Increased transparency and documentation of private sector contributions to NDCs

Report on the evaluation of private sector motivations for climate change/SDGs reporting and recommendation for effective engagement to scale up

August 2021

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

Deliverable title:
Report on the evaluation of private sector motivations for climate change/SDGs reporting and recommendation for effective engagement to scale up

Authors:
Fatemeh Bakhtiari (UNEP DTU Partnership, UDP)
Mirko Dal Maso (UNEP DTU Partnership, UDP)
Alejandro Regatero Labadia (UNEP DTU Partnership, UDP)

Table of Contents

1 Introduction

As per article 13 in the Paris Agreement, countries should be transparent about their climate change actions, including mitigation, adaptation and sustainable development impacts, and report accordingly. Several programs and frameworks have been 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 facilitating trust-building in negotiations.

The Paris Agreement acknowledges that private sector engagement is indispensable to achieve its objectives. This goal demands 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 operationalise these needs. The project "Increased transparency and documentation of private sector contributions to NDCs" seeks to fill this gap.

2 Summary of the knowledge base with regard to the main challenges associated with using protocols to monitor and report on greenhouse-gas emissions

Complementary to governmental efforts worldwide to achieve the Paris Agreement's climate-change mitigation goals, in recent years the private sector has increased its efforts to reduce greenhouse-gas (GHG) emissions. The private sector's ability to keep up these efforts is contingent upon both "pull" and "push" factors, notably demands from government and guidance available.

One of the two main components explored throughout the project focused on GHG emissions reductions in the private sector. The objective was to shed a light on the private sector's motivations to increase their ambition on GHG emission-reduction commitments and participate in NDC development; and to strengthen the existing mechanisms to report GHG emission reductions in the private sector. Moreover, this project set off to develop a self-assessment guide supporting companies in the selection of a suitable GHG reporting protocol and identify challenges, roadblocks and advantages throughout the process of reporting GHG emission reductions. In light of this, the following summary is structured around three sections:

- Section I: Assessment of private sector motivation to report greenhouse-gas emissions

- Section II: Challenges and roadblocks in private sector greenhouse-gas emissions reporting

- Section III: Implications for public sector and developers of greenhouse-gas emissions reporting protocols

2.1 Section I: Assessment of private sector motivation to report greenhouse-gas emissions

In the context of development and implementation of Nationally Determined Contributions (NDC) in Latin America, NDCs mainly focus on sectoral action in an institutional focus, while corporate climate action is not as strongly represented. Therefore, companies mostly draw upon voluntary methods to disclose their climate action, with the implications this issue has on transparency and scale-up of greenhouse-gas emissions reporting.

Given the importance of increasing private sector active participation in both undertaking and reporting GHG emission reductions, in order to increase NDC ambition and in turn achieve the Paris Agreement's goal of limiting global warming below 1.5 °C, this report aimed to assess the main motivations why private sector companies decide in favour or against disclosing their climate action.

The study consisted on a qualitative analysis based on a series of semi-structured interviews to senior management representatives of 15 private sector companies in Latin America, covering various sectors and geographies. The criteria for the selection of companies was based on size, geographical coverage, economic sector, other attributes independent of company size, transformational approach and business model. The rationale for this selection resulted from the Nexos+1 Innovation Diffusion Curve, in which only 2.5% of society, considered innovators, are needed to influence another group, early adopters, consisting of 13.5% of society. Scale-up of innovations is subsequently more likely to take place, providing engagement from these groups.

Following a process of research, screening and contact of the preferred companies, an interview questionnaire including 190 questions was performed. The questionnaire was divided into six different sections:

- Company characterisation and information of the interviewee
- Climate action and alignment with other SDGs
- Climate action motivations and commitment
- Motivations and challenges for reporting climate action
- Company's goals aligned to climate action
- Understanding on international agreements and reporting mechanisms

Below is a summary of the main takeaways extracted from the interview process:

- **Climate action and alignment with other SDGs:** During the interview process one of the issues identified was that SDG 13 (Climate action) was not the SDG companies were most aligned with, and instead companies were most aligned SDGs 11 and 12 (Sustainable Cities and Communities, and Responsible Consumption and Production, respectively). Aligning climate actions with different SDGs may result in different climate actions being undertaken, for example

  Another key finding was the disconnect between how companies identify their emerging climate action and their potential contribution towards national and international efforts. In several cases, the interviewed companies lacked an in-depth analysis identifying and assessing how climate change may impact their business. Additionally, the companies interviewed identified a lack of business-focused communication, and deem necessary an adaptation of technical and academia-related communications on climate change to reflect in a comprehensive manner the private sector's needs as well as how to increase their contributions in terms of emission reductions, value chain, sectoral impact, etc.

- **Climate action motivations and commitment:** The stakeholders interviewed indicated that transparency is not considered as a relevant component of their climate action and is often left out of businesses' reporting and programs on climate action. This finding highlights the importance of better communicating on transparency and business reporting of climate action, as well as its benefits for decision-making, robustness of their climate

strategy and setting of future goals, in order to increase the amount of companies that include transparency as a key pillar in their climate strategy.

Another key issue identified in the interview process was that, despite the existence of a number of different methods and approaches related to climate action, there is no single "recommended approach" for corporate climate reporting in terms of GHG emissions, highlighting the importance of guidance tools and material throughout the climate action reporting process. Lastly, the interview process found that reporting approaches related to market incentives are most successful in encouraging businesses to develop more complete, stricter disclosures of the GHG impacts of their business.

- **Motivations and challenges for reporting climate action:** When it comes to the incentives to the private sector for measuring and reporting climate action, certification schemes and economic incentives were the identified as the main motivators, nudging businesses towards adopting certain schemes or protocols throughout the process. (For example, requiring companies to follow specific protocols on developing GHG inventories, MRV and communication in order to receive certain incentive, like a certificate). Moreover, participating in business coalitions dedicated to climate action seemed to serve as a catalyst to increase cooperation or information sharing, among other actions.

