increase stakeholder involvement and improve understanding and relationships between project proponents and stakeholders.

Above all good practice SIA should strengthen the social sustainability of the project and thereby reduce the risks to carbon permanence and leakage. For example, the ability to successfully reduce deforestation or sustain newly planted forests depends significantly on positive relationships with local people, and the perceived real benefits by the latter. Improved project design

through SIA should reduce the carbon risks. The importance of this interconnection is reflected in the 2011 Voluntary Carbon Standard (VCS) procedures for conducting non-permanence risk analysis of agriculture, forestry and land use (AFOLU) projects.<sup>4</sup> These require an assessment of “community engagement” - evidence of a participatory assessment of social and economic costs and benefits can, via a “mitigation credit,” result in a lower percentage of credits that need to be held back as a risk buffer.<sup>5</sup> Given the project design and risk reduction benefits described above, the SIA guidance provided here should be of interest even to project proponents who are not seeking certification under one of the multiple-benefit standards. Nevertheless, since the CCB Standards are the market leader for multiple-benefit standards, this chapter is structured around them. The guidance provided here, however, is relevant for meeting other standards such as the Clean Development Mechanism (CDM) and Plan Vivo, although these standards are less specific and demanding as regards social and biodiversity co-benefits. Box 1 provides an overview of the carbon standard resources referred to most frequently in this guidance.

Finally, although this chapter focuses on the concept of communities, it does not necessarily presuppose that forest carbon projects are implemented as community projects or that they are community-driven. However, almost all

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<sup>4</sup> VCS, “Non-Permanence Risk Tool” (2011)

<sup>5</sup> The VCS AFOLU Non-Permanence Risk Tool specifies (2011, 12): “To achieve the mitigation credit, it shall be demonstrated that a participatory assessment of the positive and negative impacts of the project activities on the local communities who derive livelihoods from the project area has been completed and demonstrates net positive benefits on the social and economic well-being of these communities. Certification against the Climate, Community & Biodiversity Standards or SOCIALCARBON Standard may be used to demonstrate that a project satisfies this mitigation requirement.”

forest carbon projects are likely to involve local people and communities at some level—as direct project participants, land or resource holders and users, employees, or neighbors (see Community Engagement Guidance).

### Box 1. CCB, CDM, and VCS Resources Frequently Referred to throughout this Guide

The following key documents of the VCS, CDM and CCBS are commonly referred to throughout the guide. Project proponents should be aware, however, that respective guidance, document templates, and policy documents are updated periodically, particularly under the VCS and CDM. Therefore, the below policy update sections should be regularly consulted. In addition, it is usually indispensable to seek specialist advice in order to be aware of and comply with any recent updates and changes.

CCBA. *Climate, Community & Biodiversity Project Design Standards Second Edition*. Arlington, VA: CCBA, 2008. Available at: <http://www.climate-standards.org/standards>.

"Decision 19/CP.9." Modalities and Procedures for Afforestation and Reforestation Project Activities under the Clean Development Mechanism in the First Commitment Period of the Kyoto Protocol. Milan: United Nations Framework Convention on Climate Change, December 2003. Available at: <http://unfccc.int/resource/docs/cop9/06a02.pdf#page=13>.

Verified Carbon Standard. *Agriculture, Forestry and Other Land Use (AFOLU) Requirements*. VCS Version 3 Requirements Document, Washington, DC: VCS, 2011. Available at: <http://v-c-s.org>.

## 2. What is Social Impact Assessment?

### 2.1 Some Definitions

A clear understanding of SIA requires clarifying what is meant by “social impacts.” As defined by OECD-DAC (2002), “impact,” in the context of development projects, is “the positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended.” *Social* impacts, however, concern a subset of the impacts that relate to a fundamental aspect of human welfare or behavior. The following is a representative definition of social impacts, drawn from the National Maritime Fisheries Organization’s (1994) SIA guidelines:

By social impacts we mean the consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society.

A more detailed definition of social impacts from the International Association of Impact Assessment (IAIA) draws on rights-based approaches (see Box 2).

## Box 2. International Association of Impact Assessment Principles for SIA

According to the IAIA, social impacts, for the purpose of SIA, can be defined as changes to one or more of the following:

- People's way of life – that is, how they live, work, play and interact with one another on a day-to-day basis;
- Their culture – that is, their shared beliefs, customs, values and language or dialect;
- Their community – its cohesion, stability, character, services and facilities;
- Their political systems – the extent to which people are able to participate in decisions that affect their lives, the level of democratization that is taking place, and the resources provided for this purpose;
- Their environment – the quality of the air and water people use; the availability and quality of the food they eat; the level of hazard or risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources;
- Their health and wellbeing – health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity;
- Their personal and property rights – particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties;
- Their fears and aspirations – their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.

*Source: IAIA (2003).*

There is a key distinction between a social impact and the process causing the social impact. For example, employment, increased household income, or even a change of livelihood (e.g., a change to bee-keeping from bushmeat hunting) as a result of a forest carbon project is not a social impact *per se* because it is not clear whether people are made better or worse off. On the other hand, an improvement in family health resulting from being able to afford a healthier diet due to honey sales would be a social impact. Similarly, a change in household income could be a project *outcome* but is not an *impact* since it does not necessarily alter human behavior: if used unwisely, for example on increased alcohol consumption, it could result in increased domestic violence: a serious, negative social impact (the vital distinction between outcomes and impacts is further explored in Section 4.4).

From this understanding of social impacts, we can construct a clear definition of SIA. IAIA (2003) defines SIA as:

The processes of analyzing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment.

There is considerable overlap between the concepts of SIA and the more widely-used Monitoring and Evaluation (M&E). The latter is a broader concept than SIA; for example, much of M&E is about improving the efficiency of internal management systems and is not confined to social issues. But they do have much in common, and a significant part of the SIA challenge is the development of a cost-effective social or community impact monitoring system.

## 2.2 Different Types of Social Impacts

As mentioned above, social impacts can be direct or indirect, intended or unintended, and positive or negative. Indirect, or secondary, impacts are the results of direct outcomes or impacts – for example, an indirect impact of an improvement in family income (direct outcome) could be children spending more time at school. Direct and intended outcomes or impacts of project activities are much easier to measure and attribute to the project (see Section 3.2), but it is also essential to track and record indirect and unintended consequences of project actions, some of which could have negative social impacts.

An important type of indirect impact is the social impact of local environmental improvements. For example, improved water quality or augmented dry season flows resulting from a forest carbon project could improve the health of downstream communities compared to the reference scenario. In a different case, AR type woodlot or agroforestry activities could act as a windbreak for farming, thereby increasing household income and improving the family diet. Clearly, some environmental or indirect benefits are more difficult to identify and to attribute to the project than others.

At times, SIA may show that forest carbon projects that generate significant carbon benefits also generate negative social and/or biodiversity impacts. Critics of AR projects, especially those involving plantations, monocultures, and exotic species (although these are less likely to be CCB-validated), often point to the possibility of this kind of trade-off. An obvious example of possible negative social impacts or outcomes under REDD+ projects is the loss of income or consumption benefits derived from pre-project livelihoods based on unsustainable land uses, such as logging or non-timber forest product (NTFP) harvesting in open-access, unmanaged resource situations.

More indirectly, some observers point to the danger of leakage resulting from negative social impacts (Gran, Porras, and Wunder 2005). For example, a large REDD+ project that restricts farming could lead to higher land or food prices. In turn, tenant or leasehold farmers facing higher rents could decide to move to another forested area with lower land prices; or, higher food prices might increase food production in neighboring areas, increasing degradation or deforestation pressures. These issues are discussed more in Section 4.4, including how mitigating such leakage risks can also help avoid negative social impacts.

Furthermore, SIA may account differently for social impacts on different groups. Both equity concerns and the declining marginal utility of income on welfare dictate that SIA considers the project's impact on the poor and, specifically, the distribution of income. Multiple-benefit carbon projects generally aim to improve the relative welfare of the rural poor between and within communities; indeed, this is a key aspect of Gold Level CCB validation. Other groups that SIA may consider distinctly include women, children, and other potentially vulnerable groups.

## 2.3 What Do the Standards Require?

The principal requirements of social impacts under the CCB Standards (2008, CM1) are that projects:

- “Generate *net positive impacts* on the social and economic well-being of communities”;
- “Ensure that costs and benefits are equitably shared among community members and constituent groups during the project lifetime”; and
- Ensure that the net social impacts are positive for “all community groups.”

The CCB Standards also, critically, require that project proponents use a credible methodology to show that any net positive impacts are additional and are “attributable” to the project, or caused by the project rather than by other factors. Under such a methodology, “a credible estimate of impacts must include changes in community well-being

due to project activities and an evaluation of the impacts by the affected groups. This estimate must be based on clearly defined and defensible assumptions about how project activities will alter social and economic well-being” (CCBA 2008, CM1). Table 1 lays out the main requirements of the CCB Standards as regards the estimation and demonstration of social co-benefits.

