Social Capital Protocol

wbcsd forest solutions

Forest Products Sector Guide to the

Social Capital Protocol

Measuring social impact along the forest products value chain

Contents

Foreword

The notion that no business can succeed in a failed society is gradually gaining ground among business leaders and financiers globally. Similarly, the World Business Council for Sustainable Development (WBCSD) believes in the fundamental connection between value creation for business and for society, which implies that to thrive in today's complex operating environment business must understand, measure and proactively manage its social and environmental risks. This is echoed in the Global Goals (Sustainable Development Goals—SDGs), which call for worldwide action from business, governments and civil society. Business is urged to rebuild public trust by aligning its behavior with social values, proving itself a responsible social actor, and by managing its social capital with the same diligence as its natural and financial capital.

The forest products sector has far reaching social impacts throughout its entire value chain: from the 1.6 billion people globally who depend on forests for their livelihoods all the way down to the consumers of forest products. Profound market transformation is needed for change to happen at the pace and scale needed to deliver on the many Global Goals the sector impacts. This requires going beyond individual company action in order to harness the power of the entire value chain, moving together in a coordinated way. This first sector guide to WBCSD's Social Capital Protocol represents a step in the right direction. Six leading companies from the forest value chain share their experience with social impact measurement and present good practices and challenges encountered, with the aim of inspiring peers from the sector to embark on the same journey.

We hope that this guide will encourage sustainability practitioners from the forest products sector to embrace social impact measurement, from the fields to the boardrooms. We also hope it will galvanize other sectors to follow suit and gradually contribute to mainstreaming the practice of social impact measurement.

Peter Bakker,
President & CEO, WBCSD

Introducing the Social Capital Protocol and the Forest Products Sector Guide

THE SOCIAL CAPITAL PROTOCOL

The Social Capital Protocol[1] ('The Protocol') aims to help companies understand their relationship with society and how to make decisions in a way that will enhance the stock of social capital for the benefit of society and business. The Protocol sets out a consistent process for business to measure and value both social capital impacts (the positive and negative effects business has on society) and social capital dependencies (the human and social resources and relationships that businesses rely on in order to create and sustain value). The longer term aspiration is to move towards standardized and comparable techniques for social capital measurement and valuation.

Social capital impacts and dependencies, however, are often specific to the sector, location and context in which a business operates. This guide aims to support companies from the forest products value chain in applying the Protocol by providing additional guidance and case study examples that are sector specific.

The Social Capital Protocol process is made up of four stages, each of which includes a series of steps (see figure 1). It is supported by complementary materials, such as tools and case studies, that are available on a Web-based platform[2].

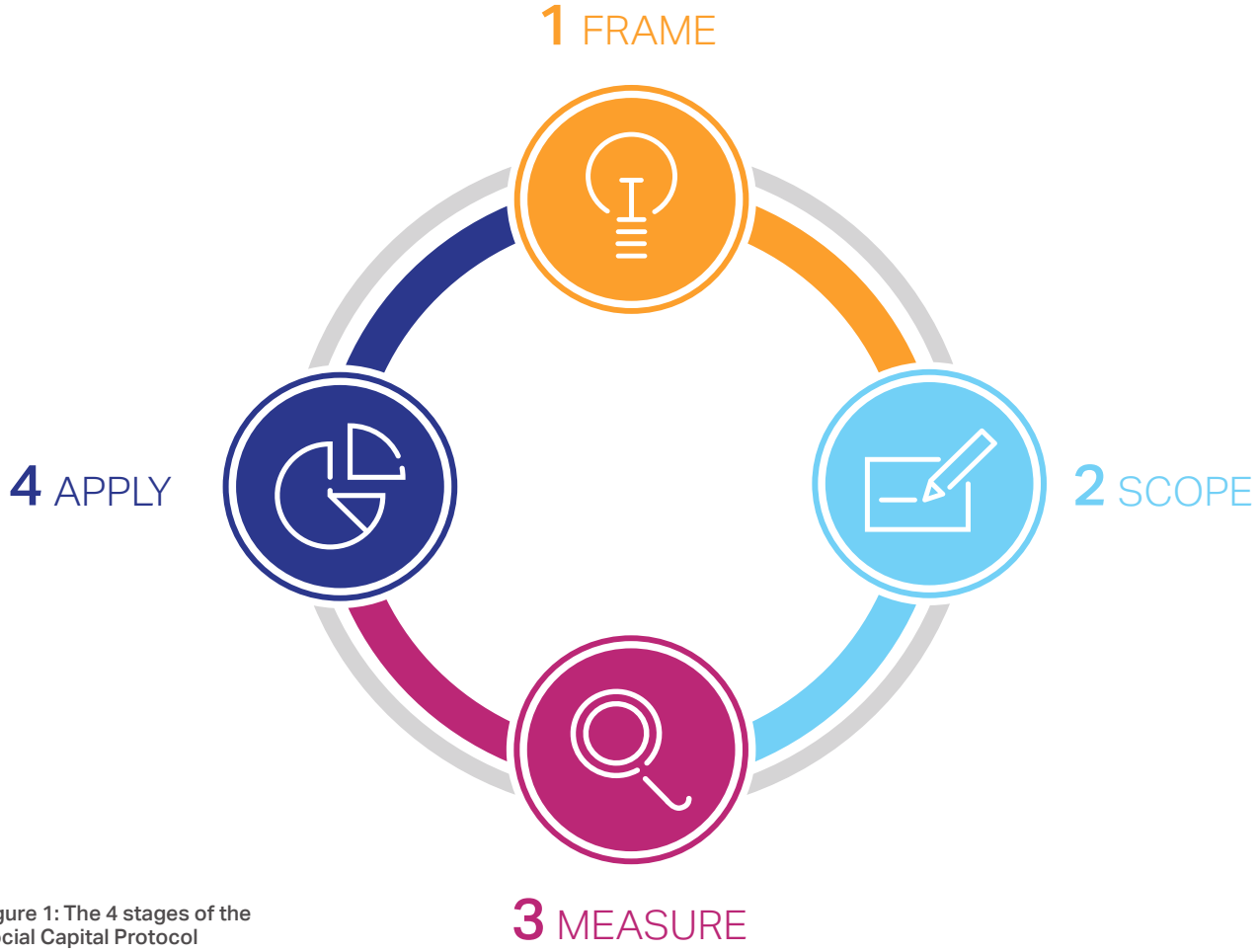


Figure 1: The 4 stages of the Social Capital Protocol

[1] WBCSD, 2017, The Social Capital Protocol. Available at: http://www.wbcsd.org/Clusters/Social-Impact/Resources/Social-Capital-Protocol
[2] www.social-capital.org

This sector guide follows the overarching Protocol framework and does not introduce any additional stages or steps. The sector guide does not replicate all the information in the Protocol and therefore should be used together with the Protocol rather than in isolation.

KEY DEFINITIONS	
Social capital	Resources and relationships provided by people and society.
Social capital impacts	Positive and negative effects that businesses have on people and society through their operations and supply chains, and through the products and services they provide
Social capital dependencies	Human and social resources and relationships that businesses need in order to create and sustain value
Measurement	The process of determining the amounts, extent and condition of social capital through the collection of qualitative and/or quantitative data
Valuation	The process of estimating the relative importance, worth or usefulness of social capital to society (or to a business), in a particular context; may involve qualitative, quantitative or monetary approaches, or a combination of these

Table 1: Key definitions

BACKGROUND TO THE GUIDE

Developed by the WBCSD's Forest Solutions Group, this guide and the case study examples it contains reflect the forward-thinking position of the forest products sector in understanding their interaction with social capital.

The guide is aimed at sustainability practitioners within forest products sector companies who are currently undertaking or plan to undertake a social capital assessment. It is relevant for companies at all stages of the journey towards using the concept of social capital in decision-making, whether they are learning about these concepts for the first time or already undertaking frequent social capital assessments.

The guide is intended to:

- Provide context on why social capital is relevant to the forest products sector;
- Demonstrate the business benefits of undertaking social capital assessments;
- Facilitate the implementation of the Protocol and its component stages by using real case studies to bring them to life.

OVERVIEW OF THE FOREST PRODUCTS SECTOR AND ITS VALUE CHAIN

This sector guide defines the forest products sector as encompassing all businesses operating in the forest products sector value chain, from production and processing (including primary and secondary), to forest product retailing (see figure 2).

Tree production and initial processing often occur in remote areas with limited job opportunities, access to social support services or infrastructure. This operating context calls on the business to take leadership in bridging the gap. The case studies in the guide illustrate how companies have been able to establish themselves in these challenging operating environments and seize opportunities to simultaneously create value for their business and society.

With the increasing recognition of the key role of the forest products sector in the transition to a low carbon economy, the downstream impacts should form an increasing part of value creation in the sector in the future. It will, for example, be critical to raise consumer awareness of the benefits of choosing sustainable forest products over less sustainable and more carbon-intensive alternatives.

Some impacts arising within the forest products sector value chain may be positive, such as the provision of livelihoods and infrastructure in remote areas; others may be negative, such as infringing upon indigenous communities' land rights. It is important for companies to consider both types of impacts. Devoting resources to minimizing negative impacts can be seen to be as important a contribution to social capital improvement as maximizing positive impacts.

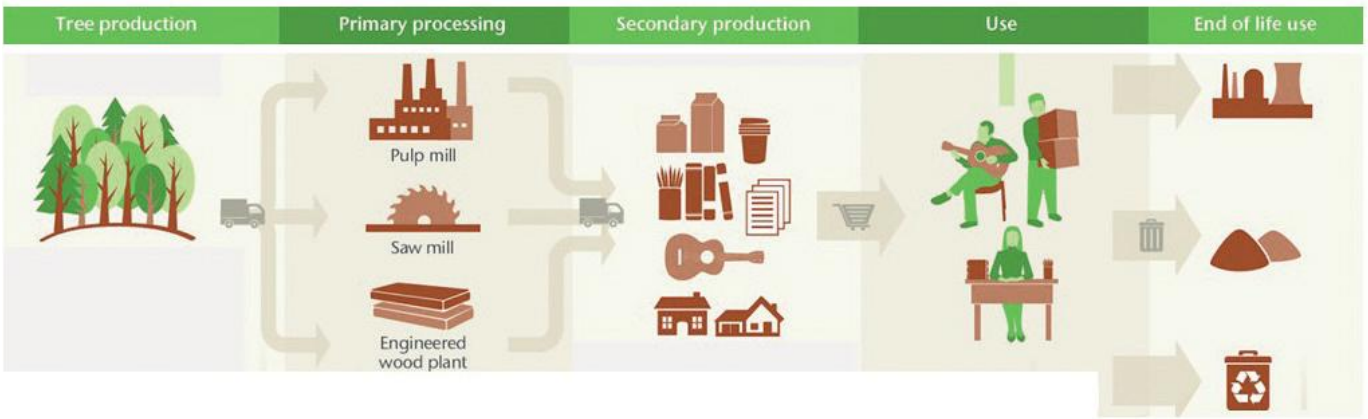


Figure 2: Forest products sector value chain

OVERVIEW OF THE CASE STUDY EXAMPLES USED IN THE GUIDE

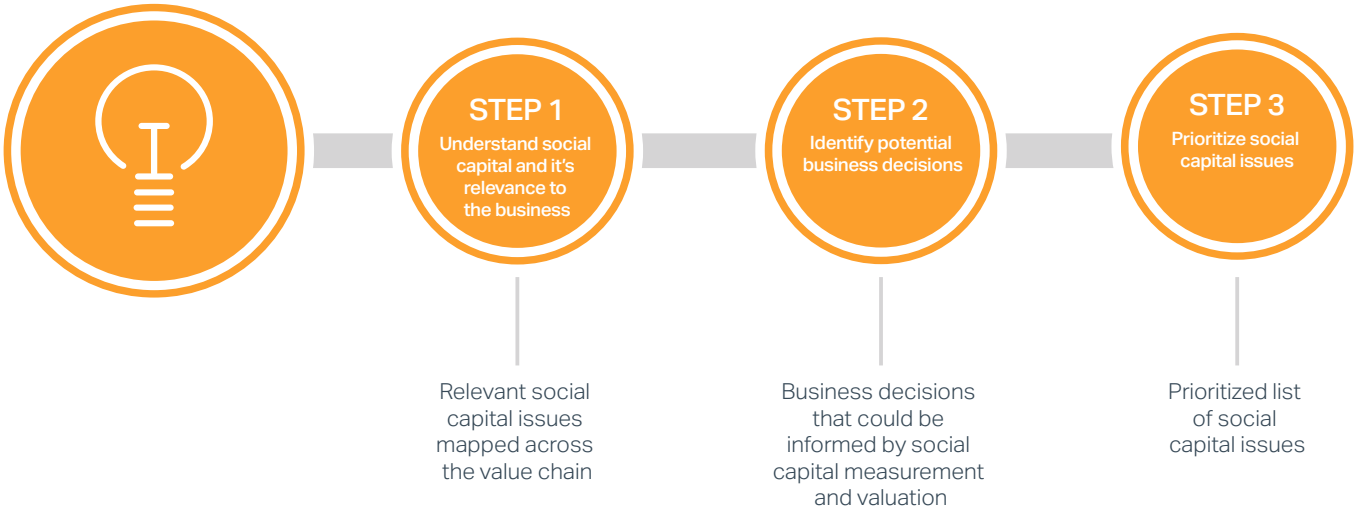
Six real-life case study assessments have been used in the development of this guide. Each has a different purpose, scope and method. They are intended to illustrate how the steps of the Protocol can and have been carried out by businesses in the forest products sector. Snapshots of the case studies are used throughout the guide where they show an example of a method for implementing the step or a key challenge encountered in that step. See the appendix for full details on each case study.

mondi	AkzoNobel	APRIL	THE NAVIGATOR COMPANY	Smurfit Kappa	VERACEL
Impact assessment of a community initiative in South Africa targeting orphans and vulnerable children (OVCs) living on or around Mondi's land; part of a broader effort to abstract group-level KPIs from individual projects	Measurement and valuation of the impacts along the value chain of a book, from paper production to end of life. Four dimensions or capitals are assessed: financial, natural, human and social (focus here on last two)	Impact assessment of APRIL Group and Asian Agri's business activities on the regional gross domestic product of Riau Province through employment and economic growth between 1982 and 2012	Impact assessment of the Navigator Company's contribution to GDP and employment across the value chains of four industrial units in Portugal in 2015	Impact assessment of Smurfit Kappa's three educational institutions (ITAFs), which offer a curriculum tailored to the needs of rural populations to some 550 children a year in Colombia	Impact assessment of Veracel's small scale agriculture program training community members to combine subsistence and commercial farming with eucalyptus plantations

Mondi, **Smurfit Kappa** and **Veracel** are measuring the impacts of a specific initiative they set up in response to a social issue; the assessment will be repeated on a regular basis to track progress over time. For **APRIL** and **the Navigator Company**, this is a one-off exercise, assessing the impacts of their normal business activities in selected regions of operations. **AkzoNobel**, a supplier to the pulp and paper industry, developed a four-dimensional profit and loss assessment looking at the financial, natural, human and social capital of the full book production life cycle. All case studies in the guide cover impacts arising from upstream operations, with the exception of **AkzoNobel's** impact assessment of the full value chain.

Credit: NGP, Andrew Heald

STAGE 1
FRAME



The first stage of the Protocol builds an understanding of how social capital is relevant to the business and clarifies how measuring and valuing social capital can strengthen decision-making. Through a systematic process of prioritizing social capital issues, you can identify a starting point for measuring and valuing social capital and a clear sense of how the results could be used. This ensures that the measurement and valuation of social capital is aligned with your corporate strategy and stakeholder priorities from the very start. It also lays the foundation for mainstreaming the Protocol in the company.

