

Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects

PART 1 – CORE GUIDANCE FOR PROJECT PROPONENTS

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SOCIAL AND BIODIVERSITY IMPACT ASSESSMENT (SBIA) MANUAL FOR REDD+ PROJECTS:

PART 1 – CORE GUIDANCE FOR PROJECT PROPONENTS

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VERSION 2 – September 2011

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Foreword

Are land-based carbon projects good for local people, biodiversity, and ecosystem services? On the social side, many rural communities appear keen to embark on carbon projects as a way of generating income and social benefits, but may be less aware of the potential negative impacts. Similarly, biodiversity conservationists are eager for the long-term funding streams that forest carbon projects may offer. Carbon offset buyers and investors are also attracted by the idea of simultaneously benefiting local people and species while reducing emissions. But how can all these actors be sure that the projects are not doing more harm than good?

We think that a combination of robust standards for assessing the social and biodiversity performance of projects and credible impact assessment methods can help ensure positive outcomes for local people and biodiversity. The Climate, Community and Biodiversity (CCB) Standards, originally launched in 2005, are widely favored by project developers, investors, and buyers. In addition, safeguards to prevent negative social and biodiversity impacts figured prominently in the REDD+ Agreement of the 16th Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC) held in Cancun in 2010.

The early emphasis of the carbon markets has been on assuring the integrity of emissions reductions, while the social and biodiversity co-benefits have received much less attention. But the balance is changing, and there are justifiable concerns that these benefits must, like carbon, be real, additional and, as far as possible, measurable. For example, a prominent auditor recently stated at a public meeting that “getting the social methodology right is just as important as getting the carbon methodology right” (Jeff Hayward, pers. comm., 2010). This is partly due to the need for market confidence, as offset buyers increasingly seek evidence that they are getting what they pay for, including the co-benefits. It is also imperative on ethical and equity grounds that carbon projects at the very least “do no harm.”

In response to such issues, the Climate, Community and Biodiversity Alliance (CCBA), Forest Trends, Fauna & Flora International (FFI), and the Rainforest Alliance formed an alliance with the aim of producing a user-friendly Manual on how to conduct cost-effective and credible social and biodiversity impact assessment. The concepts described in this Manual will be relevant to a wide range of site-level land-based carbon activities, whether designed for compliance or voluntary markets (we believe that sub-national activities will continue to have an important role in a future REDD + architecture).

Thanks to the financial support of The Program on Forests (PROFOR), The Rockefeller Foundation, USAID-Translinks, Morgan Stanley, the Norwegian Agency for Development Cooperation (NORAD), the United Nations Development Program (UNDP) and the Global Environment Facility (GEF), and the Gordon and Betty Moore Foundation, we are therefore pleased to release this second version of the “Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects” The first version of this Manual, published by Forest Trends, focused only social impact assessment (SIA) and was released in May 2010. This initial version was peer-reviewed by three very experienced practitioners and was used in SIA training workshops in Peru and Tanzania. In 2011, the authors conducted field tests of the Manual with REDD project stakeholders in Peru, Guatemala, and Brazil. This thoroughly revised version incorporates the many insights gained from these reviews and workshops and also adds new guidance on assessing the biodiversity impacts of REDD+ projects.

We therefore very much hope that you will find this Manual useful and look forward to your feedback.

Joanna Durbin
Director, CCBA

Michael Jenkins
President and CEO, Forest Trends

List of Acronyms (Parts 1-3)

A/R	Afforestation/Reforestation
BIA	Biodiversity Impact Assessment
BNS	Basic Necessities Survey
CCB	Climate, Community and Biodiversity (Standards)
CCBA	Climate, Community and Biodiversity Alliance
CMP	Conservation Measures Partnership
FPIC	Free, Prior and Informed Consent
GEF	Global Environment Facility
IAIA	International Association for Impact Assessment
ISEAL	International Social and Environmental Accreditation and Labeling (Alliance)
M&E	Monitoring and Evaluation
NGO	Non-Governmental Organization
NTFP	Non-Timber Forest Product
PES	Payment for Ecosystem Service
PIA	Participatory Impact Assessment
PLA	Participatory Learning and Action
PRA	Participatory Rural Appraisal
REDD	Reduced Emissions from Deforestation and Forest Degradation
REDD+	Reduced Emissions from Deforestation and Forest Degradation and the conservation, sustainable management of forests, and enhancement of forest carbon stocks
ROtI	Review of Outcomes to Impacts (methodology)
RRA	Rapid Rural Appraisal
SBIA	Social and Biodiversity Impact Assessment
SIA	Social Impact Assessment
SLF	Sustainable Livelihoods Framework
SMART	Specific, Measurable, Achievable, Realistic/Reliable, Time-bound
WG	(Focal Issue) Working Group

Note: Only acronyms that are used more than once are listed here.

1. Introduction – What Is this Manual About?

1.1 Introduction and Objectives

Activities that reduce emissions from deforestation and forest degradation (REDD) and contribute to conservation, sustainable management of forests and enhancement of carbon stocks (REDD+),¹ and other land-based carbon projects, have drawn significant attention and investment because of their potential to reduce greenhouse gas emissions while simultaneously benefiting local communities and biodiversity. But maximizing these benefits and avoiding harm requires special measures in project design and implementation. Reforestation, avoided deforestation, and other land-based emissions reductions activities affect large areas of land in developing countries where local people and biodiversity are highly sensitive to changes in land use. If they are to deliver on their promise of multiple benefits, these projects must include systems to accurately project and measure their impacts, both positive and negative.

The Social and Biodiversity Impact Assessment Manual for REDD+ Projects (“SBIA Manual” for short) was written to help those who are responsible for the design and implementation of land-based carbon projects to monitor the ways in which their projects affect the local biodiversity and the livelihoods of the people living in and around a project site. There are various reasons why this is necessary, including the moral imperative to at least avoid negative social and biodiversity impacts, as recognized in the Safeguards agreed at the 2010 UNFCCC meeting in Cancun.² Other reasons include upwards and downwards accountability, ensuring local and wider political acceptability, and a commercial rationale – many carbon offset buyers are specifically attracted to forest carbon projects because of their potential to generate social and environmental co-benefits (EcoSecurities 2010). Just as these buyers seek assurance that the offsets they buy represent real emissions reductions, they also want to know the real effect of a project on the local people and environment. Therefore, many land-based emissions reductions projects are being designed to meet multiple-benefit standards such as the Climate, Community & Biodiversity (CCB) Standards.

The main objective of this Manual is to help project proponents implement cost-effective social and biodiversity impact assessments to meet the CCB or other standards and, in so doing, make the projects more successful and sustainable. We believe that good-practice impact assessment is essential because it can help a project to:

- Deliver greater benefits for local people and their environment;
- Achieve social sustainability: the success of most land-based carbon projects depends on getting the social and community aspects of the project right. Social and carbon objectives are strongly linked. Therefore, effectively addressing the social aspects helps achieve carbon permanence and reduce project and investor risk as recognized by the Verified Carbon Standard (VCS);³

¹ REDD+ is officially defined as “reducing emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks” (UNFCCC Decision 2/CP.13–11). This definition is understood to include planted trees, natural forest restoration, and improved (sustainable) forest management.

² The Safeguards state that *inter alia* REDD+ activities “should be implemented in the context of sustainable development and poverty reduction,” and they include strong wording on the rights, knowledge and “full and effective participation” of indigenous peoples and local communities (“Outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action Under the Convention” 2010).

³ The link between social and carbon sustainability is recognized in the Verified Carbon Standard (VCS) procedures for conducting non-permanence risk analysis of agriculture, forestry and land use (AFOLU) projects published in 2011. Evidence of a participatory assessment of social and economic costs and benefits can, via a “mitigation credit”, result in a lower percentage of credits being held back as a risk buffer. The VCS “Procedural Document” explains that certification against the CCB Standards or Social Carbon Standard can be used to demonstrate that a project satisfies this mitigation requirement (VCS 2011. AFOLU Non-Permanence Risk

- Identify risks and mitigate negative project impacts at an early stage so that these can be prevented or mitigated;
- Increase the understanding and participation of local stakeholders in project design and implementation. This should also improve project-stakeholder relationships and enable the project to benefit from local knowledge;
- Facilitate adaptive project management, thereby further contributing to project sustainability and carbon permanence;
- Contribute to the currently weak empirical body of data and understanding about the socio-economic and biodiversity effects of land-based carbon projects.

Earlier reviews of methods for social impact assessment (SIA) (Richards 2008) and biodiversity impact assessment (BIA) (Ekstrom 2008) revealed an absence of clear methodological guidance for land-based carbon projects. While there are some helpful monitoring and evaluation (M&E) manuals (e.g., IFAD 2009, CARE 2002), these do not provide REDD+ project proponents with sufficient guidance for the type of analysis required to meet the CCB Standards or other multiple-benefit standards. We believe that the lack of such guidance is a key factor constraining the adoption of good practice, especially given that many project proponents are not specialists in impact assessment.

This Manual addresses this gap and is the product of an alliance between the Climate, Community and Biodiversity Alliance (CCBA), Forest Trends, Fauna and Flora International (FFI), and the Rainforest Alliance. These organizations combine extensive experience and expertise in sustainable natural resource management (in a range of forestry, agricultural, and landscape-level contexts), carbon finance, social analysis, standard setting, auditing, and carbon project development.

The SBIA Manual has been written in a style that we hope is easy to understand by individuals who are not specialized in impact assessment or monitoring and evaluation (M&E). While we believe that many aspects of impact assessment can be undertaken by non-specialists, advisory input from social or biodiversity monitoring experts are recommended at key stages in the project cycle.

1.2 Relationship of the Manual to the CCB Standards

This Manual is designed in a way that helps projects meet the requirements of the Climate, Community & Biodiversity (CCB) Standards (CCBA 2008), since they are the most widely used multiple-benefit standards for land-based carbon projects. The use of the SBIA Manual is not a requirement of the CCB Standards, but we believe that using the methods described here can facilitate successful validation and verification against the CCB Standards. However, the SBIA should also be useful for projects wishing to meet other multiple-benefit standards. Furthermore, we believe that the methodologies and approaches set out in the Manual are applicable to a range of payments for ecosystem services (PES) situations and not just land-based carbon projects.

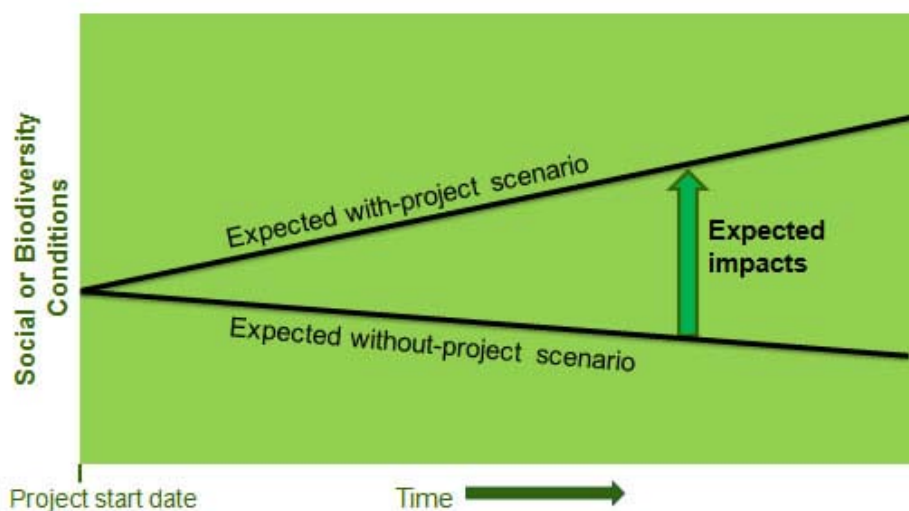
1.3 What Do the CCB Standards Require?

The CCB Standards require that projects generate net-positive impacts for local communities and for biodiversity. Determining what these impacts are, and that they are on balance positive, requires several steps including:

- An accurate description of the socio-economic and biodiversity conditions at the project site at the start of the project;
- A projection of how those conditions would change, if the project were never implemented (the “without-project” situation);
- A description of the likely outcomes and impacts during and after project implementation (the “with-project” situation);
- A justification of how project activities are likely to bring about the expected changes, including “net-positive” social and biodiversity impacts;
- Design and implementation of a credible system for monitoring social and biodiversity impacts;
- Reporting the results of the project.

The CCB Standards therefore require that project proponents describe the socio-economic and biodiversity conditions at the project site and make projections about how these conditions will change with and without the influence of the project. To be approved against the CCB Standards, the “with-project” scenario must show an improvement over the “without-project” scenario at both the *ex-ante* (validation) and *ex-post* (verification) stages. This is depicted graphically in Figure 1. It should be noted that the slope of the “without-project” line in Figure 1 could be negative, flat, or positive; also, in practice these would not be straight lines – they are only drawn this way to describe a concept.

Figure 1. Graphical Representation of Expected Net-Positive Benefits of CCB-Validated Projects



These requirements raise a number of important questions that are addressed in this Manual:

- What should be measured?
- How should the projections be made?
- How can the changes or differences be measured?
- How can it be shown that the changes were due to the project?

This last question is often termed the “attribution question” and highlights a key requirement of the CCB Standards. Just as emissions reductions must be “additional” to qualify for carbon credits, social and biodiversity benefits must be “additional” under the CCB Standards. **CCB Concept CM1** states that “the project must generate net-positive impacts on the social and economic well-being of communities” (CCBA 2008). **Criterion CM1.1** goes on to state 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” (ibid.).⁴

This requires establishing that the projected improvement in social conditions will be caused by the project activities rather than by other factors, for example, another project or a government policy change. If the social benefits would have happened anyway – in the “without-project” situation – then they are not attributable to the carbon project. For example, if local livelihoods improve due to a government project or a macro-economic change (e.g., a currency devaluation providing a boost to export crops), then carbon project developers cannot claim credit for the social benefits, nor will the carbon buyers have paid for them.

In other words, the requirement for the additionality of social and biodiversity benefits means that the impact assessment or evaluation must show cause and effect between the project activities and the co-benefits (attribution). A significant part of this Manual is therefore devoted to the issue of attribution, which is the core challenge for any kind of impact assessment.

1.4 What are Social and Biodiversity Impacts?

A representative definition of social impacts is the following:

“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” (National Maritime Fisheries Service 1994).

A more detailed definition of social impacts and a definition of social impact assessment (SIA) by the International Association for Impact Assessment (IAIA) is provided in Box 1, while Box 2 presents IAIA definitions of biodiversity impacts and biodiversity impact assessment (BIA). The process of impact assessment is further defined by the IAIA (2009) as “the process of identifying the future consequences of a current or proposed action. The impact is the difference between what would happen with the action and what would happen without it.”

⁴ All references to the CCB Standards are from CCBA (2008). *Climate, Community & Biodiversity Project Design Standards Second Edition*. CCBA, Arlington, VA, December 2008. <http://www.climate-standards.org/>

Box 1. What Do We Mean by ‘Social Impacts’ and ‘Social Impact Assessment’?

The International Association for Impact Assessment (IAIA 2003) defines social impacts, for the purpose of social impact assessment, as changes to one or more of the following:

- People’s way of life – how they live, work, play, and interact on a day-to-day basis;
- Their culture – 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 participate in decisions that affect their lives, the level of democratization that is taking place, and the resources provided for this;
- 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 well-being, and not merely the absence of disease or infirmity;
- Their personal and property rights – particularly whether people are economically affected, or experience personal disadvantages 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.

The IAIA also defines social impact assessment 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” (<http://www.iaia.org/>).

Box 2. What Do We Mean by ‘Biodiversity Impacts’ and ‘Biodiversity Impact Assessment’?

The IAIA (2005) notes that biodiversity impacts are changes that can occur at different levels:

- Ecosystems
- Species
- Genotypes

Impacts at each of these levels should be considered in terms of:

- Composition – what biological units are present and how abundant they are;
- Structure (or pattern) – how biological units are organized in time and space;
- Function – the role that different biological units play in maintaining natural processes and dynamics.

The IAIA also defines biodiversity impact assessment as a way to “ensure that biodiversity values are recognized and taken into account in decision-making” (IAIA 2005).

From these definitions it is clear that not all changes represent impacts. The term ‘outcome’ is frequently used to describe intermediate changes or results that may or may not result in long-term impacts. For example, improved community organization, employment, increased household income, or a change of livelihood (e.g.,

bee-keeping instead of bushmeat hunting)⁵ resulting from a carbon project may be positive outcomes, but are not social impacts since they do not *per se* alter human behavior or welfare for better or worse. On the other hand, improved family health as a result of being able to afford a better diet from honey sales would be a positive social impact.

Another characteristic of social and biodiversity impacts is that they can be direct or indirect, as well as intended or unintended. Indirect or secondary impacts are the result of direct impacts, for example:

- Children spending longer at school (indirect impact) as a result of an improvement in family income (direct impact)
- A reduced level of deforestation (indirect impact) because of improved yields from agriculture on previously cleared land (direct impact)
- Increased local food and land prices (indirect impact) due to a large REDD+ project that restricts agricultural land use (direct impact)

An important type of indirect benefit is the social impact of changes to the local environment. For example, better water or improved dry season water flows resulting from a REDD+ project could improve the health of downstream communities; reforestation or agroforestry activities could act as a shelter belt or windbreak for farming and thereby improve household income and the family diet. Similarly, environmental degradation could lead to negative social impacts. Some environmental or indirect benefits are easier to identify and prove than others, and this is an important challenge for SBIA.

As well as helping to increase the likelihood of positive social and biodiversity outcomes and impacts, impact assessment is equally important for identifying potential negative impacts and risks to project success and the mitigation measures required to counteract these negative impacts and risks. There is an abundant literature on the risks and potential negative social impacts of REDD+ projects, with various observers (for example Angelsen et al. 2010, Peskett et al. 2008) pointing out possible trade-offs between carbon and social/poverty objectives. For example, for any project involving indigenous peoples, it is essential to conduct an analysis of potential cultural effects (see Box 8 in **Section 3.2**).

We know from experience that forestry-related interventions are often problematic from a social perspective including, for example, the problem of elite capture in community forestry or joint forest management programs (McDermott and Schreckenberg 2009). It is also well documented that the poorest often depend on resource-degrading activities,⁶ so that attempts to reduce degradation may make their life more difficult. Such social issues are likely to affect carbon objectives, for example, through increased risk of leakage. These issues bring us back to the core rationale for the CCB Standards, which is to promote projects that simultaneously deliver social and biodiversity benefits together with emissions reductions.

The definitions of social and biodiversity impact assessment also reveal a considerable overlap between the concepts of impact assessment and monitoring and evaluation (M&E). M&E is a broader concept than impact

⁵ It is in reality over-simplistic to say that a switch from bushmeat hunting to bee-keeping will be socially positive since the social impacts from such a switch could include: less family protein (in the short-term); a loss of traditional knowledge and the “connection with nature” associated with hunting; a weakening of institutions that were able to regulate hunting, but may be less appropriate for bee-keeping; and an erosion of social capital based on sharing the results of individual or community hunting expeditions (Jane Dunlop, personal communication 2011).

⁶ This is not the same as saying that poorer people deforest or degrade more than richer people. The CIFOR “Poverty and Environment Network” research program, covering 56 localities and 8,000 households in a range of tropical forest landscapes, has found that on average the top income quintile (richest 20%) households deforest 30 percent more than the bottom quintile (poorest 20%) (Angelsen et al. 2011).

assessment; for example, much of M&E is about improving the effectiveness of an activity or organization. But they have much in common, and to some extent this Manual is also about developing and implementing an effective M&E system.

1.5 How Is this Manual Organized?

This SBIA Manual is divided into three Parts – “Part 1: Core Guidance for Project Proponents”, “Part 2: Social Impact Assessment (SIA) Toolbox for REDD+ Projects” (“Social Toolbox” for short) and “Part 3: Biodiversity Impact Assessment (BIA) Toolbox for REDD+ Projects” (“Biodiversity Toolbox” for short). Part 1 provides an overview of some challenges and issues for SBIA and then sets out a suggested process or framework for impact assessment, while Parts 2 and 3 describe specific methods or tools and provide examples that can help project proponents select the most appropriate measurement methods.

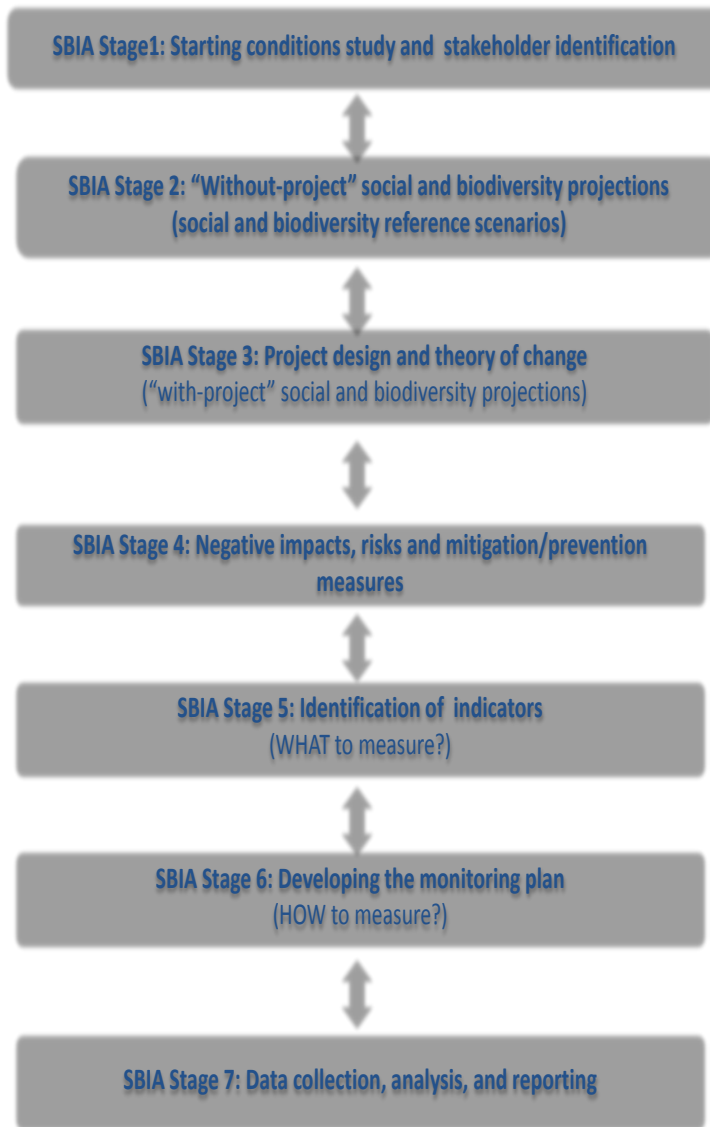
Following this Introduction (Section 1), Part 1 Section 2 discusses some key challenges and issues for SBIA, and Sections 3 to 9 present seven proposed stages for conducting cost-effective SBIA, as shown in Figure 2. Section 10 discusses cost-effectiveness, and Section 11 presents some conclusions and recommendations for good-practice SBIA. Annexes 1 and 2 to Part 1 provide methodological guidance and support materials for conducting an SBIA Workshop, which is central to the proposed SBIA process.

Part 2 – the Social Toolbox – is organized into nine sections. Following an Introduction, Section 2 presents a review of the evidence surrounding social outcomes, impacts, and change processes associated with land-based carbon projects. This is followed by sections on: general data collection methods for SIA (Section 3); stakeholder analysis as a key method for understanding the project starting conditions (Section 4); scenario analysis as a potential method for assessing future “without-project” benefits and costs (Section 5); the sustainable livelihoods framework as a basis for selecting indicators (Section 6); participatory impact assessment methods, mainly relevant to the measurement of indicators (Section 7); the Basic Necessities Survey as a method for measuring changes in poverty (Section 8); and, finally, some sample lists of social indicators of potential relevance to land-based carbon projects (Section 9).

Part 3 – the Biodiversity Toolbox – is organized into five sections. Following the Introduction, Section 2 presents a review of typical biodiversity impacts of different types of forest carbon projects. This is followed by sections on initial biodiversity and threat conditions and defining the “without-project” scenario (Section 3); the design of project activities and estimation of their biodiversity impacts (Section 4); and methods for monitoring biodiversity (Section 5).

Table 1 lists some of the methods covered in Parts 2 and 3 and relates them to the SBIA Stages listed in Figure 2. It also summarizes each SBIA Stage and lists the relevant CCB Concepts and Criteria.

Figure 2. Proposed Social and Biodiversity Impact Assessment (SBIA) Stages⁷



⁷ It should be noted that, although the SBIA stages appear in Figure 2 in the form of a linear process, in practice SBIA is an iterative process – for example, SBIA Stages 3, 4, and 5 will shed light on key change processes or variables, which would affect both the necessary starting conditions data (SBIA Stage 1) and the “without-project” analysis (SBIA Stage 2). This assumes that SBIA is conducted at the project design stage, as is strongly recommended in this Manual.

