

Overview of key approaches and initiatives in business accounting and reporting on the Environment (May 2021)

[informal background document only – please do not quote]

1.1 Introduction

This note tries to provide an overview of the main standards, frameworks and approaches for business accounting and reporting on their relationships with environment, in particular ecosystems.¹ The note also provides short descriptions of some of the main initiatives that work towards standardization. Most of them are voluntary while some are regulatory. The difference between standards, frameworks and approaches is somewhat arbitrary.

However, the objective of this note is not to establish a complete and well-structured classification system of these standards or frameworks. The note does not aspire to be comprehensive as the landscape is complex (and quickly expanding), but rather to provide some insights in the actual situation.

The note is structured as follows:

- Voluntary framework for natural capital assessment: Natural Capital Protocol
- Voluntary target-based approaches for natural capital accounting and reporting: Planetary Boundaries and SDGs
- Voluntary standards on natural capital reporting (e.g. GRI, SASB, CDP, CDSB and IIRC)
- Voluntary standards on monetization of natural capital impacts and dependencies: (e.g. ISO 14007 and ISO 14008)
- Voluntary accounting and reporting approaches based on integrated reporting thinking: E P&L
- Voluntary thematic accounting approaches: water assessment, biodiversity assessment
- Regulatory frameworks for non-financial reporting: the EU Non-Financial Reporting Directive

1.2 Voluntary framework for natural capital assessment: Natural Capital Protocol

The Natural Capital Protocol, launched in 2016, is a decision-making framework that enables organizations to identify, measure and value their direct and indirect impacts and dependencies on natural capital. The Protocol Framework (Figure 1) covers four stages, “Why”, “What”, “How” and “What Next”. These stages are further broken down into nine Steps, which contain specific questions to be answered when integrating natural capital into organizational processes. Although set out in a linear way, the Protocol is iterative and allows users to adjust and adapt their approach as they progress through the framework.

The Protocol is applicable within any business sector, to organizations of all sizes and in all operational geographies. The Protocol is also applicable at multiple organizational levels and scopes, for example at a product, project or organizational level.

¹ This note is an updated version of Section 3 of the literature review, available at: https://seea.un.org/sites/seea.un.org/files/background_paper_release_for_unseeaforum.pdf