**Table 2. CCB Requirements Most Relevant to SIA (Excluding Optional Gold-Level Requirements)**

CCB Concepts and Indicators	Requirements: <i>The project proponents must ...</i>
Concept G1	Describe original conditions of project area and surrounding project zone.
Indicators G1.5, G1.6	Describe socio-economic and cultural information on project area communities, including current land use, customary, and property rights.
Concept G2	Develop a social baseline projection (i.e., a social reference scenario).
Indicators G2.1, G2.2	Document that the project benefits would not have occurred without the project, and describe how the without project scenario would affect communities.
Concept G3	Describe the project in sufficient detail so that a third party can evaluate it; projects must be designed to minimize risks (including to the community) and maintain benefits beyond the life of the project.
Indicators G3.1, G3.2, G3.5, G3.7, 3.8	Summarize community objectives, describe activities with their expected community impacts, identify risks to achieving community benefits, describe measures to maintain/enhance community benefits beyond the project lifetime, and document how stakeholders were identified and involved in project design.
Indicator G5.4	Demonstrate that the project does not require involuntary relocation or displacement of people or of activities important to livelihoods or culture. If displacement occurs, proponents must demonstrate FPIC.
Concept CM1	Project must generate net positive social and economic impacts and ensure that the costs and benefits are equitably shared.
Indicator CM1.1	Use appropriate methodologies to estimate project impacts on communities—including all the constituent groups—based on clearly defined assumptions about how project activities will alter social and economic well-being; include evaluation of impacts by the affected groups; the project scenario must be compared to the reference scenario, and the difference must be positive for all community groups.
Concept CM2 and Indicators CM2.1, CM 2.2, CM 2.3	Evaluate and mitigate any possible social and economic impacts resulting from project activities that could reduce the social and economic well-being of the main stakeholders living outside project zone (i.e., social leakage).
Concept CM3 and Indicator CM3.1	Develop an initial monitoring plan to quantify and document changes in human well-being resulting from project activities, indicating which communities/stakeholders are to be monitored; identify the types of measurement, sampling methods and frequency of measurement.
Indicator CM3.2	Develop an initial plan to maintain/enhance High Conservation Values related to community well-being.
Indicator CM3.3	Commit to developing a full monitoring plan within 6 months of the project start date or within 12 months of validation, and disseminate/communicate the plan and the monitoring results to stakeholder groups.

An important clarification is that while a detailed community monitoring plan (CCB Indicator CM3.3) is not obligatory at the time of CCB validation, one should be developed within 12 months of validation or no more than 6 months after the project has started, if this is sooner (CCBA 2008, CM3). The CCB validation auditor will, however, wish to see the proposed SIA methodology in sufficient detail (e.g., with information showing how it proposes to identify and measure the indicators) to feel confident that the project will develop a robust community monitoring plan and, consequently, can be expected to be able to present credible evidence or data once the project performance is verified. While it is not currently a CCB requirement to present a detailed community monitoring plan, neglecting to develop one is very risky – it may be hard to convince a verification auditor that the data presented are credible if they do not derive from a clear methodology and monitoring plan.

Other significant multiple-benefit standards include the Clean Development Mechanism (CDM), Social Carbon, and Plan Vivo. There is insufficient space to go into the requirements of each standard, but some key differences are outlined here.

The CDM places more emphasis on preventing negative social impacts than on generating positive impacts. Projects can only be CDM validated if, inter alia (“Decision 19/CP.9” 2003, Annex G.12.c):

- Project participants submit “documentation on the analysis of the socio-economic and environmental impacts” both within and outside the project boundary;
- In the case that “any negative impact is considered significant by the project participants or the host Party,”<sup>6</sup> project participants undertake “a socio-economic impact assessment...in accordance with the procedures of the host Party”; and
- Project participants submit, with a confirmation that the appropriate assessments have been undertaken, “a description of the planned monitoring and remedial measures to address” impacts.

The respective requirements under the Verified Carbon Standard (VCS), designed for carbon rather than the co-benefits, only demand that “project proponents shall identify potential negative environmental and socio-economic impacts and shall take steps to mitigate them” (VCS 2011, Sec. 3.1.4).

The Plan Vivo Standards, in contrast, are explicitly designed for community projects aiming to improve rural livelihoods. This standard requires that projects “promote sustainable land-use practices that benefit communities in rural areas” and undertake “a producer/community-led planning process aimed at identifying and defining sustainable land-use activities that serve the community’s needs and priorities” (Plan Vivo 2008, 16).<sup>7</sup>

The Plan Vivo Standards also address social impacts associated with carbon rights and benefit-sharing arrangements (see Legal Guidance), requiring that “producers have recognized carbon ownership via tenure or land-use rights” and that “an equitable system is in place to determine the share of the total price which is allocated to the producer” (Plan Vivo 2008, 44).

The CarbonFix Standard, a niche reforestation standard, contains relatively modest social impact criteria, requiring evidence of “net-positive socio-economic impacts.” Documentation is required to demonstrate that contracts for

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<sup>6</sup> The ENCAFOR Socio-Institutional Manual and Tool presents a checklist of questions to help determine whether any negative impacts of AR CDM projects are likely to be significant (Robledo 2007).

<sup>7</sup> Plan Vivo (2008) defines *sustainable land-use* as “the planned use of land, consistent with meeting livelihood requirements, protecting soils, watercourses and biodiversity.” Likewise, *producers* are defined as “small-scale farmers, forest dwellers and land-users in developing countries with recognised land tenure or user rights who are part of or have formed organisations and groups such as cooperatives, associations, community-based organisations or other organisational forms.”



employees and contractors include basic social welfare provisions (including a limited number of working hours and health insurance) and that “any concerns by project stakeholders are documented and appropriately responded to by the management staff” (CarbonFix 2010, 11).

### 3. Key Challenges for the Assessment of Social Impacts of Forest Carbon Projects

Key challenges for effective SIA of forest carbon projects include cost-effectively attributing social benefits to a project, overcoming measurement difficulties associated with the nature of social impacts, and assessing social impacts across the diversity of forest carbon project types.

#### 3.1 Cost-Effectively Demonstrating Attribution

Showing attribution, or causality, is widely-regarded as the main challenge for any kind of impact assessment. This aspect is also vital for forest carbon projects seeking CCB validation due to the additionality requirement for social benefits. To clarify, the CCB Standards (CM1) require that project developers present a coherent case that the project scenario represents a significant improvement over the without-project, or baseline scenario (as regards community, equity, or social results – see Box 3) and that this improvement will be due to the project. For example, if social benefits are expected to increase due to a state health project or a macro-economic change (e.g., devaluation providing a boost to export crops), carbon project participants cannot claim credit for the social benefits, and nor should carbon credit buyers pay for them.

Clearly establishing attribution is especially difficult when considering indirect impacts, e.g., a change in gender roles or community cohesion, when the project could be one of several contributory factors. Attribution is less problematic when considering direct outcomes, such as an increase in income or a change of attitude toward forest conservation as a result of a REDD+ project. Therefore, projects that specify more direct social outcomes and impacts, rather than indirect or downstream ones, will find it easier to present convincing evidence of social benefits to auditors.

The traditional impact assessment methodology for evaluating attribution relies on experimental and quasi-experimental approaches known as “matching methods” (see Box 4).<sup>8</sup> But these methods are expensive—the literature reports typical costs ranging US \$50,000 – 150,000, depending on a range of factors—and in SIA they present significant implementation and ethical difficulties, especially in the selection of controls (Richards 2008). These quantitative methods can, however, be more appropriate and cost-effective for biodiversity impact assessment (see Biodiversity Impacts Guidance).

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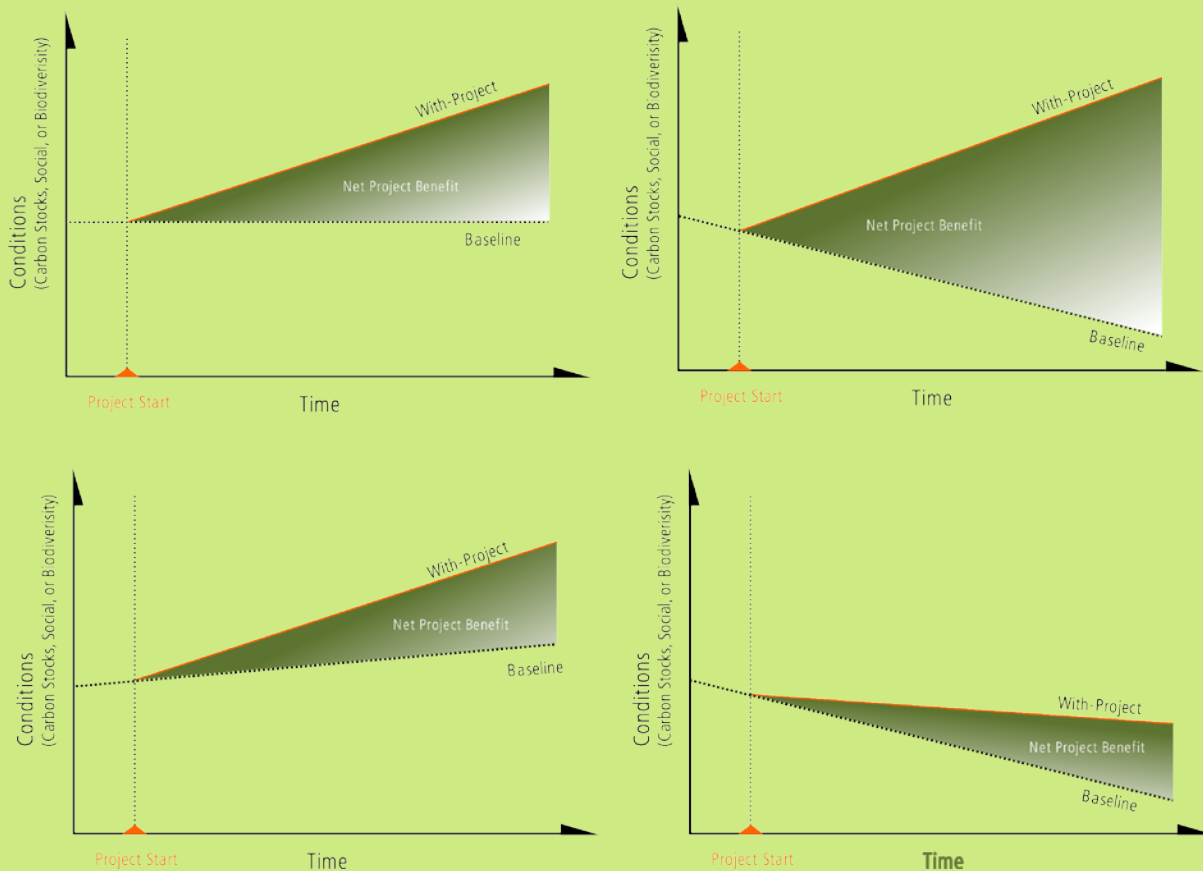
<sup>8</sup> For a detailed discussion of matching methods, see Jagger et al. (2010).