  On the other side, transparency issues did not seem to occupy a preferential space in private sector agenda or strategy within the interviewed companies. The reason being that, while the benefits of reducing GHG emissions on a corporate level have become more apparent, there is not enough understanding of the benefits of mainstreaming disclosure of corporate climate action. This issue signals again the importance of communicating more clearly the benefits of MRV processes for transparency for the private sector.

- **Company alignment to climate action:** A key finding in the interview process was the fact that companies who have adopted the measuring and reporting of GHG emissions-related impacts into the core business subsequently commit to more ambitious goals, tending to focus future efforts towards climate neutrality. This highlights the need for developing: 1) incentives for companies to implement GHG accounting, MRV and communication processes into the core business, and; 2) schemes and guidance to help companies undertake this transition. There is also a need to develop specific divisions and train employees to be able to access, process and communicate relevant climate action-related information within companies.

- **Understanding on international agreements and reporting mechanisms:** The interview process manifested the need to improve communication with the private sector on the national and international platforms where to report on climate actions, such as the NAZCA platform or the Climate Initiatives Platform (CIP), as well as the incentives of reporting in such platforms. Most of the companies interviewed stated their preference for reporting on their own channels, since it provides a more direct access to relevant stakeholders. Moreover, the companies interviewed also identified communication issues between private sector and governments in the context of NDC alignment, emphasising the importance of more comprehensive governmental communication strategies to strengthen NDC alignment with the private sector.

2.2 Section II: Challenges and roadblocks in private sector greenhouse-gas emissions reporting

2.2.1 Review of primary/secondary greenhouse-gas reporting protocols and development of a self-assessment guide

A first report reviewing sector-specific and multi-sector protocols provided an initial analysis on how these protocols cover five reporting elements that are basic to the GHG emissions reporting process, as per the results from the previous work package:

- Determining the boundaries of the reporting process
- Definition of base years and calculation of base-year emissions
- Identifying activity data and emission factors
- Engaging in third party verification
- Benchmarking performance and communication of results

For the five reporting elements selected, the majority of protocols screened adapted their guidance from three primary protocols:

- GRI Protocol
- ISO 14064 Standard
- WRI/WBCCSD Protocol

For this reason, a subsequent study provided a more extensive review of the three primary protocols, expanding on the findings of the previous report and considering a broader number of elements, as reported in Table 1:

Table 1. Main reporting elements considered in the study of the three primary protocols.

Reporting Elements	Description
Adapting a multi-sector protocol	Refers to whether the protocol is designed to cover a specific sector (like energy or agriculture) or does not cover any specific sector
Types of emissions covered	Referring to whether the emissions are directly associated to the company, or also include supply chain emissions
Gases considered	Does the protocol include guidance only on carbon dioxide emissions, the six Kyoto-protocol emissions, or does not cover emissions from specific gases
Emission factors	Emission factors are calculations that permit translate economic activity into GHG emissions
Materiality	Refers to what are the boundaries of the analysis
Setting baselines	Baseline emission scenarios refer to the hypothetical situation in which no environmental policies are implemented (apart from what already exists), and are necessary to calculate the GHG reduction impact of an economic activity
Setting emission-reduction targets	Information regarding the estimate of emission-reduction that will be achieved with a certain activity, compared to the baseline scenario
Defining base years	Base year refers to the first year of the analysis, which generally the potential GHG impact of a certain activity will compare to. Since emissions can fluctuate yearly depending on economic activity or other factors, each protocol provides guidance on how to define base years
Managing uncertainty	Since emissions accounting is not 100% certain (for example due to estimates of company activity levels, or the accuracy of emission factors), some protocols provide guidelines on how to assess uncertainty to an extent
Managing double-counting	Double-counting refers to a situation where the GHG emissions associated to certain industrial processes may be counted more than once by mistake

Establishing projections	Estimates of future emission levels after undertaking a certain activity or achieving an emission-reduction target
Verification	Refers to a third-party verification system to ensure accuracy of the GHG emissions data provided by a company
Benchmarking performance	Refers to the process of comparing one company's emissions intensity with the competition, or a sector's average estimate.
Communicating with stakeholders	Guidelines on how can companies effectively communicate GHG emission-reduction impacts, having in mind that different types of stakeholders will need/demand different kinds of information
User-friendly reporting software	Refers to the provision of custom-made computer-based spreadsheet calculator software by certain protocols, or national-government emission-reduction programmes. Not the case for generic reporting protocols (except WRI/WBCSD)

In addition, a number of additional protocols (hereinafter, secondary protocols) were reviewed, to add granularity to the analysis. Most secondary protocols were identified by checking the protocol used by companies to report the Carbon Disclosure Project (CDP), a non-profit organisation advocating for the disclosure of climate action-related information in the private sector. In total, sixty-five secondary protocols were identified and reviewed, among which were protocols from fifteen different countries as well as regional and international-scoped, most of which were related to mandatory national regulation. The protocols were reviewed based on four criteria, indicated in Table 2.

Table 2. Summary of review of the secondary protocols.

Reporting elements	Review
Scope of the protocol	Twenty-one multi-sector protocols identified, none of which had business involvement in the preparation. The remaining forty-four were sector-specific, and developed by government agencies, businesses and non-profit organisations. Upon review, it was apparent that private sector and non-state actors are more involved in the development of sector-specific protocols.
Emissions covered	Three kinds of emissions covered: Direct emissions (related to a company's own activity), indirect (related to externally sourced energy) and value-chain (related to activities of the company's suppliers).
Emission factors	Reviewed whether the protocols have developed specific emission factors. Forty-four out of the sixty-five protocols include specific emission factors developed nationally. These protocols have been developed in most cases by governments or industry associations at a national level. This is because emission factors have a regional scope and therefore protocols developed by international organisations or with a broader, multi-national or multi-sector scope are not fit to provide specific emission factors.
Reporting framework	Reviewed whether the protocols identified support a certain reporting scheme, which can be voluntary or mandatory, and government or non-government driven. The review identified fifty-one protocols that do not support any specific reporting scheme, while the majority of protocols attached to reporting schemes have a multi-sectoral scope.