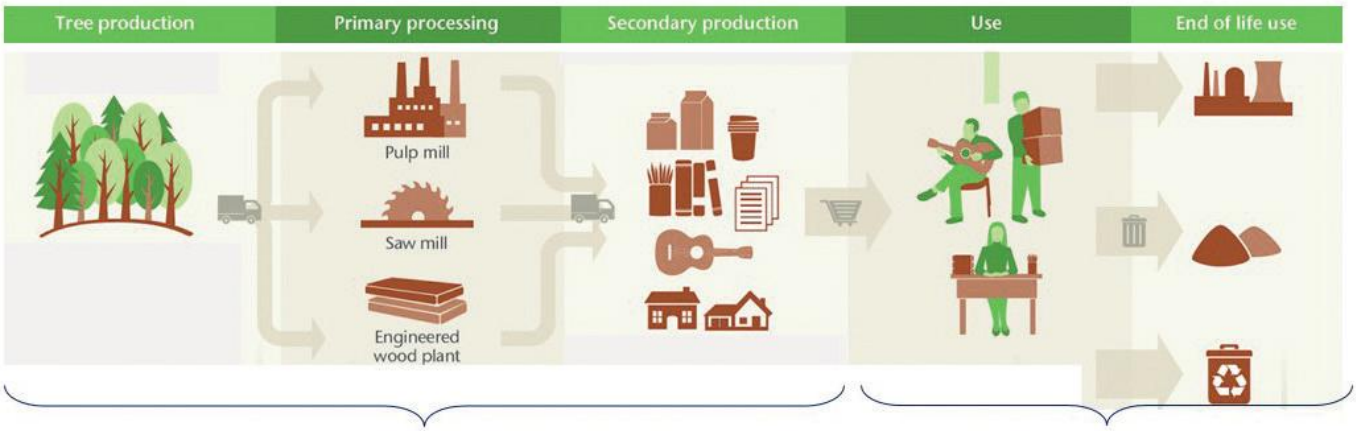
Step 1. Understand social capital and its relevance to the business

This first step is intended to help identify social capital issues that are relevant to the business. Figure 3 maps out a common set of social capital impacts and dependencies relevant to the forest products sector along the value chain. The importance and relevance of impacts and dependencies, however, will vary significantly depending on location and context, and therefore may not be the same even across one company or one operating region. Impacts can be positive, such as the provision of access to education to local communities, or negative, such as community exposure to hazardous waste. It is important to note that positive or negative social impacts can occur both upstream and downstream of a company's direct business operations; it is therefore crucial to look across the value chain.

The case studies used in this guide identify the social capital impacts that are relevant to the business. All case studies directly or indirectly address job creation, often with a component of training and skills development. These are combined with other relevant impacts based on the operating context, location, local stakeholder needs and business aims of the specific company. For example, **Smurfit Kappa** addresses access to education for children in rural areas of Colombia and **Mondi** addresses access to social and healthcare services for orphaned and vulnerable children in South Africa.

Although the Protocol contains guidance relevant for the measurement and valuation of positive and negative impacts and dependencies, the company - or project-level case studies used in this guide - focus on positive impacts only (except **AkzoNobel**, which also includes an assessment of the risk of negative social capital impacts). However, the decision to undertake a specific project or initiative was often linked to a social capital dependency, for example the need for a business to have access to a skilled and healthy local workforce.

Figure 3: Examples of social issues along the forest products value chain



Surrounding communities
- Access to education
- Access to energy
- Access to healthcare
- Access to infrastructure
- Access to water and sanitation
- Decent livelihoods
- Economic development
- Exposure to hazardous waste
- Indigenous rights
- Land-use rights

Employees (direct/indirect)
- Decent jobs
- Fair wages
- Gender equality
- Health & safety
- Human rights
- Road safety
- Training & skills development

Consumers
- Consumer awareness raising
- Product safety

CASE STUDY SNAPSHOT: SMURFIT KAPPA

Colombia faces significant challenges in meeting quality education standards. The situation is aggravated in rural areas by the absence of a tailored educational approach, the presence of illegal armed groups, few access roads, and little State presence to provide quality basic services, such as health and education.

When Smurfit Kappa began operating in rural areas in Colombia, the company recognized that these social capital issues posed significant risks to their business activities since they were dependent on having a peaceful operating environment and having a local pool of well-educated people to employ. In order to mitigate and manage these risks to their social capital dependencies, Smurfit Kappa set up three Technical, Agricultural, Livestock and Forestry Institutes (ITAFs) to improve education and employment potential in the region.

CASE STUDY SNAPSHOT: VERACEL

In 1991, Veracel established operations in the State of Bahia, Brazil, where there are longstanding issues of poverty and famine in the local communities. Veracel was aware that its arrival in the area might have a significant impact due to the creation of competition between Veracel's eucalyptus plantations and the land used for traditional family farming practices by the local communities. In order to avoid this potential negative impact and to build positive relationships with local communities, Veracel established Agrovida, a small-scale agriculture project aimed at training local leaders and empowering them to coordinate projects that would lead to the continuation of subsistence farming and to the generation of new income.

CASE STUDY SNAPSHOT: MONDI

A 2004 survey of its forestry communities in South Africa indicated that there were more than 1000 orphans and vulnerable children (OVCs) living on and around Mondi's owned land in remote communities, many of whom were living in child-headed households. One of the major reasons for the high number of OVCs in forest communities is the prevalence of HIV/AIDS, with South Africa having one of the highest adult prevalence rates in the world. As the health and wellbeing of its communities is important to Mondi's business and form part of its social commitments, in 2007, in partnership with government and NGO partners, Mondi implemented the Isibindi Project. This community program targets approximately 700 OVCs, addresses children's needs from the most basic such as cooking, feeding, and washing, to schooling and psychological wellness. There are currently 30 Child and Youth Care Workers (CYCWs) working on the programme. Examples of project activities are: establishing and maintaining Safe Parks for OVCs, conducting home visits to advise householders on a number of topics (e.g. facilitating statutory documents of the OVCs, budgeting, hygiene, bereavement support, and responsible behaviors), and training accredited CYCWs.

The Protocol contains more guidance and examples of mapping, categorizing and prioritizing social issues.

Credit: NGP, Stora Enso

Step 2. Identify the business case and potential business decisions

This purpose of this step is to help identify how the issues identified in Step 1 relate to business decisions and thereby build a business case for the undertaking of an assessment. The case studies demonstrate a wide variety of business case examples of companies in the forest products sector measuring, valuing and managing the social capital impacts they identified. These examples each relate to one of the business value drivers shown in figure 4. These business value drivers are the mechanisms through which social capital steers business performance improvement and value creation.

Many companies reported that, unlike environmental impact assessments, regulations do not formally require social impact assessments for a company to obtain permission for a new project or business activity.

However, the communication benefits provided by a social impact assessment can support the enabling environment for a company's operations and therefore support their license to operate[3]. A license to operate is where local communities show a positive level of acceptance of the company's presence in a region; this was one business value driver for the **Veracel**, **Navigator Company, Mondi, APRIL** and **Smurfit Kappa** assessments. In addition to this, a few case studies focused on the business value driver of fueling innovation based on the results of a social capital assessment. For example, **AkzoNobel** is looking at four-dimension profit and loss (4D P&L) assessments to guide innovation towards different products or processes that will have a greater positive impact or a reduced negative impact.

Figure 4: Business value drivers for social capital measurement and management

[3] The term "license to operate" does not necessarily refer to a regulatory permit or license that is required by an authority for the business to operate. According to Boutilier and Thomson (2011), a social license to operate (SLO) is a community's perceptions of the acceptability of a company and its local operations. SociaLicense.com identifies four levels of social license: withheld/withdrawn, acceptance/tolerance, approval/support, and psychological identification.

CASE STUDY SNAPSHOT: AKZONOBEL

There are three key business value drivers behind AkzoNobel's decision to develop a 4-Dimensional Profit & Loss (4D P&L) of a book and to do regular 4D P&Ls internally on its own operations:

1. Optimize human capital management—Understanding the spread and composition of the value chain provides guidelines for action and investment, such as optimizing the management of human capital across locations and business activities;
2. Strengthen value chains—Raising awareness of impacts with suppliers and customers improves relationships with them through increased engagement;
3. Fuel product and service growth and innovation—Understanding where the impact hotspots are in the value chain allows the company to reduce negative impacts and build on existing positive ones.

CASE STUDY SNAPSHOT: THE NAVIGATOR COMPANY

The main driver for the assessment was to improve the business enabling environment for the Navigator Company by gaining a better understanding of its contribution to GDP and employment in four regions where its plants are located, as well as to the broader Portuguese economy. The Navigator Company used the results to communicate the company's and the forest sector's positive contribution to the economy and thereby engage with and gain support from three key audience groups: regional authorities, the Portuguese government, and the European Union Commission. Successful communication and strong relationships with these three groups contribute to improving the business enabling environment.

The Protocol contains more examples of how to map social capital impacts and dependencies against business value drivers and who the relevant decision-makers are for each business value driver.

Credit: The Navigator Company

Step 3. Prioritize social capital issues

Step 3 brings the previous two steps together to determine the most critical/logical starting point for social capital measurement and valuation. Companies should prioritize issues that substantively affect its ability to create value for the business and key stakeholders over the short, medium and long term and hence those issues that should be included in decision-making. Companies at the start of the social capital measurement and valuation journey may wish to be pragmatic by identifying a starting point that is feasible for the resources available but that could stimulate engagement and further adoption across the organization.

The case studies show that some companies identified obvious social capital issues as priorities at the outset of operations and set up specific projects to address these issues, such as the lack of quality education in Colombia for **Smurfit Kappa**, the poverty issues in Bahia for **Veracel**, and the limited availability of care and support for orphans and vulnerable children in South Africa for **Mondi**. The companies thus set up social capital assessments to measure and monitor the progress of the project towards improving these issues. For other companies, the focus of the assessment was not on a specific project but on the company's business-as-usual impacts. In all cases, however, the companies had to undertake a materiality assessment[4] to prioritize which social capital issues to focus on.

CASE STUDY SNAPSHOT: MONDI

In order to identify and prioritize the social capital issues relevant to Mondi's operations and to local communities in a particular area, Mondi uses the Socio-Economic Assessment Toolbox (SEAT)[5] process originally developed by Anglo American. During 2005 and 2006, Mondi undertook a SEAT for each of its mills and forestry operations at the time, with South African and Russian mills and forestry operations going through regular updates in the subsequent years.

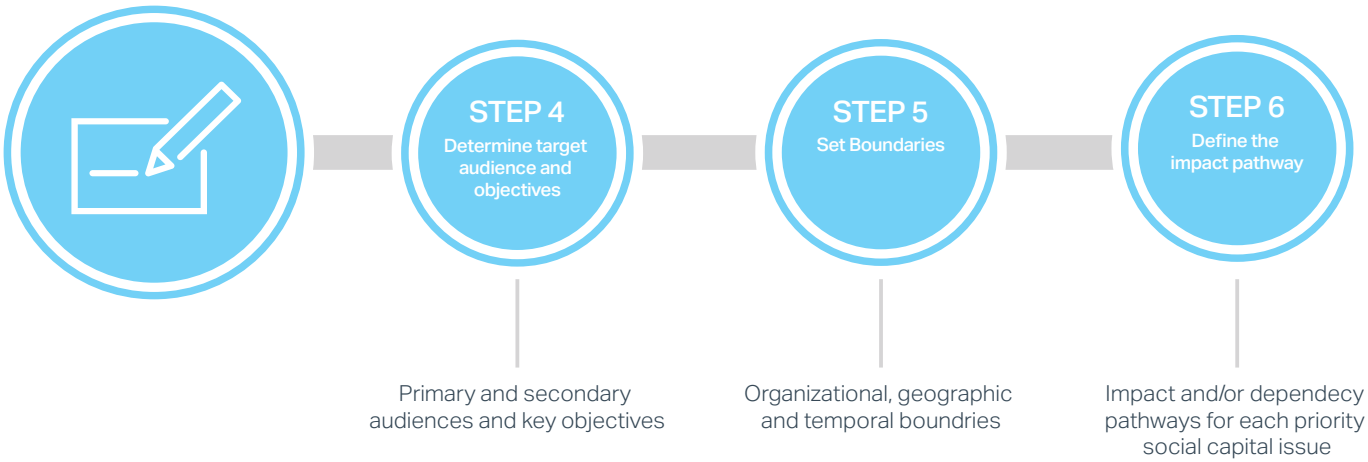
The output of the SEAT process is a publicly available report that reflects the findings from the process and Mondi's management response to issues raised by stakeholders. SEAT is a global framework that provides the opportunity for local responses to local issues identified. The Isibindi project was Mondi's response to a 2005 SEAT finding that recognized orphan and vulnerable children care as a serious issue in Mondi's local operations.

The Protocol contains more detail on how a materiality assessment can be carried out and some pragmatic entry points for companies at the beginning of their social capital journey.

Credit: Mondi

[4] For the purposes of the Social Capital Protocol, a 'materiality assessment' refers to a systematic approach to prioritizing issues and is not a process necessary to meet corporate reporting legal disclosure requirements or expectations (WBCSD Social Capital Protocol, p29).
[5] WBCSD, 2013, Measuring socio-economic impact: A guide for Business, p 34

STAGE 2
SCOPE



Stage 2 provides guidance in setting a practical scope for the measurement and valuation of the specific social capital priority area that will provide the desired information for the business decision, as chosen in Stage 1. Applying this stage ensures that the measurement and valuation effort is targeted appropriately and produces fit-for-purpose results. For each social capital priority area identified in Stage 1, it is necessary to now determine the key audience and objectives and set the organizational, geographic and temporal boundaries for measurement and valuation. This will be used to develop an impact pathway (or dependency pathway) that provides a hypothesis for how business activities translate into social impacts and/or dependencies and helps identify what to assess.

Step 4. Determine target audience and objectives

The first part of setting the scope is determining the target audience and the specific objectives for measurement and valuation. Relevant audiences may be both internal and/or external and may have different needs for how the outputs of the project are communicated to them. The target audience(s) and the relevant business value drivers will determine project objectives:

- Key internal audiences often include shareholders, board members, heads of department and internal management, and employees and contractors.
- Key external audiences reported in the case studies and relevant for other companies in the forest products sector are local communities, project partners, project or business investors, local government, national government, customers and suppliers.

CASE STUDY SNAPSHOT: SMURFIT KAPPA

The target audiences of the assessment results are both internal and external to Smurfit Kappa:

- Internal stakeholders—Project managers use the results to improve project efficiency and performance. The Smurfit Kappa Foundation and Smurfit Kappa Management boards use the results to understand the impact of their investments.
- External stakeholders—Smurfit Kappa uses the results to communicate to the Ministry of Education of Colombia regarding the positive and negative impacts (if any) of the ITAF rural education approach.

CASE STUDY SNAPSHOT: VERACEL

The main audiences for the results of the social capital assessment of the small-scale agriculture project are:

- Community leaders, who gather the data so that they can understand the progress of the project and where improvements can be made. The need for local communities to take ownership of assessing the project and to be able to gather data and report themselves drives the measurement approach and choice of indicators.
- Local partners, such as NGOs, government institutions and technical agencies that participate in the implementation of the project, to help them understand the progress and impact of the project.
- Internal project managers and investors, who use the results to understand which communities and projects are creating the most social capital value and therefore which projects they should scale up investment in.

The Protocol contains more information on how to identify target audiences and objectives. It also contains a list of example objectives for the measurement and valuation of social capital and the relevant target audiences for these objectives.