Table 1: Summary of Proposed SBIA Stages, Main Methods, and Relevance to the CCB Standards

	Description	Main Methods / Activities Proposed	Relevant CCB Concepts and Criteria
SBIA Stage1	Description of socio-economic and biodiversity conditions at project start; identification of all stakeholder groups and biodiversity values that might be affected by the project	Social: Participatory Rural Appraisal (PRA) methods, household surveys, community maps, secondary data, wealth or well-being ranking, and stakeholder analysis Biodiversity: Identification of appropriate external experts and local partners, field surveys, literature review, and stakeholder focus group discussions	Concept G1 (especially Criteria G1.1, G1.2, G1.3, G1.5 and G1.6, G3.8
SBIA Stage 2	Projection of social and biodiversity conditions and impacts assuming there is no project and focusing on the variables and outcomes most likely to be affected	Social: Stakeholder focus group discussions, problem flow diagrams, scenario analysis, etc. Biodiversity: Expert evaluation with input from local partners and social impact scenario analysis	Concept G2 (especially Criteria G2.1, G2.2 and G2.4), Concepts GL1, 2, 3
SBIA Stage 3	Description of how the project proponents and stakeholders think the social and biodiversity objectives will be achieved, and identification of key assumptions between the project outputs, outcomes, and impacts	Theories of change developed by representative stakeholder groups	Concept G3 (especially Criteria G3. 1, G3.2, G3.3,G3. 5, G3. 7 and G3. 8), CM1, B1, GL
SBIA Stage 4	Analysis of possible negative social and biodiversity impacts and cost-effective mitigation measures	Social: Analysis of results chains, stakeholder focus groups, community stakeholder dialogue, expert review Biodiversity: Expert evaluation with input from local partners and social impact analysis	Criteria G3.5, G5.4, G5.5, G5.6, and Concepts CM1,CM2, B1, B2
SBIA Stage 5	Identification of monitoring indicators to measure progress in achieving the desired social and biodiversity outcomes and objectives	Social: Indicators may be based on the <i>theory of change</i> , the sustainable livelihoods framework or, in some systems, generic indicator lists Biodiversity: Indicators selected by experts with input from stakeholder focus groups	Concepts CM3, B3
SBIA Stage 6	Design of the community and biodiversity monitoring plans, including data collection methods for measuring indicators	Social: PRA, surveys, key informants, Basic Needs Survey (BNS), Participatory Impact Assessment (PIA, and other data collection methods Biodiversity: Monitoring designed by experts with input from local partners	Concepts CM3, B3
SBIA Stage7	Data collection, analysis, and reporting, including verification of SBIA results with stakeholders	Stakeholder meetings and feedback workshops	Concepts CM3, B3

2. Key Concepts and Challenges for SBIA

2.1 Why Is SBIA Tricky?

Social and biodiversity impact assessment (SBIA) is tricky – it is quite hard to do well and easy to do badly. Even sophisticated and expensive SBIA studies have been found to be flawed in one way or another. This is because we are dealing with things that are hard to be certain about – social and biodiversity conditions and change processes can be complex. In particular, one cannot easily measure or quantify social change, or say what has caused it.

The main reasons why SBIA is tricky are as follows:

- It is difficult to prove cause and effect – this is the challenge of showing attribution.
- Social and biodiversity impacts tend to be long-term phenomena – it is hard and unrealistic to identify them in the short-term.
- Social and biodiversity impacts may be subtle and are not easily measured; for example, social impacts are often indirect (or “side-effects”) and related to contested social and political values.
- Social and biodiversity impacts are often unexpected, especially negative ones.
- It can be difficult to distinguish between impacts and outcomes.
- There has been a lack of research data on the social and biodiversity effects of land-based carbon projects.
- The diversity of project types means there is no “one-size-fits-all” approach to SBIA.
- There has been a lack of user-friendly guidance for project proponents.

Nevertheless, impact assessment does not necessarily require sophisticated methods, and we believe that, based partly on the principle of “appropriate imprecision”,⁸ project proponents can credibly document the social and biodiversity impacts of a carbon project. With some training and technical assistance, the project staff and stakeholders should be able to undertake it.

Attribution is a challenge for all types of impact assessment, and especially when considering social impacts. Projects that can point to direct social impacts and outcomes, rather than relying on indirect or downstream impacts (for example, improved local institutions and governance) when the project could be one of several contributory factors, will find it easier to identify indicators and present a clear case for net-positive social benefits. Attribution is particularly discussed in SBIA Stages 3 and 5.

By definition, social and biodiversity impacts refer mainly to long-term changes. Verification audits against the CCB Standards that assess whether a project has actually generated net-positive social and biodiversity benefits must be carried out within five years of validation, which may be too short for some changes to be measurable. For these reasons, it is more practical to identify and monitor short- and medium-term changes in the form of project outputs and outcomes (or indicators derived from these) rather than to try to track longer-term impacts from the outset.

⁸ ‘Appropriate imprecision’ was defined by Robert Chambers as “not gathering data with more accuracy than is needed to understand the priority issues for evaluation” (Chambers 1983).

Social and, to a lesser extent, biodiversity impacts are often unexpected, subtle, indirect, sometimes negative, and (in the case of social impacts) intangible, so a mix of methods is the best strategy for picking them up. For unexpected or negative impacts, open-ended participatory approaches and regular contact with stakeholders are vital for predicting and catching these impacts early. Negative impacts are always possible, and systems to identify and mitigate them should be factored into a project from the start. Monitoring for negative impacts is covered in SBIA Stage 4.

The lack of research data on social and biodiversity impacts of land-based carbon projects is inevitable given their short history and the small number of operational projects. The introduction of more systematic SBIA methods will gradually increase the body of understanding and help inform future SBIA exercises. We have tried to systematize what we know about social and biodiversity outcomes and impacts in **Social Toolbox Section 2** and **Biodiversity Toolbox Section 2**.

There is considerable diversity of land-based carbon project types, including those submitted for validation against the CCB Standards. For example, there are large and small projects; REDD and afforestation/ reforestation (A/R) projects; projects with relatively few social or biodiversity impacts; community-based projects with a range of stakeholder groups; agroforestry projects involving many small farmers; etc. This makes it difficult to have a blueprint or “one-size-fits-all” approach, although this Manual presents a generic methodology which can be adapted, we believe, to all land-based carbon project types.

Finally, the apparent lack of user-friendly guidance on SBIA for project developers is the main rationale for this Manual. We hope we have succeeded in making it a bit less tricky!

2.2 Credibility and Cost-Effectiveness

Social and biodiversity impact assessment is not worth doing, if it is not credible. While it is unclear whether there is a trade-off between cost and credibility, the aim of the Manual is to develop a way of doing SBIA that achieves a reasonable level of credibility for the lowest cost, because we are well aware that this cost represents yet another transaction cost and a further reduction in net carbon payments affecting both the financial viability of the project and returns to key stakeholders.

Impact assessment studies using traditional approaches such as the quasi-experimental method tend to be expensive – the literature reports a typical cost of between US \$50,000 and \$150,000 depending on a range of factors, including project size (Richards 2008). The main reason for using the experimental or quasi-experimental approach – involving the statistical comparison of control and treatment (or project) groups – is to tackle attribution (see Box 3). However, following a review of the literature (Richards 2008), we believe that the “*theory of change*” or “causal model” approach is more cost-effective for carbon projects.⁹

⁹ This is not to say that the two approaches are mutually exclusive. On the contrary, they are highly complementary as pointed out by Jagger et al. (2010), but the cost implication of combining them would be prohibitive except for very large or well-resourced projects.

Box 3. The ‘Matching Methods’ Approach to Impact Assessment

The essence of the experimental or quasi-experimental approach, also known as ‘matching methods’, is to make statistical or non-statistical comparisons between control and treatment groups. Control groups or individuals are non-participants with similar observable (age, income, education, gender, etc.) characteristics to project participants. If the comparison results in significant differences between the two groups, they can be regarded as attributable to the project rather than to other influences.

In an experimental approach, controls are selected using random sampling. But this can be expensive (partly due to the sample size) and is often not practical, so a quasi-experimental approach involving constructed controls is usually used. This involves trying to find people or groups who are as similar as possible to the project participants.

However, it is often difficult to find suitable controls: firstly, while their observable characteristics may be similar, they may have different unobservable characteristics (e.g., attitudes to risk); if they are close to the project area, there is a risk of project spill-over effects (e.g., project information affecting the behavior of the controls); and if more distant control groups are selected, this increases the risk that other factors, like market access or other projects, will affect the comparison. Other problems include the low motivation of control groups to cooperate, the tendency for people to change their behavior when studied, and the ethical problem that control groups cannot participate in any future project expansion.

A cheaper matching method approach is a “before-and-after-project” comparison by project participants, also known as “reflexive comparison”. While this is considered to be relatively unreliable when based on memory recall, it can be useful for triangulation purposes.

Main Sources: Richards 2008; La Rovere and Dixon 2007; USAID 2006.

While the *theory of change* approach is not without its challenges and limitations, it avoids the difficulty of finding satisfactory controls as well as the ethical problem mentioned in Box 3. It is worth noting that a similar conclusion has been reached by the micro-finance sector (Box 4). For biodiversity impact assessment, the matching methods approach may be more feasible, since it should be easier to find control sites that are outside the project area, and the ethical issue does not arise.

Box 4. Impact Assessment in the Micro-Finance Sector

There is an extensive literature devoted to the impact assessment of micro-finance programs. This literature concludes that traditional approaches to assessing the desired poverty and social impacts of micro-credit are too expensive and poorly suited to the needs of the micro-finance sector.

Following a process of consultation and research, it was decided to adopt an approach based on evaluating success according to the social performance of microfinance institutions (MFIs) rather than by attempting to attribute long-term social impacts such as poverty reduction to project activities. Social performance was defined as the effective translation of an institutional mission into practice and the likelihood of short- to medium-term outcomes leading to social value (or impacts). Thus, various social rating schemes exist to evaluate MFIs via a set of change or outcome indicators that reflect benchmark levels or international best practice. Qualitative methods are then used to explore plausible links between these indicators and poverty impacts.

Source: SEEP Network 2006.

The cost of SBIA depends to a considerable extent on who does it. The high cost of traditional matching-methods approaches refers to independent studies mainly undertaken by teams of consultants. In this Manual, we aim to develop an approach to SBIA that can be undertaken as much as possible by the project team and

stakeholder representatives, with inputs from experts at key points in the process. We return to the theme of cost-effectiveness in **Section 10**.

2.3 The *Theory of Change* Approach to SBIA

As discussed above, our research has led us to the conclusion that the *theory of change*, also sometimes referred to as the causal model or theory-based evaluation approach, represents a cost-effective and appropriate approach to SBIA for payments for ecosystem services (PES) projects. The term '*theory of change*' sounds like it could be something complex or abstract, but in practice it is fairly straightforward as explained in Box 5.

As implied by Box 5, the *theory of change* approach is most convincing when it is possible to track a causal relationship over time between short-term project *activities* and *outputs*, short- to mid-term *outcomes* and longer-term *impacts* (Box 6 clarifies the vital distinction for SBIA between project activities, outputs, outcomes and impacts). The project activities and outputs can be considered as the means of achieving the project ends – positive social and biodiversity outcomes and impacts – and a causal results chain can be built up as shown very simplistically in Figure 3. If a project can present evidence that the short- and intermediate-term objectives (*outputs* and *outcomes*) of the project are being achieved, and if this forms part of a convincing cause-and-effect story, then an auditor can have reasonable confidence that the longer-term objectives (*impacts*) will be achieved.

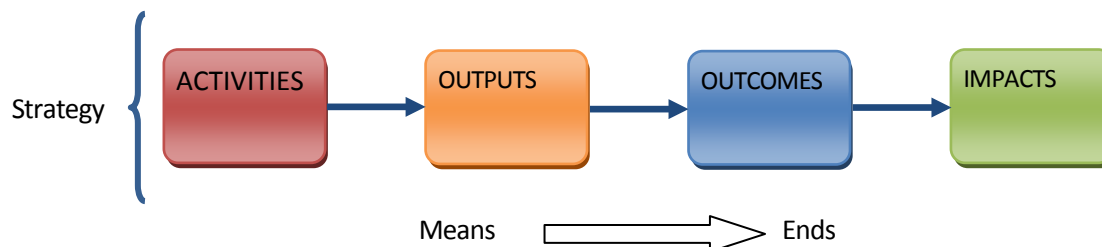
Box 5. What Is a '*Theory of Change*' and Why Is It Important for Impact Assessment?

A project *theory of change* is a hypothesis about how a project intends to achieve its intended goals and objectives, including the social and biodiversity benefits. In simple terms, it is a roadmap drawn up by the project proponents and stakeholders of how the project plans to get from Point A (project strategy and activities) to Point Z (project impacts). In practice, a project will have several theories of change – one for each of its main strategies (emissions reductions, reduced poverty, empowerment of women, protection of an endangered species, etc.)

As with any theory, there is no guarantee that it will work in practice since it is based on a number of assumptions which may or may not hold true in reality. These hypotheses surround the cause-and-effect relationships which the project proponents assume or hope will hold true. It is therefore essential to monitor these assumptions through carefully chosen indicators.

The *theory of change* approach, as a result of its emphasis on causal analysis, provides a credible response to the challenge of attribution. In particular, it provides the basis for identifying monitoring indicators with a strong element of attribution; the trick is to identify indicators that are linked to the assumptions in a causal chain of analysis and that measure progress towards achieving the outcomes and impacts desired by the project (this is explained more fully in SBIA Stages 3 and 5).

Figure 3. Project Results Chain Underlying the *Theory of Change* Approach



Source: GEF Evaluation Office and Conservation Development Centre. 2009.

Box 6. Project Activities, Outputs, Outcomes, and Impacts

The distinction between project activities, outputs, outcomes, and impacts is very important for the *theory of change* approach to impact assessment.

Project *activities* are the physical or implemented activities of the projects. Activities, in turn, require material or human inputs or resources including staff, consultants, information, learning tools, etc.

Project *outputs* are the tangible short-term results of project activities and normally take the form of products or services provided during the project lifetime and as a direct result of project funding. Examples of outputs include: training courses, numbers of people trained, agreements signed, seedlings raised, area planted, management plans developed, studies undertaken, administrative systems developed, etc. Outputs are quite easy to observe, measure, and verify, and so are commonly used as indicators.

Project *outcomes* are the direct intended results stemming from the outputs. They are short- and medium-term changes experienced by project stakeholders and/or by the physical environment, and are less tangible and easy to measure than outputs. Outcomes could include: generation of carbon income, increased employment, development of a benefit-sharing system, and improvements in knowledge or skills as a result of project activities.

Project *impacts* are the end results sought by the project, especially as regards net social changes. They may occur as a direct or indirect result of project outcomes. For example, generation of cash income from carbon sales may be a key project outcome, but is still only a means to poverty reduction – the “ends” will depend on how the cash is distributed and spent. Examples of impacts could include: a reduction in infant mortality, empowerment of women in a community, fewer people living on less than \$2 per day, and an increase (or fall) in the number of key indicator species.

Sources: Based on GEF Evaluation Office and Conservation Development Centre 2009; Schreckenberg et al. 2010.

The credibility of the *theory of change* approach to impact assessment is reflected in its wide use – variants of it have been adopted by the Global Environment Facility (GEF) Evaluation Office (the Review of Outcomes to Impacts method), the World Bank Independent Evaluation Group (IEG), UK Department for International Development (DFID) (Integrated Impact Assessment Approach), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) (Results-Based Impact Chain), the International Social and Environmental Accreditation and Labeling (ISEAL) Alliance, and the Conservation Measures Partnership (Open Standards methodology).

The *theory of change* approach also has a close fit to the requirements of the CCB Standards; for example, CCB Criterion CM1.1 states that “project proponents must use appropriate methodologies to estimate the impacts on communities ... based on clearly defined and defensible assumptions about how project activities will alter

social and economic well-being.” The *theory of change* is therefore the main impact assessment approach recommended in this Manual.

2.4 The Open Standards Methodology

As noted above there are several variants of the *theory of change* approach – our recommendation, based on a process of action research (see Box 7), is to use an adaptation of the “Open Standards for the Practice of Conservation” methodology developed by the Conservation Measures Partnership (CMP), a consortium of international conservation NGOs that includes the African Wildlife Foundation (AWF), Conservation International, Foundations for Success, The Nature Conservancy (TNC), the Wildlife Conservation Society (WCS), and the Worldwide Fund for Nature (WWF). The CMP has agreed to use a set of good-practice project management cycle standards in the belief that this will result in a higher probability of the projects achieving their intended impacts and that a common approach to the project management cycle will enhance the learning process.

Box 7. The Action Research Process Leading to the SBIA Workshop Methodology

Three potential *theory of change* methodologies were investigated when developing Version 1.0 of the Manual (Richards and Panfil 2010): the “Open Standards for the Practice of Conservation” approach (Conservation Measures Partnership 2007); the Review of Outcomes to Impacts (ROtI) method developed by the GEF Evaluation Office (2009); and the Participatory Impact Pathways Analysis (PIPA) tool developed by CGIAR institutions (Douthwaite et al. 2008). The first two approaches were considered most relevant to land-based carbon projects. They were first tested in an SIA training workshop in Peru in June 2010. The Open Standards approach was found to be most appropriate partly because ROtI was designed for *ex-post* evaluation, but also due to its major benefits for the project management cycle.

The Open Standards approach was further tested and refined at an SIA training workshop (Tanzania) in October 2010 and thence in three SIA case studies of REDD projects conducted in the first quarter of 2011: the Suruí Forest Carbon Project in Acre State in Western Amazonia, Brazil; the GuateCarbon REDD project in the Northern Petén zone of Guatemala; and the Alto Huayabamba Conservation Concession (CAAH) REDD project on the Amazon slopes of the Peruvian Andes. These projects were selected because they were at an appropriate stage of development of their PDD and because of strong connections with the NGO partners in this initiative. It was hoped to have included a case study from Africa or Asia, but the timing did not fit for potential projects.

The Open Standards comprise 17 steps organized in five main stages as shown in Figure 4. Taken together they represent a holistic approach to the project cycle involving an iterative and continuous process of learning and improved practice. The Open Standards are NOT another set of Standards representing another “hoop” and more transaction costs – rather they are a set of good practice methods for project design, monitoring, and evaluation. Conservation Measures Partnership (2007) particularly emphasizes the need for a clear and strategic project design for good-practice impact evaluation, which is often not the case. It is therefore strongly recommended that this methodology is applied at the project design phase.

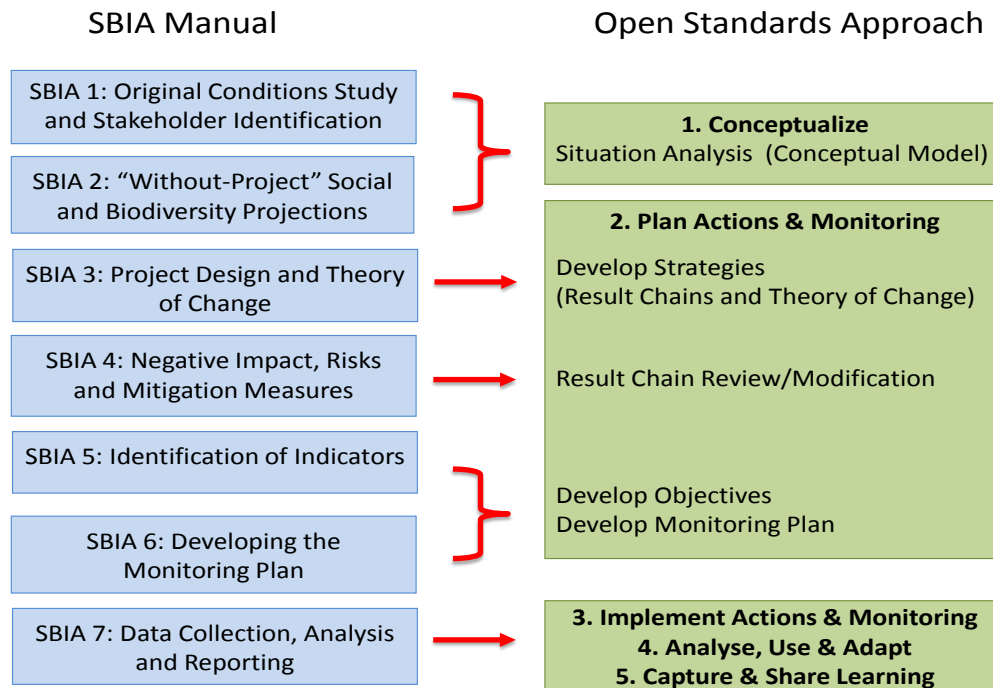
Figure 4. The Open Standards Approach to the Project Management Cycle



Source: Conservation Measures Partnership 2007.

Figure 5 shows the equivalence between the Open Standards and the seven SBIA Stages. This congruence provides the basis for the SBIA workshop design, which forms the core of the SBIA process recommended in this Manual. For each SBIA Stage described in Sections 3 to 8, the corresponding SBIA workshop tasks are described. These descriptions assume that it is possible to combine social and biodiversity issues in one workshop rather than holding two separate workshops – this can be a difficult decision related to the duration and size of the workshop as discussed in Annex 1, which contains detailed methodological guidance on how to run an effective SBIA workshop based on the Open Standards methodology.

Figure 5. Equivalence between the SBIA Stages and Open Standards Approach



Source: Oscar Maldonado, pers. comm.

2.5 Social Differentiation

An important issue for SIA is the level of differentiation needed in the analysis of such variables as gender, poverty level, age, landholding size, tenure basis, seasonality, ethnicity, communities, location, etc. For example, the term ‘community’ as used in the Manual does not imply that communities are uniform, homogenous, and organized entities with a single view, but can be defined to refer to a group of people living in one area and at one point in time. In fact, they are usually complex amalgamations of different interests, views, and interest groups, including rural elites and vulnerable groups such as female-led households, landless households, the old, infirm, and sometimes ethnic minorities. Differentiation between community-level actors and interests is therefore fundamental in SIA.

The CCB Standards require project proponents to describe the social, economic, and cultural diversity within communities and to identify specific groups such as indigenous peoples (**CCB Criterion G1.5**). The CCB Standards also require that all community groups benefit from the project (**CCB Criterion CM1.1**). Projects seeking Gold-Level approval by meeting the optional **CCB Concept GL2** must have a system in place to identify positive and negative impacts on poorer and more vulnerable groups, including women and other disadvantaged groups.

The level of social differentiation required has implications for data collection methods and procedures. Participatory research methods are better for assessing intra-household differentiation (especially gender) than household surveys. For example, Participatory Rural Appraisal (PRA) wealth or well-being ranking is a key method for SBIA Stage 1 (see **Social Toolbox Section 4**) in view of the importance of assessing distributional and

poverty impacts. In the stakeholder identification process, local stakeholders should also be disaggregated into interest or user groups, e.g., teachers, fishermen, traditional healers, etc.¹⁰

2.6 Stakeholder Participation and Community Engagement in SBIA

Stakeholder participation in SBIA is essential for its credibility. For example, **CCB Concept G3** states that “Effective local participation in project design and implementation is key to optimizing multiple benefits, equitably and sustainably.” While it may be possible for an external consultant to design an impact assessment system with minimal stakeholder participation, this is not consistent with the CCB Standards: for example, **CCB Criteria G3.8** and **G3.9** describe the (participatory) project design consultation and communication requirements, and **Criterion G3.10** stipulates a conflict resolution system. Transparency and effective participation can also help reduce negative perceptions of a project. The Open Standards methodology is highly participatory.

Participatory monitoring methods can also contribute to cost-effective SBIA, provided that due diligence is exercised as regards the dangers of bias or strategic responses from project beneficiaries. Several participatory monitoring methods are described in the Social and Biodiversity Toolboxes.

As noted in the CCB Standards,¹¹ another important aspect of community engagement is ensuring that stakeholders are fully informed of the SBIA process and results and have the opportunity to challenge or discuss them. This is a form of ground-truthing. The verification auditor will also check the SBIA findings with local stakeholders.

Finally, there is an important potential link between SBIA, especially the social side, and the free, prior and informed consent (FPIC) process, which is supported by the CCB Standards. FPIC is becoming central to the social credibility of REDD+ and is seen as a key means for implementing the REDD+ Social Safeguards agreed at the 16th UNFCCC Meeting in Cancun in 2010. Some kind of SIA exercise is clearly necessary for indigenous peoples or other communities to be able to decide if they wish to grant consent to a land-based carbon project. In situations in which projects are confident that local stakeholders will grant consent, it would make sense to undertake SIA as part of the FPIC process. This would result in a more robust FPIC process, thereby contributing to the project’s social credibility while meeting a set of multiple-benefit carbon standards.

¹⁰ For further discussion of differentiation issues, see Schreckenberg et al. (2010).

¹¹ **CCB Criterion CM1.1** states that “A credible estimate of impacts must includean evaluation of the impacts by the affected groups.”

The Seven SBIA Stages



Photo: Steve Panfil – Tanzania SIA Training Workshop 2010.

3. SBIA Stage 1: Starting Conditions Study and Stakeholder Identification

3.1 Introduction

The **CCB Standards Concept G1 (Original Conditions in the Project Area)** states that the starting conditions of the project area (and the surrounding zone) must be described. This description, together with the baseline projections (**CCB Concept G2**), will help determine the likely project impacts. The starting conditions study is an essential first stage in the SIA process, since it provides the basis for establishing and comparing the “with-project” and “without-project” reference scenarios. **CCB Criteria G1.5, G1.6, G1.7, and G1.8** summarize the information required for describing the pre-project social and biodiversity context.