A more in-depth assessment of the three primary protocols was carried out, exploring the extent to which each protocol provided information on the fifteen reporting elements presented in Table 2. Complementarily, the study included an assessment of each protocol from the viewpoint of a potential user, indicating which were the main strengths and weaknesses of each protocol in preparation for the self-assessment guide suggested in Work package III. It is important to note that the assessment made does not necessarily refer to "strengths and weaknesses" of the protocols, because that would be a simplification of their purpose, scope and validity. Instead, it was a factual assessment of what reporting elements are covered most

in-depth in each protocol, ultimately to each consumer to decide which protocol fits best to the reporting process. Facilitating this task was the objective of the assessment.

The three primary protocols assessed share some common characteristics. All of them are multi-sector protocols and only focus on direct emissions, leaving value-chain and indirect emissions to companion documents, as is the case with the WRI/WBCSD protocol. Regarding GHG gases, all protocols consider the main GHG gases with certain differences in the approach. While the GRI protocol considers the main Kyoto-Protocol gases, the remaining protocols do not consider a specific selection of gases and instead illustrate with examples the relation between different gases and the industrial processes originating them.

Additionally, none of the primary protocols provided information on how to collect activity data, developing emission factors, benchmarking performance, or communicating results to stakeholders. The reason being that due to their broad, multi-sector scope, it is not possible to provide guidance on activity data, emission factor or benchmarking that will be suitable for different audiences, and it is more useful to refer to specific secondary protocols for each sector or region instead. However, the absence of guidance on some of the reporting elements may be indicative of possible areas to address in future iterations of the protocols. For the rest of reporting elements identified, the level of analysis varied across each protocol. Table 3 gathers the amount of guidance (no guidance, limited or extensive guidance) that the primary protocols offer in relation to the key reporting elements identified.

Table 3. Comparison of primary protocol coverage of key reporting elements.

Reporting elements	GRI protocol	ISO 14064 standard	WRI/WBCSD protocol
Emission factors	No guidance	Limited guidance	No guidance
Materiality	No guidance	Limited guidance	Extensive guidance
Setting baselines	No guidance	No guidance	Limited guidance
Setting emission-reduction targets	No guidance	Limited guidance	Extensive guidance
Defining base years	No guidance	Limited guidance	Extensive guidance
Managing uncertainty	No guidance	Limited guidance	Limited guidance
Managing double-counting	Limited guidance	No guidance	Limited guidance
Establishing projections	No guidance	No guidance	No guidance
Verification	No guidance	Limited guidance	Extensive guidance
Benchmarking performance	No guidance	No guidance	No guidance
Communicating results	No guidance	No guidance	Limited guidance
User-friendly reporting software	No guidance	No guidance	Extensive guidance

Based on the results obtained throughout the review of primary protocols, the authors set out to develop a self-assessment guide[1] designed for businesses who wish to report the GHG impacts related from their operations but are unsure what approach to follow. The self-assessment guide was developed taking into consideration the previous review and analysis of

---

[1] The self-assessment guide, as well as the report "Increased transparency and documentation of private sector contributions to NDCs: Guidance for companies wishing to adopt an existing protocol to report on their greenhouse-gas emissions", in which the rationale and framework to develop the guide are presented, can be found in the following page. Increased transparency and documentation of private sector contributions to NDCs – UNEP DTU Partnership.

the guidance offered in the three primary protocols, and aiming to tap on the findings in Work package I regarding the private sector motivation to disclose GHG emissions-related impacts.

After a first attempt to conduct a consultation process among users of one or more of the primary protocols, the approach to develop a self-assessment guide consisted on interviewing developers of the three primary protocols, due to their first-hand knowledge of user experience and main challenges associated with using the protocols. After obtaining detailed information from representatives from the WRI/WBCSD and ISO protocols, a series of key challenges companies face throughout the reporting process were identified, serving as a base for the development of the self-assessment guide:

- Choice of protocol
- Boundary conditions
- Locking in activity data
- Indirect emission sources
- Recalculation of previous-years' inventories
- Improvements over time
- Framing questions

2.2.2 *Main challenges and roadblocks for private sector GHG reporting*

The studies performed analysing the motivations for disclosure of GHG-related impacts, as well as reviewing the main reporting elements included in primary and secondary protocols for greenhouse-gas reporting served to reflect on the main existing challenges and roadblocks for GHG emissions reporting in the private sector. Understanding these challenges is crucial to develop new approaches not only to facilitate the reporting process but also to mainstream GHG emissions reporting in the private sector. To this end, the following paragraphs summarise the main lessons learned regarding the aforementioned challenges and roadblocks, as well as how private sector actors may navigate these challenges.

Analysing the main motivations for disclosure of GHG-related impacts in the private sector has shown that there still is a significant lack of communication and alignment of goals among stakeholders, for various reasons: either competition, lack of tight regulation on a cross-sectoral and supra-national level, or insufficient (and/or inefficient targeting) information regarding greenhouse-gas reporting protocols, among others.

The mentioned lack of communication and alignment of goals in the private sector often results in many companies deciding to create their own frameworks and reporting methods. In some instances, developing a business-specific approach to reporting climate impacts may result in efficient ways of reporting emissions that fit best to the needs of a certain company. However, more often than not it results in a waste of time and resources that does not achieve the same level of detail or validity of data as it would to adhere to an established protocol for GHG reporting. Moreover, a more polarised landscape of self-developed frameworks in the private sector would have negative implications for transparency and comparability of data, and hinder future comparison of climate actions and sectoral benchmarking of GHG emissions reductions.

This issue manifests the importance of improving the communication efforts directed to the private sector to promote the use of established protocols to disclose GHG emissions-related impacts. By analysing the reasons for not disclosing certain data, or developing company-specific reporting frameworks instead of appealing to already established protocols, it will be

easier to highlight and target to specific private actors previously missed incentives and benefits of using GHG reporting protocols.

