Increased transparency and documentation of private sector contributions to NDCs

Review methods to assess the sustainable-development impacts of climate change-mitigation actions by businesses (companies)

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Project title: Increased transparency and documentation of private sector contributions to NDCs

Deliverable title: Review methods to assess the sustainable-development impacts of climate change-mitigation actions by businesses (companies)

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1. Introduction

The Paris Agreement (PA), adopted in 2015 and effective since late 2016, is the international community's blueprint for achieving the goals of the United Nations Framework Convention on Climate Change (UNFCCC). The agreement requires countries to adopt "fair and ambitious" voluntary actions to combat climate change. These actions are described in the so-called Nationally Determined Contributions (NDCs). In addition, the PA includes transparency provisions, to monitor progress with its implementation.

According to article 13 of the PA, countries should be transparent about their climate change actions including mitigation, adaptation and sustainable development impacts and report accordingly. The PA will come into full implementation and so the countries should be able to prepare and submit their reports by then. Therefore, several programs and frameworks are developed to help nations enhance their transparency framework, including protocols for assessing impacts associated with climate policies and institutional capacity. This allows countries to document their efforts towards the NDCs in a transparent way, thus facilitate trust-building in the negotiations.

The PA acknowledges that, to achieve its objectives, private sector engagement is indispensable. This goal calls for transparency requirements targeting emission reduction efforts by the private sector, and the associated sustainable development impacts. Regrettably, there is a lack of consensus on how to operationalize these requirements. The project "Increased transparency and documentation of private sector contributions to NDCs" aims at filling this gap.

There are two working packages under this project.

1. Prepare a guide for companies wishing to adopt an existing protocol to report on their greenhouse-gas emissions, highlighting common pitfalls (for example, with regard to materiality) and suggesting potential solutions to overcome them.
2. Prepare a guide for companies wishing to adopt an existing protocol to report on their sustainable development impacts from their mitigation actions, highlighting common pitfalls and suggesting potential solutions to overcome them.

In each of the working packages, existing protocols are reviewed and assessed first, where recommendations are drawn as input to develop guidance. This deliverable provides inputs for the second work package above (sustainable development impacts).

The work is conducted under three steps:

a) Review existing protocols that may be suitable to assess the sustainable development impacts of climate change-mitigation actions in the private sector (i.e. companies), with a

view to strengthening the sustainability of these actions.

b) Assess the selected protocols and report on the respective pros and cons, to draw best practices and recommendations for future improvement.

c) Prepare a guide for companies wishing to adopt an existing protocol to report on their sustainable development impacts from their mitigation actions based on the recommendations (Transparency guidance).

Figure 1 present the steps in details.

Figure 1. Steps to identify and assess protocols, and develop guidance to assess sustainable development impacts of climate change-mitigation actions in private sector. The blue boxes represent results, while the white boxes represent tasks.

This deliverable only focuses on reviewing protocols to assess sustainable development impacts of climate change-mitigation actions in private sector (step 1-3 in figure 1). Chapter 2 describes the approaches applied to identify and analyze the protocols. Chapter 3 provides an overview and short description of the analyzed protocols. Chapter 4 gives final remarks and recommendations.

2. Approach

This chapter describes the approach applied to review the sustainable-development-impacts assessment protocols. Section 2.1 presents the definition of protocol and the good practices of a protocol under the context of this study. Section 2.2 provides the steps for identifying existing protocols. Section 2.3 describes the criteria that is developed to assess the identified protocols for reaching conclusions and recommendations.

2.1. Scope of the review

Protocol refers to an established set of generic principles or detailed procedural steps for the disclosure of data relevant to sustainable development. Under a different context, it may be called framework, guideline, initiative, principle, tool, method, standard, etc. Hereinafter, we refer only to protocol.

The aim of the study is to review protocols that are potentially suitable for companies to assess the sustainable development impacts associated with the climate actions. A good practice protocol should at least contain guidance concerning the following topics:
- How to identify sustainable development impacts
- How to assess sustainable development impacts
- How to interpret and use the results

Note that climate action can exist in various forms. One example could be company activities that reduce GHG emissions in the manufacturing sector. Another example could involve projects such as waste recycling and energy efficient buildings constructions. Not least, a good practice protocol should also include the following features:
- Guidance on how to define the boundaries of the analysis and, by extension, the goals of the assessment
- The framework should be flexible, so that it can be applied to various types of activities, projects, entities, policies, actions, etc.
- Guidance on the consideration of supply chain in the assessment, wherever relevant
- Guidance on technical methods that are transparent and replicable, as well as scientifically sound
- Guidance on how to establish and run an independent verification and validation process

- Relevant to SDGs
In addition, the following features will be advantageous to have:
- Have a software or online tool
- Have examples

- Provide training program
- Have contact points especially in different countries

There are several types of protocols that may serve as good practices. Some protocols are developed to assess the sustainable development performance of the company as one entity. The aims are to provide guidance for the companies to better understand the impacts arising from business operations. Some protocols are developed to assess the sustainable development impacts arising from projects and activities, regardless of the companies that are involved in the projects. Though approaches are slightly different, most of them can be adapted to assess sustainable development impacts associated with climate actions in the companies. Therefore, both types of protocols are included in this review.

2.2. Step 1: identifying existing protocols

In the first step, for the purpose of showing diversity, and not to miss any potentially suitable protocols, an inclusive perspective is applied. As long as the protocol is relevant to assess one or more sustainable development impacts, it is collected in this step. The following three approaches are used to compile a longlist of potential protocols.