Credit: Smurfit Kappa

Step 5. Set boundaries

Agreeing on the boundaries for the approach from the outset is important from both a conceptual and practical perspective. It not only provides clarity and focuses the approach but also ensures that resources are used efficiently and effectively. The three key boundaries to consider are: organizational (or value chain), geographic and temporal. Choosing these boundaries should take into consideration the objectives of the assessment, stakeholder and audience interest, the resources available to undertake the assessment, and data availability.

Most case studies focus on the tree production and primary processing stages of the value chain as their organizational scope. This could be due to the fact that these are value chain levels over which companies feel they have most control and influence. Downstream impacts—the impacts that occur during the use and end-of-life phases—have only been covered in a few cases, such as **AkzoNobel**.

Many companies reported that the case study assessments were pilot projects, for example, focusing on one geographic area or a subset of value chain levels, and that they would like to learn from the pilot project in order to improve on and expand the assessment to other locations or a wider value chain scope.

CASE STUDY SNAPSHOT: AKZONOBEL

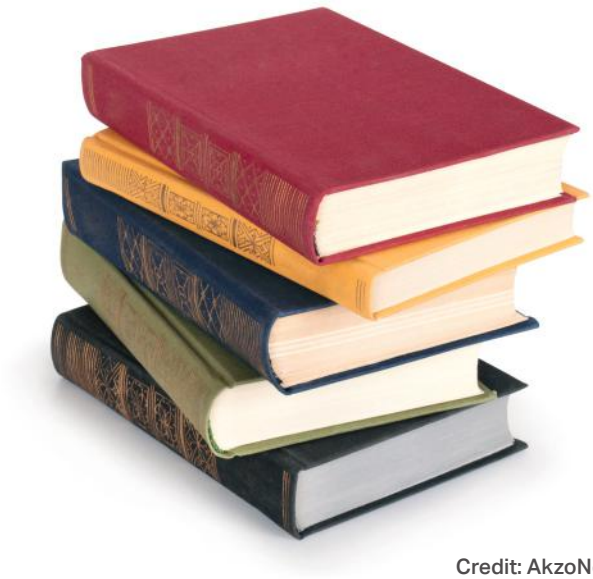
The geographic, organizational and temporal scope of the assessment was chosen to reflect the cradle-to-grave impacts of a typical book made in Europe that uses AkzoNobel's chemical inputs in the bleaching process. The book is assumed to have been produced using 50% virgin paper from Brazil and 50% recycled paper from Europe and to have 100,000 copies printed and sold at €20 each. AkzoNobel chose to do the 4D P&L assessment on a book rather than on one of its bleaching chemicals as this made it easier for external audiences to understand and put into context.

CASE STUDY SNAPSHOT: THE NAVIGATOR COMPANY

The chosen scope of the assessment was to look at the GDP and employment impacts of four of the Navigator Company's primary and secondary processing plants in Portugal. The temporal boundary was one year of business-as-usual activity.

The geographic scope was chosen to go beyond the national level, down to the regional level since the regional governments were a key audience for the results. The project took six months to complete. Although undertaking only the national-level analysis would have reduced the project's complexity, it would not have achieved the key objective of being able to engage with the regional governments.

The Protocol provides more information on what to consider when choosing boundaries and different examples of organizational, geographic and temporal boundaries that might be relevant.



Credit: AkzoNobel

Step 6. Define the impact or dependency pathway

The last step in Stage 2 draws the links between the social capital issues identified in Step 1 and the business activities that affect or rely on them. This is done by building an impact or dependency pathway (also called a logical framework, results chain or theory of change). The impact (or dependency) pathway guides the formation of a hypothesis on social capital creation, destruction or reliance, which can be tested and evaluated empirically.

Figure 5 explains the core elements of an impact pathway, from inputs to impacts. It is important to note that there may well be more than five links in the chain, especially between outputs and impacts. Similarly, results chains do not have to be linear. For example, activities can lead to multiple outputs, which each lead to multiple outcomes and so on[6].

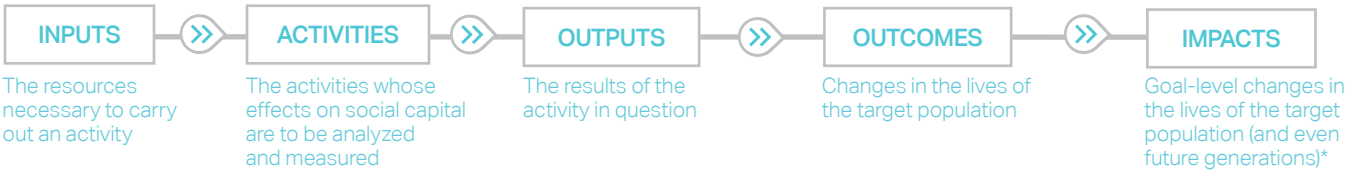


Figure 5: Elements of an impact pathway

Most of the case study companies interviewed used impact pathways for natural capital impacts, while they used them less frequently for social capital impacts[7]. Many companies reported on a mix of outputs, outcomes and impacts as their indicators and agreed that using the impact pathway approach would help to ensure that indicators were defined consistently at the same level. Companies also reported that the impact pathway was a useful approach to see how business activities could be traced all the way through to output and outcomes and to highlight any indirect effects or unintended consequences of an activity. One risk with only reporting outputs without mapping out an impact pathway was that the company might have looked at outputs that did not actually lead to their overall impact objective.


Credit: Stora Enso

[6] WBCSD, 2013, Measuring socio-economic impact: A guide for Business
[7] For more information on measurement and valuation of natural capital, see Natural Capital Coalition 2016.

CASE STUDY SNAPSHOT: MONDI

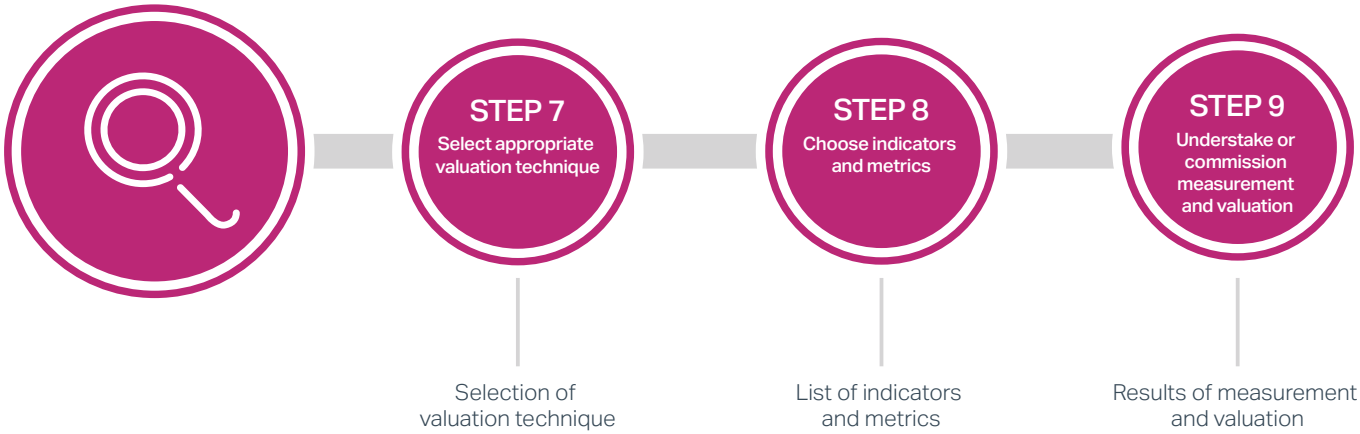
The table below shows the definitions that Mondi adopted for their impact pathways and examples of indicators at each level.

The Protocol contains further examples of impact pathways drawn for different social capital issues.

	DEFINITION	EXAMPLES OF INDICATORS
INPUTS	Resources invested in an activity (e.g. time or money spent)	• Money invested in running training and health awareness campaigns • Money equivalent of staff time contributed
ACTIVITY	The processes or actions that use inputs to produce outputs/ outcomes (e.g. supplier development program, training course, edu-cation initiative)	• Establishing and maintaining Safe Parks for OVCs • Conducting home visits to advise householders on a number of topics • Training accredited child and youth care workers (CYCWs)
OUTPUTS	The direct and tangible products from the activity (e.g. people trained, infrastructure built)	• Number of recipients of health-related and counselling training • Number of accredited CYCWs • Number of Safe Parks available
OUTCOMES	Changes to a set of beneficiaries resulting from the activity (e.g. new jobs, improved income, improved stability in life)	• Number and percentage of parents/care workers aware of the signs and symptoms of major childhood illnesses • Number of OVCs showing improvements at school • Number of jobs created in the communities as CYCWs
IMPACT	The actual difference made to society, which represents outcomes less an estimate of what would have happened regardless of the inputs	• Improvement in health status of orphans & vulnerable children
SUSTAINABLE DEVELOPMENT GOAL (SDG) LINK	Goal 3: Good health and well-being Target 3.3: To end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases. Goal 4: Quality education Target 4.2: By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education.	

Table 2: Definitions of Mondi's impact pathways

STAGE 3
MEASURE



This stage encompasses the selection of the type of valuation most useful for the target audience and key decision-makers. It is then necessary to identify the most appropriate valuation techniques based on the selected valuation type. Based on the valuation techniques, the next step is to define fit-for-purpose indicators, metrics and data sources before conducting the technical measurement and valuation of their social impacts and/or dependencies. Measurement and valuation are at the core of the Social Capital Protocol. Establishing reliable access to tailored information will support informed action from decision-makers. When comparable values are allocated to social capital impacts and dependencies, they can be used alongside other business information.

Step 7. Select appropriate valuation technique

Valuation is the process of determining the relative importance, worth or usefulness of something in a particular context. Valuation may involve qualitative, quantitative or monetary approaches, or a combination of these.

This step serves to first identify the appropriate type of value to be used for each impact or dependency identified and then choose a fit-for-purpose valuation technique. The three types of value[8]:

QUALITATIVE is usually descriptive and focuses more on subjective perceptions of change. It can be used to assess the potential scale of social costs and/or benefits through qualitative, non-numerical terms.

QUANTITATIVE expresses value in numerical, non-monetary terms. In contrast to qualitative measurement, quantitative valuation captures the importance or worth of the impact by taking into account the context and ideally including affected stakeholders.

MONETARY translates quantitative estimates of social costs and/or benefits into a single common currency. It is best used to provide information on the marginal value of incremental changes in impacts or dependencies, either at a point in time or over a given period.

All companies with case studies in this guide used quantitative measurement to report results, for example, number of jobs created, number of people receiving training, number of students receiving loans. As many of these case studies were pilot studies, valuation was not always undertaken and many companies reported this to be a next step. However, significant benefits can still be obtained from undertaking impact measurement even if it is not continued through to valuation.

Mondi's outcome indicators provide an example of quantitative valuation where an improvement in a baseline position may be demonstrated based on testing or on a reported increase, such as number and percentage of orphans & vulnerable children showing improvements at school, or number of accredited child and youth care workers (CYCWs) from the programme.

In the case of **APRIL**'s and **Mondi'**s household surveys, qualitative data has also been gathered to provide context and sentiments to complement the quantitative data reported.

CASE STUDY SNAPSHOT: APRIL

One of the key audiences targeted by the local impact assessment of APRIL's operations was the management of Royal Golden Eagle (RGE), which provides strategic advice and comprehensive business process outsourcing services to business groups, including APRIL and Asian Agri. It was decided that the use of quantitative data would be the most appropriate as this allows APRIL to get the key information across to the management quickly and is supported by statistical data. This condensed story was then supplemented by qualitative data gathered from a household survey in places where a contextual background to the numbers was required.

As the results were also to be shared externally, the use of reliable measurement and valuation methods was crucial to ensuring credibility. To achieve this, the Demographic Institute of the University of Indonesia, which has in-depth knowledge of the study area and is well-experienced in economic impact assessments, carried out the analysis using methods that have been implemented for other projects and academic studies.

Monetary valuation has also been used in some of the case studies, including **AkzoNobel**, **the Navigator Company**, **APRIL** and **Smurfit Kappa**. In **AkzoNobel**'s case, this has meant that three of the four capitals measured in their 4D P&L assessment are in equivalent units and therefore can be compared and can be used to determine return on investment ratios.

The GDP indicator used by **the Navigator Company** and **APRIL** is a monetary value impact, as it is a proxy of the value of the company's economic impact on society. GDP is not a complete representation of the impact on society (for example, GDP does not represent

[8] This is adapted from Step 7 of the Social Capital Protocol, which builds on information given on pp. 82-83 and pp. 112-113 of the Natural Capital Protocol.

wider changes in welfare, such as impacts on health, nor does it provide information about how these changes in welfare are distributed across society); however, it is an accessible and comparable indicator to use. In these case studies, the GDP value has been estimated using the input-output (IO) method[9]. However, there are other methods to do this, such as computable general equilibrium (CGE)[10] modelling.

Other monetary valuation methods[11] include the hedonic pricing method used by **APRIL** to estimate a monetary value proxy for changes in household welfare, and **Smurfit Kappa**'s estimation of the increase in family income from productive projects that have been set up by students from the ITAF schools that they support.

Some companies reported choosing not to use monetary valuation due to difficulties in finding robust methodologies for social impacts that were specific to a given project or context. Another disadvantage is that stakeholders often struggle to understand and interpret monetary value, especially in cases where they need to be able to perform the assessment themselves rather than using company experts or consultants.

CASE STUDY SNAPSHOT: AKZONOBEL

All capitals measured in the 4D P&L assessment of a book are reported as monetary values, except for the social capital risk assessment. AkzoNobel found monetary valuation helpful to compare impacts across the different capitals and to understand how much positive value was generated per euro of negative value.

The human capital was valued using the expected additional value of future earnings method (see figure 6). This approach comes from academic literature and is recognized by the OECD as an income-based approach to measuring human capital[12].

EXPECTED VALUE OF FUTURE EARNINGS
= current wage
X inflation-corrected wage development
X time until retirement
X fraction of compensation related to work

Figure 6: Expected value of future earnings method

The semi-quantitative valuation method for social capital was taken from the WBCSD's Social Life Cycle Metrics for Chemical Products applications tool[13]. Examples of the risks assessed include: health and safety, child labor, discrimination, freedom of association, and maintenance of a healthy work-life balance. Each risk in each location is given a risk score of one of five levels, ranging from very low to very high. It was decided to use a semi-quantitative risk-based approach for the social capital indicators because AkzoNobel was not able to find harmonized monetary valuation approaches that already existed across all social indicators. They also recognized the existence of ethical considerations around choosing a monetary value that represents a person's life.

As monetary valuation can make it difficult for people to understand the impact drivers, AkzoNobel believes it is important to be transparent about the methodology used. In future assessments, AkzoNobel would like to consider placing a monetary value on the positive downstream impacts of their products (such as micronutrients) and programs, and is already putting a monetary value on negative health and safety impacts using the lost time injury rate valuation approach[14].

CASE STUDY SNAPSHOT: THE NAVIGATOR COMPANY

The Navigator Company decided to hire external consultants (KPMG) to quantify the GDP and employment impacts using regional and national input-output (IO) models[15]. The IO method was chosen because it is an established and reputable technique that had been used before—both inside and outside Portugal—and is based on national statistics. Both of these factors contribute to the credibility of the results.

The Protocol provides more information on and analysis of the advantages and disadvantages of the different valuation types and techniques, as well as a comparison between the most commonly used monetary valuation techniques.