Once deciding to use an established protocol to report on GHG emission impacts, a business then has the task of deciding which protocol fits best to the operational processes the company wants to report. Slight differences on the boundaries of the analysis, the sector, emission factors, or targets can have a considerable impact in which protocol adjusts best to the needs of a business. However, in general, many private actors are not aware of these nuances, and may end up selecting a "not desired" protocol, resulting in increased difficulties throughout the reporting process, inefficiencies, and problems with data availability or an overall bad user experience. This issue is therefore a point of entry for public sector and developers of protocols; to develop tools and communication material to help businesses navigate more easily what protocols are best suited to their economic activity, in a way that facilitates reporting in a comparable manner and thus becoming a catalysing factor for enhanced transparency in the private sector.

Lastly, even when a business goes through the process of analysing which protocol is best suited to the needs and characteristics of such business's reporting process, international databases and platforms such as the Climate Initiatives Platform are not usually the way to go for businesses to report on their climate action. Instead, many businesses opt for reporting their GHG emission reduction impacts through their own channels, since it has a better outreach to their target audience. There are two ramifications of this issue: First, the private sector is failing to see the benefits of increased comparability and possibility for benchmarking that mainstreaming climate reporting in these kinds of platforms can offer. Second, public sector and developers of protocols/platforms are missing in the promotion and targeting of their services. This means they are missing an opportunity in effectively communicating the private sector on the benefits they can offer for future reporting.

2.3   Section III: Implications for public sector and developers of greenhouse-gas emissions reporting protocols

2.3.1   *Assessment of the integration of GHG reporting protocols with the Climate Initiatives Platform (CIP)*

The previous sections focused on identifying issues on the consumer side of GHG reporting, namely identifying the main motivations (or lack thereof) of private sector actors to report their GHG emission-related impacts, as well as the main challenges and roadblocks the private sector faces to report on their emission reductions. Based on the results obtained throughout the previous studies, this section set to analyse the implications of these findings for public sector actors and developers of primary protocols in particular.

To this end, and in addition to the self-assessment guide, the authors provided an analysis of the possible interlinkages between the primary protocols and existing platforms for disclosure of climate action, in this case the Climate Initiatives Platform (CIP). The objective was to address the issues identified hindering the capacity and motivation of private sector businesses to disclose their GHG emission-related impacts, in particular the identified low engagement within private sector companies to disclose their climate action related in dedicated platforms and databases. Additionally, this analysis aimed to identify areas to improve, both in the primary protocols as well as in the mentioned platforms, to complement each other, facilitate the reporting process for companies and provide more incentives to disclose information in such platforms.

Apart from the previously assessed reporting elements of the primary protocols, the study focused on analysing the Initiative for Climate Action Transparency (ICAT) guide on Non-State and Subnational Action, dedicated to "integrating the impact of mitigation actions performed by these actors into GHG gas projections, targets and planning"[2]. This guide is one in a series of assessment guides aimed to help governments and non-state actors to assess the impacts of climate actions and policies. This guide provided a framework to assess such impacts, covering the steps necessary to measure, aggregate, analyse and report on the potential impacts of non-state and subnational actions.

The study compared the frameworks and key reporting elements of both primary protocols and ICAT guide against the monitoring and reporting framework included in the Climate Initiatives Platform (CIP). Upon review of the guidance on primary protocols previously presented as well as the ICAT guide on non-state and subnational action and the monitoring and reporting framework on the CIP, a series of elements were identified, representing issues not to be overlooked by developers of both GHG reporting protocols and disclosure platforms.

- Third party verification
- Overlap between actions by governmental and non-state actors
- User-friendly reporting software
- Data availability and uncertainty in results
- Integration of indirect impacts
- Benchmarking performance
- Communicating with stakeholders
- Determining the assessment boundaries

These issues refer to reporting elements either covered in the protocols or the ICAT guide on non-state and subnational action that were not mentioned in the CIP, or vis versa (reporting elements included in the CIP which do not appear in the protocols). Some cases, such as benchmarking performance, are reflected in the protocols as an issue of key importance for measuring impacts on a sectoral level or comparing performance among companies in the same sector, however, guidance on this topic is not included in the protocols nor the CIP. In many cases, while taking into account the limitations to report certain kinds of data, the issues analysed could serve to provide a more complete guidance in the primary protocols and facilitate the reporting of climate actions in the CIP.

2.3.2 Implications for the public sector and developers of GHG reporting protocols

Once analysed the main existing challenges that private actors face in the process of reporting greenhouse-gas emissions-related impacts; what are the implications for both public sector and developers of protocols of the aforementioned challenges? What is the role these actors must play in order to increase transparency and documentation of climate actions in the private sector?

Firstly, one of the main roadblocks in the scale-up of accounting and transparency systems in the private sector are lack of comparability, benchmarking, aversion to disclose certain data due to competition, and a heterogeneous landscape of primary and secondary protocols with limited guidance on how to choose a suitable protocol for businesses in specific contexts. The

---

[2] Quoted from the sub-title of the ICAT non-state and subnational action guide.

first question that arises in this situation is in regards to ownership. What is the role of the public sector in creating enabling environments to leverage the scale-up of climate action reporting in the private sector? Is it solely the public sector's responsibility, or is it a shared responsibility alongside companies, business coalitions, multilateral organisations, etc.?

It is possible that a joint effort is needed to effectively increase transparency and reporting of climate action in the private sector concerning greenhouse-gas emissions. In this context, aligning goals between policymakers and business coalitions/industry representatives is crucial to disseminate relevant information, offer better targeted market incentives to increase transparency and establish ambitious goals that ensure private sector involvement.

From a policymaker's perspective, providing attractive market-based incentives to increase transparency seems to be one course of action. However, these incentives must be accompanied by comprehensive guidance and access to resources and tools through institutional channels in order to help businesses understand better the benefits of reporting their GHG emission-related impacts, and simplify the reporting process. To provide a more effective communication on the importance and benefits of aligning transparency goals with business strategies seems to be a key issue. In this context, developing material such as the self-assessment guide can have as a catalysing effect for GHG reporting in the private sector.