1. Scientific literature search on sciencedirect.com and other resources, notably a search on google.com using combinations of the following key words: sustainable development (or sustainability), company (or corporate, institution, organizational), protocol (or tool, method, framework), review, assessment.

2. Search for sustainable development assessment protocol in known institutions that work with sustainable development, such as United Nations Statistics Division, United Nations Development Program, UN Global Compact, Gold standard, Green Report Initiatives, etc.

3. Interview with experts at LEBELULA and CEOs or Sustainability Managers at Latin American companies, to identify any additional protocols that are commonly applied.

2.3. Step 2: Development of assessment criteria

Following the scope of review mentioned in section 2.1, we establish a number of basic criteria that a protocol has to meet, to be qualified as a good practice. These criteria are listed in table 1. All protocols that are identified in step 1 will be screened using these criteria. More details on the criteria are available in Annex 1.

Table 1. Screening criteria for the longlist protocols in the first step.

Name:	
URL:	

Year*:	
Does the protocol offer step-by-step guidance? [#]	
Is the protocol designed to be used by companies or projects? [#]	
Is it applicable in company? [#]	
Are all the necessary documents written in English, Spanish or Portuguese? [#]	
Does the protocol cover 3 pillars of Sustainable Development (Environment, Social and Economy)? [#]	

* Year refers to the year in which the protocol (or its latest update) was released.
[#] More details on the questions are described in Annex 1.

According to the answers in table 1 and expert judgement, if the protocol is judged to be a good practice for the defined purpose, it will then be moved to a shortlist. Here, more information will be collected as stated in table 2. Table 2 includes a set of questions that evaluates protocols acceptance by the target audience, applicability and few technical details.

Table 2 Information to collect for the shortlist protocols.

Name:	
URL:	
Origin: *	
Year: **	
Is the protocol widely known (as measured by the number of internet hits)? [#]	
Has the protocol been used by Latin American companies? [#]	
Is the protocol generic, or sector-specific? [#]	
Was the protocol designed for national/subnational, entire companies, or individual plants/projects? [#]	
Does the protocol draw on another protocol, such as the GRI's? [#]	
Does the protocol outline how it compares with other protocols? [#]	
Does the protocol include a verification component? [#]	
Does the protocol provide guidance on third party validation/assurance? [#]	

Does the protocol include guidance on how to develop baselines? [#]	
Does the protocol offer guides on ex-ante and ex-post SD impact assessment? [#]	
Does the protocol consider impacts in supply-chain? [#]	
Does the protocol consider potential double-counting? [#]	
Does the protocol include guidance about how to assess uncertainty? [#]	
Is the protocol relevant for SDG goals? [#]	
Does the protocol provide user-friendly software, in addition to the guidance? [#]	
Does the protocol include advice with regard to showcasing example reporting to company stakeholders and the wider public? [#]	
Does the protocol have a contact point in country /region? [#]	
[#]Does the protocol provide training programs?	

*Origin refers to the country targeted by the protocol, or 'international', when there is no specific target country.

**Year refers to the year in which the protocol (or its latest update) was released.

[#] More details on the questions are described in Annex 2.

3. Protocols analysis

In this chapter, the protocols analysis results are presented. In section 3.1, the longlisted protocols are evaluated against the criteria in table 1. The result is summarized and discussed. In section 3.2, the shortlisted protocols that passed the screening process are evaluated against the criteria in table 2.

3.1. Initial screening of the existing protocols

This section gives an overview of the existing protocols. In total 38 protocols and 17 ISO standards are reviewed. This longlist of protocols is identified by the approach presented in section 2.2. Although the list is not necessarily comprehensive, our review suggests that it is representative of the majority of protocols.

A variety of sector-specific protocols are found. Since they show similar patterns, only few of them are longlisted and evaluated as representatives, i.e. The Mining Association of Canada TSM Guiding principles, ICMM mining principles, the UTZ Certified Code of Conduct, Hydropower sustainability guidelines, GSTC Criteria, 4C Code of Conduct, and FSC

International Standard. Similarly, many protocols exist aimed to develop indicators, which are the metric to evaluate and monitor impacts. Due to the similarity of those protocols, only two representative protocols were evaluated in the longlist, namely the official SDG indicators and Guidance on core indicators for entity reporting on contribution towards implementation of the Sustainable Development Goals.

3.1.1. Evaluation of longlist protocols

The evaluation results of the existing protocols are presented in Table 3.

Table 3. The evaluation result of longlisted protocols

Protocol name	Year	Step-by-step guidance?	Designed for companies/projects?	Applicable in company?	Language	Coverage of SD impacts
Protocols (excluding ISO standards)						
*SDG compass	2015	Yes	Company	Yes	English, Portuguese	Potentially social, economic and environment
*ICAT Sustainable Development Methodology	2018	Yes	Project	Yes	English	Social, economic and environment
*GRI Business Reporting On The SDGs	2018	Yes	Company	Yes	English, Spanish, Portuguese	Potentially social, economic and environment
*SASB standard	2018	Yes	Company	Yes	English	Social, economic and environment
*Sustainability Assessment Guide-SMART deliverable 5.4	2018	Yes	Company	Yes	English	Social, economic and environment
*The Gold Standard for the global goals	2019	Yes	Project	Yes	English	Environment, social and economic
*SAM Corporate Sustainability Assessment (CSA)	2020	Yes	Company	Yes	English	Social, economic and environment
Organisation Environmental Footprint (OEF)	2012	Yes	Company	Yes	English	environment
UN Global Compact Management Model	2010	No impact assessment	Company	Yes	English, Spanish	Undefined, potentially social, economic and environment