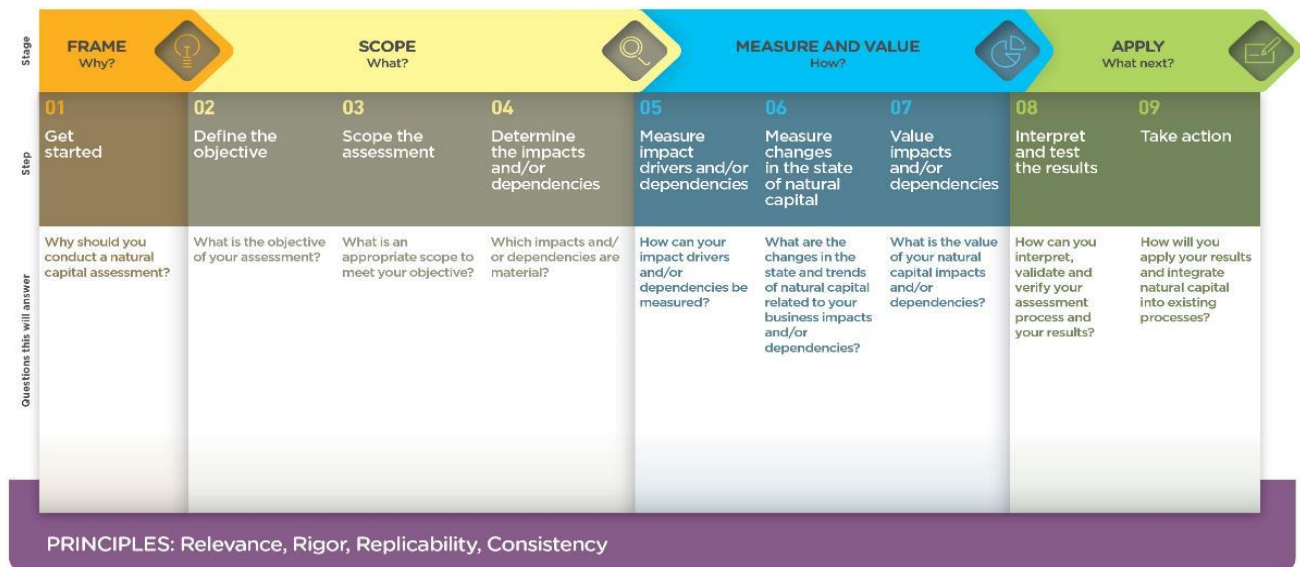


Figure 1: The Natural Capital Protocol Framework

There are many existing approaches that businesses will be using to measure and value their impacts and dependencies, inform their decision making and strategy, and engage with stakeholders. The Natural Capital Protocol is complementary to all of these and provides a standardized framework to help include natural capital in decision-making. The Protocol does not provide a framework for external financial reporting, although decisions can be reported. It is essentially a way to standardize the assessment process.

1.3 Voluntary target-based approaches for natural capital accounting and reporting: Science Based Targets for Nature, SDGs and other indicator sets

1.3.1 Science Based Targets for Nature²

The Science Based Targets Network (SBTN) is a collaboration of leading global non-profits and mission driven organizations working together to equip companies as well as cities with the guidance to set science-based targets for all of Earth's systems. This will help them define a clear pathway to ensure they are doing enough across their value chain to address their impacts and dependencies on nature. SBTN is very much inspired by the Planetary Boundaries approach of Rockström et al. (2009)³, updated by Steffen et al. (2015)⁴. If applied at a landscape scale, is an excellent approach for communicating real impact as it allows to measure the extent of exceedance of the carrying capacity of the ecosystem, and as such provides good indications for operational business risks (e.g. water scarcity).

² [The Science Based Targets Network \(SBTN\) - Science Based Targets](#)

³ Rockström, J. et al. , Planetary boundaries: exploring the safe operating space for humanity. 2009, Ecology and Society 14(2): 32.

⁴ Steffen W., Richardson K., Rockström J., Cornell S.E., Fetzer I., Bennet 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., Sörlin S. Planetary Boundaries: guiding human development on a changing planet. Science, Vol 347 issue 6223; 13 Feb 2015, DOI: 10.1126/science.1259855

SBTN has developed first guidance for businesses in 2020⁵. SBTN follows a 5-step approach – assess; interpret /prioritize; measure, set & disclose; act; track. New more concrete guidance is expected in 2022.

1.3.2 Sustainable Development Goals

The Sustainable Development Goals (SDGs) were introduced in 2015 by the United Nations as a resolution titled ‘*Transforming our world: the 2030 Agenda for Sustainable Development*’. They cover, as is widely known, 17 overall goals. There are various initiatives aimed at developing indicator sets for business in relation to the SDGs.

Corporate Reporting Dialogue

The Corporate Reporting Dialogue partners have released a position paper⁶ supporting the development of better reporting guidelines for the Sustainable Development Goals (SDGs). The paper, entitled “SDGs and the future of corporate reporting”, identifies how corporate reporting can illustrate which SDGs are relevant to a company’s business model, enabling both companies and investors to focus on those SDGs most likely to impact financial performance. The paper also articulates the importance of driving integration of financial and non-financial information to demonstrate how companies create value for stakeholders over the short and long-term.

GRI and UN Global Compact

Recently GRI⁷ and the UN Global Compact⁸, the world’s largest corporate sustainability initiative, have developed a ‘Reporting on SDGs Action Platform’⁹, an initiative that intends to accelerate corporate reporting on the Global Goals. The Action platform has created three SDG reporting tools:

- The first tool, the report ‘*The Analysis of Goals and Targets*’¹⁰ offers a menu of illustrative actions businesses can take to contribute to each SDG target and maps possible disclosures (including indicators) that business can use to report against the SDG targets. The disclosures and indicators – both qualitative and quantitative – are taken from globally accepted disclosure frameworks for businesses, such as GRI Standards or CDP.
- The second tool, *Integrating the SDGs into Corporate Reporting: A Practical Guide*¹¹ outlines three steps for companies to embed the SDGs in existing business and reporting processes in alignment with GRI Standards and recognized principles.
- Finally, the third publication, *In Focus: Addressing Investor Needs in Business Reporting on the SDGs*¹² provides additional information about investor-relevant aspects of corporate SDG reporting.