### Box 3. Baseline Scenarios for Forest Carbon Projects

The concept of **baseline scenario** refers to a projection of what future conditions would be like in the absence of carbon project interventions. It is sometimes also referred to as the reference, or without-project, scenario. To generate offsets, forest carbon projects must capture or store more carbon than would have been the case under this future, projected baseline. Baselines are used for estimating and evaluating carbon benefits under all forest carbon standards (VCS, CDM, Plan Vivo, and others).

It is worth highlighting that baselines are not limited to quantification of carbon stocks or emissions, but are also used as the basis for determining social and biodiversity impacts under the CCB Standards: projects must demonstrate that communities and biodiversity are better off with the project than without it.

Baseline is used in this very specific sense in the carbon world, though in other types of assessment the term is commonly used to refer to starting or current conditions. To differentiate these concepts, the terms “original,” “starting” or “time-zero” conditions are generally used in the carbon literature, and throughout this set of documents, to describe the conditions prior to the start of the project.



*The figures above describe several possible combinations of baseline and project scenarios and are described in greater detail in the Step-by-Step Overview.*

#### Box 4. Using Matching Methods to Assess Attribution

The essence of matching methods is to compare control and treatment groups. Controls are non-participants with similar observable (age, income, education, gender, etc.) and unobservable (attitudes, risk taking, entrepreneurship, etc.) characteristics to treatment (project) participants. If the comparison results in significant differences between the two groups, the differences may be considered attributable to the project rather than to other influences. These are statistical comparisons in the case of an experimental design and non-statistical comparison in the case of the cheaper, and more common, quasi-experimental design.

It can be difficult, however, to find suitable controls: while their observable characteristics may be similar to participants, they may have different unobservable characteristics, like their attitude to risk. Additionally, if they are close by there is a risk of project spillover effects, such as altered behavior after obtaining project information. And if more distant controls are selected, they are more likely to be different due to external factors such as market access or the influence of other projects. Moreover, many external factors and variables that are independent of project interventions can change with respect to control and treatment groups throughout the lifetime of the project, and this evolving socio-economic framework can introduce a further source of errors or noise into the comparisons. Other problems with control groups include their low motivation to cooperate, the tendency for people to change behavior when studied, and (potentially) the ethical problem that controls cannot participate in future project expansion.

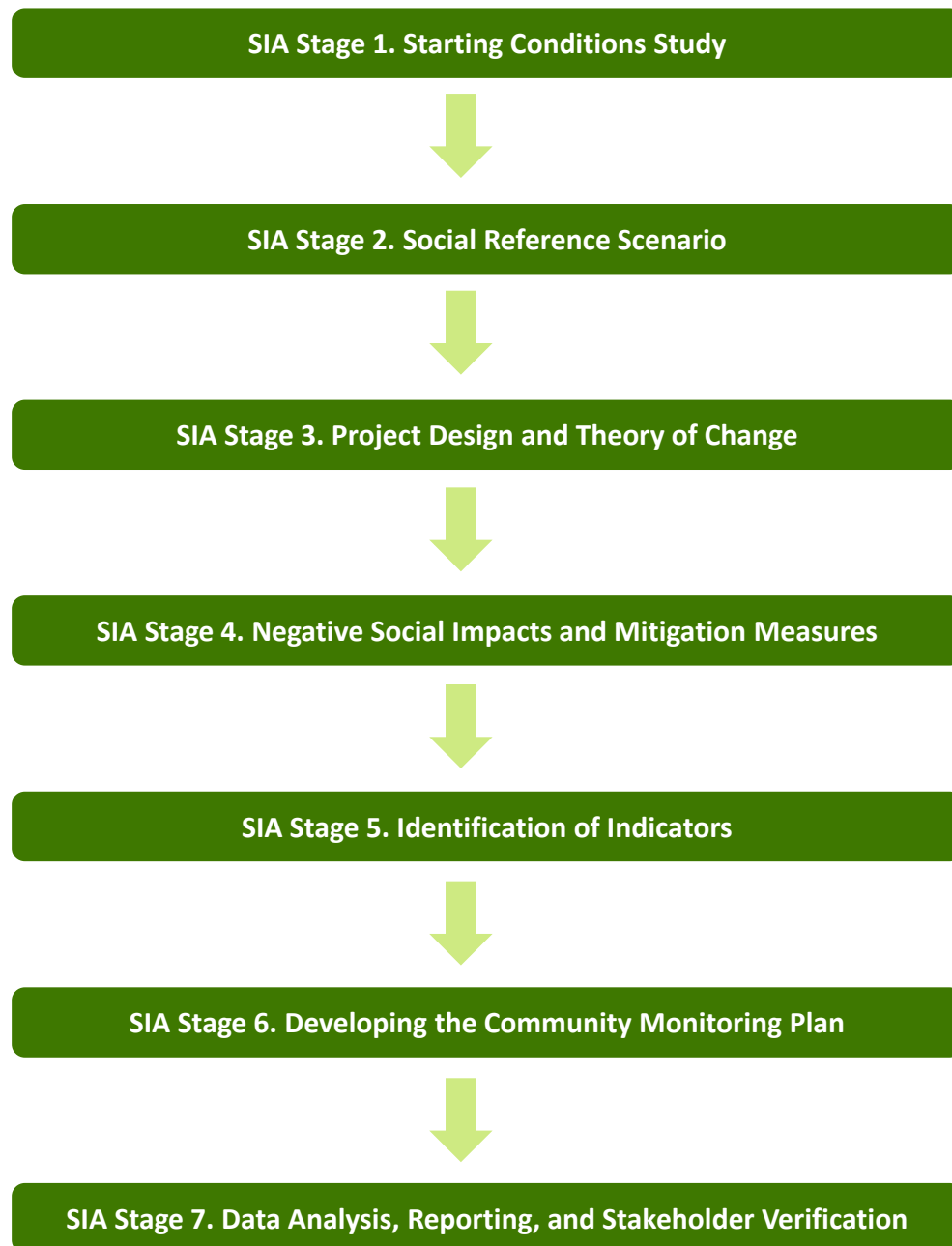
Another matching method approach, known as “reflexive comparison,” is less costly than monitoring control and treatment groups. Here, project participants compare conditions before and after the project. This is less reliable than experimental or quasi-experimental methods, especially if it is based on memory recall, but it can be useful for triangulation purposes.

## 3.2 The Nature of Social Impacts

Social impacts are, by their nature, difficult to predict and measure. They can be indirect, unexpected, intangible, and sometimes negative. Moreover, most social impacts are long-term changes. These characteristics make social impacts hard to identify, especially in the short- to medium-term. In spite of this, the first CCB verification occurs five years after validation and requires an estimation of social impacts. Additionally, the diversity that exists within forest carbon projects – from the type of project activity (REDD, AR, IFM, etc.) to project size to social complexity of the communities and stakeholders involved – dictates that there is no one-size-fits-all methodology for SIA.

For these reasons, the project developers should select the SIA approach and methods most appropriate to the project type and context. Furthermore, instead of attempting to directly measure social impacts, it is practical to identify short- and medium-term social effects in project outputs and outcomes and relate these to longer-term social impacts using appropriate, explicit assumptions and linkages. Such an approach to estimating and attributing social impacts may be supported by the theory of change approach to SIA, discussed further in Section 4.4.

#### 4. Proposed Seven-Stage Process for Cost-Effective SIA



## 4.1 Introduction to the Seven SIA Stages

*Social impacts are, by nature, difficult to predict and measure.*

The CCB Standards' SIA requirements (see Table 1) provide a framework for the seven-stage process for SIA proposed here. Table 3 provides a fuller description of each stage of this process, lists some of the key actions and methods involved, and shows how they relate to the CCB Standards. Although the SIA Stages are presented linearly above and in Table 3, SIA is clearly an iterative process. For example, SIA Stages 3, 4 and 5 may shed light on key social change processes, and the realization of these may involve revisiting SIA Stage 2 (the social reference scenario). Moreover, synergies exist with several of the SIA Stages and other carbon project design and development activities; these are discussed in Section 5.4.

**Table 3. Summary of Proposed SIA Stages and Relevance to the CCB Standards**

SIA Stage	Brief Description of Activities	Main Methods and Tools	Relevant CCB Concepts & Criteria
1	Describe socio-economic conditions before project start-up Identify all stakeholder groups that might be affected by the project	Participatory Rural Appraisal (PRA), household surveys, community maps, secondary data, wealth or well-being ranking, and stakeholder analysis	Concept G1 (especially Criteria G1.1, G1.2, G1.3, G1.5 & G1.6), Criterion G3.8
2	Project social conditions and impacts assuming there is no project, focusing on the variables and outcomes most likely to be affected	Stakeholder focus group discussions, expert opinion, problem trees, scenario analysis, etc.	Concept G2 (especially Criteria G1.1, G1.2 & G1.4)
3	Formulate, with project proponents and stakeholders, a description of how social objectives will be achieved. Identify key assumptions between outputs, outcomes and impacts.	Theory of change (ideally developed at project design stage); multiple stakeholder group meetings to verify/modify project theory of change	Concept G3 (especially Criteria G3.1, G3.2, G3.3, G3.5, G3.7 & G3.8)
4	Identify and analyze possible negative social impacts and cost-effective mitigation measures	Stakeholder focus groups, PRA methods, regular meetings with stakeholders, other stakeholder fora	Criteria G3.5, G5.4, G5.5, G5.6, and Concept CM2
5	Identification of monitoring indicators to measure progress in achieving the desired social outcome & objectives	Indicators could be based on theory of change or sustainable livelihoods framework <sup>9</sup>	Concept CM3
6	Design of the social or community monitoring plan, including data collection methods for measuring indicators	PRA, surveys, key informants, Basic Needs Survey (BNS), Participatory Impact Assessment (PIA) & others	Concept CM3
7	Analysis, reporting and verification of the SIA results with stakeholders	Stakeholder meetings and feedback workshops	Concepts CM3 and GL

<sup>9</sup> The sustainable livelihoods framework (discussed further in Section 4.6) places the target population at the center of a web of inter-related influences that affect how they create a livelihood for themselves and their households. See <http://www.ifad.org/sia> for additional information.