Protocol name	Year	Step-by-step guidance?	Designed for companies/projects?	Applicable in company?	Language	Coverage of SD impacts
LBG Corporate citizenship	2014	No impact assessment	Company	Yes	English	Social, economic and environment
The EU Eco-Management and Audit Scheme (EMAS)	2017	No impact assessment	Company	Yes	English, Spanish	Environment
KPMG SDG	2018	No impact assessment	Company	Yes	English	Potentially social, economic and environment
SDG SECTOR ROADMAPS	2018	No impact assessment	No (sectors)	Yes	English, Spanish	Potentially social, economic and environment
McKinsey &Company SDG Guide for Business Leaders	2019	No impact assessment, self claim	Company	Yes	English	Potentially social, economic and environment
Robeco- An introductory guide to SDG Credits	2020	No impact assessment, self claim	Company	Yes	English	Potentially social, economic and environment
the SDG Impact Assessment Tool	Post 2015	No impact assessment, self claim	Company and activities	Yes	English	Social, economic and environment
UNDP Climate Action Impact (CLIP) Tool	Post 2015	No impact assessment	Project or programme	Yes	English	Social, economic and environment
Global Compact Self Assessment Tool	2010	yes/no questions, little or no explanation	Company	Yes	English, Spanish	Social, economic and environment

Protocol name	Year	Step-by-step guidance?	Designed for companies/projects?	Applicable in company?	Language	Coverage of SD impacts
CDM Sustainable Development co-Benefits Tool	2013	yes/no questions, little or no explanation	Project	Yes	English	Social, economic and environment
Sustainable Development Unit-SDAT	2018	yes/no questions, little or no explanation	Company	Yes	English	Social, economic and environment
Ramboll SD Assessment tool	Post 2015	yes/no questions, little or no explanation	Company	Yes	English	Social, economic and environment
Guidance on core indicators for entity reporting on contribution towards implementation of the Sustainable Development Goals	2019	Impact assessment only	No (indicators)	No	English	Social, economic and environment
The official SDG indicators	2020	Impact assessment only	No (indicators)	No	English	Social, economic and environment
OECD guidelines for multinational enterprises	2011	Principles/Criteria	Company	Yes	English	Social, economic and environment
Responsible Care	2014	Principles/Criteria	Company	Yes	English	Social, economic and environment
Social Accountability 8000 standard	2014	Principles/Criteria	Company	Yes	English	Social
UN Global Compact Guide to Corporate Sustainability	2015	Principles/Criteria	Company	Yes	English	Social, economic and environment

Protocol name	Year	Step-by-step guidance?	Designed for companies/projects?	Applicable in company?	Language	Coverage of SD impacts
AA1000 accountability principles	2018	Principles/Criteria	Company	Yes	English	Social, economic and environment
Responsible Business Alliance Code of Conduct	2018	Principles/Criteria	Company	Yes	English, Spanish	Social, economic and environment
Climate Disclosure Standards Board (CDSB)	2019	Principles/Criteria	Company	Yes	English	Potentially social, economic and environment
The Mining Association of Canada. TSM Guiding Principles	2020	Principles/Criteria	Mining company	Yes	English	Social, economic and environment
ICMM mining Principles	2020	Principles/Criteria	Mining company	Yes	English	Social, economic and environment
Future-Fit Benchmarks	2020	Principles/Criteria	Company	Yes	English	Social, economic and environment
The UTZ Certified Code of Conduct	2020	Principles/Criteria	Agriculture company	Yes	English	Social, economic and environment
Hydropower sustainability guidelines	2020	Principles/Criteria	hydropower Project	Yes	English	Social, economic and environment
GSTC Criteria	2016	Principles/Criteria	Tourism company	Yes	English, Spanish, Portuguese	Social, economic and environment
4C Code of Conduct	2020	Principles/Criteria	Coffee company	Yes	English	Social, economic and environment
FSC International Standard	2015	Principles/Criteria	Forest company	Yes	English, Spanish	Social, economic and environment

Protocol name	Year	Step-by-step guidance?	Designed for companies/projects?	Applicable in company?	Language	Coverage of SD impacts
ISO Standards						
ISO 26000 Social responsibility	2010	Principles/Criteria	Company	Yes	English, Spanish, Portuguese	Social, economic and environment
ISO 14001 Environmental management systems — Requirements with guidance for use	2015	Principles/Criteria	Company	Yes		Environment
ISO 14002 Environmental management systems — Guidelines for using ISO 14001 to address environmental aspects and conditions within an environmental topic area	2019	Principles/Criteria	Company	Yes		Environment
ISO 14004 Environmental management systems — General guidelines on implementation	2016	No impact assessment	Company	Yes		Environment
ISO 14005 Environmental management systems — Guidelines for a flexible approach to phased implementation	2019	No impact assessment	Company	Yes		Environment
ISO 14006 Environmental management systems — Guidelines for incorporating ecodesign	2020	No impact assessment	Company	Yes		Environment
ISO 14007 Environmental management — Guidelines for determining environmental costs and benefits	2019	No impact assessment	Company	Yes		Environment
ISO 14008 Monetary valuation of environmental impacts and related environmental aspects	2019	Impact assessment only	No (indicators)	No		Environment