UNCTAD-ISAR

ISAR is a Standing Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting created by ECOSOC in 1983 and coordinated by UNCTAD. It holds its annual sessions in Geneva to address emerging issues in enterprise accounting and reporting.¹³

⁵ <https://sciencebasedtargetsnetwork.org/wp-content/uploads/2020/11/Science-Based-Targets-for-Nature-Initial-Guidance-for-Business.pdf>

⁶ <https://corporatereportingdialogue.com/publication/sdgs-and-the-future-of-corporate-reporting/>

⁷ <https://www.globalreporting.org/Pages/default.aspx>

⁸ <https://www.unglobalcompact.org/>

⁹ <https://www.globalreporting.org/information/SDGs/Pages/Reporting-on-the-SDGs.aspx>

¹⁰ https://www.globalreporting.org/resourcelibrary/GRI_UNGC_Business-Reporting-on-SDGs_Analysis-of-Goals-and-Targets.pdf

¹¹ https://www.globalreporting.org/resourcelibrary/GRI_UNGC_Reporting-on-SDGs_Practical_Guide.pdf

¹² <https://www.globalreporting.org/resourcelibrary/addressing-investor-needs-SDGs-reporting.pdf>

¹³ Based on: <https://isar.unctad.org/who-we-are/>

UNCTAD has developed Guidance on Core Indicators (GCI) for Entity Reporting on Contribution towards Implementation of the Sustainable Development Goals. The core indicators were selected through a series of elaborations at several ISAR sessions and discussions with a consultative group of experts between 2016 and 2018. The GCI aims to help entities provide baseline data on sustainability issues in a comparable manner that would meet the common needs of various stakeholders with regard to sustainability and the 2030 Agenda.¹⁴

World Economic Forum

World Economic Forum (WEF) International Business Council (IBC) published a report in 2020 “Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation”. It contains a list of 21 core and 34 expanded metrics and disclosures recommended to both IBC members and non-IBC companies for adoption.

1.3.3 UNCEBTS - Global core set of principal business and trade indicators

The UN Committee of Experts on Business and Trade Statistics (UNCEBTS) is developing a list of indicators and methodological sheets focused on different aspects of business statistics: (i) business demography and entrepreneurship, (ii) globalization and digitalization; and (iii) wellbeing and sustainability.

The indicators are intended to be compiled from business statistics sources and not be derived from the macro-accounts (although intent is to be consistent), using for example, the concept of value added from business statistics and not from the national accounts. Eventually the list of indicators is intended to go for global consultation later in 2021 and submitted to the United Nations Statistical Commission in 2022 as a recommended international indicator list.

1.4 Voluntary standards on natural capital reporting

Companies can rely on a wide range of voluntary reporting frameworks related to corporate non-financial performance.

GRI

The Global Reporting Initiative (GRI) has developed a set of GRI Standards¹⁵ - which are widely used by business. GRI Standards consist of both universal standards and a set of topic-specific standards – for instance for water, emissions, and biodiversity. The standards are intended to facilitate sustainability reporting.

CDP

CDP, formerly the Carbon Disclosure Project, is a commonly used reporting framework. CDP runs the global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts. Focus areas are climate change, water and forests. As an example, CDP Water¹⁶ provides guidance for disclosing company water performance. Sector tailored questionnaires on water security are provided¹⁷.

¹⁴ Based on: https://unctad.org/system/files/official-document/diaeed2020d2vol1_en.pdf

¹⁵ <https://www.globalreporting.org/information/about-gri/Pages/default.aspx>

¹⁶ <https://www.cdp.net/en/water>

¹⁷ <https://guidance.cdp.net/en/guidance?cid=10&ctype=theme&idtype=ThemeID&incchild=1µsite=0&otype=Questionnaire&tags=TAG-598%2CTAG-607%2CTAG-600>

SASB

The Sustainability Accounting Standards Board (SASB) is a non-profit organization which establishes industry-specific disclosure, aimed primarily at investors. It has published 77 Industry Standards in 2018.

IIRC

The International Integrated Reporting Council (IIRC)¹⁸ is a global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs. The IIRC mission is to establish integrated reporting and thinking within mainstream business practice as the norm in the public and private sectors. It has developed the IR (Integrated Reporting Framework)¹⁹. It consists of principles-based guidance for companies and other organizations wishing to prepare an integrated report.