[9] WBCSD, 2013, Measuring socio-economic impact: A guide for Business, p35
[10] Dixon and Jorgenson 2013.
[11] For more information on this technique, see Step 7 of the Social Capital Protocol (WBCSD 2017).
[12] Liu, 2011, Measuring the stock of human capital for comparative analysis: an application of the lifetime income approach to selected countries, OECD Statistics Working Papers N. 41 (2011/6) OECD Publishing.
[13] WBCSD (2016), Social Life Cycle Metrics for Chemical Products
[14] More information on the application of this approach can be found in: UK Health and Safety Executive 2015, Costs to Britain of workplace fatalities and self-reported injuries and ill health 2014/15.
[15] WBCSD, 2013, Measuring socio-economic impact: A guide for Business p35

Step 8. Choose indicators and metrics

Before conducting a valuation exercise, it is necessary to measure social capital impacts or dependencies. The key decisions to be made at this point are: at what level of the impact pathway to collect data (such as outcome or impact) and the most appropriate indicators and metrics for measurement at the chosen levels.

These decisions are driven by: the objective of the analysis, the form of the impact pathway, and the informational requirements of the valuation approach.

Indicators consist of information that signals change. An indicator can be quantitative or qualitative. Ideally, it should provide a simple and reliable means to reflect the changes connected to an activity or intervention. This means that it must be relevant to the changes that are expected and sensitive or granular enough to reflect the expected magnitude of these changes.

When developing indicators, it is necessary to consider whether the change in social capital can be meaningfully measured by itself or whether it needs to be measured with reference to an external reference point: either a baseline or an alternative scenario (also known as a counterfactual).

Many of the case study companies expressed their difficulty in coming up with indicators that could be applied across multiple projects or locations. They found that in order to accurately reflect outcomes within a specific project context, they needed to be tailored to the project, such as **Veracel**'s community indicators. However, other companies found it possible to map project-specific indicators to overall aims or focus areas at a company level; for example, each of **Mondi**'s Isibindi project indicators map to a Sustainable Development Goal (SDG) and target, so it is possible to understand the project's contribution to company-wide progress in supporting these goals.

CASE STUDY SNAPSHOT: VERACEL

The intention of the pilot assessment of the small-scale agriculture project was to develop indicators that were:

- Comparable to other projects that Veracel sponsors;
- Replicable within and between projects;
- Aligned with Veracel's principles and values;
- Provide decision-making support.

In reality, it was a challenge to create indicators that adhered to these four principles because Veracel relies on the community leaders to collect data and independently monitor the progress of their own projects. The indicators therefore needed to be simple and relevant for each specific community. Based on this requirement, the final indicators adopted were customized to each project's and community's specific needs and ideas.

The community ownership of the data collection and monitoring has been a real success in many communities as it has led to strong self-management where community leaders share results with their communities to get buy-in and ideas for improvements.

The companies looking at business as usual, in-year impacts, such as **the Navigator Company** and **AkzoNobel**, did not use a baseline. However, in effect, by doing the assessment they have created their reference baseline. This will mean that when they redo the assessment in future years they will be able to measure progress and changes against this baseline.

Several companies reported difficulties in coming up with a reference baseline when trying to assess the change in certain indicators over an extended time period, for example, **APRIL**'s 30-year time boundary. The problems were first, that data had not been collected in the early years of the chosen timeframe; and second, that other factors will have contributed to changes in social capital over that time, beyond just the business activities of the company. This is the challenge of proving the 'net' benefit of an intervention and is known as 'additionality'.[16] Additionality is calculated by taking the gross benefits and subtracting the benefits that would have occurred in the absence of the intervention (the 'deadweight'[17]) and the negative impacts elsewhere (including 'displacement'[18] of activity). The use of counterfactual scenario can help to demonstrate the additionality of the business activity e.g. using a control group or location where the business activity has not been implemented.

CASE STUDY SNAPSHOT: APRIL

APRIL measured land price and welfare increases that have occurred over a 30-year period. The 30-year timeline for data collection posed some challenges as data had not been collected in the early years of the program and was not available through the Office for National Statistics.

This challenge was overcome by surveying community members who had been in the community for 30 years (see case study in Appendix II for abstract of Household Questionnaire). The "snowball sampling" (or referral sampling) method was used to grow the group of respondents to the critical size needed, meaning asking each interviewee to nominate other interviewees until enough data was gathered to be useful for research.

An estimation of the specific amount of contribution to the change that was made by APRIL as opposed to other, external, factors has not yet been calculated. However, some initial indicators were included in the study questionnaire as a first step towards understanding the additionality of the impacts, such as:

- Percentage of respondents who know the business;
- Percentage of respondents who have worked/ are still working for the company or have income-generating activities tied to the companies;
- Percentage of respondents who reported that the operations of the companies make it easier to meet their daily needs/to find jobs/to access education/to contribute to better roads and bridges;
- Percentage of respondents who reported that they lost their livelihoods due to the company's operations/that there were conflicts between the company and the community;
- Percentage of respondents who perceived air or water pollution due to company wastes/sound pollution or damaged roads caused by company operations;
- Percentage of respondents who reported that they cannot get a job at the company due to lack of skills.

The Protocol provides more information on how to create effective indicators alongside other considerations, such as using proxy measures and deciding on baselines and counterfactuals that could be used as reference points.


Credit: APRIL

[16] Additionality is the extent to which something happens as a result of an intervention that would not have occurred in the absence of the intervention (UK Treasury 2011).
[17] Deadweight refers to outcomes that would have occurred without intervention (UK Treasury 2011).
[18] Displacement measures the extent to which the benefits of a project are offset by reductions in benefits elsewhere (UK Treasury 2011).

Step 9. Undertake or commission measurement and valuation

The final step in stage 3 involves collecting and analyzing the data needed to complete the necessary measurement and valuation. Some of the data sources and the best collection methods may have already been identified in Step 8 as part of the selection of indicators or in Step 7 to inform the choice of valuation technique.

It is just as important to determine when and how data is collected as it is to determine what data is to be collected. For example, the planting and harvest seasons are important if it is necessary to interview seasonal employees and contractors. Also, there are some ethical principles to consider, particularly when engaging directly with communities, such as informed consent from participants on the use and sharing of the data, or the cultural norms of the location (for example, gender dynamics).

Either primary or secondary data sources, or a combination of both, can be used to undertake the assessment.

There are several challenges around data collection, including availability and reliability, and the attribution of impacts between multiple actors.

TYPE OF DATA SOURCE	DEFINITION	EXAMPLE
PRIMARY	Data collected by the company (or externally contracted party) specifically for the assessment. This offers more precise results but can also be more time consuming and require more specialized skills	- Surveys - Interviews - Focus groups
SECONDARY	Data that was originally collected and published for an-other purpose or a different assessment	- National and regional statistical authorities - Sustainability rating reports

CHALLENGES AROUND DATA AVAILABILITY AND RELIABILITY

Several challenges are associated with data availability and reliability. Some parts of the world may not have advanced statistical organizations, making it hard to find recent, publicly available information at the regional or even national level. It is also important to know who collected the data and how, as data with unknown provenance and/or methodology is unlikely to be accurate and cannot be replicated for future comparative assessments.

CASE STUDY SNAPSHOT: AKZONOBEL

Collecting data from suppliers and customers presented a challenge as some suppliers/customers did not have the relevant data or did not disclose it. In these cases, AkzoNobel obtained data from annual reports produced by these organizations, sustainability rating reports,[19] or used local geographic data as a proxy.

AkzoNobel reduced the data collection burden on the customer/supplier by filling out the WBCSD's risk tool using publicly available data on the company. AkzoNobel then shared this with the customer/supplier to confirm data and ask them to fill gaps. This process helped to improve relationships and facilitated learning in both directions.

[19] Examples of potential secondary data sources and sustainability rating reports can be found on the online platform accompanying the Social Capital Protocol.
This platform can be accessed here www.social-capital.org

CASE STUDY SNAPSHOT: MONDI

Primary data collection was conducted through surveys and focus groups and secondary, historical data was collected through project partners. Assessments that are externally contracted (as opposed to those that rely for example on community leaders) can often result in trade-offs due to time and budget constraints. For example other factors beyond the Isibindi project will have potentially affected stakeholder outcomes over a five-year period. However, the company made efforts during questionnaire construction to isolate impacts to the specific activities of the Isibindi project. The influence of other external factors on the outcomes of the project was therefore deemed immaterial.

CASE STUDY SNAPSHOT: THE NAVIGATOR COMPANY

Direct impacts were measured using primary data from the Navigator Company. The impacts of the suppliers to the four plants (the indirect impacts) were assessed using purchasing ledger data from the Navigator Company and regional IO models that are publicly available from the Portuguese statistics authority (INE). The impacts of the spending of wages by Navigator Company employees and employees in the supply chain (the induced impacts) were also calculated using the IO method and household wage spending pattern data from the INE. The project results were presented in aggregate, so as not to disclose sensitive information about spending with individual suppliers.

Data collection was a major challenge for the regional employment and GDP analysis. The external data from the INE were readily accessible but a significant limitation was the lack of data for 2015. This and other assumptions were clearly communicated alongside the results of the study. If the analysis were to be repeated in other countries where the Navigator Company operates (particularly in developing countries), the availability of recent data from the national statistics organization may be a real barrier to producing reliable estimates in the assessment.

CHALLENGES AROUND ATTRIBUTION OF IMPACTS BETWEEN MULTIPLE ACTORS

Many of the initiatives presented in the case studies in this guide involve the participation of several partner organizations. This means that it can be difficult to attribute social capital impacts specifically to the company itself. In some cases, attribution may be achieved by using the percentage split of financial investment provided by each partner into the project. However, in some cases it is not financial support that a company provides; meaning the company might have a facilitation role in bringing organizations together or the company might build trust in the project by using the power of their brand and committing to the project in the long term. Although valuable, this type of contribution is more difficult to quantify and therefore attribute.

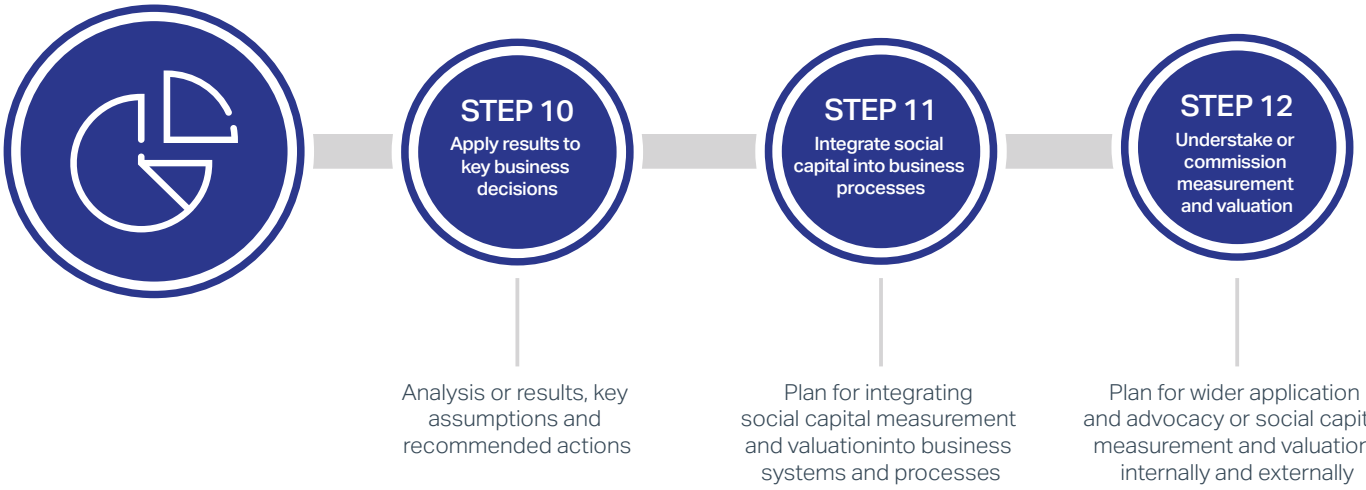
CASE STUDY SNAPSHOT: MONDI

Mondi feels that attempting to attribute the impacts generated by the project to Mondi and all the partners individually would be a very complex process and would not provide much value. Instead, Mondi is interested in understanding the impact of the project as a whole, and in the value generated by it for the business and for the communities.

The Protocol contains more information on the different data sources as well as advice on specific considerations to keep in mind when conducting valuation, including double counting, ethics, documenting assumptions, and trade-offs between positive and negative impacts.

Credit: The Navigator Company

STAGE 4
APPLY



In the last stage of the Protocol, companies interpret the results of Stage 3 and apply them to relevant business decisions. Appropriate interpretation and communication of results ensures that the effort of measurement and valuation drives tangible, meaningful improvements in the way social capital is managed. Embedding the assessment into companies' processes and systems will promote more integrated thinking, thereby aligning the consideration of social, environmental and financial issues to drive better decision-making and improve social capital performance management. Finally, through the process of applying the Protocol it is certain that each company will encounter and overcome challenges related to classifying definitions, identifying fit-for-purpose indicators and metrics, and sourcing appropriate data. Sharing both challenges encountered and solutions found will help to advance, further standardize and build the credibility of the field of social capital measurement and valuation for business.

Step 10. Apply results to key business decisions

Step 10 puts the results of social capital measurement and valuation into the context of business decision-making. It aims to help analyze, interpret and communicate the results in a way that they can be used effectively by the target audience identified in Step 4. Factors to consider in this step include: whether to aggregate the results, how sensitive the results are to key assumptions, how to prioritize the findings, how to present the results, communicating the limitations and assumptions affecting the reliability of the results, and whether external verification of results is necessary.

One example of a framework for communicating the results, as used by **Mondi**, is to align them to the Sustainable Development Goals. This is useful when considering external communication of results because the SDGs are well recognized by government and business alike.

If monetary valuation methods have been used, such as shown in the **AkzoNobel** case study, it is possible to aggregate results and to make ratios and comparisons between different types of impact. For example, a company may choose to compare its positive impacts to its negative impacts or to calculate the social return on investment (SROI) of each $1 invested into a project or business activity.


Credit: Mondi

CASE STUDY SNAPSHOT: MONDI

Mondi has mapped all the project indicators to relevant SDGs to demonstrate the project's contribution to global development objectives. This also allows for Mondi to look at all the projects and business activities across the Group and see which SDG they are impacting the most.

Undertaking a social capital assessment has proven very valuable for Mondi at different levels:

1. It has strengthened the business case for the project's contribution to Mondi's sustainable development commitments.
2. It has strengthened Mondi's relationships with the partners who implemented much of the work on the ground and highlighted the role of partnership models in the long-term success of projects.
3. It has given renewed energy to the care workers who are the data collectors as they can see the importance of their work and understand how the data, which they spend a considerable amount of time collecting, is being put to good use.
4. The data helps to track progress and maximize the positive impact that the project can have on the children and on their lives.

CASE STUDY SNAPSHOT: AKZONOBEL

The greatest benefit of undertaking this assessment for AkzoNobel has been around the measuring and monitoring of impacts to facilitate continuous improvement and in engaging employees, suppliers and customers. AkzoNobel has found that demonstrating that it is proactive about measuring its social impact has been crucial to maintaining supplier and customer relationships.

The results of the regular 4D P&L assessments undertaken by AkzoNobel are being used to help drive product and service innovation. An example based on the social capital results is that the company has launched additional community programs—prioritizing those offering more value to society and, on the human capital side, the introduction of additional talent development and training programs for employees. Based on the natural capital results, the business increased its use of renewable resources and is implementing continuous energy and material efficiency improvements in its own operations. The HR management team has been benchmarking the results with industry averages and using the information to attract and retain talent.

For clear communication of the results, AkzoNobel has compared the positive and negative values created in the book value chain. The company reports the following:

"The combined overall increase in financial and human capital (€21.74) is more than 10 times greater than the loss of natural capital (-€1.87). Few social risks have been identified. This is an encouraging result: we believe that this loss in natural capital can be (further) reduced by using our AkzoNobel technology and value chain cooperation."