3.2 General Principles

Based on the CCB Standards, the starting conditions data should include:

Social Information

- Basic socio-economic information on communities in the project zone, including land-use and livelihood systems; community infrastructure (health clinic, school, wells, meeting centers, etc.); on- and off-farm employment; transport infrastructure and market access; location of villages and hamlets on a map; number of children at school; and the food security situation
- Cultural and demographic information, including cultural diversity, values and institutions, and how these influence natural resource use and conservation (see Box 8), minority groups, population, gender (e.g., number of female-headed households), migration trends, etc.
- Land and tree tenure type and security,¹² access rights to natural resources, customary rules, tenure conflicts, boundary issues, etc.
- Identification of High Conservation Value (HCV) areas that provide critical ecosystem services are important for meeting basic community needs, e.g., food, fuel, fodder, medicines, and building materials, or are of cultural importance (**CCB Criteria G1.8.4, G1.8.5 and G1.8.6**)
- Governance systems and issues, e.g., decision-making structures, traditional authorities, local government, crime levels, conflict resolution mechanisms, etc.
- Major development constraints, e.g., tenure, market access, credit, soil erosion, etc.
- Other key social problems, e.g., health, alcoholism, violence, etc.

Biodiversity Information

- A description of the current status of biodiversity in the project zone
- A description of threats to this biodiversity
- Identification of any High Conservation Value (HCV) areas that are important for biodiversity, e.g., protected areas, populations of threatened or rare species or ecosystems (**CCB Criteria G1.8.1, G1.8.2 and G1.8.3**)

¹² The Rapid Land Tenure Assessment (RaTA) tool developed by Galudra et al. (2010) is recommended for analyzing land tenure issues.

Many project developers are tempted to collect a wide range of information during a starting conditions study, often resulting in long questionnaires that consume a lot of local people's time, or in expensive field studies to document a wide variety of plant and animal species. This tends to result in much staff time spent processing, analyzing, and presenting data, much of which may be of limited use.

Box 8. Understanding and Investigating 'Culture'

'Culture' is hard to define. It is reflected in language, music, poetry, arts, artifacts, cuisine, and leisure pursuits; founded on the shared ethics, traditions, knowledge, norms, institutions, beliefs, spirituality, and rituals of a people; and informed by the history, mythology, association with place, and social constructions of nature and landscape of a people.

Such definitions may seem rather all-encompassing and vague to be usable in the context of impact assessment. It is true that because so much of what makes up culture is intangible and also because it is constantly changing, impacts can be difficult to recognize and interpret. But the many intangible elements that make up a people's culture cannot be ignored, as they are central to their social life and well-being, and have a powerful influence on their relationship with natural resources.

Cultural values, practices, and institutions establish, regulate, and provide meaning to the relationships between people, places, and the natural world. Where cosmological vision and values are strong, there is a reciprocity between people and nature, and between the people themselves (sometimes referred to as the "gift culture"). These relationships are key to common pool resource management; as they, and the associated institutions (or rules) are eroded, often with an accompanying mix of demographic and commercial pressures, forests become vulnerable to free-riding and the "tragedy of the commons".

The physical terrain in which REDD+ projects are implemented can be defined as cultural landscapes, whose meaning is provided by historical and spiritual connections, and the activities people carry out in them. Any REDD+ project with indigenous peoples will impact the cultural landscape and the relationships between people and nature – this is likely to have a major bearing on the success or failure of the project. The quality of cultural analysis in project design and monitoring can be central to its success.

Sources: Jane Dunlop and Mark Infield, pers. comm.; Ostrom 1990; Richards 1997.

Projects should instead focus data collection on the processes and variables which they think are most likely to be affected by the project. For example, if it is unlikely that a REDD+ project will have much effect on education levels, it does not make sense to collect a lot of starting conditions education data. On the other hand, the starting state of water quality and associated health conditions could be very important for a REDD+ project in a situation where water quality is an issue.

It would be easier to focus data collection in SBIA Stage 1 after the recommended *theory of change* based SBIA Workshop, incorporating SBIA Stages 2 to 6. Deciding what data to collect is therefore an iterative process; initial data collection efforts need to second guess the focal issues that will emerge from SBIA Stages 2, 3, and 4. If the SBIA exercise is undertaken at the project design phase, as is strongly recommended, it would allow projects to streamline starting conditions data collection.

Selection of the most relevant social and biodiversity variables requires a strong understanding of local social and ecological processes, including, for example, land and tree tenure, local social structures and governance mechanisms, and the likely response of target species to changes in forest cover. Both local and technical expert knowledge are essential for identifying the variables that need to be measured. SBIA Stage 1 should include a process for identifying people who can contribute this knowledge and a process to facilitate their input.

While REDD+ projects are relatively new phenomena, there are some lessons to be gleaned from experiences of PES, as well as from conservation and natural resource management projects about the types of social and biodiversity outcomes and impacts that should be considered. Therefore **Social Toolbox Section 2** reviews the likely social outcomes, impacts, and change processes of land-based carbon projects; **Biodiversity Toolbox Section 2** describes potential biodiversity impacts of different types of project interventions with a view to helping projects think about data collection and analysis priorities.

3.3 Stakeholder Identification and Analysis

The impacts of a REDD+ project will not be the same for all stakeholder groups. Therefore, a process of stakeholder identification and analysis is essential. **CCB Criterion G1.5** indicates that it is necessary to differentiate local stakeholders according to their wealth or well-being (for example, by using a participatory wealth or well-being ranking method), ethnicity, gender, age, tenure, land use and/or livelihood interests (e.g., charcoal makers, pastoralists, non-timber forest product (NTFP) gatherers). The CCB Standards further distinguish between people living inside and outside of the project zone (the area where the social and biodiversity benefits must be achieved). Any impacts on stakeholders living outside the project zone must also be assessed and mitigated, so that the project does no harm to them. **Social Toolbox Section 4** provides guidance on stakeholder and gender analysis.

Once the stakeholder groups and sub-groups have been identified, it is important to identify stakeholder group representatives to take part in the SBIA process, since it is difficult and costly to conduct SBIA with a large number of people. One possibility is to form a Stakeholder Committee. The selection process for such a Committee would need to find a balance between leadership characteristics (e.g., people who command respect), democratic processes (elected representatives), educational and literacy levels (since a good literacy level is desirable for effective participation in a SBIA workshop), gender, ethnicity, and availability. It is also key to the credibility of SBIA that vulnerable (e.g., landless) and minority groups are represented: how stakeholder representatives are selected is itself a key determinant of equity outcomes. **Annex 1 Section 2.1** contains further discussion on the mix of stakeholder participants for a SBIA workshop.

3.4 SBIA Workshop Guidance

Introduction

Most aspects of SBIA, as well as overall project design, should be undertaken with the meaningful participation of a representative group of stakeholders. A workshop or series of workshops with these stakeholder representatives is central to the SBIA process described in this Manual; in the sections describing each SBIA stage, guidance is provided on the main steps to take in these workshops and in greater detail in Annex 1. As mentioned in **Section 2.4**, these steps are adapted from the Open Standards for the Practice of Conservation developed by the Conservation Measures Partnership (2007). This methodology may not, however, be appropriate in all circumstances as discussed in Box 9. The proposed SBIA Workshop, if conducted at the design stage, would help projects systematize and prioritize SBIA Stage 1 data collection.

Box 9. Modifying the SBIA Workshop Process to the Project Development Stage

We believe that there are great benefits to undertaking SBIA at the same time as the overall project design and with a balanced group of stakeholder participants who represent all whose rights may be affected by the project. This Manual includes numerous references to a SBIA workshop in which stakeholders can jointly contribute to decisions about the project goals and activities and how the impacts will be measured.

We recognize, however, that not all projects may wish to precisely follow the SBIA workshop process described here. Because of distance, gender, literacy levels, or other reasons, it may be difficult for representatives of all key stakeholder groups to participate in an SBIA workshop. Similarly, we realize that some projects may already be so far advanced in their design that the SBIA process described here would seem like starting all over again.

In these cases, the proposed SBIA workshop process would need to be modified, although we strongly encourage projects to maintain the same SBIA stages. It may be necessary, for example, to hold a separate workshop in which a previously developed project *theory of change* is presented to stakeholders who did not participate in its development, but who want to participate in the SBIA process. This workshop could serve as an opportunity to inform stakeholders of project plans and capture additional stakeholder feedback to improve the project and SBIA design. The key aspect of any SBIA workshop is that participants understand the process and have a meaningful opportunity to contribute to the monitoring plans and project design.

Project Scope

If it has not already been done, the workshop should define the project scope – i.e., the area of influence of the project, or, in other words, the area that will be impacted by the project. It is therefore likely to include areas outside the core project area.

Project Vision Statement

The ‘vision statement’ is a short and clear statement of the social (or biodiversity) objectives of the project – this should be “relatively general, visionary, and brief” (Conservation Measures Partnership 2007). The rationale of the vision statement is that without a common understanding of what a project is trying to achieve, it will be difficult for a range of stakeholders to understand how project interventions should be chosen and consequently which conditions or variables should be measured. Some examples of vision statements from the SIA workshops undertaken in 2010 and 2011 are presented in Box 10, and further workshop guidance is provided in **Annex 1 Section 5.3**.

Box 10. Examples of Project Vision Statements from SIA Workshops

GuateCarbon REDD Project, Guatemala:

The GuateCarbon REDD Project is an example of the sustainable management of natural resources of the Maya Forest providing economic alternatives that are ecologically and environmentally sustainable, contributing to the human and social development of the participating communities, and favoring the strengthening of local governance, all this in a framework of social, cultural and gender equity.

Piloting REDD in Zanzibar Project, Tanzania:

A Zanzibar where zero net deforestation has been achieved by 2020, and where poor men and women are fairly rewarded by their contribution to this.

It should be noted that the time needed to establish a vision statement will depend on the level of understanding the workshop participants have about the project, as well as the trust they have in the project proponents and each other. If stakeholders are convened to develop an SBIA plan for a project that they do not understand, or by project proponents that they don't trust, they are unlikely to participate meaningfully. Project proponents should therefore consider whether sufficient understanding and trust exist and, if necessary, take steps to prepare participants before the SBIA workshop. This could involve a short prior workshop for stakeholders and project proponents to get to know each other and to share project information and perspectives.

Identification of Focal Issues

The next SBIA workshop task is to select the SBIA focal issues. In an SBIA context, 'focal issues' can be defined as the social and biodiversity factors or issues that are most important for the success of a land-based carbon project – for example, in the case of a REDD project, these will be the factors most associated with the forest degradation process. Since a project cannot address all potential social and biodiversity issues, it is necessary to prioritize the most important ones. **Annex 1 Section 5.3** provides further guidance on how to do this, and Box 11 provides examples of focal issues from the SIA case studies.

Box 11. Examples of Focal Issues from SIA Workshops

Alto Huayabamba Conservation Concession (CAAH) REDD Project, Peru:

- Organization and governance
- Education (environmental education and awareness)
- Migration (agricultural colonization of the conservation concession)
- Agriculture (cattle ranching)

GuateCarbon REDD Project, Guatemala:

- Strengthened governance
- Sustainable economic alternatives
- Gender and social equity
- Social capital (in the community organizations)

Suruí REDD Project, Acre State, Brazil:

- Economic alternatives and food security (for the Suruí people)
- Socio-political organization (including institutional strengthening)
- Cultural integrity (of the Suruí people)
- Territorial protection

Focal Issue Statements

After selecting the focal issues, focal issue working groups (WGs) are formed – one for each focal issue. It is advisable that the WG spends time understanding its focal issue, possibly through a brainstorm exercise on the positive and negative aspects of the current situation, and how it affects (positively or negatively) a range of stakeholder groups. The WG should then be ready to draft its focal issue statement – this is a short (maximum 30 words) expression of the focal issue as an ideal condition which the WG would like the project to achieve or that the WG thinks the project needs to achieve in order to be successful. Box 12 presents some examples of focal issue statements from the SIA case studies.

Box 12. Focal Issue Statements from SIA Workshops

Alto Huayabamba Conservation Concession (CAAH) REDD Project, Peru:

Education focal issue: Population and users are trained, and their awareness is developed for natural resource management (in the Conservation Concession)

Migration focal issue: Occupation of the Conservation Concession area is ordered and without (land) invasions.

GuateCarbon REDD Project, Guatemala:

Organization and governance focal issue: Strengthened local existing inter-institutional structure through correct application of the law, equitable participation in the access, use, and management of natural resources, basic services for stabilizing deforestation processes, recuperating degraded areas, and giving value to the forest.

Gender- and social-equity focal issue: Equal rights of participation and decision-making with the aim that all can benefit from a process that leads to a better quality of life whatever the gender, ethnicity, age, or social class.

Suruí REDD Project, Acre State, Brazil:

Socio-political organization focal issue: Political stability is guaranteed through respecting the views of men, women, youth, and old people equitably by building confidence in collective actions, and by strengthening Suruí culture and parliamentary decision-making processes.

Culture focal issue: A strengthened culture through a participatory plan of cultural strengthening that aims to achieve a balance between traditional and modern knowledge.

The focal issue statement should indicate the main types of information required for SBIA Stage 1. For example, if a biodiversity focal issue is the adoption of a management plan for controlled grassland burning, data on the current frequency and extent of fires should be included in the starting conditions description. The focal issues are, however, unlikely to cover all the conditions that should be described in SBIA Stage 1, such as some of the general socioeconomic and ecological information.

3.5 Other Methods

Social Impact Assessment (SIA)

Data collection and analysis methods for describing the original socio-economic conditions are in general well-known and documented in several manuals (e.g., CARE 2002; IFAD 2009; La Rovere and Dixon 2007). They do not, therefore, require much elaboration in the SBIA Manual, although **Social Toolbox Section 3** presents a short review. The most common data collection methods are:

- Participatory rural appraisal (PRA) and Rapid Rural Appraisal (RRA) methods, for example, community mapping, and wealth or well-being ranking;
- Focus group or key informant semi-structured interviews;
- Household surveys;
- Stakeholder analysis.

Secondary data, such as surveys undertaken by government departments, can usefully complement primary data collection but are not a substitute for primary data. This is because they will have been collected with other objectives, and the quality of the methodology is often difficult to check.

Biodiversity Impact Assessment (BIA)

There are also many methods for describing biodiversity, and **Biodiversity Toolbox Section 3** lays out some of the more commonly used and accessible ones. For most projects, it is appropriate to use high-level descriptions of the ecosystem type and location (e.g., Olson et al. 2001) together with detailed descriptions of species composition and threatened plant and animal populations. Species that are likely to be impacted need to be described quantitatively at the project start, so that positive or negative changes to these species can be documented. Some commonly used methods include:

- Ecoregion maps;
- Forest inventories;
- Biodiversity rapid assessments;
- Detailed taxa-specific surveys.

It should also be noted that the High Conservation Value (HCV) framework is required by the CCB Standards, which includes requirements to identify areas that are important to local people and biodiversity. Extensive guidance on how to apply this framework is available at <http://www.hcvnetwork.org>.

4. SBIA Stage 2: “Without-Project” Social and Biodiversity Projections – What Would Happen Without the Project?

4.1 Introduction

In this Manual, the term “without-project” social or biodiversity projection is equivalent to the carbon baseline or carbon reference scenario – it is a projection of the current “without-project” social or biodiversity conditions into the future. The requirement for this is clearly set out by **CCB Concept G2**, which states that “a baseline projection is a description of expected conditions in the project zone in the absence of project activities. The project impacts will be measured against this “without-project” reference scenario.”¹³ **CCB Criteria G2.4** and **G2.5** further specify that project proponents should:

- Describe how the “without-project” reference scenario would affect communities in the project zone, including likely changes in water, soil, and other locally important ecosystem services;
- Describe how the “without-project” reference scenario would affect biodiversity in the project zone (e.g., habitat availability, landscape connectivity, and threatened species).

4.2 General Principles

SBIA Stage 2 involves a forward-looking analysis based on current trends and aims to describe what is likely to happen to the social and biodiversity conditions, and the processes that lead to them, in the absence of the project. During project implementation, monitoring will provide data to show whether the social and biodiversity conditions have improved in comparison to the “without-project” scenario. The “without-project” social and biodiversity projections must therefore include:

- A description of the predicted “without-project” changes to the social and biodiversity variables that the project is most likely to affect – these changes should be linked in some way to the project-related land-use changes;
- A description of the starting conditions that the project intends to improve (from SBIA Stage 1);
- The social and biodiversity variables at risk of being negatively affected by the project.

It is clear from the above that SBIA Stage 2 should be iterative given that it requires a good understanding of the project design (SBIA Stage 3) and the likely negative impacts (SBIA Stage 4). Similarly to SBIA Stage 1, SBIA Stage 2 should also maintain a strong focus on the processes or conditions most likely to be affected by the project. For example, **CCB Criterion G2.4** specifies the need to assess changes in water, soil, and other locally important ecosystem services related to a change in land use. In a REDD project, this might be the predicted “without-project” availability of NTFPs used in coping strategies during bad years for food production.

In order to help project proponents think about likely social and biodiversity outcomes and impacts (both positive and negative), Table 2 presents a useful checklist of potential impact areas for a land-based carbon project. Project proponents are also referred to **Social Toolbox Section 2** and **Biodiversity Toolbox Section 2** for reviews of the likely social and biodiversity outcomes, and impacts of REDD+ and other land-based carbon projects.

¹³ It should be noted that in the CCB Standards the terms ‘baseline’ and ‘reference scenario’ are equivalent to “without-project” social and biodiversity projection.

Table 2: Potential Social and Environmental Impact Areas

Social Development	
Labor Rights	The range of rights enshrined in the International Labor Organization Declaration on Fundamental Principles and Rights at Work
Gender Equity	Access to opportunities and empowerment of girls and women, as well as the reduction of discrimination and inequalities based on gender
Access to Education	Access to, engagement in, and attainment through education
Access to Health and Sanitation	Access to medical treatment and improved sanitation, notably through access to clean water and the availability of sewage treatment
Cultural Identity	Respect for self-determination, intellectual property, and religious tolerance
Environmental Integrity	
Water	Water conservation and quality
Integrity for Biodiversity	Diversity of life at the levels of species, genetic diversity, and ecosystems
Soil Fertility	Maintenance of organic matter and biological activity, as well as conserving soil from all forms of erosion
Climate Change	Mitigation of greenhouse gas emissions and strengthening the resilience and adaptation capacity of people, their livelihoods, and ecosystems to climate change
Natural Resource Management	Management of resources from production to post-consumption by supporting the integrity of ecosystem services, maintaining harvest levels that ensure regeneration, and reducing/effectively managing waste
Economic Resilience	
Secure Livelihoods	Understood as an economic concept incorporating income, wealth, poverty and employment, whether paid, voluntary, formal or informal, and with some resilience to shocks
Social Capital	Social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them; it includes the concepts of knowledge sharing and social safety nets
Resilience to Economic Risk	Assurance of self-reliance and the ability to counter risk through economic diversification and access to finance
Inclusive Value Chains	Fairness and responsibility for all actors in a value chain, so that they consciously operate as one stage in a longer chain

Source: Based on ISEAL 2010.

4.3 SBIA Workshop Guidance

Developing Problem Flow Diagrams for Each Focal Issue

In the Open Standards approach, the focal issues¹⁴ can be described through a conceptual model. This is a flow diagram of the “without-project” situation that shows how different causal factors affect the main focal issue (expressed as a problem). The term ‘problem flow diagram’ is used in this Manual since it is a more understandable term for local stakeholders. For developing the problem flow diagram and subsequent SBIA Stages, workshop participants are divided into focal issue Working Groups (WGs).

The first step in developing a problem flow diagram is to express the focal issue as a problem (e.g., gender inequity, unsustainable livelihood options, weak local governance). As can be seen from the examples in Figures

¹⁴ As the Open Standards are meant to be an approach for biodiversity conservation project planning and management, “focal issues” are called “conservation targets”.

6 and 7, the focal issue problem is placed at the far right of the diagram; participants then discuss and arrange causal factor cards to the left of the focal issue problem. These cards are arranged in causal chains that explain the current situation (see **Annex 1 Section 5.4** for further guidance).

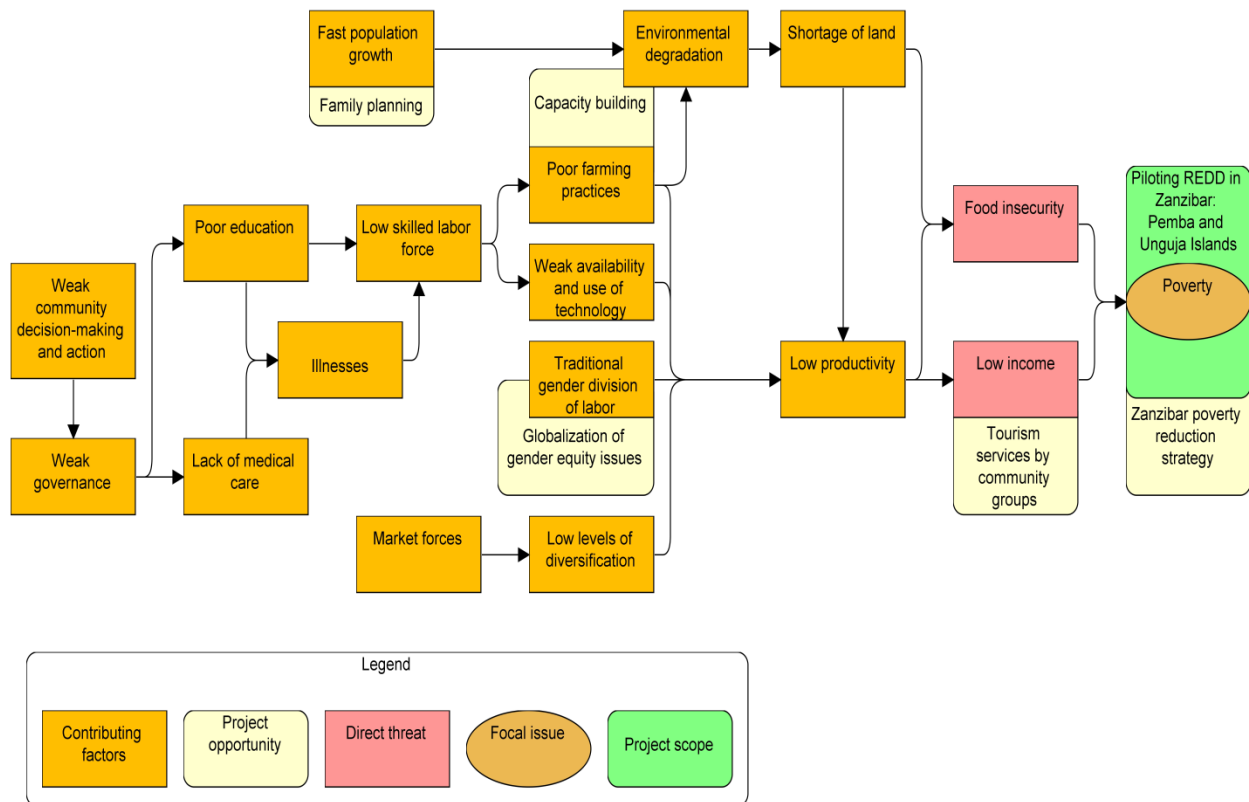
Projection of the “Without-Project” Scenario

After completing the problem flow diagrams, it is recommended that the focal issue WGs make projections of the “without-project” situation for each focal issue based on two future time periods – the short- to mid-term (3-6 years) and the longer term (10-15 years). This analysis, explained more fully in **Annex 1 Section 5.4**, should focus on the processes, consequences, and impacts of change. Guiding questions for these projections are:

- What will be the main changes associated with this focal issue?
- What may be the direct and indirect consequences of these changes, negative and positive?
- How will vulnerable local stakeholders (e.g., women, the poorest, the landless) be affected?

There is a tendency to consider negative factors that affect the focal issues, and it is important to also identify existing opportunities in this step. Also, a very useful aid for helping workshop participants think about the future “without-project” situation is a large-scale map, especially one derived from the carbon reference scenario analysis.

Figure 6. Poverty Problem Flow Diagram (Piloting REDD in Zanzibar Project)



5. SBIA Stage 3: Project Design and *Theory of Change* – How Will the Social and Biodiversity Benefits Be Achieved?

5.1 Introduction

CCB Concept G3 (Project Design and Goals) states that “The project must be designed in sufficient detail so that a third party can adequately evaluate it” and **Criterion G3.2** states that project proponents must “describe each activity with (its) expected climate, community, and biodiversity impacts, and its relevance to achieving the project’s objectives.”

Furthermore **CCB Criteria CM1.1** and **B1.1** have similar requirements for impact assessment:

CCB Criterion CM1.1 states that: “The project proponents must use appropriate methodologies to estimate the impacts on communities, including all constituent socio-economic or cultural groups such as indigenous peoples (defined in G1), resulting from planned project activities. 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, including potential impacts of changes in natural resources and ecosystem services identified as important by the communities (including water and soil resources) over the duration of the project. The “with-project” scenario must then be compared with the “without-project” scenario of social and economic well-being in the absence of the project (completed in G2). The difference (i.e., the community benefit) must be positive for all community groups.”