CDSB

The Climate Disclosure Standards Board (CDSB) is an international consortium of business and environmental NGOs committed to advancing and aligning the global mainstream corporate reporting model to equate natural capital with financial capital. It offers companies a framework for reporting environmental information with the same rigour as financial information.²⁰

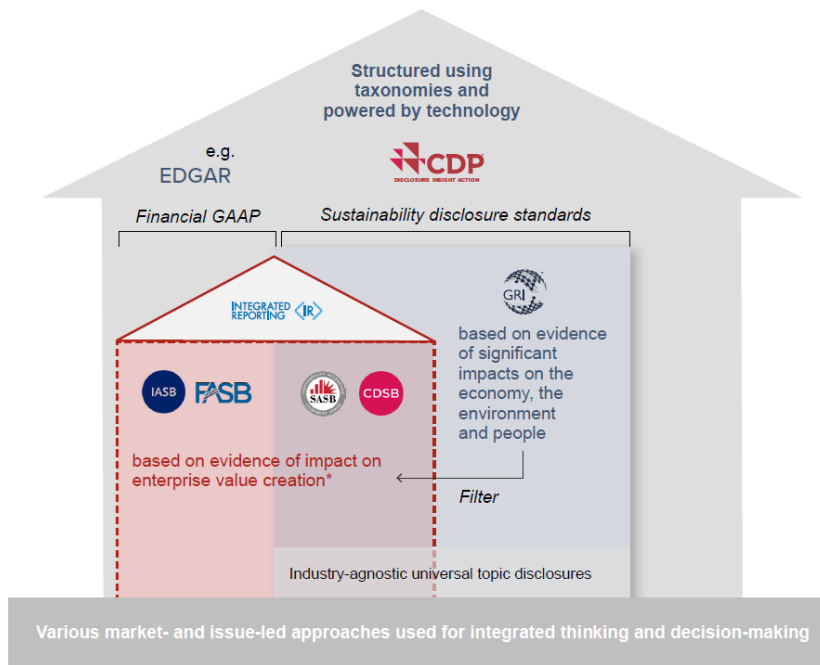
The above listed standard-setting institutions (CDP, CDSB, GRI, IIRC and SASB) released a “Statement of Intent to Work Together Towards Comprehensive Corporate Reporting” in September 2020, facilitated by the Impact Management Project²¹, the World Economic Forum and Deloitte. The statement mentions that “As a group of leading standard-setting organisations, we are trying to arrive at the same level of maturity that the financial reporting eco-system has achieved via IFRS and US GAAP, by achieving global legitimacy for sustainability disclosure frameworks and standards, as part of a comprehensive corporate reporting system.” The IIRC and SASB (potentially CDSB) are merging into the Value Reporting Foundation. (see Figure below how various standards interrelate).

¹⁸ <https://integratedreporting.org/the-iirc-2/>

¹⁹ <https://integratedreporting.org/resource/international-ir-framework/>

²⁰ Based on: <https://www.cdsb.net/>

²¹ [Home | Impact Management Project](#)



Comprehensive value creation would also need to include manufactured and intellectual capital