From the protocol developer's perspective, it is crucial to promote integration of GHG reporting protocols with existing climate action-related databases in order to facilitate and leverage comparability, replicability and benchmarking of climate actions. The objective is not to stop businesses from reporting their GHG emission-reduction impacts in their own channels, but to ease the process of reporting in platforms like the CIP. For example, by providing information in the primary protocols on specific channels to communicate results of the reporting process, with guidance on what channels are most suitable to different sectors, target audience that can be reached, and benefits of disclosing information in such channels.

3 Increased transparency and documentation of private sector on sustainable development impacts and SDGs resulted from climate actions

The project included a component focused on sustainable development, whose final objective was to prepare a guide for companies desiring 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 order to deliver on this objective, the project included three work packages:

- Work package I (steps 1-3 in Figure 1): Review existing protocols that may be suitable to assess the sustainable development impacts of climate change-mitigation actions in the private sector.

- Work package II (steps 4-6 in Figure 1): Assess the pros and cons of the selected protocols, to draw best practices and recommendations for future improvement.

- Work package III (steps 7 in Figure 1): Prepare a guide for companies wishing to adopt an existing protocol based on the recommendations above.
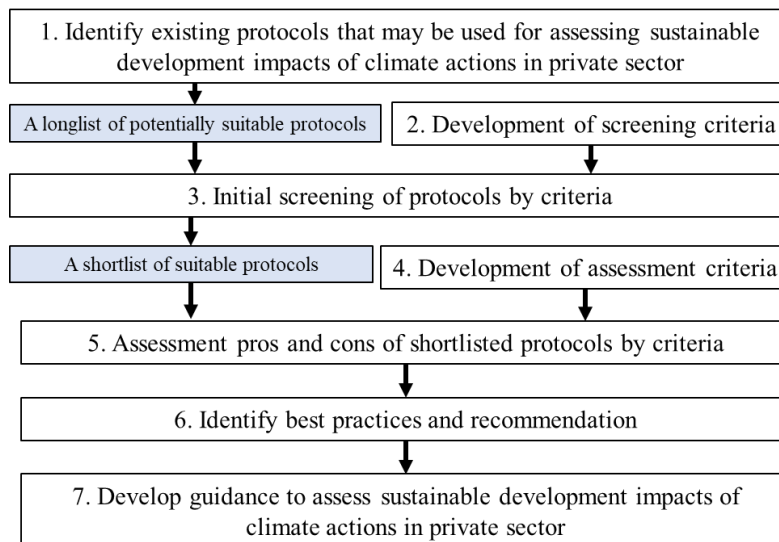
Figure 1. Steps resulted in developing guidance to assess the sustainable development impacts of climate change mitigation actions by the private sector.

3.1   Work package I: Review of existing protocols

3.1.1   Approach for the review of existing protocols

The aim of this activity was to review protocols potentially suitable for companies to assess the sustainable development impacts associated with the climate actions. In order agree on what a good practice protocol entails, certain minimum and optional features that it should offer to the users were defined, as presented in Table 4.

Table 4. List of features of good practice protocols.

A good practice protocol should at least contain guidance on:	A good practice protocol should also include the following features:
- **How to identify sustainable development impacts** - **How to assess sustainable development impacts** - **How to interpret and use the results**	- 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 - Relevant to SDGs - In addition, the following features will be advantageous to have: - Have a software or online tool - Have examples - Guidance on how to establish and run an independent verification and validation process - Provide training programs - Have contact points, especially in different countries

Scientific literature search, search for sustainable development assessment protocol in known institutions that work with sustainable development, and interviews with experts were used to compile a longlist of potential protocols.

Following the identification of existing protocols, a number of basic criteria were established, to classify the protocols. Criteria were divided into a two-step approach. In this first step approach, the criteria served to compile a longlist of protocols. According to the answers using the criteria in the first step, and expert judgement, if the protocol was judged to be a good practice for the defined purpose, it was then be moved to a shortlist, where more information would be collected. The criteria for the first and second step are reported in Table 5.

Table 5. Criteria to shortlist existing protocols.

Criteria for Step 1	Criteria for Step 2
- **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)?**	- 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?

3.1.2 Results of the review of existing protocols

In total 38 protocols and 17 ISO standards were reviewed. A variety of sector-specific protocols were found. Since these show similar patterns, only few of them were 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 "indicators" 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.

Five clusters of protocols were identified, depending on the design of the assessment process, and protocols were categorised into these groups.

- ***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 for impact assessment.

- ***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. 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.

An evaluation of the shortlisted protocols was then carried out, and 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

Below is a summary of the evaluation 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 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.

Although developed for very different purposes, these seven 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 on 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 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.

3.2 Work package II: pros and cons of existing protocols

This work package assessed the pros and cons of the above shortlisted protocols when applied to assess the sustainable development impacts of climate actions in private sector, to identify good practices and provide recommendations for future development.

3.2.1 Approach for analysing pros and cons of existing protocols

To conduct the work, the following steps were taken:

a) Assess the protocols' pros and cons by criteria.
b) Interview protocol developers to complement the results of the desk study above.
c) Draw suggestions to advise companies that wish to use any of the seven protocols above.

To ease the assessment of the pros and cons, the criteria were categorized into the following groups and pros and cons of each protocols was reported using this grouping:

- **The application context**: Firstly, the original application context of the protocol is identified, including the purpose of the protocol (e.g. designed for assessing projects, policies or for reporting purposes), its intended geographic area of application and sector coverage (e.g. sector specific or generic), and the scale of application (e.g. on national level of project level). Subsequently, the possible climate actions that can be assessed by the protocol are discussed.
- **The assessment approaches**: Although all shortlisted protocols provide step-by-step guidance, the steps differ from one another, mainly due to the intended application

context. The characteristics of the assessment approach, as well as the pros and cons are discussed for each of the protocols.