Protocol name	Year	Step-by-step guidance?	Designed for companies/projects?	Applicable in company?	Language	Coverage of SD impacts
ISO 14020 Environmental labels and declarations — General principles	2002	Principles/Criteria	No (products)	No	English, Spanish, Portuguese	Environment
ISO 14021 Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling)	2016	No impact assessment	No (products)	No		Environment
ISO 14024 Environmental labels and declarations — Type I environmental labelling — Principles and procedures	2018	No impact assessment	No (products)	No		Environment
ISO 14025 Environmental labels and declarations — Type III environmental declarations — Principles and procedures	2010	No impact assessment	No (products)	No		Environment
ISO 14040 Environmental management — Life cycle assessment — Principles and framework	2006	Principles/Criteria	No (product systems)	Yes		Environment
ISO 14044 Environmental management — Life cycle assessment — Requirements and guidelines	2006	Yes	No (product systems)	Yes		Environment
ISO 14045 Environmental management — Eco-efficiency assessment of product systems — Principles, requirements and guidelines	2012	Yes	No (product systems)	Yes		Environment
ISO 14046 Environmental management — Water footprint — Principles, requirements and guidelines	2014	Yes	No (product systems)	Yes		Environment
ISO45001 Occupational health and safety	2018	No impact assessment	Company	Yes		Social

* The protocols that are shortlisted for further assessment

3.1.2. Discussions

As can be seen from Figure 1, the longlisted protocols are mainly developed in recent years, especially between 2018-2020. This indicates that continuous efforts are made to develop protocols for assessing sustainable development impacts.
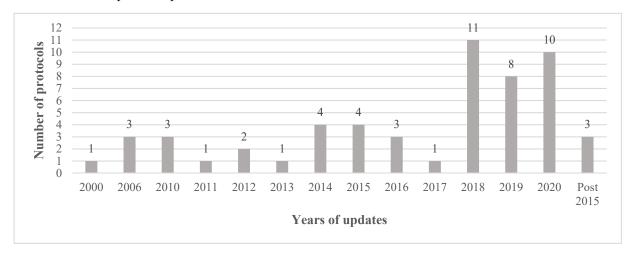

Figure 1. Years of protocols most recent updates

The majority of the protocols are designed to assess performance of companies (Figure 2). For those protocols, the aim of the assessment is to identify the impacts arising from the company operations as a whole, meaning that any activity, including climate actions, happened within the boundary of the company and thus can be included in the assessment. There are 5 protocols that are designed for assessing impacts arising from projects. Most of them can be used for assessing a variety of projects carried out by companies, except the one that is specifically designed for hydropower projects (i.e. Hydropower sustainability guidelines), which is only suitable in this context. The 4 protocols that are designed for assessing product systems can also be used in most companies within manufacturing or services. The few protocols that are designed for developing indicators, or assessing products sustainable performance may not be directly applied in company for assessing impacts arising from general activities. Nonetheless, they may suit the purpose, with some adaptations.
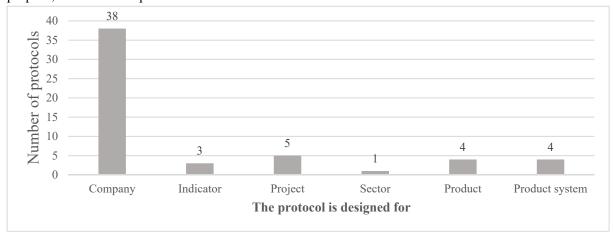

Figure 2. The original designed usage of protocols

According to the guidance that a protocol provides, i.e. step-by-step guidance, or guidance concerning only certainty assessment steps, the protocols can be divided into the following 5 categories. The numbers of protocols and ISO standards (listed separately aside other protocols) that fall into each category can be viewed in Figure 3 and Figure 4. In the following section protocols excluding ISO standards are discussed first.

- *Group 1. Protocols with step by step guidance*

    These protocols include the steps to perform the assessment, impact identification and assessment, and interpretation. Most of the protocols do not include impact assessment methods of their own, but refer to other protocols (e.g. GRI and ISO standards) for impact assessment. Some protocols include a few impact assessment methods of their own, such as Gold Standard General and SAM CSA. Overall, protocols in this group provide sufficient guidance for carrying out sustainable development impact assessment by people with relatively little technical knowledge. Seven protocols in this group are shortlisted for further assessment in the next step. The remaining protocol is not shortlisted due to its limited coverage of SD impacts (i.e. it only covers the environmental dimension).

- *Group 2. Protocols with no impact assessment*

    These protocols only include the steps to perform the assessment, with little or no guidance on impact assessment and interpretations. In some of the protocols, companies are asked to self-claim the potential sustainable development impacts arising from their activities, without being given guidance on the potential linkages between activities and impacts, or examples of impacts (e.g. Robeco- An introductory guide to SDG Credits, McKinsey &Company SDG Guide for Business Leaders, and the SDG impact assessment tool). In the other protocols, slightly more guidance is given by providing examples of impacts, as inspiration for companies to explore more potential impacts arising from their activities. In general, this group of protocols can only be used by experts who are knowledgeable on sustainable development impacts.

- *Group 3. Protocols with yes/no questions*

    This group of protocols exist in the form of excel file or online questionnaires. They aim at giving a quick screening of sustainable development impacts. In general, little guidance is provided with regard to the interpretation of the assessment, and the steps to carry out the assessment. The impact assessments are performed by answering yes or no to questions with little or no guidance on how to interpret the result. They are good for use in the early phase of an activity, for screening purposes.