## 4.2 SIA Stage 1: Starting Conditions Study

The starting conditions study is essential for the SIA process since it provides the basis for both the project and without-project scenarios. The CCB Standards, which use the term “original conditions,” require that this data include:

- A description of communities located in the project zone that describes their social, economic, and cultural diversity (wealth, gender, age, ethnicity, etc.), identifies specific groups such as indigenous peoples, and discusses community characteristics such as shared history, culture, livelihood systems, relationships with natural resources, and the customary institutions and rules governing the use of resources;<sup>10</sup>
- A description of current land use and customary/legal property rights including community property, identifying any ongoing conflicts and any land tenure disputes resolved in the last 10 years; and
- The location of any High Conservation Value areas (discussed further in the Biodiversity Impacts Guidance) that are important for meeting basic community needs, e.g., essential food, fuel, fodder, medicines, and building materials without readily available alternatives. (CCBA 2008, G1)

Within this list, the project SIA team should prioritize the processes and variables that are most likely to be affected by the project, such as those associated with deforestation or degradation drivers and other dominant livelihood strategies. The SIA Manual (Part II, T8) includes a review of likely social outcomes, impacts, and change processes of forest carbon projects, which can help prioritize data collection.

It is strongly recommended that a thorough stakeholder identification and analysis exercise is conducted in SIA Stage 1. It is essential in SIA to differentiate local stakeholders according to their wealth or well-being (this can be done, for example, by using a PRA wealth or well-being ranking method), ethnicity, gender, age, tenure, or land use/livelihood interests (e.g., charcoal makers, livestock herders, NTFP gatherers) including their level of dependence on forest resources.

### Box 5. Key References for SIA Stage 1: Description of Starting Conditions and Stakeholders

CARE. *Household Livelihood Security Assessments: A Toolkit for Practitioners*. Prepared for the PHLS Unit by: TANGO International Inc., Tuscon, US: CARE, 2002. Available at: <http://pqdl.care.org/Core%20Library/Household%20Livelihood%20Security%20Assessment%20-%20Summary%20of%20Toolkit%20for%20Practitioners.pdf>

*Provides generic guidance on participatory M&E methods; Annex XIV is very useful for stakeholder analysis.*

Evans, Kristen, et al. *Guide to Participatory Tools for Forest Communities*. Bogor, Indonesia: Center for International Forestry Research (CIFOR), 2006. Available at: <http://www.cifor.cgiar.org/nc/online-library/browse/view-publication/publication/2095.html>.

*Describes how to use participatory research tools, such as participatory mapping, in a community forestry context.*

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<sup>10</sup> Under the CCB Standards, the “project zone” is defined as the project area – i.e., the land within the carbon project boundary and under the control of the project proponent – plus any adjacent land that may be affected by the project.

Galudra, Gamma, et al. RATA: A Rapid Land Tenure Assessment Manual for Identifying the Nature of Land Tenure Conflicts. Nairobi: World Agroforestry Centre, 2010. Available at: [http://www.rightsandresources.org/publication\\_details.php?publicationID=2010](http://www.rightsandresources.org/publication_details.php?publicationID=2010).

*Describes the self-explanatory Rapid Land Tenure Assessment (RATA) tool.*

Richards, Michael, and Steve Panfil. *Manual for Social Impact Assessment: Version 1*. Washington, DC: Forest Trends, Climate, Community & Biodiversity Alliance, Rainforest Alliance and Fauna & flora International, 2010. Available at: [http://forest-trends.org/publication\\_details.php?publicationID=2436](http://forest-trends.org/publication_details.php?publicationID=2436).

*Part I, SIA Stage 1 provides general guidance, and Part II, Sections T5, T6, and T7 discuss data collection methods and supporting research tools.*

Schreckenber, Kate, et al. *Social Assessment of Conservation Initiatives: A Review of Rapid Methodologies*. Natural Resource Issues No. 22, London: IIED, 2010. Available at: <http://pubs.iied.org/14589IIED.html>.

*Chapter 6 discusses the strengths and weaknesses of a range of data collection methods*

Wildlife Conservation Society, USAID, The Earth Institute, Enterprise Works/VITA, Forest Trends, Land Tenure Center. *Livelihood Surveys. A Tool for Conservation Design, Action and Monitoring*. Translinks Household Surveys Manual, Washington, DC: Wildlife Conservation Society, 2007. Available at: <http://www.wclivinglandscapes.com/DesktopModules/Bring2mind/DMX/Download.aspx?EntryId=5357&Portall>

### 4.3 SIA Stage 2: Social Reference Scenario

Since the term “baseline” is so strongly associated with the carbon component of project development, the term “social reference scenario” is used to refer to the social component of the baseline projection required by CCB Concept G2. The concept is the same as for a carbon baseline: project proponents need to project social processes and conditions into the future assuming that there is no project – hence we often refer to the “without-project scenario” or “counterfactual” analysis. In theory, a comparison of the with-project and without-project scenarios reveals the net additional social benefits (see Box 3).

Data collection in SIA Stage 2 should therefore focus on the outcomes of processes or conditions that are most likely to be affected by the project – these are often linked to project-related land uses. For example, CCB Criterion G2.4 specifies the need to assess changes in water, soil, and other locally important ecosystem services. Another example could be the predicted without-project availability of key NTFPs used in coping strategies during emergencies or bad years for food production. All assumptions made when predicting the without-project social impacts must be made explicit – this is very important for the subsequent SIA stages.

It is essential that local project stakeholders participate in these projections, for example, by discussing the main social change processes and causative factors leading to changes in social conditions, possibly in the form of a problem tree or scenario analysis.<sup>11</sup> The conceptual model, which forms part of the Open Standards approach developed by the Conservation Measures Partnership (2007), is very similar to a problem tree. Conceptual models, one for each priority or focal social issue, provide a strong basis for developing a project’s theory of change for achieving its social objectives, as discussed further in the next section.

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<sup>11</sup> Readers may consult Part II of the SIA Manual for a detailed description of these and other SIA methods.

#### Box 6. Key References for SIA Stage 2: Social Reference Scenario

Conservation Measures Partnership. *Open Standards for the Practice of Conservation*. Conservation Measures Partnership, 2007. Available at: [http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP\\_Open\\_Standards\\_Version\\_2.0.pdf](http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP_Open_Standards_Version_2.0.pdf).

*Explains how to develop a conceptual model as part of the Open Standards approach to the theory of change approach to SIA.*

Evans, Kristen, et al. *Guide to Participatory Tools for Forest Communities*. Bogor, Indonesia: Center for International Forestry Research (CIFOR), 2006. Available at: <http://www.cifor.cgiar.org/nc/online-library/browse/view-publication/publication/2095.html>.

*Presents some useful participatory research methods for SIA Stage 2.*

PROFOR. *Poverty-Forests Linkages Toolkit*. 01 29, 2009. <http://www.profor.info/profor/node/103>.

*Presents a range of participatory methods for analyzing forest-poverty linkages.*

Richards, Michael, and Steve Panfil. *Manual for Social Impact Assessment: Version 1*. Washington, DC: Forest Trends, Climate, Community & Biodiversity Alliance, Rainforest Alliance and Fauna & flora International, 2010. Available at: [http://forest-trends.org/publication\\_details.php?publicationID=2436](http://forest-trends.org/publication_details.php?publicationID=2436).

*Part I, SIA Stage 2 presents some general guidance.*

## 4.4 SIA Stage 3: Project Design and Theory of Change

Since the social benefits must be additional to the without-project scenario, the attribution problem in SIA must be tackled. As the traditional matching methods approach is unlikely to be viable for most forest carbon projects, the theory of change approach is proposed here as a cost-effective method of assessing the attribution of social impacts. This is increasingly seen as a credible and cost-effective approach to SIA<sup>12</sup> because it tackles the attribution problem and provides a sound basis for indicator selection (SIA Stage 5). Furthermore, a theory of change can be very valuable in informing overall project design and ensuring that project interventions, such as those aimed at reducing deforestation pressures, are designed effectively.

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*If evidence can be presented that short- and mid-term objectives are being achieved as part of a convincing cause-and-effect story, an auditor can have reasonable confidence that the long-term objectives will be achieved.*

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<sup>12</sup> Versions of the theory of change approach have been adopted by the Global Environment Facility Evaluation Office, the World Bank's Independent Evaluation Group, the Conservation Measures Partnership, the United Nations Environment Program, the World Conservation Monitoring Centre, the Wildlife Conservation Society, the UK Department for International Development in its "Integrated Impact Assessment Approach," GTZ with its "Results Based Impact Chain," and the International Social and Environmental Accreditation and Labelling Alliance.

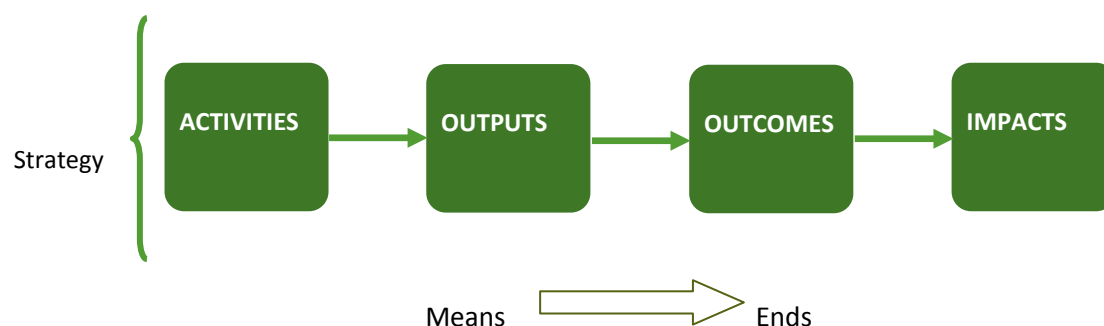


In constructing a theory of change, the project team and stakeholder representatives develop a hypothesis of how the project will achieve its intended social goals and objectives. This is the project’s theory of how and why the social change will happen. To be convincing, it needs to trace through how short-term project *activities* and *outputs* will cause mid-term social *outcomes*, and thence how these will lead to longer-term social *impacts*. Project activities and outputs can be considered the means to achieve the project ends – positive social outcomes and impacts – as shown in Figure 1. It is advisable to first develop a theory of change for the broader outputs, outcomes, and impacts of the forest carbon project and then to focus on social aspects more specifically.