The Protocol contains more information on factors to consider when applying the results of measurement and valuation, including further information on aggregation and sensitivity of results.

Figure 9: AkzoNobel's 4D P&L assessment for the production of a book

Step 11. Integrate social capital into business processes

In this step it is necessary to debrief on the strengths and weaknesses of approach being used for the assessment. With this, it is possible to identify opportunities for improvement and consider how to integrate the process and the results within the organization.

This integration will take time, which is why it is important to view the Protocol as an iterative process whereby an organization develops, strengthens and expands its approach over time. Examples of business processes into which social capital could be integrated are: strategic planning and goal setting, cost benefit analysis, impact assessments, management systems, and external reporting.

This is a critical step of the Protocol but its application varies greatly between companies as it depends on company structure and operations, as well as the current level of maturity with regards to integrating sustainability into core business functions. Some of the case study companies are advanced in this area and have integrated impact assessment tools into their decision-making processes. However, other case study companies are not as advanced and have expressed a desire to integrate social assessments into their business decision-making further in the future. The fact that many of the case studies were pilot studies reflects that companies are trying to first ascertain the best process for assessment and enhance it before rolling it out across the business and across locations.

CASE STUDY SNAPSHOT: AKZONOBEL

The results of the 4D P&L assessments are being integrated into business decisions across the company. All employees have access to an Excel tool that allows them to input a specific scenario, such as changing an electricity supplier to one in a different location or implementing a specific community program, and to see the impacts of this change on the 4D P&L assessment. This is critical for employee engagement and raising awareness throughout the organization on all possible impacts of the business on society.

CASE STUDY SNAPSHOT: VERACEL

Being able to evaluate the social return on investment is crucial for Veracel. The results of the assessment are fed back into investment decisions so that greater investments are put into community projects that are performing best against the chosen indicators. This means the company channels its resources towards the most impactful projects.

CASE STUDY SNAPSHOT: SMURFIT KAPPA

Smurfit Kappa will keep assessing the socio-economic impacts of the ITAF programs on a yearly basis, as the data captured provides important information to the company on the program's performance, provides reputational returns to the company, and helps maintain investor interest.

In parallel, the fact that Smurfit Kappa has 30 years' worth of data presents an opportunity for a more in-depth analysis and the introduction of impact indicators to demonstrate what the real change in the company's business enabling environment has been over time.

Access to a skilled workforce and having peaceful, reliable supply chains are key material issues for companies operating in Colombia. Through this study, Smurfit Kappa can demonstrate to the local government the benefits of investment in rural education and specifically investment in the ITAF approach of having different models for rural and urban education.

The Protocol contains more examples of business processes that could leverage the results of the social capital assessments and further support integration of the approach.

Step 12. Contribute to mainstreaming

The Protocol ends with a call to action for companies to reach beyond their own organizations and contribute to strengthening and aligning the evolving practice of social capital measurement and valuation for business. Wherever possible, it is necessary to seek to share stories, methodologies, indicators and values applied. It is also necessary to discuss the challenges, benefits and opportunities of the experience, as well as share ambitions and goals, and advocate for business mainstreaming of social capital measurement and valuation.

This sector guide demonstrates that there is a lot of good work already being undertaken by the forest products sector to measure, value and manage social capital impacts and dependencies. However, the road ahead is still long. Companies that use the Protocol and share their results, insights and challenges are contributing towards the important aim of standardizing social capital assessment and establishing the leadership of the forest products sector in this field.

As the database of indicators and methodologies grows, companies will be able to report on similar metrics using comparable methods, which will allow for benchmarking and monitoring across the forest products sector. This will be invaluable information not only for businesses within the sector itself, but also for investors, civil society, governments and other stakeholders.

The Protocol contains more recommendations on next steps for companies that have completed their assessment and are looking to support the movement to mainstream social capital into decision-making across all business.

Credit: Smurfit Kappa

Conclusion

The global understanding of what creates value is changing and with it, so are the ways of measuring, communicating, and managing value. Financial value, void of social and environmental externalities, is no longer enough to assess the health of the economy or of a business. This is why more governments are looking to go beyond GDP indicators to help identify and tackle issues that not only help the economy grow but address the needs of populations. This is also why more investors are asking for social and environmental impact to be incorporated into valuation and pricing of risk. It is also why more companies are creating social and environmental profit and loss statements and talking about sustainability risks and opportunities in corporate boardrooms.

With this guide, the WBCSD's Forest Solutions Group aims to help users navigate the wealth of information presented in the Protocol by showing how other companies are already tackling challenges and succeeding in assessing their social capital impacts and dependencies. Social capital issues and their measurement and valuation are relevant and important considerations that can yield many benefits for business.

Credit: Stora Enso

[6] WBCSD, 2013, Measuring socio-economic impact: A guide for Business
[7] For more information on measurement and valuation of natural capital, see Natural Capital Coalition 2016.

Appendix I:
Case Study Summaries

PAGES:	35-38	39-41	42-44	45-47	48-50	51-52
Assessment summary:	Impact assessment of a community initiative in South Africa targeting orphans and vulnerable children (OVCs) living on or around Mondi's land; part of a broader effort to abstract Group-level KPIs from individual projects	Measurement and valuation of the impacts along the value chain of a book, from paper production to end of life; four dimensions of capitals are assessed: financial, natural, human and social (focus here on last two)	Impact assessment of APRIL Group (APRIL) and Asian Agri's business activities on the regional gross domestic product of Riau Province through employment and economic growth between 1982 and 2012	Impact assessment of the Navigator Company's contribution to GDP and employment across the value chains of four industrial units in Portugal in 2015	Impact assessment of Smurfit Kappa's three educational institutions (ITAF), which offer a curriculum tailored to the needs of rural populations to some 550 children a year in Colombia	Impact assessment of Veracel's small-scale agriculture program, training community members to combine subsistence and commercial farming with eucalyptus plantations
STAGE 1: FRAME Stakeholders impacted by the project/ business activity	- Local communities - Partner organizations in implementing the project	- Employees - Consumers - Local communities	- Employees - Local communities - Local government - Local NGOs	- Employees - Local residents - Regional authorities	- ITAF students, their families and communities - Partners: local municipalities, universities, agricultural associations	- Community leaders and community of União Baiana - Local government
STAGE 1: FRAME Business value drivers	- License to operate - Communicate positive impacts - Gain government support - Attract investments and engagement with the projects	- Optimize human resource management - Strengthen the value chain - Fuel product and service growth as well as innovation	- License to operate - Improve the business enabling environment	- Communicate positive impacts - Improve the business enabling environment - Gain government support	- Improve the business enabling environment - Attract investment in and engagement with the project	- Improve the business enabling environment - Attract investment in and engagement with the project
STAGE 2: SCOPE Target audience of the results of the assessment	Internal: - Project managers and community development facilitators - Project investors - Management and decision makers External: - Forest communities - Contractors/value chain - Project partners	Internal: - HR management - Procurement teams - Product development teams External: - Suppliers - Customers	Internal: - APRIL and Asian-Agri management External: - Local and regional government - Local communities	External - Regional authorities - National government - EU Commission	Internal - Internal project managers - Smurfit Kappa Foundation and Smurfit Kappa Management boards External - Potential investors - Colombian Ministry of Education - Project partners: local municipalities, universities, agricultural association, environmental authorities and a natural conservation NGO	Internal - Project managers and investors External - Community leaders - Project partners

STAGE 2: SCOPE Organizational/ value chain boundaries	- Tree production	- (Tree production) - Primary processing - Secondary processing - Use - End of life	- Tree production - Primary processing	- Tree production - Primary processing - Secondary processing	- Tree production	- Tree production
STAGE 2: SCOPE Geographic boundaries	- Two South African provinces: Mpumalanga and KwaZulu Natal	- Book production assumed to take place in Europe. Wood production: 50% recycled paper and 50% virgin paper from Brazil	- Riau Province, Indonesia	- National (Portugal) and 4 regions (Baixo Vouga, Baixo Mondego, Beira Interior Sul, Península de Setúbal)	- Municipalities of Calima-El Darién (Valle), and in El Tambo and Cajibío (Cauca), Colombia	- União Baiana, State of Bahia, Brazil
STAGE 2: SCOPE Temporal boundaries	- Impacts measured over 6 years (2010-2015). Date of the study: 2016	- Study reflects the full cradle-to-grave life cycle of 100,000 copies of a book. Date of study: 2015.	- Data covering period between 1982 and 2012. Date of study: 2014-2015	- 2015 in-year impact.	- Established in 1984, with yearly reporting since foundation (30+ years).	- Established in 2008, with data points in 2011, 2014 and 2015
STAGE 3: MEASURE & VALUE Indicators	- Many social output and outcome indicators linked to 7 SDGs: - SDG 1: No poverty - SDG 2: Zero hunger - SDG 3: Good health & well-being - SDG 4: Quality education - SDG 5: Gender equality - SDG 11: Sustainable cities & communities - SDG 16: Peace, justice & strong institutions	- Human capital: positive and negative impacts related to future payments to employees - Other social capital, e.g.: health and safety, child labor, discrimination, freedom of association, maintenance of a healthy work-life balance.	- GDP - Land price (proxy for household welfare increase)	- GDP - Employment	- Social, e.g. number of beneficiaries, retention rates - Economic, e.g. percentage of students undertaking sustainable projects on family farms, number and value of loans	- Community engagement - Education - Yield - Income
Assessment techniques	- Materiality assessment method: Socio-Economic Assessment Toolbox (SEAT) process to identify and prioritize social capital issues local to operations - Primary data collection methods: in person interviews and focus groups - Secondary data from partners	- Monetary valuation method used: expected value of future earnings - Semi-quantitative risk screening method used: WBCSD's Social Life Cycle Metrics for Chemical Products	- Quantification methods used: input-output modelling - Monetary valuation methods used: hedonic pricing method for land prices, GDP valuation for economic impact - Data collection methods used: focus group discussions, in-depth interviews with selected key informants	- Quantification methods used: input-output (IO) modelling, - Monetary valuation methods used: GDP valuation for economic impact	- Primary data collection methods: online interview surveys	- Primary data collection methods: surveys filled in by community leaders

Appendix II: Case Studies

1. Social impact measurement of Mondi's community investments and activities

I. INTRODUCTION TO THE COMPANY

Mondi is an integrated packaging and paper Group with a dual listed company structure—a primary listing on the JSE Limited and premium listing on the London Stock Exchange. It has 109 operations in more than 30 countries in Europe, Russia, North America and South Africa. It had some 25,000 employees and revenues of €6.7 billion in 2016.

II. INTRODUCTION TO THE PROJECT

A 2004 survey of its forestry communities in South Africa indicated that there were more than 1,000 orphans and vulnerable children (OVCs) living on and around Mondi-owned land in remote communities, many of whom were living in child-headed households. One of the major reasons for the high number of OVCs in forest communities is the fact that South Africa has one of the highest adult prevalence rates of HIV/AIDS in the world. As the health and well-being of its communities is important to Mondi's business and forms part of its social commitments, in 2007, Mondi set up the Isibindi Project in partnership with local governments and NGOs. This community program targets approximately 700 OVCs and addresses children's needs, from the most basic such as cooking, feeding and washing, to schooling and psychological wellness. There are currently 30 child and youth care workers (CYCWs) working for the program. Examples of project activities are: establishing and maintaining safe parks for OVCs, conducting home visits to advise householders on a number of topics (e.g. facilitating statutory documents for OVCs, budgeting, hygiene, bereavement support, and responsible behaviors), and training accredited CYCWs.

III. DETAILED APPROACH

STAGE 1: FRAME

In order to identify and prioritize the social capital issues relevant to Mondi's operations and to local communities in a particular area, Mondi engages in stakeholder consultations with community members, employees, suppliers, NGOs and other stakeholders by using the Socio-Economic Assessment Toolbox (SEAT) process originally developed by Anglo American.[20] During 2005 and 2006, Mondi undertook a SEAT for each of its mills and forestry operations at the time, with South African and Russian mills and forestry operations going through regular updates in subsequent years. The output of the SEAT process is a publicly available report that reflects the findings from the process and Mondi's management response to issues raised by stakeholders. SEAT is a global framework that provides the opportunity for local responses to the specific issues identified locally.

The Isibindi project was one of Mondi's responses to a 2005 SEAT finding that recognized orphan care as a serious issue in Mondi's local operations.

Mondi aims to develop a simple, fit-for-purpose, robust and scalable framework and methodology that will measure the impact and value that Mondi's community investments and activities have on beneficiary communities and the business. As the Isibindi project has a broad and comprehensive focus involving health, education, infrastructure and employment support (directly or indirectly), Mondi chose it as a pilot project for this framework.

[20] WBCSD, 2013, Measuring socio-economic impact: A guide for Business.

A range of business value drivers lie behind Mondi's decision to measure the impacts of its community activities:

1. A more targeted and strategic approach founded on value creation for the business and for the communities, based on measurement of outcomes and impacts;
2. Demonstrating the impacts of community investments on Mondi's other key stakeholder groups (such as employees, government, contractors, suppliers and customers);
3. Using the results of the analysis to improve and develop the program to make it more effective and to make improvements to the current community investments;
4. Demonstrating the effectiveness of Mondi's community investments to make the business case for community engagement stronger both internally and externally;
5. Using the results for reporting requirements and for certification requirements.

The main stakeholder groups that are impacted by the project are identified by Mondi as:

1. Forest communities—Support is prioritized first to people living on Mondi's land and then to those living near the land. As cohesion of the whole community is important for the long-term sustainability of the business, Mondi targets all OVCs and not specifically those directly related to families in the Mondi value chain.
2. Child and youth care workers (CYCW)—Training of CYCWs and providing employment opportunities for them within Isibindi directly impacts their lives and future prospects, as well as those of their communities.
3. Implementing organizations—NGOs such as the National Association of Child Care Workers (NACCW) or Uzwelo Rural Orphan Care (UROC), and government institutions such as the Department of Health and the Department of Social Development are key to the implementation of the project and form a complex web of partnerships.

STAGE 2: SCOPE

The target audience of the assessments is internal and external and reflects the many business value drivers. Internally, Mondi's management and boards are interested in seeing a strong business case for community engagement and in gaining a clear understanding of the business' impacts and dependencies. For external communication, Mondi is keen to demonstrate the outcomes, impact and value generated by its community projects and the business case for these. It also shows how they contribute to the United Nations Sustainable Development Goals (SDGs).

The assessment of the Isibindi project focuses on the local communities that are beneficiaries or affected by the project in the South African provinces of Mpumalanga and KwaZulu Natal. The assessment period of the social outcomes of the project is from 2010-2015. This period is long enough to show change and short enough for the data to remain available. The reference baseline is 2010 and indicators are compared with 2010 data to demonstrate change.

Mondi uses the impact or dependency pathway framework (input>output>outcome>impact>value) with the aim of learning how to define practical and meaningful metrics to monitor and evaluate projects.

Mondi takes on the role of key facilitator of the many partners involved in the project, thereby demonstrating its long-term commitment to its success. Understanding how the impacts of the project can be attributed to Mondi and the partners individually would be a very complex process and would not provide much value. Instead, Mondi is interested in understanding the impact of the project as a whole, and in the value generated by it for the business and for the communities. Mondi believes that projects done in partnerships with local stakeholders such as NGOs and government institutes would bring the necessary resources and know-how, ensure an appropriate approach and scale, and secure the long-term success of projects.

STAGE 3: MEASURE & VALUE

The social assessment of the Isibindi project was done with the support of external company ERM and took three months to complete. The long-term aim is for Mondi to be able to run the assessments itself by implementing monitoring and measurement mechanisms for each project.