CCB Criterion B1.1 states that: “The project proponents must use appropriate methodologies to estimate changes in biodiversity as a result of the project in the project zone and in the project lifetime. This estimate must be based on clearly defined and defensible assumptions. The “with-project” scenario should then be compared with the baseline “without-project” biodiversity scenario completed in **Concept G2**. The difference (i.e., the net biodiversity benefit) must be positive.”

5.2 General Principles

The wording of these CCB Criteria, with their emphasis on explaining *how* the project objectives will be achieved, implies a need for the *theory of change* approach. One definition of the ‘*theory of change*’ is “a theory-based evaluation tool that maps out the logical sequence of means-ends linkages underlying a project and thereby makes explicit the expected results of the project and the actions or strategies that will lead to the achievement of results” (GEF Evaluation Office and Conservation Development Centre 2009). More simply, a project’s *theory of change* is a hypothesis developed by project stakeholders that lays out how a project hopes to achieve its intended goals and objectives. Box 13 presents a generic set of steps, drawn from various sources, to developing a *theory of change*.

Box 13. Developing a *Theory of Change* – Generic Guidance

Drawing on various approaches, it is possible to identify a generic set of steps for developing a *theory of change* for the purpose of SBIA. These could be used by a project instead of a specific methodology such as the Open Standards approach. Eight main steps, to be undertaken in as participatory a way as possible between a representative group of project stakeholders, can be identified as follows:

- Identify and prioritize the main social and biodiversity problems or issues facing the project (focal issue problems).
- Describe the focal issue problem and the desired result or future condition for each focal issue.
- Undertake a diagnostic analysis or problem flow diagram of each focal issue problem (this is not always listed as a key step, but is advisable because it makes a *theory of change* more robust as regards its cause-and-effect analysis).
- Develop a flow diagram using cause-and-effect logic to show how the desired result will be achieved by the project.
- Identify causal chains from project strategies or activities to short-term outputs, from outputs to outcomes, and from outcomes to impacts, and using a cause-and-effect logic that makes sense in forward and in reverse.
- Identify key risks and assumptions along these causal chains. Some risks may be internal to the project, but the main focus should be on external risks that are outside the project's control. One way of thinking about the assumptions is to consider whether there are any intermediate steps or results between the project's outputs and outcomes, and between the outcomes and impacts (these assumptions or intermediate results provide a good basis for indicators).
- Identify any potential negative impacts on stakeholder groups or the environment along the causal chains – possibly at points in the chain where the assumptions are less robust.
- Develop IF ... THEN statements linking the project activities, outputs, outcomes and impacts, incorporating the key assumptions or risks.

These IF ... THEN statements constitute the theory (or theories) of change. The *theory of change* can also be expressed in the form of a results chain as in the Open Standards approach.

Sources: Conservation Measures Partnership 2007; GEF Evaluation Office and Conservation Development Centre 2009; ISEAL 2010; USAID 2006.

There are several advantages to using the *theory of change* approach:

- It is a more cost-effective approach to monitoring and attribution than traditional impact assessment methods since it focuses data collection on the most likely causal factors.
- It encourages a clear, logical, and strategic project design which is essential for impact assessment – according to the Conservation Measures Partnership (2007) a clear project logic helps ensure that the focus of an evaluation is on the objectives, outcomes, and impacts that the project is striving to achieve.
- It helps respond to the challenge of showing evidence of impacts in the short- to mid-term, recalling that the first CCB verification audit is after five years. For example, while it is difficult to observe a reduction in poverty in five years, it should be possible to observe some tangible outcomes such as an

increase in income due to carbon sales or employment, the number of trees planted, number of people trained in administrative systems, improved governance, etc. If an auditor can observe progress along a causal chain between project outputs, outcomes and impacts, then (s)he can be more confident that the impacts will be achieved.

- The identification of appropriate indicators (SBIA Stage 5) is facilitated through specification of IF ... THEN statements that link outputs to outcomes and outcomes to impacts.
- It facilitates the analysis of potential negative impacts and risks to project success, and the identification of appropriate mitigation and risk reduction measures (SBIA Stage 4).
- It leads naturally to the identification of indicators and development of the monitoring plans required by the CCB Standards, (SBIA Stages 5 and 6).

While we believe that the theory-of-change approach represents an appropriate and cost-effective impact assessment approach, projects should not underestimate the time, effort, and understanding needed to do this well. The large number of potential variables, complexity of the relationships, and our limited current understanding 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. For example, many theories of the relationships between communities, conservation, and development are still contested (Jagger et al. 2010).

It should also be noted that it would be necessary to revise a *theory of change*, if the implemented project activities differ from the originally planned activities. This is because a change in project activities changes what is being evaluated, the composition of the causal chain, and therefore the appropriate indicators for measuring project progress. It is in any case advisable to review the *theory of change* periodically (say every 5-10 years) as the project context, understanding, and strategies evolve as part of an adaptive management¹⁵ process.

5.3 SBIA Workshop Guidance

Development of Results Chains

In the Open Standards approach, a 'results chain' is a representation of how a given strategy will achieve its expected goals. It is a graphical depiction that shows the details of the *theory of change*. A results chain is recommended for each focal issue identified in SBIA Stage 1. The results chains aim to reverse the negative factors identified in the problem flow diagram. They therefore specify what is needed for the focal issue problem to be overcome. As its name implies, all components of a results chain must be expressed as positive results. The process of developing a results chain, described in more detail in **Annex 1 Section 5.5**, is similar to the process of developing a problem flow diagram. Examples of results chains from the SIA case studies are presented in Figures 8 and 9.

¹⁵ Adaptive management is defined in the CCB Standards (**Criterion G3.8**) as "a process where policies and activities can adapt to future conditions to improve management success" (CCBA 2008).

Figure 8. Organization and Governance Focal Issue Results Chain (GuateCarbon REDD Project)

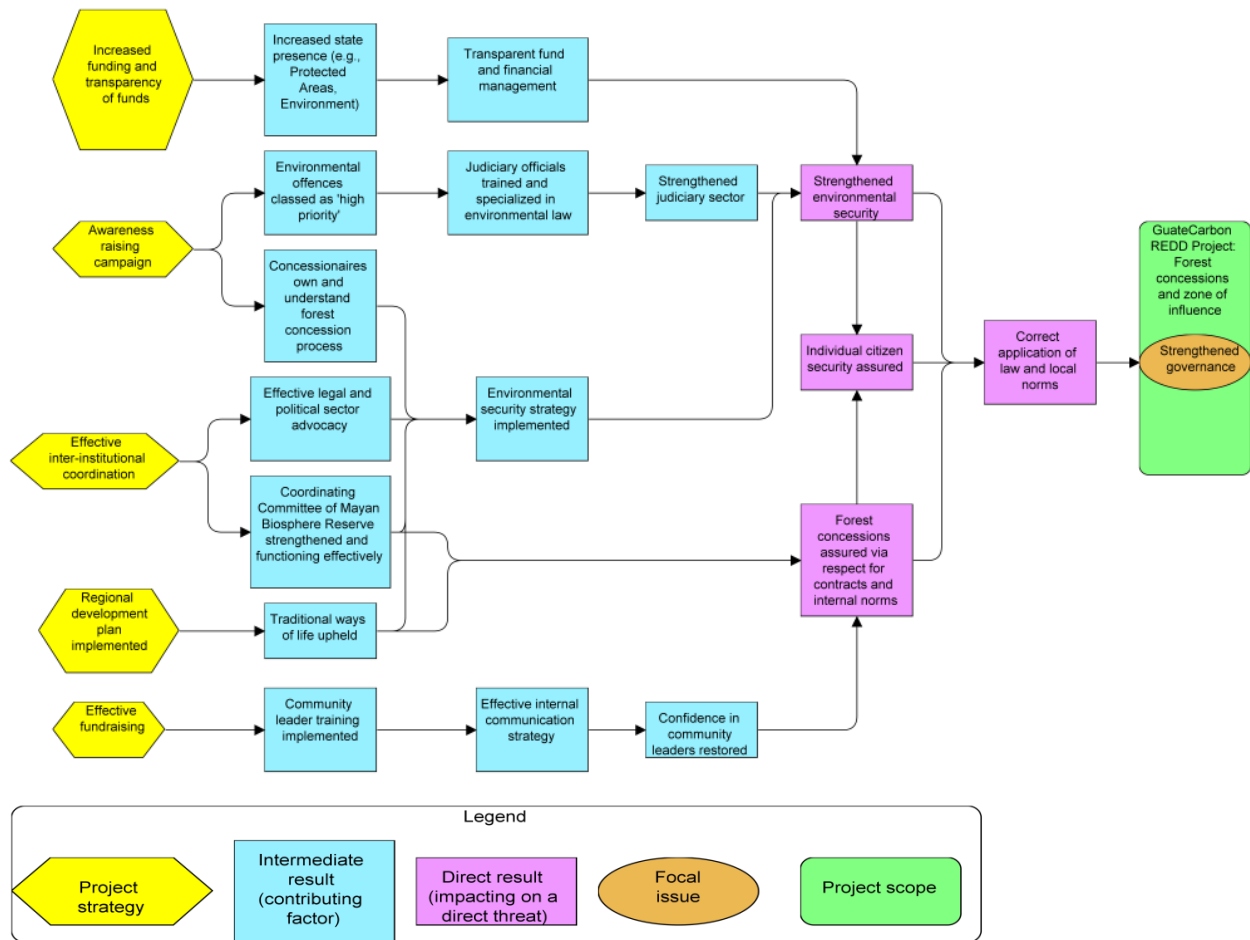
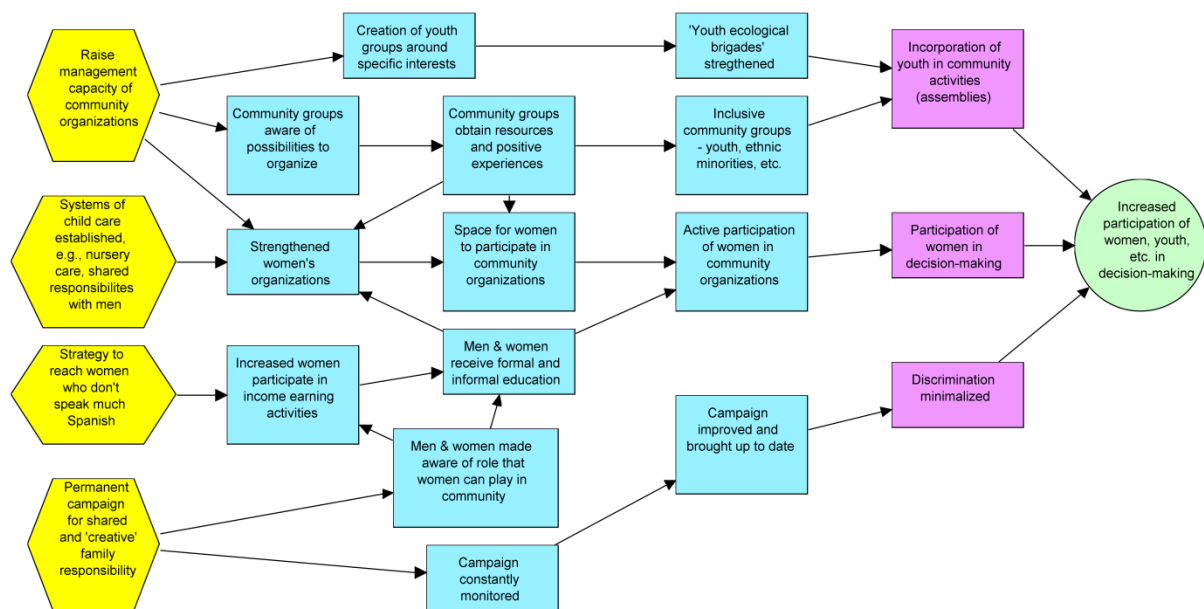


Figure 9. Gender-Social Equity Focal Issue Results Chain (GuateCarbon REDD Project)



Theory of Change Statements

A *theory of change* statement for a focal issue involves describing how a desired focal issue condition (or desired result) would be achieved in the form of an IF ... THEN ... statement. At this stage of the process, it is a provisional *theory of change* statement, since it may need to be modified after conducting SBIA Stage 4. Box 14 presents some examples of *theory of change* statements from SIA workshops.

Box 14. Theory of Change Statements from SIA Case Studies

Alto Huayabamba Conservation Concession (CAAH) REDD Project, Peru:

Organization and governance focal issue: IF education quality can be improved, capacities strengthened, and communication increased, THEN we will have organizations capable of making decisions in their area (of responsibility) and that contributes to the good management of the Conservation Concession.

Education focal issue: IF we lobby the State to generate and apply appropriate training policies in environmental education and sustainable agricultural and livestock practices, and we jointly develop training programs, THEN the population and users will realize the importance of these natural resources and know how to manage them sustainably.

GuateCarbon REDD Project, Guatemala:

Organization and governance focal issue: IF we achieve effective inter-institutional coordination through political incidence, strengthened judiciary institutions and community organizations, THEN we will achieve appropriate application of the law and consequently strengthened governance.

Gender-social equity focal issue: IF family responsibility is strengthened, and youth and women are involved in decision-making, THEN social inequity will diminish.

Suruí REDD Project, Acre State, Brazil:

Agriculture and food security focal issue: IF agricultural certification is achieved, extractivism becomes successful, the productivity of traditional crops improved, and ecotourism and handicrafts made more profitable, THEN sustainable alternative livelihoods and food security would be guaranteed.

Culture focal issue: IF the Cultural Commission established by the Suruí Parliament is well selected and trained, is able to inform and sensitize the community, and engages stakeholders and state agencies in the development of a broad and participatory cultural policy, THEN the traditional culture of the Paiter Suruí People will be strengthened.

Zanzibar Piloting REDD Project, Tanzania:

Alleviating poverty focal issue: IF marginal groups are empowered and comprehensive land-use planning is conducted, and sustainable farming practices are employed, and markets are accessible, THEN increased productivity will lead to alleviation of poverty without environmental degradation.

Empowering men and women focal issue: IF capacity in the community is built in gender (issues) and sustainable forest management, THEN more gender-sensitive and sustainable forest management practices will be adopted, and forest conservation and project sustainability will be achieved while empowering men and women.

5.4 Other Methods

While the Open Standards methodology is the recommended method in this Manual, projects should feel at liberty to use their own way of developing a *theory of change*, possibly with the help of the generic steps described in Box 13. Other *theory of change* or causal model methodologies are possible, such as the Review of Outcomes to Impacts (ROtI) approach developed by the GEF Evaluation Office and Conservation Development Centre (2009) and the Participatory Impact Pathways Analysis (PIPA) developed by the Institutional Learning and Change Initiative and the International Centre for Tropical Agriculture (Douthwaite et al. 2008). These methodologies have their merits, but would need considerable adaptation to fit the SBIA framework.

If a project can afford it, a mixed methods approach is strongly recommended in which the *theory of change* is combined with other evaluation methods or frameworks such as the matching methods approach or the Sustainable Livelihoods Framework (see **Social Toolbox Section 6**). These methods would not, however, be sufficient on their own since, as already stated, the CCB Standards require a *theory of change* approach. It can also be noted that the main source of guidance on the use of matching methods in a REDD+ project context (Jagger et al. 2010) recommends that, in addition to the quasi-experimental method, REDD+ projects should use the causal model approach, observing that “taken together, impact evaluation that estimates the direction and magnitude of changes in key outcome variables and causal models that help us understand the processes that get us from REDD+ interventions to outcomes can be very powerful” (Jagger et al. 2010, 24).

6. SBIA Stage 4: Negative Impacts, Risks and Mitigation/Prevention Measures – What Could Go Wrong?

6.1 Introduction

A major rationale of multiple-benefit carbon standards such as the CCB Standards is that, as well as encouraging social and biodiversity benefits, they can reduce the risk of negative impacts. Social and biodiversity impacts from a project can be positive or negative, as documented in the reviews of the likely social and biodiversity outcomes and impacts presented in the **Social Toolbox Section 2** and **Biodiversity Toolbox Section 2** respectively. The CCB Standards clearly state that project proponents must assess risks and potential negative impacts:

- **CCB Criterion G3.5** states that the project proponents “must identify likely natural and human-induced risks to the expected climate, community, and biodiversity benefits during the project lifetime and outline measures adopted to mitigate these risks;”
- **CCB Concept CM2** (Offsite Stakeholder Impacts) states that the project proponents “must evaluate and mitigate any possible social and economic impacts that could result in the decreased social and economic well-being of the main stakeholders living outside the project zone resulting from project activities. Project activities should at least ‘do no harm’ to the well-being of offsite stakeholders” (a footnote clarifies that this well-being should not be achieved through illegal actions or in a way that clashes with statutory or customary rights); and
- **CCB Concept B2** (Offsite Biodiversity Impacts) states that the project proponents “must evaluate and mitigate likely negative impacts on biodiversity outside the project zone resulting from project activities.”

CCB Criteria G2.4, G5.5, CM1, and GL2.5 also point to the need to assess possible negative impacts and monitor them. It is therefore clear that the CCB validation auditor will wish to see an analysis of potential negative social and biodiversity impacts, an assessment of what the project is doing to reduce the risk of negative impacts, and how it would respond, if they do occur.

6.2 General Principles

Predicting negative social impacts and identifying risks is difficult and unpopular, since project proponents are naturally reluctant to discuss what might go wrong with a project. But failure to undertake this key SBIA stage properly could result in a project failing to withstand unexpected challenges, while negative impacts or threats are much more easily mitigated, if they are identified early on. A core element of good practice SBIA is therefore to identify risks and potential negative impacts, and thence build in countervailing risk reduction and negative impact mitigation measures. An analysis of potential negative impacts is also important for the FPIC process.

The reviews of social and biodiversity outcomes and impacts presented in **Social Toolbox Section 2** and **Biodiversity Toolbox Section 2** reveal a serious risk of negative impacts. The social review reveals that many potential negative social and cultural impacts are indirect and difficult to predict. For example, depending on project types and strategies, possible negative impacts could include:

- An increase in local food and/or land prices stemming from a large REDD+ project that restricts agricultural production.

- A negative effect on traditional or cultural institutions that regulate the relationship of people with nature and constrain extraction (or other impacts on the cultural landscape as discussed in Box 8). Such an effect could stem from a sudden large flow of carbon income.
- An increase in domestic violence (or other negative gender impacts), if men end up spending much of the carbon revenue on alcohol.

There are also significant biodiversity risks of carbon projects, although many can be averted at the project design stage, for example, by appropriate selection of native species for reforestation or by only undertaking reforestation activities on degraded land. Leakage is often the biggest biodiversity risk for a forest carbon project; understanding the drivers of deforestation, and how current land uses and livelihoods may shift is therefore essential for predicting negative biodiversity impacts.

It is also a basic characteristic of most project types, and perhaps especially carbon projects, that there are trade-offs between objectives and between stakeholders – while some people gain from a change, others may lose out. Therefore, stakeholder analysis (**Social Toolbox Section 4**) can make an important contribution to identifying potential negative impacts. Another key aspect of project design is planning and managing trade-offs to avoid negative social or biodiversity impacts.

As well as assessing the likelihood of negative social and biodiversity impacts, projects need to analyze the risks or threats to project success; the best way to do this is to carefully examine the project's *theory of change* to assess what could prevent achievement of the desired results. These risks can be identified from assumptions made in the *theory of change*. For example, a typical risk could be a policy or institutional change which affects a key project component (e.g., technical assistance or credit for sustainable agriculture) or a macro-economic downturn which increases the need for subsistence food production.

Once the most likely negative impacts and project risks have been identified, the next stage is to identify mitigation or risk reduction actions as mandated, for example, in **CCB Concepts CM2** and **B2**. A separate mitigation action or strategy is needed for each significant negative impact or risk. If an adverse impact cannot be prevented or mitigated, compensation of disadvantaged stakeholders may be needed, whether in cash or kind. However, if a major negative impact seems likely, for example, the loss of customary access rights or social displacement either geographically or due to major changes in livelihoods, the project is unlikely to be approved against multiple-benefit standards or get local approval via the FPIC process. Some situations require a radical rethink or even abandonment of the project, rather than a set of mitigation or risk reduction measures.

6.3 SBIA Workshop Guidance

Negative Impacts and Mitigation Measures

The *theory of change* methodology provides an important way of checking for likely negative impacts and implementation risks (although it should be complemented by participatory or stakeholder dialogue mechanisms). A negative impact can be defined as a negative side-effect of an otherwise successful¹⁶ result in a causal results chain. Examples of possible negative impacts mentioned in test SIA workshops were:

- A more effective village forest management committee (VFMC) could have a negative impact on female participation, since an increased VFMC workload will make it more difficult for women with children to participate.

¹⁶ The word “successful” is somewhat misleading, if there is an important trade-off between objectives or stakeholders.

- An effective fire prevention campaign involving village patrols could be so time-consuming that it reduces the viability of alternative livelihoods promoted in the same project.

For each identified negative impact the focal issue WG needs to identify an action to prevent or mitigate it, or occasionally to compensate it. Mitigation or preventive measures should then be phrased as mitigation or preventive results so that they become part of the project results chain. Figures 10, 11, and 12 illustrate how negative impacts and risks are factored into the results chain and are converted into results in this example from the SIA workshop in Tanzania (see also **Annex 1 Section 5.6**).

Risks and Mitigation Measures

A similar process is used to assess the risks or threats to achieving key results in the results chain. The key question here is: “What could prevent the result from being achieved, assuming that there is sufficient finance and resources for implementation?” The focus should be on the type of risks or assumptions found in a logical framework analysis – these are often risks that are outside the project’s control, e.g., policy or institutional reforms, which make it difficult to implement a key project strategy.

Given that it would take too long to analyze the risks for all the results in the results chain, it is advisable to prioritize the most important or pivotal results – this is a matter of judgment, but these may be the result boxes with most arrows entering and leaving them. As for the negative impacts, a risk reduction or mitigation result should be added to the results chain for each important risk. Further guidance is provided in **Annex 1 Section 5.6**.

Finally, since identifying negative impacts, risks, and appropriate mitigation measures is quite difficult, it is desirable that the results chain be reviewed by outside social scientists and biologists, since they may identify different or additional risks and negative impacts.