- *Group 4. Protocol with impact assessment only*

    The protocols that belongs to this group approach the assessment of impacts through indicators only. An example is the set of official SDGs indicators, where over 200 indicators and the assessment methodologies are developed. However, the protocols do not provide any information on how to use the indicators, i.e. no descriptions on goal definition, steps to carry out the assessment and interpretation of the results. They are suitable for use as complementary to the protocols in group 1 and 2.

- *Group 5 Protocols with principles or criteria*

The protocols in this group present principles or criteria that a company, a project or a product should follow. They are not providing approaches for assessing sustainable development impact, but rather indicating good practices. They are suitable for use as inspirations when identifying sustainable solutions.
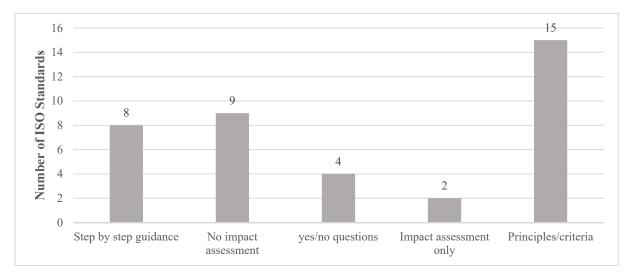

Figure 3. Category of protocols (excluding ISO standards) according to the type of guidance provided.
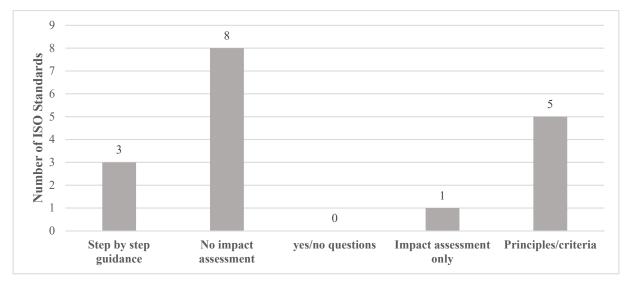

Figure 4. Category of ISO standards (excluding other protocols) according to the type of guidance provided.

The reviewed ISO standards are different from other protocols. Only three ISO standards provide step-by-step guidance, namely requirements and guidelines on life cycle assessment, eco-efficiency and water footprint. The others are rather implementation steps and principles for carrying out certain activities (e.g. ISO 14001 and 14004 that addresses the requirements, guidelines and implementation steps for establishing an environmental management system). However, most of the ISO standards cover only one specific topic, therefore only one sustainable development impact category, i.e.

environment or social. The only exception is ISO 26000 social responsibility, which covers all three pillars of sustainable development. However, this standard only deals with issues of concern and principles, thus cannot serve as a good practice or step-by-step guidance. Therefore, none of the ISO standards are shortlisted for further assessment.

3.2. Shortlisted protocols

Box 3A provides an overview of shortlisted protocols. The evaluation of the shortlisted protocols is articulated around the following issues:

- The designed application context

- The assessment approaches

- The impacts considered

- Requirements on verification and third-party validation

- Consideration of technical details

- Communication

3.2.1. Summary of the chosen protocols

Box 3.A: Overview of the shortlisted protocols

> **SDG Compass- The guide for business action on the SDGs** (hereinafter referred to as SDG Compass) is a protocol that aims at guiding companies to align their strategies toward, and measure and manage contributions to, the SDGs. The protocol was developed in 2015 by GRI, UN Global Compact and WBCSD. It presents fives steps to assist companies understanding SDGs, defining priorities, setting goals, integrating, reporting and communicating. The protocol is available in English, Portuguese and a number of other languages.
>
> **ICAT Sustainable Development Methodology** (hereinafter referred to as ICAT-SD) is part of a series developed by the Initiative for Climate Action Transparency (ICAT), to help countries assess the impacts of policies and actions. Updated in 2020, the protocol provides a framework and process for assessing all sustainability impacts arising from all types of policies and actions in all sectors. The protocol is primarily designed for actions at a larger scale, but may also be useful on individual project. It is available in English.
>
> **GRI Business Reporting On The SDGs** (hereinafter referred to as GRI-SDG) is a collaborative initiative by GRI and UN Global Compact, launched in 2018. The protocol contains three deliverables: 1) Analysis of the Goals and Targets; 2) Integrating the SDGs into Corporate Reporting: A Practical Guide; and 3) In Focus: Addressing Investor Needs in Business Reporting on the SDGs. The protocol aims to help companies understand the SDGs, and outline steps to embed

the SDGs in existing business reporting processes. All of the deliverables are available in English, Spanish, Portuguese and a number of other languages.

SASB standards are a complete set of 77 industry standards, published in 2018. They are designed to identify the minimum set of sustainability issues that are most likely to impact the operating performance or financial condition of the typical company in a given industry. SASB standards are designed to enable communications on corporate performance on industry-level sustainability issues in a cost-effective and decision-useful manner, using existing disclosure and reporting mechanisms. The standards are all available in English.

Sustainability Assessment Guide-SMART (hereinafter referred to as SMART) is developed under the EU H2020 project Sustainable Markets for Responsible Trade (SMART). It is a protocol that analyses the sustainability of an organization's business operations by studying its sustainability footprint along the value chain. The protocol was developed in 2018, and is only available in English.