The choice of valuation approach was based on the availability of data internally and externally and on generating meaningful results that could be both of use for project implementation on the ground and to provide insights into project effectiveness and value creation for Mondi management and external stakeholders.

Key performance indicators (KPIs) are set at the local level with the intention to rolling them up to Group level measures, where possible and meaningful. Given the burden of regular data collection from the stakeholders involved, practicality and availability rather than strict adherence to methodology drove the choice of indicators at times.

Mondi is aiming to gradually move away from output indicators, to include more outcome/impact based indicators, which have been deemed more reflective of the real impact on the ground. See the mapping of Isibindi project indicators to "SDG 1: No poverty" and "SDG 4: Quality education" below, as well as some Group-level return on social investment indicators.

SDG 1 No poverty	
Targets	**Isibindi KPIs**
1.1. Impact: The degree that Mondi has been able to alleviate poverty within its surrounding communities (currently measured as people living on less than $1.25 a day)	- Improvement in number of beneficiary households that are able to cover their essential needs with income received - Improvement in income levels of Project Workers and beneficiaries - The number of beneficiaries that Mondi supported to access nationally appropriate social protection systems
SDG 4 Quality education	
Targets	**Isibindi KPIs**
4.1. Output/outcome: Support to girls and boys in completing equitable and quality primary and secondary education leading to relevant and effective learning outcomes	- Improvement in children's academic performance - Improvement in school attendance levels and less absenteeism

Table 3: Mapping of Isibindi project indicators to the SDGs

Primary data collection was conducted through surveys and focus groups and secondary, historical data was collected through the project partners. Some of the challenges around data collection included the fact that other factors beyond the Isibindi project will have affected stakeholder outcomes over a five-year period. The company made efforts during questionnaire construction to isolate impacts to the specific activities of the Isibindi project. The pilot study did not have sufficient scope, however, to fully explore the role that these external factors might have had. Also, quantitative data provided by partners could not be verified.

STAGE 4: APPLY & INTEGRATE

Given that the aim of the project was to identify group-level KPIs, integrating the process and results of the assessment into the business was part of the process from inception. The Sustainable Development Goals (SDGs) offer a broadly recognized common language and aligning local KPIs to the SDGs offers an efficient communication channel for group-level and external communication. Mondi also understands the importance of setting up the right structure internally through country liaisons and the appropriate level of capacity building to allow continuous assessment once the consultants are gone.

The next step for Mondi is to roll out the social impact assessment framework to other projects in other countries and to validate its applicability across locations.

The main finding of the Isibindi Social Impact Measurement Assessment is that Mondi and its partners are creating lasting improvements in the quality of life for the main beneficiaries of the project, namely OVCs, their families and child and youth care workers.

The exercise has proven very valuable for Mondi at different levels:

1. It has strengthened the business case around the project's contribution to Mondi's sustainable development commitments.
2. It has strengthened Mondi's relationships with the partners who implement much of the work on the ground and highlighted the role of partnership models in the long-term success of projects.
3. It has given renewed energy to the care workers who are the data collectors as they can see the importance of their work and understand how the data, which they spend a considerable amount of time collecting, is being put to good use.
4. The data helps to track progress and maximize the positive impact that the project can have on the children and on their lives.

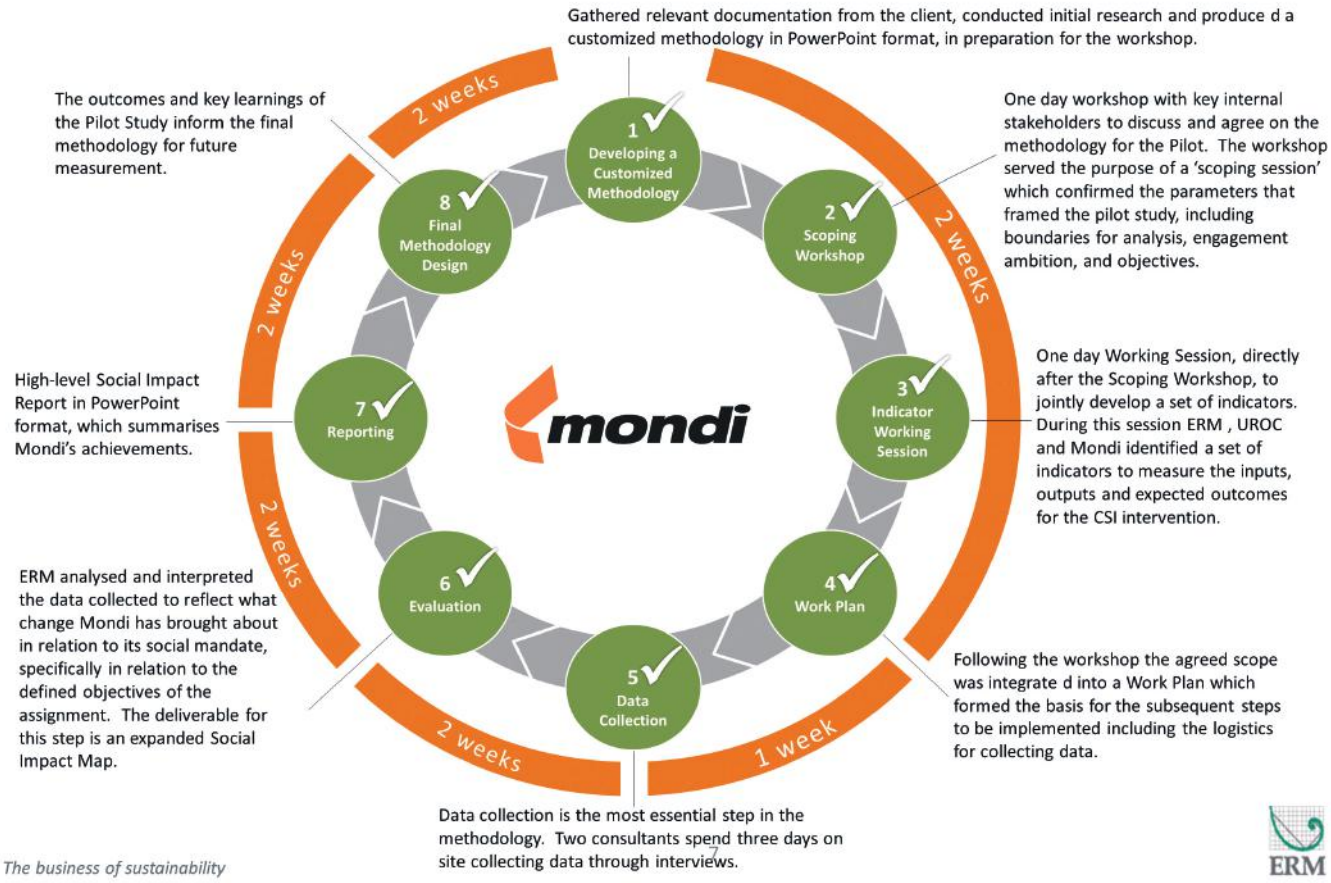


Figure 7: Mondi's Social Impact Measurement Assessment workflow

2. AkzoNobel's 4D Profit & Loss Accounting of a Book

I. INTRODUCTION TO THE COMPANY

Based in the Netherlands, AkzoNobel is a leading global paints and coatings company and a major producer of specialty chemicals. It has approximately 45,000 people in around 80 countries and had revenues of €15 billion 2015. AkzoNobel's Pulp and Performance Chemicals business supplies bleaching chemicals and systems to the pulp and paper industry.

II. INTRODUCTION TO THE PROJECT

AkzoNobel has been regularly using a 4-Dimensional Profit & Loss (4D P&L) accounting methodology to assess its own operations since 2014. The four-dimensional (human, social, natural, and financial capitals) profit & loss methodology was developed to gain a deeper understanding of the company's impacts across the value chain. It takes into account not only AkzoNobel's own costs and profit, but also the value creation (profits) and negative effects (losses) that take place in other links of the value chain.

Since one of AkzoNobel's main products to the pulp and paper industry is chlorate for white-bleaching paper, it was decided to apply the 4D P&L study to the paper book. This puts the business-specific results of bleaching chemicals production into context and shows the contribution of AkzoNobel to a consumer product.

III. DETAILED APPROACH

STAGE 1: FRAME

The three key business value drivers behind AkzoNobel's decision to develop a 4-D P&L methodology applied to a book and to do regular 4D P&Ls internally on its own operations are to:

1. Optimize human capital management—Understanding the spread and composition of the value chain provides guidelines for action and investment, such as optimizing the management of human capital across locations and business activities.
2. Strengthen the value chain—Raising awareness of impacts with suppliers and customers improves relationships with them through increased engagement.
3. Fuel product and service growth and innovation—Understanding where the impact hotspots are in the value chain allows for the reduction of negative impacts and builds on existing positive ones.

Social capital issues were prioritized using the WBCSD's Social Life Cycle Metrics for Chemical Products.[21] One of the questions from the risk assessment methodology is: "How do your business activities impact accessibility of community resources?" The answer is location specific. For instance, in Sweden water is not a prioritized issue, but throughout the value chain it can be a risk in other areas.

The key stakeholder groups for assessing impacts are defined by the WBCSD's risk tool as workers, consumers and local communities.

STAGE 2: SCOPE

Several key audience groups for the results of the assessment were identified.

1. Internal stakeholders:

- HR management uses a benchmarking analysis comparing AkzoNobel's results with industry averages in order to optimize the use of HR and help attract and retain talent
- Procurement team uses the results to assess supplier performance
- The product development team uses the results to guide investment decisions and to discuss product innovations

[21] WBCSD (2016), Social Life Cycle Metrics for Chemical Products

2. External stakeholders:

- For suppliers, the company uses the results to exchange best practices, motivate them to map their sustainability performance, and drive improvement in their operations
- For customers, the company uses the results to exchange best practices on improving their product usage, health and safety performance, and resource efficiencies.

Applying the 4D P&L methodology to a book was chosen as it is easier for external audiences to understand than the impacts of a specific bleaching chemical. The assessment is used as an internal improvement tool based on a reference baseline. It is the "business as usual assessment". The results can be compared both to other products and to future assessments after initiatives have been undertaken in the book value chain itself.

The geographic, organizational and temporal scopes of the assessment were chosen to reflect the cradle-to-grave impacts of producing 100,000 copies of a €20 book in Europe using 50% virgin paper from Brazil and 50% recycled paper and using AkzoNobel's bleaching chemicals.

AkzoNobel has an assessment maturity scale for building on its impact analyses over time:

1) Do baseline assessment;

2) Identify hotspots and implement an initiative (to minimize risk or maximize opportunity);

3) Re-do assessment to quantify impact of initiative.

STAGE 3: MEASURE & VALUE

All capitals are reported as monetary values, except for social capital. Monetary valuation helps comparisons across the different capitals and understanding of what positive value is generated per euro of negative value. The company decided to use a semi-quantitative risk-based approach to the social capital indicators because it is difficult to come up with a harmonized monetary valuation approach across all the social indicators, and because of the existence of ethical considerations around choosing a monetary value that represents a person's life. This value is known in economic terms as the value of statistical life (VSL).[22]

Monetary valuation can make it difficult for people to understand the drivers of impact, so it is important to be transparent about the methodology. In future assessments, AkzoNobel would like to consider placing a monetary value on the downstream positive impacts of their products (such as micronutrients) and programs and is already putting a monetary value on the negative health and safety impacts using the lost time injury[23] rate valuation approach.

The human capital valuation approach chosen is the expected value of future earnings method.[24] This is takes into account the following factors: current wages, inflation-corrected wage development, time to retirement, fraction of compensation related to work. The methodology is well established in academic literature and is widely used by governments and statistical authorities.

Figure 8: Expected value of future earnings method

EXPECTED VALUE OF FUTURE EARNINGS
= current wage
X inflation-corrected wage development
X time until retirement
X fraction of compensation related to work

The social capital risk assessment method was taken from the WBCSD's Social Life Cycle Metrics for Chemical Products.[25] Examples of the risks assessed include: health and safety, child labor, discrimination, freedom of association, and maintenance of a healthy work-life balance. Each risk in each location is given a risk score of one of five risk levels, ranging from very low to very high.

Data collection for AkzoNobel's own operations was relatively easy. Collecting data from suppliers and customers presented more of a challenge. Some suppliers/customers did not have the relevant data or would not disclose it. In these cases, AkzoNobel would look at the annual reports of these organizations, sustainability rating reports,[26] or use local geographic data as a proxy.

The data required for the human capital approach was acquired from statistical bureaus around the world (such as wage levels for various industry sectors, anticipated wage growth, retirement ages, and anticipated inflation).

[22] For more information on VSL and for a meta-analysis of current estimates see Organisation for Economic Co-operation and Development 2012.
[23] More information on the application of this approach can be found in: UK Health and Safety Executive 2015, Costs to Britain of workplace fatalities and self-reported injuries and ill health 2014/15.
[24] Liu, 2011, Measuring the stock of human capital for comparative analysis: an application of the lifetime income approach to selected countries, OECD Statistics Working Papers N. 41 (2011/6) OECD Publishing.
[25] WBCSD (2016), Social Life Cycle Metrics for Chemical Products
[26] Examples of potential secondary data sources and sustainability rating reports can be found on the online platform accompanying the Social Capital Protocol. This platform can be accessed at www.social-capital.org

AkzoNobel reduces the data collection burden on the customer/supplier by filling out the tool using publicly available data on the company. AkzoNobel then shares this with the customer/supplier to confirm data and ask them to fill gaps. This process helps to improve relationships and facilitates mutual learning.

A limitation of the social capital risk data collected is that some of the data gaps had to be filled from generic risk databases. Therefore, the information does not necessarily accurately reflect the situation of AkzoNobel and its suppliers/customers. In such cases, AkzoNobel continuously engages to get supplier-specific data around these topics.

STAGE 4: APPLY & INTEGRATE

The greatest benefit of undertaking this assessment for AkzoNobel has been around the tracking and monitoring of impacts to facilitate continuous improvement, and around the engagement of employees, suppliers and customers. Demonstrating that AkzoNobel is proactive about measuring its social impact is crucial to maintaining supplier and customer relationships given the current importance of the topic.

AkzoNobel is using the results of the regular 4D P&L assessments to help drive product and service innovation; launch additional community programs, prioritizing those offering more value to society. Regarding human capital, the company has introduced additional talent development and training programs for employees. The HR management team has been benchmarking the results with industry averages and using the information to attract and retain talent.

For clear communication of the results, AkzoNobel has compared the positive and negative values created in the book value chain. The company reports the following:

"The combined overall increase in financial and human capital (€21.74) is more than 10 times greater than the loss of natural capital (-€1.87). Few social risks have been identified. This is an encouraging result: we believe that this loss in natural capital can be (further) reduced by using our AkzoNobel technology and value chain cooperation."

AkzoNobel is integrating the results of the 4D P&L assessments into business decisions across the company. All employees have access to an Excel tool that allows them to input a specific scenario, such as changing an electricity supplier to one in a different location or implementing a specific community program, and to see the impacts of this change on the 4D P&L. This is critical for employee engagement and raising awareness throughout the organization on all possible impacts of the business on society.

In the future, AkzoNobel would like to include more downstream impacts of their product use, both positive and negative, such as how micronutrients benefit human health. This analysis would involve ethical considerations and therefore will require a careful education process within the organization.