Source: Statement of Intent 2020

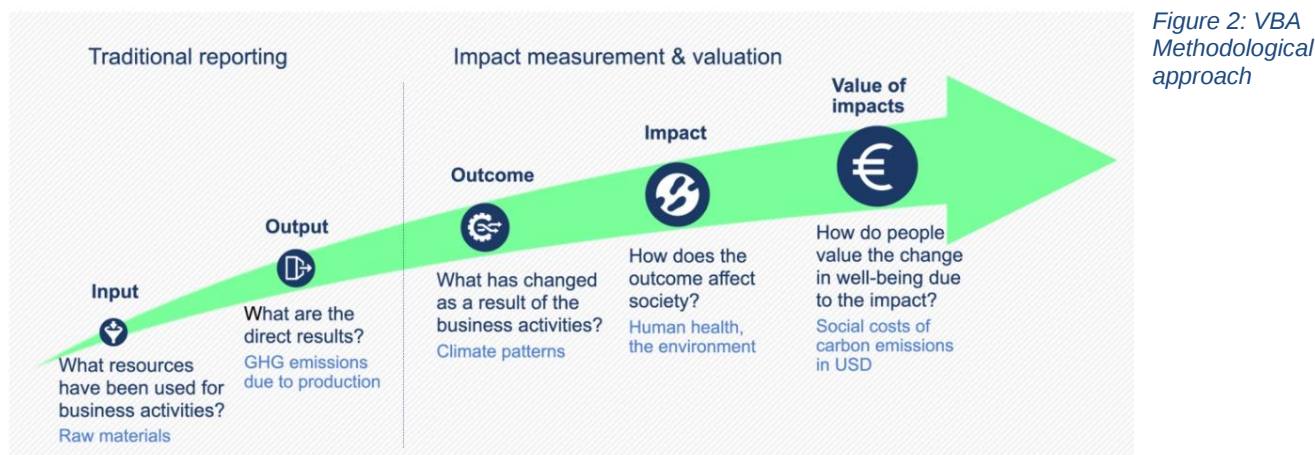
IFRS and IASB

The IFRS Foundation is a not-for-profit, public interest organisation established to develop a single set of high-quality, understandable, enforceable and globally accepted accounting standards—IFRS Standards—and to promote and facilitate adoption of the standards. IFRS Standards are set by the IFRS Foundation’s standard-setting body, the International Accounting Standards Board.²² There are plans to establish a **Sustainability Standards Board** under the IFRS Foundation.

Value Balancing Alliance (VBA)

The VBA is an alliance of multinational companies coming together with a common goal: to create a way of measuring and comparing the value of contributions made by businesses to society, the economy, and the environment – a metric not previously reflected in a company's balance sheet. The Alliance translates environmental and social impacts into comparable financial data. VBA members test the methodology to ensure feasibility, robustness, and relevance. The VBA methodology is reflected in Figure 2.

²² <https://www.ifrs.org/about-us/who-we-are/>



The project **TRANSPARENT** aims to develop the first set of natural capital accounting principles and corporate implementation guidelines tested by industry practitioners. It is supported by the LIFE program grant by the EU Commission and led by the Value Balancing Alliance in consortium with the Capitals Coalition and the World Business Council For Sustainable Development. The consortium supports the implementation of the Green Deal targets by developing pragmatic solutions for corporate natural capital management accounting and decision making.

Task Force on Climate-related Financial Disclosures (TCFD)²³

The Task Force on Climate Related Disclosures (TCFD) is an industry-led initiative that was established in 2015 by the Financial Stability Board (FSB) of the G20 Ministers of Finance and Central Bank Governors. It was established to develop recommendations for more effective climate-related disclosures that could promote more informed investment, credit, and insurance underwriting decisions and, in turn, enable stakeholders to understand better the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risks.²⁴ In 2017, the TCFD released climate-related financial disclosure recommendations.²⁵

1.5 Voluntary standards on monetization of natural capital impacts and dependencies: ISO 14007 and ISO 14008, BSI 8632:2021

The area of monetary valuation of environmental impacts and natural resources is huge and complex. ISO has been preparing two standards in this field.

The ISO 14008 standard on 'Monetary valuation of environmental impacts and related environmental aspects' is available since March 2019. The standard does not set out how an organization determines the specific 'cost and benefits' associated with its organizational operation in an Environmental Management context, nor clarify why and how monetary valuation can be used and communicated as part of an existing environmental management approach or system. These aspects are covered in the ISO 1400726 standard on 'Environmental management:

²³ <https://www.fsb-tcfd.org/>

²⁴ <https://www.fsb-tcfd.org/about/>

²⁵ <https://www.fsb-tcfd.org/about/#our-work>

²⁶ <https://committee.iso.org/sites/tc207sc1/home/projects/ongoing/iso-14007.html>

Determining environmental costs and benefits' which is expected to be published this year (see below). The ISO 14008 standard provides organizations a common framework including established methods as well as common terms within the field of monetary valuations. Although the deliverable is a requirement standard, in accordance with ISO's neutrality principle, it does not mean that it will be used for the purpose of conformity assessment. The framework ensures a higher degree of transparency regarding the numbers and how impacts and aspects have been valued in monetary terms as requirements relate to documentation and justification of methods chosen. With such a framework more specific standards could be developed in the area. One example is the current development of ISO 14007.

The ISO 14007 offers organizations guidance on determining and communicating the environmental costs and benefits associated with their environmental aspects, impacts and dependencies on natural resources and ecosystem services. This standard will provide direction on decisions that organizations make with regard to identifying and setting the boundaries of their environmental costs and benefits to be considered and also to selecting the type of data to use in order for them to effectively start the process of determining costs and benefits. Overall, measuring both "non - financial" and "financial" information will better inform an organization's decision - making on sustainability.