- **The impacts considered**: There is a wide range of sustainable development impacts. Not all protocols cover all types of impacts that may arise from climate actions. The impacts covered are described.
- **Requirements on verification and third-party validation**: Verification and validation are important processes to assure the quality of the input data and the resulting assessment. For this reason, third-party verification and validation is considered good practice. Whether this good practice is required in the protocols is described.
- **Consideration of technical details**: The evaluation of sustainable development impacts requires considerations on several technical aspects, e.g. whether to consider supply-chain in the evaluation system; how to avoid double counting among different components in the system; how to define baseline and alternative scenarios; and how to deal with uncertainty. Such technical considerations are discussed for each protocol.
- **Communication and reporting**: The protocols aim at delivering positive sustainable development impacts, which will be communicated and reported to relevant stakeholders. Therefore, the recognition of the protocol, especially in Latin American countries, is essential for the protocol to be better perceived by the targeted audience of this project – namely, Latin American stakeholders. Moreover, because the SDGs are well-known worldwide, it helps stakeholders understand the protocol better if the protocols relate their assessment results with the individual SDGs. In addition, other features can also facilitate the use of the protocol, such as user-friendly software with good guidance, case examples, training programmes and contact points in different countries. Whether these features are included in the protocol is described.

The detailed list of criteria for each group is provided in the Appendix.

Five interviews were conducted in October 2020 with project developers. The interviewees are listed in Table 6.

Table 6. List of interviewees for the assessment of pros and cons of the protocols.

Position hold	Consultation approach
Senior manager at Gold Standard	Online interview
Manager of International Policy at Global Reporting Initiative (GRI)	Online interview
Manager at World Resource Institution	Online interview
Help line at SAM-CSA	E-mail exchange
Director at SASB Standards	Online interview

The interviews were conducted in a semi-structured manner. A set of pre-defined questions were asked to the interviewee, with no restrictions on the scope of the answers. Thus, the conversation spilled over related other topics not covered by the questions, allowing the exploration of undiscovered pros and cons. The detailed questionnaire is provided in the appendix.

3.2.2 Results on the pros and cons of existing protocols

The study found that are three protocols originally designed to assess sustainable development impacts of projects or companies, namely ICAT-SD, SMART and Gold standard. The study also found that ICAT-SD provides a flexible framework that allows users to identify all relevant impacts. It is suitable for assessing a wide variety of climate actions that exist in the format of e.g. projects and policies. However, the flexibility also means higher requirements on the users' experts. Users should also follow the five steps listed above, but with special attention on the identification of impacts and choices of assessment approaches, as they vary case by case without standard options in ICAT-SD. This may be time consuming and challenging. In addition, the language, terms, key concepts and examples in ICAT-SD are public policy oriented. Company users shall need some translations to properly understand it within the business context.

In addition to that, it was found that SMART provides a comprehensive set of impacts and assessment approaches that do not require choices. Users may find it easy to follow the steps. The challenge is that the assessment approaches are rather new and comprehensive. Its feasibility is upon test in case studies. We recommend users to wait for the update after the case studies.

To support users into assessing sustainable development impacts of climate actions, the ideal protocol should have a good balance between the complexity of the process and the comprehensiveness of the result. When looking at complexity and comprehensiveness, it was found that GRI series, SASB Standards, Gold Standard and SAM-CSA require less complexity in the assessment process, due to the limited amount of sustainable development impacts to be assessed. Meanwhile, the comprehensiveness of the result is also limited, as not all significant and relevant impacts arising from the companies' climate action shall be covered. In comparison, ICAT and SMART provide more complex assessment processes that require good expert knowledge to make the choices and carry out the study. However, the result is also more comprehensive that all potential positive and negative impacts should be revealed.

3.3 Work package III: Prepare a guide for companies to guide them into the assessing the sustainable development impacts of climate actions

This work package has focused on the following:

- Identifying the key challenges that companies face when reporting on their sustainable development impacts and identify possible approaches that these companies use to overcome these challenges

- Using the above results to develop a guide for companies how to use ICAT-SD for SD assessment of their climate actions to overcome the challenges identified

3.3.1 Approach for preparing a guide for assessing the sustainable development impacts of private sector's climate actions

A qualitative analysis based on semi-structured interviews with senior management representatives of fifteen Latin–American companies from different sectors and types, early-adopters that are leading societal transformation was conducted. It was tried to have a sample of companies which have used different types of protocols. - Participants were asked about "the key challenges that companies face when reporting on their sustainable development impacts from their actions, and what approaches they use to overcome these challenges." As

complementary data collection following alternatives were applied: (1) literature review, (2) interview questionnaires to sustainability leaders of the companies whose senior management representative was interviewed, (3) an online survey to other sustainability leaders for collecting more technical aspects, and (4) meetings' transcriptions of the sounding board for climate action in Latin America led by nexos+110, are also comprised in the methodology followed by this study.

3.3.2 Results of the preparation of a guide for assessing the sustainable development impacts of private sector's climate actions

The results of the interview and the literature review highlighted that the following are the main challenges faced by companies when it comes to reporting on sustainable development:

- General motivations for reporting on SD impacts
- The assessment approaches
- Complexity of the assessment approaches and, therefore, lack of technical capacities and resources for using the protocol for reporting
- The impacts considered
- Technical details of the protocols
- Lack of capacity building supports on reporting
- Financial resources for reporting
- Awareness-raising among CEOs and staffs about SD impacts and reporting

The results suggest that an ideal protocol should have the following features, as reported in Table 7.

Table 7. Features of the ideal protocol for assessment of stainable development impacts of climate actions.

Shall be covered	Should be covered	Beneficial
- **How to identify sustainable development impacts** - **How to assess sustainable development impacts** - **How to interpret and use the results** - **How to link the above to SDGs or to incorporate SDGs in the reporting process**	- Guidance on how to define the boundaries of the analysis and, by extension, the assessment goals. - A flexible framework, 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. - Relevance to the Sustainable Development Goals	- Provide a software or online tool which helps to generate a report for the user. - Case study examples. - Provide a training programme, videos and comprehensive tutorial. - Offer local contact points, ideally in different countries.