Gold standard for the global goals (hereinafter referred to as Gold Standard) is designed to measure and report the climate and sustainable development impacts of a project. The projects that meet the requirements in the standard can acquire project design certifications and/or project certification, showing their positive impacts on climate and sustainable development. Gold Standard includes a set of general requirements, including step-by-step guidance, safeguarding principles, stakeholder engagement requirements, and sustainable development goals requirements. It was updated in 2019. All documents are available in English.

SAM Corporate Sustainability Assessment (CSA) (hereinafter referred to as SAM-CSA), formerly known as the SAM ESG Scores, is one of the most recognized sustainability assessments products in the investment community. It helps companies to understand which sustainability factors are important from an investor's perspective, and thus most likely to have an impact on the company's financial performance. The evaluation result is used to determine which companies are eligible to be included in the Dow Jones Sustainability Indices. The protocol is available in English, and it was last updated in 2020.

3.2.2. Discussions

The designed application context

Four of the shortlisted protocols including SDG Compass, GRI-SDG, SMART and SAM-CSA are designed for assessing sustainable development performances of all types of companies. Further, SASB standards provides sector-specific protocol for assessing performance of companies in 77 industry sectors. On the other hand, ICAT-SD is originally designed to assess sustainable development impacts of national or subnational projects. And Gold Standard targets impacts arising from individual projects, with a focus on projects under the Kyoto Protocol's Clean Development Mechanism. However, the last two protocols can also be used by companies for assessing activities in the private sector, with the appropriate system-boundary settings.

The assessment approaches

Although all 7 protocols provide step-by-step guidance, they adopted different approaches as shown in Table 4. Four protocols have clear steps of goal and scope definition, impact assessment and reporting. The other three protocols, namely Gold Standard, SASB standard and SAM-CSA, are designed for specific purposes. Therefore, the goals are pre-defined and well described, and users are not required to define the goal on their own.

Table 4. Assessment approaches applied in the shortlisted protocols.

Protocols	Assessment approach

- **SDG compass**
- **ICAT-SD**
- **GRI-SDG**
- **SMART**
	1. Define the goal and scope of the assessment by e.g.
	   ■ Prioritizing SDGs targets and setting business objectives
	   ■ Defining the policy or project to be assessed
	   ■ Define the goal according to company strategy
	2. Identify the impacts
	3. Assess the impacts by using protocols such as GRI, ISO standards, environmental footprint, etc.
	4. Reporting

Gold Standard	Project shall meet mandatory requirements to get the Gold standard certificate, one of which is to contribute positively to three SDGs. The SDGs impacts can be assessed by using national SDG indicators, or gold standard approved SDG tool, or gold standard approved methodology.
SASB standard	It is a reporting scheme that identifies disclosure topics for the company and provide guidance on accounting metrics and approaches.
SAM-CSA	It is a reporting scheme for deriving scores to construct Dow Jones Sustainability Indices. The assessment is carried out by filling questionnaires. Questions are mainly adapted from GRI.

The impacts considered

The impacts considered in SDG compass, ICAT-SD, GRI-SDG are not pre-defined. They depend on the goal of assessment defined in the first step. For example, the goal may limit the assessment to a set of prioritized impacts. Potentially all the impacts that are relevant to SDGs can be considered in SDG compass and GRI-SDG, while all sustainable development impacts can be considered in ICAT-SD, wherever impact assessment method is available.

In contrast, SMART recommends the use of best practice for assessing environmental, social and economic impacts of the organization. The best practices recommended are Environmental Footprint of Organizations (OEF), Social Life Cycle Assessment (S-LCA) method under UNEP-SETAC, and SOGRES-MF methodology developed under the SMART project. Therefore only impacts covered by the recommended best practices will all be assessed.

Gold Standard provides 3 possible ways of impact assessment as shown in Table 4. The gold Standard

approved methodology mainly focuses on GHG impacts and human health impacts. Potentially, those two impacts and all SDG impacts may be included in the assessment.

SASB standard and SAM-CSA have pre-defined impacts in the assessment, including social, environmental and economic ones. Examples are Total Toxic Release Inventory (TRI) releases, total recordable work incident rate, and fines or settlements related to anti-competitive business practices.

Requirements on verification and third-party validation

Three protocols have requirements on verification and third-party validation. In SMART, the sustainability assessment steps are accompanied by three overarching process. One of the processes is assurance, which requires external assurance-providers, to verify and validate that the information provided in the assessment is relevant and reliable. All projects seeking Gold Standard certificate need to be validated or verified by a Gold Standard Validation and Verification Bodies (VVB). New projects attaining Gold Standard certification must undergo verification to achieve and maintain the certificate every five years. SAM-CSA verifies the result by crosschecking with publicly available information, and validating it through independent third-parties.

In ICAT-SD, verification is recommended, but not required. Validation is not required so far. The other three protocols (i.e. SDG compass, GRI-SDG and SASB standard) do not contain requirements on verification and validation yet.