If evidence can be presented that short- and mid-term objectives (*outputs* and *outcomes*) are being achieved as part of a convincing cause-and-effect story, an auditor can have reasonable confidence that the long-term objectives (*impacts*) will be achieved. The theory of change approach, while not explicitly required by the CCB Standards, is implicitly sanctioned in the CCB Standards:

- Criterion CM1.1 states that “a credible estimate of the changes must include changes in community well-being due to the project...based on clearly defined and defensible assumptions about how project activities will alter social and economic well-being”; and
- Criterion G3.2 requests project proponents to “describe each project activity with expected climate, community and biodiversity impacts and its relevance in achieving the project’s objectives.”

**Figure 1. Project Causal Chain Underlying the Theory of Change**



*Reproduced with permission from Conservation Development Centre and the GEF Evaluation Office (2009).*

At the heart of the theory of change is the development of a set of IF...THEN statements that link project activities to outputs, outputs to outcomes, and outcomes to impacts. For example, IF the project generates net carbon revenues and the benefit-sharing mechanisms and governance arrangements are effective, THEN there will be a net increase in household income for project participants.

The IF...THEN statements should contain at least one cause and effect assumption (or linkage), distinguishing between internal assumptions of the project’s theory of social change or causal logic, and external assumptions (factors or risks external to the project, e.g., the carbon price or government policies). Distinguishing between internal and external assumptions helps identify the additionality of social impacts. The IF...THEN statements and the causative linkages or assumptions must also be validated, or ground-truthed, with the project stakeholders.

While the theory of change approach is presented here as a cost-effective SIA approach with a very good fit to the CCB Standards, there are also other SIA methodologies or frameworks, such as matching methods (Jagger et al. 2010), which could be justifiable for larger projects, and the sustainable livelihoods framework (Schreckenberg et al. 2010). However, if other methods are used, project proponents need to be careful about how they establish

attribution. For matching methods, attribution requires econometric analysis based on a statistical experimental design, and for the sustainable livelihoods framework, participatory impact assessment methods that explore attribution could be used (Catley et al. 2008). All approaches have their advantages and disadvantages; a mixed methods approach, including the theory of change, is ideal if resources are sufficient.

Finally, the challenge of constructing a theory of change for a REDD+ project should not be underestimated. The large number of potential variables, the complexity of the relationships, and our limited understanding (to date) of the social and development impacts of REDD+ projects all contribute to a relatively weak understanding of the theory of change in any given project context. Indeed, the explanatory power of many theories in the literature on the relationships between communities, conservation, and development is still contested (Jagger et al. 2010). It should also be noted that if actually implemented project activities differ from the project design, it is necessary to revise the theory of change for it to be valid for analysis and auditing at the verification stage.

### Box 7. Key References for SIA Stage 3: Establishing the Project Scenario and Attribution

Conservation Measures Partnership. *Open Standards for the Practice of Conservation*. Conservation Measures Partnership, 2007. Available at: [http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP\\_Open\\_Standards\\_Version\\_2.0.pdf](http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP_Open_Standards_Version_2.0.pdf).

*Explains the Open Standards approach to the theory of change, supported by open-source software available at [www.miradi.org](http://www.miradi.org).*

Catley, Andrew, John Burns, Davit Abebe, and Omeno Suji. *Participatory Impact Assessment: A Guide for Practitioners*. Feinstein International Center Report, Medford, MA: Tufts University, 2008. Available at: <http://wikis.uit.tufts.edu/confluence/display/FIC/Participatory+Impact+Assessment>.

*Explains participatory methods for exploring attribution in the context of humanitarian aid.*

Jagger, Pamela, Erin Sills, Kathleen Lawlor, and William D. Sunderlin. *A Guide to Learning about Livelihood Impacts of REDD+ Projects*. Occasional Paper 56, Bogor, Indonesia: Center for International Forestry Research (CIFOR), 2010. Available at: <http://www.profor.info/profor/sites/profor.info/files/docs/CIFOR-learningREDD.pdf>.

*Offers an extensive discussion of attribution issues for REDD+ projects, especially when using matching methods.*

Richards, Michael, and Steve Panfil. *Manual for Social Impact Assessment: Version 1*. Washington, DC: Forest Trends, Climate, Community & Biodiversity Alliance, Rainforest Alliance and Fauna & flora International, 2010. Available at: [http://forest-trends.org/publication\\_details.php?publicationID=2436](http://forest-trends.org/publication_details.php?publicationID=2436).

*Part I, SIA Stage 3 describes the overall approach, and Part II, Section T2 presents theory of change methodologies and other SIA frameworks.*

## 4.5 SIA Stage 4: Negative Social Impacts and Mitigation Measures

As mentioned, social impacts can be positive or negative. Predicting negative social impacts is difficult and unpopular, since project proponents are naturally reluctant to discuss, for example, what might go wrong or where there are negative impacts for which a remedy has not yet been found. Generally, projects that involve restricting existing land uses in order to halt or slow down forest degradation or deforestation are more likely to result in negative social impacts than those that increase land use (Wunder 2008). Negative social impacts are also more likely where projects use law enforcement or legalistic strategies to control encroachment, suitable project countermeasures aside. A

failure to undertake this key SIA stage properly could make the difference between a project that fails and one that can withstand unexpected challenges.

The theory of change developed in SIA Stage 3 is very useful for predicting and monitoring potential negative social impacts: these are more likely to occur where the assumptions or linkages in the causal chain (or in the IF...THEN statements) for positive social impacts are more tenuous – or where negative impacts are likely due to the nature of project interventions (prior to any compensating measures). In this context, the “threat-rating approach” to monitoring impacts is recommended by Conservation Measures Partnership (2007): this involves identifying the

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*If a negative impact is identified early, it is much easier to prevent, mitigate, or redress.*

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threats to achieving social benefits and identifying the symptoms or observable change processes that would indicate an increased risk of the threat (these can then become indicators, discussed in Section 4.6, below).

But the nature of social impacts is that they can be entirely unexpected. The most effective means of detecting unexpected negative impacts is through regular meetings with project stakeholders, possibly represented by a “Stakeholder Committee,” to discuss what is working well or badly. A regular forum at which individual stakeholders are free to discuss concerns about project activities would also help. Open discussions with local stakeholders regarding potential negative impacts are also part of free, prior, and informed consent (FPIC), a fundamental principle in community engagement practices (see Community Engagement Guidance).

Another requirement of the CCB Standards, and a core element of good practice SIA, is to identify cost-effective mitigation activities, or possibly compensation measures for disadvantaged stakeholders, including those outside the project area. There is an important difference in the CCB Standards in the treatment of internal and external stakeholders: in the case of the former the requirement is that stakeholder groups experience net positive social impacts, while for the latter it is a case of “do no harm,” i.e., they should not be made worse off than they were before the project.

When considering negative social impacts, the CCB Standards state that it is not required to develop mitigation activities for stakeholders formerly involved in illegal activities, nor should it be necessary to compensate them. While “legality” may be very clear in the case of commercial illegal logging, it is perhaps less clear when it comes to traditional or customary rights that are not formally recognized. But the CCB Standards are clearly on the side of equity - Standard G5 refers to the need to respect rights, including through FPIC where appropriate, over lands that “communities have traditionally owned, occupied or otherwise used.” It also stipulates that the project should not involve the involuntary relocation of community activities that conform to statutory laws or customary rights to lands and resources, where “customary rights” refers to “patterns of long-standing community land and resource usage in accordance with Indigenous Peoples’ and local communities’ customary laws, values, customs, and traditions ... rather than formal legal title to land and resources issued by the State” (CCBA 2008, G5). Even more complex situations may exist where the baseline behavior of agents is clearly illegal and not covered by customary rights but nevertheless represent a survival strategy in the face of severe poverty. Project proponents will need to develop appropriate strategies to engage these groups and mitigate negative social impacts, even where formal compensation may not be required.

Finally, there is an important link between the mitigation of negative social impacts and carbon leakage. If stakeholders are negatively affected, for example, through constraints on pre-project livelihood activities, then, in the absence of countermeasures, there is a strong chance of land use displacement or leakage. Therefore, carefully designed measures to mitigate or compensate for negative social impacts can reduce this kind of leakage. A project impact could also bring into play groups of actors not normally considered as affected stakeholders. For example, a large REDD+ project that constrains food production and hunting could result in an increase in local food prices,

persuading farmers outside the project area to expand their production or hunting activities into non-protected forest areas. The important point is to trace through the impacts of changes caused by the project, including the indirect ones, in order to assess the social, carbon, and biodiversity consequences of those changes and the need for remedial or mitigating actions.

### Box 8. Key References for SIA Stage 4: Negative Social Impacts and Mitigation Measures

CARE. *Household Livelihood Security Assessments: A Toolkit for Practitioners*. Prepared for the PHLS Unit by: TANGO International Inc., Tuscon, US: CARE, 2002. Available at: <http://pqdl.care.org/Core%20Library/Household%20Livelihood%20Security%20Assessment%20-%20Summary%20of%20Toolkit%20for%20Practitioners.pdf>.