This International Standard is applicable to any organization regardless of size, type and nature, and applies to the environmental aspects, impacts and dependencies of its activities, products and services that the organization determines are to be included among its environmental costs and benefits.

The rationale for ISO to engage in this area is that there is already a strong trend in monetary assessments by government (i.e. the polluter pays principle), private sector (in reporting, risk assessment etc.) and academia. ISO brought much needed transparency and a common language to this work.

BSI

BSI is the UK's National Standards Body (NSB). It is currently developing a standard on Natural Capital Accounting for Organizations²⁷

1.6 Voluntary accounting and reporting approaches based on integrated reporting thinking: Environmental Profit and Loss (E P&L)

An Environmental Profit and Loss account (E P&L) is a company's monetary valuation and analysis of its environmental impacts including its business operations and its supply chain from cradle-to-gate. An E P&L internalizes externalities and monetizes the cost of business to nature by accounting for the ecosystem services a business depends on to operate in addition to the cost of direct and indirect negative impacts on the environment. The primary purpose of an E P&L is to allow managers and stakeholders to see the magnitude of these impacts and where in the supply chain they occur.

The E P&L analysis provides a metric to measure and monitor the footprint of the company's operations and suppliers all the way to the initial raw materials. It is a tool to build awareness of the importance of nature to the sustainability of businesses; enhance visibility across a company's supply chain, deepen understanding to focus

²⁷ <https://standardsdevelopment.bsigroup.com/projects/2019-02487#/section>

sustainability efforts and implement better-informed operational decisions; improve specificity for risk management regarding environmental dependencies and impacts; and support a more holistic view of a company's performance, while bringing clarity and transparency to stakeholders at all levels and identifying new opportunities to enhance the sustainability of a company's products.

The E P&L and the associated methodology were developed with the support of PWC and Trucost and first applied by Puma in 2011. The E P&L used existing input-output models and developed new valuation methodologies, building on a large volume of work in the fields of environmental and natural resource economics such as TEEB, the UN study on The Economics of Ecosystems and Biodiversity. Kering, the parent company for Puma, is continuously working to refine the methodology and has released its Environmental Profit and Loss Accounting methodology in an open source mode²⁸. Nowadays, several companies apply E P& L (standalone or as part of Integrated Profit & Loss, I P&L), such as Kering, Novo Nordisk, Vodafone, Philips, etc.

1.7 Voluntary thematic accounting approaches: water assessment, biodiversity assessment

Apart from comprehensive environmental accounting approaches, businesses can rely on a plethora of thematic accounting approaches such as specific approaches on water accounting and biodiversity accounting.

1.7.1 Water accounting

In the field of water, a well-known approach is the **Global Water Tool**^{TM29}, developed by WBCSD. It is a free, publicly available resource for identifying corporate water risks and opportunities which provides easy access to and analysis of critical data. It includes a workbook (data input, inventory by site, key reporting indicators, metrics calculations), a mapping function to plot sites with datasets, and a Google Earth interface for spatial viewing.

The Global Water ToolTM supports companies operating in multiple countries in starting their water management journey and helps companies build long-term water management strategies which minimize risk and build long-term resilience. Users can quickly map their locations and water use data against water, sanitation, population and biodiversity datasets, as well as stress indicators on a country and watershed basis, and in turn assess risks related to their global operations, supply chains, new projects and prioritize action. Key benefits are 1°/ an increased understanding of water use/needs of operations in relation to local externalities (including staff presence, industrial use and supply chain, water consumption and efficiency) to make informed decisions, and 2°/ performing a first level screening through maps or charts capturing key water performance and risk indicators of water consumption, efficiency and intensity; these metrics can then be used for communication with internal and external stakeholders and reporting under corporate disclosure initiatives like the Global Reporting Initiative, **CDP Water** (see below), Bloomberg and Dow Jones Sustainability Index.