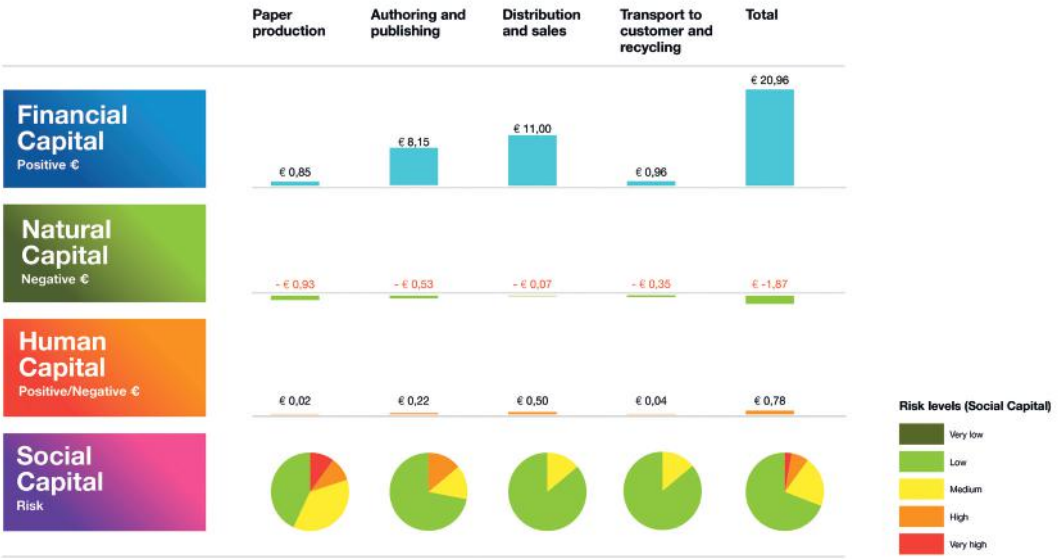


Figure 9: AkzoNobel's 4D P&L assessment for the production of a book

3. Socio-Impact Study on APRIL and Asian Agri Operations in Riau Province

I. INTRODUCTION TO THE COMPANY

APRIL Group's pulp and paper mill and plantation operations are primarily situated in Riau Province, Sumatra, Indonesia, where the company employs more than 5,400 people and manages 480,000 hectares of plantation alongside over 400,000 hectares of conservation and restoration forest. The company's Kerinci-based mill produces up to 2.8 million metric tons of pulp and 1,150,000 metric tons of paper per year and exports to over 75 countries worldwide.

Asian Agri, a leading Asian palm oil producer, also operates in Riau Province. Like APRIL, it is independently managed as part of the Royal Golden Eagle (RGE) group of companies. Asian Agri operates 20 palm oil mills and currently manages 27 oil palm plantations across a total oil palm plantation area of 160,000 hectares.

II. INTRODUCTION TO THE PROJECT

The Riau Province, where APRIL and Asian Agri have been operating since the 1980s, has a growing population and offers an abundance of natural resources and a developing economy centered on the oil, gas and agricultural sectors.

As one of the largest pulp and paper producers in Riau Province, APRIL's contribution to gross regional domestic product (GRDP) alone grew from 1.99% in 2000 to 11.5% in 2012, while actively supporting local social and economic development. For example, APRIL has reached more than 200 entrepreneurs through community programs to foster local small- to medium-sized business development, creating a local business cluster that supports its operations.

To measure this contribution to Riau's social and economic well-being, RGE engaged the Tanoto Foundation, a philanthropic organization founded by RGE's chairman, to design and then commission a study to measure the impacts of APRIL's and Asian Agri's business activities in Riau Province between 1982 and 2012 at a regional and national level. The aim of the study is to measure and quantify the primary contributions to local economic development, household welfare, community lifestyle, and patterns of land use and its impact on poverty reduction in Riau Province.

III. DETAILED APPROACH

STAGE 1: FRAME

One of the key drivers of the study was to establish and nurture relationships with local communities in order to maintain each company's social license to operate. By acting on the results of the study, the company aims to further improve this business-enabling environment in the medium to long term.

The main stakeholder groups impacted by APRIL and Asian Agri's business activities are identified (in order of importance) as:

- Employees
- Communities surrounding APRIL and Asian Agri's business operations
- Local government
- Local NGOs, such as those who work with APRIL and Asian Agri on its community-level fire prevention programs.

STAGE 2: SCOPE

The aim of the study was to measure the economic impact of APRIL and Asian Agri's business activities in the area where each company's plantation and processing operations take place—an area that includes 784 villages and 1,050 households. The study was conducted in 2014-2015 and collected data relevant to the period between 1982 and 2012, covering the history of APRIL and Asian Agri's operations. Going forward, APRIL and Asian Agri will use the results of this assessment as a baseline to measure the impact of specific community initiatives.

The primary audiences for the results are the local stakeholders (government, community support organizations (CSOs), universities, etc.) and RGE group stakeholders (APRIL and Asian Agri management).

STAGE 3: MEASURE & VALUE

A key aim of the project is to employ a strong, proven methodology to ensure credible results that can be used as a benchmark over time. To achieve this, the Demographic Institute of the University of Indonesia was engaged as it has in-depth knowledge of the study area and is widely experienced in economic impact assessment projects. Based on APRIL and Asian Agri's brief, it was decided that quantitative data would be the most appropriate way to tell a straightforward and condensed story, supplemented by qualitative data. Other methodological aspects included:

- The economic impact indicators chosen were the contribution of the pulp and paper industry and the palm oil industry to Riau's GRDP. To quantify and place a monetary value on this, the input-output (IO) method[27] was used.
- Changes in land prices in the area have been used as a proxy indicator for the increase in household welfare. Land prices were found to be consistently higher in areas where APRIL and Asian Agri operate, as their operations drive other activities, such as the creation of infrastructure (both that funded by the companies and by the government, growth of markets, and other amenities) while rural areas become more urban through development. The hedonic pricing method[28] was used to calculate the land prices, using tax object sales value data reported by the government as a proxy for land price.
- Survey questions were used to try to understand what specific components of household welfare have changed, leading to the overall land price increase (see extract from Household Questionnaire).
- Data was collected through a household survey, supplemented with qualitative data collected from focus group discussions over a period of six months.

The 30-year timeline for data collection posed some challenges as data had not been collected in the early years (around 1982) and was not available through the Office for National Statistics.

This challenge was overcome by surveying community members who had been in their community for 30 years (see extract from Household Questionnaire below). The "snowball method" was used to grow the group of respondents to the critical size needed, meaning asking each interviewee to nominate other interviewees until enough data was gathered to be useful for research.

		A. Between 1982-1992	B. Between 1992-2002	C. Between 2002-2012
KP10	What is the main source of drinking water?	01. Bottled water 02. State Water Company/ PDAM 03. Bought water (in cans) 04. Water pump 05. Dug well 06. Water spring 07. River/ Lake water 08. Rainwater 95. Others, explain ________	01. Bottled water 02. State Water Company/ PDAM 03. Bought water (in cans) 04. Water pump 05. Dug well 06. Water spring 07. River/ Lake water 08. Rainwater 95. Others, explain ________	01. Bottled water 02. State Water Company/ PDAM 03. Bought water (in cans) 04. Water pump 05. Dug well 06. Water spring 07. River/ Lake water 08. Rainwater 95. Others, explain ________
	What is the defecating facility?	1. Private latrine 2. Communal latrine 3. Public latrine 5. Others, explain ________	1. Private latrine 2. Communal latrine 3. Public latrine 5. Others, explain ________	1. Private latrine 2. Communal latrine 3. Public latrine 5. Others, explain ________
	What is the final dump site for feces?	01. Septic Tank 02. Pool/farm land 03. River/lake/sea 04. Dug hole 05. Beach/land/garden 95. Others, explain ________	01. Septic Tank 02. Pool/farm land 03. River/lake/sea 04. Dug hole 05. Beach/land/garden 95. Others, explain ________	01. Septic Tank 02. Pool/farm land 03. River/lake/sea 04. Dug hole 05. Beach/land/garden 95. Others, explain ________
KP09	In these years [..], what is the main energy source used for daily cooking?	01. Electrical 02. Gas 03. Kerosene 04. Charcoal 05. Wood 06. Briquettes/ coal 07. Not using any 95. Others, explain ________	01. Electrical 02. Gas 03. Kerosene 04. Charcoal 05. Wood 06. Briquettes/ coal 07. Not using any 95. Others, explain ________	01. Electrical 02. Gas 03. Kerosene 04. Charcoal 05. Wood 06. Briquettes/ coal 07. Not using any 95. Others, explain ________

Figure 10: Extract from the Household Questionnaire

[27] WBCSD, 2013, Measuring socio-economic impact: A guide for Business p35
[28] For more information on this technique, see Step 7 of the Social Capital Protocol (WBCSD, 2017).

It is clear that other factors beyond just the business activities of APRIL and Asian Agri will have contributed to the land price and welfare increases seen over the 30-year period. While the parties involved have not yet calculated an estimation of the businesses' contribution to the change, the study includes some initial attribution indicators as a first step. Some examples include:

- Percentage of respondents who know the business;
- Percentage of respondents who have worked/are still working for the company or have income generating activities tied to the companies;
- Percentage of respondents who reported that the operations of the companies make it easier to meet their daily needs/to find jobs/to access education/to contribute to better roads and bridges;
- Percentage of respondents who reported that they lost their livelihoods due to the company's operations/that there were conflicts between the company and the community;
- Percentage of respondents who perceived air or water pollution due to company wastes/sound pollution or damaged roads caused by company operations;
- Percentage of respondents who reported that they cannot get a job at the companies due to lack of skills.

STAGE 4: APPLY & INTEGRATE

In communicating the results of this study, the organizations carefully tailored the amount and type of information shared based on the communication needs of each audience group. For example, as management responds better to straightforward, quantitative data, the organizations condensed the final results into a much shorter version and supplemented it with some qualitative data. They shared a different version with local stakeholders.

The organizations outsourced the whole of the assessment to an academic institution with the right set of skills, resources and reputation to undertake the analysis. As APRIL and Asian Agri do not consider this to be a core business, they did not set up a process to ensure transfer of knowledge. However, the companies intend to build on the results of the study to conduct future assessments of community initiatives in order to understand how they can improve their corporate social responsibility activities and to build a more robust list of indicators.

The research findings have helped APRIL and Asian Agri measure their contributions to social and economic development in a scientific and systematic way. The process has been a positive one because in addition to gaining knowledge and insight, the direct engagement required for the social impact assessment (for example, through the household survey, interviews and focus group discussions) has led to improved relationships with the communities.

The results will help measure the impact of particular initiatives and identify areas for improvement and best practice delivery that might be shared. These will also inform the design and focus of existing and future community engagement as the region evolves and new challenges emerge. Going forward, APRIL and Asian Agri will also be looking at determining their overall contribution to the United Nations Sustainable Development Goals, mapping out how the impacts of their business activities contribute to relevant SDGs.

4. National and regional economic impact of the Navigator Company's industrial units

I. INTRODUCTION TO THE COMPANY

The Navigator Company is a Portuguese pulp and paper company selling to 130 countries over five continents, with special focus on Europe and USA. As part of its strategy for expansion, the company is investing in the tissue business, implementing a forestry project in Mozambique and in starting a new pellets factory in the US. It is one of the leading European manufacturers of uncoated printing and writing paper, and bleached eucalyptus pulp. The company employed over 3,000 people in 2016 and had a turnover of 1.58 billion euros. Its industrial output was 1.4 million metric tons of air dry pulp and 1.6 million metric tons of paper.

II. INTRODUCTION TO THE PROJECT

Since the 1950s, the Navigator Company has established three industrial plants and acquired a fourth one. Located in four different regions in Portugal, the plants have contributed to national and local economic development by promoting the settlement of younger populations in areas with an increasing population outflow rate.

DETAILED APPROACH

STAGE 1: FRAME

In 2015, the Navigator Company undertook this study to gain a more complete understanding of its contribution to the economy of the four regions where its plants are located, as well as to the broader Portuguese economy. The work contributed to improving its enabling environment through communication on the company and on the forest sector's positive contributions to the economy. The assessment also served to gain government support and to attract investments to industrial clusters within these and other regions.

STAGE 2: SCOPE

The Navigator Company identified 3 target audiences:

1. Regional authorities, who are priority stakeholders because the environmental impacts of the pulp and paper industry tend to accrue locally and therefore it is important to demonstrate the positive impacts that also accrue locally.
2. The Portuguese government, as the Navigator Company wanted to demonstrate the value that the forestry sector creates at the national level to help generate support for the sector from policy-makers.
3. The European Union Commission because, like the Portuguese government, it also develops policies that will impact the forest sector; so it is important to communicate and engage them with information about the industry's value creation potential.

The company chose quantitative rather than qualitative indicators because the regional and national governments were key recipients of the information. Its chosen scope was the direct, indirect and induced impacts of four of the Navigator Company's processing plants in Portugal.

The Navigator Company chose the regional level as its geographic scope since the regional governments were key stakeholders. The project took six months to complete. While running only a national-level analysis would have reduced the project's complexity, it would not have achieved the key objective of being able to engage with regional governments.

This is a baseline analysis as it quantifies the impact that the company had under business-as-usual (BAU) activities in 2015. The analysis will not be repeated every year because the key messages will not change as long as the economy remains stable.

The two indicators chosen for the assessment were employment and GDP. The primary aim was to understand how much added value and how many jobs were created in which industry sectors for external communication and engagement. In the future, the

Navigator Company would consider looking at their dependencies on skills and availability of workers in particular regions for their internal company use.

STAGE 3: MEASURE & VALUE

The Navigator Company decided to hire external consultants (KPMG) to quantify the impacts using regional and national input-output (IO) models.[29] The IO method is an established and reputable technique that has been used before both inside and outside Portugal and is based on national statistics; these factors contribute to the credibility of the results.

Direct impacts were measured using primary data from the Navigator Company. The impacts of the suppliers to the four plants (the indirect impacts) were assessed using purchasing ledger data from the Navigator Company and regional IO models that are available publicly from the Portuguese statistics authority (INE). The impacts of the spending of wages by the Navigator Company employees and employees in the supply chain (the induced impacts) were also calculated using the IO method and household wage spending pattern data from the INE.

The project results are presented in aggregate so it is not possible to see spending with individual suppliers as this is sensitive information for the Navigator Company and for suppliers.

Data collection was a major challenge. External data from the INE were readily accessible but a significant limitation was the lack of data for 2015. This (and other assumptions) have been clearly communicated alongside the results of the study. If the analysis were to be repeated in other countries that the Navigator Company operates in (particularly in developing countries), the availability of recent data from the national statistics organization may be a real barrier for the assessment.

The GDP indicator is a valued impact; it is a proxy of the value of the company's economic impact on society. GDP is not a complete representation of the whole economic impact on society (for instance, there are well-being benefits from receiving wages that are not captured by GDP);

however, it is an accessible and comparable indicator to use. This case study provides and estimated GDP value using the IO method; however, other methods to do this also exist, such as computable general equilibrium (CGE) modelling.[30]

In the future, the Navigator Company might consider looking at the value (rather than just the number) of jobs created. One example of such valuation would be to include a weighting factor to account for the level of unemployment in the regions of interest. An example of monetary valuation would be to estimate the amount of welfare payouts by the local government that have been avoided due to job creation by the company.

STAGE 4: APPLY & INTEGRATE

The Navigator Company presented the results of the analysis at its Sustainability Forum 2016. The audience at the forum comprised national policy-makers, academics, NGOs, local government representatives and companies from the sector and value chain. The aim of the presentation was to raise national policy-makers' awareness of the value created by the sector and to demonstrate the Navigator Company's leadership in assessing and monitoring their value creation impact.

There were some challenges in deciding how to define and communicate the assessment's key messages. As the study generates information for many external and internal stakeholders, including the Navigator Company employees, it was important that the main messages be understood by all these different stakeholders and not taken out of context.

[29] WBCSD, 2013, Measuring socio-economic impact: A guide for Business p35
[30] Dixon and Jorgenson 2013.