Based on the findings reported above, the ICAT SD was taken as starting point, and adjusted, to overcome downsides and provide guidance to the company in assessing their sustainable development impacts. Below are reported some of the key features of such ideal guidance and explanation on how ICAT SD responds to those:

- **Good balance between the process complexity and the comprehensiveness of the results**: The ideal protocol should have a good balance between the complexity of the process and its comprehensiveness. In comparison, ICAT provides more complex assessment processes that require good expert knowledge to make the choices and carry out the study. However, the result is also more comprehensive than all potentially positive and negative impacts should be revealed.

- **Flexibility to identify the assessment goal:** ICAT-SD gives the flexibility to identify the assessment goal that can suit most types of climate actions. The qualitative assessment step in ICAT-SD works as a screening process to help users identify all relevant and significant impacts. However, due to the limited guidance provided in ICAT-SD on identifying those impacts, we recommend users to follow other protocols for this step, especially considering impacts listed in GRI series, SASB Standards, SAM-CSA and SMART.

- **Quantitative methods:** The identified impacts shall be assessed quantitatively to give comprehensive results. Similarly, ICAT-SD does not provide sufficient guidance on how and which method to use for this step. Users are recommended to use approaches provided in GRI series and SAM-CSA wherever relevant. It is also recommended to search for approaches in relevant databases such as the SDG Compass business tools and ICAT database of sustainable development tools and resources.

- **Involving key stakeholders**: the company should always involve key stakeholders, especially top management and possibly sustainability managers, in the early stages to secure the support needed to carry out the assessment. We recommend using stakeholder participation guidance from ICAT project as good practice.

- **Identifying all relevant impacts:** ICAT-SD provides a flexible framework that allows users to identify all relevant impacts. It is suitable for assessing a wide variety of climate actions in the format of, e.g. projects and policies. However, the flexibility also means higher requirements for the users' expertise. Therefore, Users should also follow the five steps listed above, but with particular attention to identifying impacts and choices of assessment approaches, as they vary case by case without standard options in ICAT-SD. However, this may be time-consuming and challenging. Besides, the language, terms, key concepts and examples in ICAT-SD are public policy-oriented. Company users shall need some translations to understand it within the business context properly.

4 Conclusion: contribution of private sector to transformational change through climate mitigation and sustainable development

An analysis of how companies can assess and report on their climate mitigation impacts and contribution to sustainable development priorities has been the focus of this project. Although the project has in practice addressed the question of how to capture the mitigation, and sustainable development, contributions of private sector separately, climate and sustainable development are in fact two sides of the same coin.

Climate action, through SDG 13, is part of the 2030 Agenda for Sustainable Development. Together with other goals of the 2030 Agenda, it belongs to a group of SDGs that relate to environmental sustainability. Environmental sustainability is fundamental, to ensure that nature can sustain the development of society and of the economy (Stockholm Resilience

Centre, 2016). Furthermore, climate is one of the planetary boundaries that regulate the stability of the Earth System, and it belongs, together with biodiversity, to the two core planetary boundaries that due to their significant interactions with the others are key for the stability of Earth (Steffen et al., 2015).

Anthropogenic climate change has been significantly increasing leading already to alarming levels of global warming, which are projected to increase even further in the future (IPCC, 2018). Projections clearly show the challenges that humans will face if they are to live in a world even a couple of degrees warmer than pre-industrial level, reason for which climate action is so urgently needed.

Apart from climate change, however, there are other sustainable development priorities and challenges that must be addressed, as identified by the SDGs, for example related to zero hunger, eradicating poverty, ending inequalities, safeguarding nature, etc. (UN, 2015). Meeting all these goals is necessary in order to create a society that is more equitable, fair, just, resilient, where humans can live in harmony among each other and with nature.

Achieving this requires a deep transformation, which will have effects on different levels, from the practical sphere of technologies and behaviours, to the political and economic sphere, and the personal or inner sphere (O'Brien, 2018). Luckily, climate actions can be a catalyst for this transformation, since most climate actions have synergies with other sustainable development priorities, meaning that they have positive impacts on other aspects of sustainable development; however, they can also have trade-offs (IPCC, 2018).

Transformational change has been given different definitions across the years, as its meaning depends on the context to which it is applied. However, some general attributes of transformational change processes can be distilled from these definitions, such as the fact that it is a change of systems, not just singular developments, and involves multiple actors at multiple levels; that it constitutes a disrupts of the status quo, and that it has to be deep and sustained over a long period of time (ICAT, 2020). Since it has by itself no normative connotation, values are added to it by defining a transformation goal.

For example, the ICAT methodology for assessing transformational change of climate policies and actions sustains that transformational change in relation to climate change is inseparably connected to sustainable development. Therefore, the change that is envisioned in this case is a change towards promoting zero-carbon, climate-resilient, resource-efficient and sustainable societies, in line with the goals of the Paris Agreement and the SDGs.
The definition provided by the ICAT methodology, which is also applicable in this context identifies transformational change with:

A fundamental, sustained change of a system that disrupts established high-carbon practices and contributes to a zero-carbon society, in line with the Paris Agreement goal to limit global warming to 1.5–2°C and the United Nations SDGs.(ICAT, 2020)

Such a change will happen, amongst others, as a result of different drivers, such as technological drivers, governmental inducements, and normative changes (ICAT, 2020).
This transition will not only determine what society we create, but who will survive and thrive in that society. Private sector can be a key driver in this transition, and the businesses that manage to ride the wave of this transformation, rather than being hit by it, are more likely to thrive in the future. It is therefore in the private sector interest to become sustainable, resilient,

and contribute to mitigating GHG emissions to reduce transition-related economic and social risks, as well as climate-related physical risks.

These new challenges faced by the private sector demand creative and innovative thinking, as well as proper communication of such innovative efforts, so that these can be recognised and supported by stakeholders such as governments and financial institutions. It is of paramount importance that such communication is done in a transparent, systematic, and robust way, and that the actions taken to mitigate emissions and contribute to sustainable development are also a result of a systematic, science-based process. As global consciousness on sustainability issues evolves, business who cannot live up to standards of transparency and ambition of actions are likely to face greater risks.