Figure 10. Poverty Reduction Focal Issue Results Chain (Zanzibar REDD Project, Tanzania)

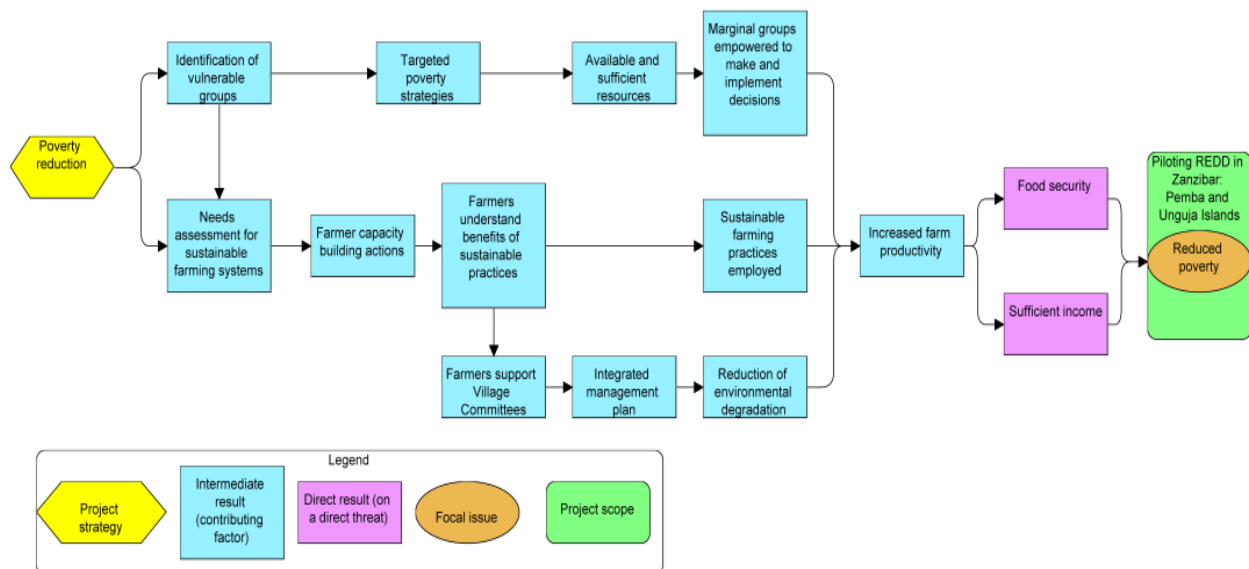


Figure 11. Poverty Reduction Results Chain with Negative Impacts (Zanzibar REDD Project, Tanzania)

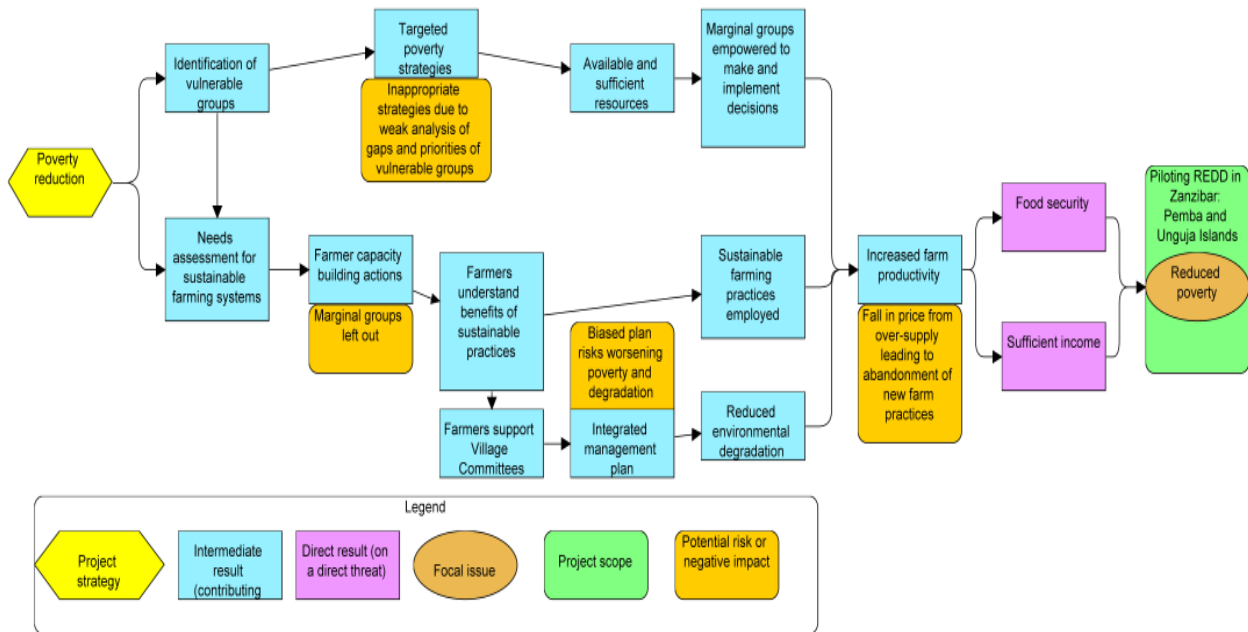
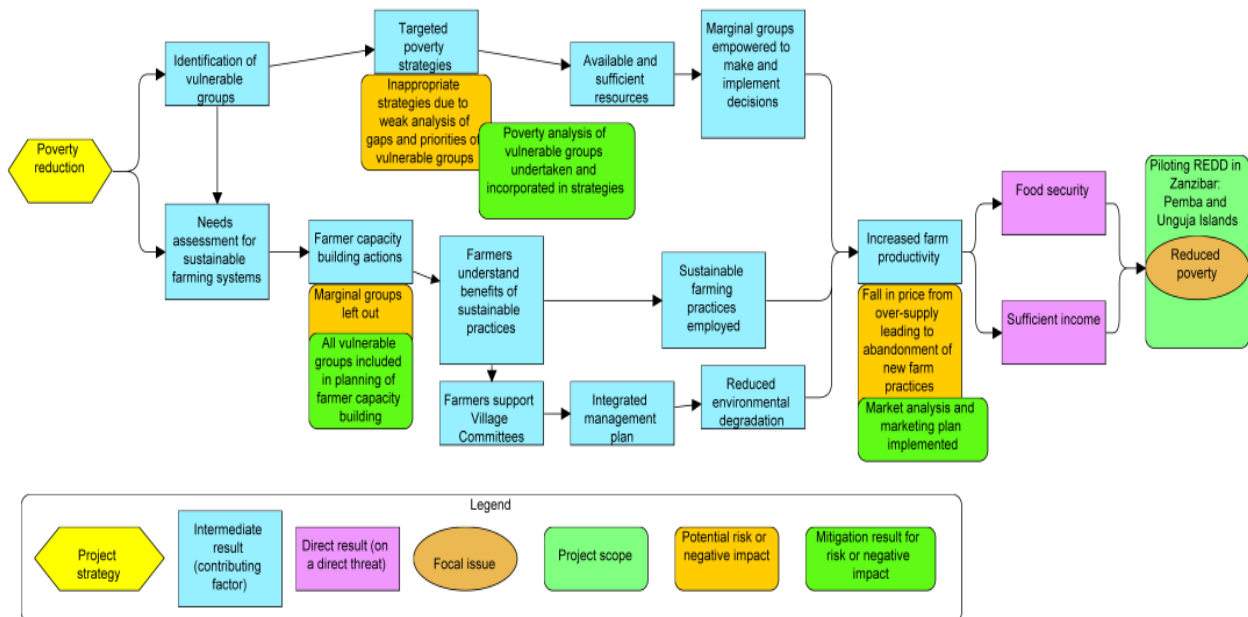


Figure 12. Poverty Reduction Results Chain with Mitigation Results Incorporated (Zanzibar REDD Project, Tanzania)



6.4 Other Methods

A characteristic of negative impacts is that they tend to be unexpected and indirect and may not be picked up in a theory of chain analysis. It is therefore essential to complement the SBIA workshop with constant and open dialogue with stakeholder groups. This can be by means of open-ended discussions with stakeholder focus groups (such as women, NTFP collectors, etc.) using a checklist of questions drawn up according to the project context (Box 15 presents an example of a possible set of questions).

During project implementation, the aim is to identify the problems as early as possible so that they can be tackled before they become unmanageable. This could involve, for example, regular meetings between a project social liaison officer and a stakeholder committee. Individual stakeholders should feel confident that they can bring their issues to such meetings without fear of retribution, such as exclusion from the project. A project's complaints or grievances procedure (as required by **CCB Standards Criterion G3.10**) should also be a key source for timely identification of social problems.

For cultural and gender issues, participatory research methods are essential. Only the indigenous group affected, for example, can determine the significance of a cultural change. It is also wise to consult with other key informants such as NGO staff, government extension officers, academics, and others with good understanding or experience of the project area.

Participatory impact assessment methods are also important for biodiversity issues, because they take advantage of local understanding of ecological processes. We believe, however, that an expert review by a biologist familiar with the project area is also essential. This review should consider potential direct and indirect negative impacts on a range of taxa, with special consideration of vulnerable, threatened, or endangered species.

Box 15. Potential Focus Group Questions to Identify Negative Social Impacts and Mitigation Measures for a REDD Project

- What will happen to current forest-based livelihoods, if restrictions are placed on the extraction of forest products?
- What will happen to family subsistence, if only dead firewood can be collected? Who collects the firewood now, and how far might they have to walk to collect firewood?
- What will happen to the nutrition of poorer families who were quite dependent on bushmeat?
- What will happen to NTFP collectors, if harvest levels have to be reduced?
- What will happen to village traders of forest products?
- What will happen to customary grazing rights and transhumant graziers?
- Will these problems affect richer and poorer families similarly?
- How will the project affect landless people?
- Will the problem affect men and women differently?
- How will the project affect female-headed households?
- What other possible negative impacts might there be on women and children?
- What will the men mainly spend their carbon money on? What would women spend carbon money on?
- What can prevent benefit-sharing mechanisms suffering from governance problems?
- How does the project plan to ensure transparent and accountable benefit sharing?
- What might be the effect on local institutions, if there are large injections of cash every five years?

7. SBIA Stage 5: Identification of Indicators – What Should We Measure?

7.1 Introduction

The selection of appropriate indicators is at the heart of evaluation or impact assessment. It responds to the basic question – what should be measured in order to show that the claimed net social and biodiversity benefits are real and additional? A systematic way of monitoring for negative impacts and risks is also needed.

CCB Criterion CM1.1 instructs project proponents to “use appropriate methodologies to estimate the impacts on communities,” and **CCB Criterion CM3.1** instructs them to “develop an initial plan for selecting community variables to be monitored.” The word ‘variables’ can be interpreted as meaning monitoring indicators. The biodiversity requirements in **CCB Criteria B1.1** and **B3.1** are very similar.

7.2 General Principles

An indicator is “a quantitative or qualitative factor or variable that provides a simple and reliable means to measure how well a desired outcome, value, or criterion is being achieved or fulfilled” (OECD/DAC 2002). Another definition is “a measurable entity related to a specific information need such as the status of a target, change in a threat, or progress towards an objective” (Conservation Measures Partnership 2007). Examples of indicators are: income level; life expectancy; adult literacy rates; species presence/absence; population size of a species.

The first requirement for identifying indicators is clarity of the desired objectives.¹⁷ These can be short-, medium- or long-term (equivalent to project outputs, outcomes, and impacts, as described in Box 6). Taken together, the outputs, outcomes, and impacts comprise the results of a project. When a desired social or biodiversity result is written as a SMART (**S**pecific, **M**easurable, **A**chievable, **R**elevant and **T**ime-bound) objective, identifying appropriate indicators is relatively easy. It is important to mention that not every result in the chain requires an objective. Instead, it is important to identify those results (short-, medium-, and long-term, and not more than 4-6) that show a progression towards the expected final goal.

For specifying an indicator, the key question is: “What would we expect to see, if the objective is in the process of being, or has been, achieved?” Indicators can be derived from output-, outcome- or impact-level objectives – the terms ‘output indicator’, ‘outcome indicator’, and ‘impact indicator’ help distinguish different levels of the project logic. It is desirable to have a mixture of output, outcome, and impact indicators, especially if they form part of a causal chain. Whereas attribution is not normally an issue for output indicators, the attribution challenge increases sharply for outcome and impact indicators. An ideal indicator from the perspective of showing attribution is one that measures an ‘intermediate state’ or assumption between an outcome and an impact, or between an output and outcome, since this most clearly shows progress along a causal chain.

¹⁷ It should also be noted that in the Open Standards approach, the objectives derived from the results chain are also used to identify a set of project activities necessary for achieving those objectives. This provides the basis for a strategic project design which is implicit in SBIA Stage 3. It is recommended that users seek further guidance from the Conservation Measures Partnership (2007).

For example:

IF the income resulting from the sale of carbon credits (the *outcome*) is spent on schooling and more nutritious food (the *assumption* or *intermediate state*), there should be a reduction in poverty (the *impact*).

In this case, the *outcome indicator* could 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.

Possible examples of output, outcome, and impact indicators are presented in Table 3. As is apparent from this list, indicators can be quantitative (numerical) or qualitative – in practice it is important to have a mixture of both. Quantitative or numerical indicators (usually for outputs) are easier to understand and compare between projects and more convincing for decision-makers. On the other hand, qualitative indicators can help us understand complex social processes. This being said, there are also ways of generating numerical indicators of qualitative indicators (**Social Toolbox Section 7**).

Table 3: Examples of Possible Output, Outcome, and Impact Indicators

Indicator Types	Possible Examples
Output Indicators	<ul style="list-style-type: none"> - numbers of jobs created - number of people trained - number of trees planted - number of participants in environmental education workshops
Outcome Indicators	<ul style="list-style-type: none"> - number of households adopting a new livelihood activity - percentage or absolute increase in household income from carbon payments - reduction in hours spent by women collecting firewood or water - percentage of carbon beneficiaries agreeing that they get a fair payment (this implies a viable project and an effective benefit-sharing system) - percentage of women on the project stakeholder committee - number of village management committees functioning effectively - ecological and economic zoning completed - establishment of improved monitoring systems for protected areas
Impact Indicators	<ul style="list-style-type: none"> - percentage of reduction in infant mortality - percentage of reduction of households living on < \$2 per day - percentage of local population changing from a negative to a positive attitude to forest conservation measures - significant increase in female participation in decision-making - reduction in domestic violence - percentage of increase in the population of an endangered species - number of hectares of a rare ecosystem preserved

The *theory of change* provides the best basis for selecting indicators since attribution is factored in: as noted by USAID (2006) it makes little sense to use indicators that do not capture key linkages in a project’s underlying causal chain. Secondly, deriving indicators from a *theory of change* promotes cost-effectiveness, since it focuses

monitoring efforts on the most important change factors. If a *theory of change* is coherent and has been validated with the stakeholders, it should be relatively easy to identify the indicators. Conversely, if the indicators are difficult to establish, this could mean that the *theory of change* needs more work.

7.3 Community-Based or Self-Evaluation Indicators

The CCB Standards require an “an evaluation of the [project] impacts by the affected groups” (**CCB Criterion CM1.1**). It is therefore important to identify stakeholder-identified or community-based indicators, both as part of the *theory of change* approach – when improved well-being, poverty alleviation, or similar impacts are sought – and as a complement to the *theory of change* approach in order to get stakeholder perspectives on project impacts. Communities have their own priorities for improving their lives and their own definitions of what constitutes a success or failure, and these are often different than outsiders’ criteria. Within communities, women usually have different criteria than men.

Community-based indicators can be identified by asking some simple questions¹⁸ to focus groups (including a women-only group):

- How do you hope this project will improve your lives?
- How could this project make your lives worse?
- What benefits are you hoping for from this project for your family and/or community?
- What would make this project a success for you?
- What would make this project a failure for you?

General questions can be followed up by more specific ones. For example, focus groups might say that they hope the project will improve the health of their families; further probing could result in an indicator related to a reduction in dysentery or other water-related health problems (see Catley et al. (2007) for further guidance on community-based indicators).

7.4 Criteria for Indicator Selection

The criteria for a good indicator are very similar but not identical to the criteria for objectives – indicators should be SMARS:

- **Specific:** the indicator should be defined and understood by all stakeholders in the same way – for this to be the case it must be transparent and an unambiguous measure of change
- **Measurable:** ideally it should be possible to record quantitative as well as qualitative changes in the indicator
- **Achievable:** the indicator should be realistic in terms of the cost and complexity of data collection methods
- **Relevant and Reliable:** the most relevant indicators are those that form part of a causal chain; a reliable indicator is one that gives consistent answers or numbers
- **Sensitive:** the indicator should change in proportion to changes in the condition or variable which it is measuring

¹⁸ At the verification stage, the questions can be even more direct such as “Do you think this project was successful? Why? (Or why not?)”

The cost-effectiveness of indicators depends largely on the data collection process necessary to measure them. This is covered in more detail in SBIA Stage 6. One way of keeping costs in check is to use proxy indicators which are less precise and sometimes less objective, but are easier to record or observe. This is another instance where the principle of appropriate imprecision can be invoked. Proxy indicators are always recommended for very sensitive data such as income or wealth. An example of a proxy indicator for wealth is the quality of housing and/or, in some societies, the number of cattle; for income, a commonly used proxy indicator is expenditure.

7.5 Indicators for Negative Impacts

For potential negative consequences (SBIA Stage 4), indicators can be selected much as they would be for the expected positive results. For most negative outcomes or impacts, there will be symptoms (or indicators) to make one suspect a deeper problem, for example, lack of attendance at meetings, arguments, conflicts, disunity, desertion from the project, allegations of inequity in benefit-sharing mechanisms, an unexpected increase in local land or food prices, etc. If such signs are detected, participatory methods should be used to explore the underlying problem.

Negative impacts on biodiversity are often connected with project leakage, so that ongoing monitoring of land cover changes within and outside the project area is essential. Any loss of native vegetation will have a negative impact on biodiversity; therefore, a basic biodiversity indicator is the amount of native vegetation lost outside the project area due to the project.

7.6 SBIA Workshop Guidance

Our experience from several impact assessment workshops suggests that four (or ideally 3.5) days is the maximum time for an SBIA workshop, and conducting SBIA Stages 2, 3 and 4 can easily consume these days. Identifying the indicators and developing a detailed monitoring plan (SBIA Stages 5 and 6) are demanding and quite technical tasks. It is therefore suggested that SBIA Stages 5 and 6 are undertaken by a carefully selected sub-group (say 6-10 people) from the main workshop with one or two additional M&E experts, if available. This should happen right after the main part of the workshop, possibly following a weekend break, while the information is fresh and the wall charts are still available.

It is suggested that two Monitoring Plan teams are formed, with each team working simultaneously on a focal issue monitoring plan. They should complete the following steps:

- Revise and possibly modify the results chain, checking especially on the cause-and-effect logic and looking for causal chains between outputs, outcomes, and impacts
- Review the earlier assessment of the most important or pivotal results and prioritize them (given that it is not practical or viable to identify and measure indicators for all the results)
- Identify causal chains between project outputs, outcomes, and impacts, as well as any key assumptions, linkages, or intermediate results in these chains, especially between the outcomes and impacts
- Specify the most important results, especially intermediate results, as SMART objectives.
- Identify at least one indicator per objective using the criteria discussed above.
- Swap with the other Monitoring Plan team to review the objectives and indicators (or this swap could be done at the end of SBIA Stage 6).

Annex 1 Section 6 provides further guidance, and Table 4 presents some examples of objectives and indicators.

Table 4. Examples of Objectives and Indicators (SIA Case Study: GuateCarbon REDD Project)

Focal Issue	Objectives	Indicators
Strengthened Governance	By January 2012, the Coordinating Committee of the Maya Biosphere Reserve has the mechanisms to implement the environmental security strategy in at least 70% of the area	- Mechanisms approved
	By March 2012, an effective program of community leadership is being developed in 10 concessions	- Community leadership program designed and implemented - Number of people trained
	By June 2014, at least 50% of judiciary operators in the Petén are applying their specialized understanding of environmental legislation	- Number of judiciary operators trained
	By December 2014, at least 80% of environmental actions result in criminal sentences	- Number of criminal sentences
Gender-Social Equity	By the end of 2011, [number] of project area communities and families are receiving training to strengthen shared family responsibilities	- Number of trainings received - Number of communities trained - Number of women, youth, and others trained
	By the end of 2013, [number] of women have finished primary education in the project area	- Number of women who completed 6 th grade - Number of women reincorporated into primary education
	By the end of 2013, at least three production projects are implemented by youth and women in the project area	- Number of projects being implemented - Number of new initiatives - Number of women/youth implementing projects
	By the end of 2013, multiple ethnic youth and women are involved in community organizations and training courses in the project area	- Number of women and youth participating in community organization activities - Percentage of annual increase in youth and women participants
	By the end of 2013, the management boards and community committees are composed of 25-30% women and children participating in decision-making	- Number of women and youth on community committees

7.7 Other Methods

Social Impact Assessment (SIA)

Another basis for establishing indicators is the Sustainable Livelihoods Framework (SLF) described in more detail in **Social Toolbox Section 6**; the SLF is used by the Brazil-based Social Carbon Standard as a basis for identifying indicators. A practical and participatory method of identifying indicators derived from the SLF is the Landscape Outcomes Assessment Methodology (LOAM) method (Aldrich and Sayer 2007). The LOAM method is described in **Social Toolbox Section 6.4**.

While a merit of indicators derived from the SLF approach is that they measure progress towards project sustainability, limitations, at least as regards meeting the CCB Standards, are that they do not factor in attribution and do not include a *theory of change*. An option could be to combine SLF indicators (for example, using LOAM) with matching methods or, more economically, participatory impact assessment (PIA) ranking and scoring methods to establish attribution (Catley et al. 2007). PIA methods are described in **Social Toolbox Section 7**.

In situations in which poverty reduction is a major social objective, the Basic Necessities Survey (BNS) is a systematic and cost-effective approach to measuring changes in poverty over time. The BNS method is explained in **Social Toolbox Section 8**. But again, it would be necessary to combine BNS with matching methods or PIA techniques to establish attribution.

8. SBIA Stage 6: Developing the Monitoring Plan – How Should We Measure the Indicators?

8.1 Introduction

Once the indicators (*what* to measure) have been determined, the next task is deciding *how* to measure them. Most indicators can be measured in more than one way, so a decision is required on which methods to use. This will depend on a range of factors including:

- Intended users of the monitoring results
- The appropriate or required level of accuracy and precision
- Transparency and simplicity of the method
- The cost (related to several of the above)
- The extent to which a method is participatory

The CCB Standards do not mandate any particular monitoring or data collection methods, but rather make reference to a list of Potential Tools and Strategies in Appendix A of the CCB Standards. Users are referred to the **Social Toolbox Sections 3, 7, and 8**, and **Biodiversity Toolbox Section 5** for more detailed guidance on data collection methods.

8.2 General Principles

When Should a Monitoring Plan Be Developed?

The monitoring plan is a vital component of project design and should be undertaken when the project activities are planned. This will ensure that monitoring is integrated into project implementation. The CCB Standards, however, allow some flexibility as to when the complete monitoring plan must be completed. **CCB Criteria CL3.2, CM3.2, and B3.2** state that the full monitoring plan must be developed within six months of the project start date or within 12 months of project validation. These provisions were made to recognize that a full monitoring plan can be costly to develop and that some projects use validation to attract the investment needed to complete the monitoring plan.

Project developers should be aware that this flexibility also carries an element of risk. When a full monitoring plan is included in the Project Design Document (PDD) at the time of validation, it will be evaluated by the auditor in terms of its capability to demonstrate that the project has delivered the expected climate, social, and environmental benefits. When it is not included in the PDD, the project runs the risk of discovering at the time of verification that the monitoring was inadequate. This could result in a failed verification audit and/or the auditor proposing an independent and expensive study to assess the project-generated benefits. Also, a credible monitoring plan would still be required for subsequent crediting periods. A project that develops its monitoring plan after validation could also contract an auditor to obtain a separate opinion on the quality of the monitoring plan, but this will likely result in a higher total cost than having the monitoring plan evaluated as part of the validation audit. It is therefore a false economy to delay the social and biodiversity monitoring plans.

Intended Users of Monitoring Results

A monitoring plan is designed to collect information about how a project is being implemented and about the outcomes and impacts that it produces. Various stakeholders have a stake in the results, including: the communities affected by the project; the implementation team that seeks to improve project management; the government; the project funders; and others.

These groups may be interested in different types of information. The government or project funders may be more interested in aggregated socioeconomic and biodiversity measures, while local communities will be more interested in understanding how individual villages, or groups within a village, have been affected. When designing a monitoring plan, the information requirements of all stakeholders should be considered in a way that efficiently addresses the different needs. The results of a monitoring method must be easily understood by the intended users. Methods that require sophisticated analyses may be appropriate for researchers or funders, but less appropriate for local community members. If the monitoring method is not understood, the results may be mistrusted.

Accuracy, Precision, and Participatory Monitoring Methods

Accuracy is the degree to which a measurement is correct, while precision is a way of describing how fine the measurement is. Monitoring methods should obviously aim to produce accurate results, for example, whether an impact is positive or negative, and which stakeholder groups are affected by project activities.

Achieving an appropriate level of precision, however, is more subjective. Projects are advised to avoid sophisticated monitoring methods which aim for high levels of precision, since these are not required by the CCB Standards.¹⁹ On the other hand, participatory monitoring methods may not give precise results, but generate information that is easily understood and reflects the opinions of community members. Similarly, simple biodiversity monitoring methods of easily observed species may feel more tangible to stakeholders than methods that rely on technology or measurements of obscure taxa.

As with all aspects of project design and implementation, local stakeholder participation in monitoring provides access to essential local knowledge. **Social Toolbox Sections 7 and 8** and **Biodiversity Toolbox Section 5** describe some relevant participatory monitoring and data collection methods. For example, a practical and participatory method for measuring attribution is contained in the Participatory Impact Assessment (PIA) set of methods (Catley et al. 2007) described in **Social Toolbox Section T6.2**. A PIA method for assessing attribution involves:

- Listing all the possible causal factors of an observed social outcome or impact;
- Deciding which of these causal factors are project factors and which are non-project factors;
- Getting a group of project stakeholders to rank and score all the causal factors;
- Finding the total score of the project causal factors, so that it is possible to say what proportion of the effect was due to the project (according to this group of stakeholders);
- Repeating the exercise identically with several groups of stakeholders and in different locations.

Project developers should be aware, however, of the cost of participatory methods for local people and that their effective use requires skilled facilitation and analysis. Where methods are highly time-consuming or otherwise expensive for community members, alternative methods and/or appropriate compensation should

¹⁹The CCB Standards only stipulate that “appropriate methodologies” be used; a project may choose to use low-precision methods as long as the reasons for choosing these methods are clear.

be considered. It is also important to triangulate the results of a particular method by another method (which may also be a participatory method).

8.3 SBIA Workshop Guidance

As explained in SBIA Stage 5, the detailed social and biodiversity monitoring plans can be developed by an SBIA workshop sub-group. Developing the monitoring plan follows immediately after identifying appropriate indicators. The following information should be entered in columns on a large sheet of paper (or several sheets taped together):

- SMART objectives
- Indicator(s) – at least one per objective (WHAT to measure?)
- Indicator type (output, outcome, or impact indicator)
- Data collection method for the indicators (HOW to measure?)
- Existing data for the indicator?
- The person or organization responsible for measuring the indicator (WHO?)
- Timing or frequency of measurement of the indicator (WHEN?)
- Location where the indicator will be measured (WHERE?)
- The rough cost of measurement – low/medium/high

Table 5 presents an example of a monitoring plan from an SIA case study. After developing the monitoring plan for a set of focal issue objectives and indicators, the two Monitoring Plan teams should exchange plans for review and modification.