Consideration on technical details (i.e. supply-chain, baseline, ex-ante and ex-post, double-counting, uncertainty)

The description of technical details on modelling approaches vary in the shortlisted protocols as shown in table 5. There are two approaches for reporting sustainable development impacts. The first approach is change-oriented. Here, sustainable development impacts are defined as the effects on a sustainable development situation, caused by external interventions such as activities, policies, and actions. The sustainable development situation is often monitored through purpose-developed indicators. Therefore, the sustainable development impacts are assessed as the difference on indicator metrics with and without the external intervention (e.g. increase of X kg SOx emission due to an activity). SDG Compass, ICAT-SD, GRI-SDG and Gold Standard follow this change-oriented approach. These protocols provide guidance on how to define baseline scenarios, where interventions such as activities do not exist, and ex-ante/ex-post scenarios where interventions do exist. This allows the assessment of impacts as the difference between the two scenarios. In the other approach, the impacts are simply measured in absolute indicator metrics, without consideration of changes (e.g. the company emits X kg SOx in year 20XX). SASB standard, SAM-CSA and SMART follow this approach. Therefore they do not have guidance on baseline and ex-ante/ex-post scenarios.

Taking supply-chains into account when assessing impacts is a good practice. SASB standard considers supply-chain in the relevant impact assessment (e.g. percentage of agricultural products sourced from supplier with food safety certification). SAM-CSA also requires information disclosure on supply chain management (e.g. availability of Supplier Code of Conduct that safeguards suppliers, and availability of sustainability risks assessment in supply chain). In SMART, the sustainability assessment steps are

accompanied by three overarching process. One of the processes is traceability, which requires the identification and tracking of the product's or company's path from raw material to final product, for assessing impacts along the value chain. SDG-compass and GRI-SDG recommend the consideration of supply chain, but do not mandatorily require it. Under ICAT-SD it is possible to use life-cycle thinking for assessing impacts, but the consideration of supply-chain is not required.

Guidance on uncertainty analysis and the avoidance of double counting are only included in few protocols, as shown in Table 5.

Table 5. Technical guidance in the protocols.

	baseline	ex-ante/ ex-post	supply-chain	uncertainty	double-counting
SDG compass	✓	✓	○		
ICAT-SD	✓	✓		✓	✓
GRI-SDG	✓	✓	○		
SASB standard			✓	○	
SMART			✓		
Gold Standard	✓	✓			✓
SAM-CSA			✓		

✓ means guidance are presented.
○ means the consideration of the topic is recommended, but guidance is not provided.

Communication

SDGs are well-known by the public. By linking the protocol with SDGs, communication with the public and policy makers is facilitated. For this reason, SDG compass, ICAT-SD, GRI-SDG and Gold Standard established this link between the assessment interpretation and SDGs. Software is a good way for guiding the users carrying out the assessment step-by-step. SAM-CSA has developed a web-based software for the entire assessment process. Gold Standard also claims that one of the assessment approaches – the sustainable development tool box -- will be available as a software tool.

Examples and training programs help the users to better understand the protocol and use it properly. Training programs are provided for most protocols, mostly in the format of webinar and sometimes workshops. Similarly, case examples are also available for most protocols. Full case studies are made publicly available for ICAT, SASB standard and Gold Standard. In SDG compass, GRI-SDG and SAM-CSA, examples are only provided in the document as illustrations. The only protocol that does not have training program and showing case examples is SMART. It is a research project deliverable, where training the potential user is probably not the primary goal. Evidence of contact points in different countries are not found for any of the protocols.

4. Concluding remarks

In recent years, companies have speed up efforts to combat climate change. These climate actions will not only have impacts on climate change, but also on sustainable development. Though many protocols exist,

there is no consensus on how to assess sustainable development impacts arising from the various climate actions in the private sector. In this deliverable, we identified 66 protocols and 19 ISO standards, and we selected 38 protocols and 17 ISO standards to review, in order to understand and assess their applicability to serve the purpose mentioned above. The following 7 protocols were shortlisted for further assessment, as they provide step-by-step guidance to assess sustainable development impacts arising from companies, policies, actions or projects.

- SDG Compass- The guide for business action on the SDGs
- ICAT Sustainable Development Methodology
- GRI Business Reporting On The SDGs
- SASB standard
- Sustainability Assessment Guide-SMART
- Gold Standard for the global goals
- SAM Corporate Sustainability Assessment (CSA)

Although developed for very different purposes, these 7 protocols show similar approaches for assessing the sustainable development impacts, as per the following issues:

1. Define (or pre-define) the goal and scope of assessment
2. Identify (or pre-identify) the sustainable development impacts
3. Assess the impacts using qualitative or quantitative approaches
4. Interpretation and reporting

In the first step, further work is required to adapt the existing protocols, so that the goal and scope can be defined for many different types of climate actions in the private sector. For the second and third steps, many approaches for identifying and assessing impacts are available. One major difference among those approaches is the definition of impacts. While some of the protocols define the impacts as changes of status (e.g. X kg SOx reduction due to an activity), other protocols only report impacts in absolute indicator metrics (e.g. X kg SOx emissions from the company in year 20xx). It is essential to understand and choose the appropriate approach that fits the goal defined in the first step.

The coverage of impacts is another important aspect that differs from one approach from another. For instance, ICAT-SD can include all relevant sustainable development impacts in the assessment, wherever impact assessment method is available. In contrast, SASB standards only covers minimum sets of impacts for the sake of cost-effective communication purpose. In terms of impact assessment, most protocols do not develop new approaches, but rely on existing approaches, such as GRI, ISO standards and environmental footprint. SDG compass summarized over 50 business tools and 1500 indicators to choose from. How many impacts to cover, and what approaches to choose highly depends on the goal of the assessment. Nevertheless, there is a need to develop a comprehensive database of impacts and assessment approaches in a systematic manner, with practical guidance on the choices that serve the goal.