*Discusses participatory monitoring and evaluation methods, which are best for picking up negative impacts.*

Conservation Measures Partnership. *Open Standards for the Practice of Conservation*. Conservation Measures Partnership, 2007. Available at: [http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP\\_Open\\_Standards\\_Version\\_2.0.pdf](http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP_Open_Standards_Version_2.0.pdf).

*Explains how to assess the threats to achieving social impacts when using the theory of change approach.*

Evans, Kristen, et al. *Guide to Participatory Tools for Forest Communities*. Bogor, Indonesia: Center for International Forestry Research (CIFOR), 2006. Available at: [http://www.planvivo.org/wp-content/uploads/Guidance\\_on\\_participatory\\_tools.pdf](http://www.planvivo.org/wp-content/uploads/Guidance_on_participatory_tools.pdf).

*Provides an overview to participatory research methods, which are just as important for SIA Stage 4 as they are for SIA Stages 1 and 2.*

## 4.6 SIA Stage 5: Identification of Indicators

The selection of appropriate indicators is at the heart of SIA. This stage involves determining what indicators are best for assessing progress towards achieving a set of desired social outcomes, targets, or objectives. The key question is, “What would we expect to see if the objective is in the process of being, or has been, achieved?” Each objective or target should have at least one indicator, which should be as SMART (Box 9) as possible.

### Box 9. Desirable Indicator Characteristics

Indicators should be as SMART as possible:

- **Specific:** the indicator should be defined and understood by all stakeholders in the same way
- **Measurable:** ideally the indicator should record change quantitatively as well as qualitatively
- **Achievable:** the indicator should be realistic in terms of the cost and complexity of data collection
- **Reliable:** the indicator should give consistent answers or numbers
- **Time-bound:** the indicator should be measurable within a defined time limit

Other key criteria of indicator selection are: the cost of associated data collection methods, the degree to which it can ascribe cause and effect, the extent to which local stakeholders were involved in choosing it, and its sensitivity – the indicator should change in proportion to changes in the condition or variable which it is designed to monitor.

The theory of change provides a sound basis for selecting (positive) outcome or impact indicators since attribution is factored in. As noted by USAID (2006), indicators should capture the key linkages in a project's underlying casual chain. Depending on the objective, and how easy it is to observe, the indicators could either be the objective itself (ideally a SMART one) or the linkages/assumptions between them, since these are likely to reflect a change process. Indicators should be developed for potential negative as well as positive social impacts. Indicators that are observable in the short term are also a valuable tool for adaptive project design and management (as it allows project proponents to react to undesired developments and to monitor identified risks).

*If indicators are difficult to establish, it may be a clue that the theory of change is not sufficiently developed.*

Provided that the IF...THEN statements of SIA Stage 3 are carefully constructed and verified with stakeholders, it should be relatively easy to identify the indicators. Conversely, if indicators are difficult to establish, this may be an indication that the theory of change is not coherently constructed or that some linkages and the IF...THEN statements are insufficiently developed. For example, IF the income resulting from the sale of carbon credits (the *outcome*) is spent on schooling and more nutritious food, there should be a positive poverty alleviation outcome (*impact*). In this case the *outcome indicator* would be the net carbon income per family, and the *impact indicator* could be the proportion of carbon income spent on poverty-related goods or services. The terms *output indicator*, *outcome indicator*, and *impact indicator* help to distinguish the different levels of the project logic. Table 3 presents examples of possible indicators.

**Table 4. Examples of Social Output, Outcome, and Impact Indicators**

Social Indicator Types	Examples
Output Indicators	<ul style="list-style-type: none"> <li>• Number of jobs created</li> <li>• Number of people trained in specific sectors</li> <li>• Number of fruit trees planted</li> </ul>
Outcome Indicators	<ul style="list-style-type: none"> <li>• Number of households adopting an alternative livelihood activity</li> <li>• % or absolute increase in household income from carbon payments</li> <li>• Reduction in hours spent by women collecting firewood or water</li> <li>• % of carbon landholders stating that they get a fair payment (this implies a viable project and an effective benefit-sharing system)</li> <li>• % of women on the project stakeholder committee</li> <li>• Number of people who understand the basic accounts of community costs and benefits (as a measure of governance transparency)</li> </ul>
Impact Indicators	<ul style="list-style-type: none"> <li>• % reduction in infant mortality or % of households living on &lt; \$1 per day (poverty indicators)</li> <li>• % of local population changing from negative to positive attitude to forest conservation measures</li> </ul>

The theory of change is not the only basis for selecting indicators; a common basis for selecting indicators is the Sustainable Livelihoods Framework (SLF) or its derivatives. For example, the Social Carbon Methodology uses a SLF-type approach to identifying indicators that correspond to biodiversity, natural, social, human, financial, and carbon capital (Social Carbon, 2009). Likewise, the Landscape Outcomes Assessment Methodology (LOAM) is a useful participatory approach to indicator selection based on the SLF capital assets (Aldrich and Sayer 2007). While the SLF approach has the advantage that progress in achieving indicators implies progress towards project or livelihood sustainability, the disadvantage is that attribution is not factored in – therefore, projects using this approach will need to also employ one of the methods of assessing attribution discussed earlier, such as the theory of change, matching methods, or participatory methods as proposed by Catley et al. 2007.

Finally, all projects should include some self-determined indicators in their monitoring plans of how local stakeholders gauge “success” or “progress” from their own perspective and based on their own criteria. These could be combined with the participatory methods for assessing attribution suggested by Catley et al. 2007.

### Box 10. Key References for SIA Stage 5: Identification of Indicators

Aldrich, Mark, and Jeff Sayer. *In Practice: Landscape Outcomes Assessment Methodology "LOAM"*. WWF Forests for Life Programme Paper, WWF, 2007. Available at: [http://wwf.panda.org/what\\_we\\_do/how\\_we\\_work/conservation/forests/publications/?uNewsID=120980](http://wwf.panda.org/what_we_do/how_we_work/conservation/forests/publications/?uNewsID=120980).

*Presents a participatory approach to indicator selection based on the sustainable livelihoods framework.*

Catley, Andrew, John Burns, Davit Abebe, and Omeno Suji. *Participatory Impact Assessment: A Guide for Practitioners*. Feinstein International Center Report, Medford, MA: Tufts University, 2008. Available at: <http://wikis.uit.tufts.edu/confluence/display/FIC/Participatory+Impact+Assessment>.

*Discusses participatory approaches to indicator selection.*

Conservation Measures Partnership. *Open Standards for the Practice of Conservation*. Conservation Measures Partnership, 2007. Available at: [http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP\\_Open\\_Standards\\_Version\\_2.0.pdf](http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP_Open_Standards_Version_2.0.pdf).

*Shows how indicators can be identified based on theory of change “results chains.”*

Richards, Michael, and Steve Panfil. *Manual for Social Impact Assessment: Version 1*. Washington, DC: Forest Trends, Climate, Community & Biodiversity Alliance, Rainforest Alliance and Fauna & flora International, 2010. Available at: [http://forest-trends.org/publication\\_details.php?publicationID=2436](http://forest-trends.org/publication_details.php?publicationID=2436).

*Part I, SIA Stage 5 discusses different approaches to indicator selection, and Part II Section T9 provides further guidance on indicator selection*

Schreckenber, Kate, et al. *Social Assessment of Conservation Initiatives: A Review of Rapid Methodologies*. Natural Resource Issues No. 22, London: IIED, 2010. Available at: <http://pubs.iied.org/14589IIED.html>.

*Offers a useful review of indicators in the context of protected areas; Appendix 4 has lists of possible indicators.*

## 4.7 SIA Stage 6: Developing the Community Monitoring Plan

This SIA Stage is mainly about appropriate data collection methods for monitoring or measuring the indicators. Whereas SIA Stage 5 addresses what to measure, SIA Stage 6 focuses more on how to measure it. The indicators and data collection methods are the most important components of the Community Monitoring Plan; other critical components include information on who will collect and analyze the data when, how often data will be collected, where data will be collected, and at what cost. A very simple tabular format for a monitoring plan is suggested in Table 5.

**Table 5. Potential Format for Community Monitoring Plan**

Objective	Indicator	Data Collection Method	Responsible Party(s)	When / Frequency	Where	Cost



Data collection methods can be divided into general and specific SIA data collection methods. The former are well-known and include household surveys, focus groups, PRA-type methods, and key informants. The latter refer to methods or tools designed more specifically for SIA, and include the Basic Necessities Survey (BNS),<sup>13</sup> a suite of participatory methods grouped under the name Participatory Impact Assessment (PIA), and Quantitative Participatory Assessment (QPA) developed by James (2003). Summaries of these methods are presented in the SIA Manual.

*Participatory monitoring methods are widely regarded as an essential part of a credible and cost-effective SIA system.*

While there is a role for household surveys, participatory monitoring methods are widely regarded as an essential part of a credible and cost-effective SIA system, provided that due diligence is exercised as regards the dangers of strategic response, where respondents alter their answers in order to influence the survey results. Participatory methods are generally better in terms of collecting necessary intra-community data for disaggregated analysis along lines of, for example, gender or age. The results of any one participatory method, however, need to be triangulated using other research methods, which can also be participatory (Schreckenberg et al. 2010).

### Box 11. Key References for SIA Stage 6: Developing the Community Monitoring Plan

Catley, Andrew, John Burns, Davit Abebe, and Omeno Suji. *Participatory Impact Assessment: A Guide for Practitioners*. Feinstein International Center Report, Medford, MA: Tufts University, 2008.

*Provides a good review of participatory data collection methods for impact assessment, including methods showing attribution.*

Richards, Michael, and Steve Panfil. *Manual for Social Impact Assessment: Version 1*. Washington, DC: Forest Trends, Climate, Community & Biodiversity Alliance, Rainforest Alliance and Fauna & flora International, 2010. Available at: [http://forest-trends.org/publication\\_details.php?publicationID=2436](http://forest-trends.org/publication_details.php?publicationID=2436).