Table 5. Examples of Focal Issue Monitoring Plans (GuateCarbon REDD Project)

Focal Issue: Strengthened Governance

Objective	Indicator	Indicator Type	Data Collection Method	Existing Data?	Who?	When?	Where?	Cost to Project
By January 2012, the Coordinating Committee of the Maya Biosphere Reserve has the mechanisms to implement the environmental security strategy in at least 70% of the area	- Mechanisms approved	Output	Report	Partial information	National Protected Areas Commission (CONAP)	2 times per year	Region VIII of Guatemala	0
By March 2012, an effective program of community leadership is being developed in 10 concessions	- Community leadership program designed and implemented - Number of people trained	Output	Report	Partial information that will serve as support material for trainings	Association of Forest Communities of the Petén (ACOFOP)	2 times per year	ACOFOP and CONAP	Low
By June 2014, at least 50% of judiciary operators in the Petén are applying their specialized understanding of environmental legislation	- Number of judiciary operators trained	Outcome	Report of training including attendance list	Partial information (Justice Forum)	Coordinating Committee of Maya Biosphere Reserve	Annual	CONAP	Low
By December 2014, at least 80% of environmental actions result in criminal sentences	- Number of criminal sentences declared	Outcome	Resolutions of sentences	Partial information	Coordinating Committee of Maya Biosphere Reserve	3 times per year	CONAP	Low

Focal Issue: Gender-Social Equity

Objective	Indicator	Indicator Type	Data Collection Method	Existing Data?	Who?	When?	Where?	Cost to Project
By the end of 2011, a certain number of project area communities and families are receiving training to strengthen shared family responsibilities	<ul style="list-style-type: none"> - Number of trainings received - Number of communities trained - Number of women, youth and others trained 	Output	Workshop reports	No	Project staff ACOFOP	2 times per year	Concessions	Medium
By the end of 2013, a certain number of women finished primary education in project area	<ul style="list-style-type: none"> - Number of women completed 6th grade - Number of women reincorporated into primary education 	Outcome	Primary school records – Ministry of Education	Ministry of Education Statistics	Project staff	Annual	Schools	Medium
By the end of 2013, at least three production projects implemented by youth and women in the project area	<ul style="list-style-type: none"> - Number of projects - Number of new initiatives - Number of women/youth implementing projects 	Output	Field reports	No	Project staff	Annual	Communities	High
By the end of 2013, gradual involvement of multiple ethnic youth and women in community organizations and training courses in project area	<ul style="list-style-type: none"> - Number of women and youth participating in community organization activities - percentage of annual increase in youth and women participants 	Output	Field reports	No	Project staff	Annual	Governing Boards	Low
By the end of 2013, the management boards and community committees will be composed of 25-30% women and youth participating in decision-making	<ul style="list-style-type: none"> - Number of women and youth on the community committees 	Output	Records of people proposed	Records of previous people proposed	ACOFOP Coordinating Committee of Maya Biosphere Reserve	Annual	Concessions	Low

9. SBIA Stage 7: Data Collection, Analysis and Reporting – What Should We Do with the Data?

9.1 Introduction

All the effort of designing and implementing a monitoring plan is only useful once the gathered information is synthesized into a form that is easily understood by project stakeholders. The users of monitoring results can include communities, project staff, government officials, project funders, and expert auditors, and the results must be presented in a way that is useful to all of these users. This section provides guidance on data collection and what to do with the information collected so that it can be used in a verification audit and can contribute to adaptive project management.

9.2 Data Collection: Development of Monitoring Work Plans

The most important step for efficient and effective data collection is to develop a detailed monitoring work plan and implement it. A monitoring work plan can be distinguished from the social and biodiversity monitoring plans developed in SBIA Stage 6 in that it is a more detailed implementation work plan, i.e., a much more detailed version of the monitoring plans required for validation. Useful guidance for developing monitoring work plans is provided by the Nature Conservancy (Basic Practice 8 in CAP Toolbox):

<http://conserveonline.org/workspaces/cbdgateway/cap/resources>

A monitoring work plan details monitoring tasks (specific activities for measuring each indicator), staffing, timeline, and costs associated with implementing the monitoring plan. The process of completing the work plan will help identify gaps in the availability of resources and in the capacity necessary for effective implementation of the monitoring process. Six key steps in planning and implementing the monitoring plan can be identified:

1. When (Timeframe and Frequency of Data Collection)

The monitoring work plan should define how frequently the monitoring indicators will be measured and the appropriate frequency (time(s) per year) for data collection. This will depend partly on how soon it is expected that a monitoring result will occur; the natural variability of the phenomenon being monitored (e.g., does it have to be recorded continuously); seasonality (e.g., is it related to the agricultural calendar or NTFP harvesting times); and the project life cycle. It is usually a good idea to collect and review the data in advance of key project planning or reporting timings.

2. Where (Location of Data Collection)

The work plan should briefly describe the physical location or community where the monitoring will be carried out, access issues, and any other logistical issues about getting there.

3. Who (People Responsible for Data Collection, Data Management and Analysis)

Monitoring can require extensive resources, especially time commitments of project team members. It is important to ensure that people with the right skills are assigned to handle these functions. Whilst multiple staff may be responsible for collecting and recording data, it is best to have a single person be in charge of the overall monitoring process – this should be the same person who systematically checks, cleans, and codes the raw data as soon as it is obtained; stores and backs it up; and then analyzes it.

4. Resources and Costs of Monitoring

There is normally only a very broad indication of relative costs in the higher-level monitoring plans, e.g., high, medium, or low. It is essential to assess the required resources and costs of implementing the monitoring plan. This involves estimating the approximate financial cost and/or amount of staff time needed to monitor each indicator. It may be necessary to identify a funding source in cases in which this cost cannot be met by the project revenue.

5. Indicator Status (Measurement Value and Date)

The indicator status is normally “planned”, “partially collected”, “on-going”, or “completed”. Collection of the starting conditions indicator data is normally the first implementation step of the monitoring work plan. In some cases, data may be available going back through time (e.g., remote sensing or demographic data), and it could be possible to compare trends before and after the project start date. The indicator status should be updated at least annually.

6. Summary Reports

Summary reports at appropriate time intervals should be prepared in a format and style appropriate to key audiences.

9.3 Data Processing, Analysis, and Presentation

Each monitoring method will produce information that must be processed, summarized, and presented in a way that is understandable to the users. The tendency is for the time and cost of these stages to be badly under-estimated. It is important to decide how the data will be analyzed when the monitoring plan is developed in order to ensure that the necessary skills and resources are available.

The CCB Standards require the estimation of *net* social and biodiversity benefits; a key challenge is therefore to determine whether the observed positive changes outweigh negative ones. For social impacts, local communities themselves should feel that the net effect is positive – it is therefore important that the analysis is easy to understand, transparent, and well-communicated. Ideally, local stakeholders should participate in the analysis.

For biodiversity impacts, the degree to which negative impacts are offset by positive ones will depend on the conservation value of the affected species or ecosystems. For example, positive effects on highly threatened species will justifiably outweigh negative impacts on widespread, common species.

Estimation of net benefits must be done by comparing actual monitoring results to the “without-project” social and biodiversity projections done for Stage 2. For projects using the CCB Standards, this comparison will form part of the “Project Implementation Report” that must be prepared before a verification audit. This report must include a description of how a project has met each of the requirements of the CCB Standards and will rely on the monitoring results as evidence.

9.4 Stakeholder Reporting and Verification

The reporting requirements of the CCB Standards are designed to promote a high level of transparency and accountability. It is the ethical responsibility of project proponents to share monitoring data with project stakeholders, but it is also necessary to check with a range of stakeholder groups whether the results seem to

accurately reflect reality. Therefore, this stage needs to be undertaken prior to finalizing the report so that the latter can be modified as necessary.

Projects need to think carefully about how best to transmit the monitoring plans and data, and the process leading to them, to local stakeholders. The CCB Standards require an “an evaluation of the [project] impacts by the affected groups” (**CCB Criterion CM1.1**), but do not specify how stakeholder verification should be carried out, so each project proponent will have to identify the best way of doing it. Where literacy is an issue, this can mean the use of visual aids. Local understanding may be stronger when a more educated local stakeholder, rather than a project officer, makes the presentations and descriptions, partly since they are likely to make fewer assumptions in the presentations.

9.5 Disseminating the Monitoring Plan

Transparency is essential as regards the monitoring results. Reports must include a clear description of how the data was collected and analyzed, together with the summarized results. The CCB Standards also require that projects disseminate the monitoring plan and results through the internet, as well as to communities and other stakeholders in appropriate ways (**CCB Criteria CL3.2, CM3.2, and B3.2**). Prior to the verification audit, projects must also prepare a report that describes how the project has met the CCB Standards, and this must include the monitoring results. This report must be made public for a 30-day comment period prior to the verification audit.

9.6 Feeding the Results into a Broader Learning Process

Finally, an important rationale for credible and systematic SBIA is its capacity to contribute to a broader learning process about the social and biodiversity effects of REDD+. The review of social impacts of land-based carbon projects (**Social Toolbox Section 2**) makes it clear that our understanding of the social consequences (in particular) of REDD+ is currently rather weak. We don't really know what does and does not work as regards achieving social benefits and avoiding negative impacts.

For example, there is much discussion of the likely trade-offs between social and carbon objectives, as well as between carbon and biodiversity objectives in the context of A/R projects, but limited empirical evidence. Due to the lack of attention to attribution, the existing data is of limited use. This situation has led to various contested perspectives on the social effects of REDD+. As emphasized by Jagger et al. (2010), credible impact assessment methodologies are key to a better understanding of the co-benefits of land-based carbon projects. In the context of the *theory of change* approach to SBIA, this can lead to a more robust cause-and-effect-analysis, and in turn to better project design. It would help future projects avoid making the same mistakes as the current pioneering set of projects, as well as better inform the design of national REDD+ programs.

10. Meeting the Cost Challenge of SBIA

10.1 Introduction

This section provides some guidance on how to make SBIA as cost-effective as possible, i.e., minimizing the cost of achieving a sufficient level of credibility to satisfy the auditors, to effectively communicate performance to stakeholders, and to provide good-quality input into project design and adaptive management. Some key factors determining the cost-effectiveness of SBIA are:

- The choice of methodology;
- Advisory support requirements (also related to the choice of methodology);
- Contextual factors: the social and biological complexity, scale and location;
- Integration with other carbon project development tasks.

10.2 Choice of Methodology

As already mentioned in **Section 2.2**, the main determinant of cost is the methodological approach. The credibility of SBIA is largely about a methodology's capacity to detect social and biodiversity impacts and attribute them to the project. Therefore, project proponents need to look at the relative cost of different SBIA approaches that are capable of "doing the job."

Box 16 presents estimates of the costs of the three SIA case study workshops undertaken in 2011 and should be indicative of the cost of doing a workshop that also considers biodiversity impacts (SBIA). This suggests that the cost of developing a detailed social monitoring plan, including a training workshop, is likely to be in the range \$25,000-35,000 depending on factors such as social complexity, scale, and location. These costs include appropriate advisory and facilitation inputs. The additional cost to undertake the BIA component of SBIA should be much relatively small, especially if it is possible to integrate the two processes in one main SBIA workshop.

Box 16. Estimated Cost of SIA Case Study Workshops

The costs of the three SIA case study workshops held in 2011 in Brazil, Guatemala, and Peru were between about US \$20,000 and \$28,000. This cost included planning and preparation time, project staff time, and data-processing and -reporting costs, but excluded the cost of a training workshop and a follow-on meeting to develop the social monitoring plan. The higher end of the scale was for a workshop in a fairly remote part of the Brazilian Amazon, which involved several external resource people. The workshops in Peru and Guatemala were at the lower end of this range.

The main costs were the time of project staff, consultants, and researchers from Forest Trends or CCBA (\$13,000-18,000); local participant travel, hotel, and workshop venue costs (\$4,500-5,000); and international travel costs (\$1,500 for the Guatemala case study, which had the advantage of an in-country consultant, and over \$5,000 for the Brazil case study, including air fares from the USA and Central America).

It should be noted that there was a considerable research element (developing the SIA process) in these costs – this is difficult to separate from other costs, but 20% might be a reasonable estimate. Depending on a project's social complexity, scale, and remoteness, the rough cost of generating the social monitoring plan is estimated to be in the range \$25,000-\$35,000. This cost assumes that an experienced consultant designs and facilitates the process.

10.3 External Support

The amount of external advisory support is a key determinant of the cost of SBIA. In the three SIA case studies, external advisory or resource people costs, including international travel and subsistence, was about three quarters of the total workshop costs. Our experience is that the *theory of change* approach does require training and advisory inputs; on the other hand the methodology is more accessible to project staff than traditional impact assessment methodologies, and does not involve statistical analysis (econometric or other forms of statistical analysis also make it challenging for projects to communicate monitoring results to stakeholders, and to use the information for adaptive management purposes). It should be recalled that the high cost of matching methods approaches (typically in the range \$50,000-150,000) is largely due to the need for specialized consultants at the design and data analysis stages.

While it could be possible for project staff to undertake the proposed SBIA process without outside support, we do not advise it. It can be a false economy to “go it alone”, if it is later found that the methods lack credibility, possibly resulting in a failed verification audit or the need for a much more expensive study.

10.4 Contextual Factors

The cost of the SBIA process also depends on various contextual factors:

- Social complexity – at one end of the spectrum, an A/R project with few community or stakeholder interactions may require only a light SIA study; on the other hand, a REDD project with indigenous people, and where the project design affects current livelihoods, is likely to be socially and politically complex.
- Scale – like all transaction costs there are diseconomies of (small) scale, while larger projects incur lower transaction costs per unit of carbon sold.
- Location – a more remote project location means higher travel costs, as experienced with the SIA case study in the Brazilian Amazon.

10.5 Integration of SBIA with Other Carbon Project Development Tasks

A vital way of keeping costs down is to find ways of integrating SBIA with other aspects of the project management cycle, especially at the design stage. Combining SBIA with other aspects of project development should also result in a more robust and effective project design, including for carbon objectives. There are several opportunities for synergy in the project design phase:

- Conducting legal due diligence: an essential part of SBIA Stage 1 involves assessing tenure, boundary, or land conflict issues, and clarification of carbon property rights.
- Defining the project participants: another key activity in SBIA 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 the analysis of agents and drivers of deforestation or degradation: this could be combined with SBIA Stages 1 and 2.
- Drafting the design of project activities and land-use incentives strategy: SBIA Stage 3 can feed into the project design by confirming that provisionally identified activities are strategic, and by suggesting modified or new entry points that contribute to stakeholder buy-in and land use incentives.

- Analyzing carbon leakage risks and mitigation activities: SBIA Stage 4 can help assess the risks of displacing livelihoods or land uses, and how best to avoid or mitigate these risks, while SBIA Stage 5 can inform the choice of indicators for monitoring leakage risks.
- Calculating the VCS risk buffer discount and developing strategies to mitigate non-permanence risks: SBIA Stages 1, 2, and 4 provide a strong basis for at least part of the risk rating under the VCS (or other standard), while SBIA Stage 5 can inform the choice of indicators for monitoring specific non-permanence risks.
- Monitoring and verifying carbon, social, and biodiversity benefits: it is too early to assess the extent to which the monitoring, analysis, and reporting tasks for carbon, social, and biodiversity outcomes and impacts can be combined, but project proponents should aim to synchronize them as much as possible.

10.6 A Broader Understanding of the Cost-Effectiveness of SBIA

Project proponents should also bear in mind that cost-effectiveness is not just about the cost of meeting a set of standards. As stressed at various points of this Manual, the benefits of good practice SBIA go well beyond providing credible monitoring information and satisfying the auditors.

Firstly, good practice SBIA should save costs. For example, it should help early detection of problems, thereby avoiding both the negative impacts and the higher costs of sorting out problems (if this is possible) after they have become significant and possibly unmanageable. It could also avoid the need for an expensive independent SBIA study being required for verification.

A strength of the *theory of change* approach is its capacity to contribute to other parts of the project cycle, especially in terms of generating a strategic project design and adaptive management. Another advantage is that the method and results can be relatively easily communicated and understood by a range of stakeholders.

The links between a robust SBIA process, and social and carbon sustainability therefore make good practice SBIA an issue of project and investor self-interest, as reflected in an observation that:

“Although the unit costs of carbon abatement via REDD would most likely increase with efforts to integrate equity and poverty concerns, these increased costs need to be met in order to ensure the delivery of project or program outputs – indeed this expenditure is likely to be highly cost-effective” (Olsen and Bishop 2009).

11. Recommendations and Conclusions

11.1 Recommendations for Good-Practice SBIA

The main recommendations of this Manual for good-practice and cost-effective SBIA are to:

- Develop the social and biodiversity monitoring plans at the project design stage;
- Invest in early technical advice and training;
- Include representatives of all local stakeholder groups in the SBIA and project design;
- Identify key stakeholder groups and design project activities and monitoring to address project objectives and risks for each stakeholder group;
- Spend time clarifying the project’s social and biodiversity objectives and how it is hoped that these will be achieved, including distinguishing between the 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 full range of potential negative impacts and risks, since tracking and mitigating them can be critical to project success;
- Invest time in the selection of credible and practical indicators;
- Use a mixture of methods, for example, a combination of the *theory of change* approach, participatory impact assessment methods and self-evaluation by local stakeholders;
- Use participatory data collection methods where appropriate;
- Integrate the SBIA process with other tasks in the project development process; and,
- Keep local stakeholders informed of the SBIA process and its results, and give them the opportunity to question the findings.

11.2 The *Theory of Change* Approach and Appropriate Imprecision

Having reviewed potential SBIA approaches, it was concluded that the *theory of change* approach was the most cost-effective and appropriate methodology for assessing the social and biodiversity outcomes and impacts of land-based carbon projects. While projects applying to the CCB Standards are of course at liberty to use a different approach, a *theory of change* methodology seems most appropriate for the following reasons:

- It uses a very similar logic and sequence to the CCB Standards;
- It should contribute to a strategic project design (at least of the social and biodiversity objectives);
- It involves a high level of participation by stakeholders and can contribute to project ownership and project-stakeholder relationships;
- The external advisory costs are significant but not excessive – other impact assessment approaches such as the quasi-experimental method are much more demanding.

The *theory of change* approach is also consistent with the principle of “appropriate imprecision” (as opposed to “inappropriate precision”) promoted in rural development participatory learning approaches (Chambers 1983). Constructing a robust project *theory of change* and backing it up by carefully chosen indicators and participatory

impact assessment, as suggested by Catley et al. (2008), is more important than striving for precision through a more sophisticated or quantitative approach. It is also much more likely to be understood by the project stakeholders.

11.3 SBIA – an Issue of Project Self-Interest

In this Manual, we argue that good-practice SBIA is primarily an issue of project self-interest and should be a key element in the design of REDD+ and other land-based 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 validation against a standard. Good-practice SBIA should:

- Result in an improved project design that will make it more likely that the desired social and biodiversity benefits are achieved and that negative impacts are avoided;
- Contribute to a project’s social sustainability and therefore the carbon objectives, given that weak social sustainability represents a risk to carbon permanence;
- Facilitate adaptive project management;
- Increase the engagement and participation of local stakeholders, probably resulting in better project-stakeholder and inter-stakeholder relationships; and
- Strengthen the carbon baseline analysis (for a REDD project) by providing a stronger causal understanding of deforestation or degradation drivers.

These wider benefits are more likely to happen when the SBIA plans are developed at the project design phase rather than as an add-on to comply with a set of standards once the project has been designed. Above all, good-practice SBIA is about getting the project design right so that it delivers on its multiple benefits. As a REDD project manager in Indonesia commented when reviewing a draft of this Manual:

“The success of a REDD+ or other land-based carbon project depends in absolute terms on getting the social and community aspects of the project right. The point should be clearly made that REDD+ will not work unless community and social aspects of the project are properly addressed. In other words, community aspects of project design are not optional, but are crucial to project success” (Jane Dunlop, pers. comm.).

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Glossary²⁰

Activity: The practical, time-bound actions that the project carries out to deliver the desired project outputs.

Adaptive Management: A systematic process of improving and learning from project outcomes based on an effective M&E system, leading (as necessary) to modification of project strategies in alignment with the project's long-term goals.

Assumptions: Hypotheses about causal factors or risks which could affect the progress or success of a project's attempt to achieve its goals.

Attribution: Establishing the causes of observed outcomes or impacts. In the context of SBIA, this means establishing that the carbon project, rather than other factors, is the cause of net social benefits.

Baseline: This is a term with different meanings in different fields. In carbon accounting, it refers to the projection of emissions reductions in the absence of project activities. In other contexts, the word 'baseline' is often used to refer to starting conditions.

Counterfactual: This is what would have happened to the population or site of interest in the absence of a project or policy intervention.

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

Focal issue: In an SBIA context, a social or biodiversity-related factor or issue that is important for project success and corresponds to the main social or biodiversity-related problems facing the project.

Impacts: Positive and negative long-term or durable effects resulting from the implementation of a project, whether intended or unintended.

Indicator: A quantitative or qualitative factor or variable that provides a simple and reliable means to measure project achievement or progress, or that helps assess the performance of an organization.

Input: The physical, human, financial, and capital resources applied to a project and to its component activities.

Intermediate state: The transitional conditions between a project's outcomes and impacts that must be achieved in order to deliver the intended impacts.

Monitoring: A continuing process that uses systematic collection of data to show the achievement or progress of project objectives and to feed information back to project management in order to improve operational effectiveness.

Outcome: The likely or achieved short-term and medium-term results from the implementation of a project that contribute to the project's impacts.

²⁰ Main sources: GEF Evaluation Office and Conservation Development Centre, 2009; ISEAL 2010; OECD/DAC 2002; Jagger et al.2010.

Output: The products, capital goods, and services that result directly from project activities and that the project must deliver in order to achieve the desired project outcomes.

Problem flow diagram: A problem flow diagram, equivalent to the conceptual model in the Open Standards methodology, is a causal analysis (in the form of a flow diagram) of the factors resulting in a focal issue problem; these factors also represent the risks or threats to a project being able to achieve an improvement in the pre-project focal issue condition.

REDD+: This is officially defined as “reducing emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks” (UNFCCC Decision 2/CP.13–11). This definition is understood to include planted trees, natural forest restoration, and improved (sustainable) forest management.

Reference scenario: The expected conditions to be found in the project area, if the project activities are not implemented.

Results: The outputs, outcomes, and impacts (intended or unintended, positive and negative) resulting from the implementation of a project.

Results chain: A flow chart expressing the key elements of a *theory of change* mapped out in a series of causal statements linking project outputs, outcomes, and impacts, expressed in the form of a set of successful and causally linked results.

Stakeholders: Agencies, organizations, groups, or individuals who have a direct or indirect interest in the project and its outcomes/impacts.

Strategy: A series of interventions employed by a project in order to achieve the intended impacts.

Theory of change (also called causal model): A theory-based evaluation tool that maps out the logical sequence of means-ends linkages underlying a project and thereby makes explicit the expected results of the project and the actions or strategies that will lead to the achievement of results.

Validation: Independent third-party assessment of a project plan or design against the requirements of a standard such as the CCB Standards.

Verification: Independent third-party assessment of a project’s delivery of emissions reductions or removals, or of social and biodiversity benefits in accordance with the project’s validated design and the requirements of a standard such as the CCB Standards.

ANNEX 1. Methodological Guidance for the SBIA Workshop

1. Introduction

This guidance for conducting a social and biodiversity impact assessment (SBIA) workshop is based on an adaptation of the Open Standards for the Practice of Conservation methodology to the requirements of SBIA. It is expressed in a fairly prescriptive way but it is expected that different coordinators will have their own way of going about many of the stages according to their experience and training.

This Annex does not attempt to incorporate biodiversity impact assessment (BIA) since this was not done in the test workshops upon which this guidance is based. The guidance here also assumes that community or other local participants are significant or primary stakeholders in the project. Annex 2 also presents some possible guidance notes to print and hand out to each Working Group facilitator. In the interest of space, Annexes 1 and 2 refer back to the case study examples presented in the main text of Part 1.

2. Factors Affecting SBIA Workshop Effectiveness

2.1 The Mix of Workshop Participants

An SBIA Workshop seems to work best with about 20-25 stakeholder participants assuming there is one workshop coordinator. It is strongly recommended that non-stakeholders are excluded since they can bias the analysis and reduce local stakeholder participation. Project stakeholders can be defined as anyone with a direct interest in the project outcomes, including local communities, project managers, investors, as well as NGOs and government organizations supporting the project. If a project decides to allow non-stakeholders to attend the workshop to learn about the methodology, they should only be observers.

A second factor that can cause bias is if the number of representatives of one stakeholder group is out of proportion with its relative importance: a rule of thumb might be that people from local communities should form at least half of the participants, if they are the primary stakeholders; on the other hand, it is important to have several project staff, support NGOs, and informed government staff at the workshop. Another key aspect is gender balance. As a rule of thumb, at least a third of the participants should be female.

The case studies showed that the rather “western” cause-and-effect mode of analysis may be challenging but is not impossible for community/indigenous participants; for example, when the SBIA workshop was undertaken with the Suruí indigenous people in Brazil, the comments were along the lines that “yes it was difficult, but with good working group (WG) facilitators we managed to do it.” It is therefore strongly recommended that the WG facilitators receive training and that community participants get some practice in cause-and-effect thinking prior to the workshop.

2.2 One SBIA Workshop or Separate SIA and BIA Workshops?

From a technical (and cost-effectiveness) perspective, it would be ideal to hold one integrated SBIA workshop due to the importance of the interaction of social and biological processes, but this needs to be judged on a case-by-case basis taking into account the following factors:

- The social and biological complexity of the project – for example, if it is a reforestation project in an area with few communities, then there may be few social issues
- The number of workshop coordinators and participants. The SIA workshops worked well with 20-25 people; larger numbers are possible but are not manageable with one workshop coordinator. Given an

optimal number of 5-7 people per focal issue working group and a total of 25 participants, 4-5 focal issues are possible. Therefore, whether a combined SBIA workshop is possible depends on (a) the number of participants/workshop coordinators, and (b) the number of social and biodiversity focal issues.²¹ If the aim is to hold a combined SBIA workshop, it is advisable to identify the focal issues in a short prior workshop.