To respond to the needs arising from this context, tools are increasingly becoming available for business to assess and report on their impacts in a transparent and robust manner.
Examples of tools for assessing climate mitigation, as identified by this report, are greenhouse-gas emissions reporting protocols such as the GRI and the WRI/WBCSD protocols or the ISO 14064 standard, assessment guides such as the ICAT Non-State and Subnational Action guide, or reporting portals such as the Climate Initiatives Platform (CIP). The ICAT methodology offers a valuable framework for connecting impacts of climate actions to SD objectives. Other tools presented in this report include SDG Compass, GRI Business Reporting on the SDGs, SASB standards, Sustainability Assessment Guide-SMART, Gold standard for the global goals, and SAM Corporate Sustainability Assessment (CSA).

In the context of climate action, it is clear that reporting on the climate change mitigation impacts, and broader effects on sustainable development is key to showcase how businesses are supporting the transformation undergoing, and, in more practical terms, the national plans that address such transformation, notably the NDCs and the National Development Plans.
If the private sector can relate the impacts of its actions with climate and sustainable development, this will help to demonstrate how they are contributing to the global goals, addressed by the national strategies and enhance their change of receiving recognition and support. It is therefore important now for the private sector to familiarize with methodologies to assess and report on such impacts, and develop capacities to gain a competitive advantage in the transformation.

References

Climate Initiatives Platform. (2021). *Climate Initiatives Platform.* Retrieved August 5, 2021 from https://climateinitiativesplatform.org/index.php/Welcome

ICAT. (2020). *Non-State and Subnational Action Guide: Integrating the Impact of Non-State and Subnational Mitigation Actions into National Greenhouse Gas Projections, Targets and Planning.* K. Lütkehermöller, C.Elliott and N. Singh, eds. Berlin: NewClimate Institute; Washington D.C.: World Resources Institute; Bonn, ICAT.

ICAT. (2020). *Transformational Change Methodology: Assessing the Transformational Impacts of Policies and Actions* (K. H. Olsen, N. Singh, & (Eds.) (eds.)). (Transparency), 2020)

IPCC. (2018). *Global warming of 1.5°C*. https://doi.org/10.1002/9780470996621.ch50

O'Brien, K. (2018). Is the 1.5°C target possible? Exploring the three spheres of transformation. *Current Opinion in Environmental Sustainability*, *31*, 153–160. https://doi.org/10.1016/j.cosust.2018.04.010

Steffen, W., Richardson, K., Rockstrom, J., Cornell, S. E., Fetzer, I., Bennett, E. M., Biggs, R., Carpenter, S. R., de Vries, W., de Wit, C. A., Folke, C., Gerten, D., Heinke, J., Mace, G. M., Persson, L. M., Ramanathan, V., Reyers, B., & Sorlin, S. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, *347*(6223), 1259855–1259855. https://doi.org/10.1126/science.1259855

Stockholm Resilience Centre. (2016). *How food connects all the SDGs - Stockholm Resilience Centre*. https://www.stockholmresilience.org/research/research-news/2016-06-14-how-food-connects-all-the-sdgs.html

UDP. (2020 a). Increased transparency and documentation of private sector contributions to NDCs. Report on the assessment of private sector motivation and engagement strategies in rporting paricipation. *UNEP DTU Partnership*. Copenhagen.

UDP. (2020 b). Increased transparency and documentation of private sector contributions to NDCs. Review of greenhouse-gas emissions-reporting protocols worldwide, to identify the sub-set of protocols that lend themselves to use by businesses in Latin America. *UNEP DTU Partnership*. Copenhagen.

UDP. (2020 c). Increased transparency and documentation of private sector contributions to NDCs. A comparative analysis of greenhouse-gas emissions-reporting protocols. *UNEP DTU Partnership*. Copenhagen.

UDP. (2021). Increased transparency and documentation of private sector contributions to NDCs. Guidance for companies wishing to adopt an existing protocol to report on their greenhouse-gas emissions. *UNEP DTU Partnership*. Copenhagen.

UN. (2015). Transforming Our World by 2030: A New Agenda For Global Action. *UN Summit to Adopt the Post-2015 Development Agenda*, *13689*(September), 1–43. https://doi.org/10.1017/S1368980015002529

Appendix

Evaluation criteria of the shortlisted protocols on SD

Name:		
URL:		
Origin: *		
Year: **		
The application context	Is the protocol designed to be used by companies or projects?	
	Is it applicable in company?	
	Is the protocol generic, or sector-specific?	
	Was the protocol designed for national/subnational, entire companies, or individual plants/projects?	
The assessment approach	What are the assessment steps in the protocol?	
	Does the protocol draw on another protocol, such as the GRI's?	
	Does the protocol outline how it compares with other protocols?	
The impacts considered	What are the sustainable development impacts considered in the protocol?	
Requirements on verification and third-party validation	Does the protocol include a verification component?	
	Does the protocol provide guidance on third party validation/assurance?	
Consideration of technical details	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?	

Communication and reporting	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 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 1.

Interview approach for SD

The following questions were asked in the interview.

A1.   What purpose is the protocol most used for?

A2.   Who are the users? What about Latin American companies? Can you give few examples?

A3.   Do you think the protocol can be used to assess sustainable development impacts arising from climate actions in companies? If yes, what types of climate action do you think is the protocol applicable?

A4.   What do you think about the guidance on defining assessment objective and system boundary? Is it challenging for the users? How can it be improved?

A5.   What is considered as sustainable development impacts in the protocol? What do you think about the coverage of impacts?

A6.   How do you feel about the impact assessment step? Is it challenging for the users?

A7.   Is there any plan to link the protocol with SDGs? Why? (only for the ones that have not linked yet)

A8.   Have you tried to link SD impacts with NDC of your country?

A9.   Are you planning to have online tools to facilitate the implementation of the protocol?

A10.   Is there any plan to establish contact point, training courses, etc.?

Open question: what are the challenges in general of using such protocol?