*Part I, SIA Stage 6 provides general guidance, and Part II, Section T7 presents specific data collection methods for indicator measurement (such as those mentioned above).*

Schreckenberg, Kate, et al. *Social Assessment of Conservation Initiatives: A Review of Rapid Methodologies*. Natural Resource Issues No. 22, London: IIED, 2010. Available at: <http://pubs.iied.org/14589IIED.html>.

*Appendix 3 contains summaries of several relevant data collection methods.*

Wildlife Conservation Society, USAID, The Earth Institute, Enterprise Works/VITA, Forest Trends, Land Tenure Center. *Livelihood Surveys. A Tool for Conservation Design, Action and Monitoring*. Translinks Household Surveys Manual, Washington, DC: Wildlife Conservation Society, 2007. Available at: <http://www.wclivinglandscapes.com/DesktopModules/Bring2mind/DMX/Download.aspx?EntryId=5357&PortalId=0&DownloadMethod=attachment>.

*Offers guidance on the Basic Needs Survey (BNS) approach to monitoring poverty change*

<sup>13</sup> See Wildlife Conservation Society et al. (2007) for a description of the BNS.

## 4.8 SIA Stage 7: Data Analysis, Reporting, and Stakeholder Verification

All the effort to design and implement a monitoring plan is only useful once the gathered information is synthesized into a form that is easily understood by local stakeholders and other users of the monitoring data, including verification auditors. SIA Stage 7 concerns the treatment of monitoring data so that it can be used in a verification audit and can contribute to adaptive project management.

For data analysis and reporting, the first requirement is a clear description of how the data was collected and analyzed, together with the summarized results. This transparency is essential if the monitoring results are to be convincing. The CCB Standards require that projects disseminate both the monitoring plan and the results of monitoring online and in locally appropriate ways. Prior to a verification audit, project proponents must prepare a report including the monitoring results and describing how the project has met the CCB Standards. This report must be made public for a 30 day comment period before the verification audit.

The reporting requirements of the CCB Standards are designed to promote a high level of transparency and accountability. Project proponents have an ethical responsibility to share monitoring results with affected stakeholders, but the dissemination of results is also an opportunity to review the data collection process and to check with project stakeholders whether the results seem to accurately reflect reality. During the verification process, the auditor will check whether all stakeholders have had the opportunity to review and comment on the monitoring reports.

### Box 12. Key References for SIA Stage 7: Data Analysis, Reporting, and Stakeholder Verification

Conservation Measures Partnership. *Open Standards for the Practice of Conservation*. Conservation Measures Partnership, 2007. Available at: [http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP\\_Open\\_Standards\\_Version\\_2.0.pdf](http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP_Open_Standards_Version_2.0.pdf).

*Describes how to develop a monitoring plan based on indicators derived from the theory of change or results chain.*

Richards, Michael, and Steve Panfil. *Manual for Social Impact Assessment: Version 1*. Washington, DC: Forest Trends, Climate, Community & Biodiversity Alliance, Rainforest Alliance and Fauna & flora International, 2010. Available at: [http://forest-trends.org/publication\\_details.php?publicationID=2436](http://forest-trends.org/publication_details.php?publicationID=2436).

## 5. Guidance for Cost-Effective SIA

Despite its usefulness for informing project design and mitigating carbon risks, for project proponents SIA represent a transaction cost that reduces net carbon revenues. This section provides brief guidance on how to make SIA as cost-effective as possible, i.e., sufficient to (1) achieve a basic level of credibility that is sufficient to satisfy the auditors at both the validation and verification stages and (2) create positive feedbacks for overall project design and effectiveness.



Key factors determining the cost-effectiveness of SIA are:

- The choice of methodology;
- External specialist support requirements;
- The extent of stakeholder participation; and
- Integration with other carbon project development tasks.

## 5.1 Choice of Methodological Approach

The issue of SIA credibility is mainly about a methodology's capacity to attribute social benefits to the project. Therefore, project proponents will need to look at the relative cost of different SIA approaches that are capable of "doing the job" for the given project. As discussed, the traditional approach to impact assessment uses matching methods. Apart from the well-documented difficulties of matching methods (Box 4), the cost is probably only justified for very large projects. It is suggested here that the theory of change approach not only establishes attribution more cost-effectively but also brings broader project design benefits.

## 5.2 External Specialist Support Requirements

The level of external specialist support needed is a key determinant of cost-effectiveness for SIA, and it is strongly linked to the choice of methodology and the degree of social complexity (some projects may have few community or stakeholder interactions, so that SIA can be quite simple). The high cost of matching methods is largely due to the need for specialized consultants at the design and data analysis stages, especially if econometric analysis is undertaken.

Another reason for preferring the theory of change approach is that, although it requires some initial training and technical assistance, it can be adopted and implemented mainly by project staff in conjunction with stakeholder representatives, and it does not involve statistical analysis. Statistical analysis can also make it challenging for projects to explain monitoring results to auditors and use the information for adaptive management purposes. Assuming the theory of change approach is being used, the sequence of advisory inputs presented in Table 6 is recommended (although this guidance is provisional in view of the short experience of implementing SIA with forest carbon projects).

**Table 6. Human Resource Inputs and Possible Timing for a Theory of Change Approach to SIA**

SIA Stage	Human Resource Inputs	Timing (Minimum Estimates)	Key Outputs
<b>Pre-SIA (Introductory Workshop)</b>	SIA facilitator with project staff, support NGOs, and a small group of stakeholder representatives (5-10)	3 days	SIA action plan and timetable; detailed methodology for SIA Stage 1 and SIA Stage 2; conceptualization and brainstorm prioritization of key social issues and stakeholders
<b>SIA Stage 1</b>	Project staff/NGOs with stakeholder representatives	4-8 weeks (combined with other activities)	Description of current social conditions and key issues; list of key stakeholders; stakeholder analysis
<b>SIA Stages 2 and 4</b>	Project staff/NGOs with larger group of stakeholder representatives (15-20)	2-4 weeks combined with other activities	Reports of focus group discussions of forward projections (short- to mid-term, and mid- to long-term) of key social issues (SIA 2); focus group discussions of possible negative effects of provisional project

			activities
<b>SIA Stages 2, 3, 4, 5 and 6</b>	SIA facilitator, project staff/NGOs, and larger group of stakeholder representatives (15-20)	1 week workshop with full stakeholder group and 1 week reporting/refinement by SIA facilitator and project staff/NGOs	Formalization of social reference scenario analysis in conceptual models (SIA 2); project theories of social change (SIA 3); analysis of negative impacts and mitigation activities (SIA 4); selection of indicators (SIA 5); community monitoring plan (SIA 6)
<b>SIA workshop follow-up, report and reviewing</b>	SIA facilitator with project staff/NGOs	1 to 2 weeks over about a month	Final community monitoring plan and SIA workshop report
<b>SIA Stage 7</b>	Project staff/support NGOs	Project duration	Monitoring data collection and initial analysis
<b>SIA Stage 7</b>	SIA facilitator with project staff/support NGOs for first auditor report, then project staff/NGOs alone	1 week after 5 years or according to verification timetable	Analysis of SIA data and preparation of initial auditor report
<b>SIA Stage 7</b>	Project staff/support NGOs and wider group of project stakeholder	1 week	Verification of SIA analysis and modification of auditor report

### 5.3 Local Stakeholder Participation

Local stakeholders should participate as much as possible in SIA, both for credibility and cost reasons. Participation in the SIA design process should also increase ownership and commitment to the project, which in itself contributes to carbon permanence. Another strength of the theory-of-change approach to SIA is that it provides an opportunity for stakeholders to be involved in project design, at least as regards the social objectives and strategy, including how to mitigate or compensate potential negative impacts. Local stakeholders are also best placed to formulate the without-project scenario, including projecting current social conditions into the future.

However, there are some limits to participation using the theory of change approach. First, it is difficult for semi-literate stakeholders to participate effectively. Second, if participants speak a language not spoken by the facilitator (such as an indigenous language), the necessary translation will cause participatory fora to take much longer, thereby consuming resources of the project and the time of the participants (there could be scope to compensate their time, although this raises project costs). A third issue is numbers: developing a theory of change is best done with a group of 15-25 people unless a second facilitator is brought in. Therefore participants need to be carefully selected, with project proponents taking into account their representativeness of project stakeholders (including sub-groups), knowledge, communication skills, and education or literacy levels.

There is another opportunity for participation at the monitoring stage. Participatory data collection methods are generally preferable and tend to be lower cost (while raising participants' costs, which may need compensated). This includes using self-determined indicators as mentioned in Section 4.6.

## 5.4 Integration with Other Carbon Project Development Tasks

Another very important way of keeping costs down is to integrate SIA with other aspects of the project development cycle, especially at the design stage. Combining SIA tasks with those of other key aspects of project development should result in a more robust, effective project design for all objectives. There are clear opportunities for such synergy in the following project development steps:

- Conducting legal due diligence (see Legal Guidance): an essential part of SIA Stage 1 involves assessing tenure, boundary, or land conflict issues, possibly using the RaTA tool (Galudra et al. 2010). SIA Stage 1 also entails ensuring that carbon property rights have been clarified and that equitable revenue-sharing contracts are in place with rights holders and other stakeholders.
- Defining the project participants (see Community Engagement Guidance): an essential activity in SIA Stage 1 is stakeholder identification and analysis, including assessing the interests, influence over project goals, and relationships between stakeholder groups and sub-groups.
- Constructing the carbon baseline, especially in the analysis of agents and drivers of deforestation or degradation: SIA Stages 1 and 2 should include an analysis by stakeholders of current land uses, including their consequences and drivers (although it is unlikely to extend as far as economic analysis of land use). See the Carbon Stock Assessment, REDD, and AR Guidance chapters (as appropriate) for further explanation of this aspect of project development.
- Drafting the design of project activities and land-use incentive strategy (see Business Guidance): SIA Stage 3 can feed into the project design by confirming that provisionally identified activities are strategic or by suggesting modified or new entry points to ensure positive social outcomes, which will often contribute to ensuring stakeholder buy-in and incentives for changing land-use trends.
- Analyzing carbon leakage risks and mitigation activities: SIA Stage 4 should shed light on the risks of displacing livelihoods or land uses arising from project activities, and how best to avoid or mitigate those risks, while SIA Stage 5 could inform the choice of indicators for ongoing monitoring of specific leakage risks.
- Calculating the risk buffer discount and developing strategies to mitigate non-permanence risks (see REDD Guidance): SIA Stages 1, 2, and 4 should provide a strong basis for at least part of the risk rating under the VCS (or other standard), including through the theory of change, while SIA Stage 5 could inform the choice of indicators for ongoing monitoring of specific non-permanence risks.
- Assessing biodiversity impacts (see Biodiversity Impacts Guidance): SIA Stages 2 and 4 should be helpful for identifying a biodiversity reference scenario as well as biodiversity risks arising from project implementation insofar as threats to biodiversity in the project zone are linked to local stakeholders.
- Monitoring and verifying carbon and biodiversity benefits: it is too early at this stage to assess the extent to which the monitoring, analysis, and reporting tasks for carbon, social, and biodiversity impacts can be combined, but project proponents should aim to synchronize them as much as possible.