- The optimal length of an SBIA workshop is 3-4 days ; then tiredness sets in (see below). A combined SBIA exercise could extend the workshop beyond four days, but could also result in a declining quality of participation.
- Educational and cultural issues associated with the speed of the workshop, given that an integrated SBIA workshop adds another level of complexity. The workshop will go faster when all participants have good educational levels and are working in their mother tongue; it will go slower ,if participants have a wide range of education, especially if there are literacy and/or language²² issues.

2.3 Workshop Location and Timing

It is advisable to hold the SBIA workshop “out of town” in a place where all the participants are staying so that the temptation for participants to drop in and out, or to go to their office first and arrive late, is minimized. The location must also have ample wall space and breakout rooms for the WGs.

Given that local stakeholders have opportunity costs and are not being paid unlike most other participants, consideration might need to be given to a *per diem* payment to help them feel less worried about the neglect of livelihood or subsistence tasks. In this case, four days could be feasible. If possible, the workshop should be held at a relatively “slack” time of year as regards the farming and forestry calendar, and should respect local holidays and traditions.

2.4 Quality of Workshop Coordinator and Working Group Facilitators

The ideal SBIA workshop coordinator will have:

- Extensive experience in workshop facilitation;
- Strong understanding of *theory of change* impact assessment methodology;
- Relevant language skills;
- Cultural and gender sensitivity;
- Good understanding of the land-based carbon sector; and
- Good contextual knowledge of the project or region.

An important lesson from the SIA case studies was the key role of the focal issue Working Group (WG) facilitators (these are always referred to as WG facilitators to make the distinction clear with the workshop coordinator). They should be selected in advance and trained, rather than selected opportunistically on the first day of the workshop from among the participants, as happened in one SIA workshop. Being a WG facilitator is challenging, since (s)he is likely to have to deal with a diverse group of participants, including their educational levels – preventing that the WG is being dominated, usually by one or two educated males, requires character and skill.

²¹ The Open Standards guidance recommends that up to eight focal issues or targets are possible in a workshop, but this would require two workshop coordinators.

²² A rule of thumb is that twice the amount is needed, if translation is necessary.

Another lesson was that WG facilitators should also have a set of guidance notes (as well as a copy of the SBIA Manual) so that they do not have to keep asking the workshop coordinator what to do, causing delays and sometimes confusion. It would be best, if WG facilitator Guidance Notes are prepared by the workshop coordinator taking into account the project context, language, etc., but failing this, a possible set of WG Facilitator Guidance Notes are provided in Annex 2.

2.5 Quality of Participation of Local Stakeholders

The credibility of a participatory workshop depends significantly on the quality of participation of local stakeholders, especially when they are the primary stakeholders. The experience from the SIA case studies was mixed; there was a tendency for well-educated males and/or project staff to dominate the process unless the coordinator and WG facilitators made a determined effort to ensure universal participation.

The education and literacy level of local stakeholders plays an important role here – since this methodology is highly dependent on the written word, it is difficult for semi-literate people to participate effectively. All the participants, not just the WG facilitators, need to be made responsible for promoting universal participation; some guidance for doing this is presented in **Annex 2 Section 4.2**.

2.6 Respect for Ground Rules

An early task is to develop with the participants the ground rules of the workshop, which should include, as far as possible:

- The non-use of cell (mobile) phones²³ and the internet;
- Not dropping in and out of the WG for other meetings;
- Requesting permission to speak from the workshop coordinator or WG facilitators;
- Not interrupting people;
- The principle that everyone in the WG should contribute (universal participation).

As well as these more restrictive issues, efforts should be made to create a positive working environment by listing more positive aspects, such as “share your experiences” and “have fun”.

2.7 Keeping the Participants Engaged

Some WGs work quicker than others depending on the complexity of their focal issue and composition of the WG (e.g., variation in education). If a WG finishes a task early, it can sometimes go straight on to the next task, but in other situations they should wait for others to catch up. The workshop coordinator should decide, if the WG members should be temporarily dispersed to help other WGs complete their tasks, or if there is another job for them; otherwise they may disengage or even become a disruptive influence on the other WGs. Once someone disengages it can take time to get them “back on board.”

2.8 Carrying out Daily and End-of-Workshop Evaluations

It is important to hold a daily and final evaluation of the workshop, recording what people liked and did not like, what worked well and what worked less well. At least for the final evaluation, it is best to go around the room asking each person for their reflections, or to mention one thing they liked and one thing they did not like or that could be improved.

²³ From the SIA case studies it was noted that the constant use of cell phones was highly disruptive to the work of the WGs. Workshop coordinators, in consultation with the WG facilitators, need to have a clear strategy for cell phones.

2.9 Materials and Equipment

Each workshop requires the following basic set of materials²⁴ and equipment, assuming 20-25 participants:

- Walls – extensive wall space is vital for hanging up the worksheets
- 1 computer projector (with a second one as back-up if possible)
- 1 laptop computer for each WG for taking notes (although these are often provided by participants)
- 30-40 medium-tip marker pens of 4-5 colors (black, blue, red, green, etc.); most of the pens should be black and blue since these are the most-used colors
- 15 rolls of masking tape strong enough to stick sheets to walls
- 1 pair of scissors per WG
- 200 sheets of flipchart paper
- 5-6 clipboard stands/easels: at least 2 for plenary sessions and 1 per WG
- 4-5 portable whiteboards: 1 per WG
- 1 large table or 2 smaller tables per WG
- 1,000 20cm x 15cm cards in at least 5 colors²⁵ (these should be light colors so that writing shows up clearly)
- Name tags or stickers
- Large-scale map(s) of the project area
- A printer
- Some reference copies of the SBIA Manual (in the language of the workshop)
- Some copies of the CCB Standards (in the language of the workshop)
- Handout guidance notes for each WG facilitator (see Annex 2)
- Printed agenda for each participant

3. Sequence of SBIA Workshop Activities

Based on the experience of the SIA case studies and the Open Standards approach (Conservation Measures Partnership 2007), the following sequence of activities is recommended:

SBIA training meeting and other pre-workshop activities

- Presentation of SBIA methodology
- Planning the main SBIA workshop, including discussion of participants

²⁴ It is best, if the workshop coordinator is present when these are purchased a few days before the workshop.

²⁵ The Open Standards methodology uses the following color system, as reflected in the Miradi flow diagrams:

- Focal issue problem: Light green or brown
- Problem flow diagram: – direct drivers or causes: pink; other causal factors: light orange
- Results chain: Light blue
- Risks: Light brown
- Negative impacts: Light red
- Mitigation or preventive results: White or light green

- Selection and training of Working Group Facilitators
- Training module for local or community stakeholder (following the training meeting)

Main SBIA workshop

- Introductory session
- Overview presentation of the SBIA methodology
- Conceptualization stage (part of SBIA Stage 1)
 - Project scope
 - Project vision statement
 - Identification of focal issues
 - Division of participants into focal issue working groups (WGs)
 - Brainstorm analysis of focal issue (incorporating WG practice activity)
 - Focal issue statement
 - Sharing and validation of focal issue statements
- “Without-project” analysis and projection (SBIA Stage 2)
 - Presentation of key concepts and activities in SBIA Stage 2
 - Problem flow diagrams
 - Identification of project entry points
 - Sharing and validation of problem flow diagrams
 - Projection of current situation over two future time periods
- Development of project *theory of change* (SBIA Stage 3)
 - Presentation of key concepts and activities in SBIA Stage 3
 - Focal issue results chain
 - Provisional *theory of change* statement
- Risks, negative impacts, and mitigation actions (SBIA Stage 4)
 - Presentation of key concepts and activities in SBIA Stage 4
 - Risks and risk reduction actions
 - Negative impact prevention and mitigation actions
 - Modification of results chain
 - Modification of *theory of change* statement (if necessary)
- Sharing and validation of results chains and *theory of change* statements

Monitoring Plan Meeting

- Identification of indicators and development of monitoring plan (SBIA Stages 5 and 6)
 - Presentation of key concepts and activities in SBIA Stages 5 and 6
 - Review of results chains
 - Definition of objectives and indicators
 - Development of Social and Biodiversity Monitoring Plans

Post-Workshop Activities

- Post-workshop review meeting
- Socialization and validation of Monitoring Plans with project stakeholders
- Report of the SBIA process and outputs
- Incorporation of methodology and outputs into the Project Design Document (PDD)

4. SBIA Training Meeting

4.1 Introduction

The SIA case studies revealed that it is difficult for participants to come into an SBIA Workshop “cold”. At least for project staff and WG facilitators, a short training meeting or workshop of 1-2 days prior to the actual SBIA Workshop is strongly advised. The training meeting involves explaining the SBIA and *theory of change* methodology, planning the main SBIA workshop including selection of participants, and selecting the WG facilitators from the participants of the training meeting. It is advisable to hold the training meeting well in advance of the main SBIA workshop (say 1-2 months) to allow time for careful planning of the main SBIA workshop based on a better understanding of what is involved.

4.2 Presentation and Practice of the SBIA Methodology

Presentation of the SBIA methodology through one or two power point presentations will be one of the main items on the agenda of the training workshop, but the best way of understanding the methodology is through some practice activities. In a training workshop of two days it would be possible to practice developing a problem flow diagram and possibly a results chain. This would help make the real SBIA exercise run more smoothly and quickly.

4.3 Planning the SBIA Workshop

A key item on the agenda will be planning the main SBIA workshop. Aspects like the venue and timing of the workshop, and finding a good balance of stakeholders and gender have been mentioned. While participants from the project, as well as supporting NGO- and state-stakeholders are likely to be self-selecting, it may be possible to exert some influence to encourage the selection of community participants who are more likely to make a good contribution. Participation criteria, while recognizing that there will be a trade-off between the desirable characteristics, include (not necessarily in order of importance):

- Educational or literacy level;
- Capacity in a second language (e.g., if the workshop is in Portuguese with Amerindian groups in Brazil);
- Representativeness;
- Leadership and/or local respect (due to the numbers limit not all community leaders or representatives would be able participate);
- Gender;
- Personality or character.

If local participants are shy, they are unlikely to be heard; at the same time, participants (of any stakeholder group) who are overconfident and talk a lot are likely to be very disruptive. Getting the right mix of participants is challenging, but consultation with key informants can help. It is essential for the Workshop Coordinator to see the list of participants well in advance of the workshop.

4.4 Selection and Training of WG Facilitators

As already mentioned, the quality of WG facilitators is critical to the success of the SBIA workshop. Four or five Working Group (WG) facilitators should be selected in advance of the main SBIA workshop and receive appropriate training from the workshop coordinator. There is no problem, if WG facilitators are active participants as long as they can moderate their own contribution, so that it does not reduce participation levels.

WG facilitators will ideally have some prior experience of facilitation, but the most important requirement is a flexible personality, an inclusive working and consultation style, and the ability to manage diverse personalities from a range of social and educational backgrounds.

4.5 Training Module for Local or Community Stakeholders

It is recommended that local participants, once selected, receive some training or practice in using the cause-and-effect logic of the *theory of change* approach to SBIA. Once they have been selected and trained, the WG facilitators should undertake a half- or one-day training or practice session with community participants a few days prior to the main SBIA Workshop.

This training should be in the form of a practical exercise. It is suggested that participants develop a problem flow diagram of the causes of deforestation or forest degradation, since this is something which everyone can contribute to and that is extremely relevant to the SBIA workshop. If there is time, they could also start a results chain. This training would help raise participation levels, speed up the workshop, and help result in higher-quality outputs.

5. Step-by-Step Guidance for SBIA Workshop

5.1 Introduction

This step-by-step guidance is aimed primarily at the SBIA Workshop coordinator. It is therefore written in a quite prescriptive style. It is again based on the experiences of the SIA case studies and training workshops carried out during 2010 and 2011. The extent to which a facilitator decides to follow this approach is subject to his/her professional judgment and consultation with the project.

5.2 Introductory Sessions

Introductions, Ice-Breaker, and Ground Rules

Following the normal round of self-introductions (which should be kept as brief as possible), it is good to have an ice-breaker exercise, so that participants start to get to know each other and to create a friendly atmosphere. The facilitator should also ask the participants to decide on ground rules for the workshop. These should be written on a large sheet and stuck to the wall.

Overview Presentation of the SBIA Methodology

This should be quite short, since participants will be in passive mode with a low retention level, and it is important to start the participatory activities as soon as possible. The time to present a more detailed explanation of each SBIA stage is immediately before the corresponding workshop session. The overview presentation should cover: why the workshop is needed; requirements of the CCB (or other) Standards; a brief explanation of the seven SBIA Stages; an introduction to the *theory of change* approach; and the methodology, objectives, and expected outcomes of the workshop.

5.3 Conceptualization Phase

Project Scope

If not already done, the participants should define the project scope – this is the area of influence of the projector, in other words, the area that will be impacted by it.

Project Vision Statement

The second step of the Conceptualization Phase is to develop a short (maximum 50 words) vision statement. This should be “relatively general, visionary, and brief” (Conservation Measures Partnership 2007). Box 10 in **Section 3.4** provides some examples from SIA case study workshops. If it has not already been done so as part of the project design process, this should happen in a participatory way; however, since this can be quite time consuming, it is suggested that participants make brief suggestions on cards for ideas that should be included in the vision statement and a representative sub-group of stakeholders can be asked to develop a draft vision statement based on these ideas. This could be presented at the beginning of the second day for acceptance or modification by the workshop participants.

Identification of Focal Issues

The third task is to select the SBIA focal issues. Focal issues in an SBIA context can be defined as the social or biodiversity-related factors or issues that are most important for the project and that correspond to social or biodiversity-related problems that could prevent project success. Since a project cannot address all potential focal issues, it is necessary to prioritize them. Box 11 in **Section 3.4** presents some examples of focal issues from the SIA workshops.

Before doing this, it is important to explain to the participants that, while it is possible to think of many actions that could improve the social conditions in the project area, this is not a “shopping list” exercise and the participants must focus on what can be realistically expected from a carbon project. Where there are some national or macro-level issues (e.g., policies and governance) that impinge on local problems, the project could include a lobbying or advocacy component as appropriate. This explanation should be given again before developing the results chain (in SBIA Stage 3) in order to keep unrealistic local expectations in check.

There are various ways of identifying the focal issues; here is one possible approach, but the workshop coordinator can decide if another approach might work better in the context.

(i) Participants are divided into three groups, each of which is given one of these questions:

- What social issues or problems in the project area could prevent the project from achieving its (carbon) objectives?
- What social issues or problems in the project area are most strongly related to the process of deforestation and/or forest degradation? (not applicable for an A/R project)
- What social issues or problems in the project area could a carbon project have most influence on (possibly as a side-effect)?

(ii) Each group should brainstorm their question and list the ideas on cards, ensuring there is only one idea per card. Similar ideas or cards can then be grouped (e.g., community organization and local governance; or agriculture, food security, and alternative livelihoods). Each group should then take a vote on their list of potential focal issues to put them into an order of priority. They should write their top five issues clearly on a flipchart.

(iii) The three lists of potential focal issues can then be presented in plenary. Participants should be encouraged to ask for clarifications or explanations of any focal issue idea that seems unclear. They should be asked, if some of the focal issues are similar; a discussion may be needed to decide if they are the same focal issue phrased slightly differently, or whether two ideas in a list could be combined as one focal issue (for example, improved agriculture and alternative livelihoods). If a focal issue appears in all three lists, albeit in a slightly different form, it can be selected as a priority focal issue. If a focal issue appears in two lists, it should be highlighted as having a strong possibility of inclusion. This exercise should lead to some rationalization of the list, reducing it down from 15 potential focal issues.

(iv) Participants can now vote between the focal issues, excluding those appearing in all three lists and thus already selected. One way to do this is to give each focal issue a capital letter (A, B, C, etc.). Each participant can then write down up to five letters on their voting card. The focal issues receiving most votes are then added to those already selected until there are five.

(v) A discussion is then needed of how many focal issues are possible. This will depend partly on the number of participants. A good ratio is 5-7 participants, including the WG facilitator, per focal issue WG. Therefore if there are say 22 participants there could be four WGs. The five selected focal issues may therefore need to be reduced to three or four. This can be done either by eliminating the least important one(s) or amalgamating two that seem strongly related, for example, governance and local organization.²⁶

Whichever method is used, the focal issue selection process needs to be as transparent, participatory, and easily understandable to the participants as possible.

Division of Participants into Focal Issue Working Groups (WGs)

In view of the need for balanced representation in the WGs, the facilitator should decide in consultation with key informants how to divide up the participants, rather than the participants deciding which WG they would like to join. If possible, each stakeholder group should be represented in each WG, and there should be a gender balance. If someone feels strongly that they want to be in a different WG, the facilitator should negotiate a swap while trying to maintain a good balance.

The first action of the WG should be to agree on some ground rules (see **Annex 2 Section 4.1**). The WG facilitator should make every effort to get the WG to adhere to these ground rules.

Brainstorm Analysis of Focal Issue (Incorporating WG Practice Activity)

The WG should firstly explore the meaning of its focal issue to check that everyone in the group understands it the same way, for example, by discussing any jargon such as “human capital” or “social capital”. If there are any doubts, the WG should ask the Workshop Coordinator, since a lack of consensus at this stage can waste a lot of time.

The WG should then conduct a brainstorm exercise using the ground rules and guidance suggested for the WG practice activity (**Annex 2 Section 4.2**) to generate:

²⁶ In the Brazil SIA workshop, the themes of local institutional development, human capital, and infrastructure were combined into one focal issue called “socio-political organization” on the basis that a stronger local organization could apply pressure on the state for better education and health services, improved roads and bridges, etc.

- A list of the negative and positive aspects or issues associated with their focal issue in the current pre-project situation (if more than about 10-12 negative and positive aspects are mentioned, they should be prioritized down to the 10-12 most important ones to make the exercise manageable);
- A list of the stakeholders affected by each negative and positive aspect and how they are affected (including whether the affect is positive or negative).

It is important to bear in mind that there are often “winners” and “losers” in any particular situation. If a WG does not spontaneously mention women as a stakeholder group, it should be prompted and asked if women will be affected by any of these issues.

The important negative and positive aspects can then be entered in the first of three columns of a clipboard sheet. The stakeholder groups affected can then be entered into the second column, including a short note on how they are affected (including whether positively or negatively) in the third column. It is also useful to note if any of the affected stakeholders are external to the project area by adding (Ext) after the name of the stakeholder group.

Focal Issue Statement

The next task of the WG is to draft its focal issue statement on a portable whiteboard (for ease of correction), before copying it out in large writing on a clipboard sheet. The focal issue statement is a short (up to 30 words) expression of the ideal desired condition for the focal issue (it is therefore aspirational but also realistic in nature). Box 12 in **Section 3.4** presents some focal issue statements from the SIA case studies.

Secondly, the focal issue should be written out in a very short form (maximum 6 words), both in its positive form (e.g., strong community organization; women empowered) and in its negative form as a problem that needs to be overcome, e.g., unsustainable alternative livelihoods; weak local governance; gender inequity; etc.

Sharing and Validation of Focal Issue Statements

Each focal issue statement should be presented and discussed in plenary. It is essential that all the workshop participants fully understand what the other WGs are working on, including the relationship of other focal issues to their own. This is the opportunity to discuss likely overlaps. This plenary discussion may result in some modification of the wording of the focal issue statements.

5.4 “Without-Project” Analysis and Projection (SBIA Stage 2)

Methodology Overview Session

A short plenary presentation should be given on SBIA Stage 2 focusing on the key concepts and vocabulary, and using examples as much as possible.

Problem Flow Diagram

In the Open Standards methodology, each focal issue requires a conceptual model. This is a flow diagram showing how the “without-project” situation affects or drives the main focal issue problem(s). For the purposes of SBIA, these diagrams are called problem flow diagrams, since this is a more understandable term for local stakeholders.

The starting point of the problem flow diagram is to place one or two cards representing the focal issue problem (in its very short form) at the right hand side of a very large sheet of paper (it is recommended that 4 clipboard sheets are taped together). WG members can then discuss and arrange the cards to the left of the focal issue as follows:

- The most direct or immediate causal factors or drivers of the focal issue problem (ideally on pink cards as used in the Open Standards color scheme);
- To the left of these, the causal factors seen as more indirect causes or indirectly related to the focal issue problem (ideally on light orange cards);
- To the left of these, cards with the underlying causal factors of the direct and indirect factors (also light orange cards).

The WG participants should be aware that one causal factor might lead to several other causal factors, and also be caused by more than one causal factor. Once the cards have been thoroughly discussed, particularly in terms of the cause and effect process, the WG should draw arrows between the cards showing the direction of causality. Figures 6 and 7 in **Section 4.3** present examples of problem flow diagrams from the SIA workshops.

Identification of Opportunities

Once the problem flow diagram has been completed (with all the cards in causal chains), the WG participants should have a general overview of their work and be able to identify whether for some specific causal factors there are project opportunities that could address key problems. For example, if “weak capacity” is an important causal factor in the diagram, an existing training program could be a project opportunity. A different colored card should be placed on the problem flow diagram to show where the opportunity exists. This exercise should help identify some of the elements of the results chain in SBIA Stage 3.

Sharing and Validation of the Problem Flow Diagram

The workshop coordinator needs to decide between two main approaches to sharing and validating the problem trees:

- The first approach, used in two SIA case studies, is for all workshop participants to do a “a guided tour” of all the WG problem flow diagrams. One or two people from each WG make presentations of their problem diagram trying to find a balance between the level of detail and time, and the rest of the participants request clarifications, ask questions, and suggest modifications. When explaining their problem flow diagram, presenters should explain the general lines and only the most important cards (since explaining all the cards would take too long and be too much information for the observers). Women should sit or stand at the front.
- A second approach used in one SIA case study was for an exchange of WG members: supposing there are three WGs each of six people, two WG members stay behind and the other four members of the WG divide up between the other two WGs. The two remaining WG members explain their problem diagram to the four “guests” from the other WGs; the latter are encouraged to seek clarifications, ask questions, and suggest modifications.

The experience from the SIA case studies is that the first approach may be effective in small workshops (less than 20 people), while the second approach may be better when there are more participants. The advantages of the former approach is that all participants have the opportunity to see the problem diagrams, and there are more eyes (but for a shorter period of time) to suggest improvements. The advantage of the second approach is that it allows more time to explain and discuss the problem diagram in a small group, and the analysis may therefore be deeper.

Projection of the Current (“Without-Project”) Situation

The next WG worksheet can be entitled “Projection of the Current Situation”. It is suggested that two flipchart sheets are taped together and three columns entered: ‘Focal Issue Aspect’ (+ or -); ‘Short- to Mid-Term

Situation’ (3-6 years); and ‘Mid- to Long-Term Situation’ (10-15 years). Care is needed in using the expression “without-project” situation – it was observed from an SIA case study that this may have biased the analysis to being excessively negative, and encouraged “tactical responses” – therefore the WG facilitators should talk about projection of the current or pre-project situation.

In the first column, the WG should write down the most important positive and negative aspects of the focal issue (based on the brainstorm conducted in the first WG exercise) that are likely to change without project implementation. In the second column, they should note what the current situation will be like in the short- to mid-term (3-6 years), including any consequences on the stakeholder groups, their livelihoods and the environment. The WG should go through all the positive and negative aspects for this first time period and then think about whether they have missed anything – further clues may be found in the problem flow diagram.

Any information on the process by which things would get worse or better should also be noted. It is advisable to do this in rough first before writing out a clean version. The same process should be followed to complete the third column – the situation in the mid- to long-term (10-15 years). A very useful aide for this exercise is some large-scale maps of the area, including any that are available from the carbon baseline analysis, in order to help participants think about the future “without-project” social situation.

5.5 Developing the *Theory of Change* (SBIA Stage 3)

Methodology Overview Session

A short plenary presentation should be given on SBIA Stage 3 focusing on the key concepts and vocabulary, and using examples as much as possible.

Focal Issue Results Chain

The problem flow diagram provides a strong basis for thinking about the results chain of each focal issue. The results chain is a response to the negative situation found in the problem flow diagram, a response that aims to reverse some of the negative causal flows – a results chain aims to specify what results are needed for the focal issue problem to be improved or solved. It is a detailed expression of the strategy and the theory of (social) change in which all the elements are expressed as positive, achievable results. However, it is a mistake to consider the results chain as the exact opposite of the problem flow diagram, since the causal logic can be different.

When developing the results chain, the WG facilitators should encourage the WG to reflect back on their problem flow diagrams in order to identify strategic entry points. The WG members should try and identify strategic routes (along causal chains) to solving focal issues, taking into account project resources and time considerations – the time needed for project actions to impact on a problem and the urgency of the problems. In most situations, the WG would focus on 4-8 critical (or high opportunity) causal factors.

Similarly to the development of the problem flow diagram, the starting point is to place the focal issue, now in its positive form, at the far right of a large sheet (four or more flipchart sheets taped together). For example, if the focal issue in the problem diagram was *weak governance* it could be stated as *strengthened governance* in the results chain. Key negative causal factors can be rephrased as positive expected results on new cards and arranged by the WG in causal chains leading to improvements of the focal issue condition.