1.7.2 Biodiversity accounting

In the light of the growing attention for natural capital accounting (NCA) and a clear demand for methodologies for including ecosystems and biodiversity into NCA, several attempts are ongoing to develop pragmatic biodiversity metrics for businesses and FIs. Faced with these multiple approaches and based on requests from its

²⁸ <https://www.kering.com/en/sustainability/environmental-profit-loss/methodology/>

²⁹ <https://www.wbcd.org/Programs/Food-Land-Water/Water/Resources/Global-Water-Tool>

members, the EU Business @ Biodiversity Platform (EU B@B Platform)³⁰ conducted a critical assessment of 10 biodiversity accounting approaches developed for or by businesses and FIs³¹. The report provides an overview of different methodological approaches, compares their key features and identifies key obstacles faced by these approaches as well as gaps that need to be covered. The proliferation of diverging methodologies and metrics increases confusion amongst businesses and financial institutions on which approach to apply for which purpose. It also makes comparison between methods and metrics challenging, e.g. for investors willing to compare corporates on their biodiversity performance. One of the key objectives of both the EU B&B Platform and the Aligning Biodiversity Measures for Business initiative will therefore be to encourage convergence between methodologies by identifying and working towards common ground (in terms of definitions, interpretations of key concepts such as baseline and area of influence, data sources, indicators, etc.) and to clarify which approaches support which type of business decisions (referred to as business applications in the literature).

On 23 May 2019 the public consultation on the Biological Diversity Protocol has been launched³². The BD Protocol is designed as a comprehensive biological diversity **accounting and reporting framework for businesses**. The BD Protocol is an output of the Biodiversity Disclosure Project (BDP), managed by the National Biodiversity and Business Network (NBBN) of South Africa and hosted by the Endangered Wildlife Trust (EWT). It helps provide biodiversity-specific guidance to measuring changes in the state of biodiversity (step 6 of the Natural Capital Protocol). The BD Protocol is an example of applying biodiversity accounting concepts in an analogous way as advocated by the SEEA EEA Technical Recommendations, although similarities and differences need to be further explored.

Align

The Align project 'Aligning Accounting Approaches for Nature' will assist the European Commission's efforts to support businesses, financial institutions and other stakeholders in developing standardized natural capital accounting practices by establishing a standardized approach to biodiversity measurement and valuation.³³

1.8 Regulatory frameworks for non-financial reporting

The EU NFRD (Non Financial Reporting Directive)³⁴ is operational since 2018 and requires large companies to disclose certain information on the way they operate and manage social and environmental challenges. The Directive only applies to large public-interest companies with more than 500 employees. This covers approximately 6,000 large companies and groups across the EU, including listed companies, banks, insurance companies and other companies designated by national authorities as public-interest entities.

The Commission recently adopted a proposal for a Corporate Sustainability Reporting Directive (CSRD), which would amend the existing reporting requirements of the NFRD. The proposal:

- extends the scope to all large companies and all companies listed on regulated markets (except listed micro-enterprises)
- requires the audit (assurance) of reported information

³⁰ http://ec.europa.eu/environment/biodiversity/business/index_en.htm

³¹ http://ec.europa.eu/environment/biodiversity/business/news-and-events/news/news-106_en.htm

³² <https://naturalcapitalcoalition.org/public-consultation-opens-on-the-biological-diversity-protocol/>

³³ [Aligning Accounting Approaches for Nature - Capitals Coalition](#)

³⁴ https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/non-financial-reporting_en

- introduces more detailed reporting requirements, and a requirement to report according to mandatory EU sustainability reporting standards
- requires companies to digitally 'tag' the reported information, so it is machine readable and feeds into the European single access point envisaged in the capital markets union action plan.³⁵

The Project Task-force for nature-related financial disclosures (PTF-NFRS) was created by EFRAG (The European Financial Reporting Advisory Group - is a private association established to support in the development of IFRS) to investigate possible EU standards on sustainability reporting. It published its main report "Proposals for a relevant and dynamic EU sustainability reporting standard" (EFRAG 2021). It is based on the principle of double materiality (covering both impact and financial materiality perspectives) and recommends that the EU standard setter should specify three layers of reporting (sector agnostic, sector specific and entity specific) covering 3 areas (E, S and G), develop a "data taxonomy" and "digital taxonomy", leading to prescriptive sustainability statements that would be included in the Management Reports. (based EFRAG 2021). It also includes a standard-setting roadmap for the period until 2025.

³⁵ From: https://ec.europa.eu/info/publications/210421-sustainable-finance-communication_en#csrd