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*Combining SIA tasks with those of other key aspects of project development should result in a more robust and cost-effective project design for all objectives.*

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## 5.5 Strategic Advice and SIA Principles of Good Practice

Good practice SIA should be seen as a key element in the design of forest carbon projects. Its cost-effectiveness should be considered in terms of its wider benefits, rather than in narrow terms such as the cost of developing a credible PDD or of achieving CCB validation. A well-designed SIA should:

- Result in an improved project design that will make it more likely that the desired social benefits are achieved and negative social impacts are avoided;
- Facilitate adaptive project management;
- Lower project implementation, leakage, and non-permanence risks;
- Increase the engagement and participation of local stakeholders, and possibly lead to better project-stakeholder and inter-stakeholder relationships; and
- Strengthen the carbon baseline analysis by providing a stronger causal understanding of deforestation drivers.

These wider benefits are more likely to accrue when an SIA is undertaken early on, at the project design phase, rather than as an “add-on” once the project has already been designed. Good practice SIA should also save costs. For example, it should help detect problems early, thereby avoiding the higher costs of sorting these out when the problems have become more serious, it should establish low cost participatory methods for monitoring social indicators, and it should avoid the need for an expensive independent SIA study which a dissatisfied auditor could possibly request at the time of verification.

Having reviewed different potential SIA approaches, we conclude that the theory of change approach represents the most cost-effective and appropriate framework for assessing the social outcomes and impacts of forest carbon projects, for the following reasons:

- It uses a very similar logic and sequence to the CCB Standards;
- It has broader design benefits, as outlined above;
- It involves a significant level of participation by stakeholders and can strengthen project ownership; and
- It leads to a moderate (but by no means negligible) cost of external technical support.

We conclude with some good practice guidelines or principles for cost-effective SIA:

- Invest in early technical assistance and/or training;
- Spend time clarifying the project social objectives and how it is hoped that these will be achieved, including distinguishing between outputs, outcomes, and impacts;
- Spend time assessing the causative linkages and assumptions between the anticipated outputs, outcomes, and impacts, as in the theory of change approach;
- Be honest and serious about the analysis of potential negative impact, as tracking and mitigating them can be critical to project success;
- Invest time in the selection of credible and practical indicators;
- Use participatory data collection methods wherever appropriate;
- Use a mixture of methods, for example, combine the theory of change approach, participatory impact assessment methods (as described by Catley, Burns, Abebe, & Suji, 2008) and self-evaluation; and

- Keep local stakeholders informed of the SIA process and its results, and give them the opportunity to question the findings - this is a form of ground-truthing, and the verification auditor would in any case check the SIA findings with stakeholder groups.

Finally, SIA of forest carbon projects should be based on the principle of “appropriate imprecision” (as opposed to “inappropriate precision”) as promoted in participatory learning approaches to rural development (Chambers 1983). Ultimately, constructing a convincing project theory of change and backing it up with carefully chosen indicators (containing a strong attribution element) is more important than trying to undertake a more sophisticated or quantitative analysis.

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# Glossary

For CDM projects, readers may wish to refer to the official definitions provided in the CDM Glossary of Terms, available at: [http://cdm.unfccc.int/Reference/Guidclarif/glos\\_CDM.pdf](http://cdm.unfccc.int/Reference/Guidclarif/glos_CDM.pdf).

VCS also provides standard Program Definitions, which are available at: <http://www.v-c-s.org/sites/v-c-s.org/files/Program%20Definitions%2C%20v3.0.pdf>.

**Additionality** – The principle of carbon additionality is that a carbon project should only be able to earn credits if the GHG benefits would not have occurred without the revenue (or expected revenue) of carbon credits. The same principle of additionality can be applied to social and biodiversity benefits.

**Attribution** – The isolation and accurate estimation of the particular contribution of an intervention to an outcome, demonstrating that causality runs from the intervention to the outcome. That is, attribution demonstrates that benefits claimed by the project (usually *co-benefits*) have been caused by the project and not another phenomenon.

**Baseline** – See *reference scenario*.

**Biodiversity target** – Biodiversity features which the project will target in its efforts to achieve net positive impacts on biodiversity. These will usually comprise High Conservation Values.

**Causal model** – See *theory of change*.

**Co-benefits** – Benefits generated by a forest carbon project beyond GHG benefits, especially those relating to social, economic, and biodiversity impacts.

**Control** – In the context of impact assessment for forest carbon projects, an area that does not experience project interventions but is otherwise similar to the project area. Controls are used to monitor the reference scenario and to demonstrate the attribution of outcomes and impacts to the project.

**Counterfactual** – The outcome that would have happened had there been no intervention or project – i.e., the final outcome of the reference scenario.

**Evaluation** – The systematic and objective assessment of an on-going or completed project, program or policy, and its design, implementation, and results.

**GHG benefits** – Any emissions reductions from reducing carbon losses or emission removals from enhanced carbon sequestration due to the forest carbon project activities.

**Impact** – The positive and negative, primary and secondary, short- and long-term effects of a forest carbon project. Impacts may be direct or indirect, intended or unintended. Impacts result from a chain of inputs, outputs, and outcomes.

**Indicator** – A measurable variable that reflects, to some degree, a specific monitoring information need, such as the status of a target, change in a threat, or progress toward an objective.

**Inputs** – The financial, human, and material resources used for a forest carbon project. Most relevant in discussion of outputs, outcomes, and impacts.



**Leakage** – The geographical displacement of GHG emissions – or social, economic, or biodiversity impacts – that occurs as a result of a forest carbon project outside of the forest carbon area. Leakage assessments must consider adjacent areas as well as areas outside of the project zone.

**Measurement, Reporting, and Verification System** – A national, subnational, or project-level set of processes and institutions that ensure reliable assessment of GHG benefits associated with real and measurable emission reductions and enhancement of carbon stocks.

**Methodology** – An approved set of procedures for describing project activities and estimating and monitoring GHG emissions.

**Monitoring** – A continuing process that uses systematic collection of data on specified indicators to provide indications of the extent to which objectives are being achieved.

**Multiple-benefit projects** – Projects that generate sufficient environmental and social co-benefits, in addition to GHG benefits.

**Outcomes** – The likely or achieved short-term and medium-term effects of an intervention’s *outputs*.

**Outputs** – The products, capital goods, and services that result from a forest carbon project.

**Project area** – The land within the carbon project boundary and under the control of the project proponent. (The CCB Standards use distinct language for *project area* and *project zone*.)

**Project developer** – The individual or organization responsible for the technical development of the project, including the development of the PDD, the assessment of social and biodiversity impacts, monitoring and evaluation, etc. Although the term does not necessarily describe a commercial entity, it often refers to an external company that is contracted to do work on the ground.

**Project Design Document** – A precise project description that serves as the basis of project evaluation by a carbon standard, commonly abbreviated to PDD. (Alternatively, VCS calls this the “project description,” or PD)

**Project participant** – Under the CDM, a Party (national government) or an entity (public and/or private) authorized by a Party to participate in the CDM, with exclusive rights to determine the distribution of CERs – equivalent to *project proponent* under the VCS. In the voluntary market, project participant is used more loosely to describe any individual or organization directly involved in project implementation.

**Project proponent** – A legal entity under the VCS defined as the “individual or organization that has overall control and responsibility for the project.” There may be more than one project proponent for a given project. Carbon aggregators and buyers cannot be project proponents unless they have the right to all credits to be generated from a project.

**Project zone** – The project area plus adjacent land, within the boundaries of adjacent communities, which may be affected by the project. (The CCB Standards use distinct language for *project area* and *project zone*.)

**REDD** – A system that creates incentives and allocates emissions reductions from reducing emissions from deforestation and forest degradation.

**REDD+** – A system that creates incentives and allocates emissions reductions from the following activities: (a) reducing emissions from deforestation; (b) reducing emissions from forest degradation; (c) conservation of forest carbon stocks; (d) sustainable management of forests; and (e) enhancement of forest carbon stocks.

**Reference scenario** – An estimated prediction of what will happen in a given area without the project. Reference scenarios may cover land use patterns, forest conditions, social conditions, and/or biodiversity characteristics. Also called the “business-as-usual scenario” and the “baseline.”

**Starting conditions** – The conditions at the beginning of a project intervention. Also called “original conditions” in the CCB Standards and sometimes referred to as the “baseline” in the field of impact assessment. This can, however, lead to confusion, considering that CCB Standards and carbon standards use the same term to describe the “reference scenario” of a forest carbon project.

**Theory of change** – The hypothesis, as developed by the project design team, of how the project aims to achieve its intended goals and objectives, including social and biodiversity objectives. This is sometimes referred to as the *causal model*.



**F O R E S T  
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