The WG should work from both from right to left and left to right in developing the results chains. The right-to-left logic involves firstly identifying the most direct or immediate positive factors (expressed as results) resulting in an improvement of the focal issue condition. The left-to-right logic involves assessing how the strategic entry points can lead to an improvement in the focal issue condition.

The next task is to brainstorm whether there are some additional or intermediate results between the already identified results that would make the results chain logic more robust. The WG is also encouraged to think creatively about other potential responses to the focal issue problem and how these can be integrated into the results chain.

When all the cards have been placed, the WG facilitator needs to check that:

- All the cards express results rather than activities;
- All the cards form part of a cause-and-effect chain;
- At least one direct causal factor (threat) from the problem flow diagram appears as a positive result in the results chain;
- No critical links in the causal chains are missing.

Figures 8 and 9 in **Section 5.3** present examples of results chains from the SIA case studies.

Prioritize the Most Important Results in the Results Chain

The next task is to prioritize or highlight some of the results in the results chain; this is necessary for developing the *theory of change* statement as well as for the analysis of risks and negative impacts. The most important results are those that are most central or pivotal to the *theory of change* – they tend to be those with most arrows going in and coming out of them. They may also be those that respond to the “high-opportunity” causal factors discussed above. The WG should highlight about 4-8 results (for example, by underlining them).

Provisional Theory of Change Statement

The next task is for each WG to develop a *theory of change* statement for their focal issue using the whiteboard for the draft. The *theory of change* statement states how the focal issue objective would be achieved in the form of an IF ... THEN ... statement incorporating the most important results. Box 14 in **Section 5.3** presents some *theory of change* statements from the SIA case studies. It is a provisional *theory of change* statement, since it may be modified following the analysis of risks and negative impacts.

5.6 Risks, Negative Impacts, and Mitigation Measures (SBIA Stage 4)

Methodology Overview Session

A short plenary presentation should be given about SBIA Stage 4 focusing on the key concepts and vocabulary, and using examples as much as possible.

Risks and Risk Reduction Actions

For SBIA Stage 4, the WGs should swap focal issues (so each WG works on the results chain of a different WG) on the basis that it is easier to see what could go wrong with someone else’s *theory of change* and because it involves a stronger element of critical analysis.

A risk can be defined as something that could prevent a successful project result assuming that the project is *financially* successful and therefore has sufficient resources for its implementation. For example, if the desired focal issue is *profitable and sustainable agriculture*, risks might include:

- Government agricultural department proves inefficient at providing agricultural extension;
- Many other people start producing a crop and the price falls;
- A pest or disease problem.

It is not necessary to conduct a risk analysis on all the results in the results chain; the WG should therefore focus on the 4-8 high-priority results rather than make a general analysis over the whole result chain. However, it is very important to identify where (meaning on which result) the risk is found. The WG should enter the main identified risks in the first column of a sheet entitled *Risks Analysis*. It should then discuss how the risk could be prevented or mitigated and, in the second column, write down any actions or measures to prevent or reduce the risk. In the third column, these preventive actions should be phrased in the form of risk reduction results.

Negative Impacts and Mitigation Actions

A negative impact can be defined as a negative side-effect of an otherwise successful result in a causal results chain. Negative impacts tend to be unintentional, unexpected, and difficult to identify. A difference with a risk is that a negative impact occurs as result of an intervention, whereas risks are pre-existing conditions. Possible negative impacts mentioned at SIA case study workshops were:

- A more effective village forest management committee (VFMC) could have a negative impact on female participation, since an increased VFMC workload can make it more difficult for women with families to participate.
- An effective fire prevention campaign involving village patrols could be so time-consuming that it may reduce the viability of the alternative livelihoods being promoted by the project.

For each negative impact, a mitigation action is required. If it is felt that, if it is not possible to prevent or mitigate a negative impact, it could be necessary to compensate a disadvantaged stakeholder group. As with the risks analysis, a sheet with three columns is needed:

- The first column to describe the negative impacts
- The second to record corresponding prevention, mitigation; or compensation measure(s)
- The third to phrase these measures as mitigation results

Modification of Results Chains to Take Account of Risks and Negative Impacts

The results chain can now be modified to include the risk reduction results, as well as the negative impact mitigation results. It is important to keep a record of the risks and negative impacts identified, by using different colored cards. It is also advisable to mark the risk-related cards with R and the negative impact related cards with NI. These cards should be placed next to the corresponding results. Figures 10, 11, and 12 in **Section 6.3** show how a results chain is modified to account for the risks, negative impacts, and risk prevention or mitigation results.

Modification of Theory of Change Statement

Finally, the WG needs to consider whether, as a result of the analysis of risks and negative impacts, it is necessary to change the *theory of change* statement.

5.7 Sharing and Validation of Results Chains and Theory of Change Statements

Using the same process used for sharing and validating the problem flow diagram, the results chains and *theory of change* statements should be reviewed by the other workshop participants and possibly modified following this review.

6. Objectives, Indicators, and Monitoring Plan (SBIA Stages 5 and 6)

6.1 Introduction

Depending on the project complexity and the mix of participants, it is normally preferable for a carefully selected workshop sub-group to identify the indicators and develop the monitoring plans. This is partly due to the problem of keeping local stakeholders in a meeting for more than three to four days, but also because of the more technical nature of these SBIA stages. SBIA Stages 2, 3, and 4 are intensive and time-consuming, and a good results chain is already a major achievement. From the perspective of the CCB Standards, this level of participation is already sufficient as regards stakeholder participation in the monitoring plan.

The monitoring plan sub-group would probably include the WG facilitators and another member of each WG, and, if possible, one or two outsiders with specialist experience in defining indicators. The Monitoring Plan meeting should be held straight after the main workshop, or perhaps following a weekend break, so that the information is still fresh and the wall charts are available.

6.2 Presentation of Key Concepts and Guidance

The workshop coordinator should briefly present some guidance on SBIA Stages 5 and 6.

6.3 Review of Results Chains

It is suggested that the monitoring plan participants are divided into two teams of 3-5 people to work simultaneously on the monitoring plans for two focal issues. The teams should start by reviewing the results chain to check for any inconsistencies. They should have the liberty to modify the results chain (e.g., making the connections clearer or introducing additional factors or intermediate results) providing that they retain the essence of the results chain from the main SBIA workshop.

6.4 Definition of Objectives and Indicators

An objective can be defined as a formal statement of the desired outcome of a strategy or project. It is not sensible or feasible to identify objectives for all the results in the results chain; rather the effort should be focused on the 4-8 results which best inform progress towards the goal (improvement of the focal issue). The objectives should be expressed in as SMART (Specific, Measureable, Achievable, Reliable and Time-bound) a way as possible. This should make it relatively simple to identify appropriate indicators.

It is preferable to have a combination of short-, medium- and long-term objectives (and indicators) that are the equivalent of project outputs, outcomes, and impacts (as explained in Box 6). Ideally, these would form part of a clear causal chain such as can be expressed as an IF ... THEN statement. Therefore, the Monitoring Plan team should make a particular effort to identify potential linkages – or intermediate results – between the short-term outputs and mid-term outcomes, and between the mid-term outcomes and longer-term impacts, since indicators derived from these linkages will have a high level of attribution.

The criteria for selecting indicators are very similar to those for the objectives, only that they do not need to be time-bound but should be sensitive to changes in the objective or variable that they are trying to measure. Table 4 presents examples of objectives and indicators from the SIA case studies.

6.5 Development of the Social (or Biodiversity) Monitoring Plan

The Monitoring Plan team can then develop a detailed monitoring plan. Using a large sheet, or two taped together, the following information can be entered in several columns:

- Objectives
- Indicator(s) – at least one per objective (WHAT to measure?)
- Indicator type (output, outcome, or impact indicator)
- Data collection method for the indicators (HOW to measure?)
- Whether relevant data already exist for the indicator
- The person or organization responsible for measuring the indicator (WHO?)
- Location where the indicator will be measured (WHERE?)
- Timing or frequency of measurement (WHEN?)
- Cost of measurement – high, moderate, or low (HOW MUCH?)

The monitoring plan teams should then exchange their monitoring plans for review and possible modification. Table 5 presents examples of social monitoring plans from an SIA case study.

7. Post-Workshop Activities

Finally, there are four important post-workshop activities:

- A post-workshop review meeting to be held after the SBIA workshop data has been processed and analyzed in order to identify missing information and next steps
- Socialization and validation of the SBIA process and Monitoring Plan(s) with a wider group of project stakeholders
- Completion of a report of the SBIA process including the Monitoring Plan(s)
- Incorporating the SBIA methodology and outputs into the relevant sections of the Project Design Document (PDD) which can then be submitted for validation against the CCB Standards or other multiple-benefit carbon standards.

ANNEX 2. Guidance Notes for SBIA Workshop Working Group Facilitators

1. Introduction

The aim of these guidance notes, based on an adaptation of the Open Standards approach (Conservation Measures Partnership 2007), is to facilitate the smooth functioning of the work of the focal issue WGs, so that the WG facilitators do not have to constantly ask the workshop coordinator for guidance, although they should not hesitate to ask, if there is something they are unsure about.

Since these guidance notes are designed to be as self-contained as possible, there is considerable repetition from Annex 1. Also, in the interests of space, this guidance does not repeat the examples from the SIA case studies contained in the main section of this part (1) of the SBIA Manual. The WG facilitator should also have a set of photocopies of the examples, which can also be easily looked at by the WG members, and a copy of the SBIA Manual.

2. General Guidance for Managing your Working Group

Facilitating a WG is quite a responsibility. It is not always easy when there is a range of strong and shy characters in a WG, or a diversity of education levels. However, the following tips may help you ensure good quality of participation and obtain good-quality outputs:

- Impress on the WG members that they are all responsible for ensuring universal participation – it is not just the job of the workshop coordinator and WG facilitators.
- Suggest that the WG can add some ground rules of its own (if these are not already listed) such as:
 - Nobody should interrupt another group member.
 - Everybody should request permission to talk from the facilitator (at least by raising a hand).
 - Everyone should have a chance to contribute in all the discussions – this may mean asking each person in turn for their opinion.
 - Everyone’s ideas should be recorded, especially if it is a brainstorming session.
 - Allowing people time to think before answering a question, especially if they are local stakeholders (others should not jump in, if there is a pause or hesitation).
 - Avoid long interventions (you may have to stop an intervention, if you think it is too long or getting off the point), since this reduces the participation of other members
 - Make a special effort to listen to and encourage local stakeholders and women.
- Use examples and metaphors (or analogies) as much as possible to explain things.
- Try and give everyone a job, and rotate the jobs as far as possible, e.g., writing out a rough version on the whiteboard; taping together the paper sheets; writing out the final version on cards; arranging and sticking the cards; recording the results on a laptop. (However, bear in mind that some jobs require particular skills, e.g., neat and large writing, and be sensitive with people who have difficulties writing or expressing themselves).
- Use the mobile whiteboard for drafts (e.g., of the focal issue statement) and make sure that the person with the pen is not just writing down his/her own ideas!

- When writing cards for the problem flow diagrams, make sure they are understandable to outsiders who are not at the workshop and who will need to understand the flow diagrams at a later point; this often means expanding the wording on a card to explain an implicit or hidden assumption – in other words, the obvious needs to be written down.
- When writing on the flipcharts or whiteboard, the scribe should repeat the idea to make sure that it was captured correctly.
- When writing cards there should only be one idea per card – if there are two ideas, two cards are needed.
- Emphasize to the WG that there is no problem in using a lot of cards – in fact, a full waste paper basket of discarded cards may be an indicator of a successful workshop!

3. Sequence of Steps for Focal Issue Working Groups (WGs)

The tasks of the WG can be broken down into five main stages as follows:

- Analysis of the focal issue (partly SBIA Stage 1):
 - Set WG ground rules
 - Brainstorm analysis of focal issue (WG practice activity)
 - Focal issue statement
 - Sharing and validation of focal issue statements
- Without project analysis and future projection (SBIA Stage 2)
 - Problem flow diagram
 - Identification of project entry points
 - Sharing and validation of problem flow diagrams
 - Projection of current situation over two future time periods
- Development of project *theory of change* (SBIA Stage 3)
 - Focal issue results chain
 - Prioritize the most important results in the results chain
 - Provisional *theory of change* statement
- Risks, negative impacts and mitigation actions (SBIA Stage 4)
 - Risks and risk reduction actions
 - Negative impacts and mitigation actions
 - Modification of results chain
 - Modification of *theory of change* statement
- Sharing and validation of results chains and *theory of change* statements

4. Analysis of the Focal Issue

4.1 Setting the WG Ground Rules

The first task of the WG is to set its ground rules, amending, or adding to the ground rules already developed in the plenary session. As rules are agreed they should be written down by a scribe on a flipchart so that everyone can see them. The ground rules should include a method to facilitate universal and equitable consultation (in other words one in which everyone has a fair chance of contributing). One possible method among many is as follows:

After a topic has been introduced (e.g., the ground rules), each person in the group makes an opening comment. After this, anyone who wishes to contribute places their hand, palm up, on the table. The facilitator invites one person to speak and, when that person has finished, invites the next person with their palm face-up; if more than one person wishes to contribute, the facilitator should give priority to people who have said the least. Finally the facilitator invites each person to make a final, short comment.

4.2 Brainstorm Analysis of Focal Issue (WG Practice Activity)

Introduction

The aims of this practice activity are to help the group work together collaboratively, encourage universal participation, build up the confidence of less educated participants, and get the “scribes” to record people’s ideas accurately. By the end of this exercise, all the WG members should be abiding by the WG ground rules and most will have been a scribe. The WG facilitator’s role is to encourage universal participation and avoid domination by the more articulate and confident WG members.

Although the brainstorm of focal issues is described as a practice activity, the results of this activity are in fact very useful for the subsequent SBIA Stages.

Activity 1: Check the WG’s Understanding of the Focal Issue

Discuss the focal issue in order to ensure that everyone in the group understands it the same way. Spend some time exploring the focal issue, discussing what it really means and describing the desired social condition. For example if the focal issue is “human capital” you could ask community participants what they would like to see in five years time as regards health, education, skills, and the type of leadership they would like to see in their community. Or if the theme is governance, what kind of governance and local institutions would they like to have? If there are any doubts about the meaning of the focal issue, the workshop coordinator should be asked, since a lack of consensus at this stage can waste a lot of time.

Activity 2: Brainstorm of Positive and Negative Aspects of the Focal Issue

Using the agreed method of consultation, get the WG to brainstorm negative and positive aspects of the focal issue in the current (pre-project) situation. Appoint a scribe to write each stated idea on a card, recalling that in a brainstorm every idea is recorded and that there should be only one idea per card. The WG facilitator should keep an eye on the scribe to check that they are writing down the ideas as stated by the speaker rather than according to what the scribe thinks. If the WG participants prefer, they can also write down their ideas on cards.

Get someone to lay the cards out on a table or on the floor, with the positive aspects in one area and the negative ones in another.

Activity 3: Classify the Cards

Change the scribe and appoint someone to read out the cards in the positive aspects group. Ask someone else in the WG to start putting cards together which seem similar or related and invite people to suggest where two cards seem similar enough to create one new card (it is better to create a new card, so that it is not a case that some people's cards are accepted and others are discarded). The WG facilitator should also say that a vital part of the process is generating more ideas than are actually needed and that the discarded cards play a key role in the process).

Get the scribe to write out the rationalized positive ideas in the first column of a large piece of paper (or two sheets of paper taped together) leaving plenty of space for two more columns.

Undertake the same process for the negative aspects of the current situation. If there are more than 10 negative aspects, it may be necessary to weed out some ideas on which there is less agreement (try and do this in a sensitive way as regards people who contributed these ideas). Use a separate sheet for listing the negative aspects, again making three columns.

Activity 4: Stakeholder Analysis

Change the scribe. In the second column, get the WG to list the stakeholder groups which it thinks are affected by the positive (or negative) aspects of the focal issue, remembering to consider women as a separate stakeholder group. Only list the two or three stakeholder groups most affected by the positive or negative aspect.

Remind the WG that there can be winners and losers at the same time – for example, reduced grazing in a watershed catchment area may benefit most people in terms of clean water availability, but may cause problems for cattle owners). In the third column, very briefly explain how the stakeholder group is benefitting or losing out, e.g., cleaner water, more distant grazing, etc., with a plus or minus sign in brackets after the explanation to make it clear whether the effect was positive or negative. If the effect is very strong, this could be marked as (++) or (--).

4.3 Focal Issue Statement

From the above discussions the participants should have obtained a clear understanding and agreement about the focal issue, including the attributes of a “healthy state” of the focal issue. The focal issue statement is a short description (maximum 30 words) of the desired, healthy state of the focal issue or what the WG would like to see achieved. For example, if the focal issue is “Empowered Women” the focal issue statement could be: “Women participate actively in all community decisions and are key stakeholders in community development.” Other examples are given in Box 12 in **Section 3.4**.

The WG should firstly draft the focal issue statement on the portable whiteboard, before it is copied out in large letters on a clipboard sheet. This is necessary since the statement will be shared with the rest of the workshop. The next task is to get the WG to write out the focal issue in a very short form (2-6 words – the shorter the better) in its positive form (e.g., strong and transparent governance; sustainable alternative livelihoods, etc.). Secondly, it should be written down in a negative form as a problem that needs to be overcome, e.g., unsustainable livelihood options; weak community organization; gender inequity. The latter can be referred to as the focal issue problem.

4.4 Sharing and Validation of Focal Issue Statement

The written focal issue of each WG is then presented in plenary. It is essential that your WG fully understands what the other WGs are working on and that the other WGs understand what your WG is working on. The focal issue statement may get slightly changed following the plenary discussion.

5. “Without-Project” Analysis and Future Projections (SBIA Stage 2)

5.1 Problem Flow Diagram

Firstly, tape together 4 pieces of paper and write the short version of the focal issue problem (which the project needs to overcome) at the far right of the sheet on one or two cards (each card should only contain one idea). The WG should then discuss and arrange cards to the left of the focal issue problem as follows:

- The most direct or immediate causal factors of the focal issue problem (write these on pink cards, if you have them)
- To the left of these, note factors that are seen as more indirect causes or indirectly related to the focal issue problem (use orange cards, if you have them)
- To the left of these, place cards with the underlying causes of the direct and indirect factors already identified (again using orange cards).

Once the cards have been thoroughly discussed, especially in terms of the cause-and-effect process, the WG should carefully draw arrows between the cards or boxes showing the direction of causality. See Figures 6 and 7 in **Section 4.3** for examples of problem flow diagrams.

5.2 Identification of Project Entry Points

Once the problem flow diagram has been completed (with all the cards in causal chains), the WG should try and identify some project opportunities which can address specific problems (or causal factors) in the diagram. For example, if weak capacity appears as a causal factor in the diagram, a project opportunity could be a training program. A different colored card should be placed on the problem flow diagram to show where this opportunity exists. This exercise will help identify some elements of the results chain (in SBIA Stage 3).

5.3 Sharing and Validation of the Problem Flow Diagrams

The Workshop coordinator will provide guidance on how the problem flow diagram should be shared and reviewed with the rest of the workshop.

5.4 Future Projection of the Current Situation

Get someone to tape two flipchart sheets together and write “Projection of the Current Situation” at the top. Enter three columns, the first one quite narrow: “Focal Issue Aspect” (+ or -); “Short- to Mid-Term Situation” (3-6 years); and “Mid-to-Long-Term Situation” (10-15 years).

In the first column, write the most important positive and negative aspects of the focal issue (from the initial brainstorm exercise). In the second column, record what the WG thinks the situation will be like in the short- to mid-term (3-6 years), assuming a continuation of the current situation. This description should include the consequences for people (or stakeholder groups), their livelihoods, the environment, or anything else which the WG thinks is important. Also, get the WG to think about how or why things will get better or worse. Do this for all the positive and negative aspects you listed earlier. Then get your WG to reflect on the problem flow diagram, asking them if there is anything from the diagram that should be added to the projections. Do the same for the third column – the situation in the mid- to long-term (10-15 years).

6. Developing the *Theory of Change* (SBIA Stage 3)

6.1 Focal Issue Results Chain

Explain to the WG that a results chain can be thought of as a cause-and-effect chain of events resulting from an action or a set of actions (or strategy), which will happen over time. The following examples may help your explanation.

Activity	Output	Outcome	Impact
Man throws stone in pond	Splash when stone hits water	Ripple or wave is formed	Wave hits bank
Keeping hens/hen sitting on eggs	Eggs	Chicks reach eating size	Family protein level increased
Training of local people as park guards	Local people trained and working as park guards	Reduction in illegal hunting	Recovery of biodiversity; but possible negative impact on family nutrition/cost of food

The problem tree diagram provides a strong basis for thinking about the results chain. The results chain is a response to the negative situation found in the problem flow diagram, a response that aims to reverse some of the negative causal flows. Some of the negative causal factors can be rephrased as positive expected results in the results chain.

Similarly to the problem flow diagram, the focal issue condition or result is placed at the far right of a very large sheet (or 4 flipchart sheets taped together) as shown in Figures 8 and 9 in **Section 5.3**. If the focal issue problem was “unsustainable alternative livelihoods” in the problem flow diagram, the desired focal issue result could be stated as “sustainable alternative livelihoods” in the results chain. The WG should then write out cards to be placed to the left of the focal issue result as follows:

- Direct or immediate causes (phrased as positive results) of the focal issue result
- To the left of these, the results of project actions or strategies needed to achieve the direct or immediate causes of the focal issue result

When the WG has finished the results chain, you should check that:

- All the cards are expressed as a result rather than an activity
- All the cards form part of a cause-and-effect chain
- At least one direct causal factor (threat) from the problem flow diagram appears as a positive result in the results chain
- No critical links in the causal chains are missing

6.2 Prioritize the Most Important Results in the Results Chain

The WG should then prioritize the results in the results chain; this will be very useful for the remaining tasks. The most important results are those that are most central or pivotal to the *theory of change* – these cards normally have several arrows going in or coming out of them. The WG should select about 4-8 priority results and highlight them in some way (e.g., underlining them).

6.3 Provisional Theory of Change Statement

The next task of the WG is to develop a *theory of change* statement of the focal issue using the whiteboard for the draft. The *theory of change* statement states how the focal issue result would be achieved in the form of an IF ... THEN ... statement that incorporates the most important results. Box 14 in **Section 5.3** presents some examples of *theory of change* statements. It is a provisional *theory of change* statement, since it may need to be modified following the analysis of risks and negative impacts.

7. Risks, Negative Impacts and Mitigation Measures (SBIA Stage 4)

7.1 Risks and Risk-Reduction Actions

For this stage, the WGs should swap focal issues with another WG, because it is easier to see what could go wrong with someone else's *theory of change*. The WG needs to spend some time understanding the results chain and may also want to look at the problem flow diagram and focal issue statement.

A risk can be defined as something that could prevent a successful project result. For example, if the desired result is a profitable and sustainable agricultural activity, the risks might include:

- A government department proves inefficient at providing appropriate agricultural advice;
- Many other people start producing a crop and the price falls;
- A pest or disease problem.

In this analysis the assumption is that the project will have sufficient resources for implementation – therefore, a lack of resources, money, or people should not be listed as a risk. Due to the time constraint, it is impossible to conduct a risk analysis on all the results in the results chain; the WG should therefore focus on the 4-8 higher priority results. For each of these, the WG needs to do a brainstorm on the risks to achieving a successful result.

Ask someone to draw three columns on a sheet entitled “Risks Analysis” as follows:

- Column 1: the main risks as agreed by the WG (if no risks are identified, it can be left blank)
- Column 2: an action or measure to prevent or reduce the risk
- Column 3: the preventive or risk reduction action phrased in the form of a successful risk reduction result

7.2 Negative Impacts and Mitigation Actions

A negative impact can be defined as a negative side-effect of an otherwise successful result in a causal results chain. Some examples of possible negative impacts are:

- A more effective village forest management committee (VFMC) could have a negative impact on female participation, since the increased VFMC workload could make it difficult for women with families to participate.
- The increased participation of women in the project would reduce the time they spend with their children.
- An effective fire prevention campaign involving village patrols becomes so time-consuming that it reduces the viability of the alternative livelihoods being promoted by the project.

For each negative impact, a preventive or mitigation action is required. If it is felt that a negative impact cannot be prevented, reduced, or mitigated, it could be necessary to compensate a disadvantaged stakeholder group. As with the risks analysis, a sheet with four columns is needed:

- Column 1: description of the negative impact
- Column 2: the corresponding prevention, mitigation, or compensation measure(s)
- Column 3: the prevention, mitigation, or compensation measure phrased as a successful mitigation result

7.3 Modification of the Results Chain

The results chain can now be modified to include the risk reduction results, as well as the negative impact mitigation results. It is important to keep a record of the risks and negative impacts identified, by using different colored cards. It is also advisable to mark the risk-related cards with R and the negative impact related cards with NI. These cards should be placed next to the corresponding results. Figures 10, 11, and 12 in **Section 6.3** show how a results chain is modified to account for the risks, negative impacts, and risk prevention or mitigation results.

7.4 Modification of the *Theory of Change* Statements

Having completed the analysis of risks and negative impacts, the WG should now re-examine the *theory of change* statement to decide if this needs to be re-phrased. This would depend on the severity or likelihood of the risk or negative impact.

8. Sharing of Results Chains and *Theory of Change* Statements

Finally, the workshop coordinator will decide how the results chain and *theory of change* statements can be shared and reviewed by the rest of the workshop participants.