The main value of this analysis for the Navigator Company has been the communication opportunities the work has provided. The Navigator Company would not use this methodology in its current form as a decision tool (for example, to decide where to invest in setting up a new operation) as there are too many other considerations that this analysis does not capture. Instead, the assessment can be used for locations where the Navigator Company has already decided that it would like to operate to demonstrate the benefits of the forest sector to local government. This would help to gain local and national government support for the proposed operations. This is particularly important for the forest sector because the industry relies heavily on measures that create a positive environment for forestation activities, and on local infrastructure (such as the building and maintenance of high-quality roads and harbor facilities) and this infrastructure is often funded by local governments.

5. Assessment Smurfit Kappa's Technical, Agricultural, Livestock and Forestry Institutes

I. INTRODUCTION TO THE COMPANY

Based in Ireland, Smurfit Kappa is a leading producer of paper-based packaging. It has some 45,000 employees and 370 operations in 21 countries in Europe and 13 countries in the Americas. The company owns more than 100,000 hectares of forest plantations in Latin America and has an industrial output of approximately 10 billion square meters of corrugated packaging. This social impact assessment case study focusses on a project that Smurfit Kappa has undertaken in Colombia.

II. INTRODUCTION TO THE PROJECT

Colombia faces significant challenges in meeting quality education standards. In rural areas the situation is aggravated by the absence of a tailored educational approach, the presence of illegal armed groups, few access roads, and little State presence to provide quality basic services such as health and education.

When Smurfit Kappa began operating in these areas, the company recognized these social issues as risks to business operations; for example, secondary education ensures the presence of a pool of skilled potential employees and peace is a key factor for successful and sustainable business operations. In order to address these issues, in 1983 the Smurfit Kappa Colombia Foundation started providing education through three Technical, Agricultural, Livestock and Forestry Institutes (ITAFs). The tailored curriculum provides technical competencies alongside basic, citizenship, labor and entrepreneurial skills to children from rural areas. The students are incentivized (through the provision of loans and income generation support) to transfer their knowledge to their families and producers in their vicinity, thereby improving the welfare of the broader community.

As Smurfit Kappa only has the capacity to take on board a small proportion of the students as employees, the remainder finds employment with Smurfit Kappa's supplier base or in the agricultural business sector also active in the region. Therefore, Smurfit Kappa ITAFs help to mitigate rural exodus and contribute to peacebuilding in the region by providing alternative livelihood options to youth.

III. DETAILED APPROACH

STAGE 1: FRAME

The purpose of undertaking the annual social impact assessment is:

- To report back to internal stakeholders and investors on the positive and any negative impacts of the project.
- As an external communication piece to local stakeholders and the Ministry of Education in Colombia to show evidence of the benefits of providing tailored education to children in rural areas. This has a reputational benefit for the company and therefore enhances the local enabling environment.

The main stakeholder groups impacted by the project are:

- ITAF students, their families and communities—550 youths per year aged 11-17 and their families (48% women), on average, from rural populations.
- Local partners—Municipalities, universities, agricultural associations.

STAGE 2: SCOPE

The scope of the assessment is Smurfit Kappa's three ITAFs in the municipalities of Calima-El Darién (Valle), and in El Tambo and Cajibío (Cauca). These are Colombian regions where Smurfit Kappa has forestry operations and sources its main raw materials to produce pulp, paper and packaging. The three ITAFs were set up in 1983 and have been reporting on progress since the start, for over 30 years. Establishing a baseline has not yet been feasible due to the lack of available data from 1980, but Smurfit Kappa recognizes there would be value to having a baseline to understand the total change that the project has brought about.

Key users and audiences of the assessment results are:

- Internal stakeholders—Project management uses the results to improve project efficiency and performance; Smurfit Kappa Foundation and Smurfit Kappa Management boards use the results to understand the impact of their investments.

- External stakeholders—The Ministry of Education of Colombia is shown the results to demonstrate the positive impacts of the ITAF rural education approach.

The indicators chosen mainly come from the guide written by the Colombian Ministry of Education. This is because communication with the ministry is one of the key aims of the assessment and therefore it is important that its staff recognize and understand the indicators. Some additional indicators are chosen to support reporting to internal management; for example, it is important to the company to know what percentage of ITAF students are undertaking sustainable production projects on family farms.

STAGE 3: MEASURE & VALUE

The schools collect and report data to Smurfit Kappa on a monthly or annual basis; end-of-year tests track the quality of the education provided. Online interviews provide data on students who have graduated. Most students have access to email; however, there are some issues in getting sufficient responses through this method. In the future, Smurfit Kappa would like to collect this data through face-to-face focus groups.

The indicators are currently mainly outputs; however, Smurfit Kappa is aiming to move towards reporting on outcomes and impacts going forward. This should help attract additional investors into the project by demonstrating the change the program has created in the community over the 30-year period.

INPUT		Investment by Smurfit Kappa in the ITAFs
ACTIVITIES		The ITAFs set up with a curriculum focused on developing basic, citizenship, labor and entrepreneurial skills and competencies for youths in the rural sector
OUTPUTS	**SOCIAL**	Number of direct beneficiaries (age and gender also tracked) Number of families taking part in the ITAF outreach program Number of inter-institutional partnership established Percentage of 10th and 11th grade students from ITAFs taking part in technical and technological program with Colombia's national learning service (SENA) Number of scholarships awarded for higher education Percentage of students receiving meals at school Percentage of students undertaking sustainable productive projects on family farms Number and value of loans granted by Smurfit Kappa to students to finance agriculture, livestock and service projects (and percentage of loan repayment)
OUTCOME	**ECONOMIC**	Increase in family income from productive projects
IMPACT (NOT YET REPORTED)		Hypothetical indicators: Increases in lifetime income of students Increases in student and family well-being Increases in farm yields Program contributions to local GDP

Table 4: Examples of current and potential indicators

STAGE 4: APPLY & INTEGRATE

Smurfit Kappa will keep assessing the socio-economic impacts of the ITAF programs on a yearly basis, as the data captured provides important information to Smurfit Kappa on performance, provides reputational returns to the company, and helps maintain investor interest.

In parallel, the fact that Smurfit Kappa has 30 years' worth of data presents an opportunity for a more in-depth analysis and the introduction of impact indicators to demonstrate what the real change in the business enabling environment has been over time.

Access to a skilled workforce and peaceful, reliable supply chains are key material issues for companies operating in Colombia. Through this study, Smurfit Kappa can demonstrate to the local government the benefits of investment in rural education and specifically investment in the ITAF approach of having different models for rural and urban education.

6. Social impact assessment of Veracel's small-scale agriculture project

I. INTRODUCTION TO THE COMPANY

Veracel Celulose, a 50/50 joint venture between Fibria and Stora Enso, is an agro-industrial enterprise integrating forest, industrial operations and logistics. Its operations are concentrated in the State of Bahia, Brazil, generating 2,904 direct and indirect jobs, and an average annual production is of 1.1 million metric tons of pulp.

II. INTRODUCTION TO THE PROJECT

In 1991 Veracel established its operations in the State of Bahia, Brazil, and was confronted with longstanding poverty and famine in the local communities. As the only large corporation operating in a 500-kilometer radius, the local communities expected that Veracel would provide them with jobs and would support their development. Veracel was aware that there could be competition over land between Veracel's eucalyptus plantations and the community's traditional family farming practices, and the company wanted to make sure that this did not turn into a conflict with the local communities. Thus Veracel established the Agrovida project in 2008 to train local leaders to empower them to coordinate projects in the local communities that would lead to the continuation of subsistence farming and the possibility of generating new income through the selling of surplus produce.

III. DETAILED APPROACH

STAGE 1: FRAME

The project represented a lot of investment on the part of the company; thus a social impact assessment was required to demonstrate the effectiveness and the legacy of the project.

The assessment allows for monitoring of the progress of the project, attracts and engages project investors, and contributes to improving the business enabling environment because the local communities recognize the value of the investment made by Veracel.

STAGE 2: SCOPE

Veracel chose the Agrovida project among several community engagement projects carried out in the region as it demonstrates a successful model of engagement with the local communities in União Baianan. Veracel set the organizational and geographic boundaries to capture this successful and sustainable model in order to be able to replicate it in other communities. The company set up the project in 2008 and captured data in 2011, 2014 and 2015 for the assessment. Finding socio-economic data from 2008 to set the baseline was very difficult to accomplish and was only achieved recently through in-depth field interviews.

The main beneficiary stakeholder groups are:

- Community leaders, trained by Veracel and partners to implement the project through community empowerment, to conduct data collection and measurement, and to identify needs/investment opportunities within communities.
- Communities, who take part in and benefit from the projects.
- Local governments, which purchase some of the surplus produce generated to distribute as part of school lunch programs.

The main audiences for the results of the projects are:

- Community leaders, who use the data to understand the progress of the project and where improvements can be made.
- Local partners, such as NGOs, government institutions and technical agencies that participate in the implementation of the project, helping them to understand the progress and impact of the project.
- Internal project managers and investors, so that they understand the impact the project is having and to make decisions about which communities and projects to invest in.

While the company conducted the assessment primarily to demonstrate to investors and sponsors the positive impact of the project on people's lives, the need for local communities to take ownership and become self-sufficient in their data gathering and reporting drove the measurement approach and choice of indicators.

STAGE 3: MEASURE & VALUE

Four types of indicators are tracked through this assessment:

COMMUNITY ENGAGEMENT	Number of families benefiting from the program Number of families leaving the project Level of satisfaction with the project
EDUCATION	Number of people trained Number of hours of training
YIELD	Mass of produce per hectare of land
INCOME	Average family income Average gross income from production/year Profit from production/year

The intention was to develop indicators that are:

1) Comparable to other projects that Veracel sponsors;

2) Replicable within and between projects;

3) Aligned with Veracel's principles and values;

4) Provide decision-making support.

One challenge in creating indicators that adhere to these four principles was that Veracel relies on the community leaders to collect data and independently monitor the progress of their own projects. The indicators therefore needed to be simple and relevant for each specific community. Based on this requirement, the company customized the final indicators chosen to each project and each community's specific needs and ideas.

The community ownership of the data collection and monitoring has been a real success in many communities as it has led to strong self-management and the community leaders share the results with their communities to get buy-in and ideas for improvements.

STAGE 4: APPLY & INTEGRATE

Except for top management, 100% of Veracel employees come from the region. However, it is still critical for Veracel to demonstrate how the company is supporting the local people who it cannot employ to avoid conflict and unrest.

Assessing the social impact of the project and communicating these results has meant that local communities understand the investments that Veracel has made to support the communities and how much they have benefited from that support. This leads to a strong positive reputation for Veracel in the region and therefore an improved business enabling environment.

Being able to evaluate the social return on investment is crucial for Veracel. The results of the assessment are fed back into investment decisions so that community projects that are performing against the chosen indicators benefit from increased investments. This means the company's resources are channeled towards the most impactful projects.

References

Boutilier, Robert and Ian Thomson, 2011, Modelling and Measuring the Social License to Operate. Available at:http://socialicense.com/publications/Modelling%20and%20Measuring%20the%20SLO.pdf

Dixon, Peter and Dale Jorgenson, 2013, Handbook of Computable General Equilibrium Modeling. Available at: http://www.sciencedirect.com/science/handbooks/22116885

Liu, Gang, 2011, Measuring the stock of human capital for comparative analysis: an application of the lifetime income approach to selected countries, OECD Statistics Working Papers N. 41 (2011/6), OECD Publishing. Available at: http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=std/doc(2011)6&doclanguage=en

Natural Capital Coalition, 2016, The Natural Capital Protocol. Available at: http://naturalcapitalcoalition.org/protocol/

Organisation for Economic Co-operation and Development, 2012, The Value of Statistical Life: A meta- analysis. Available at http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ENV/EPOC/WPNEP(2010)9/FINAL&doclanguage=en

UK Health and Safety Executive, 2015, Costs to Britain of workplace fatalities and self-reported injuries and ill health, 2014/15. Available at: http://www.hse.gov.uk/statistics/pdf/cost-to-britain.pdf

UK Treasury, 2011, The Green Book: Appraisal and Evaluation in Central Government. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf

WBCSD, 2013, Measuring socio-economic impact: A guide for Business. Available at: http://www.wbcsd.org/Clusters/Social-Impact/Resources/WBCSD-Measuring-Impact

WBCSD, 2016, Social Life Cycle Metrics for Chemical Products. Available at: http://www.wbcsd.org/Projects/Chemicals/Resources/Social-Life-Cycle-Metrics-for-Chemical-Products

WBCSD, 2017, The Social Capital Protocol. Available at: http://www.wbcsd.org/Clusters/Social-Impact/Resources/Social-Capital-Protocol

Acknowledgements

The WBCSD would like to warmly thank the companies and individuals who contributed their insights, experience and expertise to this publication:

APRIL	Jemmy Chayadi, Lukman Moeslich (Tanoto Foundation)
AkzoNobel	Caterina Camerani
Mondi	Arnavaz Schatten, Neil Burns, Corne Peters, Deon Wessels (ERM)
PwC	Laura Plant, Stuart Jefford
Stora Enso	Antti Marjokorpi, Eeva Taimisto
Smurfit Kappa	Angela Concha, Beatriz Mejia
The Navigator Company	José Ataide, Ana Nery, Isabel Pereira (KPMG), Ricardo Caetano (KPMG)
Veracel	Debora Jorge, Renato Filho

We would like to acknowledge the participation of APRIL, AkzoNobel and Mondi in the pilot testing of the WBCSD's Social Capital Protocol, as well as the support of Kitrhona Cerri and Matthew Watkins, WBCSD Social Impact.

The writing and publication of this document was jointly managed by Angela Graham-Brown, WBCSD Forest Solutions Group, and Laura Plant, PwC.

About the WBCSD

The World Business Council for Sustainable Development (WBCSD) is a global, CEO-led organization of over 200 leading businesses and partners working together to accelerate the transition to a sustainable world. We help make our member companies more successful and sustainable by focusing on the maximum positive impact for shareholders, the environment and societies. Our member companies come from all business sectors and all major economies, representing a combined revenue of more than $8.5 trillion and 19 million employees. Our global network of almost 70 national business councils gives our members unparalleled reach across the globe. WBCSD is uniquely positioned to work with member companies along and across value chains to deliver impactful business solutions to the most challenging sustainability issues. Together, we are the leading voice of business for sustainability: united by our vision of a world where more than 9 billion people are all living well and within the boundaries of our planet, by 2050.

For more information visit: www.wbcsd.org

About Forest Solutions Group (FSG)

Within the WBCSD, the Forest Solutions Group (FSG) presents a global platform for strategic collaboration for the forest-based industry and its value chain partners to bring more of the world's forests under sustainable management and expand markets for sustainably produced and sourced forest products. FSG members represent about a third of global forest, paper and packaging sales, employ over 900,000 people, and operate and sell products in more than 180 countries. FSG members adhere to a set of membership principles and report on key performance indicators to demonstrate leadership and prove progress in sustainability.

For more information visit: www.wbcsd.org/Projects/Forest-Solutions-Group

Disclaimer

This publication is released in the name of the World Business Council for Sustainable Development. Like other WBCSD publications, it is the result of a collaborative effort by members of the secretariat and executives from member companies. It does not mean that every company, PWC or the WBCSD endorses every concept or approach described herein.

ISBN number: 978-2-940521-72-2

Notes

World Business Council
for Sustainable Development
Maison de la Paix
Chemin Eugène-Rigot 2B
CP 2075 1211 Geneva 1
Switzerland

Forest Solutions Group:
www.wbcsd.org/Projects/Forest-Solutions-Group
Social Capital Protocol:
www.social-capital.org

Social Capital Protocol

wbcsd forest solutions