As for communication, most protocols developers strive to provide training programs and show case examples, to help users better understand the protocols. Four of the protocols, namely SDG compass, ICAT Sustainable Development Methodology, GRI Business Reporting On The SDGs, and Gold Standard also

link their assessment with SDGs, which helps gain recognitions. Though software and online tools may facilitate the easiness of assessment, they are not commonly developed yet.

Annex 1 Screening questions for the longlist protocols in the first step

- **Does the protocol offer step-by-step guidance?**

The protocol should provide guidance on the steps to perform the assessment, describe approaches for identifying and assessing sustainable development impacts, as well as how to interpret and use the result.

- **Is the protocol designed to be used by companies or projects?**

To judge whether the protocol may suit the purpose of assessing climate actions in private sector, it is important to know what is the original purpose the protocol is designed for, e.g. designed for assessing companies performance, or for assessing projects that include climate actions, or for assessing national policies.

- **Is it applicable in company?**

In addition to the intention of design, the applicability of the protocol may vary. As climate action can exist in various forms in the company, the protocol of good practice should be able to assess general activities in various companies with minor adaptations.

- **Are all the necessary documents written in English, Spanish or Portuguese?**

Language can be a barrier if not written in the ones that can be recognized by the target audience in Latin Americans. Therefore the document should be available in at least one of the three most common languages in Latin American.

- **Does the protocol cover 3 pillars of Sustainable Development (Environment, Social and Economy)?**

Sustainable development covers a wide range of impacts, which are often categories into three pillars: environment, social and economy. Protocol with good practice should be able to cover impacts from all three pillars, to avoid burden shifting from one to another.

Annex 2 Information to collect for the shortlist protocols

- **Is the protocol widely known (as measured by the number of internet hits)?**

This is measured by counting the number of google results using the protocol name as the search words. The assumption is that the more google result is available, the more well-known the protocol is.

- **Has the protocol been used by Latin American companies?**

Considering the targeting audience of this document is Latin American companies, it is important to know the existing applications of the protocol in the Latin American companies. The information is obtained by searching the protocol website and in search engines by using the protocol name and few Latin American country names as key words.

- **Is the protocol generic, or sector-specific?**

This is to identify if the protocol is originally designed to be applicable in specific sectors. In those cases, it may require some adaptation before the protocol can be used in other types of companies.

- **Was the protocol designed for national/subnational, entire companies, or individual plants/projects?**

Considering the aim is to assess impacts arising from climate actions in private sector, it is most relevant if the protocol is designed for individual projects or companies. In some cases the protocols developed for national or subnational level can also be applied for assessing impacts on project and company level, but may need some minor adaptations. By identifying the original design purpose, this criterion help the users better understand the protocol applications.

- **Does the protocol draw on another protocol, such as the GRI's?**

Many protocols do not develop assessment methods on its own, but refer to other protocols for reference. By identifying the protocols that have been referred to, the most commonly used ones may be revealed.

- **Does the protocol outline how it compares with other protocols?**

This reveals whether the protocol is self-aware of its link with other protocols.

- **Does the protocol include a verification component?**

By verification, the assessment result can be evaluated against the requirements in the protocol, thus guarantee the quality.

- **Does the protocol provide guidance on third party validation/assurance?**

Validation is the process that ensures the information used in the assessment and the result is appropriate. Validation from a third party will enhance the credibility of the assessment result.

- **Does the protocol include guidance on how to develop baselines?**
- **Does the protocol offer guides on ex-ante and ex-post sustainable development impact assessment?**

In some protocols, sustainable development impacts are defined as the effects on a sustainable development situation, caused by external interventions such as activities, policies, and actions. The sustainable development situation is often monitored by indicator. Therefore the sustainable development impacts are assessed as the difference on indicator metrics with and without the external intervention (e.g. increase of X kg SOx emission due do an activity). The baseline scenario is the one without intervention. The scenario with intervention can be in the past time period (ex-ante) or future time period (ex-post). The protocol of good practice should provide guidance on such practices.

- **Does the protocol consider impacts in supply-chain?**
- **Does the protocol consider potential double-counting?**

The sustainable development impacts are associated with a defined system. The system may only cover onsite activities, or also include activities involved in the supply chains. To properly assess all impacts, the protocols should encourage to consider the supply-chain wherever relevant. When the defined system is consisted of several sub-systems (e.g. supply chains), it is necessary to separate them clearly, so that the impacts are not double counted. The guidance on such practices should be included in the protocol.

- **Does the protocol include guidance about how to assess uncertainty?**

Assessment results are always uncertain, due to variations in nature. The protocol should provide guidance on the disclosure of uncertainty information to the users.

- **Is the protocol relevant for SDG goals?**

The SDGs are well known by the public. By linking the protocol with SDGs, it will facilitate the communication to the public and policers. This criterion assesses if the protocol has established the link to SDGs.

- **Does the protocol provide user-friendly software, in addition to the guidance?**

Though not required, but a user-friendly software with good instructions will help the user to better use the protocol in the proper way, thus recommended to have alongside the protocol.

- **Does the protocol include advice with regard to showcasing example reporting to company stakeholders and the wider public?**

Examples help users understand how to use the protocol properly. It can be examples illustrations in the protocol, or case study that is publicly available.

- **Does the protocol have a contact point in country /region?**
- **Does the protocol provide training programs?**

By having contact point in the country or organizing training program, expert guidance can be provided for applying the protocol. This is always useful and sometimes essential for the users to properly use the protocol.